ÉNERGY - 1995
National energy policy needed

ONLY wise management of the nation's limited and finite natural resources will ensure their continued availability to future generations.

WHAT do trees, water, electricity, gas, oil and coal have in common? As energy sources they provide the public with heat, light, the ability to cook, and fuel for transportation, to name a few. Many of these energy sources are taken for granted by the majority of South Africans who derive benefit from their use. They are part of modern-day living.

Most of these energy sources are finite, although trees, grown for fuel, and water can be recycled. Alternative energy sources such as nuclear, waste-to-energy incineration, gasified coal, wind and solar energy are other options not yet widely available or viable for everyday use.

Managing these resources wisely today will ensure that tomorrow's generations can share in the luxury of light and heat.

While the technologies as to how these resources are utilised will most likely change, the sources of energy might not. Sustainable use is the key to their future availability.

The increase in demand for energy is dependent upon a number of factors in South Africa. These include the population growth rate, economic growth, the continued success of the electrification programme in meeting RDP targets, the availability of water, and regional socio-economic-political stability. With the drive to electrify millions of homes over the next five years in South Africa, the demand for electricity will increase.

The RDP seeks to improve the lives of these people through the provision of energy. The issue of supplying energy and the demands brought about by growth and prosperity of the region, however, bring challenges to local suppliers and distribution of electricity. Cases overseas indicate that mismanagement of this demand can lead to interruption of supply, which can inconvenience customers.

What South Africa needs now is a national energy policy that will comprehensively address the issue of growth and development in an emerging economy. To delay the management of energy would be unwise. It is in the best interest of the public, special interest groups, industry (small and large), municipalities and communities alike to ensure that energy management is part of the country's planning process.

The public also needs education and awareness on how to use energy resources wisely. It is one thing to provide electricity and another to inform recipients on how best to utilise the energy without wasting it unnecessarily. South Africa's climate exhibits extreme temperature variations. Building codes and practices for the construction of new homes, as part of the RDP, might consider designs, modifications and materials which promote energy conservation.

Offices could also reintroduce windows that open to allow less dependency on air-conditioning as well as preventing the indoor air quality from deteriorating.

Catherine Fedorsky is Eskom's generation group environmental manager.
Protesters emphasised that the union would not disrupt power supplies to the Peninsula or cause disruption at the nuclear plant.

"At Koeberg we have decided not to take the day off. We will hand over a memorandum during lunchtime," said Koeberg branch union chairman Derrick Douglass.

The union was not against affirmative action but had a problem with the way in which it was being implemented by Eskom, he said.

An Eskom spokesman said: "We (Eskom management) will not comment at this stage because we don't want to bedevil negotiations."
Eskom considers gas power

By KEVIN DAVIE

POWER utility Eskom is to investigate establishing gas-fired power stations supplied by a network of pipelines which in time could cover much of southern Africa.

World Bank staffers say such a pipeline network could eventually link the Panie gas field in Mozambique with the Kudu field off Namibia and be extended to include Angolan gas fields.

Allen Morgan, Eskom's chief executive, says the group is investigating "as an anticipatory long-term measure" the acquisition of suitable sites for gas-powered power stations.

He says Eskom is investigating the option of piping gas to suitable sites where it could be used to power gas turbines driving electrical generators.

Several gas sources in and around South Africa are being assessed as potential energy sources.

The development is dependent on factors such as final volumes produced at the gas fields and contractual arrangements.

Eskom's Ian Tudhope says Eskom has had discussions with the World Bank. He stresses that Eskom's inquiry is "embryonic" and that a full gas pipeline network could take several years to develop.

Mr Tudhope says gas is "the fuel of the moment". Worldwide there is a "dash for gas".

Gas is clean-burning, relatively easily transported, as economical as electricity if not more so and is environmentally friendly.

Mr Tudhope says gas also offers the potential for cheap use in poor areas.

Power stations can be established further from the coalfields of the eastern Transvaal, closer to consumer markets.

Mr Tudhope says a plant for gas-fired stations is relatively cheap and does not use too much water.

He says should Eskom decide to move to gas power stations this will have obvious implications for the development of future atomic energy plants in South Africa.

Mr Tudhope says the potential exists for Eskom to become involved in the funding of the pipeline network, but adds it is possible it will establish contracts with pipeline operators who "bring the feedstock to us".
Eskom signs for 33bn yen

ESKOM has received a 33-billion yen (R1,09-billion) loan from Japan to help finance its electrification programme in black townships and rural areas.

The loan agreement with the Export-Import Bank of Japan (Exim Japan) was signed on Friday in Tokyo by Eskom chief executive Allen Morgan.

Eskom says the loan will be used to expand transmission and distribution lines in unelectrified areas in line with goals set out in the SA government's Reconstruction and Development Programme.

The loan is the first under a $1,3-billion, two-year programme of development assistance announced by the Japanese government in July last year.

The loan comes at an opportune time for Eskom. The utility has been considering raising overseas funds but this has become prohibitively expensive in the wake of the sharp devaluation of the Mexican peso.
Increased electricity demand 'a good sign'

ESKOM generated about 3.5% more electricity last year than in the previous year — another signal of an increase in industrial activity.

Eskom energy management manager Brian Statham said yesterday most of the increase had gone to the national power supplier's industrial customers.

Econometrix economist Tony Twine said: "Energy consumption is usually a pretty good indicator of the rate of economic activity and it usually follows the same pattern as GDP figures. The fact that most of this increase went to the industrial sector is reassuring. It shows that the economy is back to work."

Another economist said significant decreases in the electricity price index in October and November — listed in the Central Statistical Service (CSS) monthly producer inflation figures — suggested there was a surge in electricity generated in the fourth quarter, for which GDP figures were not yet available.

An Eskom spokesman said that the decreases in the electricity price index reflected an increase in electricity generated, which spread the utility's overheads over a wider field.

Statham said the 3.5% annual increase was particularly heartening as it came off a high base from 1993. In 1993 there was a 4.1% jump off a low base from 1992.

He said last year's 300 000 new household connections had accounted for a small portion of the increase.

Meanwhile, Twine said there was further evidence of a pick-up in industrial activity in a 3.4% increase in diesel sales in the nine months to September over the same period the previous year. "Diesel consumption is another excellent industrial activity indicator."

Latest CSS figures showed there had been a 3.8% increase in petrol sales in the same year. But Twine said this rise was less significant as it had come off a low base from 1992 when petrol sales had been hit by a lack of confidence in SA's future.

Eskom's national electrification projects manager Jan Engelbrecht said recently the Northern Transvaal, KwaZulu/Natal and Gauteng would be this year's main beneficiaries of Eskom's electrification programme, which aimed to make 300 000 new connections at a cost of about R338m. He said 146 000 of the connections would be made in rural areas.

The utility planned to make 60 500 connections in the Northern Transvaal, 48 000 in KwaZulu/Natal and 46 900 in Gauteng — at a cost of R3 120 a connection...
solar power — solar poweraddition - the karns farmhouse with all its electricity.

Solar Power. Solar power can provide power for a house, whether close or far from the power grid. This addition — the Karns Farmhouse with all its electricity — is a prime example of how solar power can be harnessed to provide energy for off-grid living.

However, solar power costs have come down, and the price of solar power has decreased significantly over the years. According to the National Renewable Energy Laboratory (NREL), the cost of solar photovoltaic (PV) panels has dropped dramatically in recent years, making solar power more accessible than ever before. In fact, the cost of solar power has dropped so much that it is now cheaper than grid power in many parts of the country.

In this addition, the Karns Farmhouse features solar panels on the roof, providing a significant portion of the home's electricity needs. The solar panels are connected to a battery bank, which stores energy during the day and releases it at night, ensuring a consistent supply of electricity.

According to NREL, the average homeowner can save thousands of dollars per year by installing solar panels on their home. The payback period for solar panels is typically around 10-15 years, after which time the homeowner will recoup their investment and begin generating electricity for free.

In conclusion, solar power is a viable and cost-effective option for those looking to reduce their carbon footprint and lower their utility bills. The Karns Farmhouse is a testament to the power of solar technology, and it serves as a shining example of how renewable energy can be integrated into our daily lives.
Usko looking to \( SS \) for growth

BY CHARLOTTE MATHEWS

A sharp increase in the supply of conductors for Eskom is expected in the coming year after a number of large projects were delayed in 1994, Usko chairman Flores Kotzee said in the group’s latest annual report.

Usko makes copper, aluminium and steel wire products and also has interests in companies involved in making copper and aluminium rod, paper, textile and enamel-coated copper and aluminium products, and making special cables and aluminium extrusions.

In the year to September 1994 the group reported a turn around to earnings of 7,40c a share from 1993’s loss of 18,26c a share after a lower loss from its subsidiary Thames Wire and Cable.

Copper demand

Kotzee said the operating profit of copper products had improved marginally in the past year but cable and aluminium products showed slightly lower operating profits.

At present there is increased demand for copper products, mainly because of growth in the economy.

As well as a local and international upswing, other recent positive developments include the attention being given to housing and electrification programmes.

For these reasons the combined sales of Usko’s products are expected to be higher in the current financial year than last year.

However, because of local and foreign competition in the cable market, volumes remain under pressure, Kotzee said.

He said the group’s exports in 1994/95 are expected to remain similar to those in the previous year.

Usko shares were trading at 65c yesterday, where they are on a p/e of 5.8, well below the electronics sector average of 15.5.

However, the company fits in more with the engineering than the computer companies and, by comparison with the engineering sector average of 19.3, looks even worse rated.
HALF of all formal households in the townships have been connected to the electricity grid, according to a study by the University of Cape Town’s Energy Development Research Centre.

However, almost all informal and squatter dwellings remain unconnected, the report shows. Most of these households rely on expensive and less convenient energy sources such as wood, coal, paraffin, candles and batteries, depending on climate and access to cheap coal.

Even once households are connected, multiple fuel use remains common, the study found. Depending on what funds are available, two or three fuels can be used at the same time.

The research shows that all households able to afford it use electricity for lighting as it consumes little energy but contributes substantially to better living standards. The most sought after appliances — almost universal in electrified households — are televisions, radios, and hi-fis.

Refrigeration, despite the high capital cost, is ranked highly by low-income households. They are the next most common electrical appliances, found in 83% of electrified homes. Then follow irons, used in 78% of households.

Refrigeration allows the bulk purchase of perishable goods, enabling households to extend incomes. It also holds income-generating possibilities, cooling drinks in shebeens and preserving perishables in spaza shops.

Cooking is arguably the most important energy service sought by households, according to the EDRC, as it consumes the most energy and time.

But stoves are not a priority purchase in newly electrified homes because cooking is often only one of a range of services delivered by the same appliance-energy carrier combination. A coal or paraffin stove, for example, can be used simultaneously for cooking, water heating and space heating. Hence, in the PWV, for example, almost two-thirds of the electrified households surveyed still cook on coal stoves.

Researcher Anthony Williams says the most important aspect of the research is that it highlights the manner in which decisions about electrification, fuel use and appliance purchases are made.

"The principal end users and managers of household energy are women. Yet we know little about how women make decisions about expenditure priorities, particularly when survival is an issue," Mr Williams says.

Household income and fuel efficiency are not the only important criteria. Social and personal relationships also play a role in decision-making.

"It is thus imperative that women, the principal end-users of domestic energy, be included in a negotiation process to ensure the success of electrification projects."

By WILLIAM SAUNDERSON-MEYER
SA growth: Eskom feels the pressure

JOHANNESBURG. — Economic expansion in South Africa, particularly in the medium-sized industrial sector, was starting to put pressure on Eskom's electricity supply, a top Eskom official said yesterday.

"The margin between total capacity and demand is becoming relatively tight," Eskom energy management manager Brian Statham said at a nuclear information conference.

"We're not in a capacity crisis, but the message that must get through is that Eskom is not in a slack situation. We will keep as close to the margins as possible while maintaining flexibility," he said.

He said there were two main reasons for the increase in demand, up 3.3% last year on an annual basis and forecast to rise 3.5 to 4.0% this year. These were the programme to bring electricity to deprived areas of the country; and economic growth, particularly at the medium industrial level.

This reflected "general across-the-board growth in the economy which is quite exciting," he said.

The utility is committed to electrifying 300,000 households a year to 1999 as part of the government's reconstruction and development programme.

Statham put peak demand at 24,797 megawatts (Mw), while Eskom normally had 800 Mw immediate reserve capacity. Total capacity was around 30,000 Mw, but this included plant down for maintenance.

He said construction was going ahead at the big Majuba powerplant in Natal to be fed with coal from the Eastern Transvaal. The first unit would be on stream in 1996, the second the following year and the third in 1998, each with 660 Mw capacity.

Eskom also expected to start getting power from the Cahora Bassa hydroelectric dam in Mozambique in 1997.

In addition, talks were under way with Zimbabwe and Zambia on importing electricity from Lake Kariba.
Demand for electricity is catching up with Eskom.

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The first unit would be on stream in 1996, the second the following year and the third in 1998, each with capacity of 660MW.

Statham said Eskom still had power plants with 6 000MW capacity in mothballs. However, it took about three years to recommission such plants, Statham said. — Reuters.
Pelindaba uranium plant to shut down

POLITICAL CORRESPONDENT

The Cabinet has approved the shutdown of the Atomic Energy Corporation’s (AEC) uranium enrichment plant, known as the Z-Plant, at Pelindaba outside Pretoria, Mineral and Energy Affairs Minister Pik Botha announced yesterday.

In a statement issued in Pretoria, Botha said the decision, taken at the Cabinet’s special meeting yesterday, will take effect on March 1, a year earlier than originally planned.

However, the plant’s shutdown will not interrupt the continued operation of Koeberg because enriched uranium will be imported from abroad at a far lower price.

Botha announced that in 1978 the US government had refused the export of enriched uranium which was to be sent to South Africa under a contract between the US Department of Energy and Eskom.

"This meant that Koeberg, then under construction, would not have been commissioned."

Uranium plant shutdown

From Page 1

due to a lack of fuel.

"It would have entailed a loss to Eskom of approximately R1 million per day, in addition to the unutilised capital expenditure of about R4 000 million at that time," Botha said.

Pretoria subsequently instructed the then UCOR (later incorporated into the AEC) to design and construct an enrichment plant to provide for Eskom’s needs.

Botha said it was known then that the plant would not be commercially viable and that a more cost-effective fuel supply strategy would have to be adopted.

He said now that South Africa was no longer an international pariah, Eskom will soon be able to obtain enriched uranium on the world markets at prices “substantially lower than the production cost at the Z-Plant”.

Botha said the plant’s cash-flow deficit amounts to R35 million a year, and would increase to at least R210 million if operations were to be continued because the current low electrical power tariffs enjoyed by the plant will end on March 31 next year.

Botha also said the AEC has been repositioning itself from “a virtually fully State-owned or State-funded parastatal into a commercially driven organisation.

“Grants from the State for this financial year amount to R378 million less than in 1990 — only four years ago,” Botha said.
JOHANNESBURG. — The government decided yesterday to shut down the country’s uranium enrichment plant in March, a year earlier than planned. Minerals and Energy Affairs Minister Pik Botha said.

He said the plant, at Pelindaba, known as the Z Plant and commissioned in 1967, had provided enriched uranium for Koeberg’s nuclear reactor.

"With the normalisation of South Africa’s international relations, Eskom will soon be able to obtain enriched uranium on the world market at prices substantially lower than the production cost of the Z Plant," he said. — Reuters
Pelindaba uranium plant to close soon

THE Atomic Energy Corporation's uranium enrichment plant at Pelindaba would be closed on April 1, Mineral and Energy Affairs Minister Pik Botha said yesterday. Its closure would save the AEC up to R210m a year, while 500 jobs would be lost.

The plant, which supplied Eskom's Koeberg nuclear power station, was commissioned in 1997 after the US banned exports of enriched uranium to SA.

He said the Cabinet yesterday approved the closure a year earlier than originally planned. "With the normalisation of SA's international relations, Eskom will soon be able to obtain enriched uranium on the world market at prices substantially lower than the production cost of the plant." The closure would not affect Koeberg.

The plant, known as the Z plant, had a cash flow deficit of R25m a year, which would jump to R210m from next year when the contract with Eskom for cut-price electricity expired. Retrenchment packages would cost R25m. The plant would incur an operating loss of about R25m in 1996/97 and R47m in 1997/98 as it would operate less efficiently during the four-year shutdown period.

A Mineral and Energy Affairs Department spokesman said state grants to the AEC would fall to less than R100m a year by 1996 from about R250m.

Botha said the AEC was moving from being a "virtually fully state-funded parastatal" to a commercial organisation.
Eskom put under pressure to meet demand

Economic expansion in South Africa, particularly in the medium-sized industrial sector, was starting to put pressure on Eskom's electricity supply, a top official of the State power utility said yesterday.

"The margin between total capacity and demand is becoming relatively tight," Eskom energy management manager Brian Statham told reporters at a nuclear information conference.

Reasons

He said the two main reasons for the increase in demand were the programme to bring electricity to deprived areas of the country, and economic growth, particularly at the medium industrial level.

The utility is committed to electrifying 300 000 households a year to 1999 as part of the Government's Reconstruction and Development Programme.

Statham said construction was going ahead at the Majuba power plant in KwaZulu/Natal and Eskom expected to start getting power from the Cahora Bassa hydroelectric dam in Mozambique in 1997.

Importing

In addition, talks were under way with Zimbabwe and Zambia on importing electricity from Lake Kariba.

He said Eskom still had plants in mothballs, but it took about three years to recommission such plants. -- Reuter.
ELECTRICITY

Shock to the system

Key decisions will have to be taken soon about electricity distribution, in line with the reorganisation of local government.

Johannesburg chief electrical engineer Martin Pomeroy says the arrangements for the central Witwatersrand may be regarded as a good prototype for metropolitan areas: the Transitional Metropolitan Council (TMC) has been appointed to take over the functions of previous local authorities.

What remains to be decided is whether the TMC will set up its own electricity department or delegate electricity distribution to new local government subunits.

Andrew Boraine, executive director of the Institute for Local Governance and Development, warns that final authority over electricity distribution now rests with the National Electricity Regulator, a body chaired by former Eskom chief Ian McRae.

The regulator can set a ceiling for tariffs by local authorities. It can also decree that surplus revenues from electricity must be used only for electrification and not to cross-subsidise loss-making municipal services. At least R9,5bn of local government revenue of around R22,5bn now comes from sales of electricity.
'Pollution could force SA into nuclear power'

MUNGO SUGGOT 3/2/95

SA was the world's second worst carbon dioxide polluter in proportion to gross national product after China, the Atomic Energy Corporation's Don Mingay said yesterday.

He told a Price Waterhouse business breakfast that increasing worldwide pressure to slow global warming would discourage SA from increasing dependence on coal-fired power stations, which produced carbon dioxide. Instead, it would import hydro-electricity from the Congo.

But there was a "strategic limit" to the amount of electricity a country should import, so it was likely SA would have to consider nuclear power.

Coal-fired power stations currently provided 92% of SA's electricity, while nuclear contributed 5%.

He said China released almost double the amount of carbon dioxide per unit of GNP of SA, while France produced the least, 10 times less than SA.

France sourced almost 83% of electricity from nuclear plants — evidence of the correlation between fossil fuel use and carbon dioxide emissions.

If SA became a signatory to the Framework Convention on Climate Change — formed to address global warming at the Rio Earth Summit in 1992 — it would have to make an independent assessment of the impact of its carbon dioxide emissions on the environment. It would also have to produce plans to address the situation, which would encourage it to look at alternative energy sources.

Most of the increase in global power needed over the next couple of decades would come from developing countries, which unfortunately were least equipped to control energy waste releases.
Japanese aid to Eskom well spent, says banker.

JAPAN’s Export/Import Bank’s $300m advance for Eskom’s electrification drive had been well spent, deputy governor Akira Nanbara said yesterday.

Speaking after a visit to Ixopo Park squatter camp, which was being electrified by Eskom, he said rebuilding the country would require 99% perspiration and a bit of luck.

The money formed part of the $500m package of the bank’s loans to SA, pledged last year as part of Japan’s $1.3bn aid programme.

Nanbara said another loan to the Development Bank of Southern Africa could be concluded soon.

Nanbara, who was leading a high-level economic mission to SA, held general discussions with Minister without Portfolio Jay Naidoo yesterday. “Mr Naidoo told us that government would prefer assistance to small companies as opposed to bigger ones who can make it on their own.”

It was unclear how the Development Bank planned to spend the money, but Nanbara said he would be happy if it went towards developing small business.

He said he was impressed by Naidoo and the new government. “They are prudent and disciplined.”

He would like to see a more balanced flow in trade between Japan and SA in which SA diversified its exports.
White union to stage Eskom mass action

ABOUT 4 000 members of the all-white Mineworkers' Union will embark on a national mass action campaign at Eskom power stations today — under the banner of 'Operation Turning Point'.

This action is in protest against the company's proposed changes to workers' benefits and its alleged unfair application of its affirmative action programme which, the union claims, could jeopardise the job security of 12 000 whites.

White workers have taken a day's leave to embark on protest marches.

If no response is received by February 15, the mass action will enter phase 2 and could become "uncontrollable". The union's Flip Buys said emotions were running high and the union could not guarantee that future action would remain peaceful. Nor could sabotage be ruled out.

The union said that negotiations over the change in benefits, including housing and transport subsidies, deadlocked after the company remained firm on its decision to reduce such subsidies. The union believes this is part of the company's strategy to "redistribute" employee benefits across the board to all other employees.
Affirmative action protest

African National Congress (ANC) members protest at Eskom power stations.
Solar power lights the way

ROSS HERBERT
JOHANNESBURG. — One in five South Africans live in areas that will never be economical to provide with conventional electrical power, according to Eskom.

And that fact, along with references to the need for solar power in the RDP, has led suppliers of solar-power equipment to believe South Africa represents the great solar market of the future.

By Eskom’s estimates, which critics say are optimistic, 54 percent of South African homes still lack electricity for lights, television or refrigeration.

While electricity is relatively cheap to produce, the cost of running power lines, particularly to distant settlements, can be enormous.

According to David Ligotfi, small-customer pricing manager at Eskom, it costs about R35 000 per kilometre to run power lines to communities that don’t have power.

That means those furthest from the major cities will have to wait the longest and pay the most for electricity.

However, solar power costs the same whether close or far from the power grid.
SA may be linked to Congo power grid

SA could be linked to a southern African electricity grid which sourced a large portion of its electricity from hydroelectric schemes on the Congo River by 2010, Southern African Development through Electricity (Sad- elec) chairman Ian McRae says.

The major obstacles were the lack of an appropriate political body to nurture the scheme, political instability in Zaire and Angola's civil war. However, links between Malawi and Mozambique's Cahora Bassa hydroelectric scheme — due to feed SA by March 1997 — and stronger links between Zambia and Zaire were feasible in the near future.

Former Eskom CE McRae, who also chairs the National Electricity Regulator, said it was crucial that a proper political structure was set up to focus on developing the grid.

The Southern Africa Development Community should open its doors to Zaire, Kenya and Uganda. Then non-governmental bodies such as Sadelec set up last year to facilitate and fund electrification projects in the region, could fill the gap.

He said studies showed Zaire's Congo River could generate up to 100 000MW of electricity. The river could be used for hydroelectric schemes without disrupting its flow for too long.

Interest groups within Zaire were clearly keen on developing this potential, which could be a major foreign exchange earner. Zaire's electricity utility — which had Belgian and French technical support — had conducted and was conducting feasibility studies into several schemes.

The strategic need for countries to limit imports to between 16% or 15% of total power should evaporate gradually as the region eased into a tranquil, post-apartheid era.

Although coal would be SA's major power-generation option for decades, it could be cheaper in future to import electricity than to pour money into new power stations, which were a major source of pollutants.
Opportunities will benefit nuclear industry

NEWS FOCUS

Marcie Golding

much less likely to cooperate, feel more pressure to protect

not just high-level officials but also middle managers. The

just a small number of officials, rather than the

federal agencies as well. It is not just

the bureaucratic structure that is

the biggest challenge. The lack of

cooperation and understandably so, for good reasons.

The President's Task Force on Presidential

Management recommends a number of

measures to improve the

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Eskom could be forced to open mothballed stations

STANDERTON — State utility Eskom could soon be forced to bring mothballed power stations back on stream as excess capacity dwindled, a spokesman for Anglo American Coal Corp (Amcoal) said.

"There is a concern they may be hard-pressed," Amcoal's marketing director Hugh Stacey told analysts at its New Denmark Colliery.

Amcoal, like other local coal producers, would bid to supply any reopened coal-fired stations and would need to increase production.

Stacey said Eskom had 38,000 megawatts of installed power, of which 6,000 megawatts had been mothballed. This left 32,000 megawatts but because Eskom had to retain spare capacity to allow for overhauls, its supply amounted to 30,000 megawatts.

Demand rose 7% to peak at about 25,000 megawatts in mid-winter last year and with projects such as Alusaf's Hillside aluminium expansion due to start up this year, a rise of 4%-5% was likely this year.

Stacey said Eskom would probably have to reopen at least three power stations initially.

A decision to do so might have to be taken within the next year if it was projecting a long-term annual growth rate of about 5%.

Between 7-million to 12-million tons of additional coal a year would be needed. Amcoal's New Denmark Colliery, which serves Eskom's Tutuka power station, had 80% of its design capacity of an annual 10-million tons installed.

It planned to increase production to 5-million tons this year, but it was still waiting for a decision by Eskom to enable it to go ahead with the completion of capacity to 10-million tons, he said. — Reuters.
Solar power to the people

THE COUNTRY’S medium-term electricity needs could well be met through the use of solar electricity, and government thinking appears to be moving in that direction.

Eskom and the Department of Mineral and Energy Affairs are already exploring this option, with an Eskom project successfully underway at Jojweni, a remote village in the former Transkei.

“The question is who is going to pay,” said Neville Williams, founder and president of the United States-based Solar Electric Light Fund (Sel).

The non-profit organisation aims to address how 70 percent of people in the Third World can obtain “environmentally friendly” electrical energy.

“We are looking at establishing projects in the Eastern Cape, Kwazulu/Natal and Gauteng,” said Williams.

The projects would be modelled on success stories in remote parts of Vietnam, Nepal, Sri Lanka, India and East Africa.

Williams said local communities had a direct say in the projects.

Job spin-offs

He showed the media a video which demonstrated job spin-offs for locals who were able to develop entrepreneurial skills while providing a community service.

An Eskom video on the Jojweni projects showed how a battery of solar units which had taken two days to install had powered lights in local homes and a school and had been used to keep medicines cool at a local clinic.

Williams said solar units cost a fraction of linking up remote villages to the power grid.

He said the World Bank was providing seed money for solar projects. He argued for “grassroots” as well as government funding for such projects.

“The issue (of solar power) is being discussed at the highest level,” said Williams, referring to Mineral and Energy Affairs Minister Pik Botha.

A Sel brochure stated that solar photovoltaic (PV) power offered developing nations an immediate and direct alternative to kerosene lamps, diesel generators, fossil-fuelled utilities and expensive power-grid connections.

However, one workshop delegate asked the key question: “Do you electrify squatter homes or give those people decent housing?” – Ecca
Eskom poised to take $150m loan

ESKOM is poised to take up a $150m European syndicated loan instead of the Deutschmark bond issue it had planned for next month before the Mexican financial crisis hit global capital markets.

Analysts said when SA launched its $750m sovereign issue in December, Eskom had indicated its first issue would be around $350m, so the loan was not expected to be in that region.

A Eskom spokesman said the power company had decided to pursue a loan instead of a bond issue after an international roadshow.

Eskom said it had some existing European bonds, including a DM300m bond, which would expire in

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It intended to launch a bond in the US in the second half of the year, barring poor market conditions.

One analyst speculated that the finalising of the loan could hinge on the fate of the financial rand which would affect its pricing. Eskom's and SA's credit rating would improve once the finrand went.

Eskom said at the beginning of the year it would approach the markets for about R4.3bn. Its domestic capital market needs had been satisfied through the issue of electrification participatory notes worth R1.2bn.
The terminal prints out a 20-digit numeric token for cash. Ivory Park uses an electricity credit transfer technology developed by Spescom called Cashpower 2 000, which was recently merged with Siemens’ prepayment business.

The printed code contains the identification number of the customer’s payment meter and the amount of electricity bought. Residents gain access to electricity by keying the code into the meter in their homes.

Spescom’s prepayment system is one of five Eskom has installed in various areas. Bramley says Eskom is introducing a common vending system. Because of the number of systems currently used, residents are limited to buying tokens at their local Eskom office.

This problem is being solved by the utility which is developing technology for its centres to accept payment for any of the electricity credit systems in use.

Bramley says once electricity tokens are available at cash machines, ATMs and supermarket tills, prepayment meters will probably be used in most areas as they eliminate the need for meter readers.
Unleaded petrol ready for sale

THE government is expected to give the go-ahead for the introduction of unleaded petrol in the next two weeks, but no indication has yet been given as to how it will be priced.

The Department of Mineral and Energy Affairs is currently assessing the decision taken by the previous government to introduce unleaded petrol in limited quantities in July and nationally by October.

Oil companies, petrol stations and motor manufacturers are ready for the big turn-on.

In the normal course of refinery expansion, oil companies have installed additional facilities to produce unleaded petrol, but to make it economically feasible they need to capture about 25% of total fuel sales in the first year.

To achieve this, it has been recommended that unleaded petrol be sold at a discount, as has been done elsewhere in the world.

This will be achieved either by the government accepting a smaller excise tax on the unleaded petrol or by using a politically unacceptable method of increasing the price of leaded petrol. Unleaded petrol, with additional additives to maintain octane ratings, costs about 3c/l more to produce.

The SA Petroleum Industry Association, representing most oil companies, believes there should be a significant price discount, while Sasol, not a Sapia member, suggests there should be some price difference, but only for a limited period.

The Unleaded Petrol Co-ordinating Committee, consisting of Mineral and Energy Affairs, vehicle manufacturers, oil companies, the Automobile Association and the SA Bureau of Standards, says, however, that about 90% of cars sold in the last 15 years will be able to use unleaded petrol. Of these, about 65% will be able to switch over without any adjustments to the vehicle, while 15% will need to retard the ignition by perhaps two to three degrees at a cost of between R30 and R100.

A further 10% of cars, made before 1989, may have problems with valve settings, but this may be overcome by filling the car with leaded fuel once in every four fillings.

Only 10% of cars now on the roads will be incompatible with unleaded petrol, but leaded petrol will be available for about 15 years.

Tests on motorcycles will be conducted soon to establish which may run on unleaded petrol.

Harmful exhaust emissions in South Africa are well within world health standards and as a result, it will not be necessary to fit catalytic converters for between three to four years, although most cars sold in 1996 will have the fitting. Exhaust catalysts reduce harmful carbon monoxide, nitrogen oxides and unburnt hydrocarbons.

Rather, South Africa plans to introduce unleaded petrol to enable the motor industry, which contributes 19% to the GDP, to keep in touch with advances in engine technology.
Nuclear power still an option for SA

SA should not discount nuclear power as a future option despite the closure of the uranium enrichment plant at Pelindaba, the Atomic Energy Corporation's CEO Waldo Stumpf said yesterday.

It could become a more attractive energy source as more compact plants were designed and safer techniques were developed, he said. The corporation had no plans to establish an alternative facility in the near future, but was looking into the viability of a cheaper molecular laser enrichment process.

Stumpf said the decision to stop production, mainly for Eskom's nuclear power station at Koeberg, was "strategic", as Eskom would be able to obtain cheaper uranium from international sources now that SA's isolation had ended. SA would import enriched uranium from France, Russia, the European Union and the US.

Stumpf was speaking to journalists invited to tour the Z-Plant uranium enrichment facility at Pelindaba outside Pretoria - the facility is to be shut down at the end of the month.

Nuclear fuel production MD Pieter Venter said even though the corporation had reduced the cost of running the plant over the last few years, closing it down would save R35m a year. The expense is due to the cost of electricity used to run the plant.

Reacting to the closure, nuclear scientist Kelvin Kemm said it would be a major loss to SA in terms of developing new technologies and training scientists. It would also fuel the exodus of scientists from the country.

SA was too reliant on coal as its major source of energy, and the country should work towards greater diversity in fuel use, Stumpf said.

Kemm said SA, one of only half a dozen countries with uranium enrichment capacity, was pulling out of a business which was growing as the use of nuclear energy increased worldwide. SA's "wait and see" policy would only make it more difficult to re-enter the uranium market if it ever decided to do so.
Eskom envisions 270 000 jobs

ABOUT 270 000 jobs could be created by SA’s electrification programme by the turn of the century, Eskom chairman John Maree said at the sub-Saharan Oil and Minerals conference yesterday.

Maree said Eskom was electrifying homes at a rate of 1 000 a day, and hoped to complete 300 000 this year and 1.75-million by 1999. Local government programmes should see a further 750 000 homes electrified over the same period.

He estimated this process would create 19 000 direct jobs a year, plus further indirect job creation. For every 100 homes electrified, seven to 11 small businesses were created, he said.

Eskom would spend R1bn on its electrification programme this year. It planned to electrify 4.25-million homes by 2012, with local government electrifying a further 2.1-million. This represented a total investment of about R23bn.

He said one of the major reasons for the establishment in SA of large electricity-intensive projects such as Alusai and Co-
Default creates huge Eskom debt

BY DEREK TOMMEEY

The non-payment philosophy in the townships has left Eskom with problem debts amounting to R323 million, says Dr John Maree, chairman of the Electricity Council.

Eskom has taken over about R360 million worth of assets which it has been able to offset against the debts.

He said that sentiment in the townships was changing which had made it easier for Eskom to collect payments and to cut off electricity supplies.

He said that about half the professional and supervisory posts at Eskom were expected to be filled by blacks by the turn of the century.

Maree has good news about Eskom’s progress in 1994. He said the country’s electricity giant now ranked among the world’s five biggest generators of electric power.

He said: “Eskom is continuing to reduce the cost of electricity in real terms. It is forging ahead with its electrification plans, bringing power to 264 393 more houses last year and it plans to wire another 300 000 houses this year.”

Maree said Eskom’s commitment in 1991 to reduce the price of electricity in real terms by 20 percent between 1992 and 1996 would be met. Eskom has now committed itself to bring down electricity prices in real terms by a further 15 percent between 1994 and 2000.

Eskom’s chief executive Allen Morgan reports that revenue rose by 11.3 percent to R15.4 billion as a result of a net tariff increase of 7.8 percent and an increase in sales volume of 3.9 percent.

Operating expenditure rose by 10.7 percent to R9.96 billion after including a net provision for arrear debts of R204 million. Net interest and finance charges increased by only 1.2 percent to R5.19 billion, mainly as a result of the improved debt-equity ratio.

Net income amounted to R2.27 billion which was 37.8 percent more than in 1993. Net income on a current value basis amounted to R407 million compared with R14 million in 1993. This resulted in a real return on assets of 3.3 percent (4.1 percent).

Accumulated reserves increased to R16 billion.
Eskom increases net income

SIGNIFICANT savings and improved efficiencies enabled Eskom to increase net income. It also reduced the real price of electricity and absorbed the high cost of funding new connections, which grew at a rate of almost 5,000 homes a day.

The utility yesterday reported an 11.5% revenue rise to R13.4bn (R11.3bn) for the year to December after a net tariff increase of 7.5% and a 3.5% sales volume rise. Net income rose 37.8% to R2.3bn (R1.6bn).

Chairman John Marche said despite the high costs of electrification, overall cost reductions and higher levels of efficiency enabled it to increase the price of electricity by just 7% during the year.

The price of electricity was currently 73% of that of a decade ago in real terms, and would continue to drop in real terms. Eskom would increase its price by 4% this year and probably by the same percentage next year. It was committed to reducing the price by 20% in real terms between 1992 and next year.

During the year, Eskom electrified 254,333 homes and was on track to meet its target of 1.75-million homes between last year and 1999.

Capital expenditure on electrification was R280m for the year. Eskom was increasingly funding capex from its own cash flows, and the electrification drive would be funded from earnings and borrowings. Its 15-year electrification participation note (ESPN) had raised R1.2bn.

Eskom's foreign borrowings included a $300m facility with Japan's Eximbank over an 18-month period, a five-year $100m syndicated loan and a $30m loan from the Bank of Taiwan. It was also looking at a

Eskom

bond issue in the US. Improved cash flows saw gearing come down to 17% from 30% in 1985. Gearing of 100% was targeted for the end of 1998.

Marche said non-payment remained "one of the most significant financial threats" facing Eskom. Cutting off services was beginning to have the desired effect, but problem arrears of R323m remained. These had all been fully provided for.

CE Allan Morgan said productivity gains of R140m in the core business had funded electrification and abnormal expenditure. Productivity gains were R140m.
BUSINESS  Pik calls for Sub-Saharan cooperation in oil and minerals

Standing together

By Isaac Moled

SUB-SAHARAN countries must create a body that will determine the establishment of an effectively functioning energy infrastructure, Minister of Minerals and Energy Mr Pik Botha said this week.

Addressing a Sub-Saharan Oil and Minerals conference in Johannesburg, Botha said Sub-Saharan countries need to establish working regional and sub-continental structures covering the whole Sub-Saharan. The body should determine policy, develop resources, identify and match needs and supply and provide for rural electrification.

"They should not be mere shadows of state energy ministries, dependent on them for planning and unable to decide on or spend more than a pittance without state consent," Botha said.

The second leg of the energy development strategy, according to Botha, involved creating and empowering strong utilities.

"Governments will come and go. But the utilities must remain," Botha said, adding that the quality of leadership of these utilities was vital, as they would be required to ensure the practical implementation of energy policy and planning.

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Pik Botha
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Boycotts Leave Eskom R923m Poorer

The optimism that the Eskom would be able to withstand the current economic downturn was misplaced. The Eskom has reported a loss of R923 million for the first quarter of the year, a significant decrease from the R1 billion profit reported in the same period last year. The company has been struggling with high fuel costs and low electricity demand.

The Eskom management has announced plans to cut costs and improve efficiency, but these efforts are unlikely to reverse the trend. The company’s financial situation is deteriorating, and it is uncertain what steps it will take to address its problems.

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Eskom lights way to growth

With first-quarter volumes up 5 percent and new connections in industry up 60 percent, the outlook is extremely positive

By John Sipra

Eskom's volume flow, probably the most reliable of all economic indicators, is buoyant, strongly indicating that heightened levels of growth are being achieved by the South African economy.

Allen Morgan, chief executive of the world's fifth-largest electricity utility, says Eskom's sales volumes for the first quarter of 1995 were 5.1 percent ahead of the same period last year, thanks to growing demand from industry and commerce.

"It's a performance which should be viewed against the background of a depressed mining sector. The gold mining industry is one of our biggest customers. A decline in offtake by the gold mines has, however, been largely offset by increased demand from ferro-metals and coal."

If he had to project GDP growth, he would certainly be looking at a minimum of 3 percent. "Our barometer is that we want to grow between 1.5 and 2 percent above GDP, so economic growth of 3 percent is distinctly possible."

Morgan warns that labour disruptions could upset such a prediction. "Labour problems, should they continue, will negatively affect not only economic growth but also confidence. Business won't want to expand production and to increase employment."

Yet he is optimistic, especially since Eskom is coming off a high 1994 base. "Last year we estimated growth of 0.3 percent and landed up with 2.2 percent. Coming off that base, we were conservative in our growth estimates for 1995."

He points out that every new house built under the RDP umbrella is electrified. Eskom's target for 1995 is to electrify 500,000 homes.

"We're about 25 percent behind schedule, but that's not unusual for the beginning of the year, since we establish infrastructures and only later catch up on connections and build up volumes. We're confident we'll meet our target."

Morgan doesn't see the lack of affordability hampering the mass housing initiative in the long term. "We've noted a 60 percent increase in industrial connections. From that perspective we're seeing economic growth and, hopefully, the result will be higher levels of employment, creating affordability."
CENTRAL ENERGY FUND

Minding the store

One of the few legacies of apartheid that may still be put to good use is SA's capability of storing vast amounts of oil.

Though prospects are still some way off for an agreement in which Iran would store millions of barrels of oil in SA's giant underground reservoirs, the Central Energy Fund (CEF) hopes to land a contract soon.

CEF GM Kobus van Zyl says progress was made in further negotiations when Iranian officials were in SA recently for an energy conference. But for now the Iranians are under no pressure to sign up as the country doesn't have surplus oil stocks on hand, says Van Zyl.

It is understood the State-run National Iranian Oil Co is interested in using two tanks with a combined capacity of 15m barrels.

They are part of a purpose-built facility at Saldanha Bay to store some of SA's strategic reserves during the apartheid years when supplies of oil came under pressure because of sanctions.

With sanctions gone, the stockpile was reduced from a year of domestic consumption to seven months. It is in the process of being reduced to four months — and could go lower still. Normal international standards are 91 days.

The money earned from the sale of the surplus since 1990 has already come to a sizeable R3bn, which was put into the general revenue account. Further sales could raise up to R500m more.

It is understood the agreement could go beyond a simple deal to store crude oil.

Instead, the reservoirs could be used as part of a joint venture trading agreement that would sell oil to markets in East Africa and Latin America — both much closer to SA that they are to Iran.

But a number of potential customers for the storage reservoirs have been deterred by rents and other fees.

It is understood these include rent of US 7c/barrel a month; wharfage unloading fees of 1.78% of the freight-on-board value of the cargo; and port costs of $60 000 for each supertanker visit. Van Zyl disputes this and says no figures have been put on the table yet.

Iranian oil sales to SA stand at 300 000 BPD, out of an import requirement of 420 000 barrels. Tehran restored trade relations with SA last year after the abolition of sanctions.
CAPE TOWN — The SA Petroleum Industry Association told members of Parliament's mineral and energy affairs committee yesterday that the department's budget was "misleading" and complained bitterly about the lack of government policy on the industry's future.

Giving evidence before the committee in terms of parliamentary committees' new authority to investigate departmental budgets, the association bemoaned a general lack of transparency on critical issues.

It questioned the equalisation fund levy on petrol, diesel and paraffin, pointing out that the levy amounted to R12bn a year - more than twice the department's stated budget of R7bn.

It was mostly being used to subsidise synthetic fuel production.

"You need to consider whether this allocation of taxpayers' money, coming as it does from the total onslaught years, is in accord with the thinking of the reconstruction and development programme," association director Colin McColland said.

Sapa reports that the association said Sasol's subsidy had to be compared with the the subsidies for mines (R4bn) and the Atomic Energy Corporation (R500m).

Chairman of the association's board of governors, John Drake, told the committee the levy and the uses to which it was put should be disclosed in the budget.

The association was in favour of phased deregulation, but was concerned that for protracted periods, government had given no indication of whether regulation of the industry would continue.

McColland suggested that the committee consider carefully how the Central Energy Fund organisation should be structured to fit new national priorities.

"Apart from the issue of synfuels, what are the planned investments and costs of fund operations?" he asked.

It was with grave concern that the association learned that the fund indulged in considerable derivative trading, McColland said.

"We advised the Minister of our concerns last December, before the Barings Bank collapse, and he said that audits would take place.

"We would like to ask what the outcomes of these audits were."

He questioned government's latest position on Mossgas, asking whether further investment to extend the life of the gas fields had been decided on and whether more money would be spent on Soekor.

Notwithstanding the fact that there had been an understanding since 1991 that unleaded petrol would be introduced, government was finding it difficult to implement this, he said.

See Page 9
ELECTRICITY

Power broker FM 21/4/95

A drive to entice large international investors to finance an integrated sub-continent electricity infrastructure is under way under the auspices of the Southern African Development through Electricity (Sad-Elec).

Chairled by Eskom former CE Ian McRae, Sad-Elec is a nongovernmental organisation registered in Botswana.

With eastern Europe already clamouring for infrastructural investment, the organisation's chances of financial help appear limited given the scepticism with which projects in Africa are regarded.

But Sad-Elec Johannesburg-based planning GM Judi Koncz insists it will continue to seek investors in feasible infrastructural and market development projects.

Discussions are taking place with potential investors regarding transmission lines and power generation plants in Malawi, Mozambique, Zambia and even Ghana.

"Though we work closely with the 11-country Southern African Development Community (SADC), Zaire, Kenya and Uganda must also form part of our regional focus. But one can foresee this extending across the continent," she says.

Already Egypt is considering importing power from Zaire for re-export to Europe. And studies show the export potential of Zaire's 100 000 MW hydro resource through Morocco or Algeria to Spain and then into Europe, she adds.

A proposed transmission line between Malawi and Mozambique (about 90 km) is one of Sad-Elec's priorities; other linkages being considered are between Zambia and Malawi (about 300 km) and Zambia and Tanzania (600 km). "We are looking at financing options for some of these. Because of long lead times, we are also engaged in dialogue with potential investors for expansion of generation on the Zambezi as well as in Zambia."

Sad-Elec helps to promote the development of markets for electricity.

"The SADC's achievement of forging a regional identity should not be underestimated. In the global context, this is a real asset which should be used as a foundation on which to build."

Sad-Elec's board of trustees includes regional power sector experts from Botswana, Mozambique, SA and Tanzania, along with international developmental specialists from Norway, Malaysia, the US, Australia and African Development Bank."
Eskom switched on by foreign buy-up offers

In his effort to enhance the parastatal’s efficiency, its chief executive, Allen Morgan, is considering overseas bids to buy unproductive power stations.

Several foreign utilities have asked Eskom whether it would be willing to sell some of its mothballed power stations and allow the foreigners to operate them, the company’s chief executive, Allen Morgan, has revealed.

It is a measure of the stature of the Eskom leader — and his determination to enhance the efficiency of the enterprise — that he hasn’t rejected out of hand the nascent private sector. Numerous foreign power plants.

“Certain foreign utility operators have asked us if they could come up with an offer for these units. We’ve encouraged them to do so, since at the end of the day it’s what those power stations produce in terms of megawatts that’s going to be important.

“If they’re able to produce at a price lower than what we can (or even at an equivalent cost), we’d be obliged to give the offers serious thought,” the 49-year-old Morgan has said in an interview.

If a deal were done, that party would then sell electricity through our transmission system. One of the advantages to Eskom is that it would help us to benchmark our operations in a local context.”

Morgan’s commitment to Eskom runs deep. When he joined the organisation in 1971 after obtaining an engineering degree from Stellenbosch University, he became the third generation of his family to work for South Africa’s leading power utility company.

Morgan, who became Eskom’s chief executive in March last year, isn’t at all surprised by the overseas approach to point out that throughout the world, with very few exceptions, the privatised utilities are looking for offshore unregulated business in viable power stations.

He says the foreign utilities are looking at several options, besides the outright purchase of the mothballed plants.

“They don’t necessarily have to buy the plant; they could lease and operate it. Further, there’s a lot of stuff floating around, suggesting that deals could be struck with one or more local mining companies.”

How easily Morgan operates hopes to succeed if Eskom doesn’t find it profitable to operate the mothballed stations?

For one thing, Morgan suggests, they might well feel that they are more efficient than Eskom. In it, they deserve to succeed.

“More importantly, demand is coming back. We need to bring back Arriet (50 percent mothballed) and we’ve got to get Magubu 1, 2 and 3 on line in the near future. Additionally, we have to get Cahora Bassa restored, after which we’d start looking at Cedar, Kamati, Grooteveld and Magubu 4, 5 and 6.”

“The rand-a-megawatt yield will determine the merit order of bringing back the various plants. So if you get an operator coming in at a good price, and it is more attractive to us than bringing back some of the less profitable plants, then we would seriously need to consider the offer.”

Selling off mothballed power stations would be instrumental to a partial privatisation of Eskom. How much further down the privatisation road does Morgan see Eskom going?

“Taking a long-term view, it’s going to be healthy to generate competition. And the time to introduce competition is when we’re looking for additional capital to create more generation capacity. At such a time we could be looking at competitive independent power producers.”

Over a transition period of a decade or two, we could see an unbundled situation throughout the industry, not just on the generation side.”

Yet one of the prime objectives of a privatisation programme would be to raise funds for the government’s RDP expenditure. Morgan’s scenario wouldn’t achieve that goal.

“At the end of the day, I see no good reason for Eskom to privatise. Competition is healthy if it produces efficiencies, and changes certain cultures for the better. In a private sector environment, you’d take away bureaucracy and produce far more innovation.”

Morgan, who heads Eskom’s national programme to electrify underdeveloped areas, contends that although Eskom is state-controlled, it has come a long way down this line through its commercialisation focus.

“Eskom’s prime motivation is to provide the world’s lowest-cost electricity for the nation’s prosperity. It is indeed in our culture to achieve this aim by encouraging competitiveness and driving down costs for growth.”

ESKOM’S OPTIONS Privatising Eskom doesn’t make sense, its chief executive, Allen Morgan, believes.

So competition shouldn’t worry us — nor does it. But the sale of Eskom assets now doesn’t make sense.

“The question of raising capital for the RDP is not directly relevant in Eskom’s case, since Eskom is already driving hard on the RDP to get electrification and education going.”

He doubts that funds raised from the privatisation of Eskom would be used to enhance electrification, because “the mindset of a privatised company is going to be shareholder wealth — not necessarily looking after RDP responsibilities”.

In the longer term, Eskom had to be benchmarked and was found to be inefficient. But one of the ways of making it more efficient would be privatisation. “What you don’t want to do in any privatised environment is to reduce jobs through privatisation. The name of the game today is to create jobs.”

“Rather than trying to be a corporate, we’d rather stick with our core competencies, and contract out the service functions.”

John Spira
SA denies co-operation with Iran

African and foreign nuke experts meet

BY HELEN GRANGE

The Atomic Energy Corporation (AEC) is meeting African nuclear experts in Johannesburg this week to share information on nuclear programmes, amid speculation from Washington that Iran may be looking to South Africa for help in developing nuclear weapons.

A working group of the African Regional Co-operative Agreement, a regional arrangement for co-operation in nuclear science and technology, met for a five-day conference in Johannesburg yesterday.

Representatives of the 20 African member states and the International Atomic Energy Agency, as well as a number of European countries, are attending.

The discussion is focused on facilitating training and capacity building, sharing of infrastructure and exchange of key information in nuclear technology.

Meanwhile the AEC's chief executive Dr Waldo Stumpf has poured cold water on a London Sunday Times news service report saying the US is concerned at what it sees as growing links between South Africa and Iran.

The report says that according to US intelligence sources, South Africa has enough scientists, equipment and expertise to make it a perfect partner for Iran, whose race to acquire weapons of mass destruction has set alarm bells ringing around the world.

It adds that Iran has been trying to buy equipment and technology from Russia and China, and the CIA believes that unless its programme is stopped, it will have nuclear weapons by the turn of the century.

Responding to the report, Stumpf said South Africa had "absolutely no nuclear co-operation with Iran".

"We have destroyed our nuclear weapons capabilities and we have no intergovernment co-operation agreement with any country.

"Without that, there cannot be any export of nuclear capability or expertise," he said.

The Sunday Times report said the issue would be discussed between American and South African officials in Washington this week.
Nuclear co-operation urged in Africa

JOHANNESBURG. — A senior official of the International Atomic Energy Agency has called on African states to map out a co-operative approach to the use of nuclear science and technology on the continent.

The appeal was made at the sixth annual technical conference of the African Regional Co-operative Agreement (Afra) on nuclear scientific and technical co-operation, which opened in Johannesburg yesterday.

"If Afra does not take itself in hand, no-one else will do it," Qian Jiayi, head of the department of technical cooperation of the Vienna-based agency, told Afra's 20 member states.

Foreign Affairs director-general Rusty Evans said South Africa, the only country so far to destroy all its nuclear weapons, supported the extension of the Nuclear Non-Proliferation Treaty, but felt the treaty lacked emphasis on the transfer of nuclear science and technology to other nations.— Reuters.
SA may face tax on energy consumption

PRETORIA — South Africans could face a tax on domestic energy consumption and a road fuel duty as government tries to combat air pollution, which contributes to global warming, Environment Affairs Minister Dawie de Villiers says.

At the International Geosphere Biosphere Programme conference on global environmental change, which began yesterday, De Villiers said SA was the biggest producer of greenhouse gases in Africa. "With the extra requirements of the reconstruction and development programme, production will in the short term increase rather than decrease."

A tax or duty on domestic energy consumption, a road fuel tax and an energy saving trust could be used in a local climate change action plan to finance the basic energy needs of the less privileged.

Release of greenhouse gases should be included in integrated environmental management parameters. Overstepping limits "should lead to taxation or penalties". A road fuel duty could lead to faster development of electrical transport and better use of other options for private transport and deliveries in urban areas to cut down on pollution.

Burning waste and agricultural residue should not be unrestricted. Although fire was an indispensable tool in veld management, unseasonal and unauthorised veld burning should be curtailed and penalties considered for transgressors.

An information programme should be launched to help local trade, industry and the public sector adopt efficient energy-saving technologies.

The conference continues today.
Statham says HCB, the company responsible for Cahora Bassa, is understood to be issuing international tenders worth about R500m this year for refurbishment work.

Majuba's chequered history includes a postponement of the first unit's commissioning from 1992 to 1996. This delay was caused by a combination of two factors — Eskom was sitting on a generating surplus of about 15,000 MW in the midst of what was then a severe recession, coupled with grave political uncertainties. In addition, Majuba had a lot of trouble obtaining the coal reserves needed to sustain its projected 40-50-year life cycle.

"In view of the air pollution problem on the Highveld it was decided to move the power station further south, but this, unfortunately, also meant that we were moving away from the high-quality coal seams. And when Rand Coal found that, due to geological problems at the Majuba colliery, they would not be able to supply us with sufficient, good-quality thermal coal, we had a real problem. The priority was to suspend operations until we could find an alternative coal supply," says Statham.

Since then, Rand Coal has been taken over by Trans-Natal and in April last year the decision was taken to rail in coal from the Ingwe mine at Ogies in the Eastern Transvaal. "This coal is of good quality and is much easier to mine than was the case at the (now closed) Majuba colliery. The result was that, rather than adding costs, it will deliver coal to the power station at prices comparable with those originally envisaged for the project," he says.

Even the R100m cost of an 18km rail link being constructed from Palmford on the main railway line to the power station is being factored into the settlement arrange-
Power to the people

Eskom's plans for households
will have spin-off benefits

Eskom hopes to electrify 1.75m homes by
the turn of the century as part of its
contribution to the RDP target of 2.5m by
2000. The balance of connections (about
800 000) will be done by the rest of the
distribution industry — mainly local au-
thorities.

What makes Eskom's huge effort possi-
ble is that it is sitting with surplus
installed generating capacity. There was a
24 798 MW peak electricity demand in
1994 against Eskom's installed generating
capacity of 39 746 MW.

Apart from Eskom's mothballed capacity,
additional power should come on stream
when 1 400 MW flows into the grid from
Mozambique's Cahora Bassa hydro plant in
1997. The Majuba power station, with a
potential capacity of more than 3 000 MW,
is also to be recommissioned within the
next few years.

Eskom, with its 23 power sta-
tions, gen-
erates 97% of all electricity in SA and more
than 50% of that consumed in Africa. Its
25 000 km transmission network is part of
an asset base of R44.4bn. This statutory
body generated a R1.6bn surplus in 1993.

Even though Eskom can easily meet its
installation targets, the programme does
have problems. An average monthly household consumption of more than 350 kWh is required for the programme to be financially viable. But current experience is that monthly sales are less than a 100 kWh. At this level a subsidy of R50 per customer per month is required to recover the initial capital investment of R3bn plus interest charges over 15 years.

"About 95% of Eskom's new customers operate on its so-called Homelight 1 tariff, which places the connection cost initially on the power utility's shoulders. The tariff is structured to allow the customer to redeem the connection costs over 15 years at an average monthly consumption of 350 kWh," says Eskom national electrification projects manager Jan Engelbrecht.

He says the temporary negative financial impact that the electrification programme will have on Eskom "will have to be paid for by a combination of cost reduction strategies and general tariff adjustments. This will be done within the framework of our commitment to reduce the real price of electricity by 15% over the next five years to become the world's cheapest suppliers."

Hopefully, as new households gain economically, their power consumption will gradually increase, eventually enabling them also to pay for the capital cost of connection.

Eskom's research shows that seven to 11 out of every 100 houses electrified will establish new small businesses. With informal business failure rates in the region of 25%, and with an average of two jobs created per small business, Eskom estimates that a net gain of about 134 000 new informal businesses will be created by 2000.

Other economic benefits from electrification include the creation of more than 19 000 direct jobs during the period 1994-1999 in the construction, local manufacturing and service sectors; 12 Mt of firewood saved annually and 1.2m man-hours released as firewood collection decreases; families spending an average of R8 103 (1994 rands), over 10 years, on electrical appliances; and better education.

Eskom's national electrification programme has steadily grown from 31 000 direct connections in 1991 to 145 000 in 1992, 208 000 in 1993 and 250 000 in 1994. Combined with incentives of R800/household to farm workers and subsequently to local authorities, Eskom has been instrumental, directly and indirectly, in electrifying about 890 000 homes since 1991. From 1995 onwards, it aims to electrify 300 000 households each year until 1999.

Local and other authorities plan to pitch in with an additional 150 000 connections a year from 1996 onwards. The new Electricity Regulator (appointed on January 1) still has to decide which local authorities will be authorised to connect and distribute electricity.

While Eskom elects to absorb the logistics of the exercise under cost, paying for it is another matter. It has arranged this through the creation of special Electrification Participation Notes (EPNs). The first EPN issue, for R600m in June 1993, followed Eskom's internally budgeted R500m electrification costs for the 1992 financial year, and was underwritten by the Life Offices Association. But, with the 1994 electrification budget growing to R835m, Eskom decided to combine its new capital requirements with a buying back of the first EPN issue in a new, consolidated EPN issue of R1,168bn (of which R600m is new money). It was issued in October.

"Together with a recent US$300m loan from Japan, we should have sufficient funds to meet our current budgeting targets, including the R1bn electrification budget for 1995. But, obviously, more EPN funds will have to be taken up in future to meet our total capital budgetary requirements (in current rand terms) of about R5bn by 1999," says Eskom financial analyst, electrification planning, Koos Schoeman.

Eskom's electrification programme is complicated by the fact that it is working to a certain extent, in a political vacuum. Local authority elections will be held in October and constitutional powers of the new provincial governments still have to be finalised. But this political uncertainty has not stopped the utility from proceeding with its own plans. Playing a major role in ensuring community participation in the electrification programme are the joint and regional electrification forums. These allow Eskom to assess the needs of communities, ensuring that its programmes elicit popular support.

And by the time the Regulator has decided on the local authorities' powers and the provincial governments know where they stand on electrification, Eskom should be in a position to join its efforts with others.

Eskom, with standardisation of equipment and processes, computer networks and regional masterplans, which fit in with existing distribution networks, prepaid metering and better delivery systems (often developed for people in informal settlements), is trying to ensure that all costs are reduced to a minimum.

Synergies at work

Timing of the Polfin project

As FMOA 28/7495

Like other major capital projects in the process of completion (Alusaf and Columbus), the R536m Polfin Midland re-structuring project at Sasolburg seems to have been blessed with excellent timing.

When it was announced in June 1993, PVC prices were depressed and faith in the future was all that underpinned the link between chemical giants Sasol and AECI. Now, 20 months later, the market has
Eskom comes clean on the environment

BY ANITA ALLEN
SCIENCE WRITER

Eskom has chosen to celebrate the first anniversary of the new South Africa with the release of its first environmental report, and by so doing becomes the first large corporation in South Africa to go public on its environmental performance.

Underlining its commitment to the environment, Eskom now employs 50 full-time environmental specialists, while another 47 technically qualified employees deal with environmental issues as part of their duties.

Highlights of the 33-page report show:

- Eskom's power stations are emitting fewer gases that cause the greenhouse effect, and using less water per unit of electricity produced.
- Eskom believes improved air quality can best be achieved by applying limited capital resources to residential electrification, rather than installing improved pollution control equipment.
- For "a long time to come", Eskom will continue to rely on coal-based power stations for electricity generation.

Under environmental issues fundamental to marginalised communities, the report commits Eskom to:

- Reducing the real price of electricity by 15%, so as to become the world's lowest cost producer of electricity. At present it is the second lowest.
- Electrifying 300,000 homes a year to the end of the century.
- Spending R50-million a year to supply small electricity generating units to clinics and schools in rural areas.

In the process of burning 76.9 million tons of coal in 1994, Eskom's power stations have emitted 122,000 tons of particulates (fine ash and visible smoke), 143,000,000 tons of carbon dioxide, 1,187,000 tons of sulphur oxides and 961,000 tons of nitrogen oxides.

Of 22 million tons of ash waste produced during 1994, 800,000 tons (3%) was sold for making cement and bricks. Rehabilitation has been completed for 60% of the ash dump sites no longer in use. This involved shaping over with soil and planting with suitable vegetation.

Eskom now administers some 240,000 km of powerlines. Its policy is to route these lines with minimal impact on communities, agriculture and wildlife.

By reviewing its current environmental status in the open, Eskom has set up a standard against which future performance can be evaluated.

Paraffin prices to drop by 1c

The price of domestic paraffin will drop by 1c a litre from Wednesday, the Central Energy Fund has said. The downward adjustment of 1c is a result of economic factors.

The paraffin price has fallen by 4c since the start of the year, while petrol and diesel prices have risen by 12c and 1c a litre over the same period.

Petrol and diesel prices have moved up mainly because of the strengthening of prices on international markets.

The March Budget also announced a 2c-a-litre increase in fuel taxes. The next 1c adjustment due to higher tax comes into effect on Wednesday.

Paraffin will cost 100,43c a litre from that day on the coast and 101,43c in Gauteng, the fund said.

88-year-old nab's thief

Oslo (Norway) — As if being captured wasn’t bad enough, an armed bank robber had to suffer the indignity of being nabbed by an aged octogenarian passer-by here this week. The 88-year-old hero suffered a broken nose, a black eye and a few cuts but still managed to hang on until others joined in.

— Sapa-AP.
Policy for storing of maize reserves needed

SA NEEDS a “meaningful” policy for storing strategic maize reserves because of the country’s erratic production, Maize Board GM Peter Cowine said at the weekend.

He told the Fertiliser Society of SA’s AGM in Johannesburg that there was no official policy for the holding of central strategic reserves as a safeguard against a poor crop in the following year.

“However, one of the dangers of a large strategic reserve is that it can be used to keep domestic prices at unacceptably low levels for the producers,” he said.

The storage option was also mooted by National Maize Producers’ Organisation (Nampo) chairperson Cerneels Claassen last week when he said Nampo had “put a plan on the table” to store maize at the beginning of the season, but that it had failed.

SA faces a shortage of about 1-million tons of white maize after a bumper crop last year. Millers have put prices up by about 20% after having to import maize at R700/ton.

LOUISE COOK

In terms of the new maize marketing scheme which started this month, after single-channel marketing was scrapped, the Maize Board was no longer in a position to keep prices below the price of imported maize when SA faced shortages, said Cowine.

Low prices were “desirable” from a national viewpoint to ensure maize products remain affordable, particularly in the end of the country, he said.

“It is also desirable from an industry viewpoint as maize products can lose significant market share to other starch products if prices become too high.”

Cowine said SA currently enjoyed a steady market for maize for human consumption. But increased demand from population growth had largely been cancelled out by a drop in maize consumption.

Cowine said that in terms of the new marketing system, the Maize Board would accept maize from any farmer unable to find a local commercial buyer and pay a floor price.

Branding may be legislated

NICOLA JENVEY

DURBAN — The Livestock Brands Act may be reviewed and branding may become compulsory as a measure to combat the R80m-a-year stock theft problem, Agriculture Deputy Minister Thoko Mbane said.

Addressing the National Stock Theft conference yesterday Msane said owners benefited from branding as it proved possession, the SA Police Service (SAPS) could easily trace stolen animals, the pounds could trace owners and the consumer benefited through savings in a more efficient livestock industry.

SAPS deputy national commissioner Zolisa Lavisa said the number of cattle stolen had increased from 24 886 in 1990 to 46 138 last year — less than half were recovered.

The theft of sheep and goats had increased to 125 884 from 80 002 over the same period. Only 25 525 were recovered last year.

Should the law change, farmers would have six months to register a brand and unidentified stock could not be sold.

Benefits in regional power

CAPE TOWN — The electrical grid system being discussed for southern Africa had the potential to supply the whole continent and even export hydro-power through Egypt to Europe, according to a report by energy researchers at the Institute of Futures Research at the University of Stellenbosch.

Regional co-operation in the commercial energy sector offered mutual benefits to southern African countries, they said. Although SA had 83% of sub-Saharan Africa’s generating capacity of 48 646MW, its capacity for its own needs would be fully utilised by 2000.

After that, SA would need to secure 1 000WM to 1 500WM additional capacity each year. Either coal or nuclear power stations would have to be built, involving major financial commitments.

Both options would involve adverse environmental effects. SA was already among the 15 countries with the world’s worst atmospheric pollution from industrial sources, the researchers said.

Countries in southern Africa had the potential to supply SA’s future requirements at lower cost and with less environmental risk. Zaire had the largest resource for electricity generation in Africa, with a total potential of 100 000MW.

Its current output was 3 533MW, or 35% of potential capacity. Export capacity could generate significant foreign exchange. In addition, grid interconnections offered technical advantages such as maintaining lower reserve requirements for any given level of reliability, which would in turn allow a reduction in costs.

Two initiatives examining electricity co-operation were under way.

Regional co-operation in the commercial energy sector would minimise the costs of energy supply, reduce environmental effects, raise regional trade levels, provide foreign exchange and add momentum to the long-term vision of full economic integration among Southern African Development Community countries.
Pik's projects 'dressed up for RDP'

By Patrick Bulger
Political Correspondent

Cape Town — A parliamentary committee has slated Pik Botha's Mineral and Energy Affairs Department for dressing up ordinary departmental expenditure as RDP projects.

The criticisms are contained in a budget report by the portfolio committee on Mineral and Energy Affairs headed by the ANC's Marcel Golding. It was tabled yesterday on the eve of the National Assembly debate today on the department's budget vote.

According to the department, about R247-million of its R2716-million budget was intended for RDP expenditure.

However, the report found that "the budget certainly has not complied with the full objectives of the RDP or gone sufficiently far in meeting them."

"The general view contained in the submissions and comments was that the budget for 1995/96 has not been sufficiently changed to address national priorities.

"While the committee supports any effort to give effect to the RDP, on scrutiny many of the items claimed as RDP-related actions are seen to be ordinary departmental expenditure."

The report also criticised the department's affirmative action achievements, noting that "the objective to ensure that both the department and the ministry reflect the population of the country is absent."
Electrification of rural areas 'a priority' (55)

Deputy Business Editor

A LACK of development in South Africa's rural areas could frustrate attempts to raise living standards in the cities, Public Enterprises Minister Stella Sigcau said today.

She was addressing the opening session of a two-day meeting of managing directors of electricity utilities in Africa and the Indian Ocean.

Ms Sigcau said unless rural areas were developed, cities would become congested and urban development plans would be difficult to implement. ART 10/5/95

"Electrification of the rural areas must be a priority." Without electricity, other RDP projects could not be viable.
Pik outlines ‘full-scale assault’ on firewood crisis

A blitz was being planned on South Africa’s firewood problem, and proposals would be submitted to the Cabinet during the current session of Parliament, Mineral and Energy Affairs Minister Pik Botha said yesterday.

Introducing debate on his budget vote, he said 12-million tons of trees disappeared in smoke in the rural areas every year, and more than 13-million South Africans depended on firewood and other biomass fuels.

The increasing time spent by rural women in having to travel further and further every day to collect firewood meant they had less and less time to engage in meaningful and productive economic activity.

His department headed an interdepartmental committee planning a “full-scale assault” on this problem, and its proposals would be submitted to the Cabinet this session.

These include better planning of tree-felling and planting by local people; encouraging and helping those who use trees to plant replacements; bringing in firewood from industrial forestry waste; developing alternative fuel sources; and providing people with electricity.

The department planned to supply 15 000 rural schools and 2 000 clinics with alternative sources of electricity within the next 10 years, he said.

The department will investigate forming an independent parastatal company within the Central Energy Fund group to provide planning and financial backing in conjunction with the RDP office. — Sepa.
OVER 23 000 homes in Khayelitsha have been connected to the electricity supply grid in just over a year, and electrifiers intend to raise the total to 40 000 by the end of next year.

This was said yesterday at an international electricity conference at the Waterfront by Mr Alain Roucole, general manager of Phambili Nombane (Forward with Electricity) — the partnership providing electricity to Khayelitsha.

French company Electricite de France and Eskom are partners in the electrification.

Mr Roucole estimated Khayelitsha’s population to be half-a-million, living in about 50 000 dwellings, of which 10 000 were formal and 40 000 were shacks. No shacks had electricity at the beginning of last year.

Mr Dickson Khulani, of the SA National Civics Organisation, said no electricity was provided when Khayelitsha was established in 1983. A few of the formal houses had been electrified in 1986, and three years later the civic associations started to campaign for more electrification.

“At that time we did not think informal houses would ever be electrified,” he said.

The electrification of Khayelitsha had been planned “in line with Reconstruction and Development Programme principles, though we did not know about the RDP then.”
Mozambique's state-owned Hidroelec
trica de Cahora Bassa, which awarded
yesterday's contract, has decided to re-
move the mines rather than build a com-
pletely new line. The contract to remove
the mines will be awarded over the next
few weeks.

Once complete Cahora Bassa will pro-
vide up to 2 000 megawatts of power, the
bulk of which will go to Gauteng.
Eskom report reveals public

Power debt at R293-m

Reduced tariff Eskom 'on track' to fulfil its RDP promise:

Abrasion in payments for electricity countrywide total R923 million. This figure, for December last year, is contained in Eskom's annual report which was tabled in Parliament this week.

Eskom chief executive Allen Morgan said efforts were being made in cooperation with all levels of Government and civic leaders to get people to pay.

At the end of last year, there was an improvement in payments in some areas, including Soweto.

"There is a growing realisation that the country cannot afford to provide services if customers are not paying for these," he said.

He said Eskom was on track to fulfil a 1991 promise to customers to reduce the price of electricity by 20 percent in real terms by 1996.

Eskom was confident of meeting its reconstruction and development programme commitment of reducing the price of electricity by 15 percent between this year and 2000.

Mr Morgan said Eskom had achieved commendable financial results with revenue for the past financial year having increased by 11.8 percent to R15 417 million.

This was caused by a net tariff increase of 7.6 percent and a 3.9 percent increase in sales.

The increase in sales was caused by an upswing in the business cycle. Operating spending was R9 963 million, an increase of 10.7 percent.

Costs included decommissioning fossil-fired power stations (R192 million), management rationalisation and early retirement (R110 million) and medical aid post-retirement benefits of R51 million.

Net income was R2 268 million, a 37.8 percent increase over 1993.

Accumulated reserves were R16 005 million, Morgan said.

— Sowetan Correspondent.
NUCLEAR POWER

Swords into ploughshares

Good sense has prevailed in our nuclear industry... and it could make money

Looming amid the green hills of the Magaliesberg, the serrated profile of the Pelindaba nuclear complex long provoked the question of what went on behind it. In 1993 government ended the guessing game with the sweeping if belated confession that the Valindaba plant in the complex had enriched uranium to weapons grade and supplied it to Armscor for fabrication into nuclear weapons.

Ironically, the great nuclear complex built up as part of the Nationalists' desperate effort to hold on to power has now fallen into the hands of a government controlled by their former enemy, the ANC — as has SA's other major nuclear commitment, the Koeberg power plant north of Cape Town. After some loud initial squawks from fringe nationalist groups in the ANC alliance, a blessed silence has descended and Koeberg hums in its efficient, clean and unthreatening way, contributing 1.8 MW of electricity to Eskom's grid (total output in 1994).

With the economics of power generation dictating that another nuclear plant should not be built for many years, it seems Koeberg will be left alone to see out its economic life (perhaps another 25 years).

But should SA still operate a substantial nuclear industry to enrich uranium and even — as it was forced to do during sanctions — to make fuel elements for Koeberg, which can now buy them from abroad? SA could theoretically continue to enjoy the benefits of nuclear power without running its own nuclear industry.

Now that SA has renounced nuclear weapons and has signed the Nuclear Non-Proliferation Treaty (NPT), the fate of the leftover nuclear facilities should arguably be determined by technological and economic considerations. These seem to point towards a continuing, if scaled-down, nuclear establishment, pursuing sensitive nuclear technology under the supervision of the major nations' watchdog against nuclear proliferation — the International Atomic Energy Agency.

Incidentally, the NPT is now up for renewal and press reports suggest SA's international representatives have played a constructive role against proliferation in this sensitive and far-reaching parley.

SA is also promoting the associated concept of a nuclear weapons-free African continent (along the lines of a similar accord in Latin America).

In the past few years SA's Atomic Energy Corporation (AEC) has been following a long-term strategy to reposition itself to exploit nuclear technology for peaceful purposes — and on a financially self-sustaining basis.

For one of the world's major uranium producers to band its laboriously built-up human capital in nuclear physics and engineering and give up claims to any long-term stake in uranium enrichment would have been folly.

That this was the sensible decision is evidenced by the way the new government has allowed the AEC to continue on its chosen path. When SA eventually decides to build another nuclear power plant, there could be significant local inputs. In the immediate future, there is also a good prospect of SA earning substantial sums by exporting enriched uranium.

A word of scientific explanation: uranium, as it occurs in nature, contains 0.7% of the key isotope (atomic variety) uranium 235, the balance being uranium 238. The uranium 235 isotope can undergo nuclear fission — a property required for a nuclear power plant and to make a bomb. For a pressurised water power reactor — the type installed at Koeberg — in common with all reactors the world over, the concentration of U235 has to be stepped up to around 4%. To make an efficient nuclear weapon, over 90% enrichment is needed.

The first enrichment was accomplished in the US during World War 2. It required the conversion of natural uranium to the hexa-
Energy Agency through setting higher standards of co-operation.

He says that the agency's safeguards — for obvious reasons — apply most stringently to this material. But they apply also to the disused equipment for producing it and to a new AEC programme to develop a cheap, laser-based enrichment process. Meanwhile, the stockpile lies under constant and stringent agency surveillance.

But the question of what to do with it remains. The highly enriched uranium does not have much value in exchange because the post-Soviet world is averse to it.

SA's stockpile might conceivably have had a "political" value because the US in particular might have wanted to buy it to eliminate a real or imagined proliferation risk.

But SA has never explored the sale option seriously because the stockpile does have a considerable value-in-use. It is being used to fuel the Safari research reactor at Pelindaba to manufacture commercially valuable radio-isotopes.

Of these, molybdenum 99 (for diagnostic use in medicine) is the most important. And the AEC's product is of high quality and competitively priced.

A further reason for following this disposa route, says Stumpf, is that SA wants to do its bit to enhance the prestige of the International Atomic Energy Agency and so feels it should not negotiate over the stockpile with anyone else.

How long will it take to consume the weapons-grade uranium in this beneficial way? Stumpf says this depends firstly on the AEC's future success in winning more large-scale export contracts, over and above those already sealed with mainland China and India.

The AEC could yet pull off big deals in North America, Japan and Europe.

Secondly, the rate of consumption depends on whether the AEC decides to upgrade the Safari reactor, now running at 10 MW. At 20 MW, it could enable SA to capture around 10%-15% of the world market for molybdenum 99. On that basis, the stockpile would last for 10-15 years. This goal could soon be achieved. (Stumpf, security reasons, declines to quantify the stockpile or say where it is located.)

The semi-commercial enrichment plant which employed a nozzle process to make low-enriched uranium for Koeberg was shut down on March 31.

The proliferation-sensitive equipment will be dismantled under close agency supervision. Indeed, the safeguards were formulated to set a new and higher standard for non-proliferation supervision.

This is further illustrated by the commitment that any components which could be used to make enriched uranium will be melted down with salvage of their metal content. Nonsensitive items such as cables will be decontaminated and reclaimed.

All this could take another four years. The sensitive components of the older, disused, nozzle-based pilot enrichment plant for producing nuclear fuel are also being melted down. SA's own Nuclear Licensing Authority is also supervising the dismantling to monitor the safety dimension.

However, SA has not relinquished its ambition to play a continued, if peaceful role in enrichment technology. The AEC is hard at work on an innovative laser-based enrichment process which could — even if only in the next century — be highly cost-effective internationally.

Early experiments, claims Stumpf, have put SA ahead of the field. But even the experiments are closely supervised by the agency.

Will the AEC continue to manufacture nuclear fuel elements for Koeberg now that these items can once again be sourced overseas? A working party, including Eskom, the Department of Mineral & Energy Affairs and the newly influential Minerals and Energy Policy Centre, is currently examining the economics of all stages of the process from newly mined uranium up to fabricated fuel elements.

One option might be to continue making fuel elements but from imported enriched uranium to conserve the local fuel element technology for the future. Another route could be to discontinue local fabrication and import fuel elements in the post-sanctions environment, cost is paramount.

There is already a glut in the international market in natural and enriched uranium, though there are formidable political and technical obstacles to a further large inflow from ex-Soviet weapons-grade material. For now, we can only guess at the possible market impact.

What the Russians are selling is low-enriched uranium for power plant use, but no-one knows their lost levels. They appear to sell for what they can get.

There is also a domestic struggle in the US between the electric power companies, which would like to use Russian uranium, and US uranium miners. As things stand, the US has steep import duties on all grades of uranium, including enriched material.

Stumpf believes the overall surplus of enriched uranium will last beyond the year 2000, but the demand is highly price-sensitive. If the AEC can come to market ahead of the pack, it could add R250m a year to the value of SA's uranium exports and bring significant earnings from technology licence agreements.

The proliferation-sensitive nature of this process makes it more important than ever for the AEC to allow the agency maximum supervision.

What is clear, in this welter of technical issues, is that SA is now truly on the side of the angels on the non-proliferation issue. "I worked hard to get us there!" says Stumpf.

Because of the advanced technology needed to enrich uranium, it was to be expected that much of the know-how could be re-applied for peaceful purposes.

And so it is proving. The latest annual report tells of a range of valuable products and processes (in addition to the radio-isotopes) now being marketed by the AEC. These include a process to produce fluorinated hydrocarbons such as tetrafluoroethylene, from which a valuable polymer (PTFE) is made.

Other possibilities include specialised plating, special alloys and components for air compressors, membranes for specialised filtration, instrumentation for froth flotation and finely engineered high-pressure components for a variety of uses, including satellite launching and advanced monitoring systems for incipient failure on vital machinery.

What does all this mean financially? The AEC's income statement for the year ended March 31 1994 discloses an increase in sales of products from almost R178m to R196m.

More important, the deficit (after financing costs) shrank from R106m to R54m. In the year under review, sales of nuclear fuel rose by 3,1% and those of non-nuclear fuel products and services rose by 18,1%. Cross operating expenses fell by 8,1% and the State allocation of funds for operating activities dropped by 13,3% to R311m.

This financial year, the AEC expects to improve its turnover from direct sales by 13% and reduce its dependence on the State by a further 20% in real terms compared with the previous year.

Evidently, the AEC is well on the way to a commercialised future. Could this eventually open the door to privatisation? This would clearly require government first to convert its debt into equity but it remains a fascinating long-term possibility.
Looking to the future

Eskom still finds itself with surplus capacity through failing to forecast the economic downturn around the end of the Eighties. Some of the older stations are still mothballed and some are being decommissioned. Yet the time will come when new supplies of power will have to be procured. Eskom is looking towards the year 2000 with some imagination.

Eskom’s 19 power plants have a nominal capacity of 37 840 MW — over half of the installed capacity in Africa. It supplies more than 95% of the electricity consumed in SA. In 1994, the demand for power increased by 3.9%, exceeding Eskom’s forecast. The demand for power rose by 7% to peak at 25 000 MW as a result of the cold winter. It is expected to grow by more than 6 000 MW by 2000.

In July 1994, Eskom adopted an integrated electricity plan embracing an optimal combination of supply and demand options, taking into account the expected growth and Eskom’s capacity. As part of the plan, Eskom is reviewing its capacity requirements. As the dedicated coal proved insufficient, coal will be sourced to the new Majuba power plant in Natal, the first unit to be commercial in 1996, while the programmes for Majuba 4, 5 and 6 are being reviewed. Some older stations — Ingangwe, Highveld and Taalbos — will be decommissioned.

An agreement has been reached for the setting up of a southern African power pool — open to all SADC countries plus Zaire. Negotiations among electric utilities to arrive at a draft agreement are almost complete, whereafter comments will be sought.

Agreement has been reached for the renewed supply of power from Cahora Bassa in 1997. Work is proceeding to rehabilitate the transmission line to SA, extensively sabotaged during the civil war in Mozambique.

Eskom energy manager Brian Statham says natural gas, in the regional setting, has great potential if available for power generation. On the west coast, the Kudji field could probably sustain a base load plant of nearly 2 000 MW “if the economics are right.”

The Pande field in Mozambique could sustain a plant of about 1 000 MW.

Eskom, for practical reasons, will limit itself to about 7 000 MW imported power but the exact figure will depend on prices. But imports are not the only possibility for augmenting Eskom’s capacity. Some independent power producers are expressing interest in becoming involved and there may be opportunities for them to supplement capacity, either supplying Eskom or in competition.

Eskom has in recent years concentrated on building generating units of about 600 MW, the so-called “six-packs.” Technically, says Statham, Eskom could install and run 900 MW units and there are coal fields that could sustain units of that size. There would be benefits of scale.

However, there are also advantages of standardising on 600 MW units. Indeed, it might even be appropriate for reasons of flexibility to turn to smaller units. Eskom has taken no decisions, though all options are being investigated. We should remember that the stations still mothballed have units of around 200 MW. They will influence the flexibility for operations when Eskom is keeping the nuclear option open and has bought a number of suitable sites. The relative economics of nuclear power is improving. There have been advances in nuclear plant design with a move to smaller, low-maintenance, simpler systems. By the time Eskom needs to consider the nuclear option — some time in the next century — many of these innovations will probably be commercially proven.

Statham says there is considerable emotion around the nuclear safety issue. The greater the number of years that pass after Chernobyl, the more the potential impact of nuclear incidents will be understood.

Pumped storage schemes may become more important as they can serve a dual role of compensating for peak demands for power and transferring water across geographic divides.

Statham considers it important that all these options are kept open. SA is blessed with cheap coal but environmental constraints may prevent us from taking full advantage of our extensive reserves. The imposition of a global “carbon tax,” for example (though unlikely), would have a major impact on the energy mix in SA.

Eskom is working on the assumption that economic growth will be somewhere between 3%-4% a year. Based on this, it will need to commission another power plant only around 2006. Lead time — now a remarkable 3-3.5 years in Europe — is one area where combined cycle scores heavily.

Though the plant is marginally more expensive, the shorter lead time cuts financing costs.

The structure of load growth will also influence Eskom’s decision. If the load is going to peak more because of domestic demand grows relatively to other segments, the combined cycle and pumped storage options offer more flexibility than they have quicker start-up times than conventional coal-fired plants. But the need for peaking capacity will also depend on how soon we can link with neighbours to tap their hydro-electric capacity.

The next technical advance after the combined cycle would be the fluidised bed boiler, which has been brought to the stage of delivering around 200 MW in Germany. There are marketplace options such as interruptible supply agreements with major users. These would allow Eskom to fix the price of generation and therefore its costs.

Evidently, the spirit of technical innovation and proactive management of the electricity market are alive and well and living at Megawatt Park.
Cape Power Station: Top Yield on Sugar

Kudu Gas Could Fuel

By Duncan Tomney
The government has announced a new policy to support the agricultural sector, focusing on improving crop yields and reducing environmental impact. The policy includes investments in technology and infrastructure, as well as support for research and development. The minister of agriculture will present a detailed plan to the cabinet in the coming weeks, detailing the specific measures and funding required to achieve these goals. The agriculture department has already begun preparing for the implementation of the policy, with a focus on pilot projects in select regions to test the effectiveness of different strategies. The aim is to increase productivity, reduce costs, and enhance sustainability in the agricultural sector.
Namibia gas find may give W Cape big boost

Business Staff

JOHANNESBURG. — Within the next six or seven years the Western Cape is likely to become one of the country’s major industrial growth areas with South African and overseas firms flocking to the area to take advantage of its newest resource — cheap electricity.

This is the outcome that is expected to flow from the discovery of a major natural gas field, the Kudu field, about 150 km off the coast of Namibia by Shell Exploration Namibia and En- gen.

If everything goes according to the discoverers’ expectations, they will start piping gas to the Namibian coast then to Saldanha Bay to fuel a new Eskom power station and Iscor’s new steel plant just after the turn of the century.

Subsequently, a further pipeline will be laid to Cape Town to supply local industry and possibly the household market as well. But the Western Cape will not have to wait until the pipeline reaches Cape Town to benefit from cheap gas. Shell Exploration Namibia MD Ger Kegge says his calculations show that a gas-fired Eskom power station at Saldanha could produce electric power at a lower cost than Eskom is able to supply to Cape Town from its Highveld stations.

He said Eskom did not fully agree with these figures. However, Eskom had held preliminary discussions with Shell and Engen on the supply of gas to a future power station.

Mike Deats, senior general manager, fuel and technical services at Eskom, said it was likely that Eskom could come to some arrangement for the purchase of gas from the Kudu field.

He said it made sense to have additional generating capacity in the Western Cape as this could help improve the reliability of supply to the area.

Cape Town gets most of its power over long-distance transmission lines from the Eastern Transvaal and the balance from the Koeberg nuclear station.

Killing for cigarette:
Judgment postponed

The Argus Correspondent

JOHANNESBURG. — Judgment in the trial of two Krugersdorp youths accused of murdering and robbing a 33-year-old man after he had refused to give them a cigarette has been postponed in the Rand Supreme Court until June 12.

The accused are a 16-year-old youth and Frikkie Theron, 18.

They have both pleaded not guilty to murdering Sam Khoza, 33, and stealing his watch and shoes in September 1994.
Uniform tariffs for electricity nearer

BY DEREK TOMMEY

The day when South Africans can expect to pay more uniform and in some areas much more reasonable electricity tariffs, is rapidly coming closer.

This was highlighted yesterday when Eskom, the country's giant producer, together with another 250 electricity authorities, applied to the National Electricity Regulator for licences to produce, transmit and sell electricity.

From today, all electricity generators, transmitters and distributors, in terms of the Electricity Amendment Act of 1994, have to obtain licences from the national regulator to operate.

This was an essential step in the necessary move to rationalise the electricity industry, said Dr Ian McRae, chairman of the National Electricity Regulator.

The recently-held Electricity Forum decided that it was essential that the industry should be rationalised to overcome the problem of supplying electric power to the black and rural areas, he said.

The licensing process, he said, would enable the National Electricity Regulator to identify clearly who might be the players in the future and to strive for a more effective and efficient industry and even, in the longer term, enable it to open the industry to more competition.

He said there were more than 3,000 tariffs in South Africa. The licensing system would enable these tariffs to be rationalised and for the country to move towards a national tariff.

However, a complicating factor was that local governments were heavily dependent on electricity for revenue and the restructurings of the industry would become a great threat to them.

It must also be borne in mind that the problem of local government financing would still have to be solved, said McRae.
POWER TALK Andries Calitz, senior general manager of marketing at Eskom, seen submitting Eskom's application to the National Electricity Regulator for licences to generate, transmit and distribute electric power. With him from the left, are Ian McRae, chairman of the NER and Brian Slatham, senior general manager, energy trading, at Eskom.

More uniform power rates on horizon

BY DEREK TOMBAY

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Efficiency

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However, a complicating factor was that local governments were heavily dependent on electricity for revenue and the restructuring of the industry would become a great threat to them.

As the National Electricity Regulator focused on its ability to meet development goals, the problem of local government financing would also have to be solved, said Dr McRae.
ELECTRICITY

On the grid

Roshcon, the operating subsidiary of Eskom-controlled industrial group Rotek Industries, has been awarded a US$41m turnkey contract by Tanzania's electricity supplier, Tanesco. The contract is for the supply and installation of a 91 MW modular gas turbine power generating plant in Dar es Salaam.

The project is part of Tanesco's $650m electricity upgrading programme, financed by the World Bank. Included in the programme are plans to link the Tanzanian grid with Malawi, Uganda and Kenya, building a hydro-power station and developing the offshore Songo-Songo gas fields.

The Tanzanian contract follows last month's announcement of a R44m pilot contract to supply and install 41 000 prepaid electricity meters along with a supporting vending system, also in Dar es Salaam. Uganda might also be in the market for about 120 000 meters.

The meter contract involves the creation of 350 jobs, including 300 Tanzanians now being trained by Roshcon.

Roshcon deputy GM Pieter Oosthuizen says: "It took two-and-a-half years and half a million rand of intensive marketing in Africa. We now consider ourselves the contractor to beat in East Africa."

The gas turbine technology for the latest project was developed by the $2bn-a-year, Houston-based Stuart & Stevenson group. Roshcon's third joint venture partner is the $1.5bn-a-year, Toronto-based Stone & Webster engineering contractors which will handle the project engineering and design.

Oosthuizen says Roshcon is also involved in a R10m electrification project for Zambia's Zesco electricity supply company in Lusaka. "We hope this is the beginning of big things in Zambia. But, while the need is great, financing for further projects remains a problem there."

Based on its Tanzanian success, Roshcon is now also looking towards tendering for an identical gas generating contract in the Ivory Coast.

A new division, Roshcon International, has been formed to handle contracts outside SA. Turnover is expected to increase to R175m in 1995 from less than R10m five years ago, when Roshcon was established as part of Eskom's commercialisation programme.

Sister company Rotek Engineering is involved in a R27m hydro-power station upgrading project in the Congo, and Roshcon plans to tender for a $25m transmission line contract in Uganda. Another major tender (with an international group) is for a

BUSINESS

$100m hydro-power station contract in Malawi, says Oosthuizen.

Roshcon parent Rotek Industries, which projects that last year's R500m turnover will jump to about R700m in 1995, will shortly initiate a share participation scheme for its employees.
SA to link up with partner on nuclear technology

PELINDABA.—South Africa's Atomic Energy Corporation is negotiating with a potential foreign partner on development of laser technology to produce industrial quantities of enriched uranium, the corporation's chief executive, Walden Stumpf said.

"It's being finalised now and hopefully in the next few weeks it will come to fruition. What we're doing with our partner is industrialising technology already developed," he said, declining to identify the foreign partner.

He added South Africa was the world leader in molecular laser isotope separation.

Mr Stumpf said last August he hoped a Western nation would invest about R36 million over the next two to three years in a pilot plant to produce nuclear fuel for export. — Reuter.
SA's Atomic Energy Corporation is negotiating with a potential foreign partner on development of laser technology to produce enriched uranium, AEC chief Waldo Stumpf said, in Pretoria yesterday. "It's being finalised now and hopefully in the next few weeks it will come to fruition." — Sapa-Reuters.
Athlone power plant all fired up again

MUNICIPAL REPORTER

ATHLONE power station is being fired up again after years of enforced inactivity.

City electrical engineer Mr Fred Berwyn-Taylor said Eskom had approached the city some years ago and said it had spare capacity in some of its more modern power stations.

Since it is better to run power station machinery continuously, rather than switching it on and off according to demand, Eskom offered to provide Cape Town with power at "a satisfactory price" in exchange for keeping Athlone power station idle.

Mr Berwyn-Taylor said this arrangement had made sense for both parties. Eskom supplied electricity to Cape Town at a price below that for which Cape Town would be able to generate it itself. This is because modern power stations upcountry are more efficient than old ones — Athlone power station was built in 1961.

Last winter, however, Eskom experienced a large load increase and nearly ran out of spare capacity. It informed Cape Town that it would phase out its favourable tariffs over a three-year period.

This means that Cape Town has to phase in Athlone power station again, which involves a gradual warm-up process. A couple of months ago, it started working again at one-third of its capacity.

Yesterday a ship was due to offload 12,000 tons of coal from Namibia in Table Bay harbour for the power station.

Mr Berwyn-Taylor said the council was aware of environmental sensitivity and steps were being taken to avoid being an irritant in the community.

"We will clean up the stack gases, even though they are already within the limits laid down," he said. "Steam does escape, but we are busy with devices to silence it."
ELECTRICITY

Power struggle

A strong difference of opinion has arisen between the Association of Municipal Electricity Undertakings (AMEU) and Eskom over the basis of comparison for electricity distribution costs.

AMEU president Howard Whitehead contends that the present four-tier pricing structure imposes an additional cost burden on customers of local authority distributors when compared with the equivalent Eskom customers.

The present structure starts with the cost of generation and any levy that might be placed on generation. At the next tier the transmission costs are added to the costs.

At the Eskom distribution level all these costs plus the cost of Eskom’s own distribution operations, as well as the cost of its electrification programme, are carried by Eskom customers. Among these customers is the typical local government distributor, which must add its own distribution and streetlighting costs and a contribution to other municipal services. The customer of a municipal distributor must therefore not only carry the financial burden of local government but a share of Eskom’s own distribution and electrification costs.

The proportion of these categories of Eskom’s costs borne by customers of local governments is considerable, remembering that Eskom’s sales to local government amount to more than 40% of the total. This burden is carried even though many large municipal undertakings are connected directly to Eskom’s transmission grid and so bypass its distribution network. Municipal undertakings in this category pay 30%-50% more for their supply than their Eskom counterparts.

A rationalisation of pricing structures should be the National Electricity Regulator’s first priority, Whitehead argues. Brave words indeed, but Eskom redistributor sector consultant Ken Campbell portrays the situation differently.

Campbell says the NER has convened work groups comprising the AMEU, Eskom and other representatives specifically to address issues such as ringfencing. That is the determination of the boundaries between generation, transmission and distribution of electricity.

Eskom denies the claim by the AMEU that larger municipal undertakings pay 30%-50% more than their Eskom counterparts. The price differentials are in fact 19%-30%.

Eskom is also concerned that an impression is being created that changes to come may afford AMEU members considerable price relief. Some large municipal undertakings could, to the contrary, see large increases if true costs were reflected in Eskom’s tariffs and not countered by national cross-subsidies within Eskom’s tariffs.

Considering that the NER is now busy with the task of establishing the conditions on which electricity undertakings may be licensed in future, its chairman, Ian McRae, has refused — perhaps wisely — to comment on this controversy.
R30-m to get Athlone power going

Municipal Staff

THE Cape Town City Council is spending R30 million to re-commission the Athlone power station in an effort to keep to a minimum electricity costs.

The power station was commissioned in 1961 but closed 10 years ago. It will take about three years to get it fully-operational.

Station manager Wouter Roggen said because the station was coal-powered, it meant that some ash would be released into the air and the station would also generate some noise in the daily process of warming the steam turbines before daylight.

"But we intend installing fabric filters on the boilers to limit ash emissions to 50 mg/cubic metre and council engineers are experimenting with sound attenuators to limit sound levels,"

The national ash emission standard was 400 mg a cubic metre.

Mr Roggen said the recommissioning of the station was in the early stages and much of the light fall-out monitored in the vicinity in recent months had turned out to be mostly wind-blown particles from other sources.
Eskom holds hopes for gas,

**Mungo Soggot**

ESKOM hopes a major gas consumer will be found so that demand from Namibia’s Kudu gas fields will make construction of a Cape gas power station viable.

Energy management manager Brian Statham said the scheme did not appear to be as competitive as a coal-fired station, unless another major gas user was found, such as the proposed and controversial Iscor smelter at Saldanha Bay, which would then make the piping of the gas from Namibia feasible.

A gas-powered station — more environmentally friendly than a coal-fired one — was mooted as a key part of Eskom’s capacity expansion which becomes essential when its current surplus runs out after 2000.

An Iscor spokesman said as the gas was not yet available, the steel giant had planned a conventional smelter, but said if the gas was available at a later stage it would consider using it.

A Cape gas-fired power station was seen as competitive as building an Eastern Transvaal coal-fired station to supply the Cape with electricity.
Electrical: Power for the masses

The electrical distribution equipment industry has the capacity and institutions to meet the needs of a mass electrification programme but needs to be restructured to provide competitively priced goods for local and export markets, Richard Goode of the Industrial Strategy Project has found.

But the electronics industry was in a bad way, it said. It was unable to provide affordable consumer goods to the millions who would come on stream as part of the 8 million new connections that Eskom planned for the next 20 years.

"Although the electrical distribution equipment industry, mainly through Eskom, has the generation and transmission infrastructure needed, it is constrained by the lack of investment, fragmentation of demand, lack of standards and economies of scale, high raw material costs and low skills levels among workers."

Goode recommended phased reduction in protective tariffs for the electrical equipment firms, particularly the highly protected distribution transformers, circuit breakers and insulated cable producers.

There was a need for a skills upgrade to improve productivity. The electronics sector, on the other hand, was in a far worse position. It was uncompetitive and it relied on imports.

To survive, it would have to be integrated into international markets with a phased reduction of tariffs on equipment and components and greater access to foreign technology with South African companies entering into cooperative networks overseas.

Goode recommended the sector should concentrate on developing technologies that would enhance productivity in other sectors.

Some sub-sectors within the electronics sector would survive but others would fail, he said.
EMPANGENI - SA's largest electrical substation, the R410m Athenes power station built to service the Alusaf Hillside smelter, was officially opened by Eskom chairman John Maree yesterday.

The station's capacity was 2 000MW, 30% greater than its nearest competitor in SA. The Alusaf Hillside smelter would require 800MW at any given moment and the additional capacity would be used to feed smaller projects such as Richards Bay Minerals.

The Alusaf Bayside smelter would still require capacity from the Impala substation.

"Within three years SA will be the world's cheapest supplier of electricity and this (Richards Bay-Empangeni) region has the potential to attract large-scale international investments where the greatest cost component is electricity. This could be the Silicon Valley of the electricity world," Maree said.

Commenting on Eskom's rural electrification project, Maree said the region would benefit significantly from the fact that the backbone of an electrical supply system for the region had been installed because of Alusaf's needs.

"It would be possible now to supply electricity to more homes in the region at a faster pace than previously," Maree said.
Cahora Bassa power back ‘early in 1997’

Political Staff

ESKOM and Hidroelectrica de Cahora Bassa — the Mozambican company that owns and operates Cahora Bassa — have agreed to re-establish the power supply through the high-voltage DC system to South Africa as early as possible in 1997.

Replying to a question tabled in the national assembly, Mineral and Energy Affairs Minister Pik Botha said the Mozambican company had now placed the contract for the powerline reconstruction with an Italian consortium for completion within two years, by June 7 1997.

On completion early in 1997 of the high-voltage line now under construction from Cahora Bassa to Zimbabwe, that country would buy 500 megawatts (MW) from the Mozambican supplier.

ESKOM had forfeited this power from its contractual entitlement in favour of Zesa, the Zimbabwean ESKOM, until the end of 2003.

Mozambique had a maximum allocation of 200MW from the 2 000MW Cahora Bassa scheme.

Apart from using this power for its own customers, Mozambique was negotiating with Swaziland and Malawi for the sale of its excess power.

The transmission schemes from Cahora Bassa to Malawi and between Swaziland and Mozambique had been studied but still had to be built.

ESKOM would provide financing to the tune of R130 million, of which two-thirds was guaranteed by the South African government, for the export of steel tower components to Mozambique for the reconstruction of the high-voltage DC lines.

The main contracts for reconstruction of the Cahora Bassa transmission scheme were now finally well underway and South Africa could expect the reinstatement of this important renewable and environmentally clean supply of energy in the first half of 1997.
**Cold comfort**

**FM 23/6/95**

It's an ill wind that doesn't blow somebody good — and, as in the case of electricity giant Eskom, the chillier the winter the bigger the uptake in capacity.

Eskom CE Allen Morgan says the power utility is operating at about 20% above budget, which should see revenues for the year coming in at the R3.2bn level.

Given the increased growth rate, and increased demand on the system, Eskom is being prudent on managing capacity. “We have kept our margins in terms of available capacity as low as possible, and if we go into a cold winter we can expect a fairly substantial growth on our peak.”

Morgan sees Eskom’s peak line at about 25 300 MW in a mild winter. “If we have a very cold winter we can expect our peak to rise to about 26 000 MW.”

The utility is now also working closely with the Department of Trade & Industry to launch an international initiative to attract investors. “We are looking at a broad range of industries, and again one must look at beneficiation. We do provide cheaper electricity and have various commodity-linked supply schemes available to foreign investors.” Some interest has been shown in Eskom’s foreign marketing initiatives “but we haven’t got a firm paper on it yet.”

Morgan’s message to the market is that the business is “pretty sound. We do have our problems, but we are on top of them.”

On the question of mothballed power stations, Morgan says that next year will see the commissioning of the first machine at Majuba. “We will also start bringing back the Arnot station — we will bring back about four machines at Arnot next year.”

But totally mothballed plant will only start coming back about 1997-1998.

On the issue of nonpayment for services, Morgan says arrears are still increasing. However, what is positive is that the trend on the provision is coming down. “Last year at this time we were providing for R25m on a monthly basis. This is now down to R15m a month in provisions for bad debt. I don’t see a drastic improvement until after the November elections.”

“But what we have succeeded in doing is stemming the tide and bringing the trend down. Masakhane has played a big role and, of course, cutting off poor payers is also a benefit to us at this stage.”

Morgan admits that perhaps the cut-off policy should have been implemented earlier, but says the programme is certainly reaping benefits for Eskom.

“At one stage we were averaging 20 000 disconnections a month. But once they pay up we bring them back on line. If people want to come back on, we restructure the outstanding debt for them. We are reaching far better agreements now with civic associations — one of the main ones being the Soweto Civic Association. We have a good arrangement with them, we have good support from them. They are encouraging residents to pay for services.”

He adds that all new connections — to date, about 800 000 — are now installed on the basis of prepaid systems.

The electrification programme is “going well” and “under the circumstances” Eskom has connected more than 100 000 houses so far this year. Though its target for the year lies at about 300 000 homes, there are some areas which are still violent and Morgan admits “we have not been able to keep progress as we wished it.”

The utility still hopes to connect a further 50 000 homes to meet projections by mid-year. And it is still confident that, in the six months left, it will be able to manage its targets before year-end.

Referring to Eskom’s affirmative action programme, Morgan says that a number of senior managers had taken early retirement — to date, about 50 — and they will be replaced by black managers.

“Our policy is to keep the skills in the organisation while we are progressing with affirmative action.”
Koeberg generators
pass 100 billion mark

KOEBERG nuclear power station on Sunday night notched up 100 billion kilowatt hours of electricity generated since start-up in 1984.

The power generated was the equivalent of South Africa’s total demand for 6,2 months, or demand in the western and southern Cape for 6,9 years, Koeberg said in a statement yesterday.

The operating time required to produce 100 billion kilowatt hours was 7,4 years for the station’s Unit 1 and 6,8 years for its Unit 2. Koeberg’s longest period of continuous generation was 357 days last year.

Since start-up the station had “consumed” 21 tons of uranium. — Sapa
A modest beginning

THE African Development Community electricity pool should "be in a position to make a modest beginning later this year", Minerals and Energy Affairs Minister Pik Botha said in Cape Town yesterday. The pool should save the region $800m a year in the short term, he said.
Pik: Extra energy on the cards.

ENERGY is a much-needed resource for rapid socio-economic development in the Southern African region, Mineral and Energy Affairs Minister Mr Pik Botha said yesterday.

He told a meeting of energy ministers of the Southern African Development Community in the city that two documents aimed at unleashing sufficient energy in Southern Africa could be approved during the meeting.

The first document, the Southern African Power Pool, would decrease the need for investing in expensive power stations while benefitting the region with about $600 million (about R2 160m) a year.

The meeting, attended by 10 SADC energy ministers and 40 senior government officials, ends today.

See Page 19

Sapa, Staff Reporters
Quick thinking needed for economic growth, says Pickford

The government should be thinking about the need for economic growth, says Pickford. The government needs to be thinking about how to stimulate the economy and create jobs, he says. This is especially important given the current economic climate.

'Quick thinking needed for economic growth, says Pickford.'

Pickford, manager of the Pembroke Fish Market, said that the government needs to be thinking about how to stimulate the economy and create jobs. This is especially important given the current economic climate.

"The government needs to be thinking about how to stimulate the economy and create jobs," Pickford said. "This is especially important given the current economic climate."

Quick thinking needed for economic growth, says Pickford.
POWER PLANTS

Alien Morgan, Eskom's chief executive, who says US and European power utilities are "not prepared to pay" for the country's electricity, now seems to have changed his tune. "We are not prepared to pay," he said in an interview. "We are prepared to pay, but not at the price we are currently paying." Morgan's comments come as the utility faces increasing pressure to reduce its debt burden and improve its financial performance.

Eskom is considering foreign bids for power plants.

BY STEPHAN LEUNG

SUNDAY TIMES BUSINESS TIMES, JUN 2, 1999

Eskom is considering foreign bids for power plants.
Report clears Lunge, and RB

POWER PLANTS... At home, it's clear that economic woes are here to stay and foreign power bid are to keep to modest.

A NEW REPORT on the commissioning of the new power plants for Eskom submitted to government by the Department of Public Enterprises and State-owned Enterprise says that the new power plants will be able to generate electricity to meet the demands of the country.

The report states that the new power plants will be able to generate an additional 6,000 megawatts of electricity, which will be sufficient to meet the electricity needs of the country for the next 10 years.

The report also states that the new power plants will be built in a cost-effective manner and will be commissioned in phases to minimize the impact on the economy.

The report further states that the new power plants will be built with the highest standards of safety and environmental protection to ensure that the country's energy needs are met in a sustainable manner.

The report also highlights the importance of diversifying the country's energy mix to ensure the reliability of the power supply.

The new power plants will be built with the assistance of international partners, and the government will ensure that the necessary arrangements are made to secure the necessary funding for the project.

The report concludes that the new power plants will be a major boost to the country's economy and will help to create employment opportunities for the people of the country.
Electricity pool will save millions, says Pic.
Political agreement on regional power pool

Edward West

CAPE TOWN — The political leg of the southern African electricity power pool agreement, the first physical regional co-operation by SA outside of the SA Customs Union, was expected to be signed by Southern African Development Community (SADC) heads of state at a meeting next month, Eskom CE Allen Morgan said yesterday.

The memorandum of understanding to co-ordinate power generation had already received general approval by SADC countries at a conference last week and the August agreement would be followed with an agreement between utilities.

Morgan said SA would continue exporting power to its neighbours in the short term, but electricity was expected to flow from Cahora Bassa in 1997, while from 1998 SA would be able to import hydro-electricity from Zambia, which could prove cheaper than building new power stations.

The agreement would also allow southern African countries dependent on hydro-power from the Zambezi and Congo rivers to tap power from each other during times of drought, or to tap into coal-fired power sources further south.

The agreement would enable the better usage of power surpluses between SADC countries and the establishment of joint ventures by pool members for the establishment of new power sources, he said.

In terms of the memorandum of understanding, SADC ministers and officials would be responsible for policy matters between governments and their power utilities, while utility CE's would act as the board of the power pool.
Conference told millions of homes have no power

Bonile Ngqiyaza

ABOUT 3.7-million rural and informal dwellings were without electricity at the end of last year, Eskom housing consultant Izak van Gass said yesterday.

He was speaking at the Household Energy for Developing Communities conference in Midrand organised by the Southern African Institute of Energy.

He said of about 4 700 clinics, 42% were without electricity during the period in question.

"An alarming 270 times more children" in SA had died from air pollution-related diseases than in Europe.

It was estimated air pollution on the highveld accounted for health costs of R1 055bn a year.

"The total health care costs and loss of productivity related to respiratory diseases have been estimated at R700m in 1994 alone," he said.

About 12-million South Africans were without access to clean drinking water, and less than 2.5% of the dwellings in rural settlements had piped water.

Mineral and energy affairs development director Izak Kotze said a third of the population — 14-million — were living under the poverty line, estimated at R850 for a household of four.

In the drive to achieve equality, sustainability and the elimination of poverty, an integrated energy plan had been identified as the most appropriate way of supplying households with "an optimum least-cost mix".

Although the effective use and supply of appropriate forms of energy was "not a sufficient condition", it was still "a necessary condition for development and reducing poverty".

Kotze said SA levels of ambient air pollution, especially in Gauteng, were "several times higher than international standards in winter".
No quick fix for pollution from mining

Sensible

Fuel economy needs to supply the world's energy needs, one second by the second. Enough energy is released in nuclear fusion, but it would be a controlled event. Deuterium, a heavy isotope of hydrogen, is needed. The temperature needed to initiate the reaction is 30 million degrees celsius. Fusion is also an attractive way to produce electricity, but it is difficult to ignite and hard to control.

For 2000 years, we have been using wind, water, and sunshine for energy, but none is continuous and none is abundant. Solar energy is a renewable source, but it is intermittent and requires expensive storage systems. Wind energy is also intermittent and can be costly to store. Nuclear fusion is the most promising source of energy, but it is expensive and the technology is not yet ready.

The future of power

The future of power is in renewable energy sources, such as wind, solar, and hydro. These sources are abundant and can be used continuously. Nuclear fusion is also a promising option, but it is still in the experimental stage. The search for a sustainable energy source continues, and investors will find opportunities in this field.

There was recognition within the Government of the need for an energy policy that would reduce dependence on fossil fuels and increase energy efficiency. The government announced plans to invest in renewable energy sources and to develop new technologies for energy production. The goal is to reduce greenhouse gas emissions and to meet the growing demand for energy.

The government also announced plans to implement a carbon tax to increase the cost of fossil fuels and to encourage the use of renewable energy sources. The tax will be introduced in stages, starting with a small amount in 2020 and increasing in subsequent years. The government also plans to increase the budget for energy research and development, with a focus on renewable energy sources.

In conclusion, the future of power is in renewable energy sources, and the government is committed to reducing greenhouse gas emissions and to meeting the growing demand for energy. The government is taking steps to increase the use of renewable energy sources and to develop new technologies for energy production.

Planning for power

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is up in the air.

Running on Empty

Jennifer Zahn
Mar 24, 2006
Southern Africa has exceptional potential for the use of solar energy. On a world insolation map, this bottom tip of Africa is the largest single area in the highest category, with above 6.5 kilowatt hours per square metre a day. This adds up to just over half of the total world surface in the highest category.

"South Africa is a prime area for insulation," says Dr Issac Kotze, director: Energy for Development at the Department of Mineral and Energy Affairs (DME).

"If there's any country that can cash in on solar's potential, it is South Africa, with wind as an option at the costel." At the same time, he admits that there are no plans in place to promote, invest, research or implement large-scale solar energy plants for the generation of electricity.

The main thrust in energy policy at the moment in South Africa is to extend the electrical grid at an accelerated pace from the current 800 000 homes a year to 500 000 a year, says Kotze.

"The bottom line is that by 2012 to 2015 we hope to increase the number of people connected from the present 40% to 70% of the population. The problem is that in that time natural increase in the population will mean that the 20% left unconnected at that stage will be the same as the number unconnected today," says Kotze.

The electrical transmission grid is in place countrywide, but connections from this average at R45 000 a kilometre. In more remote rural areas of South Africa, which lie too far from the grid, it is more cost effective to use solar energy. This applies to about 20% of the population, he says.

Three solar energy programmes are being set up by the DME for areas falling outside Eskom's grid:
- Electrification of clinics, which is being handled by the Independent Development Trust (IDT). The target is 500 per annum, with an estimated 2 000 to 3 500 clinics in the country. The IDT is also involved in solar energy for water pumping.
- Electrification of schools through Eskom. This is a capital investment run through the RDP and co-ordinated by the Department of Education. With about 15 000 schools, the target is 1 000 this year, 2 000 in '96 and 3 000 in '97 and so on. "There is no intention to recover capital costs," says Rodney Bullen, non-grid electricity manager at Eskom.
- Solar energy for housing, which depending on the funding, involves about 2.5 million homes over the next 20 to 30 years. This is being done on a cost recovery basis and entails private sector involvement. "It costs about R3 000 a source point, which is financed over 30 years at a low interest rate and we charge R45 per connection with the rest of the financing in tariffs per unit," says Kotze. "It's paid off over a long time."

The demand for solar energy is there, funding for big projects via the RDP office is becoming available, but the obstacle is the lack of structures to bring suppliers and marketers together.

It's a complex process where the area that needs solar energy has to be identified, then the concept has to be explained to communities. Thereafter, they have to identify their specific needs, all of which already needs funding.

As far as schools projects are concerned, Eskom has set up a unit to liaise with communities.

The DME is holding a workshop next month with solar energy suppliers in an effort to co-ordinate activities and set up the infrastructure for the delivery process.
Solar energy is being used only on a relatively small scale in South Africa in two main applications: photovoltaic (PV) and hot water systems. These two fields are virtually separated at the manufacturing level, but at the installation and consumer service level they are combined.

Solar energy for water pumping is a third application which has potential and is increasingly being used, especially in rural areas.

The main advantage of PV is its modularity. The modules or panels can be combined to produce any amount of power from a few watts to many thousands of kilowatts. A small installation can be expanded as power requirements grow and it can supplement wind, diesel and grid power. This modularity offers power when you need it, with very little construction or lead time.

PV can go almost anywhere, without needing the major investment of electrical infrastructure. This power where and when you need it makes PV the ideal choice in many off-grid applications.

The benefits of PV systems are that they are:
- Pollution free.
- Quiet.
- Fuel free.
- Low maintenance and running costs, with batteries lasting about three to 10 years.
- With no moving parts, PV modules are very reliable. The electronics are less reliable, but this depends on what you choose. Solar modules are usually guaranteed for 10 years, but their life is indefinite.
- They do not need trained personnel to operate. Systems management such as charging batteries, is substantially less complicated and less expensive than maintaining and refuelling conventional diesel or gas generators.

The drawback of PV electricity generation is that it is expensive when compared to grid electricity.

One module, a battery and one electrical point will cost about R2 500 to R3 000. However, PV costs compare well with electricity via a generator. Because it is maintenance free, fuel free and easy to use, it slashes operating costs compared to diesel or gas generators.

In the past, farms have been typical users of generators. More often than not this is an inefficient use of the machine, because it is too lightly loaded and therefore doesn’t last as long. Usually the machine runs virtually the whole day drawing perhaps 10% of its capacity, which is not fuel efficient.

The newest advance in solar module technology consists of a stainless steel frame, double glass and the silicon wafer manufactured in a hi-tech and complex process. The silicon acts as a conductor to collect energy from the sun and generates the current stored in the batteries. Typically, each module generates about 50W of electricity.

All modules are still manufactured overseas, with one or two companies doing assembling here. Major suppliers include ASE Americas, Siemens and BP Solar Systems, which has recently teamed up with Willard Batteries.

For a typical farmhouse one would need about 16 to 30 modules. This will provide lights, TV, video, Hi-Fi, sewing machines, appliances, smaller microwave ovens, and low energy user refrigerators and freezers.

Solar electricity is not used for hot water heating, stoves or any space heating, air conditioners or heaters.

Kettles, too, are surprisingly high energy user, so PV systems can take only limited use of a kettle and the same goes for a swimming pool filter.

Domestic household use of solar energy is still very small scale. The main problem is that there is no mechanism or incentives from Building Societies to go solar, and credit terms for solar installations are unusual.

"The problem with solar is that if one converts totally to solar in a city home, it never pays for itself. You never get your money back at current electricity costs. The cost of the system is just too high," said one supplier who summed it up.
Spinoffs as high-powered US mission heads for SA

CLIVE SAWER
Political Correspondent

UNITED States Energy Secretary Hazel O'Leary arrives in South Africa on Saturday with some high-powered investors, bold plans to boost electrification — and more than 2 000kg of books for the children of Guguletu.

Mrs O'Leary will be accompanied by several US government officials and 20 representatives of energy firms.

The collection of maths and science text books, some of which will be handed out in townships other than Guguletu, was organised by aides who visited South Africa on reconnaissance for the visit.

In a briefing by satellite yesterday, Mrs O'Leary outlined the main goal of her trip — to help realise the RDP goal of the electrification of 2.5 million households by 2000.

She repeated her statement earlier this week that diplomatic tension between the US and South Africa about the storage of Iranian oil at Saldanha would not have a negative affect her visit.

It was normal for countries and companies to disagree on some issues, she said.

"We will forge ahead on the things about which we agree."

Immediate benefits of her visit will include:

- Two hundred South Africans will be selected to go to the United States for training in energy business practice, the start of a programme of university and technical college training in this field;
- Inter-government agreements on the supply of information on energy supply and demand; and
- Opening a solar energy panel factory which will create jobs and demonstrate the use of alternative energy sources.

Mrs O'Leary said interest from potential business investors was so high that people had had to be turned away.

Mrs O'Leary's visit will be on the eve of the first meeting of the South Africa-US bilateral commission agreed to last October.

The commission is to build economic ties in the fields of energy, human resources, health and science and technology.

South African ambassador to Washington Franklin Sonn was enthusiastic about the visit.

It would keep South Africa on the front burner for potential investment, he said.
US and SA set to sign deals on energy supplies

THE United States and South Africa will sign co-operation agreements about energy supplies on Friday, it was announced today.

Speaking to the Press in Cape Town after meeting Mineral and Energy Affairs Minister Pik Botha, United States Energy Secretary Hazel O'Leary said the agreements would include both government, certain non-governmental organisations and the business sector.

South Africa and the US had a long history of science and technology co-operation, and had mutual goals for necessary economic development in South Africa.

A large delegation from the US public and private sectors, looking for investment opportunities in South Africa, are with her.

Ms O'Leary said the visit was especially important for South Africa's economy and social upliftment.

Today's meeting was expected to set the tone for the US delegation's collaboration with its South African hosts during its week-long visit.

Ms O'Leary will also meet members of parliament's energy committees today.

Ms O'Leary opened a renewable energy research project yesterday which stems from co-operation between energy research and training facilities in the United States and South Africa. — Sapa.
Big changes mooted for energy policy

BY BRUCE CAMERON
POLITICAL EDITOR

The first draft of a document setting out a comprehensive new mineral policy for South Africa should be ready by the end of the month, said Marcel Golding, the chairman of the parliamentary energy and minerals committee.

Golding, whose committee is driving the reform process, would like to see legislation being started towards the end of next year.

In an interview with Business Report, Golding said fundamental changes could be expected in the draft document, transforming the industry and improving the status of deprived communities.

The process should benefit the mining industry and the country as a whole.

A working group representing the committee, the mineral and energy affairs department, the Chamber of Mines, organised labour and the Minerals and Energy Policy Centre, has produced a "chopping block" document. It is based on last year's ANC draft discussion document on minerals and energy and the department of mineral and energy affairs' draft principles, as well as other submissions.

The latest document will form the basis for public comment and further consultation, culminating in the publishing of government policy green and white papers towards the middle of next year.
America aids SA technology
ET 21/8/95
STAFF REPORTER

SUSTAINABLE appropriate technology was needed in South Africa to bring electricity to remote areas. United States Energy Secretary Ms Hazel O'Leary said at the Peninsula Technikon yesterday.

She is leading a trade delegation of more than 70 people from the Clinton administration.

Former US ambassador to Lesotho Mr Leonard Spearman said 35 Peninsula Technikon students had already been trained in alternative technology by US industries.

Ms O'Leary said her delegation wanted to ensure that the investment SA needed came to the country "to the benefit of both our nations".

SUNNY STRENGTH: US Energy Secretary Ms Hazel O'Leary and Peninsula Technikon rector Mr Brian Figaji with a solar-powered pump on the roof of the engineering building.

PICTURE: ALAN TAYLOR
US warns SA over energy regulations

BY BRUCE CAMERON

United States' secretary of energy Hazel O'Leary has told the parliamentary energy committee that if it wants South Africa to develop efficient energy supplies the government should have "a light hand with regulation".

In a meeting with the energy committee, chaired by ANC MP Marcel Golding, senior energy company executives accompanying O'Leary warned that over-regulation would lead to investors becoming wary of coming into the country.

In a joint meeting between the American delegation and the parliamentary committee, O'Leary said the United States had learned the consequences of over regulation in energy supply.

What rules there were had to be simple and easy to understand.

Potential investors expressed willingness to get involved in South Africa, but expressed concerns about the lack of a government track-record and the stability of South Africa.
Solar panels will light 10,000 homes in Alex

US Secretary of Energy Hazel O'Leary yesterday opened a factory which will produce solar panels to provide electric power to Alexandra township.

The panels will be assembled by a black-owned business, Suncorp Manufacturing, supported by the US Department of Energy, AEG and the black investment company Renaissance.

US official Robert Amman said the facility, when fully operational, would produce enough panels to bring electric lighting to about 10,000 homes.

Yesterday O'Leary, who is on a nine-day visit to South Africa, also donated books and computers to Ipolokeng Primary School in Diepsloot, Soweto.

She is leading a delegation, here at the invitation of President Mandela, of about 100 US businessmen.

"We are all striving for the same goal and that is a rise in economic levels. Through the joint venture 250 jobs have been created for South Africans and 35 jobs have been created in the US," O'Leary said.

The Ipolokeng school, which has no electricity, was supplied with solar energy panels donated by Suncorp, a newly established joint venture between US company Spire and South African businessmen. — Staff Reporter, Reuter.
Study finds electrification alone does not solve problem

Solar solution to Gauteng pollution

BY ANITA ALLEN
SCIENCE WRITER

A comprehensive CSIR study has shown that electrification on its own does not offer a solution to air pollution in Gauteng.

Now solar energy has been proposed.

The three-year CSIR study found that about 24-million South Africans are exposed to hazardous levels of air pollution as a result of burning coal and wood as household energy sources. But 45% to 48% of all households with access to electricity still use coal and wood for cooking and heating.

One way of addressing the space heating problem lies in passive solar design (PSD), says Dieter Holm, head of the Department of Architecture at the University of Pretoria in the latest issue of The African Sun, the journal of the Solar Energy Society of SA.

This little explored component of current housing schemes refers to building with nature to achieve comfortable indoor conditions by using the sun for day lighting and winter space heating, or the cool breeze for summer cooling. Energy flows naturally while buildings react passively needing a minimum of artificial energy.

Holm argues that PSD is the only way of procuring cost-effective and sustainable housing. It is also the cheapest use of solar energy because it requires no extra features that a normal decent dwelling would not have. But it demands care on the part of planners, architects and decision makers.

Of all generic housing forms, the detached house is thermally most inefficient because all six enveloping surfaces are exposed to the outside, with no mutual protection from other houses. The smaller the free standing house, the greater its surface-volume ratio and the greater its heating/cooling energy demand. It is also the most expensive model with respect to the provision of services such as water, electricity, telephone, road, storm water, sewer, waste removal, public transport, security and health services.

A new housing model must be holistic, says Holm, aiming at integration, synergy and symbiosis of functions. It must aim to integrate living, leisure and work while obviating the need for commuting. It must not support the exclusive use of the unsustainable and socially disruptive detached house.

Other models, like terrace housing, courtyard housing and cluster housing, in addition to mixed land use will have to be considered. New urban settlements will strive to be in harmony with nature, not against it.

Holm believes that this means the right to solar access will be protected, because it has survival value and that urban design should facilitate energy effective architecture design generally and PSD in particular.

Using PSD in 727 000 informal houses will save 6 400 ha of woodlands annually and reduce the emission of greenhouse gases by 4-million tons a year, Holm says. Savings for the end user with its application in only 30% of all formal housing will save R500-million a year. Health cost savings will amount to R550-million. In addition, there are energy conservation advantages and job opportunities.

With all these advantages, Holm notes that a recent study showed that more than 72% of builders stated that thermal design is not a consideration.

Users do not demand it and there is a general lack of awareness with developers and decision-makers.

In South Africa, the health impact and the number of deaths alone suffice to introduce thermal building regulations, says Holm.

"In view of the large-scale housing programme where very important decisions with long-term implications are being taken, it is important to ensure ecologically sustainable development. This requires that we seize this unique opportunity of doing things right the first time," he concludes.

Design guidelines on PSD are being prepared by the Department of Mineral and Energy Affairs. A brochure covering basic information for developers, users, decision makers and planners is available.
Study finds electrification alone does not solve problem

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Gauteng pollution does not solve problem

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Electricity distribution needs major overhaul.
Power pool in pipeline

By Bhekile Matsebula

A SOUTHERN African power pool is to be established soon so that those countries with surplus power supply can transfer such supplies to those regional countries in need.

This was revealed by the technical and administration expert on energy in the Southern African Development Community, Dr Antonio Pinto, during a Press briefing on energy at the World Trade Centre, Kempton Park.

"What the power pool will see that power utilities are working together to bridge common objectives which will increase reliability and efficiency of production of the energy systems of each member state," Pinto said.

Pinto said it was important that member states support the establishment of the power pool.

"What the power pool will do is that it will transfer power surplus in those countries with power surplus to those countries which have a short power supply," Pinto explained.

He said it was important for member states to ensure that communities, such as those in the rural areas, were supplied with electricity at the lowest cost possible.

He added that the private sector has been marked as a pivotal sector which should be involved in the energy sector.

The socio-economic and political changes that took place in the region recently had enable the energy sector to review its policy and strategic document which would allow the sector to account for and try to face the challenges imposed in the community-building programme in the SADC region.

Sowetan will tomorrow publish a special focus on SADC with its history and the main issues that confront next week's heads of state summit, the first in South Africa.
25 000th client switched on

The Piannah Nombane project, which aims to electrify 40 000 homes in Khayelitsha by the end of 1996, yesterday celebrated switching on its 25 000th customer.

The project, a joint venture between Eskom, Electricitie de France and East Midlands Electricity in the UK, started in May last year.

Khayelitsha's mayor Mr. Vuyani Ngcuka said the community was greatly appreciative. — Staff Reporter

et 25/9/95
Ensuring Higher Returns... Yamaichi's Yuji Nomoto Picture: JULANI VAN DER WESTHUIZEN

Eskom to tap R750m from samurai bonds

Eskom is expected to raise up to R750-million on the Japanese bond market in October. The utility said it was considering tapping the market for samurai bonds, without giving an indication of how much it hoped to raise.

However, sources said they expected the electricity utility to raise up to R750-million.

This is the second time South Africa has had access to Japanese capital. In May the government launched a R1,3-billion five-year samurai bond.

Japanese finance houses Yamaichi and Nomura and Johannesburg stockbroker Frankel, Polak, Vinderine, are joint leaders in raising the funds.

Yuji Nomoto, deputy managing director of Yamaichi International, Europe, who visited South Africa this week, said bonds of this nature ensured a much higher rate of return for Japanese investors, who usually earned rates of below 1%.

Japanese investors were also looking outside Japan for higher returns.

Mr Nomoto said Yamaichi's strategy had been to focus on three countries it identified as being the most important emerging markets: Poland, Turkey, and South Africa.

Some Japanese companies had started operations in South Africa. "Now it is our turn to bring Japanese money into this country," Frankel said.

Frankels and Yamaichi are also investigating an asset swap and an SA fund to be marketed to the Japanese retail sector.
SADC agrees to create power-pool

Ministers of the Southern African Development Community (SADC) meeting in Johannesburg agreed to the creation of a common energy power-pool, but referred most other issues before them for further discussion, the group's executive secretary, Kaire Mbuende, said at the weekend.

Mbuende said the accord on sharing energy would include Zaire, which is not a member of the 11-state group.

Mbuende said the ministers urged technical experts to expedite drafting of a strategy to deal with repeated drought in the region.

The SADC faced a cereal shortfall of about 34 percent of its needs this year and had appealed for food aid worth $270 million — more than half of which had already been committed, he said.

Mbuende said proposals for a trade protocol had been referred for further discussion as had those for free movement of people within the SADC. "It is important that you control movement through provisions of free movement rather than through prohibition. "It is a better control when you have terms under which people can move from one country to another. Absence of such provisions causes the problem of what is referred to as illegal migrancy," he said.
Electricity union rejects inefficiency claim

The Association of Municipal Electricity Undertakings (AMEU) has defended local authority electricity suppliers from allegations that they are predominately inefficient.

It has also criticised implied comparisons between local authority electricity suppliers and Eskom.

AMEU president Howard Whitehead said: "The problem in the electricity supply industry is more of a financial nature than physical inefficiency. Complex cross subsidies cloud the facts."

The regulator's proposed rationalisation would probably see an expansion of Eskom's role.

Whitehead said local authorities on average paid 20% more for electricity than Eskom distributors. Despite this, local authority distributors were able to provide reliable electricity at competitive prices.

"Comparisons seem to have been drawn with Eskom. If that is the case, is an organisation like Eskom that uses municipal payments to fund electrification, spends millions on marketing a product for which it has a monopoly, that incurs losses of R40m a month through ineffective cash collection and that has built a generation capacity far in excess of SA's needs, efficient?"
SADC accord means saving of R2 bn a year

CLIVE SAWYER, Political Correspondent

THE power pool agreement signed this week by Southern African Development Community countries will mean a saving of more than R2 billion a year, says Minister of Mineral and Energy Affairs Pik Botha.

Speaking yesterday at a Press briefing on a discussion document about future energy policy, he said South Africa was committed to providing the cheapest energy to all its people.

The goal of 2.5 million domestic electricity connections by the turn of the century remained attainable.

Copies of the discussion document are available from the Department of Mineral and Energy Affairs, Private Bag X39, Pretoria 0001.
‘Mothballing of Koeberg’ an energy option

Political Correspondent

MOBTHANNING Koeberg nuclear power station pending the outcome of an independent probe into its environmental and economic advantages is among options proposed in a “discussion document” on energy policy.

The document said Eskom acknowledged that generating costs at Koeberg were higher than those at comparable coal-fired power stations “in the Transvaal”.

However, Koeberg had not been operating under optimum conditions.

Eskom said that replacing the lost generating capacity, if Koeberg was closed, would be higher than its present operating costs.

These claims had not been independently investigated, the document said.

Eskom had not released to the public technical details of its plans for decommissioning the station or disposing of radioactive waste.

There was general acceptance that full public disclosure and involvement were necessary for a feasible political and economic solution to the waste disposal problem.

Among other options in the discussion document are:

- Allowing Eskom alone to decide whether Koeberg should continue.
- A public inquiry into the economic and environmental desirability of the station.
- Mothballing Koeberg pending the outcome of a probe into its advantages over other ways of providing electricity.
- Obliging Eskom to publish full details of its plans for decommissioning and waste disposal, and to hold public workshops in the Vaalputs/Springbok and Cape Town regions.
- An independent investigation into the effect of radioactive emissions on the environment, the health and safety of workers and communities surrounding Koeberg.

The document said this last option could generate people’s confidence in the government and Eskom, or public resistance with calls for the closure of Koeberg.
THE future of the Koeberg nuclear power station could become the subject of a public inquiry.

This is one option presented by the Department of Mineral and Energy Affairs, in a policy discussion document, tabled in Parliament yesterday.

The department criticised Eskom for not disclosing the cost of running the Koeberg plant, or the costs of decommissioning it.

According to the document, Eskom has acknowledged costs comparable to those of coal-fired stations, but pointed out the station had not operated optimally due to contractual obligations to the Atomic Energy Corporation and national grid.

Moreover, Eskom maintains that the cost of replacing lost generating capacity and of closure, would be higher than present operating costs ... Neither of these claims have been independently investigated," the document reads.

The department said there were various options: Permit Eskom to decide alone whether Koeberg should continue; establish a public inquiry into the economic and environmental desirability of continued operation; halt operations subject to the outcome of an independent investigation and oblige Eskom to publish full details of decommissioning and high-level waste disposal, and to organise and finance a series of public workshops at which these plans can be discussed and criticised.
Eskom defends Koeberg's cost

STAFF REPORTER
CT 31/8/95

KOEBERG nuclear power station supplied only 10% of South Africa's energy, but it would cost billions of rands to replace, Eskom's energy spokesman Mr Brian Statham said yesterday.

"If Koeberg were closed we would have to replace it," he said.

"The cost of a new power station would be far greater than the current costs of Koeberg," Mr Statham said.

He was commenting on the Department of Mineral and Energy Affairs' policy discussion document tabled in Parliament on Tuesday in which the future of Koeberg was raised.
Zinc strikers face final interdict bid

Deborah Finet 50 31/8/95

STRIKING workers at the Zinc Corporation's East Rand operation have been ordered to show cause in the Rand Supreme Court next month why the company should not be granted a final order interdicting them from stopping temporary workers from entering the plant during the strike.

In an affidavit, Zincor senior personnel officer Martin Hurworth said strikers had also stoned vehicles trying to enter.

An interim interdict was granted on Tuesday prohibiting strikers from coming within 100m of the plant and obstructing access to the plant.

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Eskom conduit for US institute

Theo Rawape 50 31/8/95

ESKOM and the US-based Electric Power Research Institute had agreed to form an African centre for essential community services — a technology transfer mechanism for moving institute technology through Eskom to sub-Saharan Africa, they said yesterday.

Institute customer systems group vice-president Clark Cellings and Eskom research manager Steve Lennon said the centre would probably use a major SA university as its host site.

The California-based institute, with 700 utility members, was founded in 1972 for the US electric industry to improve power production, delivery and use.

The centre would function as a satellite of the institute's customer systems group community environment centre in St Louis, Missouri, and would become part of the institute's centre and office network.

"The process of site selection (in SA) is already under way, with the opening scheduled for March-April 1996. Selection criteria include technical capabilities, community presence, ties to key SA industries and resource contributions," the organisations said in a joint statement.

Initially the centre would be supported by Eskom and the institute, with extra funding from SA's government, water utilities and health care industry. It was to be self-supporting and function as a nonprofit corporation.
ECONOMY & FINANCE

(against R16.7m) and R192m for de-commissioning obsolete coal-fired capacity.

The notes to the cash flow statement show that Eskom repaid more than R1bn debt to local capital and money markets last year, while net interest-bearing debt dropped from R28bn to R27.3bn.

Eskom has already completed its local refinancing programme for this year. Much of the finance for 1995 was achieved in 1994, through the issue of Electrification Participation Note 2 (EN2), which raised R1.2bn and replaced EN1, issued in 1993.

The effects of the severe local bear market in bonds was substantially offset by shrewd hedging strategies adopted in late 1993. Eskom expects to abstain from the local capital market during the remainder of October" — prefunding for 1996.

In the local money market, the expected effect of local operations will be net borrowings of a modest R300m for the remainder of 1995.

To help it with overseas borrowing, Eskom has obtained credit ratings from Moody's Investors' Services (Baa3) and from Standard & Poor's Rating Group (BB) — the same as SA's.

In the league table of world electricity prices, SA has achieved an average price of UK2.5p/kWh. Translated according to the ruling exchange rates of December 31 1993, this compares with more than 8p in Japan, 7p in Germany, 5p in the UK and 4p in the US and France.

Eskom's industrial customers pay 38% less than their North American and 50% less than their European counterparts. Eskom's long-developed skills in burning low-grade coal to generate power gives SA a major comparative advantage in electricity-intensive industries, notably the conversion of base metal ores to products such as aluminium and stainless steel.

The major financial blot on this remarkable record is continuing nonpayment by customers "in certain areas" — presumably black urban areas. However, Maree says cutting off power to individual nonpaying customers is starting to have the desired effect. But the pattern of nonpayment still needs to be addressed by all parties if RDP objectives are to be achieved.
Eskom sales reached another peak last year, rising 3.9% to 149,443 gigawatt hours (a gigawatt is 1,000 megawatts). Peak demand grew by 7% to 24,798 MW, due partly to an exceptionally cold winter.

CE Allen Morgan expects peak demand to rise by more than 6,000 MW between now and the year 2000 (see Economy).

To partly meet that demand, a multiparty agreement will restore the war-ruined direct current high-voltage transmission line to SA from the hydroelectric plant on the Cahora Bassa dam in central Mozambique.

Contracts will include equipment to convert direct current into alternating current to feed Eskom's grid. The total value of contracts will be about R300m, with Eskom financing the export of steel towers worth R130m. The utility expects to have 950 MW available by the winter of 1997.

Eskom is also negotiating an agreement to import 500 MW of peak power from Zimbabwe's Kariba hydroelectric station by January 1996.

Three coal-fired units at Majuba (each 360 MW) will be commissioned sequentially in 1996, 1997 and 1998. Coal will be supplied and railed to Majuba by end-1996 due to serious mining problems at the local dedicated mine. Eskom also intends to return Arra't's mothballed units to service, from 1996.

It will review the status of three yet-to-be commissioned units at Majuba and some mothballed stations. Ingangane and Taibos will be decommissioned soon; Wilge and Salt River closed last year.

The creation of the Southern Africa Power Pool (agreed to in principle by electrical utilities) and other energy-sharing arrangements under negotiation should enable obsolete capacity to be replaced by cheaper hydro peaking power. But a medium-term warning is the indication that Eskom will review sales programmes to take account of its diminishing surplus capacity — suggesting there will be no major price incentives for future bulk consumers.
Electricity industry to change soon

John Maree, the chairman of Eskom's electricity council, said yesterday that the South African electricity distribution industry would undergo significant changes in the short to medium term.

Speaking at the biennial convention of the Association of Municipal Electrical Undertakings held in Kempton Park, Maree said the South African electricity customer base was undergoing rapid growth and transformation through electrification programmes.

"Changes in trading relationships, technologies and market structures will undoubtedly lead to changes in the character of the South African electricity distribution industry, but the political process involving local, regional and provincial government is likely to have the most dominant impact on the industry's structure in the near term.

"We will see trends to concentration as well as to fragmentation and specialisation. These will not necessarily be mutually exclusive changes," Maree said.

Maree said the industry was currently dominated mainly by Eskom, a few metropolitan organisations and a growing number of interim structures.

Over time, Eskom and the metropolitan bodies would lose many of their customers and interim structures would disappear entirely.

They would be replaced largely by a number of statutory corporations established specifically for the purpose of managing and operating the distribution of electricity in South Africa.

Maree appealed to delegates not to fight rationalisation.
SA electricity remains the cheapest

Mungo Soggot

SA's electricity remained the cheapest in the latest survey of 16 countries by the National Utility Services (NUS).

SA held on to pole position despite having the largest price increases of countries measured during the April 1994-April 1995 survey.

NUS SA national sales manager Rob Mackenzie said yesterday that of the major local authority electricity distributors, only Johannesburg had hiked prices above the inflation rate while Eskom had kept its increase to just under 4%.

An Eskom spokesman said the national power supplier was well on track to meet its price compact to cut prices 20% in real terms between 1992 and the end of next year.

It was also on the way to meeting its pledge to cut prices 15% between 1995 and 1999.

The average increase during the period was 7.27%. The country with the lowest was Australia with a 4.32% reduction. A survey showed that Spain, Holland, France, Britain and Australia had cut their prices, while Belgium and Norway had hiked prices above the rate of inflation.

Mackenzie said the creation of the National Electricity Regulator this year should keep a lid on SA price increases as suppliers would now be more accountable. Municipal operators would now have to justify hikes.

Commenting on the regulator's recent announcement that it had been unable to grant licenses in six months due to the disorganised state of the supply industry, he said the time frame had been optimistic.

He welcomed the regulator's intention to rationalise the industry, which would probably see small local authority operators stop supplying electricity. Eskom would probably take over some of these. He expressed concern that the regulator had mooted the possibility of imposing a tax on electricity to compensate those local authorities who would be losing a major source of income.
Several billion rand to mathabula says Ekʰom

Costly to close Koebergs

The Nation

Background to the News

Aug 19/97

The Nation 6 1997
Golding combines youth and experience

By BRUCE CAMERON

Fikile Maleka, the minister of mineral and energy affairs, thought when he appointed a portfolio committee on the government of national unity that he would have a simpler time.

Nothing happened in that portfolio --- he thought.

The trouble was he judged the position from the years when his party was in power --- when the energy industry, impressively, operated in secret and mining was left to the mining industry.

But during those years, members of the ANC who are now influential in the government, were in the industries watching and learning, seeing what was wrong and what needed to be put right.

One of these people was Jabu Golding, now chairman of the parliamantary mineral and energy affairs committee.

In the days when ministers of mineral and energy affairs were leaving an easy time, he was serving an apprenticeship as the assistant general secretary of the National Union of Mineworkers, then headed by Cyril Ramaphosa, now the ANC general secretary.

Golding, who is 45, is uncommonly young and full of the energy of youth. It is, with his committee, driving a process of reform that reaches across both mining and mining.

He has a grasp of his subject that few before him could claim.

Although consistently as a young social order, he is not tied in any ideological straitjacket as he searches for creative solutions.

He said there were major problems in both areas of the portfolio but he believed there were constructive solutions --- we must just think creatively.

The policy of the department of mineral and energy affairs in the past was governed by a dictum which said: "If you do not know where you are going, anything will do."

We have tried to change that. We have a view. We want to have dialogue with different people about the manner of this view.

"We need a vision of transformation that provides the incentives, the economic environment, the ownership patterns, modernisation, greater social partnerships and greater social justice."

One of the major problems that affected not only the mining industry but all industry was that apartheid had limited entrepreneurs' spirit among blacks with incentives placed on their ability to become beneficiaries.

"Industry has been built on cheap disenchanted labour with no investment in human capital. Now people complain about productivity levels."

"You cannot get profit without investment and investment is human resources. Many countries, without our natural resource, prosper because they invested substantially in their people," said Golding.

A multi-pronged approach was required to resolve productivity. This included improved training and education together with the establishment of trust in the workplace and a rethink of compensation packages.

Golding said the new Labour Relations Act would allow the committee to make the changes possible and would entail "gain-sharing negotiating" and change of ownership patterns so that workers identified with their companies.

One way to achieve this would be to have three sources of income --- a basic wage, fairly clearly defined and beneficial profit-sharing incentives and the introduction of significant employee share option schemes.

A major part of the reform in both components of the mineral and energy affairs portfolio revolved around the preparation of two white papers, which should be ready by the end of the year.

The reform was overdue, particularly in the mining industry.

"It has taken many people a long time to realise that problems do exist," the minister said he used to negotiate with four or five years ago on the need to reform health and safety in the industry. Yet, the Labour Commission report and the Vat Reels disaster were a double dose of reality.

"The question is when it is closed down and what options are available to those left behind. We have got to make sure that when we build a mine we are able to ensure that we can fund some of the problems that come from the closure of the mines."

The country had to move down the path of industrialisation and beneficiation to create more value and jobs.

Initially with beneficiation few new jobs would be created, but as downstream industries came on line the number of jobs created would rise rapidly.

The process was, however, difficult with a number of problems including investment and competition with the countries which were beneficiating mineral from South Africa.

But Golding said tax incentives should be given to industry to invest and foreign beneficiaries should be encouraged to open plants in South Africa.

Mining should be opened up not only for foreign competitors but also to give blacks a stake in the industry.

One way to do this was to open an investment register of all mineral rights holders, their owners and values.

Golding said many major mining companies did not even know what mining rights they held or even if they were part of a core business.

In many cases the areas were considered too small to exploit.

If a register was created this could be followed by a market on which mining rights could be traded, he said.

The demand for fundamental reforms was equally great in the energy and particularly the electricity and sector, he said.

Energy policy had to be shifted from what was called energy security.

All investments had been driven by security needs resulting in the creation of uncompetitive power plants like Mapangura.

Golding said the energy reform programme was based on three principles.

The socially, equity to overcome the huge disparity of an over-abundance of electricity while people in the townships lived in darkness.

The efficient utilisation of energy including conservation with appropriate energy, incentives and environmental sustainability, including issues such as pollution.

Golding said in the energy sector there was also a need for creative thinking. Eskom was an internationally recognised leader in cheap electricity but the question remained as to whether or not there should be increased competition.

He said Eskom should remain a state asset in its existing social goals of government but "this does not mean we should exclude the private sector from coming in."

There were a whole range of opportunities that would open up for both foreign and local investors as demand outstripped supply over the next three to four years.

For example the power sector. In conjunction with a black empowerment programme, it could be used to reconstrunction of power stations or to complete developments on which construction had been interrupted and left unfinished.

This would help achieve other targets such as social goals and the transfers of technology from abroad.
AEC deficit surges on atomic plant write-off

BY ROY COKANE
PRETORIA BUSINESS EDITOR

The Atomic Energy Corporation's (AEC) net deficit rose more than 100 percent to R111,185 million for this financial year compared to a net deficit of R54,461 million in the previous year.

This was primarily due to the R125,117 million extraordinary write-off on its uranium enrichment plant at Pelindaba near Pretoria, according to the AEC's latest annual report tabled in parliament yesterday.

The plant, called the Z-plant, was closed at the end of March this year, heralding the end of an era in which South Africa was self-dependent in the nuclear energy fuel needs of its Koeberg nuclear power station.

According to the report, operating expenses continued to be managed down successfully with the aim of reducing state dependence.

Reduction

It said state dependence on operating expenses was reduced from R310,896 million to R308,273 million, representing a reduction of 9 percent in real terms.

However, it said the government grant of R308,273 million for operational activities was supplemented by R20 million due to costs incurred by the closure of the Z-plant, apart from R201.45 million to service state guaranteed loans by way of interest and redemption.

The report said corporate sales increased marginally by 10.6 percent, which was mainly due to the closure of non-profitable businesses and product lines.

Increase

In spite of the small increase in sales, the AEC said if extraordinary items were excluded, it was still able to increase the net surplus after financing costs by R51,758 million compared to the previous year.

The AEC said the removal of trade boundaries, following the political transformation process in South Africa, had enabled the organisation to enter and compete on world markets.

A portfolio of more than 200 products, processes and services, derived from the AEC's technological core competencies, were successfully introduced into profitable niche markets, it said.

The report said non-nuclear fuel businesses were characterised by a modest 7.5 percent increase in sales compared to the previous year.

This was due to a deliberate rationalisation of unprofitable product lines to establish a sound basis for the future, it said.

However, the report said export sales of non-nuclear fuel products totalled R7,633 million, representing an increase of 80 percent.
Public to shape energy policy

SUBMISSIONS have been invited on a new national energy policy which will ensure that all South Africans have equitable access to basic and reasonably priced energy services.

The Department of Mineral and Energy Affairs said the new policy should promote energy use that protected the environment while also ensuring commerce and industry had adequate energy supplies to achieve economic growth.

“We will only be able to balance these priorities if we embark on an open and participative process.”

The parliamentary committee on mineral and energy affairs would assist in this process.

Interested parties have until October 31 to make their submissions.
And now let

□ New company lifts gloom by bringi...

PROJECTS MANAGER: Ian Barge says sustainable employment has been created and hundreds of families have benefited from income generated through the project.

ZIPS
The Leading Zip Manufacturers in America

IDEAL
FASTENER CORPORATION
is opening its AFRICA OFFICE

WE HAVE EVERY POSSIBLE TYPE OF ZIP AND SLIDER TO SUIT YOUR NEEDS

POWER SOURCE: Alfred Bondt connects an electric cable to one of the poles that will provide electricity to the hundreds of shacks in the area.
let there be light
by bringing electricity to shacks of Khayelitsha

JOSEPH ARANES
Municipal Staff

LIGHT is finally illuminating some of apartheid's darkest creations as the government's reconstruction and development programme delivers power to the people.

During the past year, more than 25,000 houses in Cape Town's biggest township, Khayelitsha, have had electricity supplied switched on and work is underway to connect another 25,000 residences to the grid.

For years the township was trapped in darkness because the local authority did not have the capacity and, it seems, the inclination to provide the service to the more than 500,000 Khayelitsha residents.

But that all changed when the Electricity Supply Commission (Eskom) took over the supply rights to the area, and set up a joint venture with Electricité de France and the English company East Midlands.

A commercial company Phambili Nombane (Forward with Electricity) was formed and undertook to spend R60-68 million on the massive task of bringing electricity to the area.

Operations manager Ian Barge said that after the new company was formed, they set about speaking to all the community role-players to find out their needs.

"Some people were against the idea of providing electricity to shacks but the overwhelming view was that it would drastically improve the quality of life of the people, and would fit nicely into the RDP plans.

"When we moved into the area we soon discovered that the existing grid was never designed to provide enough power to the whole area. About 10,000 formal houses, the schools and the creches had electricity, but very little energy was left for the informal houses."

This problem was soon rectified and once local residents were employed to work alongside some Eskom staff, poles and cables quickly became a feature of the area.

Mr Barge said labour-intensive methods were used. Local workers were trained for the project and had the opportunity to continue applying their skills in similar projects.

"In this way sustainable employment has been created and hundreds of families have benefited from income generated through the project."

Khayelitsha community spokesman Dickson Kulani said the project not only concentrated on short-term employment but also tackled the grassroots issues of skills transfer and capacity-building in the community.

"The labour-intensive electrification method replaces machines with people wherever possible, allowing a large portion of the labour costs to be reinvested in the community."

"And the network being installed in Khayelitsha meets world standards for electrification and residents can look forward to a highly reliable system and high levels of customer service from Phambili Nombane," Mr Kulani said.

Site C resident James Mnini, who is patiently waiting for his shack to be connected to the grid, said the introduction of electricity would improve the quality of his life.

"My family is very excited and is looking forward to the day when we too will have electricity."

"For years we have been using candles to provide light and this is very dangerous. On numerous occasions shacks were destroyed and lives lost because of candle-related accidents. Soon this will be a thing of the past."

Victoria Thuli, who is also waiting to be connected, said she was sure her family could only benefit from getting electricity.

"My children will be able to study and do their school work at night without having to strain their eyes to read their work, and this will help them improve at school."

Mr Barge said pre-paid meters were being installed in all the dwellings enabling people to use as much electricity as they could afford.

BRIGHT FUTURE: James Mnini cannot wait for the day when he will permanently blow out his candle and switch on his lights.
Labour is given full representation

Renee Grawitzky

CAPE TOWN — The Parliamentary Committee on Public Enterprises yesterday approved amendments to the Eskom Act to provide for the restructuring of the Eskom Electricity Council to ensure representation of all stakeholders.

Public Enterprises Minister Stella Sigcau said although the current constitution of the electricity council did not provide for representation by trade unions, it permitted representation by specified organisations. These included the Afrikaanse Handelsinstituut, the SA Chamber of Business and the Steel and Engineering Industries Federation of SA (Seifsa).

The amendments would provide for three representatives from Eskom’s management board, three trade union representatives, a Chamber of Mines representative, a Seifsa representative, three representatives from organised business as well as representation from the agricultural and investment sectors. The council would also include representation from the broader community within SA, as well as those who have special knowledge with regard to electricity supply and distribution.
Eskom to hike tariffs

JOHANNESBURG. — Electricity tariffs would be raised by four percent next year, Eskom said here.

It said the rise, the same as the last annual increase, was necessary to offset normal operating costs. "The increase has been approved by the Electricity Council," said John Maree, chairman.

— Sapa.
Business, economists welcome Eshom's price hike
Atomic organisation in export drive

Business Day Reporter

THE Atomic Energy Corporation is poised to export to Australia hydrogen fluoride, which used to be part of its uranium-enrichment process.

It said the hydrogen fluoride would be bought by oil refineries and stainless-steel refineries.

The corporation's uranium enrichment plant at Pelindaba was shut down on April 1—a move which Minerals and Energy Affairs Minister Pik Botha said would save the corporation up to R210m. Now that the US ban on uranium exports to SA was over, Eskom would be able to import enriched uranium more cheaply for its Koeberg power station. Pelindaba's closure resulted in the loss of 500 jobs.

The corporation said hydrogen fluoride could be used in surface finishing of stainless steel, in petro refining and detergent production and for production of inorganic fluoride salts used in the steel and aluminium industries.

It had also exported inorganic salt to an aluminium producer in Britain, and was preparing its products for export to Norway, the US and Brazil.

It said the first exports to Australia would reach clients in November. The product would be distributed by Australian company Incotec.
December deadline for electricity shake-up plans

Mungo Soggot

GOVERNMENT wanted to see final plans for the rationalisation of the electricity supply industry by December 15, the national electricity regulator said yesterday.

Regulator consultant Kevin Morgan said a team including the regulator, local government representatives, Eskom and members of government departments — including mineral and energy affairs, public enterprises and finance — was working flat out to meet the December deadline.

The supply industry includes Eskom and local authorities.

The regulator recently said a fundamental rationalisation of the inefficient industry was needed to prevent prices from climbing and to make mass electrification work.

Most of the problems lay with local authorities which were not coping.

It said in many instances they were suffering from the legacy of inefficient apartheid town planning which duplicated many operations.

The regulator has proposed rationalising the electricity industry into a national body which could be linked to Eskom; or into a few regional bodies linked to Eskom; or into a few regional electricity distributors linking Eskom and local authority distribution operations.

Industry sources said relations between local authorities and Eskom had been tense, during the early days of plotting the industry's future. There had also been allegations that Eskom was hogging the process, and trying to take on too much.

A strong source of tension lay in the continued and widespread misconception that electricity supply was still the cash cow of local authorities' shaky finances.

Another source expressed concern that because the working group team met only once a week it would tackle only short-term issues.

"They are just looking at local government finances and electrification," the source said.

It was the ideal opportunity to make long-term decisions about the industry's future such as the involvement of foreign utilities, many of which had expressed a keen interest to set up in SA, he said.
Eskom back in world capital markets with Samurai bond

BY NEIL BESKOVEN
LONDON CORRESPONDENT

London — Eskom will be issuing a Y20 billion (R727 million) five-year Samurai bond today.

Nomura Securities and Yamaichi Securities will be the joint lead managers, according to officials at Nomura.

A roadshow, attended by a group of Eskom officials and headed by the executive director, Willem Kok, was held at a Tokyo hotel yesterday, according to the bond newsletter IFR.

This is Eskom’s first return to the international capital market since 1992 when the utility issued a five-year DM300 million issue (R770 million at the present exchange rate).

Nomura and Daiwa control a third of the international yen bond-issuing market and two thirds of the Samurai market, according to IFR.

This is the second Samurai issue following the Y30 billion (R1.8 billion) Republic of South Africa five-year bond that proved popular with Japanese investors in April.

Samurai issues are yen-denominated bonds that are raised in the Japanese markets and are mainly sold to Japanese institutions and wealthy private investors.

South African borrowers are now accepted in that market, so they can tap into the huge stock of Japanese savings.

On the international capital market, known as the Euromarkets, large numbers of Euroyen issues were floated in the past few years as investors have favoured the strong currency.

The RSA Samurai issue was well timed for the borrower, since the yen has depreciated 20 percent against the dollar and about 18 percent against the rand.

But at present exchange levels of Y100 to $1, the risks to borrowers have increased — and will further increase if the rand weakens once again.

In the past decade, the yen has appreciated more than 200 percent against the rand.

Assuming the equivalent of R1 billion had been borrowed in Japanese yen 10 years ago, the government would be repaying about R2.7 billion today.

Moreover, interest payments would have increased annually. The loan burden on South Africa’s Deutschmark and Swiss franc borrowings have also raised the country’s foreign exposure and offset repayments in the past few years.

Several Asian nations that have borrowed in yen have been hurt by the unexpected size of the currency’s appreciation. So much so that a study by Merrill Lynch said that large yen liabilities could curb growth of the nations.

Five-year yen bond yields, however, are only about 3 percent. Although there will be a premium, interest charges will be much lower than dollar and Deutschmark rates. Eskom is rated Ba3 by Moody’s.
Gas unlikely to replace coal as prime power source

FROM REUTER

The use of gas for power generation in South Africa was made unattractive by the vast reserves of cheap coal in South Africa, an Eskom official said.

But, in the longer term, there could be a place for gas power generation, Eskom senior general manager Mike Deats told the Africa Oil '95 conference last week.

"The price of coal makes it difficult to get excited about other forms of power generation," he said, but added that "as time goes on the potential for gas-fired power becomes more and more attractive to us".

Deats said it cost Eskom between R1,50 and R2,50 a gigajoule to run its numerous coal-fired stations on indigenous coal.

This compared with an estimated cost of R8 and R12 a gigajoule of energy from gas-fired stations.

Eskom's coal-fired power stations are supported by coal reserves amounting to some eight billion mineable tons.

Each station can look to a coal supply life in excess of 40 years and in some cases up to 50 or 60 years, he said.

These reserves support Eskom's sent-out capacity of some 35 000 megawatts.

The relatively low reserves of gas, the fact that most of it would be imported to South Africa from Mozambique and Namibia and its poor potential for job creation meant Eskom was unlikely to use it for electricity generation while coal reserves were still available, he said.

Gas reserves at the state-owned Mossgas could potentially support a 350 megawatt power station, Mozambique's Pande fields could support a power station with capacity of more than 800 megawatt and the Kudu fields in Namibia could produce a further 2 000 megawatt station, he said.

Deats said he had held discussions with Enron, the producer and marketer of the Pande field, and Shell, which has a controlling share of the Kudu field.

He said existing coal-fired station capacity would meet new demand, assuming growth in demand of between 3 percent and 3.6 percent a year until 2000.
If natural gas is available, markets will develop
PANDE GAS

Great expectations?

A significant natural gas deposit was discovered in north-central Mozambique in 1961. But efforts to exploit it have proved elusive. The most recent failure, over price, was a proposed deal with Sasol to absorb the gas into its expanding industrial gas pipeline.

Now the Industrial Development Corp is negotiating to bring the gas to Palabora to convert waste magnetite owned by Palamin (more than 200 Mt) into iron carbide or iron. One technical problem would be the high titanium content of the magnetite. It would also be capital-intensive — a cost of around R1.5bn has been suggested.

US oil and gas company Enron has been vigorously promoting the development of the Pande deposit. It has signed a "memorandum of understanding" with the Mozambican government. And the World Bank is keeping a close eye on prospects.

Enron claims there is enough gas to operate the magnetite process for 30 years at a rate of 50m gigajoules a year. The idea is beautiful but transport costs pose problems. The shortest route would be 500 km but Mozambique might prefer to route the pipeline through Maputo to give access to potential domestic consumers. Then the line would be more than 850 km.

Proven reserves at Pande stand at 1.7 trillion cubic feet of gas — enough to run a 600 MW generator for 25 years. Mozambique’s national hydrocarbon company, Empresa Nacional de Hidrocarbonetos (ENH), claimed recently that total reserves could reach some 8 trillion cubic feet, though this seems to be optimistic.

Price is still the main issue. A press report claims Sasol was willing to pay R12/gigajoule — not enough for ENH.

All of Pande’s gas would be of only marginal importance to SA — where coal reserves dwarf other fossil fuel resources — but could be of great value to poverty-stricken Mozambique. ■
Eskom launches master artisan programme

A MASTER artisan school, designed to provide SA artisans with extended training based on the principles of the German Master Artisan Programme, was launched at Eskom’s Training Centre at the weekend.

The school, the first of its kind in Africa, would provide a qualification which was internationally recognised, enabling holders to work as master artisans, managers and trainers.

SA programme co-ordinator Danie van Wyk said the newly opened school, run by master artisans employed by Eskom and trained in Nuremberg, was open to all South Africans.

A pilot programme with 20 students would start on October 30, and the first group of trainees would include people from several organisations in the public and private sectors.

Instruction would be given at Eskom’s training college in Midrand. The Unisa School of Business Leadership, technical institutions and various industrial sites.

Master artisan Sean Cook said Eskom had provided funds for the programme, but the European Union had been approached to fund black candidates with no income. The course would consist of seven to nine months’ full-time training, followed by two to five years’ part-time training.
20-year rural power plan

A project to electrify 2.5-million rural homes by 2015 has been announced by Mineral and Energy Affairs Minister Pik Botha in Pretoria.

Refeb, a wholly owned subsidiary of the Central Energy Fund, would co-ordinate and finance the provision of solar energy to rural communities.

"The financing will be sourced from the department, the reconstruction and development programme and outside sources through the RDP office," Botha said. "The solar units will be sold to the communities and paid for on terms still to be decided on."

Provincial and local government, the private sector and non-government bodies would be involved in the project.

Botha said the programme was essential to reduce dependence on traditional biomass fuels.

"The consequences of 12-million tons of trees disappearing in smoke every year are formidable. More than 13-million South Africans ... depend on firewood, dung and crop waste for energy."

The project was announced at a national energy seminar attended by about 90 energy sector representatives. - Sapa.
Govt plans to supply solar energy to 2.5m rural homes

THE government has launched a new initiative to electrify 2.5 million rural homes by 2015 by using solar energy.

The programme was opened by Mineral and Energy Affairs Minister Mr Pik Botha when he addressed a national energy workshop in Pretoria.

Refsa, a wholly owned subsidiary of the Central Energy Fund, the state-owned energy holding company, would co-ordinate and finance the provision of electricity-generating photovoltaic cells—solar energy—to rural communities, his ministry said.

It would be financed by his department, the RDP and outside sources through the RDP office.

The solar units would be sold to the communities concerned and paid for on terms still to be decided.

"The purchase price gradually met by the purchasers will then be applied again to finance other purchasers via a revolving credit fund. Overheads will be minimised." says the department's statement.

The programme was also necessary to reduce rural dependence on traditional biomass fuels.

"The financial and ecological consequences of 12 million tons of trees disappearing in smoke every year are formidable.

"More than 13 million South Africans—about one third of our citizens—depend on firewood, dung and crop waste, for energy," the statement noted.

Trained

Provincial and local government as well as the private sector and NGOs would be involved.

Consumers of solar energy would be trained in using the electricity provided and in carrying out simple maintenance tasks, and local entrepreneurs would be trained to perform more complex maintenance and repairs.

"The United States is showing great interest in assisting us with this programme.

"The Refsa Initiative dovetails well into Eskom’s off-grid rural school electrification programme and the Independent Development Trust’s project for rural clinics," says the department's statement.

The programme was also necessary to reduce rural dependence on traditional biomass fuels.

"The financial and ecological consequences of 12 million tons of trees disappearing in smoke every year are formidable.

"More than 13 million South Africans—about one third of our citizens—depend on firewood, dung and crop waste, for energy," the statement noted.
The image contains text that is not clearly visible due to the quality of the scan. It appears to be a page from a document discussing environmental or power-related topics. Without clearer visibility, it's challenging to provide a coherent transcription or analysis of the content.
Arrears push Eskom’s RDP programme into the dark

ESKOM has warned that arrears of R236-million are threatening to slow its township electrification programme.

Peter Adams, media relations officer at Eskom, says that by end September Eskom had switched on 203 000 homes and is on target to electrify 300 000 homes this year.

This will bring the number of township and rural homes linked to the grid to 835 000 since the drive began in 1990.

A further 300 000 homes a year will be electrified until the end of the decade under Eskom’s commitment to the reconstruction and development programme.

“It would be tragic, though, if Eskom’s RDP successes were cut short by continued non-payment,” Mr Adams says. Attempts to secure payments or cut off non-payers are being hampered by harassment and kidnappings, he says.

Since the mid-1990s Eskom has lost over R1-billion in non-payment of electricity accounts in the townships.

Mr Adams says the arrears are split evenly between individual consumers, serviced directly by Eskom and township transitional councils.

Eskom is also incurring losses on prepaid meters, mainly through illegal tampering and technical faults.

Mr Adams says that even those individuals who are paying do not necessarily do so in full. “In Soweto, for example, the 70% of customers who regularly meet their bills pay between 30% and 100% of the total account.”

He says that 19 transitional councils, many of them on the East Rand, have incurred the most debt and remain “problem areas”. This is in spite of an agreement reached between provincial government and Eskom in August to roll over R1-billion in debts incurred before February 28 into a suspense account. The agreement was intended to ensure that the new local authorities would not have to service debt accumulated by previous “unrepresentative councils”.

Debts accumulated after February will have to be settled by December, with interest.

“Eskom is engaged in an ongoing programme of negotiation and inducement so that councils pay at least their current accounts, with payment of interest to be tackled afterwards.

“At a certain point Eskom will be compelled to take legal action.

“With regard to arrears for individual households, we will have no alternative, but to use our credit-control measures and cut off electricity supply.”

“Only if negotiations fail to bring the desired result will we be forced to switch off electricity, both to local government and individuals,” he warns.

Eskom’s mounting arrears mirror a recent trend in the townships of a renewed drop in municipal service payments.

After some early successes the government’s Masakhane campaign reported recently that service payments had fallen significantly between June and August this year.

In Soweto 30% of residents paid for their services in June. Two months later it had dropped to 24%. The respective figures for East Rand townships are worse, having plunged from 68% to 18% in the case of Kameleongo.

By THABO KOBOKOANE
Mungo Soggo
(35) BD 10/11/45

**Eskom**

Continued from Page 1

BD 10/11/45

Eskom has grossly overestimated figures for rural electricity usage, which means it will take far longer to recoup its R1bn-a-year slice of the reconstruction and development programme's mass electrification drive.

The parastatal said yesterday electricity usage in many rural areas was a seventh of the figure it had estimated for the 20-year break-even business plan set up when it started the electrification drive four years ago.

The group had still to estimate likely losses from the shortfall, which in some cases was less than 20% of what it needed to break even.

Industry commentators said the under-recovery could slow the electrification programme, which was already affected by widespread non-payment.

However, Eskom insisted the rollout would not be jeopardised by the paltry demand for electricity. It would still make 300,000 new connections a year to the national electricity grid for the rest of the decade. Its drive, which makes up the bulk of the RDP office's programme, costs about R1bn a year.

"The poverty in rural areas is much worse than we thought and people use much less electricity," an Eskom spokesman said.

Many rural customers who had just been connected were using as little as 45 kilowatt-hours a month, while the average was 82kwh.

When Eskom launched the programme in 1991 it was banking on average usage in newly electrified areas reaching 370kwh a month by year seven, which would allow it to break even in 20 years. This meant that in areas where electricity use was the most paltry Eskom was underrecovering about 230,000 new connections to the national grid by the end of October and was on track for 300,000 this year.

It cost between R4 500 and R6 000 to make a connection in rural areas.

Local authorities have their own electrification programmes, which are supposed to bring the annual total to 500,000 connections.

The cash flow crunch from meagre demand comes on top of Eskom's struggle against non-payment, which has left it with arrears of about R230m.

Eskom has already admitted that non-payment could force it to slow down its electrification push.

Eskom was selling "starter electricity kits" — including a kettle, an iron and a hot plate — at cost price in many areas in a bid to stimulate demand.

Eskom had never expected profit from the electrification drive, but it had also not expected such a loss.

Eskom had made more than
Fission for answers?

Following the publication of a Green Paper on all aspects of energy policy, the Mineral & Energy Affairs Department has released a report on urgent issues in the nuclear fuel cycle industry.

This is the product of a working group in which not only Eskom and the Atomic Energy Corp but also the ANC-associated Minerals and Energy Policy Centre, as well as the department, were represented.

The document evaluates the whole front end of the fuel cycle, starting with conversion — at present, like the remainder of the cycle, performed by the corporation.

It looks at uranium enrichment, in view of an earlier corporation decision to close its uneconomic semi-commercial enrichment plant — the so-called Z-plant.

It also examines whether the corporation should continue to produce nuclear fuel assemblies for Eskom at Beva and what strategy should be pursued for storage of spent nuclear fuel from Koeberg.

Over the years of isolation, the corporation built up a nuclear industry comprising a linked series of activities:

- Conversion of uranium oxide supplied by the mines to uranium hexafluoride, the starting point for enrichment processes;
- Enrichment of the hexafluoride to the extent necessary for different processes. For nuclear fuel to be used at Koeberg, the content of the fissile material, U235, 0.7% in nature, had to be stepped up to more than 3%; and
- Fabrication of the complex nuclear fuel assemblies used at Koeberg.

These activities flowed, one way or another, from our political isolation during the apartheid years.

When we rejoined the world last year, not only had the nuclear weapons programme — which required uranium enriched to around 90% U235 — already been renounced but it was again possible to enter world markets as a potential buyer of each stage of the “front end” of the nuclear fuel cycle.

The “back end” involves the disposal of spent fuel elements and nuclear waste. This remains a sensitive issue even in the changed political circumstances.

The first recommendation in the Green Paper is the continued operation of the uranium oxide conversion plant at Pelindaba, provided that operating losses, attributable to the uneconomical, small scale of the plant, are reduced to a specified extent (R5m) within, say, two years and Eskom continues to honour its contract to buy uranium hexafluoride from the corporation.

The second proposal is that enrichment services should be bought internationally — that is, if and when the corporation's ambitious and potentially most cost-effective laser-based enrichment process is brought to fruition, with luck by 2005.

But success is not yet certain, says Minerals & Energy Policy Centre director Rod Crompton. This is the “molecular laser isotope separation.”

The third suggestion is that the Beva nuclear fuel fabrication plant should be closed after completing the reload of fuel assemblies for Eskom now under way.

All these recommendations must be read in the context of a world awash with enriched uranium and where other forms of peaceful nuclear technology such as fuel assemblies are freely obtainable on a commercial basis.

The Green Paper also recommends urgently establishing a national policy for radioactive waste management. The corporation, it says, should verify the suitability of the Vaalputs storage site for spent nuclear fuel — after initial storage for about five years at Koeberg. And it must be determined who will pay for this.

Corporation CE Waldo Stumpff says Vaalputs is licensed only for disposal of low- and intermediate-level nuclear waste, though the procedure to obtain a licence for temporary (40 years') storage of spent fuel from Koeberg has been started.

Crompton says neither Vaalputs nor Koeberg are licensed for high-level nuclear waste produced by Koeberg's reactors. Though Vaalputs could prove suitable for final disposal of spent fuel in a deep underground facility, the investigation, which could take years, must still be carried out.

The latest annual report of the corporation says independent opinions have indicated Vaalputs is one of the safest disposal sites of its type in the world.

It is also necessary to update the Nuclear Energy Act of 1993, to make better provision for the peaceful uses of nuclear energy (with particular attention to safety in the nuclear industry) and nonproliferation of nuclear weapons.

SA has, as earlier reported, placed its entire stockpile of weapons-grade uranium under exceptional safeguards closely and continuously inspected by the International Atomic Energy Agency.

The corporation has been instructed by government to act as its agent for imports of enriched uranium. Because it is not clear how the corporation should exercise this responsibility, it has not yet committed itself to any transactions. The working group had serious reservations about the present basis but considered the matter too complicated to make a resolution based on the facts that were known.

The group, therefore, recommended the establishment of a task force to investigate the status of the corporation in this context and produce recommendations.

The corporation has, meanwhile, pushed on with its programme to become a profitable supplier of peaceful nuclear and other technology. This includes:

- Continued production of radioactive isotopes for medical use (a rational method of consuming the stockpile of weapons-grade uranium held under safeguards); and
- Fluorine availability (from conversion) has enabled production of a valuable range of fluorine-based products with superior qualities, notably plastic containers resistant to petroleum-based liquids; and
- A novel plasma-based process for beneficiating zirconium oxides (from beach sand).

In the long term, success with the molecular laser isotope isolation process (potentially most cost-effective), in conjunction with the local availability of uranium, would enable SA to become a major international competitor offering enriched uranium for nuclear power.

For now, the corporation’s progress towards profitability was interrupted by high closure costs for the Z-plant — about R125m. Nevertheless, since the inception of the 2000 Plus Plan in 1990-1991, annual net funding from the State for operations has been cut by 73% in real terms.

In the 1994-1995 financial year, the corporation received about R309m for operational expenses, R20m to help with closing the Z-plant and about R201m to service State-guaranteed loans in the form of interest and redemptions — almost entirely a reduction in foreign loans from about R53m at R37m.

The technical recommendations in the report of the working group appear to be a reasonable compromise between cost-saving and preservation of a core technical capability for the 21st Century. Stumpff warns, though, that the decision to shut down the nuclear fuel capability is likely to be irreversible.
**ROAD FREIGHT**

**Balancing act**

The Road Freight Association is to press for the standardisation of axle weights in sub-Saharan Africa.

Association chairman Garth Bolton says if cross-border freight operators all accepted the "Mitchell Plan" it would simplify law enforcement and see the introduction of the same maximum weight limit per axle for trucks.

The plan, proposed by deputy-Deputy Director of the Transport Department, Malcolm Mitchell, calls for an increase in the maximum load of a dual-wheeled single back axle from the current 8.2 t to 9 t, of dual-wheeled twin axles from 16.4 t to 18 t, and of a tri-axle trim from 21 t to 24 t.

Bolton feels this may lead to law enforcement agencies treating all carriers the same, and "may end the practice of police turning a blind eye towards cross-border operators using our roads, as far as axle loads and truck combinations are concerned."

The proposed heavier axle loads would improve truckers' revenues which, says Bolton, have not kept pace with inflation. Margins are between 5% and 15%.

Cross-border truckers have other significant advantages over their SA competitors — notably cheaper fuel and lower wages. It is also believed that they use that cost advantage to undercut local transporters to get internal loads, from one point of SA to another (cartelisation).

But that's difficult to prove, says Bolton.

"On the question of whether left-hand-drive trucks should be allowed to use SA roads, Bolton admits that they are more dangerous "but we cannot ask for them to be banned."

The argument is that the driver of the truck, which is about 2 m wide, has to move his truck 2 m into the lane of oncoming traffic before he can see whether it's safe to overtake, which poses a hazard.

Bolton agrees but says: "It's a smokescreen being used to reject them."

"They are easily procurable in countries to the north, where there is no limitation on importing used vehicles from the Americas and Europe, where left-hand-drive vehicles are the norm."

"Operators in countries to the north can buy good second-hand trucks for R100 000, while we have to pay more than double for similar equipment."

But Neville Roome of Freightliner, the Mercedes-Benz division that will sell the imported US trucks in February, says allowing the use of left-hand-drive vehicles in SA is dangerous. The Freightliners sold here will be right-hand-drive vehicles.

**BRIGHT SPARK**

**Murray & Roberts-owned Trichamp** Components has been taken over by US-based Cooper Automotive in a US$10m deal.

Trichamp — licensee for Champion spark plugs and Trico wiper blades — aims to grow the 7% export segment of its $20m/year local operation by focusing on markets in Africa, says MD Chris Goodwin. The SA business will be run by Cooper Automotive's UK-based Champion Europe division.

Champion Europe MD John Sharphey says exports of locally made wiper "linkages" to US and even European car makers could also lead to expanding business, especially as the takeover provides the opportunity for injecting new technologies.

Trichamp sells 85% of the wiper blades and half of the spark plugs in SA.

Cooper sees growth with new car manufacturers like Hyundai and Volvo moving in. Goodwin adds: "We make up 25%-30% of local automotive lighting sales."

**TRADE**

**Spare the rod**

Government appears to have brushed aside the so-called "social clause" issue in its bid to conclude bilateral and multilateral trade deals with selected countries.

Despite the fact that its stance could bring it into direct conflict with trade unions on highly charged, emotive issues such as child and prison labour, the Department of Trade & Industry says it will be guided by the World Trade Organisation.

And while Nedlac is still debating labour's request that a human rights type proviso be included in trade agreements — business and government agree that this could harm trade relations at an early stage of reintegration into the world economy.

Brought into the limelight by a proposed R1bn countertrade arms deal with the Philippines, the issue has placed Cosatu in a spot. The labour movement will have to quickly rethink its insistence on the imposition of special labour and social conditions on trade and co-operation agreements. That is, if it doesn't want to be accused of harming economic growth and job-creating export prospects.

Filipino ambassador to SA Leonardo Caday says he wants to push through the R1bn countertrade deal as soon as possible. Proposals drawn up by Armscor and Denel "are already on the table in the Philippines."

The country has problems monitoring its 320 km exclusive fishing zone and is looking for patrol boats, helicopters and radar systems from SA.

"We are also in the process of negotiating a special trade deal with Trade & Industry but the major outstanding issue is the social clause, which is not acceptable to us. Our major imports from SA are steel products, though we might also consider switching some of our coal imports from Australia to SA. We would like to increase trade between our two countries," says Caday.

In 1994, SA exported goods to the value of R166m to the Philippines, whose imports from SA totalled R85m.

Tshediso Matona, deputy director of multilateral trade relations at Trade & Industry, says both the International Labour Organisation and the World Trade Organisation are looking into ways of halting unacceptable global social practices such as the use of child and prison labour.

"SA cannot unilaterally impose such social conditions on its trading partners as we have to be part of the international consensus on both labour and trade issues."

Matona says the best way to overcome differences over social and labour practices followed by SA's trading partners is through patient negotiation and by setting a good example, rather than by imposing conditions seen as interference in another country's domestic, political and social policies.

Other countries which may be affected by possible social clauses imposed on special trade deals (still to be negotiated) include Malaysia and Thailand. Bilateral trade with Malaysia almost tripled — to R1.1bn — over the last three years (SA's 1994 exports totalled R343m, with imports at R743m), while trade with Thailand doubled to R1.7bn over the same period. Rash, prescriptive conditions imposed on burgeoning trade relations could therefore be a costly mistake.

But, says Matona, the "sensitive issue" of a social clause only affects trade agreement between the two countries — normal trade is proceeding apace. And, he adds, while the social clause issue is still being debated at Nedlac, government feels that its unilateral imposition on trade agreements is unacceptable.
Durban's power cuts cost R65m

Nicola Jenvey

DURBAN — Three of Durban’s biggest industrial operations have jointly lost up to R65m in the past year to disrupted power supplies.

Engen, Mondi Paper and Sopref said at the weekend that a combination of human error, poor weather and cane fires kept interrupting power supplies, despite regular pleas to Eskom and Durban Corporation over the quality of service.

Sopref said that talks to bring a “quality of supply” agreement into customers’ contracts had still to bear fruit.

Engen, which last month unveiled a R300m fall in attributable earnings to R116m for the year to August, said the 17 power cuts it had suffered during the period had cost it up to R3.5m each. Major dips cost it more than R5m.

Engen CEO Rob Angel said a cut of just a tenth of a second was sufficient to trigger a plant shutdown. The disruptions lifted wear and tear costs, cut yields of top-grade products as batches were downgraded and hit crude oil throughput.

According to Engen, 10 of its power-supply interruptions were due to Durban Corporation, and the others were blamed on Eskom.

Sopref MD Peter Fransen said it had suffered six major interruptions in the year up to July, “conservatively estimated” at R6m.

Each disturbance cost the oil refinery between R250 000 and R2m, and delayed production by about 24 hours.

Mandi Papers’ senior electrical engineer Colin van Vuuren said it had lost 26 production hours to 11 dips this year, costing around R1m, excluding any effect on quality and engineering consequences.

“This year has been more favourable (but) ... no voltage dip can be tolerated as we experience productivity problems,” he said.

Disturbances affected up to nine production units at one time.

Durban Corporation said that 22 disruption cases had been reported in the year, up to March.

Transmission director Tony Dold said “millions of rand” were being spent by both the Corporation and Eskom to find solutions.

Eskom said it cost last week that supply dips cost it the equivalent of 4% of total annual sales. It is planning to import US technology in a bid to shield its major industrial clients from the voltage dips.

Dold said that companies should also isolate the more vulnerable sections of their operations, to minimise the damage.
Eskom plan to limit supply disruptions

Nicola Jenvey

DURBAN — Eskom is to spend R50m securing isolated channels through sugar cane fields in a bid to limit power disruptions caused by cane-burning.

Eskom lands and rights director Ernest Grunewald said yesterday that the utility planned to “buy” 23.5m-wide tracts of land through cane fields which would remain cane-free.

Although the land would remain the farmer’s property, Eskom’s permission would be needed before sugar crops could be planted beneath the lines.

Out of the 15 power lines in KwaZulu-Natal of 275kV and greater, nine were under negotiation with cane growers and the remainder were scheduled for discussion in due course.

Eskom transmission maintenance manager Pat Naidoo said the current Operation Firebreak, in which farmers warned Eskom in advance when cane was being burnt, was “working very well”.

“Servitudes are under consideration, depending on the outcome of talks with the industry,” he said.

Grunewald said Mpumalanga sugar cane farmers had suggested harvesting cane without burning. This would be reviewed later should Eskom find servitudes would also be needed in that region.

Another proposal on the agenda of the quality of supply forum — which includes representatives from business, Eskom and Durban Electricity — was the establishment of a quality of supply laboratory at the University of Natal, Durban.

University electrical engineering lecturer Greg Diana estimated establishing the research centre would cost R4m, of which government had guaranteed 60% provided industry put forward the rest.

Diana said about R2bn was lost to SA industry annually through power cuts and dips. Research into improved quality could save 20%-25% of these losses.
Eskom workers get houses

By Abdul Milazi
Labour Reporter

BLACK workers at Eskom, who have for years been confined to overcrowded hostels, will for the first time be allowed to occupy family houses previously reserved for whites only.

This follows Eskom’s decision last week to change its housing policy after three years of persuasion and negotiation by trade unions.

According to an Eskom spokesman, the new policy included upgrading the hostels into single quarters and increasing the housing loan from R13 000 to R22 000. Currently hostels, including those on the mines, house between 12 and 16 workers per room.

National Union of Mineworkers (NUM) spokesperson Ms Sue Moorhead said “We have made significant gains for our members with the new Eskom Accommodation Policy. We now have to make sure that the policy works and that we get involved in local and regional housing structures to push for results.”

Workers who wish to buy Eskom houses will receive a 20 percent taxable discount based on the market value of the house while those who are renting privately will receive a rental subsidy.

Moorhead said the new policy means that family houses will now be open to all workers regardless of job grade and the only criteria would be the number of years of service and number of dependents.

She said Eskom’s decision took the unions by surprise because the issue had been negotiated for three years without an agreement being reached.

“Now the mines have to follow Eskom’s cue. Black people are still bundled into one room while their white colleagues enjoy the luxury of family houses,” she said.
Energy policy debated

Mungo Soggot

CALLS for the state to loosen its grip on the energy sector had dominated many responses to the Green Paper on energy policy, Minerals and Energy Affairs Minister Pik Botha said.

"Many of those who commented on the Green Paper put government keep out notices on their energy fences," he said. Many had detected in the paper a tendency towards state control.

Botha was opening the national energy two-day policy summit in Pretoria, attended by about 400 delegates, which will revolve around discussion groups on energy policy.

The proceedings yesterday were marred by a walkout by NUM delegates, who complained they were not able to voice their case in a workshop dominated by business.

The minerals and energy affairs department would publish feedback from the summit, which would help mould the draft white paper, due next year.

Response to the Green Paper had been "overwhelming"—50 submissions from top players such as Eskom, the SA Petroleum Industry Association, Sasol and the Chamber of Mines.

Botha said that "in broad terms" he agreed with those who had lashed out at state control of the sector.

"The free market system is a flawed system, but it has fewer flaws than any other system we have tried," he said. New small businesses would have to be protected from the "effective but often chill winds of competition".

Botha said many responses had hit out at levies on energy. Another theme was the perception government was opposed to nuclear power. In the long term, nuclear power would be one of SA's main energy sources.
Special benefits for whites to go — Eskom

Renee Grawitzky 20 21/11/95

THE all-white Mineworkers Union is to hold a strike ballot over Eskom's new housing policy, which includes the removal of "special benefits" for its white employees.

White workers at Eskom's power stations have been entitled to preferential benefits, including low rentals and subsidies on water and electricity. In terms of the new policy, these are to be phased out over seven years.

Eskom sources said the main aim of the policy was to upgrade hostels and ensure that all employees had equal access to housing benefits, including rental and housing subsidies.

Eskom would work jointly with the unions to agree on how the hostels should be upgraded.

National Union of Mineworkers housing unit coordinator Sue Moorhead said over 7 000 workers lived in Eskom hostels. The company had agreed to upgrade hostels to allow for one person a room.

Moorhead said the mining houses now had to follow in Eskom's footsteps. This could include the conversion of hostels into family units.

Theo Rawana reports that National Hostel Residents' Association chairman Zakhele Mlambo said at a conference in Durban at the weekend that the administration of SA's 500 hostels, which housed 1.5 million people, was in a chaotic state.

Mlambo called on government to finance the training of personnel to help in the running of hostels. He said upgrading in private sector hostels was not taking place.

Hostel leadership was hamstrung by the fact that in most areas — especially Gauteng — they had no channels to lobby government, he said.
Green Paper on energy criticised over state control

PRETORIA: The government's Green Paper on energy has received "substantial" criticism regarding the proposed control the government should have over energy matters, Mineral and Energy Affairs Minister Mr Pik Botha said.

Speaking at the opening yesterday of the national energy policy summit here, Mr Botha agreed with critics that "only the forces of competition can achieve maximum efficiency and economic growth", but said the free market system held dangers for smaller consumers.

To achieve balance, smaller energy consumers should be partially protected from the "chill winds of competition", he said.

Other critics objected to the strong antipathy towards nuclear energy evident in the Green Paper, Mr Botha said.

Nuclear energy was one of the cleanest energy sources, but nuclear waste was problematic, he said.

South Africans should become used to the idea that the nuclear and renewable energy industries would be the country's major energy sources in the future.

"Experts tell me these two (sources) will become less expensive thanks to technology, whereas others will become more expensive despite technology."

International researchers were trying to find safer ways of disposing of nuclear waste.

Mr Botha said once the new energy policy was promulgated, it should not become "frozen law", but should move with the changes in society and the energy situation. The policy should allow for ongoing review.

He called the great divide between rich and poor suffered by many countries a "cruel reality" and said it had to change. At a time when developed countries could start affording clean energy, developing countries had to think of economic success. Costs would force poorer countries to use fuel with high carbon dioxide emissions. — Sapa
New housing deal on cards at Eskom

Eskom's black workers will for the first time be allowed to occupy family houses previously reserved for whites only, after being confined in the past to overcrowded hostels. Eskom decided last week to change its housing policy after three years of negotiations with trade unions.

An Eskom spokesman said the new policy included upgrading hostels into single quarters and increasing housing loans from R13 000 to R22 000. Hostels presently house between 6 and 12 workers per room.

National Union of Mineworkers spokesman Sue Moorhead said: "We have made significant gains for our members with the new Eskom accommodation policy. We now have to make sure that the policy works and that we get involved in local and regional housing structures to push for results."

Workers who wish to buy Eskom houses will receive a 20% taxable discount based on the market value of the house, while those who rent privately will receive a rental subsidy.

Moorhead said the new policy meant that family houses would now be open to all workers and the only criteria would be number of years of service and number of dependants. She said Eskom's decision took the unions by surprise because the issue had been negotiated for three years without an agreement.

"Now the mines have to follow Eskom's cue. Black people are still bundled into one room while their colleagues enjoy the luxury of family houses." -- Own Correspondent.
PANDE GAS

Paying the piper

The Industrial Development Corp and US energy giant Enron are locked in negotiations which could see gas from Mozambique’s Pande gas fields used for major industrial development at Phalaborwa in the Northern Province.

Enron, which recently signed an agreement with Empresa Nacional de Hidrocarbonetos de Mozambique, has been given six months by the Mozambican government to find a SA customer for its proposed US$700m gas field development.

The target now is Phalaborwa/Mining’s 200 Mt stockpile of discarded magnetite (iron oxide) tailings. The aim is to reduce and beneficiate the magnetite to iron carbide for use in steel-making.

Houston-based Enron spokesman Carol Hensley says the US$3bn corporation will be able to deliver gas to SA by 1998 after a customer approves the completion of a 900 km pipeline from Pande. “But,” she adds, “we are not totally dependent on the iron carbide plant and are also talking to other prospective SA customers.”

Though Iscor is also interested in the development, it is looking at other processes such as coal-fuelled iron reduction. Magnetite contains about 60%-70% iron and carbide 85%-95%.

Phalaborwa Mining MD Frank Fenwick says indications are that Pande gas could be too expensive as a reduction fuel. “We are...

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keeping our options open and talking to others apart from the IDC.”

An Industrial Development Corp spokesman says it will be decided next week whether the corporation will co-fund a proposed R15m feasibility study, which should indicate by April whether the carbide plant could become an economically acceptable and technologically proven option.

The spokesman says the corporation has had initial discussions with Phalaborwa Mining, Anglo American, Gencor, Sasol and Iscor to find joint venture partners for the development of the stockpile.

He says coal-based technologies exist for the reduction of magnetite to iron units and that these are also being looked at. He adds that Foskor’s phosphate rock plant at Phalaborwa has a magnetite stockpile of about 35 Mt, which could be beneficiated.

“The total stockpile could allow a 30-year life for the proposed 4 Mt/year carbide plant,” he says.

Iscor mining consulting services GM Ernst Venter confirms Iscor’s interest in the proposed beneficiation of Phalaborwa’s magnetite stockpile but says the gas-fuelled reduction process is one of several options being considered by Iscor.

“A steel-making plant is also an option — once a decision is taken to develop the stockpile — but costly pelletisation would be required,” says Venter.

Adds Venter: “One should remember that priority would be accorded to adding value to the magnetite — to the benefit of the owners, co-developers and SA’s economy — not to developing the Pande gas field. But, if Pande gas could eventually become the fuel source, the two projects would fit together.”
Bridge over troubled water?

A plan for a R500m pipeline linking the Mossel Bay gas fields with the proposed R6,8bn Saldanha Steel plant could help to secure the future of both.

Not only would the steel plant save 35% on capital costs for its iron-making but the life of Mossel Bay could be extended by up to 10 years.

Integral to this strategy is the four-and-a-half-year upgrade and conversion of the 25 000 BPD Mossgas condensate refinery to an 80 000 BPD conventional liquid refinery, says Hugh Brown, a Johannesburg-based capital projects evaluator, strategist and co-author of a study on the development and future usage of gas resources on the subcontinent.

“To sensibly and economically phase the weaning of the refinery off gas and on to liquids, detailed and sophisticated planning is required. And, to attract private-sector involvement in the refinery, a beneficial set of tariff and tax regimes would be needed, for about 10 years.”

Brown says other preconditions would be to cut operating costs at Mossgas (and possibly the flow rate through the refinery) by “at least 20%, to self-fund offshore intermin developments. These include the installation of variable compression and drilling three additional wells, at a cost of R300m, to get you to 2001.”

Based on current Bredasdorp mining lease area gas reserves and an analysis of future demand for gas in the Western Cape — including Saldanha Steel — the required flow rate could then be sustained for eight to 10 years after switching.

Brown says the strategy, which would take five years to implement, involves:
- Starting the five-year conversion of the Mossgas refinery in 1996, perhaps with private-sector involvement;
- Waiting for two years, then starting the pipeline from Mossel Bay to Saldanha and the gas iron reduction plant (which will take three years to build) so that all three projects can be completed at the same time.

Government would recover some of its lost billions by extending the use of Mossgas and the liquid refinery would become a far more valuable asset. Also, Iscor would save on capex by substituting its coal-based Corex iron-making plant with a far cheaper gas reduction plant.

Iscor MD Hans Smith says his group would consider the gas option, provided the Mossel Bay, Kudu or even the Pande gas fields can make gas available at competitive tariffs within a short time frame. But, he adds, this would not seem an option within the next five years — even though it has been proven that gas-powered iron plants can effectively do the job.

Brown says that, with a large number of global steel mills moving towards completion, the thin strip steel market is heading for maximum capacity, which will bring prices down.

“The solution for Saldanha Steel would be to build the gas iron reduction plant first, to supply the growing global demand for iron set off by the proliferation of new, scrap-based, steel minimills. The demand for iron should remain buoyant, even during the downturn. The steel portion of the mill can be planned for later, when the global market goes into its next upward cycle.”

Smith . . . Mossgas lifeline for Saldanha Steel?

This strategy includes increasing the capacity of the iron plant to 2 Mt/year (from a proposed 1,45 Mt/year).

“The best option for Iscor would be to close the book on thin strip steel at Saldanha until the timing is right, to wait for gas (which should become available, after final Mossgas refinery conversion, by about 2001) and to go the iron route first. And a gas-fired iron plant will be far less polluting than coal-based technologies,” he adds.

Another benefit is that this strategy would avoid the risk associated with bringing Corex on line in a tight time window when the nature of the technology applied on such scale is not well understood.

Gas-fired operating costs would be about 15% higher than Corex. But, with the substantial savings on capex (using gas), based on a constant dollar analysis, including finance charges, the result would still be that thin strip steel produced from the minimill would be 10% cheaper than a similar product flowing from the Corex process.

“When the Mossel Bay gas can no longer sustain the flow rate required by the Western Cape market — in about 10 years — Kudu gas could start. That would presuppose that the owners of the Kudu field, off the Namibian coast, would start developing this within the next few years.”

Another option for using the gas from the huge Kudu field would be smaller, coastal, gas-fired power stations. “This would be far cheaper than building another nuclear power station. And, with growing global demand for pollution controls and scrubbing of noxious gases from Eskom’s coal-fired Mpumalanga power stations, such additional environmental controls would also effectively make new coal stations, with transmission to the Cape, more expensive than gas-powered stations in the Cape.”

Brown says Britain and the US already operate gas-driven power stations.

An Eskom spokesman says that though the utility looked at the gas option, it decided that the short-term solution for the growing power needs of the Western Cape would be to increase — even double — the capacity on existing transmission lines from the coal stations in Mpumalanga.

“Our study over the past 18 months looked at usage of Kudu gas. We also considered Pande and the possibility of exploiting the methane gas reserves of the Waterberg coal fields. But, with coal far cheaper than gas as a power source, it seems unlikely that Eskom would now choose the environmentally cleaner gas route.”

But he says gas would become an option if demand for power surged in the area following a steel-based industrial lift-off. Or gas could be used as a direct, domestic and industrial energy source.

But this leaves Mineral & Energy Affairs Minister Pik Botha pondering what to do with the R12bn Mossgas synfuel fiasco. Options, though tenuous now, could include converting the refinery to handle liquid fuel. However remote it may seem, the synfuel white elephant could be privatised, in a partial sell-off to Far Eastern equity partners who have shown an interest, or sold off as a going concern to local or overseas investors, allowing government to recoup a meagre portion of its lost billions. But talk is cheap and despite an extensive US$100 000 feasibility study conducted for the Taiwanese, the possibility of a sell-off remains just that — a possibility.
Electricity industry in for a shock if recommendations are accepted

Cape Town – A government working group has proposed a radical shake-up of South Africa's electricity industry and the introduction of a national levy to help fund electrification, deputy constitutional development director-general Andrew Boraine said yesterday.

The recommendations would be formally presented to the Cabinet for approval in February, Boraine told a parliamentary public hearing on proposed new local government legislation.

The recommendations are contained in the interim report of an electricity working group representing all major players in the industry. The group operates under the auspices of Mmene, the intergovernmental forum comprising several local government MECs.

Boraine said the report made “radical recommendations” and urged all interest groups to respond before February to the issues raised in the document.

“Some calls for the separation of responsibilities for the distribution, generation and transmission of electricity and the rationalisation of the industry into a single national distribution company in order to achieve savings and help meet electrification targets.

“These are fairly major changes. I think it is very important for all stakeholders to become deeply involved in the debate,” Boraine said. – Sapa

(551 133) Monday 25 Nov 95
Electricity tariff restructure on cards

RECOMMENDATIONS on the restructuring of the electricity industry would be presented to local governments next week, a senior government official said.

"Between now and February we will discuss the proposals with all the major stakeholders to discuss the pros and cons," deputy director-general of provincial affairs and constitutional development Andrew Boraine told a parliamentary committee.

He said the recommendations were contained in a report just finalised by an electricity working group reporting to the inter-governmental forum of national and provincial ministers, Minmec.

The recommendations included the separation of the distribution of electricity from generation and transmission and the rationalisation of the electricity supply industry into a single national distribution company.

It also recommended a single national tariff system, "not a single national tariff, but a single national tariff system," Mr Boraine said.

The committee also wanted to see the introduction of "cost reflective tariffs to level the playing area between the Eskom-supplied areas and the local authority-supplied areas, a national electrification levy to fund electrification as well as the right of the local authorities to tax electricity in their area to raise revenue for development projects."

"These are fairly major changes ... and it would be important for all the local authorities to get involved in the debate because we have to finalise the report for Cabinet by February next year."

Mr Boraine said that unless the electricity distribution system was rationalised, it would not be able to meet the targets set down for the electrification of homes.

Many local authorities were not financially viable and the more poor consumers were connected to the electricity grid, the more subsidies would be needed. — Reuters.
Municipalities would get stake in new body

Eskom may hive off power provision role

Tim Cohen

CAPE TOWN — Proposals to break up Eskom by separating its electricity generation and sales functions, and for the introduction of a standard national electricity tariff system, are to be made this week.

The major overhaul of SA's electricity operations is to be put forward by the Electricity Forum, a body consisting of parties interested in the supply and consumption of electricity.

The proposals would create a huge new electricity provider by merging Eskom's electricity provision with that of municipalities, who would be compensated by the right to a portion of the income generated by electricity tariffs.

Electricity Forum co-chairman Andrew Boraine emphasised at the weekend that the plans were not final.

Splitting off Eskom's electricity provision function would allow the parastatal to concentrate on the generation and supply of bulk electricity.

He said the new electricity provider would be responsible for supplying electricity to homes and businesses, new installations and for the collection of tariffs.

In the process, municipalities would lose their rights to provide electricity, a major blow to some councils which derive a large proportion of their income from electricity tariffs.

The forum would suggest that the provision of electricity be taxable, and that this income should accrue directly to the municipalities.

Boraine said major issues had still to be negotiated with the many role-players involved.

The plans were an attempt to solve a range of problems in the provision of electricity in SA, including Eskom's intervention as an electricity provider where municipal government had collapsed or where residents had called on it to do so, and the systems put in place by former homelands.

A confused system of electricity provision had developed, with a huge number of electricity rates applying in different parts of SA.

Some municipalities had to provide electricity without being sufficiently compensated because of payment boycotts, while for others electricity was a major income generator.

Boraine said the proposals would be presented to organised local government on Thursday. They would then be discussed in a wide range of forums, including provincial governments and labour and business organisations.

Many of these organisations are represented on the forum, which Boraine co-chairs with National Electricity Regulator chairman Ian McCrae.

The forum aims to produce a final report by February.
Eskom director Vusi Ngubeni has his eye on the top job

Vusi Ngubeni, 41, has one overriding ambition — to become chief executive of Eskom.

He believes that by the age of 50 he will be in line for the position — one of South Africa’s leading corporate jobs.

Now Eskom’s executive director (services), he handles the group’s non-core activities. He is responsible for a budget of R300 million and controls assets valued at R1,5 billion, so he is certainly no stranger to responsibility.

In the next few years he intends to learn a lot more about Eskom’s core electricity generation and distribution business.

Ngubeni’s portfolio encompasses Eskom’s properties, its information technology activities, its commercial resource management (tendering and purchasing), and its business services (conference facilities, landscaping and horticulture, air and land transportation, industrial catering, protective services and visual media services).

This places him in a seat growing hotter by the day as the debate over the restructuring of state assets focuses increasingly on the parastatals’ non-core businesses.

Does he relish the notion of Eskom being privatised?

“It’s a dilemma fraught with conflict. Eskom’s customers want cheap electricity, which means we have to operate as cost-effectively as we can. Privatising our non-core activities is perhaps one of the ways of reducing costs and increasing productivity.

“On the other hand, we face concerns from unions, because privatisation means government losing control and cost containment implies a reduction in the number of employees.”

“We’ve been accused of adding to the unemployment situation. I suppose we have, but at the same time, because we’ve upgraded our people, those who use our product have received cheap electricity cost effectively.

“This is the key. If the price is too high the customer will find alternative forms of energy.

Eskom, Ngubeni points out, is already commercialised. In the process, it has carved for more revenue and better productivity.

It continues to do so by asking whether it should, for example, be in industrial catering. If there are specialists able to provide the service more cheaply and more efficiently, then Eskom should buy in that activity.

“One does not have to be able to demonstrate to the formerly disenfranchised that they receive a resultant benefit. The whole idea must be to get small business involved.

Ngubeni believes this type of approach ties in with the RDP, because to him the RDP means economic empowerment and better and appropriate skills.

“If labour owned some or part of the state’s assets, they could then employ more members. They could employ whenever they wish.

“Yet the unions have turned their backs on share ownership. Why?

“They’ve never trusted capitalism. South Africa’s evolution has been characterised by a divided society; a situation where one segment of the population owned and the other didn’t. Those who didn’t own did not (and could not) appreciate the beauty of owning and creating wealth.

“Many countries (particularly in Africa) have relied on foreign aid, only to end up with nothing.

“We need to create wealth and sustain the economy from within, so that reliance on outside assistance is minimal, or reduced to technical know-how.

“In this way wealth creation stays here and generates a spiralling job-creation process.”

Ngubeni was born in Emelo. He has been with Eskom for three years. Before that he spent six years with Bristol Myers Squibb as director of human resources. He was educated in Swaziland, Botswana and Kenya.
Eskom will complete Majuba power plant

ESKOM had announced plans to complete the R9.5bn Majuba power station in KwaZulu-Natal, Engineering News has reported in its latest issue.

SAPA reports the article said Eskom completed construction of the three initial units of the 4 149MW power station in 1993.

The decision to build the three remaining units formed part of a broader Eskom programme to boost energy capacity as demand increased.

Other parts of the strategy included de-mothballing Arnott power station, importing hydro-generated power, rehabilitating the Cahora Bassa line and the eventual de-mothballing of Camden, Grooteiley and Komati power stations.

The first unit of Majuba would be commissioned in April next year, with a further unit commissioned each year until 2001.

Mungo Soggot reports national electricity regulator Ian McRae said yesterday that revamping the fragmented electricity distribution industry into a single, national distributor and the creation of a national tariff system was the most viable cure for the industry's widespread inefficiency.

McRae said the proposal, one of several options the electricity working group was considering and which it would discuss with Eskom, local authorities and other stakeholders in the next few months, was at this stage the most "financially viable'.

The working group included central and local government officials and the regulator.

In October, other regulator officials mooted the idea of a national supplier which would control all the distribution operations currently run by Eskom and local authorities. The regulator had found the industry to be so dishevelled that it had held back on granting distribution licenses pending a full-scale revamp.

The regulator had discovered that in many instances distributors were unable to meet electrification targets, were charging excessive rates and that industry competence varied widely.

The advantage of a single distributor was that it would help rationalise the 2 000 different tariff rates across SA, officials said.

McRae said some local authorities could resist the move which would deprive them of their electricity supply operations — what they believed was a great money earner. "The perception is there that it's a money earner, but it's not. In fact, in most cases they lose money."

Industry commentators said it was likely Eskom would steer any national distributor.

Eskom CEO Allen Morgan said yesterday it would prefer to comment today after he had heard a presentation from the working group on its proposals.
Eskom lukewarm over distributor plan

Mungo Soggot

ESkom refused yesterday to give its full blessing to the proposed creation of a national electricity distributor, saying that there were other ways in which the problems of the distribution industry could be tackled.

Reacting for the first time to the proposal that all Eskom's and local authorities' distribution operations be merged into a national distributor, Eskom CEO Allan Morgan said that, for example, there could be several regional distributors which combined existing operations, but which remained sensitive to regional pressures.

"Eskom knows that something has to be done," Morgan said. However, he said the national electricity supplier would want to see the full effect of the current proposal on its transmission and revenue.

The proposal has been mooted by the electricity working group, which consists of the National Electricity Regulator and officials from the provincial governments and central government.

"Let's model it and then take a look," Morgan said.

Morgan said the "nationalisation" of the industry was fraught with problems, particularly as it would keep out competitive forces.

At the moment it was not clear whether the proposed national distributor would be owned by the state, or by a combination of Eskom and the municipalities.

He dismissed the idea that Eskom would dominate any national distributor, saying that in many instances municipalities which ran effective distribution operations had at least as much expertise as Eskom.

Regulator chairman Ian McRae said on Monday that at the moment a national distributor seemed to be the most viable financial cure for the problems besetting the industry.

He said the industry was riddled with inefficiency and a huge range of tariffs.
ESKOM will not seek large amounts from domestic capital market

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SA Introduces
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SIMON BARBER IN WASHINGTON
SUB-SAHARAN African electricity utilities would have to go through radical reform and restructuring to attract private sector funding, World Bank industry and energy department director Richard Stern said yesterday.

At a briefing before the start of the Bank’s symposium on power sector reform, he said sub-Saharan utilities, excluding SA, would have to invest $14bn to $17bn, but state spending priorities meant they would have to tap private sector resources.

Reform implied improving performance as operating efficiencies were low and losses were high. A first step could involve encouraging private sector competition, unbundling or separating various functions into independent companies.
Bank urges power sector reform

BY FIONA LENEY

Johannesburg — The power sector in Africa should be seeking private investment and extensive reform if it is to match economic growth targets over the next decade, World Bank experts said yesterday.

They were speaking at a symposium organised by the bank to examine options for improving the sector's performance on the continent.

Richard Stern, the director of the World Bank's industry and energy department, said that the $10 billion shortfall estimated in the sector's investment needs over that period could only be raised on the capital markets, but that the disappointing performance of the power industry would have to be improved if investors were to be tempted.

"The options for reform are many. Privatisation is not the only one," Stern said. "African countries should learn from other countries' experience, but they need to tailor that to their own needs."

Stern stressed that the World Bank was not advocating the rigid and wholesale application of full privatisation. Contrary to the traditional view of the World Bank, he and his colleagues were advocating reforms "embedded in an African context," he said.

While larger systems would benefit from complete unbundling and the introduction of full competition, smaller systems should be looking at the privatisation of management areas.

A recurring theme of the conference was that macro-economic reforms would have to go hand in hand with power provision reforms, in order to draw foreign investors.

Peter Cordukes of the World Bank's industry and energy department sounded an optimistic note, saying there had already been huge foreign interest in entering the power distribution sector in countries such as Britain and Australia, where privatisation programmes were far advanced. "This is one of the most profitable areas if run efficiently," he told delegates.
Electricity trade an option for sub-Saharan countries

Paul Vecchiato

There was a growing realisation that electricity trade between sub-Saharan countries was now a practical proposition for some countries to earn much-needed income, World Bank energy department director Richard Stern said yesterday.

Speaking at the World Bank symposium on reform in the power sector in sub-Saharan Africa, he said that if the Cahora Bassa project came on line in 1997 it would earn Mozambique revenue at a price acceptable to it and client countries.

But little investment could be expected to come from governmental sources which were already strained, he said. "Some of the more radical reforms will include charging tariffs that will cover the cost of power generation and there is also a general consensus on privatisation of state-run utilities."

Tore Hervej, CE of Southern African Development through Electricity, a non-governmental consultancy, said there were a number of problems related to privatisation. These included limited access to electricity and the weak performance of the majority of the utilities in the region.

Peter Cordukes, analyst with the World Bank's Industry and Energy department said few of the region's utilities were likely to move to a position where they would be able to sell off a majority of their equity until well into the next century.

Eskom chairman John Maree said Eskom supported the development of an inter-connected electricity grid joining all countries of southern Africa. "There is a regional surplus of 9 000 MW of electricity generating power, mostly in SA."
Holiday delays energy decisions

BY DEREK TOOMSEY

Johannesburg — The start of the Christmas holidays had made it difficult for any government department to make a top-level decision for at least the next six weeks, Marcel Golding, the chairman of the government’s mineral and energy affairs committee, was told yesterday.

At a meeting in Pretoria he appealed to people interested in formulating a new minerals and energy policy to submit their views in not more than 1,200 words by January 15.

But representatives of many government departments said this would be impossible as everybody of importance would be on holiday and unavailable.

Reluctantly, Golding extended the deadline for written submissions to January 30.

After some discussion the meeting decided to hold two two-day workshops early next year.

Golding told the meeting that the energy committee rather than the minerals and energy committee would deal with matters relating to the ownership of gas deposits.
Councils to keep surpluses

Municipalities countrywide need not worry any more about losing the R1.7-billion annual income they get from surpluses on their electricity undertakings.

In what amounts to a local tax on electricity, most municipalities have traditionally set their tariffs at slightly higher than they need to cover electricity costs. The surpluses are then paid into the rates account to ease the burden on ratepayers.

For the past 18 months, local government groups have been worried that the surpluses will be taken from them.

But at the Cape Metropolitan Council meeting yesterday, councillor Mr. Frank Van der Velde said a working group set up by the ministries of energy affairs, constitutional affairs and public enterprises had recommended that local government should get its R1.7bn a year from electricity.

CT 7/12/95

Municipal Reporter
Provincial energy agreement signed

Bloemfontein – An energy supply co-operation agreement was signed by the premiers of the Free State, Northern Cape and Eastern Cape in Bloemfontein yesterday and witnessed by US Energy Secretary Hazel O'Leary.

The agreement earmarks rural areas for regional co-operation in energy development.

The US-South Africa Binational Commission Sustainable Energy Committee prioritises provincial development.

Riemvasmaak, where people recently returned to ancestral land, was already using solar energy at its clinic. – Sapa.
The power sector has come under the spotlight lately, with the release of major concern over its performance and impact on the economy. The sector's role in providing reliable and affordable energy is crucial for economic growth and development. However, challenges in the sector, such as infrastructure gaps and regulatory issues, have made it a topic of concern. The government and regulatory bodies are taking steps to address these challenges, aiming to improve the sector's efficiency and sustainability. It is important for stakeholders to work together to ensure a robust and resilient power sector for the future.
Khayelitsha lights up for Christmas

ANEZ SALIE

THURSDAY
DECEMBER 14, 1995

THIS is going to be a particularly jolly festive season in 31338 Khayelitsha homes because their occupants will be able to string fairy lights on their Christmas trees for the first time — they now have electricity.

And the party started yesterday — to celebrate the completion of the first phase of the RDP project to electrify all of Khayelitsha by Phambili Nombane (forward with electricity), a joint international venture between Eskom, Electricité de France and East Midlands Electricity.

At a cost of R75 million all the homes and businesses that could be electrified have been, only unserviced dwellings or those where formal houses are not planned having been left out.

Yesterday's celebration was held at one of the scheme's successful spin-offs, the Roxy Cinema, brought to life by owner Mr Nelson Godongwana.

Many small businesses had been made possible, said Khayelitsha mayor Mr Vuyani Ngcuka.
Township celebrates switch-on.

THE first phase of Khayelitsha's electrification, involving the installation of the network, was celebrated at the township his week.

Phambili Nomabane, a joint-venture between Eskom, Electricité de France and Britain's East Midlands Electricity, started work on the first contract in February last year and have so far connected 31 338 homes.

The project, which follows guidelines laid down by the reconstruction and development programme, has resulted in numerous job opportunities for residents.

It has also given many residents the opportunity to develop small businesses. — Sape
Electricity supply revamp welcomed

Mungo Soggot

The proposed shake-up of the electricity supply industry had been welcomed by most interest groups and final proposals should be presented to government in February, national electricity regulator spokesman Johan du Plessis said at the weekend.

Du Plessis said the proposals, which involve transforming the fragmented electricity distribution industry into a single decentralised distributor, had been discussed with Eskom, local authorities and most interest groups — including trade unions, the Chamber of Mines, the SA Agricultural Union, civic associations and some major companies.

All interest groups had agreed the current set-up had to go. Some, however, had expressed caution about the proposed changes’ effect on tariffs, and the openings it made for privatisation.

But the proposed shake-up, details of which first emerged last month, faced no major opposition.
Book warns against privatisation of electricity

CAPE TOWN — As government finalises plans to revamp the electricity supply industry, two Cape Town researchers have warned against any attempts to privatise the sector.

In the new book Poverty and Power, published by UCT Press, Anton Eberhard and Clive van Horen say that, as in eastern Europe, the movement to democracy has led to pressures to open the economy and promote wider participation.

This has led to “thoughtless prescriptions for wholesale privatisation of state functions and corporations, often with disastrous consequences for social and economic equity”, the book says.

“But there is now a growing understanding that the market has not met, and will not meet, all development challenges and, in particular, will not fully provide for the basic needs of the poor.”

“A lean and efficient state is envisaged which appreciates where markets best function but which intervenes strategically, selectively and, if necessary, deeply in those areas where markets fail.”

The authors support the idea of the industry being guided by an independent electricity regulator, who has already been appointed. — Reuter.
Power pool could lower regional costs

Michael Hartnack

HARARE — Regional power prices were expected to become more competitive and "least cost" generation projects would be adopted following the formation of a 10 nation "southern African power pool", the Zimbabwe Electricity Supply Authority (Zesa) said yesterday.

Zesa predicted large-scale hydroelectric schemes, such as that at the Zambezi River's Batoka Gorge, 60km below Victoria Falls, "would become viable under the power pool arrangement".

Zesa welcomed Friday's signing of a memorandum of understanding linking SA, Angola, Botswana, Namibia, Malawi, Mozambique, Swaziland, Tanzania, Zaire and Zimbabwe.

The Lesotho Electricity Corporation and the Zambia Electricity Supply Corporation were expected to sign once their governments had signed the memorandum.

Zesa, Eskom, the Botswana Power Corporation, EDM of Mozambique and Snou of Zaire had already signed an operating agreement regulating day to day pooling of electrical power.
Book Warnings against Privatization of Security

Mediation body starts to take shape

Orthogonal Speculations to
Power pool could lower regional costs

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Maepa returns to bring light to his countrymen

A black-owned group is manufacturing solar energy equipment to be used for the rapid electrification of rural areas, reports Priscilla Singh.

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The story of Suncorp began when the company's chairman, Dr. Peter Maepa, was inspired by the potential of solar energy to improve the quality of life in South Africa. Maepa, a physicist and entrepreneur, recognized the need for alternative energy sources in the country, particularly in rural areas where access to electricity is limited.

Initially, Suncorp focused on developing and manufacturing solar panels and other related equipment. Over time, the company expanded its operations to include the full spectrum of solar energy solutions, from off-grid power systems to grid-connected inverters.

Maepa's commitment to renewable energy earned him recognition and awards, including the prestigious Monga Prize for Environmental Leadership in 2010. His efforts have not gone unnoticed, and Suncorp has become a leader in the South African solar energy sector.

Maepa's vision for his country is not limited to solar energy. He advocates for a comprehensive approach to electrification, emphasizing the importance of education and skill development in the renewable energy sector.

"We believe in empowering the community to become self-sufficient in terms of energy generation," Maepa said. "Our goal is to create an ecosystem where people can learn, innovate, and contribute to the national energy mix."

With a strong focus on sustainability and community engagement, Maepa and Suncorp are making a lasting impact in South Africa and beyond. Their contributions to renewable energy are not only transforming the landscape of the country but also setting a precedent for other nations to follow in their journey towards a more sustainable future.
Electrification connections fall short of national target

Mungo Soggo

SA's mass electrification programme is set to make about 420,000 connections to the national grid this year — 50,000 short of target.

Eskom said yesterday it was poised to attain its 300,000 share of the 450,000 target after a record 47,000 connections last month.

But the national electricity regulator said that while some local authorities' electrification projects had progressed well, widespread turmoil at local government level and uncertainty about the future of the electricity supply industry had hit many programmes. It appeared 120,000 new connections would be made, instead of the 150,000 targeted.

A regulator spokesman said some local authorities appeared to be holding back until clarity emerged on the shake-up in the industry, which was likely to result in a single, decentralised national distributor. Their electrification push had also been slowed by the lack of housing delivery.

Eskom electrification planning manager Diana Theron said although Eskom was committed to making 300,000 connections a year until 1999, its annual capital outlay on electrification would be cut 10% in real terms until then.

It would therefore grow more difficult for it to meet its reconstruction and development programme commitment, particularly since the electrification programme was increasingly focusing on rural areas which were much more expensive to electrify.

Eskom hoped to chisel the cost of a connection from R3 372 to R3 421 in real terms by 1999.

Electrification projects manager Phumlanzi Moholi said whereas most of the connections this year had been made in the second half after the infrastructure had been erected, Eskom hoped to have wrapped up half of next year's target by June.
Electrification connections fall short of national target

Mungo Soggot

SA's mass electrification programme is set to make about 420 000 connections to the national grid this year — 30 000 short of target.

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Electricity for 300,000 homes in '96

By Joshua Raboroko

ESKOM is to spend R1 billion to electrify more than 300,000 homes and to create jobs in urban and rural areas in the new year.

ESKOM electricity projects manager Mr Phumlani Moholi told a media conference in Johannesburg yesterday that 150,000 other electrification projects would be undertaken by local authorities nationally.

Most of the homes to be electrified would be in rural areas in the nine provinces, particularly in KwaZulu-Natal, Northern Province, the Eastern Cape and North West.

"The company is committed to electrifying 300,000 houses every year depending on community needs. The challenge is greater in the rural areas," he said.

The company would sub-contract small businesses and local communities in the delivery of most projects to create jobs for thousands of unemployed people.

Moholi said it was hoped that 50 percent of the work would be completed by June and 80 percent in September, provided there were no disruptions such as theft of property, robbery and violence in the areas.

He said the setback to many projects had been criminal elements who had caused delays to projects. With its high level of violence, KwaZulu was one of the areas hardest hit.

For the projects to succeed, residents would be expected to pay for the services to avoid cut-offs, Moholi said.

He disclosed that ESKOM had lost about R200 million as a result of non-payment of tariffs by residents between 1991 and 1995. However, the level of payments had increased in most areas.

About 5,000 households are having their electricity supply cut off every month and the penalty for reconnection ranges from R50 to R750.

ESKOM's national planning manager, Mr Diana Thomas, said the company was planning to undertake more projects as soon as new housing developments took place.
Reforms on line for electricity distribution

ELECTRICITY distribution, currently undertaken by Eskom and more than 260 local government bodies, is unsustainable in its present form and could be rationalised under a single distributor by as early as mid-1996.

A draft report by the Electricity Working Group, which will be presented to the government after feedback, says rationalisation has to take place to meet the RDP electrification target.

Eskom, which generates 96% of the country's electricity, distributes to about 40% of consumers by number or 60% by sales volume. The balance is distributed by local government bodies.

The working group, which includes government and local government organisations, Eskom and the National Electricity Regulator, had to recommend a distribution structure and look at the effect of rationalisation on the funding of local governments.

The draft says the generation and transmission sectors are operating efficiently. But distribution "is unable to meet the objectives of the industry".

In the proposed dispensation, electricity would be supplied by a single distributor owned either by the state or by Eskom and local governments jointly. "Whether it is a parastatal or a private company, it should remain in the public sector," says Ian McRae, co-chairman of the working group.

The group's aim is to establish an industry financially independent of the government. It must also meet the objectives of the RDP and restructure without increasing electricity prices or collapsing local governments which collectively earned a surplus of R1.7-billion in 1994 from sales of electricity and used this to fund other services.

As alternative sources of revenue do not seem to be available, the electricity supply industry would have to foot the bill for these services.

The draft says the electrification programme is not economically feasible and has to be subsidised. It costs R4 500 to bring electricity to the average small house.

The draft says the industry has to bring electricity to 80% of the population who do not have it and continue to supply lowest cost electricity to industrial, commercial and agricultural consumers.

Power surge from Eskom

MORE than 297 000 houses have been electrified this year and Eskom is on track to exceed its target of 300 000, according to Phumzani Moholi, the utility's electrification projects manager.

This means that more than 904 000 houses in urban and rural areas have been connected to the national grid since the drive to electrify 300 000 houses a year began in 1991.

At least 300 000 houses will be electrified every year until the end of the decade in terms of Eskom's commitment to the reconstruction and development programme. Eskom is set to achieve this target, despite theft of electricity, meter tampering and non-payment of accounts, which has cost it more than R1-billion since the mid-1980s.

Mr Moholi says a further 150 000 electrification projects will be undertaken next year by local authorities.

Diana Theron, electrification planning manager at Eskom, says 20% of the utility's projects will be undertaken in rural areas, where there is a backlog, and because of the slow start in the government's housing programme.

Only 10% of the 300 000 houses earmarked for next year will be electrified in urban areas.

The rural areas represent a challenge for Eskom, says Mrs Theron, because they are expensive to electrify and "we only have a budget of R1-billion annually, which continues to decline in real terms annually."

"It is getting tighter every year... and there is a lot of pressure to improve our planning in order to meet our targets," she says.
ENERGY — 1996
/
JANUARY — JULY
Brightly lit future for Tembisa

R80-m plan to end blackouts and bring electricity to homes that have never had it

By Hopewell Raibee
City Reporter

Frequent electricity blackouts and potentially fatal wires hanging loose in Tembisa should soon be a thing of the past with the area having been earmarked for a massive electrification overhaul.

The Kempton Park/Tembisa Metropolitan Substructure is scheduled to announce an R80-million plan for the overhaul next week, which will include electrification of households which have never had electricity.

At present, hundreds of homes are connected illegally and dangerously with electric wires all over the place, hanging loose from poles and across streets, creating a life-threatening hazard.

Kempton Park electricity director Jan Malan said the electrified portion of the township was heavily overloaded.

This was especially true during peak winter periods which had led to frequent and lengthy blackouts in the past.

He said a multi-phase plan to renovate and electrify the township has been designed.

The first phase – to be started in May this year – would deal with the installation of a R35-million prepaid metering system for every household.

Phase 2, also with a face value of R35-million, would be aimed at homes which had never had electricity.

This phase would focus on new suburbs such as Phomolong. The remaining R10-million had been budgeted for administration and a marketing campaign for the scheme.

Part of the massive overhaul involves the installation of a central computer centre, enabling the authorities to manage and control the use of electricity.

The system will also detect anyone tampering with the electricity supply.

Residents will no longer need to fear general cuts in electricity because of non-payment of electric bills, as the individual metering and computer systems will allow for individuals to be disconnected should they fail to pay.
Energy plans Link South Africa and Algeria
Foreign utilities keen to buy Eskom stations

Mango Seegok

ÉLECTRICITÉ de France (EDF) as well as Germany’s Rheinische-Westfälische Elektrizitätswerke (RWE) were among the foreign utilities keen to buy three power stations Eskom had earmarked for possible sale, industry sources said yesterday.

The entry of foreign players would signal a major step towards private sector involvement in the generation sector. It would also coincide with the looming shake-up of the electricity distribution sector, they said.

Eskom energy management manager Brian Statham would not disclose the identity of possible buyers, but said the parastatal had set a February 16 deadline for proposals on buying the power stations. Eskom expected the proposals to set out what potential buyers planned to do with the Ingaga, Hiveld and Taabos power stations.

Eskom decided in 1994 to investigate selling the stations as they were “no longer economical to keep in storage”.

Statham said any move would have to fit with the overhaul of the electricity supply industry and any other government restructuring plans.

EDF would not comment and RWE could not be reached for comment. Sources said British utility Midland Electricity was also expected to make a bid.

National electricity regulator spokesman Johan du Plessis said foreign buyers’ options would be to either sell the electricity to Eskom, supply to specific large customers, export it to a neighbouring country, or export the whole power station.

Like all other power station operators, they would have to apply to the regulator for a licence under the new legislation guiding the industry. The new rules would now expose Eskom’s power generation operations to regulation.

Du Plessis said that the structure of SA’s Eskom-dominated power generation sector could be revamped, following the shake-up of the distribution industry.
French eye Eskom's power

Johannesburg — Electricité de France (EdF), the state-owned French electricity utility and Europe's biggest supplier of nuclear power, said yesterday it might bid on "one or more power stations" likely to be sold by Eskom.

The statement comes hard on the heels of an announcement by Danone, one of France's largest food groups, that it is negotiating to buy a significant stake in Clover Holdings, the South African dairy group.

Reports this week said a number of power stations in the Sasolburg and Newcastle areas that had been mothballed several years ago had been earmarked for possible sale.

Alain Saniex, the head of EdF operations South Africa, said yesterday that feasibility studies were under way and no decision had been reached whether to put in a bid. The new regulatory framework concerning independent power production, which must still be finalised, could also influence EdF's decision.

Eskom has said in the past that foreign power generators might be better placed to operate mothballed plants and sell their power through the Eskom distribution network.

"A positive sign is that all players in the industry have been asked to provide input into the proposed new regulatory framework," said Saniex. "We are active participants in the discussions about the future format of both the power generation and distribution industries."

He believed the present economic upswing, along with the long-term requirements of the reconstruction and development programme, would create a sustained demand for electricity.

According to Saniex, though there was surplus generating capacity, electricity was reaching less than half the population.

"This country's projected long-term economic growth will eventually outstrip its current power-supply capacity," he said.

Saniex said South Africa's leading role in southern Africa and the part it was likely to play in economic development throughout the region, would increasingly boost the need for electricity.

Electricity was a major engine driving development, which in turn increased the demand for power.

EdF is the industrial jewel in the crown of the French state. As a monopoly supplier of power to France, it runs a huge nuclear programme and achieves cost efficiencies that directly threaten potential competitors among its European neighbours.

More than 70 percent of France's electricity is nuclear generated.

The group is also fiercely expansionist. It has entered power generation markets in Asia and Australia and supplies about 6 percent of the power in Britain.

It is equally protective of its domestic market. The failure of the European Union to negotiate a free, cross-border market for the transmission of electricity is frequently laid at EdF's door.

Its interest in finding afoothold in southern Africa also ties in neatly with French ambitions outside its traditional zones of influence on the continent.

A number of French companies have transferred their African operations centres from Francophone Africa to South Africa, which they see as a more useful springboard.
Mungo Soggot

ESKOM and government yesterday shrugged off a leaked report which proposed taxing the para-statal, imposing a levy on electricity sales and setting up a national electrification fund.

Reuter reported the draft white paper on electrification policy also proposed ditching government's pledge to make 2.5-million new connections to the national grid by 1999. It suggested only making cost-effective connections.

The mineral and energy affairs department said the report was a discussion document written by the Energy for Development Research Centre of the University of Cape Town — an organisation appointed to explore energy policy by the department. Eskom CE Allen Morgan said the issues raised in the paper had to be seen within the context of the wide-ranging shake-up of the industry currently under way.

The electricity working group, which includes the recently formed National Electricity Regulator, has proposed setting up a single decentralised distributor with regional operating arms. The new company would house all SA's electricity distribution assets, most of which belong to Eskom and the rest to about 400 local authorities — developments which, Morgan said, would obviously affect the policies outlined in the draft white paper.

The working group's proposal has been touted as the only solution to inefficiency in the fragmented sector.

Reuter said the report proposed that a national electrification fund be set up by August and be funded by a levy on bulk electricity sales, donor grants, government grants and loans. The fund would steer electrification planning and seek "to arrest the unchecked, often inappropriate and inequitable subsidisation presently occurring, primarily by Eskom". Eskom currently meets the bulk of government's annual electrification target at a cost of about R1bn.

The report's proposed levy would be shared between domestic and other clients, should provide a third of the annual investment in electrification programmes but would have a negligible effect on industrial and commercial consumers.

A clause on restructuring electrification has as a target injecting more flexibility into the commitment to provide 450,000 new connections in each of the first five years of the current dispensation.
DOMESTIC electricity consumers face a double blow later this year if a secret draft White Paper on energy circulating at Parliament is adopted by the government.

The draft proposes a strategy to achieve social equity, efficiency and competitiveness of electricity supply in a market economy, but allows for state intervention "where market failures prevail".

The draft White Paper calls for a levy on electricity bills to fund a National Electrification Fund to manage the electrification of areas neglected under apartheid.

Domestic consumers will pay half the levy, with commercial users adding the rest to take the total levy up to one-third of the cost of electrification projects.

"The levy, together with the termination of internal cross-subsidies, will have a negligible effect on industrial and commercial consumers," the draft says.

It also proposes that Eskom should lose its tax-exempt status, which would add to the electricity bills of existing consumers.

An Eskom official said: "Eskom pays no conventional company tax because we are a non-profit organisation. Obviously, if we are to pay tax, the cost of electrification would have to be offset against it."

The draft says Eskom should not have to supply electricity on uneconomical terms, but should develop alternative energy sources.

It also proposes a R4 000 ceiling on the unit cost of rural connections, which would rule out new connections to farms or remote communities.

The draft is likely to be sent to the parliamentary portfolio committee on mineral and energy affairs for scrutiny and public comment. — Reuters

* See Page 20
Proposed electrification policy suggests sales levy

BY BRENDAN BOYLE AND JOHN SPIBA

Cape Town — A draft paper on electrification policy has been slammed by Eskom.
The paper, ostensibly emanating from a group of academics, proposes the establishment of a national electrification fund, a development levy on electricity sales and full tax liability for the state-owned utility Eskom.

It proposes a strategy to achieve social equity, efficiency and competitiveness of electricity supply with state intervention “where market failures prevail”.

It also proposes a step back from the government’s pledge to provide 2.5 million new domestic connections by 1999 by applying a cost-effectiveness test.

The draft, prepared by the department of mineral and energy affairs, proposes that a national electrification fund be established by August, funded from a levy on bulk electricity sales, donor grants, government grants and loans.

The fund would be the primary electrification planning agency with the objective “to arrest the unchecked, often inappropriate and inequitable subsidisation presently occurring, primarily by Eskom”.

The draft proposed the development levy, to be shared equally between domestic and other clients, which should provide a third of the annual investment in electrification programmes.

“Combined with national domestic tariff rationalisation, (the levy) would have the effect of raising average domestic tariffs to the average level presently maintained by Eskom for its newly electrified consumers.”

Allen Morgan, Eskom’s managing director, said the paper had “no status whatsoever”.

The first Eskom had heard of it was at midday yesterday. Eskom had not been consulted.

“The proposals contained in the document are presented totally out of context,” said Morgan.

“The state is already looking at the tax status of the parastals and a working group has been established to determine broad policy. The issue cannot be viewed in isolation, as this document does.”

Morgan said it was unrealistic to talk of a national electrification fund at this stage.

The minister of finance was examining the financial structure of the country’s parastals and until a finality had been reached, any funding proposals were nothing other than pure speculation.
DOMESTIC consumers face a double blow this year if a secret draft white paper on energy circulating at parliament is adopted by the
government.

The confidential draft, of which Reuters has a copy, proposes a strategy to achieve social equity, efficiency and economic competitiveness of electricity supply in a market economy, but allows for state intervention “where market failures prevail”.

University of Cape Town researcher Grove Steyn, who wrote the draft, said it was “an early rough draft of the electricity section of the proposed energy policy paper”.

“As such, this document has no status,” said Steyn, who is a member of a team mandated to draft an energy white paper for the Department of Mineral and Energy Affairs.

Two aspects of the proposal would hit established domestic consumers and rural communities waiting to be switched on could find themselves further back in the queue.

The draft white paper calls for a levy on electricity bills to fund a National Electrification Fund (NEF) that will manage the electrification of areas neglected under apartheid.

Domestic consumers will pay half the levy, with commercial users paying the rest to take the full levy up to one third of the cost of electrification projects.

“The levy, together with the termination of internal cross-subsidies, will have a negligible effect on industrial and commercial consumers,” the document says.

“Combined with national domestic tariff rationalisation, it would have the effect of raising average domestic tariffs to the average level presently maintained by Eskom for its newly electrified consumers,” it adds.

The draft also proposes that Eskom should lose its tax-exempt status, a move that would add to the electricity bills of existing consumers.

An Eskom official said the utility “pays no conventional companies tax because we are a non-profit organisation. Obviously, if we are to pay tax, the cost of electrification would have to be offset against it.”

Proposals that could affect disadvantaged communities waiting to be switched on include one to step back from the ANC’s pre-election promise to electrify 2.5 million homes in the first five years of democracy.

The white paper suggests that Eskom should not be obliged to provide electricity on uneconomical terms, but should be encouraged to develop alternative energy sources.

“Eskom will be able to lower its target if it does not have access to appropriate areas to electrify,” the document proposes.

The document also proposes a R4,000 ceiling on the unit cost of rural connections, which would rule out new electricity supplies to farms or remote communities.

The proposed NEF would be the primary electrification planning agency with the objective “to arrest the unchecked, often inappropriate and inequitable subsidisation presently occurring, primarily by Eskom”.

The department proposes that all available subsidy funds should be channelled through the NEF, which will allocate them in a transparent and equitable manner to promote RDP objectives.

Steyn said his draft would be reworked, probably extensively, after comments from other energy experts and would then be sent to the parliament’s energy portfolio committee for scrutiny and public comment.

Parliament is expected to receive a final Energy Bill in August, for passage during the current legislative year. — Reuters.
Finalising electricity tariff a ‘massive job’

Mango Soggot

The electricity industry faced a gargantuan task in creating a uniform national tariff without depriving local authorities of the R1.7bn surplus they enjoyed from electricity sales, Eskom CS Allen Morgan said last week.

Morgan said the administration of subsidies to local authorities which stood to lose out from the changes to the industry — those which derive sizable income from electricity sales — was a crucial issue being explored as players finalised the shake up of SA’s electricity distribution sector.

The electricity working group, which includes the National Electricity Regulator, has proposed setting up a single decentralised distributor with regional operating arms.

The new company would house all SA’s electricity distribution assets, most of which belong to Eskom, and the rest to about 400 local authorities.

The proposal has been touted as the only solution to inefficiency in the fragmented sector. The creation of a single tariff structure — instead of the 2,000 existing ones — is one of the regulator’s key goals.

Morgan said it would be ideal to simply create regional distribution companies, but the industry was too immature to be run without central control. However, the regional divisions of the proposed new set up would have a high degree of autonomy.

Morgan said the cost of subsidising local authorities could not be pinned down more accurately until Eskom and other industry players had worked out the details of the new set up. “To balance them all it will cost between R1bn and R2bn a year.”

The money would be spent on local authority distributors currently selling electricity at more expensive rates than others as well as those with large electrification commitments.

He hoped for clarity on the details of the new set up by mid-year.

About half of Eskom’s 40,000 employees would work in the proposed new distribution company. The industry had undertaken not to force any retrenchments during the restructuring. He agreed with the regulator’s proposal to not grant foreign companies distribution licenses for a few years until the local industry was sorted out. But this did not rule out joint ventures with foreigners during that period.

He said the industry would be exposed to foreign competition in generation within the next 10 years, during which time the regulator was likely to award foreign companies generation licenses.

When SA needed new generation capacity — which would be in about 2023 if the current 5% electricity growth rate continued — Eskom would probably have to compete with foreign companies to build the new power stations.
Scheme to provide solar electricity

The Department of Mineral and Energy Affairs has, in conjunction with the US Energy Secretariat, devised a project through which 20,000 schools, 2,000 clinics and more than 2.5 million rural families could be provided with solar electricity. Mineral and Energy Affairs Minister Pik Botha said that if the project, still to be tabled before the Cabinet, was approved, each rural household would have enough power for basic household use. "We're talking of four bulbs, six hours of power per night, power for a sewing machine, fridge and TV at the cost of R3,000 to install," he said.

- Political Reporter.
Solar power market growing

Mungo Soggot 80 14/2/96

SA’s solar power manufacturers are confident the local market will grow substantially in the next few years, predicting a tenfold increase to R160m a year as Eskom’s solar energy initiative picks up.

However, there was some doubt about Minerals and Energy Affairs Minister Pik Botha’s “overenthusiastic” claims on Monday that a R3bn-R5bn solar power scheme was being mooted. Botha said solar power was the ideal way to bring power to the 30% of the country not viable for connection to the national grid.

They said solar power was surprisingly rare in SA and until recently had been avoided by Eskom.

Franklin Energy Products and Siemens expected the market to grow tenfold to R160m as Eskom started to award more contracts for the supply of solar systems to schools.

The state-funded installation of solar systems in rural schools is run by Eskom, and the Independent Development Trust (IDT) focuses on clinics. Both get the money from the minerals and energy affairs department via the RDP office, which last year set up a company called Renewable Energy for SA. The IDT and Eskom then put individual projects up for tender.

Renewable Energy, which is housed in the Central Energy Fund, aims to make 2.5-million solar home connections by 2015.

The main solar players in SA — including Siemens, Franklin Energy Products, BP, ABG, Helios and Solarex — have formed the SA Solar Module Suppliers’ Association, which seeks to set technical and ethical standards for the industry.

Eskom started awarding solar supply tenders in 1995 after being appointed by government to steer the schools programme.

Siemens solar manager John Adams said it had secured a R1.55bn contract to supply 45 schools in Eastern Cape. Franklin Energy Products MD Robin Gunther his firm had bagged a R1.5m Eskom tender to take solar power to 44 schools in Northern Cape and another R2.5m tender to electrify 75 schools in Eastern Cape.
Energy fund ‘should be wound down’

Mungo Soggot

THE International Energy Agency has recommended government scrap most of the functions of the Central Energy Fund (CEF), which the agency considers wasteful and obsolete.

The agency is part of the Organisation for Economic Corporation and Development.

The proposal is in the draft of a wide-ranging report on SA’s energy affairs. The minerals and energy department will refer to the report when drawing up the energy policy White Paper.

However, Mineral and Energy Affairs Minister Pik Botha is also referring to the work of government-appointed consultants.

In a report released yesterday the consultants came to different conclusions about the future of the CEF.

The international agency report finds that most of the activities of the fund, which houses all the state’s sanctions-busting oil operations, should be wound down. It focuses on its oil trading arm, the Strategic Fuel Fund (SFF), which runs the massive strategic storage tanks.

“The need for the state to own or conduct most of the activities of the CEF is questionable.”

During the oil boycott, all SA refiners bought crude oil from the SFF which successfully bought oil despite the maze of sanctions. Since then most have sourced their own crude. The SFF, however, still trades oil. The profits go to the CEF and ultimately to government, as do losses.

Continued on Page 2

Energy fund

Continued from Page 4

The agency says country-to-country oil deals are of little practical value to refiners as refiners need particular types of crude for their refining needs. It also rejects the idea that government deals get cheaper crude.

“Given the current world oil market and taking into account limited government resources, there is no case for government to be involved in state-to-state oil-buying arrangements.”

It says any government subsidy for SFF should be confined to maintaining an adequate strategic stockpile, which other observers have pointed out is not as vital for SA because of Sasol.

The draft report’s findings are at loggerheads with a management audit of SFF.

The audit report recommends government enforce mandatory purchases by SA oil refiners from the SFF. At present the percentage is 10%. It said the slice should go up to 40%, adding that “government must continue to be able to enforce mandatory purchases of SFF’s crude imports, to ensure SFF’s survival and viability.”

Botha appointed the audit after allegations that the SFF had sold a lot of the oil it claimed to have at Saldanha and Ogies. The report, by London-based consultants Inspectorate, gives the SFF a clean bill of health.

It says the CEF should be restructured away from its sanctions-busting past to become an agency which helps bring energy to rural communities.
Wind power could light up Cape Flats homes

By CHARL DE VILLIERS

SCIENTISTS plan to tap into the energy potential of Cape Town’s blustery climate in an experiment involving two wind-driven turbines linked to the national electricity grid.

The five-year project will be run under the auspices of the Council for Scientific and Industrial Research and entails testing two Scottish turbines which can respectively generate 750kW and 300kW of pollution-free electricity.

The CSIR has commissioned an environmental study by the University of Cape Town which will canvass public views on the project to be run with the city’s electricity department and the Department of Mineral and Energy Affairs.

According to UCT’s Energy for Development Research Centre, an average house on the Cape Flats draws between 2kW and 3kW of power.

Based on this figure, the 750kW wind turbine would provide power for about 300 houses. The smaller turbine could supply 100 to 150 houses.

The CSIR has identified four possible test sites.

These are near Strandfontein beach, the Athlone power station, and either the coast or high ground at Koeberg.

The 750kW wind-turbine is 35m tall and each of its three rotor blades is 22.5m long. The 300kW turbine has 11m rotor blades and is 22m high.

UCT’s Environmental Evaluation Unit says wind power is used to generate electricity in the United Kingdom, several mainland European countries, Brazil, India and the United States.

“The predominant use of fossil fuels and nuclear power to generate electricity is having a significant negative effect on our environment,” the unit says.

“Environmental disasters such as oil spills on the Cape coast and nuclear disasters such as Chernobyl in the USSR, and the widespread destruction of crops and forests by acid rain, emphasise the need for a shift towards renewable energy sources.

“Unlike nuclear and fossil fuels, wind power requires no transportation of fuel and produces no radioactive waste,” the unit says.

As a signatory to the international Framework Convention of Climate Change, the South African government was committed to reducing the total output of carbon dioxide.

Energy production in South Africa was responsible for about 75 percent of the country’s total carbon dioxide emissions and it was essential that energy policies were formulated in the spirit of the framework convention.
SA ‘could make itself the electricity valley of the world’

Adrienne Giliomee

ESKOM had structured a creative deal by linking the price of electricity to the price of aluminium on the London Metal Exchange, CE Allan Morgan said yesterday.

He told the Frankel Pollak Investment Conference SA could become the electricity valley of the world if it entered into innovative pricing deals such as linking the price of electricity to industries with price-sensitive commodities.

One of the many areas where SA had a competitive advantage was reliable and internationally competitive electricity.

But low-cost electricity was not enough to attract foreign investors. Other direct and indirect investment opportunities, including portfolio investments such as Eskom bonds, were required.

Foreign involvement could be in the form of capital projects or operation and maintenance contracts. A possible opportunity also existed for a joint venture between Eskom and a foreign utility to electrify a residential area.

Fifty-six percent of SA households were without electricity, but Eskom planned to reduce this to 35% by 1999. This would involve electrifying about 2.5-million houses at a cost of R12bn.

Eskom intended to extend the electricity grid into Africa. “The long-term vision is to have an interconnected electricity grid from the Cape to Cairo,” Morgan said.
‘Attention needed on nuclear spill’

The Argus Correspondent

JOHANNESBURG. — A nuclear spill exposed in Sunday Weekend Argus should not be cause for alarm although the problem required “urgent attention”, Minister of Energy and Mineral Affairs Pik Botha has said.

His comments spring from confidential reports by the Council for Nuclear Safety (CNS) leaked to Sunday Weekend Argus which showed that a nuclear storage site — located within the tight security perimeter of the Atomic Energy Corporation’s (AEC) Pelindaba complex — was illegally excavated last year and contaminated material, including uranium 235 and carbon 14, was released into the environment.

Mr Botha said in a statement yesterday that the situation in itself was not serious, but events of this nature should not occur. “Although the danger is not significant, there are inadequacies and shortcomings which require urgent and earnest attention.”

The excavation in May constituted a violation of AEC’s licence and resulted in the CNS officially terminating the disposal activities in any old or new trenches at the site known as Radiation Hill.

A CNS report stated it was “always concerned ... with the possible contamination of the human food chain” but said radioactive contamination in the issue at hand was localised to a few trenches, which were in a fenced-off area in the middle of the Pelindaba site.

As far as the CNS was concerned “these occurrences are indicative of a degradation of safety culture at the AEC”.

The AEC has strongly denied there is a poor safety culture in the organisation, saying its safety statistics are “comfortably below” the national average for the chemical industry. But it said top management was “also concerned about the incident and had already launched an in-depth investigation some weeks ago into the general management of all its facilities that operate under a CNS licence”.

The AEC went on to say there was no danger of contaminating the rivers and dams in the area as reported in Sunday Weekend Argus.

Mr Botha said the cabinet had appointed new boards of both the CNS and the AEC at its meeting last week. Talks would be held soon to discuss preventing a recurrence of the incident.
Eskom seeks support for multi-tiered supply plan

CAPE TOWN — State electricity utility Eskom yesterday outlined a multilevel supply strategy designed to contain the unit capital cost of rural electricity connections and limit the subsidisation of new customers by bigger clients.

Hendrik Barnard, Eskom's electricity pricing manager, told the Senate committee on mineral and energy affairs that without intervention, 10% of non-residential consumers' bills would go to sponsor small users within five years. Eskom sought government and public support for a tiered supply strategy for rural areas, starting with a free 2.5-amp connection capable of running lights, radio and television at a flat rate of R15.

The main supply level would be a 20-amp connection costing R60, rising to R300 by 2000, and capable of running common appliances as well as a stove and geyser separately at 27c a kilowatt-hour unit. The top residential system would be a 60-amp connection at R300, rising to R1,000 by 2000, capable of running appliances, stove and geyser simultaneously at 37c a unit, he said.

"Government support for this philosophy... is critical," he said.

The capital cost for a connection in rural areas was at present far in excess of the target ceiling of R2,500 — sometimes as high as R20,000. — Reuter.
Eskom faces funding shake-up as govt revamps its parastatal policy

Mungo Spence

ESKOM's funding needs — a key capital market factor — face a major shake-up amid imminent changes to the electricity supply industry and a revamp of government parastatal policy which could include taxing Eskom for the first time.

Finance director Willem Kok said on Tuesday that Eskom was gearing up to give more money to government, which was seeking to tax and reap dividends from parastatals in its drive to improve the way it used available cash in the state sector.

But the effect could be offset by the looming changes to the industry, which should see Eskom transferring its distribution operations and concentrating on generation and transmission.

The restructuring would cut its funding burden, with elements such as its distribution wing — which handles the R1bn-a-year mass electrification programme — being transferred to a new body.

The electricity working group, which includes the national electricity regulator, has proposed shifting Eskom and local authority distribution assets into a decentralised national distributor.

Kok said that Eskom's capital market funding plans for the current year remained in line with market expectations.

He said it would not be raising much money on the local market for its R5bn capital expenditure programme.

It would focus instead on the international markets.

It had already wrapped up its funding for this year, but the outlook next year was less clear.

Kok said the exact makeup of the new industry structure had still to be debated.

It was also difficult to calculate the impact of government's parastatal plans because the scale of tax write-offs and dividend payouts had not been set.

One option mooted by a finance department team was for Eskom to pay one-third of its income as an annual dividend to government. Eskom's net income was R2.2bn in 1994. Kok said Eskom's funding programme was not under pressure from the plans — it was heavily underborrowed in the local money and capital markets.

He said its current funding plan indicated an annual borrowing requirement of R2bn a year for the next three years.

'Tax and dividend payments are not expected to increase this materially and the total new requirement will definitely not be more than 1994's borrowings of R4.7bn.'

Finance Minister Chris Liebenberg has already spelt out plans to change the way government manages cash in the state sector.

Liebenberg was expected to announce exactly how much this would mean to central government in the Budget.

These changes to cash management would also affect Telkom — which has paid government a higher than expected dividend of R525m in the latest financial year — Transnet and the Central Energy Fund.

See Page 5
Eskom faces funding shake-up as govt revamps its parastatal policy

Mungo Bogget

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Eskom's net income was R2,2bn in 1994. Kok said Eskom's funding programme was not under pressure from the plans — it was heavily underborrowed in the local money and capital markets.

He said its current funding plan indicated an annual borrowing requirement of R2bn a year for the next three years.

"Tax and dividend payments are not expected to increase this materially and the total new requirement will definitely not be more than 1994's borrowings of R4,7bn."

Finance Minister Chris Liebenberg has already spelled out plans to change the way government manages cash in the state sector.

Liebenberg was expected to announce exactly how much this would mean to central government in the Budget.

These changes to cash management would also affect Telkom — which has paid government a higher than expected dividend of R525m in the latest financial year — Transnet and the Central Energy Fund.

See Page 5
The Atomic Energy Corp is poised to strike a deal with France's Cogema in an effort to breach the highly competitive R15bn/year nuclear fuel market.

Though he would not confirm a reported joint investment of R150m and the identity of the partner, corporation CEO Waldo Stumpf says the agreement should be signed by month-end. He says it's an equal partnership, with foreign help needed to industrialise and eventually market SA nuclear technology.

Cogema public relations director Veronique La France also would not comment but industry pundits say the deal will see SA uranium and enrichment technology marketed globally by the French nuclear giant.

The agreement is expected to net the Atomic Energy Corp significant forex earnings in the next three years of the industrialisation phase. Foreign earnings are expected to reach R1bn/year.

Current uranium spot prices are around US$30/kg. The nuclear fuel cycle, entailing four stages, adds value at each step. Conversion of the solid "yellow cake," a crude form of mined uranium, into uranium-hexafluoride adds about $6/kg and the enrichment process will typically push the price to $66/kg.

In the past three years, SA exported about 1700 t/year of uranium ore concentrate, earning about R200m/year. The corporation is building a Molecular Laser Isotope Separation demonstration module under safeguard by the International Atomic Energy Agency. Stumpf says the process has the potential to be cheaper and better than other processes used elsewhere in the world.

If the enrichment process proves profitable, uranium exports could be boosted by at least R350m/year, says Stumpf.
Pelindaba – Mineral and Energy Affairs Minister Pik Botha yesterday grilled executives of the country’s nuclear agency over a radioactive contamination scare but concluded that no one was in danger.

Botha invited reporters to the session at the headquarters of the Atomic Energy Corporation (AEC) at Pelindaba to investigate an incident at the plant in March last year which nuclear regulators described as “a serious degradation of safety culture”.

In the incident, revealed by The Sunday Independent last weekend, AEC workers using a mechanical excavator tried to unearth a condenser believed to contain up to 2 tons of depleted uranium.

The excavator did not find the condenser, buried in 1980 in a waste dump dubbed “Radiation Hill”, but unearthed other radioactive waste, leading to fears that the surrounding area was at risk of contamination.

Botha grew frustrated yesterday during technical presentations by AEC chief executive Waldo Stumph and senior manager Brian Hambleton-Jones on groundwater migration and other factors they said had a bearing on contamination risk.

“If you show that to the public they’ll be frightened,” Botha said.

“Am I right in saying there is no harm to human beings or animals as a result of the excavation; as far as the future is concerned, nobody in this whole area needs to fear anything?” Botha asked.

“Correct,” replied Hambleton-Jones, who added he had been approached by worried representatives of neighboring municipalities reporting that millions of rands in potential investment in the area had been placed in danger by the scare.

Jeff Leever, head of the independent Council for Nuclear Safety, said the AEC’s safety conscious approach could be jeopardized by reduced state funding and the poor image it had developed in the years when it was involved in making nuclear weapons.

Pelindaba is the site of a research nuclear reactor and was the place where South Africa designed and built six nuclear warheads, all of which have been dismantled under international supervision. – Reuters
The Argus Correspondent

PRETORIA—The Atomic Energy Corporation (AEC) has reacted to "incorrect" allegations made by Sunday newspaper reports of leaking radiation from a dumpsite at the Pelindaba nuclear power station.

In a statement the AEC denied that a nuclear waste dump 20 km outside Pretoria posed any threat to the nearby Pelindaba population or to workers at the dump, called Radiation Hill.

It said a nuclear occurrence in April last year involved "only low-level waste and the effect of the spillage was confined to only a few metres around the lip of the trench."

But Sunday newspaper reports said radiation levels at the dump were 100 times higher than the legal limit. The AEC said in reaction it "strongly deplored the sensationalism."

"The misrepresentation of the facts and selective use of only some one-sided data without placing the occurrence in its proper context borders on irresponsible journalism," the statement said.

The reports said recent excavations at Radiation Hill found damaged nuclear waste containers and that the workers who discovered them wore protective clothing. It quoted an AEC spokesman as saying the company "screwed up, made several mistakes and infringed many of our license conditions."

The waste was buried more than two years ago. The residential area of Flora Park is two kilometres away and the densely-populated township of Atteridgeville 10 km distant.

The AEC statement said four contract workers, and not eleven as reported, were involved at trench seven where the spillage occurred.

"The radiation doses at the trench were shown to be no threat to the workers, and yet the report makes unequivocal, incorrect statements that they were exposed, based on hearsay, and that cancer could develop in spite of the fact that no contamination has taken place and this has been proven.

"It must be clearly emphasised that Radiation Hill is an essential facility for the disposal of medical and industrial radioactive wastes from outside the AEC."

"Radioactive waste disposed of in the trenches at Radiation Hill is low-level."
AEC denies radiation danger

ATOMIC Energy Corporation (AEC) CE Waldo Stumpf yesterday dismissed as "sensationalist" weekend reports that the corporation's nuclear waste disposal site at Radiation Hill was emitting dangerously high radiation levels.

Radiation emission from "a few spots as big as a saucer" had been identified. However, this could be cleaned up in half an hour, as soon as the corporation got the green light from the Council for Nuclear Safety, he said. "It is not emitting dangerously high radiation. It's a storage place with levels you would find at any uranium mine in SA." There was no danger to residents, workers or the environment.

The Sunday Independent reported yesterday that radioactivity levels at the site were 100 times higher than the safety limit, and said nuclear council officials were shocked at contamination levels.

The council's project manager in charge of licensing the AEC, Schalk de Waal, confirmed radiation levels were higher than maximum safety levels. However, this did not mean the area was dangerous. All work around the affected area had been stopped, and no workers were allowed at the site.

The contamination happened last year when the AEC dug up a container which contained uranium waste levels higher than originally thought, in so doing contravening its licence conditions. Spillage occurred in the process. The corporation has admitted wrongdoing in failing to obtain the council's approval for the excavation.

De Waal said the AEC would not be penalised for contravening its licence. However, the council expected the corporation to clean up the spillage. It was awaiting a report on safety precautions the corporation would take during the clean-up operation. The council rejected an AEC safety report last November and told the corporation to suggest additional precautions. The area could have been cleaned up had the AEC resubmitted the report, De Waal said.

Stumpf, however, said the go-ahead was in the council's hands.
Too much secrecy' over Radiation Hill

Cape Town – The National Assembly’s Mineral and Energy Affairs Committee is hoping to hear evidence from the Atomic Energy Corporation and Council for Nuclear Safety on the AEC’s waste disposal site at Pelindaba near Pretoria.

Committee chairman Marcel Golding said he would be writing to the AEC and CNS to ask them to testify before the committee as soon as possible.

A report said that Geiger counter tests by nuclear safety officials at Radiation Hill were 100 times greater than the safety limit.

The site is about 2km from the nearest residential area, and it was not known where some of the casual staff, who had helped dig up nuclear waste, were.

Golding said there had been far too much secrecy over this matter, and it was quite clear from information available to him that the AEC had violated its own licence conditions and not complied with set safety standards.

One of the questions was whether the casual workers had been traced and tested for contamination.

“‘The committee will certainly consider calling the AEC as well as the CNS before it seeks to provide an adequate explanation about what took place, to air the facts publicly and to reassure South Africans, and indeed the communities around the area, that there are no problems.”

GNS had been charged with ensuring that safety and environmental standards were maintained and had brought breach of licence conditions to the fore.

The committee, he said, would also like to determine what steps had been taken by the AEC to control the situation and find out who was responsible for excavations at Radiation Hill.

Golding said prevention of similar future incidents would require:

- A review of legislation that regulates the industry.
- Strengthening the powers of the Council for Nuclear Safety.
- Ensuring that a waste disposal and management policy, with respect to nuclear materials, is worked out.
- Properly identifying nuclear waste dump sites.

“This particular incident demonstrates the urgency of trying to come to a solution,” he said, referring to the urgency for an inquiry and new policy. . . .

Golding was also attempting to get the matter debated in Parliament. – Sapa.
Eskom surges to a record

Political Correspondent

ESKOM has exceeded its targets for new household electricity connections in the past two years and plans another 300,000 this year.

This was disclosed by the Minister of Public Enterprises, Stella Sigcau, in reply to Senator Abraham Balie (NP).

In 1994 the supplier set a target of 250,000 new connections, and carried out 254,383. Last year, it installed 313,179 new connections, compared to its targeted number of 300,000.

Meanwhile Radio KFM increased its listenership by almost 100,000 between 1994 and last year, according to Pallo Jordan, Minister of Posts, Telecommunications and Broadcasting, while its advertising revenue soared from R6 million to almost R12 million.

SAfm listenership plunged from 414,000 to 250,000, and ad revenue fell from R14 million to R10 million.

Good Hope FM listenership rose from 496,000 to 627,000 but ad revenue fell from R23 million to R26 million.

Radio Xhosa listenership fell from 2,403,000 in 1994 to 2,329,000 last year but advertising revenue rose from R18 million to R19 million.
Electricity suppliers opt for regional distributors

Mungo Soggot

PLANS for the shake-up of the electricity supply industry were shifting away from centralised control and towards carving it up into regional distributors, industry spokesmen said at the weekend.

The Electricity Working Group, which is steering the revamp, said it would present its plans to government by next month. The group would propose either forming one national decentralised electricity distributor or carving up the current set-up into several regional distributors.

Other industry sources said whereas the group had initially favoured having a decentralised national distributor, it had been confronted with evidence suggesting that regional distributors were also viable.

Eskom itself favoured having as much decentralisation as possible in a range of regional distributors and others in the group were coming around to their point of view, one said.

Whichever way the working group goes, all Eskom’s and local authorities’ distribution assets will be put under one umbrella organisation. Although there is friction in the industry over how much centralised control to exercise over the new body, there is agreement that the current set-up has to go.

The status quo is seen as being riddled with inefficiency and, lacking transparency.

One source said the proposal to government would recommend having as many regional distributors as was financially viable. He said it appeared the regional approach would give the best results, enabling more efficient electrification drives and more transparent pricing and cross-subsidisation.
Business lobbies for lower rises in power

Nicola Jenvey (6)

DURBAN — Organised business has put pressure on Eskom and Durban Electricity for lower-than-average electricity tariff rises, a move that could set a precedent for future price hikes.

Eskom key customer relations manager Hugh McGibbon said yesterday Durban Electricity had negotiated a 2% tariff increase from Eskom effective from March 1 against the 3.5% national average.

This saving meant Durban Electricity, which received its supply from Eskom, would raise its tariffs to business by only 4.8% instead of the previously expected 6.6%.

McGibbon said tariff structures were open to negotiation with major customers and Durban Electricity would be willing to renegotiate in future years.

The higher tariff increases to business relative to residential provided the city council with an additional R80m for township electrification, but businesses could not afford to pay for both Durban Electricity's project and Eskom's Electricity For All campaign, chamber president Robin Bousted said.

A premium for these projects had been included in the tariffs.

Dean said the differential put Durban at a disadvantage in terms of attracting foreign investment, as vast fluctuations in rates did not create an environment of certainty and continuity.

Durban Electricity technical services director Roy Wienand said the current 19% differential between the rate Eskom supplies to municipalities and industrial clients had developed over time, and an attempt was being made to bring the tariffs into line.

Dean said the reduced tariff had begun redressing the differentials, but business would have preferred a more beneficial tariff considering Durban Electricity had experienced only a 2% increase.
A NUCLEAR emergency exercise being held today was due to affect thousands of people living within a 20 km radius of the Koeberg nuclear power station.

Koeberg officials warned that the siren and public address systems installed in Daynefontein, Melkbosstrand, Atlantis and adjacent farming areas may be used.

Koeberg staff have to show the Council for Nuclear Safety (CNS) that they could contain any nuclear disaster at the plant effectively.

The exercise forms part of the CNS's annual licensing of the plant.

The exercise is also being monitored by observers from Hong Kong and Slovenia.

Phil Metcalf, a senior manager at CNS, said that while Koeberg took emergency precautions, these could not always be guaranteed.

He said the objective of the exercise was to evaluate the plant's major disaster management programme.

The aim of such a programme was to prevent acute health effects and to limit long-term effects of a nuclear disaster.

Every disaster management programme has on-site and off-site facilities.

The Cape Metropolitan Council (CMC) is responsible for the off-site emergency plan covering the area within a radius of about 16 km around the plant.

The exercise involves the CNS simulating a nuclear disaster to activate the emergency centre at Koeberg.

The plant does not know what time the simulated disaster will occur or what form it will take...
WHILE life in most parts of the Western Cape continued normally, a major exercise at Koeberg, simulating emergency reaction to a disaster, had at least 200 highly-skilled people in its grip.

The exercise was carried out yesterday by Koeberg nuclear power station in co-operation with all emergency personnel within a wide radius of the site of a potential nuclear disaster.

About every 12 to 16 months this exercise is repeated, and minor exercises are carried out four to six times a year, said emergency controller Geoff Laskey.

The operation was controlled from Cape Town where an emergency control centre in a building in Wale Street was manned by 20 people looking calm but alert, and ready for action.

On the board in front of them was a large map indicating the affected site around Koeberg, showing wind direction and the nine zones containing 1,600 people that needed to be evacuated.

Clearly marked were the immediate danger zones within a 10 km radius of the nuclear plant and from which residents would have to be evacuated.

Within the 10 to 16 km radius were standby or “shelter” areas such as Atlantis where residents would be warned to stay indoors and, to shut all windows, but ultimately, would also have to be evacuated.

“The danger zone is the 16 km radius and to a much lesser degree outside of that,” said Steve van Rensburg, head of emergency planning, training and marketing for the Cape Metropolitan Council Civil Protection.

No action was taken during the exercise which concentrated on dissemination of information, and residents who would be affected were warned in advance of the drill.

Taking part in the operation was a wide range of specialised personnel such as members of the Council for Nuclear Safety, the health department, international observers, an Eskom technical adviser, traffic officials and the fire brigade.

People in the red zone would be evacuated in 30 buses to a mass care centre in Elsie’s River where they would be frisked to measure levels of radiation, and decontaminated.

Those with “heavy” contamination would be taken to a special unit at Tygerberg Hospital.

A mobile emergency control centre on a bus was stationed on the Mamre/Darlington Road near the N1 intersection to co-ordinate about 12 roadblocks manned by 30 traffic officers to stop motorists entering the danger area.

Halls would be organised to house and feed people who had been evacuated until the situation returned to normal.

About 20 engineering services personnel were on standby to detect problems with water and sewage.

The exercise began at 7.20 am when a soft north-north-westerly wind was blowing.

But by 11 am it had swung 180 degrees, making it necessary to reconsider strategy in terms of isolating the affected area, said Mr Laskey.

However, the drill was not based on real conditions but on a worst-case scenario in which gentle winds would spread the plume over a wider area, and the concentration diminish at a slow rate.

At 1 pm the exercise was ended and rated a success by those involved, declared Mr Laskey.

ABOVE: Steve van Rensburg of emergency planning, training and marketing for the Cape Metropolitan Council Civil Protection, and Schalk de Waal of the Council for Nuclear Safety, go over the plans for mass evacuation in the event of a crisis at Koeberg.

BELOW: Traffic personnel man a mobile control centre from which the roadblocks preventing cars from entering the danger zone would be co-ordinated.
Regional power plan under fire

Mungo Soggot

KEY industries have hit out at the handling of the electricity supply industry carve-up, rejecting the move to create several regional distributors which they say would fuel inefficiency and not bury it.

The energy end users' forum — representing companies including Sentrachem, Afrax, Sappi, Mondi, Tiger Oats and Consol — said at the weekend that the electricity working group had failed to include major electricity users in its deliberations.

It said the only motivation for creating regional distributors was a political one — it would protect local authorities which depended on revenue from electricity sales, whereas the other available options would not.

Forum chairman Johan Hees said it was absurd that the working group was charging ahead with its plans without adequate consultation with industry.

There was only one industry man in the group, and he worked for Alusaf, which has a special deal with Eskom.

Hees said the working group often asked for official reaction from the forum, but never acted on it. He scorned the working group for pretending to be transparent.

The working group, which is about to present its recommendations to government, includes Eskom, the national electricity regulator and government representatives. After initially favouring the idea of shunting all Eskom's and local authorities' distribution assets into a decentralised national distributor, it has swung around to the idea of having several regional distributors.

The regulator, Eskom and local authorities involved with electricity supply are adamant about the current setup, with its plethora of tariffs and widespread inefficiency, has to be shelved, but are divided as to which route will be best for the customer and the mass electrification programme.

Hees said the forum was convinced a national distributor was the only route to improving quality, cutting prices and eliminating cross-subsidisation.

It was a fallacy that SA's electricity was the world's cheapest. With help of cut-price coal, SA's generated electricity was cheap. Yet once Eskom and local authorities had added transmission and distribution costs, it was on a par with most developed countries.

The move to regional distributors would exacerbate these inefficiencies, he said.

Hees said the forum believed it was crucial that cross-subsidisation was eliminated — simply by changing the way local authorities handled their billing. Local authorities could itemise the cost of services currently subsidised by the electricity price.

The regulator could not be reached for comment.
Electricity body denies accusations

The National Electricity Regulator yesterday shrugged off accusations that the electricity supply industry is forcing through plans for an industry shake-up without adequate consultation.

Regulator spokesman Johan du Plessis said the electricity working group, which includes the regulator, government officials and Eskom, had consulted industry and taken any suggestions seriously. But the shake-up could not please everyone.

The revamp would involve all Eskom's and local authorities' distribution assets being turned into either several regional distributors or a decentralised national distributor. The working group was about to present its plans, which included both options, to government. Cabinet would decide which route would be best to keep prices competitive and guarantee the success of the mass electrification programme.

Du Plessis was responding to accusations from the forum for energy end users, which represents several major companies, that the industry was being ignored. The forum rejected the idea of creating regional distributors which, it said, would not help improve the industry but merely safeguard a key source of income for local authorities. It was a "political" option which would destroy the industry's competitiveness.

Du Plessis said the forum did not represent industry. There were many other important players which had very different views. He added that the forum's fears were premature - the proposals could include plans for both regional distributors or a national distributor with regional arms. Although most of the supply industry believed regional distributors were the ideal, it might not be feasible to get there in one step.
Koeberg ‘expensive and unnecessary’

EUNICE RIDER
STAFF WRITER

CT 20/3/96

THE Koeberg nuclear power plant is “probably an expensive and unnecessary source of power”, a British scientist said in a report released by UCT yesterday.

Nuclear economics expert Mr. Steve Thomas, of the University of Sussex, said a detailed analysis of the plant’s operating performance showed it was “unreliable” by international standards and had about 30% less output than similar plants elsewhere.

This unreliability could have serious implications for the safety of the plant if it reflected poor standards of maintenance.

This report, released by the UCT Energy and Development Research Centre (EDRC), raised questions about whether South Africa should be devoting scarce resources of skilled labour and finance to nuclear technology when the returns were so poor.

Coal power plants would be cheaper for South Africa, he said.

Mr. Tony Stott, Eskom’s generation nuclear assurance manager, said yesterday that Eskom, which runs Koeberg, had not yet seen the report and so could not comment.

Eskom had been trying to get a copy of the report since last week to establish on what grounds Thomas made his claims. EDRC promises to fax him a copy in Johannesburg had not been kept.

He said, however, that Eskom was surprised at allegations that the plant was “unreliable”. Koeberg was part of the Eskom network of power stations—not an isolated station—and so was operated to conform to the requirements of the network.

“We consider it highly unprofessional of a research organisation such as the EDRC to publish and publicise a paper such as that of Mr. Thomas, without verifying the facts, which they could very easily have done by approaching Eskom,” Stott said.
Atomic energy body ‘not in business of secrets anymore’

BY TAMESE DE BEER

The Atomic Energy Corporation (AEC) has entered an era of public transparency, head of nuclear management Brian Hambleton-Jones told residents at an information session on the nuclear waste issue at Radiation Hill yesterday.

“We are not in the business of secrets anymore,” he said, adding that the public would immediately be informed of any incident that affected them.

The policy shift follows recent media coverage of the excavation of trench 7 on Radiation Hill after an exclusive story by The Sunday Independent.

The incident was interpreted as a major nuclear incident, although the public’s watchdog on nuclear activities, the Council for Nuclear Safety (CNS), said there was never any risk to the public.

The council said it was an error in procedural regulations, containing low-level radioactive waste, was erroneously excavated last year.

“Yes, the decision to excavate the trench was a mistake,” Hambleton-Jones told residents.

But once Pelindaba management discovered the error, excavation was suspended and the CNS informed, he said.

A moratorium has been in place for a year since then, suspending any further excavation of the trench.

The AEC also announced the formation of the Pelindaba Communication Forum, to discuss with residents of the surrounding the about 30-year-old site.

The first meeting of the forum, to include community representatives and environmentalists, is due in April.

Residents asked for water samples be taken from a greater cross-section of areas in the vicinity of Pelindaba, and that an analysis be done on the level of incidents of cancer and genetic deficiencies, the main consequences of radiation exposure, in the Hartbeespoort dam area.

But AEC environmental manager Dr Calvin Bain responded by saying levels of radiation were so low that additional measures were not necessary.

Radiation levels measured in milk, and the water, fish and sediment in Hartbeespoort dam were “one thousand times below the recommended limit”, he said.

“We contribute less than one-thousandth of what the average person is exposed to in terms of radiation,” he added.

Mineral and Energy Affairs Minister Pik Botha’s address at Parliament coinciding with the briefing of residents included a suggestion that the name, Radiation Hill, be changed.

“But that doesn’t mean we want to hide behind a nicer-sounding name,” AEC chief executive officer Dr Waldo Stumpf told residents.

Reading extracts from Botha’s address, Stumpf said people were exposed every day to radiation levels from natural sources that constituted 70% of their total exposure.

Medical x-ray constituted more than 25% of the remainder, with rays from television making up 34% of the total.

Nuclear drums excavated at Radiation Hill last year had been in breach of the AEC’s licence obligations, although there had been no intentional negligence, Botha said yesterday.

Speaking during an interpellation by Marcel Golding (ANC), the minister said the workers had been properly protected and supervised in the presence of a health physics officer.

However, there had been a breakdown in communication between the supervisor and health physics officer, and therefore the excavation had failed the AEC’s licence obligations.

The personnel involved had been reprimanded.

Golding said there was no doubt that a serious breach of the licence conditions had taken place and senior management should take the blame.

Source: Sapa

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Star 21/3/96
Row brewing over electricity distribution

COUNCILS WANT TO CONTINUE SUPPLYING POWER, BUT NATIONAL ENERGY REGULATOR SAYS PUBLIC FIRMS WILL DO BETTER JOB

By Thoby Lund

Consumers and businesses are caught in a battle between major local authorities and what has been called a secret bid to restructure electricity distribution by centralising it.

Although the bid stands to reduce electricity bills by at least 17%, consumers will have to make up the reduction through price hikes in rates or other municipal charges, local authorities have warned.

A final report is expected to be released to the councils in the next two weeks, after being submitted to Minister of Mineral and Energy Affairs Pik Botha.

The Major Urban Areas Association, which represents the country's 10 biggest cities and is chaired by Greater Johannesburg Transitional Metropolitan Council executive committee chairman Collin Matjila, is vehement that restructuring is necessary. But proposals to take electricity distribution away from local authorities and allow private distributors to do the job will cripple local authorities which depend on extra revenue from the sale of electricity, it says.

Johan du Plessis, spokesman for the National Electricity Regulator (NER) - a statutory body which regulates all electricity distributors and generators, and is the mastermind behind this restructuring - confirmed that the body intended making the electricity supply system more efficient by concentrating distribution under a single or several public companies.

There are about 400 distributors nationwide; local authorities charge their consumers different fees for electricity buying in bulk from Eskom and charging consumers more. The Greater Johannesburg council adds an 18c/kW surcharge for domestic users.

The Energy End Users Forum, which represents major industries including Afrox, Sappi, Mondi and Tiger Oats, has also lashed out at the restructuring proposals, saying they did not include major users and would boost inefficiency rather than do away with it.

Du Plessis said the NER aimed at controlling the supply of electricity in South Africa to make it available to the whole population at equitable prices. To do this, he said, the current plethora of tariffs and widespread inefficiency had to be eradicated.

"Municipalities will have to find other means to make up this income through increased rates and taxes and more efficient administration," he added.
whole new world opens up for pupils at Rural Primary School

Electricity meeting

Magical moment at

true
Black nuclear-reactor scientist 'left in the cold'

By JAMES LAMONT

Johannesburg — South Africa’s only black nuclear-reactor scientist said yesterday his contribution to the setting of national energy policy had been entirely overlooked by the ANC-led government.

Gordon Sibiya has a doctoral degree in nuclear-reactor physics from the University of Stuttgart and sits on the board of some of South Africa’s largest companies. He said he had been marginalised from energy policymaking though there was only a handful of nuclear physicists in South Africa.

Sibiya runs a small electrical engineering consultancy and is the director of the Science and Engineering Academy of South Africa.

"I am not using my skills in the nuclear arena in South Africa. I don’t understand how I have been left out of government bodies like the Atomic Energy Corporation."

He was nominated to join the board of the corporation, but was not appointed. Instead, he witnessed people appointed to energy committees and parastatals who had no involvement in science, let alone the nuclear field, he said.

Sibiya said that democratic government had brought no change to his exclusion from the nuclear establishment.

The corporation yesterday maintained that it had a representa-

Sidelined Gordon Sibiya, a trained nuclear-reactor scientist

Photo: John Woodcock
Plan to revamp SA's unwieldy power grid

By RAY HARTLEY
Political Correspondent

MINERAL and Energy Affairs Minister Pik Botha is planning a radical shake-up of South Africa's electricity distribution network in order to keep the government's electrification programme viable.

Mr Botha told the Sunday Times he would soon be approaching the cabinet "with recommendations to restructure the industry". This would see a move to "cost-related tariffs" and "greater transparency" in the way local governments charge their customers for electricity.

Mr Botha said consumers who used electricity distributed by local governments did not know how much they were being charged, or how much of the charge was a "tariff" subsidising other services.

His proposal comes amid growing concern about the viability of Eskom's plan to electrify poorer households, with newly electrified houses using far less power than Eskom had anticipated.

About 60 percent of electricity is distributed by 420 local governments, some regional services councils and provincial governments. Eskom distributes the remaining 40 percent.

Mr Botha said fragmentation of distribution had led to about 2 000 different tariffs, a lack of capacity and "certain difficulties in raising money" for electrification. "Some distributors cannot meet their electrification targets because of their financial position."

He was considering suggestions by the National Electricity Regulator and the Electricity Working Group to streamline distribution by placing it in the hands of between five and 17 regional bodies.

If implemented, the move would require the relocation of 36 500 workers from Eskom, local governments and the former homelands to the new distribution bodies.

Eskom generates 96 percent of South Africa's power, and controls transmission from power stations to the national grid.
Despite arrears, Eskom manages to boost profits

By THABO Kobokoane

Despite a “healthy” 1995 financial year for Eskom, continued non-payment of arrears is “bleeding” the utility and could retard its drive to electrify 300 000 homes a year.

Allen Morgan, the utility’s chief executive, said Eskom has lost R1.175-billion in arrears since the start of the rent and services boycott.

Presenting Eskom’s financial results for the year to December 1995, Mr Morgan said there was a 40% rate of non-payment of arrears in “19 problematic areas”. However, this was an improvement from a 90% non-payment rate three years ago. Soweto, one of the “most problematic”, had increased payments to 76% from only 20% three years ago.

Mr Morgan said Eskom was looking at ways to stem the losses and this included cutting off electricity to non-payers and finding solutions with local government on how to deal with the debt problem.

Eskom, the fifth largest utility in the world, reported a 19% rise in income to R2.7-billion (1994: R2.3-billion) on the back of a modest 3.8% increase in sales.

An Eskom price increase of 4% resulted in an 11% increase in revenue to R17-billion (R15.4-billion).

Operating expenditure rose by 13% to R11.315 billion after provision for arrears debts of R325-million and medical aid and post-retirement benefits of R151-million. The debt to equity ratio improved to 1.44 last year from 1.79 in 1994.

Willie Kok, financial director at Eskom, said the utility’s financial health “continued to improve” and that Eskom was in “good shape”.

John Maree, chairman of Eskom, said the utility had met three main targets set for 1995. These included being able to reduce the real price of electricity by 4% — and Eskom is on track to reduce the cost of electricity by 15% by 2 000, in line with its 1994 projections and to electrify 313 000 households.

He said 16% of the workforce was black, in line with a target of 50% by 2 000.

This year, the utility hopes to reduce the cost of electricity by 4% and connect a further 300 000 people to the national grid — which will bring total number of houses electrified since the drive to electrify 300 000 homes a year began in 1990 to over 1-million at an estimated cost of R2.5 billion.

Dr Maree said Eskom had a very good year technologically as generation plant performance exceeded all targets with a unit capacity factor of 84.3% — which was an all-time high for Eskom.

“If we can attain the UNIFEDES best quartile performance for a coal fired plant of 91.2% and also sustain it, we would be able to defer indefinitely the construction of one 3 000 kw power station at a capital cost saving approximately R10-billion. Improved technical efficiency is a strong focus for management,” he said.
Local authorities set to keep electricity function

BY TROYE LINDO

After months of negotiations on restructuring electricity distribution in South Africa, local authorities across the country have accepted the electricity working group’s (EWG) final report to the Minister of Mineral and Energy Affairs, Pik Botha, as an “acceptable compromise”.

Local authorities were opposed to initial bids to take away their capacity as electricity distributors. Their opposition was based on the fact that councils depend on revenue generated from electricity sales. This revenue is used to subsidise other municipal services in poorer areas.

The report of the EWG, which includes representatives from all levels of government, Eskom and the National Electricity Regulator, must be considered by Botha before it goes public.

However, a body representing local authorities across SA, the National Consultative Body for Organised Local Government, has seen the report and met this week to consider it.

The chairman of this body, Christo Norton, would not divulge any details of the working group’s report but was satisfied that electricity distribution would “remain largely in the hands of local authorities”.
Eskom faces hidden costs in low price bid

Robyn Chalmers 12/4/96

ESKOM's aim to provide SA with the cheapest electricity in the world had hidden costs which would have a huge effect on the future environment, according to a study under the Cosatu-linked industrial strategy project.

The study, conducted by the University of Cape Town's energy and development research centre researcher Clive van Horen, said hidden costs included injuries and mortalities in coal mines and the effects of air pollution on health.

There was also the threat of greenhouse gas emissions which could lead to SA facing internationally imposed emission reduction targets, and the cost of state subsidies to the nuclear industry.

The main reasons for SA’s low price of electricity were the abundance of coal reserves close to power stations and the high level of expertise in Eskom.

However, Van Horen said the electricity price was artificially low because inadequate attention had been paid to the environment and the associated health costs of generating it.

Trade and industry department director-general Zavareh Rustomjee said it was vital to consider the medium- and long-term consequences of neglecting the environmental effects of electrification.

Van Horen said should Eskom continue to meet its target on price reduction, the average electricity price in 2000 would be 60% of 1987 prices.

"This is likely to encourage a heavily energy- and resource-intensive growth path which, once taken, could be difficult to redirect," he said.

Reshuffle a blow to community groups

Theo Rawana 12/4/96

The impending closure of the RDP office following the recent cabinet reshuffle had thrown community-based organisations into confusion over the fate of a funding mechanism formed minister Jay Naidoo was to co-ordinate, the groups said yesterday.

National Community-Based Development Organisations Network secretory-general Shulomo Mokwele said the network’s envisaged participation in a task group had been dealt a blow by the Cabinet reshuffle. The task group was to work towards the establishment of the National Development Agency when the Transitional National Development Trust’s period of existence expired after two years.

"Although the establishment of the NDA task group has taken an unnecessarily long period of time, it was always hoped that the RDP ministry would continue to facilitate its establishment. With the closure of the RDP ministry, it is no longer clear as to who or which department will take the responsibility to co-ordinate efforts towards the ultimate establishment of a funding mechanism for non-governmental and community-based development organisations’ projects and programmes,” Mokwele said.

The networks seek clarity on this matter as the NDA process is viewed as its lifeblood, he said.

Mokwele said his organisation was also opposed to the Independent Development Trust and the Kagiso Trust being the sole players in the task of communicating with the communities in the area of development.

"The network is opposed to a situation where only the IDT and the Kagiso Trust will be responsible for consultations within communities while community structures are passively looking on. In the view of the network, this will be against the principle of a people-driven process which the RDP is all about.”

He said the network had made a submission to the transitional development trust, whose secretariat comprises the IDT and Kagiso Trust, to consider the decentralisation of the trust’s process.

Although the network and other stakeholders had participated in the establishment of the trust, the organisation could not form part of the secretariat as it had no resources. There were also no funds which the trust could use to employ the services of the network.

Mokwele said central and provincial government had an obligation to assist community-based organisations to be sustainable. "To this end, they should be considerate to the plight of these organisations without prejudice," he said.

Eric Molobi, chairman of the trustees who decide on the issue, was not available for comment yesterday.
The need for ecoclimation may outweigh the environmental costs. The profit is gauging ecoclimation as many people as possible.
Concern over tax proposal

Robyn Chalmers

ESKOM’s ability to finance its electrification programme would be affected by government proposals to tax the parastatal and implement a dividend payment system, chairman John Maree said in the 1995 annual review.

Maree said the electrification programme, and Eskom’s other commitments to the RDP such as further reducing the price of electricity, had long-term social and economic benefits for SA.

“In-depth consideration will have to be given to the treatment of monies spent on the electrification under different tax and dividend dispensation so that (these undertakings) continue as planned,” he said.

During the year ended December, Eskom increased net income to R2,7bn from R2,3bn for the previous year on an 11% increase in revenue to R17,1bn.

Maree said Eskom had achieved its target of making 300,000 new connections last year against 250,000 in 1994 despite being prevented from working in a number of urban areas for lengthy periods.

“It is estimated that the lives of about 1.5 million people have been changed as a result of the electrification programme. Research has shown that for every 100 homes electrified, between 10 and 20 new economic activities are started,” he said.

Eskom also continued to make inroads into reducing the real price of electricity during the year ended December, with a price increase of 4% for the year against an inflation rate of 8.7% leaving a real reduction of 4.7 percentage points.

Maree said the increase for this year was again 4% with an anticipated real price reduction of a further 4%. Eskom was on track to reduce the real price of electricity by 20% between 1992 and this year.

The parastatal’s international borrowing capability had been boosted by an improved credit rating by Standard and Poor’s rating group while the new depository receipt programme for SA debt securities had been well received.

Discussions are being held over the shake-up of electricity distribution and Maree said the electricity working group’s recommendations were being considered by government and an announcement was expected soon.
Looking for a breath of fresh air

By Anita Allen

Science Writer

Eskom is winning and losing the battle against air pollution from its coal-fired power stations, according to its 1995 Environmental Report.

On the one hand, emissions of particulate matter — visible smoke — decreased in 1995 despite an overall increase in the amount of electricity generated.

On the other, emissions of the main greenhouse gases have increased relative to the amount of electricity generated.

No explanation for the decline in performance on gaseous emissions of carbon dioxide, sulphur dioxide and nitrous oxide was given.

But, the report said: "Research on alternative generation and operation technologies to reduce gaseous emissions levels is a long-term strategy receiving continuous attention."

"It includes nuclear and hydropower alternatives."

This is the second year that Eskom has produced an environmental report.

The major significance of the 1995 report is that Eskom has been able to quantify its performance against targets set last year.

Emissions of particulate matter showed an average decrease of 7 kilotons, from 122 kilotons in 1994 to 115 kilotons last year.

In the same period, electricity generated increased from 148 000 Gigawatt hours in 1994 to 152 000 GWh last year.

The improved overall performance in terms of air quality shows that in 1994 Eskom's coal-fired power stations produced 0.83kg of particulate matter per Megawatt hour of electricity produced, compared with 0.77kg per MWh last year — an overall improvement of 0.06kg per MWh.

In terms of air quality trends on the Mpumalanga highveld, the report showed that the decline in air quality of the region was continuing its trend from a high in 1984.

Eskom's power stations have also shown improved water consumption for electricity generated, down from 1,411 per kilowatt hour in 1994 to 1,381 per kWh last year.

In terms of meeting Reconstruction and Development goals, Eskom has exceeded targets, supplying electricity from the grid to 313 179 homes in 1995, against a target of 300 000.

In addition 893 schools and 37 clinics were supplied with electricity.

Eskom reinforced its commitment to the environment by appointing a corporate environmental affairs manager to be responsible for co-ordination and balance in addressing environmental matters, chief executive Allen Morgan said in his preface to the report.

"Environmental management is one of five core research areas regarded as critical to the long-term health of Eskom and its customers," he said.

Of the R4,2-million allocated to capacity building and training at universities and technikons last year, about 20% went to environmental support programmes.

In addition, of the R10-million allocated to tertiary institutions for contract research, some 30% went to research on environmental projects.
Power dips cost SA industry R1.2bn

Nicola Jenvey

DURBAN — Power dips cost SA industry R1.2bn a year, representing about 10% of Eskom’s sales.

Key customer relations manager KwaZulu-Natal, Hugh McGibbon, said voltage depressions were caused by lightning, burning of sugar cane or veld fires near transmission lines and failures at plants. The US incurred losses of R102bn or 15% of total sales.

Eskom measured voltage dips at 130 locations on its high voltage transmission network.

Eskom and the National Electricity Regulator were drawing up acceptable supply standards.

The real cost of delivery of underground cabling would rise tenfold, while coal transportation costs discounted building power stations in KwaZulu-Natal.

The province experienced about 48 power dips annually compared to the Northern Province at 55, Eastern Cape 48, Mpumalanga 44 and Gauteng 23.

Eskom recently completed a R39m project to replace insulators on coastal KwaZulu-Natal lines.
SECOND PETROL PRICE SHOCK

With oil prices spiking at a five-year high and the battered rand bumping along at record lows, motorists can expect to be hit by at least a 12c/l petrol price increase on May 1. The increase follows the 8c/l rise on April 3, making an 11% price increase of 20c/l within a month.

The sharp petrol price rise results from the dual blows of the rand plummeting to R4.24/dollar on Tuesday, while sweet North Sea Brent crude oil prices simultaneously surged to over US$22/barrel.

The inflationary aftershocks of the increases are expected to permeate the economy for months to come, as the transport and energy sectors push the escalating costs on to customers.

While the petrol price hike is expected to push the PPI rate 1% higher over the next six months, the CPI rate should follow closely with a 0.9% increase.

Husamers Stals chief economist Johan Rossouw says with petroleum prices making up about 5% of the PPI basket (4% in the case of CPI), a sustained 10% petroleum price increase will have a 0.5% direct impact on the inflation rate (0.4% in the case of CPI), while the longer term, “indirect” impact will add another 0.5% to both the PPI and CPI rates.

Optimists say the rand should recover some of its lustre soon. But, though other analysts say the end is not yet in sight, crude oil prices, at least, are showing some signs of bottoming out.

The tight global market conditions should return to normality over the next two to three months, with the northern hemisphere’s petroleum inventories being topped up as refineries step up production.

Northern refineries were caught short due to a combination of two other circumstances: with Iraq oil expected to start flowing “soon” — subject to a special oil-for-food deal being finalised with the UN — and the end of winter in sight, refineries kept stocks low. But the continuing delay with the Iraqi deal, coupled with the longest and harshest winter in decades, caught everyone short, leading to the oil price hitting five-year highs.

Crude oil futures trends signify that prices should return to more “normal” levels within the next two months. Brent spot prices started coming off their highs on Monday.

Meanwhile, SA’s regulated liquid fuels pricing structure is adding to motorists’ woes. SA Petroleum Industry Association spokesman Colin McClelland says SA’s petrol prices are linked to international refined petrol prices, which are now rising as more motorists take to the roads in the post-winter thaw.

“In the northern winter, paraffin, diesel and heating oil prices are high, while the converse applies to petrol prices. SA’s domestic liquid fuels prices reflect these northern trends.”

Highveld motorists using 93 octane leaded petrol now selling at 192c/l will have to fork out at least R2.04/l from May 1. Unleaded petrol will still be available at a 4c/l discount.

Transnet economist Mike Schussler says even if oil prices recover, the low rand will keep petrol prices higher than before the latest hikes. And the inflationary impact of the increases will be felt up to July.

Fortunately, the weak rand also has some benefits — mainly that of depress-
Shadow falls over lights of progress

By RAY HARTLEY
Political Correspondent

GOVERNMENT'S most successful RDP project— to electrify 400 000 houses a year—has come under fire from investors, trade unions and non-governmental organisations, raising doubts about its ability to pay for itself.

The project, which is being undertaken by Eskom and local authorities, has failed to deliver levels of electricity consumption promised to investors, some of whom have begun to question their decision to place money with the programme.

The Sunday Times has learnt that Old Mutual, a major investor in the programme, has been involved in behind-the-scenes talks with Eskom to work out ways of protecting its investment.

The electrification of low-cost housing was financed on the basis that investment returns would be linked directly to the amount of electricity used.

For the programme to be sustainable, consumers need to use around 400 kilowatt-hours of electricity a month on average, according to Johan du Plessis of the Electricity Regulator, an independent body that oversees the electricity industry.

Instead, they have been using just over 160 kilowatt-hours, leading to low investment returns.

Old Mutual and Eskom officials were reluctant to comment this week, but confirmed that talks were under way.

Old Mutual's chief portfolio manager André Smit said: "It's a private matter between us and them."

An Eskom official said: "If investors went into it to make some-thing for their own pockets, I would question why they went into it in the first place."

In October last year, Eskom's Henry Simonsen, who has since left the parastatal, drafted a report on the state of the electrification programme and its prospects. But his findings have been kept under wraps by Eskom officials. Mr Simonsen would not disclose the contents of the report this week, but it is believed to detail problems of under-consumption and non-payment by newly electrified households.

An Eskom statement released to the Sunday Times confirmed that low consumption, non-payment and the theft of electricity were problems.

It said: "More on the interest Eskom pays on the loans it has taken to do the electrification, and its supply cost, the average electrification customer should use, say 140 kilowatt-hours a month."

Meanwhile, Mark Pickering, of the non-governmental Mineral and Energy Policy Centre, has questioned the impartiality of the National Electricity Regulator.

Mr Pickering and other development officials have asked why the regulator's administration was made up of seconded Eskom officials and why former Eskom chief executive officer Ian McRae was made chairman of the regulator's board.

"Dr McRae is driving the process in a dogmatic fashion," Mr Pickering said.

Mr du Plessis defended the impartiality of the regulator, saying that Dr McRae was the person best qualified for the job precisely because of his Eskom experience. He said Dr McRae's decisions had to be approved by eight independent board members.

Eskom personnel had been seconded to set up the administration, but all posts had subsequently been advertised, he said.

But Mr Pickering said electrification resources were being used inefficiently, with some big urban areas left disconnected because local authorities were unable to finance electrification.

The huge settlement of Duncan Village outside East London had remained without electricity, while Eskom concentrated on far-flung rural communities in the former Ciskei and Transkei, areas where payment and consumption were low, he said.

The National Union of Mineworkers has meanwhile planned countrywide marches on Eskom offices to protest against what it sees as attempts to privatise distribution by creating independent regional electricity providers.

NUM organiser France Baleni said his organisation had reached an agreement with Eskom that it would take over electrification programmes if local authorities could not cope financially.

But Eskom had "gone behind our backs" with its plan to establish regional distributors, he said.
France to process Eskom’s raw uranium for Koeberg

Edward West (56) 60 22 14 96

ESKOM has shipped 222 tons of uranium hexafluoride — raw material to fuel its nuclear power capacity for 18 months — to France for processing, following the closure last year of enrichment capacity at the Pelindaba Z plant.

The utility said at the weekend that the raw material, transported on 28 trucks from Pelindaba and shipped through Durban, would remain with French nuclear authorities until a French company had been contracted to enrich the material for SA’s Koeberg power station.

Spokesman Gina Lamperelli said the shipment from the Atomic Energy Corporation’s Pelindaba plant was the first to be undertaken by Eskom following the closure of the corporation’s uneconomic Z uranium enrichment plant.

The shipment, enough material to process 53 to 54 fuel rods for Koeberg, would result in an R11m saving to Eskom compared to the costs for Pelindaba’s enrichment.

The mineral and energy affairs department said early last month that the corporation would work with French parastatal Cogema in developing uranium enrichment technology.

Government has said the contract could boost SA’s uranium exports R200m a year. The corporation and Cogema are researching separation technology used in commercial enrichment of uranium, with the joint project expected on stream in three years.
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Edward West  &O 22/4/96

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n a village of modestry, a small house stands with
a light, simple decoration and four people sit in front
of the house.

The village is located in Northern Province, which
is often neglected in the context of national
development. The community is in need of basic
infrastructure and economic development.

There are plans to build a new power plant,
which will provide electricity to the area for
the first time. However, the community is
facing challenges in implementing the project,
including lack of resources and the need for
expertise.

Despite the challenges, the community is
determined to make the most of the new
electricity. The new power plant will
improve the quality of life in the village,
allowing for better education and
healthcare services.

As the community starts to enjoy the benefits
of electricity, they are also working to
improve their own skills and knowledge,
preparing for the future.

The time to relax has come. Nobody's Folks
Electricity gives life in the Northern Province village.
Eskom investigates rural solar power

Robyn Claerbers

ESKOM was far advanced in its investigation into the viability of using solar power to provide electricity to rural areas, as electricity usage in poorer areas was lower than originally estimated.

Eskom CE Allen Morgan said yesterday the mass electrification programme remained firmly on track. More than 1-million connections had been made to the national electricity grid since 1988, with 313 000 connections having been made last year at a cost of about R1bn.

Morgan said the mass electrification programme was a long-term undertaking and could take up to eight years before a positive cash flow was reached. But this depended on, among other factors, higher economic growth, which would require commitment from government, business and labour.

"Investors in the electrification participation note are well aware that this is a lengthy venture, but the programme has long-term social and economic benefits for SA," he said.

However, Morgan said that electricity use in rural areas was significantly lower than in more developed areas, and Eskom was thoroughly investigating going the solar power route.

All the major life assurers had invested in electrification participation notes, and industry sources said it was too early to establish a trend. The bond was a 15-year instrument which had been going for only about 18 months.

One source said that some of the life assurers could be holding talks with Eskom regarding their return on the bonds, but it probably had more to do with the consistent monitoring of investments than with unhappiness regarding the electrification programme.

The source said the bond had been structured so non-payment — an ongoing thorn in Eskom's side — did not affect the investment of life assurers as it revolved around prepaid meters.

Nevertheless, arrears rose R300m last year to more than R1.2bn because of non-payment in certain areas as well as new problem accounts from the Transkei Electricity Supply Commission. The Masakhane Campaign had failed to have a significant effect on non-payment, despite the increased number of connections last year.
Let safety be your shadow, it’s always with you.
Koeberg is safe, says Escom; no way, says SA anti-nuke lobby
Anti-nuke protesters march in Cape Town

Cape Town – About 30 anti-nuclear protesters marched on Parliament yesterday, demanding the closure of the Koeberg nuclear power station which, they claim, is 50 times more dangerous than Chernobyl in the Ukraine.

The demonstration was on the tenth anniversary of the Chernobyl explosion in which scores died and plant and animal life in Europe was harmed.

Green Coalition spokesman Andrew Fielding said Koeberg's nuclear plant was built in the form of a shell. One bullet could result in the whole of Cape Town being destroyed.

Safety precautions were also not the same as those taken by other nuclear plants around the world, Fielding claimed. Koeberg had emergency plans only for the surrounding 15km.

The hundreds of millions spent on the nuclear industry should be used to find cheaper energy, he added. - Sapa
Eskom in R650m Namibian project

Robyn Chalmers

Eskom has agreed to construct a R650m, 900km power line with Namibian electricity utility Swawek, the first such interconnection following the creation last year of the southern African electricity power pool.

The line will be constructed from the Aries substation near Kenhardt to the Auaus substation near Windhoek.

Swawek MD Leake Hangala said studies showed the most viable option was to build a line which would interconnect with Eskom's network and make electricity available to the pool.

An Eskom spokesman said the parastatal believed it could benefit in the longer term from the trade of electricity in the region rather than from immediate financial returns.

The spokesman said the finished line would make it theoretically possible to negotiate power supply agreements with Zesco from Zambia and from Inga in Zaire. Zesco was expected to join the power pool soon.

At least one SA company would be in the running for the international tender for the line and equipment.

Hangala said Eskom and Swawek would each finance that section of the line in its own country, with Swawek's share at between R450m and R500m.

The line, with a target completion date for the first leg of 1999, would be able to transmit about 400MW once complete, but could be upgraded.
Alex to get R1.9-m power boost

BY ANNA COX

An amount of R1.9-million is to be spent on upgrading the electricity network in Alexandra within the next few months to improve living conditions for hundreds of thousands of people, said Eastern Metropolitan Substructure executive committee chairman Nkile Ntangana.

The council approved the expenditure last week following reports that an extremely serious overloading problem existed in the system.

Ntangana said the large influx of people into the area had resulted in a significant increase in residential density and substantial increases in the electricity needs. The situation had reached the point where the existing supply within Alexandra was no longer adequate for a secure and continuous supply to be maintained.

"Repeated overloads and cut-offs occur on a daily basis causing great inconvenience to people and it can only worsen with the onset of winter."

"It is essential that urgent measures are taken to address the problem. This upgrading will make the lives of hundreds of thousands people a lot easier," she said.

Ekorn, as the agent of the council, will undertake the work of installing the additional substations, reinforcing the main supply links and make all associated infrastructure rearrangements.
Cheaper electricity – yes but at what cost to health?

ANDREA WEISS
Metro Reporter

A DECISION to put the Athlone power station back on line has come under fire from residents of surrounding residential areas because they fear that pollution associated with coal-fired power stations will affect their health.

A delegation from Pinelands, Langa and Athlone – the three residential areas clustered in the vicinity of the power station – addressed a meeting of the city’s amenities and health committee on their concerns yesterday. They have enlisted the help of the Legal Resources Centre to push for a public participation process, and for proper environmental monitoring in all surrounding residential areas.

The committee, which was holding its last meeting prior to the May 29 election, resolved that the matter should be taken up by the next council, but heard the objectors out.

William Kerfoot, from the LRC, said his clients were concerned about the lack of a public participation process because, although the power station was not a new project, bringing it back into operation was a significant departure from the past 10 years when it was not in use.

“We would have thought the Cape Town City Council should have felt it was important to embark on public participation. Why was this not done? What is the policy in matters of this magnitude?” he queried.

Mr Kerfoot also asked whether the council had considered an environmental impact assessment before bringing the power station back into full production, and whether there was any study focusing on the potential pollution to the greater Cape Town area.

Finally, Mr Kerfoot asked why the council had not made further representations to Eskom in an effort to bring down the cost of peak-time electricity, the chief reason for the use of the Athlone power station.

Brian Watkyns, a Pinelands councillor, suggested that residents had already begun to feel the health effects of the power station, based on letters he had received from people complaining of respiratory problems.

He also queried the safety standards being practised at the power station with regard to asbestos.

Simpwe Mbulli, of the Langa Development Forum, said residents of Langa, where there was a high incidence of tuberculosis, feared that the power station would further compromise their health.

While the power station could provide cheaper electricity, he was concerned that the people of Langa would “pay indirectly” with their health.

City electrical engineer Fred Berwyn-Taylor said it was not correct to imply that the council was unconcerned, because it had put steps in place to keep a close watch on the power station.

He said the Athlone plant was in good condition, and he believed it would be operating well within prescribed limits.

On public participation, he said he had always regarded the Athlone power station as part of his operational responsibility.

“I felt there were no new issues to be raised. It would be within limits. It was not an issue of public interest in my mind.”

With regard to asbestos, Mr Berwyn-Taylor said the power station was complying with all safety requirements. Asbestos was a substance which had been widely used in society, but the dangers were being realised. Large sections within the power station would have to be replaced, and the council was dealing with the areas where it was most urgent.

“I don’t believe there is any danger.”
Council decision will save city millions

The contentious issue of the proposed power station in the city has been a topic of debate for months. Councilors have been divided on the matter, with some advocates arguing for the project's potential benefits, while others are concerned about its environmental impact and cost implications.

The decision to move forward with the project was made during last week's council meeting. The vote followed months of public hearings and discussions among stakeholders, including environmental groups, business leaders, and community members.

Opponents of the project have expressed concern about the potential for increased greenhouse gas emissions and the impact on local wildlife. However, proponents argue that the power station would provide much-needed energy to the city and help reduce reliance on imported electricity.

The decision is expected to have significant economic implications for the city, with potential benefits for businesses and residents alike. However, the outcome will also depend on how the project is managed and the effectiveness of environmental safeguards put in place.

The controversial issue has sparked a heated debate, with proponents and opponents presenting their views to the public. The final decision remains uncertain, but the outcome will undoubtedly shape the city's future for years to come.
ATHLONE POWER STATION: The famous Cape Flats landmark is being read up again

Residential residents fear power station pollution

slowly takes shape in 1956; today it is a common sight on the landscape.

UNDER CONSTRUCTION: The massive cooling tower of the Athlone Power Station

...
Nufcor in radiation control joint venture

David McKay 6/9/96

THE SA Nuclear Fuels Corporation has established a joint venture company with British Nuclear Fuels Limited to seek radiation control business from SA's uranium oxide producers.

Nufcor said yesterday that the company, Radpro, would measure, monitor and control radiation hazards, in a market expected to burgeon given the surge in uranium oxide prices. SA producers include Anglo American's Vaal Reefs gold mine.

The new operation would be backed by subsidiary BNFL Engineering, which has developed expertise in radioactive waste storage and management in the UK.

Chairman Tom Main said the Atomic Energy Corporation provided consultancy on the treatment of radioactive systems, but did not provide solutions to radioactive hazards -- Radpro's specific aim.

World supply for uranium oxide was expected to double to 80,000 tons during the next 10 years to meet increasing demand for uranium oxide, Nufcor GM Charles Scorer said.
Govt to tackle issues cited in energy agency's report

Samantha Sharpe

CAPE TOWN — Government was already tackling some issues which had been raised in the mineral and energy affairs department-commissioned International Energy Agency (IEA) report released this week, department chief director Johan Basson said yesterday.

The IEA, part of the Organisation for Economic Co-operation and Development, warned in the report that urgent energy policy decisions in SA were being frustrated by excessive consultation, and called for government to strengthen the professional public service.

Basson said government saw the latest recommendations in a very serious light, with "our job from here to evaluate the IEA document and take from it those recommendations which we believe should be implemented..." The report was in no way binding on SA mineral and energy policy, but the IEA would review SA energy policies again in two years.

Basson said government was aware of many inefficiencies alluded to in the report. Steps were being taken, for example, to distinguish "the fine line between consultation and decision-making".

The department itself was trying to address its inability to handle its workload due to inadequate public service support, he said.

A draft version of the IEA report had also been used as part of SA's mineral policies development process, which was to publish a green paper in July, and by the authors of government's energy white paper, due in August.

SA Petroleum Industry Association director Colin McClelland said the IEA report was probably the best research into the mineral and energy sectors seen for some time. He welcomed its proposals for a deregulated liquid fuels industry.
Five Blow RT-5-M | Officials suspended after unauthorised spending spree

By Kathy Mamela
Electricity regulator’s pay under fire

Amanda Vermeulen

THE National Electricity Regulator has come under fire after proposing salaries for its senior executives which are double those of their colleagues in the electricity industry, with some pay-packets topping R500 000.

The regulator, from which SA’s estimated 250 electricity authorities have to obtain licences, was formed to rationalise electricity tariff structures and overcome the problems of supplying electricity to black and rural areas.

Funded by licence fees levied on electricity generators, it plans to pay its financing, pricing and tariffs executive manager up to R540 923 annually — almost double the salary of Johannesburg city council’s chief director of electricity.

The packages are also up to 30% higher than those of mineral and energy affairs senior officials and 50% higher than the top salary of an Eskom manager at a similar level.

In the salary proposals, gazetted on March 5, the regulator said the packages were designed to attract top people who were earning competitive salaries elsewhere.

In a letter to Mineral and Energy Affairs Minister Pik Botha, Finance Minister Trevor Manuel and the regulator’s board, the Mineral and Energy Policy Centre said the wage proposals were out of line with government practice. “There is a clear moral obligation for government to ensure equity between the regulator and mineral and energy affairs department staff wages,” the assertion that the proposed salaries are market-related is astonishing.”

The centre, an autonomous policy research body chaired by ANC secretary-general Cyril Ramaphosa, said

Continued on Page 2
The electrification industry in South Africa would be unable to sustain taxes as well as having to bear the cost of funding municipal surpluses and the electrification programme.

This warning was issued yesterday by the national electricity regulator's legal advisor, Kevin Morgan. Any additional tax on Eskom would be unsustainable for consumers, Morgan said at a presentation to public enterprises.

Government had suggested a tax rate of 35% and a 33% after-tax dividend, but this, Morgan warned, would "send the electrification industry into a nosedive".

"Government should think very seriously before imposing taxes on Eskom because it will have a significantly detrimental effect on electricity consumers," Morgan warned.

He noted that the profitability of the industry was highly skewed. In 1994, for instance, Gauteng alone made R777m, almost half the national surplus of R1.72bn, he said.

Public Enterprises Minister Stella Sigcau told the delegates "mistakes had been made in the past" by not incorporating stake-holders into discussions on the restructuring of Eskom's distribution networks, and she said "they should be brought in as a matter of urgency".
Eskom owed over R1-bn

ESKOM'S clients owed R1.25 billion by the end of the last financial year, chief executive Mr Allen Morgan said yesterday.

This translated into a two percent increase in electricity costs, he told the House of Assembly Public Enterprises committee.

National Electricity Regulator (NER) chairman Dr Ian McRae acknowledged that significant problems arose when it came to billing end-users.

Some electricity distributors did not even have a customer database, and there were cases where people were billed at different rates and where meters were not read.

The NER's Mr Ian Morgan said the electricity industry was highly fragmented, and with nearly 400 distributors in operation there were wide disparities in prices paid by customers.

In the Eastern Cape, for example, domestic users were paying between 12 and 43 cents per kWh.

Electricity pricing structures were exceptionally complex, and it would take about a year to address the wrongs, Mr Allen Morgan said.

— Sapa
Power lights way to SA future, says Pik

ELECTRICITY is the key to unlocking development in southern Africa, says Minister of Mineral and Energy Affairs Pik Botha.

He told the World Economic Forum-Southern Africa Development Community summit in Cape Town yesterday that energy drove development and growth and there were abundant opportunities for new energy projects.

"We have the resources and the will to develop these energy sources. Now we just need a little more money," he said.

But before overseas investors would commit their capital to the region, southern Africa needed to implement fundamental requirements for industrial growth.

First of these requirements was a stable political climate without corruption and violence, security of property rights for investors and fiscal policies that allowed equitable and exportable profits.

Governments would have to reduce involvement in business and show consistent and unambiguous support for a market-oriented economic system.

They also would have to reduce their consumption of capital (that is, tax), and leave more money in the hands of the people to create a demand-driven supply of industrial products.

Mr Botha said there would have to be a greater acceptance of the interdependence of all countries in the region.

"We need to pool our resources and skills and establish efficient co-operative structures and trading mechanisms."

The industrialised world did not expect the region to achieve these objectives overnight, but the region needed to establish a credible commitment, willingness and capability to do so.

"Our actions need to show that we are not only on the right track, but moving in the right direction on that track."
Working group to study shake-up of electricity

Robyn Chelmers

A GOVERNMENT working group was being established to examine outstanding issues regarding the carving up of the electricity supply industry, a mineral and energy affairs department spokesman said yesterday.

The spokesman said the working group would consist of officials from the ministries of mineral and energy affairs, housing, trade and industry, finance and public enterprises, as well as provincial affairs and constitutional development.

The setting up of the working group followed a meeting on Wednesday between the ministers of the various officials represented in the group.

He said there were three outstanding issues the working group would be considering. One was the process that would be followed in the restructuring of the electricity distribution industry.

This followed the tabling, six weeks ago of a report by the electricity working group on the distribution of electricity which could see the creation of several regional distributors. Alternatively, a single decentralised national distributor could be set up.

The report was drafted as a result of concern over the current electricity supply set-up and its plethora of tariffs and widespread inefficiencies.

The group would look into the way in which the RDP target of a further 2.5-million houses connected to the national grid by 2000 would be funded.

The third issue was how certain municipal services such as refuse removal would be funded should they no longer be subsidised through loading of electricity tariffs in certain areas.

The spokesman said members of the working group were to compile a report for the ministers involved. After consideration, this report would be submitted to Cabinet before end-July.

In a separate development, Eskom and the National Electricity Regulator denied yesterday that some electricity consumer groups were subsidising other groups.
Plan to build powerline

By Tom Wiltshire-Robbins

NAMIBIAN and South African electricity authorities have announced plans to build a 400 kilovolt powerline between the two countries.

"A feasibility study is being conducted and so far it looks like the project will go ahead," says an Eskom representative who does not want to be named.

The 900km line will extend from Windhoek to the Northern Cape.

According to a Namibian electricity official Nina Viall, it is estimated that the project will cost about R750 million.

She says the plan is based on projected growth in Namibian electricity consumption.

Studies conducted by Swawek, Namibian electricity authority, found coal, gas and wind-driven power stations would be uneconomical.

Eskom officials says Namibia will be able to export electricity in the long run.

Each country will finance its own section of the line and because the distance is longer on the Namibian side, Swawek will finance the bulk of the project.

The target completion date is May 2000.

Interconnection

The line will become the first interconnection between electricity networks in Southern Africa since the establishment of the Southern African Power Pool (Sapp).

Sapp is made up of all members of the Southern African Development Community with the exception of Zambia.

"When completed, the line will make it possible for Swawek to negotiate power supply agreements with Zambia or even Zaire, where surplus hydro-electricity is available," says Viall.

At present, there is an electricity link between Zambia and Ndola in northern Zambia. Zimbabwe is connected to the link and it, in turn, links the connection up with South Africa.

Southern African electricity supply experts believe that a hydro-electric scheme built at the Inga Falls on the Zaire River could produce a capacity between 50 000 and 120 000 megawatts.

According Eskom, Africa's total consumption is only 45 000 megawatts.

If such a project gets the ground surplus electricity could be exported to the Middle East and Eastern Europe.

Africa Information Afrique.
Rural areas switching on

DURBAN  (55)  (28)

Eskom would spend R190m on electrifying more than 53,000 rural homes in KwaZulu-Natal this year, while local government would electrify another 28,000 households, Eskom area manager Kurt Dedekind said at the weekend.

Dedekind said more than 85% of projects scheduled for 1996 were already under way.

However, provincial connection costs per site exceeded the national average of R3,568 by nearly R1,400, he said.

Electricity connections were cheapest in Gauteng — at R2,475 — and the most expensive region was the Eastern Cape at R4,397. There were about 1 million homes in KwaZulu-Natal without power.
Eskom plans new West Coast substation

ESKOM plans to build a major electricity substation along the West Coast, on a 150ha site near Melkbostrand.

The new substation, called Omega — about twice the size of the Aciota Park substation — is part of the upgrading of the electricity supply to meet the region's growing demand for power. The site, Groot Olifantskop Farm, is between the R27 and the N7, inland from Melkbostrand.

The draft Bloubergvlei Sub-regional Plan has allocated the area for conservation and agricultural use. The site will have to be rezoned for general industrial use before the substation can be built.

Eskom planners predict the Cape region will need about 3 000 megawatts of power by the turn of the century.

Though Eskom may not start construction for another eight years, it needs to buy the land now.

Eskom will hold a public meeting on the proposal at 7pm on June 4 at Koeberg's visitors centre. For further information telephone Kim Kruyshaar at 782-2192.

Environment Writer
Eskom's one-million-switch-on celebration in rural area of Eastern Cape
Solar energy starts to show its power

SOLAR power, for decades regarded as environmentally worthy but uneconomic, is increasingly being seen as a viable energy option with vast commercial potential. In spite of hundreds of millions of dollars of investment during the past 20 years, the world market is still small. Only about 70MW of photovoltaic (PV) cells were produced last year for solar power — enough to power a small city such as Oxford in the UK.

Yet a combination of new technology developments, rising demand in developing countries and measures by western governments to kickstart their own markets is generating a brighter future and a potential multi-billion-pound market.

According to Strategies Unlimited, a California-based consultancy, the industry has the potential to grow to 1,600MW by the year 2010, under certain conditions.

Growth like that would be a shot in the arm for the PV industry.

For several years, world production has shown steady year-on-year growth of about 15%, but manufacturing capacity still exceeds demand.

Cottage industry

But a more likely application in the shorter term would build on PV’s main advantages — power generation at point of use, avoiding distribution and transmission costs, and the fact it can be integrated into urban buildings.

It is this area, with its substantial market potential, that has caught the attention of the European PV industry. Solar panels can be mounted on facades or roofs of commercial or domestic buildings to generate a portion of a building’s electricity needs.

UK Junior Energy Minister Richard Page supported this viewpoint at a recent PV conference in Oxford. He emphasised the UK’s commitment to renewable energy, including solar, which was reflected in such government projects as the technology foresight programme and the trade and industry department’s new renewable energy programme.

The DTI helped finance the £1.5m conversion of a building in Newcastle upon Tyne into the UK’s first solar power office block. Page said it showed new office buildings "will be able to generate one-third of their electricity needs from PV cladding".

But Greenpeace, the environmental lobbying group, says two-thirds of the UK’s present electricity production could be generated by PV if it were deployed wholesale in homes and offices.

Harford says the industry faces a "chicken and egg" problem — PV-generated electricity is still more expensive than that from fossil-fuel power stations, but, if manufacturers were guaranteed sustained demand, they would invest in high-volume production, reducing costs dramatically.

The US energy department has established a joint programme with utilities to create what it sees as a necessary virtuous circle. It intends to double sales for solar products in four years and more than double the number of utilities using PV. It spent about £58m on initiatives last year and its cumulative expenditure is approaching £80m.

Fastest growing

For many years, Japan has promoted PV through its "sunshine" renewable energy programme to reduce dependence on nuclear energy and imported oil and gas. By 2000, it aims to stabilise carbon emissions at 1990 levels, a commitment also made by more than 150 developed nations. Japan also says new energy sources will account for 2% of its energy requirements by 2000, 3% by 2010.

That compares with the European Commission’s "PV in 2010" study which calls for production of electricity from renewables to be trebled. It also concludes that roof and building-facade grid-connected applications represent the fastest-growing solar market in Europe.

Intersolar MD Philip Wolfe says the time is right to include PV in the UK’s Non-Fossil Fuel Obligation, which subsidises electricity produced from renewable sources.

Inclusion would expand the market, he says. The DTI has so far excluded PV from the Non-Fossil Fuel Obligation mechanism. — Financial Times.
Councillors use cash from electricity to pay bills

Reinie Booyson

LOCAL authorities and municipalities were adding an estimated R2bn annually to electricity bills to cover budget shortfalls unrelated to electricity production or distribution, Minerals and Energy Affairs Minister Pik Botha said at a sub-Saharan oil and minerals conference in Johannesburg yesterday.

Botha was responding to an International Energy Agency report which recommended distribution of electricity be removed from the control of local authorities.

He said it was unlikely Cabinet would accept this recommendation, but proposed nonetheless that local authorities be forced to make the electricity bills they issued more transparent, setting out separately the true cost of electricity and any additional charges.

"I urge the government to make sure that the electricity consumer knows where his money is going," said Botha, who retired from politics at the end of the month when the NP goes into opposition. This knowledge was a democratic right, as it was effectively related to local authority management of public funds, he said.

In a recent report, Energy Policies of SA, the agency recommended the finances and operations of the distribution utilities, largely controlled by local authorities in SA, should be "clearly ring-fenced, transparent and at arm's length" if they remained under local authority control.

According to the report, more than 50% of many authorities' revenue came from electricity.

"Many municipal authorities use electricity prices as a way of raising funds for municipal functions generally," the report said.

The International Energy Agency is the energy policy and advisory arm of the Organisation for Economic Co-operation and Development (OECD).

The agency said the electricity distribution sector should be restructured to cater for the possibility of eventual full-blown competition among distributors, as was the case in many OECD countries.

Distribution should be handled by no more than 10, probably fewer, large distribution companies, each covering a substantial area of the country.

See Page 17
82% of W Cape homes electrified

BARRY STREEK
POLITICAL WRITER

HALF of the nine million housing units in black townships countrywide have not yet been electrified, but 82.1% of the houses in the Western Cape have been. Public Enterprises Minister Stella Sigcau said yesterday.

Outstanding bulk payments for electricity had almost doubled, with interest, to R1.2 billion at the end of 1993.

In reply to a question, tabled in the National Assembly by Mr John Gogonya (NP), Sigcau said 4.5 million of the nine million houses in black townships — 50.3% — had been electrified by the end of last year.

In the Western Cape, 766,361 of the 933,133 houses had been electrified and 17.89% still had to be electrified.

A higher percentage of homes are electrified in the Western Cape than in any other province.

In reply to a question tabled by Mr Keppies Nienann Sigcau said R788m was owed in outstanding bulk payments for electricity of R1.175m with interest, while at the end of 1993 R532m was owed or R690m with interest.
Most township dwellers are still in the dark

BY JUSTICE MALALA
Provincial Correspondent

Half of the households in South Africa's traditionally black townships still did not have electricity by the end of last year, when Eskom was owed R1.175-million in outstanding bulk payments by the provinces.

Of the more than 9 million households in these townships, only 4.53 million or 50.39% were electrified, while 49.61% were not.

In a written response to NP MP John Cogotya, Public Enterprises Minister Stella Sigcau said townships throughout the country had houses which were not electrified and still had to be supplied with the commodity.

The figures she released showed that the Eastern Cape had the least number of houses with electricity, with 72.36% of the province's 1.39 million households living without the commodity.

The Western Cape was the most connected province, with 82.11% of the houses having electricity, the figures showed.

Northern Province came close to the Eastern Cape, with 70.96% of its households still without electricity.

North West Province, where 63.56% of households lived without electricity, was third.

In KwaZulu Natal, 56.88% of households were still in the dark. In Mpumalanga, 55.39% of the households were without electricity. And in the Free State, 46.56% of the households were in the dark.

The Northern Cape had 34.08% of its households without electricity, while Gauteng had only 23.2% of its households living without electricity.

On outstanding payments owed to Eskom by the provinces, Sigcau said a total of R788-million was owed by the end of last year.

With interest, the money amounted to R1.175-million.

The worst defaulters were to be found in Gauteng, which owed a staggering R888-million with interest. KwaZulu Natal and the Northern Cape do not owe a cent.

Gauteng has led the defaulters' list for the past three years, with the debt at R592-million in 1993 and at R666-million in 1994.

Mpumalanga owes R79-million, Northern Province R60-million and the Free State R34-million. The Eastern Cape owes R51-million, North West R35-million and the Western Cape only R8-million.
Power utilities urged to embrace private sector

By James Lamont

Johannesburg — Southern Africa could become the “electricity valley of the world” if it brought competitive principles and private sector finance into its power utilities, Andries Calitz, Eskom’s senior transmission manager, said at the Sub-Saharan Oil and Minerals conference yesterday.

Calitz identified six priorities for the private sector for reform of the sub-equatorial African electricity sector, over and above the linking of transmission systems into an integrated power pool.

He proposed that a framework be adopted for independent power production, that large consumers be given a choice of energy supplier and that private sector finance be used to build and operate new transmission lines.

He also said power utilities should be commercialised, proper pricing policies should be implemented and the industry should be broken up into generation, transmission and distribution sectors.

“There are mechanisms to bring in finance that did not exist five years ago,” said Ian Goldin, the chief executive officer of the Development Bank of Southern Africa, addressing the same conference. “Private finance for infrastructure is becoming more and more the norm.”

He said that although Africa’s 2 percent share of global capital flows was expected to decline, finance of infrastructure could increase by 10 percent a year from $1.5 billion to $5 billion by the end of the century.

Common problems that beset the Southern African power sector, he said, were governments’ unwillingness to raise tariffs, contributing to the disastrous financial performance of utilities, the use of prices to give subsidies to customers and the underperformance of electricity plants.

He said the bulk of African populations had not had access to electricity and that a culture of non-payment prevailed that included government departments.

In most sub-Saharan countries less than 5 percent of the population has access to electricity. Because of an electrification programme begun in 1992, about 48 percent of South Africans receive electricity.

However, Calitz questioned the commitment of the South African government to restructuring its larger assets, including Eskom. He said the restructuring of Eskom had been restricted to identifying separate distribution entities.

Calitz said Eskom offered major industrial customers with continuous operations a price of between 2c and 3c a kilowatt hour and maintained a 2:1 ratio between the prices of residential and industrial electricity.

He said the board of Eskom had recently agreed that Eskom become a net importer of electricity from next year.
AEC unfastening the apron strings

By ZILLA EFRAT

THE Atomic Energy Corporation, a heavily state-funded strategic parastatal just five years ago, is fast improving its commercial viability.

In 1990 it had a single customer, Eskom, and supplied only one main product, nuclear fuel.

Today it sells more than 100 hi-tech products and services to a host of different local industries and 22 export markets. Locally produced nuclear fuel for Eskom accounts for only 4% of its income.

Waldo Stumpf, chief executive officer of AEC, attributes the changes to the AEC 2000 Plus plan which was initiated in 1990.

Since then, the AEC’s annual dependence on state funding has fallen by 72%, or R621-million, in real terms each year.

The AEC has achieved this by boosting sales, closing down non-commercial plants, discontinuing programmes, contracting out non-mission related services and downsizing its support functions.

As part of its restructuring, AEC staff numbers have fallen by 72% — from 8166 in 1986 to the current 4207. It has also written off non-commercial projects worth over R1-billion, the biggest being the Z Enrichment plant which closed last year.

Dr Stumpf says: “The AEC wanted to remain in the nuclear fuels business, but operations had to be commercially viable on the international market. Those which were not were closed down.”

To enhance its commercial viability, the AEC has ploughed its vast pool of knowledge into developing a host of industrial products which are used in areas as diverse as medicine, construction and space travel.

Over the next five years, Dr Stumpf expects state support to decline by a further 50% or more as new projects are introduced.

The AEC’s financial results for 1995/96, which will be tabled in Parliament soon, show that sales of nuclear and industrial products have risen from almost nothing in 1990 to R230-million.

Exports made up 24% of this figure while industrial or non-nuclear fuels sales accounted for about 33%.

More than half of the AEC’s exports went to Asia and Australia while 22% went to Europe.

Dr Stumpf expects local and foreign sales of industrial products to rise significantly, making up more than 80% of sales in five years. This growth is expected eventually to reduce the AEC’s dependence on the state from the current R245-million to a level where it gets paid only for contract work it does for the state.

In the early part of the next century, however, sales of nuclear fuel products should again start rising, thanks to a 50/50 joint industrialisation venture with French group Cogema on the AEC’s molecular isotope laser separation process.

Both organisations hope to make inroads into the international uranium enrichment market, worth R15-billion a year. The technology they are developing will add 100% in value to local uranium resources, thereby doubling the value of South Africa’s uranium exports.

Cogema and the AEC will each inject R65-million into the project over the next three years.

Of the R245-million in state funding the AEC will receive in the current year, R84-million will be spent on functions it performs on behalf of the state.

These include international relations, nuclear waste management, operating nuclear facilities and preserving nuclear technology.

If the AEC achieves its current five-year plan, Dr Stumpf expects it to earn R300-million from exports and provide South Africa with foreign exchange savings of R250-million through subsidised import replacement.
A ‘gradual’ revamp for electricity sector

Robyn Chalmers

THE rationalisation of the electricity supply industry had to be done gradually, Eskom CEO Allen Morgan said last week.

The electricity working group recently submitted proposals to government on restructuring the supply industry, which could lead to a single national distributor being established or several regional distributors.

Morgan said one of the ways forward could be for Eskom or the strong municipalities to take over distribution functions of an ailing local authority unable to pay its electricity bills.

Eskom has about R1.8bn accumulated debt on its books as a result of non-payment.

Decisions about absorbing some municipal electrical undertaking activities would, however, have to be taken by the national electricity regulator.

Government sources said recommendations from an interdepartmental committee studying implications of restructuring electricity supply should be before the Cabinet by end August. Tough negotiations are expected before the recommendations are tabled.

On the question of Eskom’s restructuring, Morgan said the parastatal was continuously studying effects of transformation, and recognised the need to adapt to its environment on the political, business and international level.

Eskom’s restructuring and transformation committee — representing Eskom management, trade unions and employees — was far advanced in talks on the parastatal’s future structure.

Morgan said the electricity council — which formulates policy and oversees the management board — was being closely scrutinised.

It was possible the council could play a greater role in linking policy and Eskom’s objectives.

There was also a need for greater accountability and focus within Eskom’s three core businesses of generation, transmission and distribution, he said.

Public Enterprises Minister Stella Sigcau announced recently that a Bill would soon be placed before Parliament to establish state ownership of Eskom, after which it would be transformed into a corporation.

Morgan said that he was not opposed to such a move.
Home wanted for white elephant

GOVERNMENT is attempting to lure foreign companies into bidding for the redundant power station erected by Bophuthatswana president Lucas Mangope.

The mineral and energy affairs department said the R177m plant, which has never produced a watt, would never be commercially viable in SA. Government had tried previously to sell the plant at a commercial price, but failed to find a buyer.

The department said the station would have cost the highest bidder probably an island state where prohibitively high generation costs would justify spending more on the Bop plant.

The plant, built in the 1950s, lacks the coal and water supply systems. Last year the Steytlervale commission investigators said it was a "monument to开了".

Mineral and energy affairs said attempts over the past two years to find a buyer had failed because of potential permits to erect a power station in their own countries and foreign legislature. The plant would now be fed through the Tender Board with the highest bid winning.

Studies by mineral and energy affairs indicated that the plant was not commercially viable in SA given the country's relatively inexpensive electricity. The power station was originally planned to provide 60MW of power, while Eskom's power stations generally produced about 600MW.

The department said a few companies, notably from the Philippines and Malaysia, had expressed interest.
Eskom owed billion rands

ADRIAN HADLAND
Financial Staff

MORE than a billion rands is owed to Eskom in electricity arrears. This has been revealed in parliament by Public Enterprises Minister Stella Sigcau.

Delivering her departmental budget speech on the last day of the current session of parliament, she told MPs that non-payment for electricity in certain areas continued to be a source of "grave concern."

While Eskom was in good financial shape, solutions were being urgently sought in a bid to tackle the huge amount of outstanding payments.

"The government at central and local level is working together with all stakeholders and the communities as well as Eskom to seek practical and functional solutions to this problem," she said.

In a speech that was expected to clarify the government's position on the privatisation of state assets and corporations, she failed to unveil any significant new plans or initiatives.

The restructuring of state assets was an "important pillar" of government macro-economic strategy, she said.

Parliament heard that some communities refuse to pay their electricity bills, leaving Eskom with a burgeoning billion-rand debt. In spite of this, the power giant claims it can cope.

Public enterprises currently under restructuring review employed in excess of 300 000 and many of these were "understandably apprehensive" about the future.

"Restructuring should develop the human resource capacities of South Africa through decent employment conditions, efficient use of training and retraining, redressing previous discriminatory practices and enhancing technical and managerial capacity," said Mrs Sigcau.

Restructuring could involve a number of options including the total sale of an asset and the partial sale to strategic equity partners.

Mrs Sigcau said a special adviser would be appointed next week to draft a final model for the whole programme which was expected to be ready by the end of the year.

"The restructuring of state assets is not ideologically driven but constitutes a pragmatic economic imperative," she said.

It would aim at boosting economic growth, involving foreign partners in the provision of infrastructure at an estimated cost of R173 billion, reducing debt and making state corporations more efficient and competitive.

"Significant strides" had been made in plans to find a strategic equity partner for Telkom and implementation of this plan was expected in the second half of the year.

A change in the ownership of the parastatal Aventura, which provides leisure accommodation and facilities, was also inevitable with up to a quarter of the shares going to staff.

Further decisions on the sale of Sun Air and Transkot Airways, as well as the reactivation of mothballed Eskom power stations - with a view to attracting strategic partners - were expected later in the year.

"The restructuring programme is destined to be a protracted and carefully considered process," Mrs Sigcau told parliament.
Illegal connections, high demand blamed for daily blackouts in Alex

BY ANNA COX

Alexandra residents are experiencing power cuts every night between 6 and 10pm and are complaining bitterly of not being able to cook, bath and get children's homework done.

David Mphake said the power cuts had happened every night for the past four weeks and were causing great inconvenience to people who were unable to get on with daily living.

"The electricity goes off when my wife and I get home from work, so we cannot cook, and most nights my children go to sleep without eating a proper meal," he said.

Eastern Metropolitan Substructure (EMSS) public relations officer Daleen van Wyk said the authorities were aware of the cuts and a R2-million programme to upgrade the electricity infrastructure was in progress but not yet complete.

She said illegal connections and a high demand during the winter months were causing the power to be cut off.

"We are taking action against the illegal connections, but once the upgrading is complete, things should improve vastly. Further provision has also been made on the 1996-97 operating estimates to continue with the upgrading programme," Van Wyk said.

A meeting to allow Alexandra residents to decide on increases in electricity charges will be held on Saturday.

Residents will be asked to provide input on how proposed increases in electricity tariffs should be phased in.

A public meeting was held last month but although the community agreed that tariffs should be increased, they asked for more time to consider how they should be implemented.

A number of options have been put to residents and published in a local newspaper. Residents who are unable to attend the meeting can vote for the option they prefer with a ballot paper outlining the options.

Concerns raised by the community regarding illegal connections, the non-payment by hostel residents and inadequate infrastructure will be discussed.

The EMSS is also planning an education programme for the community to address all issues related to the electricity supply.

The planning of the programme was at an advanced stage and would be implemented towards the end of June, said Van Wyk.
Ekoms signs agreement plan to repay arrears

By Shandack Mwashange

1995
Eskom accused of covert sell-off

By James Lamont

Johannesburg — Eskom's management is privatising parts of the national electricity utility behind closed doors, Bheki Magagula, the Gauteng regional secretary of Numsa, said yesterday.

Magagula accused Eskom of covert sell-off. He said: "Eskom management wants to privatise, but we don't stop them now that they are going to privatise all of Eskom."

Magagula said that Eskom had already hived off its housing assets and other strategic areas.

"The government seems to be really moving forward with privatisation and is not addressing delivery," said Jerry Mafereka, a Numsa shop steward at Eskom.

The ANC-led government needed to wrest control of the utility from business interests for the good of upgrading the country, Mafereka said.

"The debates are taking place in boardrooms while we as unions are taking the issues out and making them public. Very few people understand what is going on."

Numsa was concerned that covert privatisation was being undertaken on a piecemeal basis and neither it, nor the communities, were having a say.

But an Eskom spokesman said the union's fears were unfounded because the utility was not discussing a change of ownership with the government and did not believe it should be privatised.
Sharp increases, but SA’s electricity is still cheapest

Robyn Chalmers

SA CONSUMERS experienced the highest average electricity price increase, for the second year in a row, out of 15 countries participating in the annual National Utility Services SA cost survey.

However, the survey showed that despite the latest increase of 8.04% in price against an official inflation rate of 6.3%, SA still had the cheapest electricity of all countries surveyed.

Spain has taken over from Germany, having the most expensive electricity at 42.81c a kw/hour, with the average cost a kw/hour in SA standing at 15.87c.

The survey showed although there was no change in the cost of Spain’s electricity between April last year and April this year, prices in Germany had fallen an average 9.08% during the period, knocking it from the top spot.

Italy’s consumers saw an increase of 2.6% which meant Italy retained its position with the third highest electricity price, followed by Belgium, the Netherlands, Eire, France, the US and the UK.

National Utility Services SA national sales manager Rob Mackenzie said the organisation, which provided analysis on energy, water and fuel costs, was monitoring developments within the electricity distribution industry.

Mackenzie said the government-backed National Electricity Regulator’s aim was to ensure electricity was made available to the whole population at equitable prices, but there were several problems to be overcome first.

Not least of these was the elimination of widespread inefficiency in the fragmented distribution system involving Eskom and more than 400 local authorities, he said.

The regulator had postponed issuing final licenses to distributors to give it more time to negotiate a more rationalised distribution model. Proposals were being assessed by a government task team.

Mackenzie said a new system was needed for business and the consumer which would “vary in many ways to the old one”.

He expected more cost-related tariffs would be introduced, but businesses would still need to ensure that the new tariffs imposed were the right ones for them.
SHOCK TACTICS

A crisis has erupted in electricity supply — with widespread political implications. Eskom has taken judgments against the Northeast Rand Metropolitan Council and Springs City Council for more than R440m of unpaid debts.

It says it intends to enforce these judgments, which means cutting off power to areas that include large mining and industrial customers. The National Electricity Regulator says it will prevent this.

Northeast Rand claims the problem is caused by the merger of Kempton Park with Tembisa.

The new authority inherited a situation where Tembisa was not paying enough to cover its electricity bill. One aspect of the problem was illegal power connections. A spokesman for Springs says it will negotiate with Eskom to reach a compromise.

This damaging situation was foreseeable when the Regulator was established and it became clear that government’s policy was to cross-subsidise poor households’ power bills at the cost of commerce and industry.

This policy was entrenched through the boundaries established for new local authorities, which merged poor areas with economically stronger entities such as mining. Many warnings were given when the Regulator was set up, not least by the FIM.

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Now the predicted problems have arrived. Consider the dilemma faced — ultimately — by government. If Eskom, by whatever means, is denied the right to enforce payment of its claims, its own profitability and creditworthiness will be impaired. So, too, will its ability to raise loans abroad. Even local borrowing could become more expensive.

Adding together nonpayment by municipal authorities and end-users, Eskom is now owed R1.2bn, equal to 7% of 1995 revenue, and well up on 1994’s R873m.

As for future privatisation, possible foreign buyers will simply point to the electricity payments problem as an immovable obstacle.

If the Regulator’s attitude leads to this, what is the alternative? By inexorable logic, local authorities must be able to recover electricity charges or shut off power and enforce the shut-off.

This would bring to a head the unresolved political tussle between government or, perhaps more correctly, the ANC, and the citi. It also raises the embarrassing issue of law enforcement in general in black residential areas.

If recent precedent is a guide, government will fudge the issue and end up with the worst of both worlds. It will allow Eskom’s finances to be impaired and will ineffectually attempt to see its writ run in black urban areas.

What is needed is a firm decision at the highest level to change whatever needs to be changed to deal a heavy blow to the culture of nonpayment.

It is time for government to admit its Masakhané programme is a myth. Non-payment for services cannot be allowed to impinge on the rights of business in the affected areas. Industry must not be penalised for a culture spawned by government’s attitude to nonpayment.

The solution may even entail significant changes to the local government dispensation. But whatever the key, this lamentable situation cannot be allowed to continue.
Eskom will not be allowed to pull plug

The National Electricity Regulator has reassured consumers in 11 municipalities with unpaid electricity bills that steps will be taken to avoid cutting off bulk supply.

The regulator is trying to resolve the deadlock between Eskom and the Springs and North-East Rand councils over unpaid bills of R460-million.

NER chairman Dr Ian McRae said that, if necessary, the regulator would exercise its statutory powers to transfer licences of defaulting distributors to competent and financially sound distributors.

The Government was looking at ways to restructure the electricity supply industry and a decision by the Government was expected to be announced soon.

McRae said non-payment of electricity was placing a risk on the financial viability of the entire electricity distribution industry.

Also, those who had electricity and were not paying for it were denying those who did not have it the opportunity of getting it.

He said the NER supported the action taken by Eskom to cut off the electricity supply to individual consumers who refused to pay for it.

However, cutting off the bulk supply to whole cities, towns or areas was a different matter altogether.

"Pulling the plug will result in cutting off the supply to industrial and commercial consumers who are paying their bills, and also to the majority of residential consumers who are also paying their way - so those who pay suffer with those who don't."

McRae said Eskom had at least three options; it could negotiate a satisfactory settlement, pursue its normal civil remedies through the courts, or it could negotiate the bulk supply. – Sapa
Naturena indignant about squatter site

By Thembisa Sepotokele

RESIDENTS of Naturena, south of Johannesburg, have lodged an appeal with the Greater Johannesburg Metropolitan Council to intervene in the planned relocation of squatters to the area.

In a 53-page petition signed by more than 650 people last week, residents appealed to the GJTM C planning department to stop the resettlement at Naturena of squatters from the Misungud North informal camp in Lenasia.

The squatters are scheduled to be resettled in October and residents plan to use every means at their disposal to stop the move.

In a petition delivered to the chief executive officer of the GJTM C, Professor Nicky Padayachee, residents said there had been a lack of communication and no consultation as required by the council’s policy and the Reconstruction and Development Programme before the resettlement was planned.

Ignored strategic goals

Residents said the proposed resettlement ignored the strategic goals of the Urban Development Strategy, which stipulates that low-cost housing should not be part of an up-market suburb. The resettlement would also be a health hazard because no environmental impact study was done as required by the Environmental Conservation Act.

To make matters worse, they said, the Naturena Civic Organisation was not informed about the move.

The residents said that as citizens and ratepayers of the country, they demanded that their case and their objections be heard.

A resident said: “To have squatters in our area will lower the value of our houses. This should not be allowed to happen.”

Padayachee has given residents an undertaking that the council will discuss the matter. “An option would be to put the issue on the agenda of the Petitions and Public Participations Committee’s meeting scheduled for July 30,” he said.

48 000 residents to get electricity

By Josias Charlie

ABOUT 48 000 Soshangwe residents are to benefit from a new R29 million electricity project launched at the weekend.

Under the project 7 500 homes have been electrified, benefiting the communities in sections FF, GG, HH, JJ and LL. At least 19 schools and 37 other stands will also have access to electricity.

The “switch-on” was performed by Soshangwe mayor Mr O Lukhuleni. Several parliamentarians including Deputy Education Minister Father Thandisizwe Mkhathwa attended the ceremony.

Lukhuleni urged residents to continue paying for their services as this would allow the council to be in a position to render better services to all.

“The special relationship that exists between a local authority and its residents places a responsibility and obligation on each citizen. A local authority and the services it renders can only be as good as the support and financial contributions it receives from its residents,” Lukhuleni said.

The driving force behind the project, local councillor Mr Benny Makena, said the project has set an example of what can be achieved if the cooperation between the community, local authorities and developers was sound. He said the project was completed in seven months.

Makena said in under the project, 7 500 homes have been electrified as well as 19 schools and 37 stands and about 48 000 people will now have access to electricity.

Makena said the project was financed by the Greater Pretoria Metropolitan Council.

“This project was labour-intensive. About 302 residents were employed and benefited by about R1.5 million in wages,” he said.

Editor dies in accident

By Victor Meqaamere

THE EDITOR of The Sunday Independent and New Nation supplement Higher Education Review, Mrs Karen McGregor, has died in a car accident in KwaZulu-Natal.

McGregor’s 18-year-old daughter, also named Karen, who was an architecture student, also died in the accident which occurred on the N2 highway between Izingolweni and Harding last Thursday.

McGregor’s husband Mr William Saunderson-Meyer, who is the communications and development director at the University of Natal, and their other daughter Amy (16) were injured in the accident.

Amy reportedly broke a collar bone and cracked a rib.

Saunderson-Meyer is in the intensive care unit of a private hospital but is reportedly recovering well.
Boxing Maduna

James Lambert

Penwell Maduna, the new mineral and energy affairs minister, has had to deal with a number of controversial issues since taking over from Pik Botha.

He confers on an equity partner for Eskom, the national electricity utility. It is feared that the state does not have enough money to be the sole financier. That is not an option, it is a fall into the realm of state restructuring, he says.

The state's hand is everywhere in the energy sector, from subsidised price setting, and Maduna does not want it pared back yet. But he warns against the structuring of command economies.

"The thing we are no getting to allow is to become a highly centralised economy."

Maduna is suspicious of deregulation and compares it with the unruly and deadly taxi industry. In that laissez faire environment, he says, "they have been thoroughly boxing one another". Though competition is still, the same is unlikely to happen in the oil industry, but Maduna will not put it to divorce.

"You can't say the government must have no role whatsoever. As the government, it has to address the concrete reality of South Africa's situation." He says the experiences of other countries are useful, but cannot simply be transplanted to South African soil.

"I am the last person to say we should leave everything to the tender mercy of the private sector," he says.

He argues that the private sector is not prepared to take on a developmental role like low-cost housing and mass electrification. Until it will, government must provide.

Maduna is yet to find his feet but like the boxing legend Muhammad Ali, he is playing rope-a-dope.

All of these require urgent attention. Investors are deterred by the lack of a clear strategy which will prepare the industry for the next century, as the Mossgas bid process has shown.

Behind the new minister lies the inglorious R11 billion Mossgas, a legacy of apartheid's isolationist mantra which has consistently failed to nationalise.

Furthermore, he has to restructure a portfolio which before was primarily guided by the National Party. Maduna has to reassure his predecessors and defer critical decisions to Cabinet authority.

A former amateur boxer, Maduna is still feeling his way and does not threaten any surprises. "It is still early days to see what I want," he says. "But let's have change and do things differently."

As his top priority for change, he places transforming black South Africans from "purveyors of cheap labour" into equity holders in industry. "We must initiate processes to bring blacks into the economy," he says.

"I am beginning to imagine blacks in refining, in the business of importing crude, owning and operating mines. Nothing prevents us from doing that," says Maduna.

He argues that a more representative share of equity is not a question of blacks receiving handouts of marginal mines, but buying their way into the economic bedrock of the nation.

They have the resources and we can invent creative ways of buying their way in, he says. Of the mining houses, Maduna says, "Some are going the right way, others are not."

He was not specific about which stood favourably with him and which did not.

Maduna also has to consider the issue of energy policy that accompanies the potential of gas reserves in the Pande field in Mozambique and the Kudu field off the coast of Namibia.

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Mondi to supply Eskom electricity poles

By James Lomont

Johannesburg — Eskom and Mondi Forests have entered a partnership to alleviate a shortage of electricity poles that had threatened to hold up the national electricity utility's mass electrification programme in South Africa's remote rural areas.

The shortage arose because of the heavy summer rainfall.

Mondi Forests is a commercial forestry enterprise and a wholly owned subsidiary of Anglo American Industrial's Mondi.

The company agreed at the end of May to supply 4,000 poles a month to Eskom as part of a two-year contract. The contract guarantees a reliable supply and has the option of being extended for two years.

Eskom was unable to attach a value to the contract. The poles are used in a third of Eskom's electrification business, which is critical to the Reconstruction and Development Programme.

New customers

Eskom's electrification drive aims to connect 300,000 new customers a year. It ran into problems earlier this year when the supply of 9m to 11m electricity poles used in remote rural areas dried up because of increased demand for power infrastructure. Eskom electrified 313,179 homes last year.

The poles take between nine and 12 months to dry out before they can be used and the summer's wet weather had delayed the drying process.

Mondi has built a kiln in the Pietermaritzburg area to reduce the drying time to 15 days. Zella Rickett, an Eskom spokesman, said many local forestry companies were unable to supply poles of the required length.

"Import of the poles has been considered, but it is better to keep it within the South African economy," she said.
Call to bypass struggling councils

Business bid to pay Eskom bills directly

Robyn Chalmers

BUSINESS is calling on the National Electricity Regulator to allow it to pay electricity bills into a special account, bypassing local authorities which face being cut off by Eskom for failing to pay their accounts.

The Forum for Energy End Users — representing companies such as Sentrachem, Afrox, Sappi, Mondi and Tiger Oats — said yesterday Eskom's threatened action against authorities would lead to production losses with "huge ramifications for SA's economy".

Chairman Johan Hees said industry was an innocent party and companies needed a fund to send accounts to if they feared local authorities — about 60 are in debt to Eskom — could be cut off. Business would pay local authorities that were not in arrears to Eskom.

The call has been triggered by Eskom's attempt to recover R440m from the Northeast Rand council and Springs. Eskom has warned it will cut the two councils' supply, though the regulator has vowed to prevent this.

The business proposal would deprive the local authorities of a major portion of the R1,7bn a year they net from premiums on electricity sales. This is used to subsidise other local authority commitments, and compensating the authorities for losing the surplus is a major sticking point in talks to reshape the distribution network.

The regulator has previously indicated it would be prepared to let Eskom deal directly with consumers to maintain supply should the local authorities be cut off. But it dismissed business's proposal, saying it was unnecessary.

"It is the wrong approach because it will constitute a breach of the existing agreements between companies and their distributors, giving local authorities the legal right to cut off electricity supply to businesses," said regulator spokesman Johan du Plessis.

He said a meeting to find a way forward would be held today with representatives of central government, the Gauteng government, Eskom, the regulator and the local authorities. Proposals being considered by the Cabinet on restructuring electricity distribution included ways of dealing with non-payment and, if accepted, could go some way towards solving the issue.

Hees said that during recent discussions on restructuring the industry, forum members had lobbied for the electricity supply to be taken away from local authorities.

There was evidence of a growing number of local authorities not paying their accounts to Eskom, despite the payment of electricity accounts by business. The culture of non-payment had resulted in Eskom being owed R1,5bn by local authorities.
Eskom agrees not to cut East Rand power

Bill to grant local govt powers okayed

The Government is to publish draft legislation which will grant and define powers of local government structures, Constitutional and Development Minister Mohammed Valli Moosa has announced.

Moosa secured the support for the draft bill on further regulation of local government or “the bridging legislation” from the nine MECs in a meeting he held with them yesterday.

Once the bill is published, the public will be given 21 days to comment before it is tabled before the Cabinet for approval, and then in Parliament.

The “bridging legislation” covers the powers and functions of metropolitan councils and local councils, district councils, stand-alone local councils, rural councils and representative councils. It also deals with the alteration, redemarcation and re-delimitation of municipal areas, and creation of a municipal demarcation board.
Eskom strikes deals to cut power

Johannesburg — Eskom is offering to pay large customers for temporarily interrupting their electricity supply so that power can be delivered to other customers during demand surges and sudden losses of generating capacity.

Eskom started offering interruption agreements two years ago with Alusaf, the aluminium producer. It now has interruptible load agreements with 26 smelters and furnaces, it said yesterday.

The power is needed during surges in electricity demand or when generating units feeding the electricity grid temporarily go off-stream. The agreements allow Eskom to curtail the electricity supply at short notice for not more than two hours a week. In return, Eskom offers a discount on the customer’s account or a lower tariff.

Andries Calitz, Eskom’s senior transmission manager, said that customers normally received compensation after an interruption had taken place, but otherwise remained on a normal tariff.

The average rate of compensation for interruption is 10c a kilowatt hour across peak, standard and off-peak times. The peak rate is 28c a kilowatt hour during winter and 25c a kilowatt hour during summer.

This arrangement is considerably cheaper for Eskom than building additional generation capacity.

According to Eskom, the agreements virtually eliminate the need for expensive gas-turbine emergency generating plants.

The company said it hoped to make 3 200MW available through the initiative. The agreements were available to all of its large customers, Eskom said.
settlement of its debts, pursue its legal rights through the courts or terminate bulk supplies. The last remedy the NER correctly rejects as unfair and economically destructive. Not only this, but the Regulator in the last resort will intervene to revoke the licences of defaulting municipalities, which it will transfer to Eskom or another distributor. Then the interests of consumers and Eskom can be protected as Eskom could apply effective credit control measures.

Government, says McRae, is also considering ways of restructuring the electricity supply industry. Various models are being considered.

In an alarmist response, the Forum for Energy End Users, representing threatened companies, such as Sappi and Mondi, has proposed that they should pay for power directly to Eskom. The Regulator replies that this is unnecessary. Not only that, it would also constitute a breach of contract between companies and local authorities. More practically, a meeting is being held between government and other stakeholders to deal with the problem.

It's ironic that Eskom, even as a temporary expedient, could be brought back as the electricity retailer of last resort, after much fanfare about restricting it to the functions of generation and transmission. The wheel has come full circle, as Eskom originally found itself a distributor of electricity in black urban areas through the collapse of apartheid-era black local authorities.

In the face of reality, the idea that cross-subsidy of electricity to poor households could be promoted through the intermediation of local authorities is collapsing.

Some good may yet come out of the issue, though Eskom itself could still be made to act as the agent of cross-subsidy. In the course of its deliberations, government must be reminded that subsidies should be made explicit and not implicit. This enables the cost of the subsidies to be made visible so that government can decide how much money to use for this purpose. Implicit subsidies foul up cost structures and their cost is difficult to determine.

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Atomic Energy Corp staff suspended after financial irregularities

Several staff at the Atomic Energy Corporation near Pretoria have been suspended following the discovery of financial irregularities.

The AEC said today these concerns affected controls of tender processes in the sale of obsolete plant and equipment and within contractual arrangements with labour brokers who supply temporary contract labour to the AEC.

It gave no indication of the amount of money or the number of people involved.

"Staff members allegedly involved have been temporarily suspended from duty while external audit investigations are proceeding," a statement said.

"If warranted, criminal prosecution could follow."
W Cape tops in power stakes

MORE homes — 82.1% — were electrified in the Western Cape than in any other province, the Minister for Public Enterprises, Ms Stella Sigcau, said yesterday.

Replying to questions tabled in the National Assembly, she said 27.6% of the houses in the Eastern Cape and 29% of those in the Northern Province had been electrified.

Sigcau said 76.8% of the houses in Gauteng had been electrified, as had 65.8% in the Northern Cape, 53.4% in the Free State, 44.6% in Mpumalanga, 43.1% in KwaZulu-Natal and 36.4% in North West.

Nationally, 50.4% of homes had been electrified.
Electricity industry revamp ‘next year’

Robyn Chalmers

Restructuring of the electricity supply industry should get off the ground early next year, with recommendations to go to a Cabinet committee before the end of the month.

Mineral and energy affairs ministry chief director, energy, Johann Basson said yesterday that several restructuring proposals had already been agreed on within an interdepartmental committee.

The most contentious of these is the structure of the industry which, Basson said, the committee had tentatively agreed on.

But details would be released only after the Cabinet had considered the committee’s recommendations.

The three main options include establishing a single national electricity entity which would handle generation, transmission and distribution of electricity; creation of two national bodies, one handling generation and transmission and the other dealing with distribution; and the setting up of a few regional distributors as a merger between a number of local authorities and Eskom, which would be owned by them.

The current set up has Eskom generating and distributing electricity, while more than 400 local authorities are also distributing electricity.

Basson said that whatever form was chosen, implementation was unlikely to follow a big bang or an incremental approach. It would most probably be a managed transformation process taking place over a few years.

Basson said the real work would begin after the Cabinet had come to a decision on the recommendations, when an attempt would be made to reach consensus on the way forward with the various stakeholders.
Final electricity decision expected

Robyn Chalmers

CABINET is expected to make a final decision on the restructuring of the electricity supply industry in the next three weeks, says the National Electricity Regulator.

Regulator customer services manager Johan du Plessis said yesterday the decision was initially expected at the end of last month, but it was hoped a decision would be forthcoming by the end of this month.

Du Plessis said a growing number of municipalities were unable to pay their electricity bills. This was evident in the recent agreements signed between Eskom and the Springs and northern East Rand councils, which together owe R440m.

"Many municipalities could become nonviable as suppliers of electricity due mainly to non-payment on the part of consumers along with greater demands being made on municipalities by disadvantaged communities," he said.

A number of restructuring proposals have been submitted to government by the Electricity Working Group, representing government and suppliers. These are being considered by an interdepartmental committee.

Du Plessis said the essence of the proposals was that the distribution functions of Eskom and municipalities be hived off and merged into a number of regional distributors. A single national distributor might also be considered.

At present, both Eskom and 400 local authorities are generating and distributing electricity.

Income lost through the hiving off of these functions could be substituted by a local authority tax which government would have the right to cap.
Solar projects win politicians’ support but not financiers’

By Cris Chinaka

Harare — The world conference on solar energy ended yesterday after winning resounding pledges of political support, but some delegates were unhappy over the lack of concrete financial backing for a plan to provide energy to all.

Several speakers said at the opening of the two-day World Solar Summit on Monday that they were solidly behind a United Nations Educational, Scientific and Cultural Organisation (Unesco) world solar programme that aimed to provide energy to 2.4 billion people living without electricity.

But some said the emphasis should be on winning financial help to implement about 300 projects presented at the summit.

Farooq Ahmad Khan Leghari, Pakistan’s president, commended the World Bank for its recent pledge to help promote the use of solar and other renewable sources of energy.

He said he hoped other multilateral agencies and “enlightened” donor countries would also commit themselves.

In his opening address, Robert Mugabe, Zimbabwe’s president, lamented poor funding for renewable energy sources, which he said averaged only 3 percent of the lending portfolios of multilateral banks. He called this ironic in view of the value of the emerging worldwide market for renewable energy technologies, which is estimated at $40 billion a year.

Mahathir Mohamad, the Malaysian prime minister, on Sunday criticised rich Western countries for showing little interest in the Harare summit. He said on Monday there was need for technological and financial co-operation between the developed nations and the Third World.

“Our agenda should focus on development of a more effective partnership,” he said hours after complaining about the absence of leaders from industrialised states. The conference attracted only 10 heads of state and governments compared with the 25 that organisers originally expected.

Boutros Boutros-Ghali, the secretary-general of the United Nations, said the world needed new sources of energy because conventional power sources not only damaged the environment but were inadequate to meet increasing global energy demands.

“It is estimated that global demand for fuel will increase by 30 percent (over the next 30 years), while demand for electricity will rise by well over two-and-a-half times,” Boutros-Ghali said in a statement to the meeting, which was held under a scorching sun in Harare.

“Conservation and efficiency measures alone will not be enough to cope with this increase in demand. New sources of energy need to be found, developed and exploited quickly.”

Christos Papoutsis, a member of the European Commission in charge of energy policies, urged the delegates from 160 countries to mobilise financial resources to make renewable energy a reality.

“The implementation of hundreds of strategic and priority projects on a global level now has to be our first priority,” he said. — Reuter
Council shocked by earth wire theft

ANDREA WEISS
Metro Correspondent

Theft at city council electrical installations has reached crisis proportions.

City electrical engineer Fred Berwyn-Taylor told the Cape Town executive committee that thieves stole earthing wire at such a rate that it was difficult to keep up with replacing it – and this put electrical installations at risk.

Mr Berwyn-Taylor’s warning came during a debate in the council on in-house theft – prompted by a report on the theft of 10 overhead line-pulling devices, and also a fire extinguisher worth about R18 000, from a toolbox in a locked vehicle at the council’s Ndabeni complex.

The report described the theft as “a planned operation by people familiar with the layout and operation of the workshops as well as knowledge of the contents of the tool box on the vehicle”.

Exco head Nomaindia Mfeketo said she found it unacceptable that it was not possible to trace the thieves.

She said she had been a victim of in-house theft when her purse was stolen out of her bag in her office last year.

Housing committee head Sydney Ncate said vehicles in the Ikapa area were “bought today, tomorrow gone”.

The executive committee decided the council needed to find a way of countering in-house theft which would possibly include searching people and cars as they left council property.
DP to meet Sexwale over rates and allowance row

THE DP would meet Gauteng premier Tokyo Sexwane today to discuss the Sandton rates boycott and the 95% increase for councillors’ allowances in Johannesburg’s eastern suburb, a DP spokesman said yesterday.

Gauteng MPL Jack Bloom said the DP would try to convince Sexwane that the levy demanded by the Johannesburg metropolitan council was inequitable and open to legal challenge.

Bloom said in terms of Sexwane’s own proclamation, the metropolitan substructures were empowered to draw up their own budgets and the DP believed this ensured direct accountability to voters in each substructure.

He said the practical implementation of this principle would go a long way towards resolving the Sandton rates boycott, rather than enforcing one single, uniform rate.

The DP proposed a rate of 4.5c in the rand for properties in the eastern substructure as opposed to 6.45c, which would meet all running expenses and contribute R220m to the R400m which is currently demanded.

Regarding the 95% increase in allowances, voted for by the ANC and NP, Bloom said the DP would urge Sexwane not to approve increases. “The DP believes the increases are exorbitant and were voted in without the necessary two-thirds majority for any matter which requires extra budgetary provision,” Bloom said.

Gavin Du Venage reports that up until now municipal councillors had been treated as part-time elected volunteers paid only a small allowance to cover the expenses of their posts.

Several Johannesburg local authorities voted to almost double the capacitation allowances of ordinary councillors from about R2 800 to R4 600. The northern and eastern substructures have voted for the increase.

Giving more money to councillors has only heightened ratepayer suspicions that their money is being used to fund an inefficient and self-serving entity.

However, local government officials say the role of municipal councillor has changed substantially within the new system and remuneration needs to be revised.

NP spokesperson and councillor Yakoob Makda said few councillors could hold down a job and still carry out the duties to which they were elected.

Councillors in former white administrations were invariably re-tired people with legal and management skills, and a source of income like a pension. Others were business people whose activities allowed them to devote substantial time to municipal affairs without drastic reduction in income.

Few black councillors had access to a reasonable income, Makda said. Most held down low-paid jobs and were torn between giving them up or compromising on council duties. He said employers quickly lost patience with workers who constantly asked for time off to attend committee meetings.

“I know of several councillors who in the first part of this year have used up all of their leave and sick leave time already,” he said.

Another disadvantage many black councillors face is the lack of support facilities. Many live in townships where telephones are non-existent and they have to use cellphones to keep in touch with their council and caucus.

Makda says even simple things like typewriters and stationery and other items essential for administration are costs carried by the councillors. — Sapa.

Call for equalising SA energy

THE existing energy system in SA had discriminated against the country’s poorest communities, Deputy Mineral and Energy Affairs Minister Susan Shabangu said yesterday.

Shabangu said this was because the system failed to use solar energy resources.

After returning from the world solar summit in Harare, Shabangu said she was eager to see solar energy used more among developing communities in SA and would soon take up the matter with the organisations concerned.

“I am keen to see solar energy put on at least a level playing field with hydrocarbon-based energy," she said.

"Solar energy is free, plentiful, renewable and a far more environmentally friendly energy source than hydrocarbon fuels.”

Shabangu said SA’s energy system was biased against the extended use of solar energy. “Our grid electrification programme includes a subsidy to new consumers, reducing their costs for electricity.”

However, those not connected to the grid and using environmentally friendly solar energy receive no subsidy at all,” she said.

This had the effect of discriminating against the poorest and most marginalised communities in remote rural areas of SA.

“The government has for decades actively supported the development of energy institutions for conventional forms of energy but has done very little in comparison for renewable energy,” Shabangu said. — Reuters.
Poor people can harvest nourishment from the sun

Harare – An African woman cooking for her family on a wood fire inhales smoke equivalent to dozens of cigarettes a day. And her food won’t last long in the heat before the rot sets in.

Behind complex presentations at the first United Nations solar summit lay the plight of 2.4 billion of the world’s poor who have no access to electricity for cooking or simple refrigeration, said Habib Thiam, Prime Minister of Senegal.

“I hope the summit will nourish development through solar technology and translate it into reality that can relieve destitution,” he said of the two-day meeting that ended on Tuesday.

Politicians and scientific experts from more than 70 countries were in Harare to promote a broader world commitment to natural power sources as a way to improve the health of the poor and save the rapidly degrading environment.

Experts say basic solar cookers using reflected, concentrated sunlight can be built from simple materials for a few rand.

Such cookers can boil water, broil meat and bake cookies and though they need direct sunlight and won’t work every day, large savings are made on firewood.

Solar panels with a life span of up to 30 years can power ordinary refrigerators for an initial outlay of around 5 000 Zimbabwe dollars (about R2 100).

“The cost of installing sun, wind, water and other naturally driven power sources was the down side.

But the long-term advantages and cost savings on conventional fuels were enormous, said Boris Berkovsky, the engineering and science director of the UN Educational, Scientific and Cultural Organisation, the agency that staged the Harare summit.

“These sources are clean and environmentally friendly and they pay themselves off several times in their normal life span,” said Berkovsky.

The Harare meeting adopted nearly 300 projects in 60 countries.

These projects are expected to boost renewable energy production from 18% of the world’s total commercial energy in 1996 to about 30% over the next decade – if funding is found to develop them.

The projects range from solar desalination of sea water in Cyprus and Jordan and wind power in Ghana to rural electrification in Namibia and Zimbabwe.

President Sam Nujoma of Namibia told people at the conference that, although his nation of 1.5 million people received an average of nine hours of sunshine a day, nearly 250 000 homes were still without electrical power.

President Nelson Mandela, as the new head of the Southern African Development Community, supported the projects.

The meeting, chaired by President Robert Mugabe of Zimbabwe, adopted an international convention calling for a renewed worldwide will to embrace natural power sources and to mobilise investment in solar and other projects.

In his closing address, Mugabe said the delegates had showed unwavered support for the aims of the convention to redress destructive uses of energy.

“Our planet is under greater threat than ever before. The crisis has largely been brought about by ourselves,” he said.

The meeting was the first full gathering of the World Solar Summit Process, which was launched after the UN Earth summit in Rio de Janeiro in 1992.

Organisers have shrugged off suggestions that the absence of Western and other powerful world leaders undermined the success of the gathering.

Only nine heads of state, most from southern Africa, were in Harare. – Sapa-AF.
Call for Africa to take initiative in energy conservation

(57) 12/19/96

...continued must participate in the search for breakthroughs, whose Michael Hakmank from Here...
New electricity connections have hit 478,000 mark
whether independent power producers would be allowed to compete on the generation side, or whether it wants Eskom as the sole future generator. But competition could be introduced at any time, and there's no doubt that this will drive prices down."

Another possibility is to allow private sector equity partners to obtain stakes in Eskom. And the door is half open.

Eskom CE Allen Morgan says the utility has mothballed three power stations — the 1 000 MW Komati, 1 200 MW Grootvlei and 1 600 MW Camden — which could be brought back into the grid after a two-year refurbishment.

"Government has expressed interest in allowing joint ventures or strategic equity partners to be brought in. These could be technology providers or coal mines," he says. Such potential partners should provide synergistic qualities.

This option has been put on ice, subject to discussion by sectoral committees involving trades unions and six government departments — Mineral & Energy Affairs, Trade & Industry, Finance, Housing, Public Enterprises and Provincial Affairs & Constitutional Development.

Siemens divisional MD Francois Schutte says the company is interested in new greenfield power stations, buying mothballed stations or obtaining a strategic equity stake in Eskom stations. Siemens operates "independent power producers" elsewhere in the world — and obtaining coal or even gas should be no real problem. "The ball is now in government's court," he adds.

McRae says that allowing private-sector participants should also fit in well with the expected regionalisation of the electricity sector.

"The potential future availability of cheaper, imported power from Zaire's Inga and Mozambique's Mepanda Nacua hydropower projects could help lay the groundwork for a competitive regional free market in electricity. The Southern African Power Pool — with SA's Southern African Development Community partners — provides the mechanisms for an interdependent, regional electricity exchange to evolve here."

McRae adds that the subcontinent should move away from the traditional view of electricity as a government service to that of a freely traded commodity "like bread or a bag of maize."

However, he says the regulator would still "set the rules of the game" by determining tariff and pricing levels.
Gentlefolk, let me direct your attention to an event that is not to be missed. The annual conference on distribution systems and the impact of renewable energy sources is taking place next week, and we have a host of experts and innovators in the field who will be discussing the latest developments in this rapidly evolving field. It is an opportunity not to be missed, and I encourage all of you to attend and be part of this exciting event.

In other news, the Lunch & Learn reports on food security are now available. These reports are crucial in helping us understand the challenges and solutions in the field of food security. They provide valuable insights into best practices and innovative solutions that can be applied globally. I urge all of you to download and read these reports.

Finally, we have received some shocking news about earnings electricity for councils. The figures show a significant decrease in earnings for councils in the past year, which is a matter of concern. The council's financial sustainability is at risk if these trends continue. Therefore, it is essential that we take proactive steps to address this issue. I urge all of you to take a moment to review the council financial statements and consider how we can support our local councils in this challenging time.
Eskom to raise electricity price and change tariff structure
Govt indecision ‘hurting electrification’

Robyn Chalmers

GOVERNMENT’s indecision on the re-
structuring of the electricity supply in-
dustry was causing a host of problems
and could result in SA failing to meet
its electrification targets, National
Electricity Regulator chairman Ian
McRae said.

The time had come for government
to make a decision on the recommenda-
tions of the electricity working group
and the regulator on restructuring the
supply industry, he said in the latest
issue of NER News.

A report containing the recommenda-
tions was submitted to government
earlier this year and is being consid-
ered by an interdepartmental commit-
tee. The deadline for a final decision on
the proposed restructuring was the
end of August, but government has
failed to meet it.

McRae said this indecision was
causing considerable insecurity among
industrial and commercial consumers
as well as making the task of rational-
ising the more than 2 000 tariffs
imposed in the industry more difficult.

Insecurity was being created among
investors in the electricity industry,
who needed an indication of the direc-
tion of electricity supply, and decisions
on the voluntary transfer of licences
from distributors were being delayed.

"It is also having an impact on busi-
ness consumers of electricity who, for
price and/or quality of supply reasons,
want Eskom or another distributor to
take over the supply.

"They are losing their local and
international competitiveness as a re-
sult of the present position and will go
out of business or, even worse, will go
everywhere," he said.

McRae said that if government was
unable to make a decision on the re-
structuring recommendations it
should admit this rather than keep
stakeholders waiting.

“The regulator would then have no
choice but to move on the licence de-
faulters and poor performers and bring
about some rationalisation through
this process.”

The recommendations before gov-
ernment were that the electricity dis-
tribution industry be consolidated by
merging the distribution business of
Eskom and local governments into
financially viable, independent region-
al distributors.

Tariffs should be cost-effective to
ensure the financial viability of the in-
dustry and separate, transparent tax-
es should be introduced to fund elec-
trification and other municipal ser-
dices, he said.

A full time and specialist transfor-
mation team should be established to
finalise outstanding issues, plan and
negotiate the transformation process
with relevant stakeholders and draft
the legislation necessary to effect any
restructuring, McRae said.
Energy conference fired up over gas

CAPE TOWN — Gas-fired power stations were unlikely to be viable in SA, despite a choice of large natural gas fields in Mozambique and Namibia, industry officials said at the Africa Oil conference yesterday.

"Gas in SA has great difficulty in competing with coal which is available to Eskom at extremely low prices," said Tony Way of Enron, which is developing Mozambique's Pande gas field project.

"It is difficult to foresee when a time would come when gas would be able to compete with coal in gas-fired power generation." Gas-fired power stations have been mooted on SA's east or west coast to utilise gas from Pande or Namibia's Kudu field.

Johan Fourie from the gas division of synthetic fuel producer Sasol, agreed power generation from natural or coal-based gas was simply not viable.

Residential usage was also effectively ruled out for climatic reasons — the short SA winter would not create enough demand — and Way said the Pande field was too small to justify a liquefied natural gas project.

Instead, the focus was on industrial applications. Way said developments were encouraging in this respect.

Initial investigations into establishing an SA iron ore reduction plant using Pande gas were going well, he said. Enron and the Mozambique government's ENH hydrocarbon concern had signed a heads of agreement with the Industrial Development Corporation on the potential export of gas to fuel an iron plant in SA. — Reuter.
New electricity tax set to push up tariffs

PETER DENNERY

A NEW TAX on electricity — probably 14% — is to be imposed from next year, according to a progress report on the electricity industry.

Yet the 10% surplus which municipalities already get from electricity bills will remain in place, says Mr Dave Wilken, chief executive officer of the Goodwood municipal administration, who drew up the progress report.

His report was tabled yesterday at the first annual congress of the Western Cape Local Government Association in the Strand.

He reported that an electricity working group under the National Electricity Regulator had been trying to electrify all the areas in need of it within five years, without increases or funding.

International consultants have said the working group's goals are not practical. Tariffs will probably have to increase.

The working group has recommended to a panel of government ministers that five Regional Electricity Distributors (REDs) should be formed to take over distribution from both local authorities and Eskom. These REDs will be controlled by boards on which all interested parties have seats — including municipalities.

The working group also recommended that sales of electricity to these REDs should be taxed, to help these areas with a large backlog, like the Northern Province and the Eastern Cape.

Wilken said this tax could just be VAT at the usual 14%, but this has not yet been decided.

Up to now, the power that the Cape Town electricity undertaking buys from Eskom, for example, has not been subject to VAT.

The new tax will raise the price of electricity which the consumer has to pay in the end.

The Western Cape will be under a single Regional Electricity Distributor. This will have three subdivisions: the Metropole, the Southern Cape and the West Coast.
High-powered Constantia

MRS OLYWYN DE VIL-LIERS lives in leafy Constantia with her hus-band and three children. The couple are from Cape Town and designed their house for their 1.500m² plot.

HOUSE: The floor area is about 250m². It includes an entrance hall, living room, dining room, four bedrooms, sewing room, kitchen, maid’s room, laundry, garage and office in the attic.

BATHROOMS: Two baths, three showers, four handbasins and four lavatories.

APPLIANCES: Electric double oven, four-plate stove, microwave, iron, kettle, toaster, dishwasher, washing machine, fridge, three deepfreezers, hairdryer, sewing machine, computer, fax machine, television, CD player, video recorder, vacuum cleaner, borehole pump, swimming pool filter, two gey-sers, lawn mower, Weedeater.

LIGHTING: At least two electric lights in each room, plus outside lights.

TRANSPORT: One sedan and a minibus.

ENERGY CONSUMED:
Electricity: 1 500 kw/h a month or 5 400 mega-joules.
Petrol: 400 litres a month — or 25 000 megajoules.

WATER CONSUMED:
From the mains: 80 000 litres or 80 kilolitres a month. From the borehole, which is used for the garden for an average of two hours a day, 20 days a month: 40 000 litres a month or 40 kilolitres. The swimming pool holds 40 000 litres and is topped up in summer. Total: 120 000 litres.

MOD CONS: Mrs Olwyn de Villiers and daughter Michelle in Constantia use twice the amount of energy as a household in Khayelitsha. PICTURE: THEMINKOSI DWAYISA
Tyger Valley electricity plan sparks power battle

Residents fight pylons

“Dilemma of the Tygerberg city council is whether the will of the people holds sway”

“Dilemma of the Tygerberg city council is whether the will of the people holds sway”

“I would be very problematic to attach a figure to the loss of a view”

“The impact might be reduced by the fact that the poles will be 100m to 120m apart”

According to Mr O Parrow of Altygedacht Estate, an overhead line already exists on his farm, and hence he has the ability to carry out aerial spraying and topdressing. An additional overhead line will further affect spraying and topdressing and could even stop these activities, he says.

On the other hand, the report says, if an underground link is installed, all the ratepayers of Bellville may have to pay for the cost difference because the costs will be too high for the ratepayers of Protea Valley alone to absorb.

“The argument was raised that the costs of an overhead line will not reflect the true costs, the value attached to views and potential decreases in property values will not be reflected in the total cost,” the report says.

“In theory the cost should include a financial value attached to the potential drop in property values and the loss of the scenic view in the valley. However, in South Africa there is no legal right to a view and it would be very problematic to attach a figure to the loss of something as intangible as a view.”

The proposed link between the two substations will provide an additional source of supply at Doornkloof substation to help cater for the projected growth in the Tyger Valley area.

The city council study found that if the link between Westhof and Doornkloof substations is not created, there will be future problems with Bellville’s electricity supply. Bellville’s dependence on the Eskom supply will be maintained and if the supply to or from Stikland is interrupted, up to 65 percent of Bellville will be without electricity.

If the power supply from Eikosn’s Springfield substation is interrupted, Westhof substation will be cut off and hence a large part of the north-western residential areas will be without electricity.

If the council decides on an overhead cables, further detailed environmental work will be undertaken to determine the route.

A draft environmental impact report will be compiled and released to the public for comment. A final environmental impact report and a comments report will be compiled and submitted to the council.

However, at two public meetings interested parties argued that any additional studies would be futile if the communities’ choice was already clear. In light of this, Bellville electro-technical services decided that all informatics and investigations would be overridden and the community’s choice determined as the final route.
Threat to councils’ electricity licences

The regulator’s framework states that licences could be withdrawn if electricity distributors, mainly municipalities and Eskom, do not measure up to one or more criteria.

These include non-payment of bulk electricity accounts or failure to honour agreements in this regard, and the non-viability of the electricity business when measured in terms of income and expenditure, cash flow and a prescribed return on assets.

Those municipalities with large bulk arrears include Springs, the northeast Rand, Sasolburg, Randfontein, Johannesburg, Umtata, Witbank and Ermelo. There are more than 30 municipalities with bulk arrears.

Inadequate billing and revenue collection procedures, high connection costs, failure to connect the targeted number of new consumers within a reasonable period and poor quality of supply will also be taken into account and could lead to the loss of licences.

Speaking at a privatisation seminar yesterday, mineral and energy affairs director-general Gert Venter said stakeholders in the electricity supply industry generally agreed that change in the sector was vital.

Venter said the fragmented nature of the industry had led to a wide disparity of pricing and cost of supply. Electricity tariffs were used to finance other municipal services and there were large differences in service and supply quality standards.

He said there was a need to provide low-cost, equitable tariffs to all consumers, to maintain the financial health of the industry, improve the quality of supply and meet national electrification targets.

Continued on Page 2

Proposals for the restructuring of the electricity supply industry have been placed before government by the electricity working group. These include that the industry be consolidated by merging the distribution business of Eskom and local governments into financially viable, independent regional distributors.

Tariffs should be cost-reflective to ensure the financial viability of the industry and separate, transparent tax- es to fund electrification and other municipal services should be introduced.

A full-time and specialist transformation team should also be set up to plan and negotiate the transformation process with relevant stakeholders and draft the legislation necessary to effect the restructuring, the working group proposed.
Eskom attacked for not giving special treatment

Nicola Jenvey

DURBAN — Durban Electricity executive director Howard Whitehead delivered a scathing attack on Eskom at the opening of the R120m Hector substation yesterday for not supplying the municipality with electricity at rates below industry, claiming Durban Electricity’s electrification programme justified preferential treatment.

Whitehead said the burden for Durban Electricity to supply low-cost electricity grew daily, but Eskom insisted on charging the municipality rates which were equal to industry rates.

Durban Electricity’s industrial customers were therefore “forced to carry the burden and feel the effects” of the cross-subsidisation and electrification programme.

Eskom CEO Allen Morgan defended the electricity supplier, saying the parastatal sold 40% of its electricity through redistributors, including municipalities, at a standard tariff.

The National Energy Regulator was investigating the electricity industry, and tariff structure recommendations and amendments would be made by early next year.

“Adjusting the tariff structure to one municipality when further adjustments would be made in the future would cause distortions later, particularly when the system is already under review” he said.

Increases in real terms from Eskom had been 2% last year and 3% this year, while the corporation had faced 4% and 5% increases respectively.

Whitehead said 100 000 people remained without access to electricity in the Durban metropolitan region and, although paltry when compared with the 300 000 annual connections made by Eskom, the municipality was “pleading” for a resolution of its case.

The Hector substation would significantly stabilise the electricity supply to East Griqualand, the KwaZulu-Natal south coast, Midlands, and Durban and Maritzburg metropolitan regions.

Morgan said demand within the region was growing at 12% a year and the substation had been designed to double capacity over the next 25 years.

The next stage in strengthening the electricity supply within the province and along the Transkei coast involved the development of the Eros substation in Harding, planned for 1998.
Electricity prices to be standardised

METRO WRITER

The price of domestic electricity is to be standardised across the Tygerberg municipality from January 1 next year.

The price will be 22.6 cents per kilowatt hour for those with conventional meters, and 21.5c for those with pre-payment meters, according to papers presented to the Tygerberg council at its monthly meeting yesterday.

In the past, electricity prices in Bellville, Khayelitsha, Parow, Durbanville, and Goodwood were different.

Now all those suburbs are in the same municipality. To arrive at equal prices within the same category, increases of different percentages have had to be imposed on the various areas.

CT 27/11/96

In the conventional meters category, Bellville’s domestic tariffs must go up 3%, Parow’s down 1%, Durbanville’s and Goodwood’s up 5%, and Mfuleni’s up 4%.

In the pre-payment meters category, Parow’s tariffs go down nearly 6%, while Mfuleni’s go up by more than 43% - from a relatively very low 15c per kilowatt hour - to get to the uniform 21,5c per kilowatt hour.
Electricity industry role players to talk

Robyn Chalmers

There were moves afoot to hold a series of high-level workshops next month in a bid for greater clarity of government's position on the restructuring of the electricity supply industry, national electricity regulator Ian McRae said at the weekend.

The lengthy delay in government's response to proposals on restructuring put forward last March was causing problems in the industry. He warned that the sector would moving towards a national crisis this year and the next if nothing was done.

"Many distributors of electricity (mainly local authorities) are failing to meet their temporary licence conditions and are in jeopardy of losing their licenses due to default. Consumers and industry are becoming more and more concerned and are pushing the regulator to take action to secure their supplies and service and to rationalise pricing structures," he said.

McRae has made it clear that he will step down as full-time executive chairman of the regulator at the end of March, although he is prepared to remain part-time nonexecutive chairman. He is willing to offer his services to government to assist with the sector's restructuring.

McRae said the regulator was already moving in on licence defaulters and it could have to look for regional solutions and interim tariff and pricing structures due to the number of problem distributors in particular areas.

"It is hoped that this action and the subsequent impact may bring about a better understanding of the issues and the crises in the industry. This would help government to respond to the recommendations for rationalising the distribution industry and funding compensation for local governments," he said.

It was important for all stakeholders in the electricity industry, including government, to decide on the road ahead. However, a vision of the industry in the future was needed before deciding on one aspect alone. Whether or not to introduce and free customer choice could influence the future direction, he said.

"Electricity is more than a light bulb and a plug point in a house to improve quality of life. It is the energy base upon which economic performance and development are built," McRae said recommendations that Eskom become a tax and dividend payer to government could have a significant effect on the industry. This proposal must be considered along with other recommendations on restructuring the industry, he said.
Koeberg to expand capacity to store spent nuclear fuel

Linda Ensor

CAPE TOWN — Koeberg’s capacity to store spent nuclear fuel was almost fully utilised and the power utility would invest R380m in expanding capacity. Ekom spokesman Gina Lamparelli said at the weekend.

New high-density storage racks would be installed by next year. These would be able to store all the spent fuel used by the station through its full lifespan of 40 years. Koeberg’s first unit became operational in April 1984 and its second in July 1985.

Unlike other countries such as Japan, which had sent its spent fuel to either France or Britain for reprocessing, SA had not taken a decision about the future use of its spent fuel.

Lamparelli said Koeberg could store 728 spent fuel assemblies in each unit. A total of 527 assemblies were stored in the spent fuel pool of unit one and 470 assemblies in the pool of unit two. The assemblies were stored underwater to shield operators from radioactive particles in the fuel and to allow cooling.

Koeberg would produce about 3,000 fuel assemblies in its lifespan.

The spent fuel lost 95% of its radioactive content during the first 10 years in storage. However, radioactivity would remain for up to 100 years.

SA did not produce sufficient spent fuel to warrant a reprocessing plant and there was no demand for it internationally.

A decision on a plant would have to emerge from discussions with all industry role players, Lamparelli said.

Apart from spent fuel, Koeberg also produced solid waste with low levels of radioactivity, such as discarded gloves, overalls and broken tools.

These were compressed into steel drums and taken to Vaalputs in Namaqualand, where they were buried in deep trenches covered with clay to prevent water seepage.

Intermediate level waste contained, for example, in filters and resins, was compressed into steel-lined concrete drums and also taken to Vaalputs. This material would take about 200 to 300 years to decay.
GOVERNMENT expected to introduce competition in the energy sector — "irrespective of public or private sector ownership" — after 2000, a senior government official said yesterday.

Minerals and energy chief director Johan Basset told a Pretoria business forum on energy and environmental technologies in SA, sponsored by the European Union, that the focus of national energy policy after 2000 would shift to the "creation of a level policy playing field".

He said that "equal attention would then be given to the effective use and supply of energy, while competition would be introduced to the energy sector, irrespective of public or private sector ownership".

Minerals and Energy Minister Penuel Maduna said government's eagerly awaited draft white paper on energy policy was "nearing completion".

The draft would be open to public scrutiny once cabinet agreed on it. Once finalised, the "necessary legislation would be enacted to give expression to policy", said Maduna.
New board for CEF

Mungo Soggot

THE Central Energy Fund (CEF), which holds the state's fuel assets, has quietly limped into the new South Africa with the appointment of a new, far more representative board.

The new players on a board that until recently was synonymous with the CEF's sanctions-busting past, include what chairman Roy Pithey describes as a fair cross-section of academic, private and state sectors.

His new board includes black empowerment guru Don Mkhwanazi, Kayo Ngqula of Norwich Union Trust, Mojalefa Faleketho and Johan Basson of the Department of Mineral and Energy Affairs, black empowerment Coca-Cola bottler Keith Kunene, Professor Renosi Mokate of Pretoria University, and

Coen Kruger of the Department of Finance.

CEF repeatedly pushed for a new board during the reign of former mineral and energy affairs minister Pik Botha. It and Botha failed, despite the efforts of parliamentary committee chairman Marcel Golding. The changes are one of the more obvious achievements of Feneil Maduna, who took over from Botha last year, giving the portfolio more political clout.

Maduna has chosen to appoint the same board for all of the CEF group of companies, which includes Mossgas and the Strategic Fuel Fund, oil trader and manager of South Africa's strategic stockpile. Insiders say this could signal Maduna's intention to rationalise the group, perhaps preparing parts of it for a sell-off.
Atomic Energy Corp's Reliance on State to

The decline of the program on the fund-based financial
the poor price on the information
get paid over a period of time to get
both unions would be meant
brought into the price in three-

The Department of Energy

on Further

The DOE would start the proceedings
for the establishment of the program
in the commission
with members
developed and would be accessed
division of the National

The Americans

Ehrenreich
Eskom on target with R1,2bn home electricity plan - Sigcaw

WILLIAM-MERWIN GUMENE
POLITICAL STAFF

Early estimates showed Eskom had exceeded its ambitious target of connecting 300,000 homes to electricity by the end of last year. Public Enterprises Minister Stella Sigcaw announced in Cape Town.

The company spent R1,2 billion on the project.

Ms Sigcaw said at a press briefing that Eskom had maintained its pricing levels below inflation. The parastatal had continued to perform well above the overall economic growth rate of the country with revenue jumping 11 percent to R17.1-billion or 19.8 percent.

Other state enterprises had been performing well overall, said Ms Sigcaw. Arms company Denel, forestry company Safcol and mining company Alexkor had good years but Aventura, the leisure company, and Transnet made losses.

Transnet lost about R250-million, but the company had recently showed a turnaround.

An investigation of irregularities in Transnet's pension fund had almost been completed by the Finance Ministry. It would be reviewed by the Cabinet before being made public.

South African Airways' restructuring was to be speeded up. This would involve changes in management structure, legal form, personnel, contracts and balance sheet structure, and separation from Transnet's pension and medical aid fund.

A workshop on restructuring SAA would take place on February 25 and 26.

The Cabinet had decided that the previous limit of 25 percent foreign ownership of a South African airline should be raised to 49 percent, Ms Sigcaw said.

This could affect Sun Air, which is to be privatised soon. Shareholders in a privatised Sun Air could include a trade investor, a black grouping and a national empowerment fund controlling the interests of "historically disadvantaged investors".

She said proposals for a strategic equity partner for the Airports Company were being discussed with labour with the next round of talks scheduled for Friday.

The government needed to revise figures of what state enterprises were worth before they were restructured, Ms Sigcaw said.

Some evaluations had been carried out by management and were inaccurate. For example, land owned by Aventura, some of the most valuable in the country, had been rated as agricultural land.

The way had been cleared for the sale of Aventura to a consortium.

The government's overall adviser on privatisation, the Hong Kong Shanghai Banking Corporation, was co-ordinating an advisory team to oversee the sale.

Forestry company Safcol was also being restructured, Ms Sigcaw said.
Eskom beats connections target

Robyn Chalmers

ESKOM exceeded its electrification target of 300 000 new connections last year, bringing the total number of connections since 1994 to nearly 1.3 million, an Eskom spokesman said yesterday.

However, the minerals and energy department indicated last week that local authorities had missed their target of 150 000 connections last year, having made a total of 120 000 new connections.

Eskom distribution executive director Sifiso Dabengwa said more than 1 000 homes were electrified every working day last year, bringing the total number of connections to 307 047.

The largest number of connections were made in Pretoria with 139 024 last year, followed by Cape Town with 66 602, Durban with 50 449, Bloemfontein with 35 579 and Johannesburg with 25 393. Dabengwa said that while meeting the year's target was gratifying, Eskom faced an overall mark of 1.75 million connections by 2000, which required a significant amount of capital and work.

"With an annual electrification bill of more than R1bn, costs must be watched closely and continuously," he said.

Dabengwa said the cost a connection was becoming increasingly important as the lines were getting longer and the target areas more distant. Costs had to be contained to around R2 500 a connection if Eskom was to meet its electrification targets.

"The programme is a world leader. No one else is doing anything comparable and the costs ... are huge."

Government set a target of 2.5 million connections throughout SA between 1994 and 1998, of which Eskom has to deliver 1.75 million new connections and local authorities 750 000 connections.

Eskom CE Allen Morgan said in the 1995 annual report that Eskom was pursuing electrification in rural areas wherever feasible.

"However, the cost of bringing network electricity to such areas is very high compared with urban areas," he said.

Morgan said loan agreements worth R237.4m were concluded for 1995 and 1996 with the Development Bank of Southern Africa.

In a separate development, the public enterprises ministry is expected to announce the restructuring of Eskom's electricity council this week, including a new chairman and council members.
The electricity REDs are coming

However, the proposals, which could take two to three years to be implemented, come in the nick of time for almost half of the 400-odd local authorities which could soon default on their bulk payments to electricity supplier Eskom. The utility is owed an estimated R1.5-billion by municipalities, which in turn face non-payment, largely from township users.

Minerals and Energy Minister Pentu Maduna's announcement of a restructuring in the R25-billion electricity supply industry caused an outcry among trade unions and is likely to be resisted by local authorities.

But the National Union of Mineworkers on Friday rejected the recommendations, saying they represented only the views of employers in the industry and that the process of canvassing views had been secretive. "We call on the minister to facilitate a public debate on the secret process that was followed."

The NUM's claims were rejected by other sources who stressed that the union was consulted but that its views simply did not prevail.

Many municipalities and local authorities are likely to be angered by the move as they use electricity charges to subsidise other costs.

In terms of the proposals, only a portion of income from electricity sales will be returned to the local authorities via a transparent local government tax. Central government will cap the local government tax.

The proposals, which were tabled with government almost a year ago by the statutory National Electricity Regulator, will be fleshed out by a restructuring team comprising all major stakeholders.

At the heart of the consolidation of the electricity distribution industry is the creation of "a maximum number of financially viable and semi-independent regional electricity distributors". Sources say the viability clause dictates that REDs transgress regional boundaries. The regions could be grouped around economically strong regions as a core of the REDs.

Apart from electricity distribution, the REDs will also take over responsibility for the country's electrification programme, currently run successfully by Eskom and less successfully by the municipalities. Last year Eskom electrified 300,000 homes at a cost of R1.5-billion whereas local authorities came nowhere close to their stated target of 150,000 homes.

The NER's Johann du Plessis says the programme, if future be financed via a levy on electricity sales, which will be channelled to an electrification fund administered at national level.

The REDs will be in a powerful position to exercise credit control and, if need be, take action against payment defaulters, says du Plessis.

The proposals also recommend the introduction of cost-reflective and transparent tariffs to replace the present 2,000-odd tariffs that are levied by municipalities. Du Plessis says that the realignment of tariffs would see the gradual phasing out of unnecessary subsidisation among various customers.
Cabinet nod for electricity shake-up

Amanda Vermeulen

THE long-awaited restructuring of the R26bn electricity supply industry has moved up a gear after Minerals and Energy Minister Penuell Maduna announced last night from Malaysia that the cabinet had finally approved proposals to transform the industry.

In a statement released by minerals and energy chief director Johann Basson, Maduna said cabinet had approved the electricity working group’s March 1996 recommendations, and consultation with stakeholders — set to kick off next month — would pave the way for implementing proposals to “restructure the distribution sector of the electricity supply industry”.

The decision follows criticism from big business electricity consumers that the lack of progress in transforming the industry would force local and international investors to look elsewhere if delays continued. Maduna’s statement put a three-year timeframe on the restructuring process.

Cabinet had approved a range of proposals in principle, including the consolidation of the electricity distribution industry into the maximum number of financially viable and semi-independent regional electricity distributors — the number of which still had to be determined. This consolidation would result in the merger of Eskom and municipal electricity departments at a regional level.

The second proposal approved was that consultation between the ministers of minerals and energy, finance, public enterprises, provincial affairs and constitutional development, and all the various stakeholders, must take place. This followed criticism from certain quarters that wide consultation had not taken place.

Third, cabinet had agreed on the introduction of cost-reflective tariffs (tariffs that match the cost of the service), an electrification levy and a capped tax, imposed by local government on electricity sales. To fund municipal services. Municipalities have, in the past, siphoned off the revenue from electricity supply.

Basson said the tariffs, any subsidies and taxes would be “fully transparent” because although some already existed, they were unknown to the average consumer.

Fourth, the levy on electricity sales would be paid into an electrification fund which would be administered on a national level. A full-time restructuring team would be appointed to investigate detailed issues as well as involving all the major stakeholders in planning the transformation process.

“We are fortunate that the major players in the industry understand and accept the need for transformation,” said Basson. “The next step will be to consult the leaders in provincial and local government structures, Eskom, organised business and labour, the national electricity regulator (NER) and others. They will form part of the process that will shape the future of an effective and efficient electricity supply industry in South Africa.”

Consultation is expected to begin.

Continued on Page 2

Electricity

GM at NER — which has played a crucial role in the restructuring process— said last night the regulator was delighted with the cabinet decision. “The rationalisation of the electricity industry is a quantum leap towards rectifying its shortcomings. It will result in an efficient and effective industry which will better serve all electricity consumers.”
Electricity tariff principles approved

Robyn Chalmers

THE National Electricity Regulator has approved a broad set of principles for electricity pricing and tariffs in a bid to rationalise the more than 2 600 tariffs levied by municipalities around SA.

The approval of new tariff principles comes amid the cabinet’s go-ahead last week for proposals to restructure the R25bn electricity supply industry into a number — probably five — of regional distributors.

Other proposals agreed by cabinet included the introduction of cost-reflective tariffs, an electrification levy and a capped tax, imposed by local government on electricity sales, to fund municipal services in part.

The general principles on tariffs approved by the regulator say electricity pricing policies should facilitate extensive electrification of disadvantaged areas while pricing and tariff levels should be cost-reflective. The principle of transparency should be a key tenet in pricing and any deviations from cost-reflective tariffs should be transparent.

“The subsidies and distortions in existing tariffs, however, make strict adherence to cost-of-supply principles unattainable and necessitate a compromise between cost-of-supply and social pricing policies,” said the principles.

The regulator’s newsletter, NER News, said a discussion document on developing a strategy for rationalising electricity pricing would be published soon. “It is important that this subject (of tariffs) is approached in an integrated manner in conjunction with the proposed restructuring of the distribution industry,” it said.

The principles approved also indicated that customised and special pricing agreements could play a role in promoting social upliftment, electrification and economic growth as well as fair competition.

Customers had to be given a choice of electricity services and pricing options in the move to a more competitive structure. The degree of choice would depend on affordability, economic effectiveness and efficiency. “When fair competition has been established, pricing will become more market-related.”
Labour shocked by Cabinet’s approval of electricity changes

BY ADAM COOKE

Organised labour has rejected recommended changes to the R25-billion electricity supply industry that were approved by Cabinet last week.

Unions objected to the content of the recommendations and to the pro-cuts by which they were drafted, saying the input of labour organisations and civil society had been ignored.

However, in terms of the Electricity Working Group’s recommendations, Mineral and Energy Affairs Minister Penuel Maduna and other Cabinet ministers will have to consult with unions and other role players before any changes are made.

Billed as the biggest merger in South Africa in terms of assets, staff and turnover, the recommendations seek to merge the functions of the power distribution businesses of Eskom and of local government. The end result will be that some individuals or businesses could pay less for their power than they are now, and others could pay more.

The National Union of Mineworkers (NUM) has gone so far as to threaten strike action if the “shortcuts” taken by the Electricity Working Group, set up by the Government, in drawing up the recommendations are not addressed.

Yesterday, the NUM requested a top-level meeting of the Government-labour “six-a-side” structure in terms of which all restructuring must take place.

The body comprises of six Cabinet ministers and six labour representatives and attempts to iron out problems in the privatisation of state assets.

NUM assistant general secretary Gwede Mantashe said Cabinet’s approval of the recommendations reflected the success of employers in manipulating the Government.

The 80 000-strong Independent Municipal and Allied Trade Union said it would “vigorously oppose” the recommendations because they would “impoverish democracy by depriving communities of a say in electricity distribution”.

The South African Municipal Workers’ Union has also added its voice of discontent, saying there had been insufficient consultation.

Johan du Plessis, spokesman for the National Electricity Regulator, which monitors the electricity industry, said: “Each stakeholder had its own position and they could often not be reconciled. All the recommendations were referred to Cabinet and they made the decisions on which to choose,” he said.
The challenges of the power utilities were significant. The regulatory framework had to accommodate the regulatory needs of the industry. The government had to ensure that the industry was not exploited by local distributors. The cost of electricity had to be kept low to ensure that it remained affordable for all. The industry had to be protected from foreign competition. The industry had to be protected from foreign competition. The industry had to be protected from foreign competition. The industry had to be protected from foreign competition.

The industry had to be protected from foreign competition. The industry had to be protected from foreign competition.
Energy industry players decry lack of policy

Linda Ensor

CAPE TOWN — Broad consensus emerged in the mineral and energy affairs industry yesterday that the department’s R886m budget failed to earmark financial support for an energy, electricity and liquid fuels industries policy.

The main role players noted the department had failed to formulate a policy on key areas vital to the industry’s future.

The SA Petroleum Industry Association, the Chamber of Mines and the National Union of Mineworkers raised the issue in briefings to the parliamentary portfolio committee on mineral and energy affairs on this year’s budget vote.

The absence of a policy, as well as the lack of capacity to formulate one, had been identified by the International Energy Agency last year as a “major weakness”, in the SA energy sector, University of Cape Town researcher Hilton Trollop said. He said the energy budget did not show how these issues were being addressed.

“It is now becoming increasingly urgent that action takes place as huge refinery investments are needed to meet the growing demand for liquid fuels in SA. These are on hold awaiting clarity on policy relating to the future of the liquid fuels industry,” association director Colin McClelland said.

The chamber agreed. “A high level of expertise within the department is essential for it to effectively implement the Mine Health and Safety Act, and to regulate the environmental impact of mining,” the chamber said.

The chamber said it believed the department’s manpower levels and budgets did not place sufficient emphasis on delivering high-quality performance.

“Given the current national emphasis on mine health and safety, it is puzzling and disturbing to see the budget and manpower level decrease,” chamber technology adviser Howard Hume said, especially as the amount allocated to pay off Atomic Energy Corporation (AEC) loans increased by R150m.

The chamber proposed an increase in the rate of the reduction of the budgetary provision for the AEC.

The chamber questioned the R28m set aside for energy management of which 60% was tagged for consultants’ services.

“This implies that a good portion of staff time and effort will be expended managing this money,” Hume said.

The NUM agreed with reservations about the cutbacks in health and safety spending.
Far-reaching changes to energy sector

Linda Ensor

CAPE TOWN — Details of far-reaching changes planned for the energy, mining and liquid fuels industries were outlined by Mineral and Energy Minister Penuell Maduna in his maiden speech in Parliament yesterday.

Included in his strategic vision was the consolidation of Central Energy Fund (CEF) companies and other state-owned energy assets into a major public energy company listed on the Johannesburg Stock Exchange.

Assets scattered over diverse state entities, for example, the Industrial Development Corporation's Sasol shares and Petronet in Transnet, would be brought together into one entity which would hopefully reduce the cost of energy to the fiscus.

Government would retain a controlling stake in the enterprise which would be responsible for formulating "an integrated pan-African energy strategy" and for developing partnerships with African oil and petroleum product exporters. In this way competition in the sector would be enhanced and ownership of resources redistributed to promote black economic empowerment, Maduna said.

But Democratic Party mineral and energy spokesman Kobus Jordaan said government seemed unwilling "to release the hard grip which the National Party had on the energy sector."

He said the International Energy Agency had recommended the scrapping of most of the CEF's functions which, were now obsolete and noted that it was highly questionable for the state to continue to own it.

On the restructuring of the liquid fuels industry, Maduna said at a news briefing that the aim was to create opportunities for small operators to have an equity stake. He cited the example of Engen's 20% stake in Soekor's Oribi oil mine, suggesting that additional shares could be distributed in a black empowerment initiative.

Other reforms Maduna would like to see introduced were aimed at empowering small black entrepreneurs through the control of mineral rights and the promotion of small mines. He raised the possibility of state ownership of mineral rights and minerals, saying this was not incompatible with security of tenure and title. There was an urgent need to address "the iniquitous inequitable monopoly of mineral rights.

In the meantime, prospecting and mining rights over alienated state land would be given new entrants. Guidelines for this had been formulated.

Maduna, with Finance Minister Trevor Manuel, planned to commission a feasibility study into a mineral rights tax to prevent the hoarding of mineral rights and "to encourage their private sale or transfer to the state" wherever they were not being utilised.

Other proposals to be investigated were the imposition of annual minimum work or investment requirements to discourage the holding of unproductive mineral rights and properties; and the imposition of regular payments of a per-hectare fee by holders of prospecting permits.

Maduna said mining houses often hoarded rights to small deposits that
embracing the atomic energy

A man of his words into ploughshares

Correlation and its epicycles

more cognitive differences
Electricity demand drives expansion

Robyn Chalmers

REAL growth in the demand for electricity in SA is driving the need for a R1bn expansion and a strengthening of Eskom’s transmission system this year, says Eskom CE Allen Morgan.

Morgan said the programme would be made up of new lines, substation extensions, refurbishment work and other projects.

“One of the main reasons for expanding the transmission grid into southern Africa is to exchange energy and ultimately, to stimulate development of the hydro generation sites in Mozambique, Angola and Zaire which could produce relatively cheap power,” he said in the latest annual report.

Morgan said studies had been completed for a new 400kV interconnection of 420km between the Northern Cape and Namibia.

A study of Zaire, Angola, Namibia and SA was also being undertaken by the respective electricity utilities to develop a transmission interconnection from Inga to Zaire via Angola and Namibia to SA.

Feasibility studies had also been completed for the construction of two 400kV lines, each 300km long, from Arnot and Camden power stations to Maputo to supply the proposed Mozal aluminium smelter at the harbour by June 1999.

Morgan said last year was satisfactory in terms of financial and technical results, with net income rising 13.1% to R3bn on higher revenue of R16.7bn (1995: R17.1bn).

However, Morgan said many issues remained difficult or impossible to address until the future of the distribution industry became clearer. This included issues around reducing cross-subsidisation of one group of customers by another and making tariffs applicable to municipal redistributors cost-reflective.
Eskom looks ahead to 2002

Robyn Chalmers

MORE than 75% of all South Africans should have access to electricity by 2002, when more than 2-million houses should have been electrified, Eskom chairman Reuel Khoza said yesterday.

Speaking at a briefing on a “wish list” of what Eskom and the electricity supply industry could look like in five years’ time, Khoza said there were likely to be far-reaching changes.

By 2002, more than 50% of all managers, professionals and supervisors in Eskom were likely to be black South Africans as the affirmative action policies would have taken hold.

Electrification would have played a major role in the lives of people within five years, with the poverty of the rural areas declining fast. It would also have affected schools, colleges and clinics.

“As the network of power lines spreads across the country, I see many more industrial and commercial centres being established where once there was nothing.”

He said there were also likely to be far-reaching changes in the electricity supply industry, with close co-operation being forged between Eskom and local authorities around the country.

New co-operative electricity supply agencies organised on a regional basis would also have been established, with efficiency much improved, service more effective, bills accurate and repairs done promptly. He also foresaw an end to the culture of nonpayment.
Eskom eyes power from mineshafts

CAPE TOWN — Power utility Eskom was studying the possibility of using the country’s numerous disused mineshafts to generate peak-hour electricity with falling water, officials said.

Eskom spokesman Peter Adams said the theory was that the water, which occurred naturally at the bottom of mines, would be pumped to the surface in off-peak hours then released back down the shaft to drive a turbine generator and help meet peak demand.

A scientist working on the project, Dave Blake, said research was at an early stage: “We’re doing reconnaissance studies at the moment. The technology is fairly site specific. You need to find your site and then see if the whole thing comes together.”

Another Eskom source said the proposal held great promise because it could provide a clean source of energy close to where it was most needed. “Imagine a 1 000MW plant right near Johannesburg,” the source said.

Mine shafts vary in depth from a few hundred metres to thousands of metres. SA, producing most of the world’s gold, has some of the deepest gold mine shafts in the world.

According to an Eskom report on research strategy for the five years from next year, talks on the “high head underground pumped storage” project have been held with, among others, the Chamber of Mines and the Council for Scientific and Industrial Research. — Reuters.
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Private electricity firm formed in Uitenhage a first

Robyn Chalmers

UITENHAGE in the Eastern Cape became the first town yesterday to form a private company encompassing Eskom, the local authority and the private sector in a bid to speed up the delivery of electricity.

The Uitenhage Electricity Supply Company (Uitesco), whose shareholders are the Uitenhage transitional local council, Eskom and local industries in Uitenhage, was granted a licence of operation by the National Electricity Regulator last week.

Uitesco chairman Mykeni Seyisi said yesterday the joint venture was in line with government policy to encourage partnerships between government and other sectors.

"We are taking electricity delivery into the future in our quest to speed up electrification," he said.

Uitesco GM George Ferreira said the move was not a buy-out, but a pooling of partners with the skills and expertise to benefit more people.

"It makes good economic sense for a specialised company like Uitesco to focus all its attention on electricity delivery instead of being part of the municipality's full basket of varied services."

The company was awarded a grant of R14.5m a few months ago on condition that 8 500 erven in the area were electrified by the end of this year.

Ferreira said the new company was making inroads into the electricity provision backlog. Since the grant was made six months ago, 880 erven in the Kwa Nobuhle area had been electrified.

By December it was hoped another 8 000 electrifications would have been completed.

He said the electrification relied on community-based construction. Sixteen small township companies employing 50 workers were handling installations after training from the East Cape Training Centre. A further four companies were installing the prepaid meters.

Eskom marketing manager and Uitesco board member John Arniesen said the company provided an answer for SA's electricity industry. "It is the next step in evolution in the one-city concept," he said.

Port Elizabeth Regional Chamber of Commerce and Industry CEO Kevin Wakeford said the concept of focusing on core business activities confronted organised business as well as the public sector.

"Uitenhage presents a good example of a pilot programme which we are convinced will be monitored by all sectors and levels of government as to its viability and feasibility."
The wastes of nuclear power

[Image of a diagram showing nuclear power plant and waste disposal]
Radioactive drums leaked

Nuclear industry poses ‘unacceptable’ risks

The results of any inquiry into three recent nuclear incidents have not been made public, raising concern among environmentalists and politicians. Inga Molzen reports.

Five months after radiation exposure and radioactive leakage at South African nuclear sites, no results from any inquiry have been made public, nor has there been any publicly recognised independent probe.

Radioactive leakage and recent hairline cracks in six-ton concrete blocks containing nuclear waste at the Northern Cape Vaalputs storage site, are “unacceptable”, say environmental groups and Environment Affairs and Tourism Portfolio chairwoman Ms Gwen Mahlangu.

Mahlangu and environmental monitoring groups have repeated their calls to the ministers of Environment Affairs, Dr Pallo Jordan, and Mineral and Energy Affairs, Mr Penuell Maduna, to make public findings into breaches of safety at Koeberg, and the nuclear waste storage site it uses in the desert, about 100 km from Springbok.

Mahlangu says there are “unacceptable risks” around the nuclear industry. Recent events show “the health and safety standards and procedures of our nuclear industry are not adequate”.

The effects of Chernobyl are still being felt, where people exposed to massive doses of radiation were undergoing treatment, she said. Every effort had to be extended to ensure that South Africans were never vulnerable to similar disasters. After the Chernobyl experience, a 30km “dead zone” around Koeberg would include Atlantis, Philadelphia, Kliphuisewel, Durbanville, Bothasig, Goodwood, Blouberg, Table View, Milnerton, Green Point, the CBD and the Waterfront.

Public lobby groups are concerned about the estimated 25-year lifespan of Koeberg, its allegedly “aging computer monitoring systems and procedures” and the actual benefits of nuclear power.

Despite repeated calls since April for an independent inquiry, no response has yet been made public, raising questions about public accountability and the seriousness with which this issue was being treated.

The Department of Mineral Affairs and Energy has not yet released its policy on energy, and pressure groups are concerned about recent events at the country’s nuclear facilities.

Mahlangu said yesterday: “There are no long-term depositaries for high-level nuclear waste anywhere in the world. South Africa does not want to become the dumping ground for the world’s nuclear waste.”

“The risks of the nuclear industry are potentially lethal. Would our long-term needs not be better served by focusing on sustainable resources, such as solar energy?”

Parliament has been asked by the Department of Mineral and Energy Affairs this year to approve a R474-million (59% of the total DMEA budget) to “prop up an industry whose most significant products have been six nuclear bombs (now dismantled), two low-making enrichment facilities (one has now closed), one nuclear power station and a statutory nuclear safety body,” says Environmental Monitoring Group spokesman Mr Stephen Law.

The independence of the Council for Nuclear Safety, which will be asked to investigate these events and their implications for public safety, is under question.

“I am very uneasy that the Council for Nuclear Safety is conducting the investigation, as well as testing the appointed public watchdog on these issues,” Mahlangu said. Environmental groups agree.

Besides the Vaalputs drum leaks, there were two incidents in March in which workers were exposed to high radiation levels.

Three Koeberg workers entered a high radiation area without protective clothing. At Pelindaba, storage drums were punctured when they were moved last year.

Atomic Energy Commission chief executive Dr Waldo Stumpf called the leakage “insignificant”.

Koeberg’s nuclear assurance manager, Mr Tony Stott, said yesterday: “It is believed that exposure to rain and extreme temperatures of drums waiting to be covered by compacted soil led to the seepage of radioactive salt.”
Koeberg keeping all its nuke waste

HIGH-LEVEL nuclear waste has always been kept at Koeberg, but now it is keeping its low- and medium-level waste too. Environment writer MELANIE GOSLING reports.

Radioactive waste from Koeberg's nuclear power station has been stored at Koeberg for the last three years and not at Vaalputs - the site specially selected and designed to handle low- and medium-level nuclear waste.

Eskom said yesterday it had stopped shipping its low- and medium-level radioactive waste to the site at Vaalputs in the Northern Cape in 1994 to cut costs.

It had renegotiated its contract with the Atomic Energy Corporation (AEC), which runs Vaalputs, and will ship the waste to the site only every two or three years, instead of every second week, as it had done originally.

This came to light in a Cape Times inquiry into the problems of radioactive leakages at Vaalputs from 20 of the containers holding the waste.

But Eskom says the waste stored at Koeberg is an interim measure and is completely safe.

Asked if the radioactive leakages from drums stored at the remote Vaalputs could not also occur at Koeberg on the city limits, Eskom spokesman Mr Tony Stott said it was a possibility, but highly unlikely.

After the leakages at Vaalputs were found, all the drums stored at Koeberg were immediately inspected, and found to be absolutely safe. 

The building they are in is designed to store the waste as an interim measure. Koeberg is a licensed facility to use nuclear energy and that includes having radioactive waste on site, Stott said.

Eskom had negotiated to move the waste out last October, but the Council for Nuclear Safety had stopped Vaalputs from receiving any more waste until it had sorted out the leakage problems.

This comes at a time when the portfolio committee on the environment has said that recent events in the nuclear industry - including two separate incidents in which Koeberg staff were exposed to above-limit, radiation earlier this year - have shown that the safety standards are not adequate.

But the AEC and Eskom say their safety limits are above average.

CNS spokesman Dr Schalk de Waal, who headed the investigation into the Vaalputs leakages, said yesterday their inquiry had recommended to the AEC that they change the way they managed the trenches where the drums are stored.

He said the two trenches had been dug at Vaalputs in 1986, one for disposal of low-level waste in metal drums and the other for medium-level waste in concrete containers.

The site had been chosen because of its geological stability, low population, low rainfall and high clay content which meant the radioactivity would be contained.

"Ideally the drums should be covered up fairly rapidly, but they remained uncovered for years because Eskom stopped shipping waste there in 1994 and the trenches were not filled to capacity.

"Because of the exposure to the elements, 20 of the concrete drums and one or two of the metal drums had started to leak. But tests showed that the radioactivity was contained in the trench only, where one wants it to be," De Waal said.

The CNS had recommended that the AEC adopt a special radiological protection programme which included stepping up monitoring of the drums, and also building a wall across the unfiled trenches, so that the drums there already could be sealed off by covering them with soil and putting a clay "cap" on top to seal them from water penetration.

"We have recommended that in future they dig a trench for a known quantity of waste only, and fill it up and cap it within a matter of months. This will prevent drums standing exposed to the elements for years, as those that leaked had done," De Waal said.

The green lobby has said that although they were unaware of a halt in the Vaalputs shipments the low- and medium-level waste, they were not as concerned with this as they were with the high-level radioactive waste that had been stored at Koeberg for years.

South Africa has no site licensed to accept high-level radioactive waste. This waste, from the spent fuel, is kept in special pools at Koeberg.

Wildlife and Environment Society spokesperson Ms Marlene Larios said yesterday: "It is a concern to hear that the low- and medium-waste has been stored there, but it is much less of a concern than the high-level waste. Where are they going to dispose of that? It is symptomatic of a situation where we have no existing policies to manage radioactive waste and a public which is unaware of what is going on."

The CNS said they were developing a policy on waste.

Stott said the technology existed for safe disposal of high-level radioactive waste, but that "politics and emotion" prevented it from being disposed of.
Down After Leaks shut

 dozens of leaks and huge financial losses from apartheid projects bedevil South Africa’s nuclear industry
Under siege: AEC's Pelindaba headquarters

Bomb-fuel plant to be broken down for scrap

Swapna Prabhakaran

THE engine of South Africa's nuclear warfare programme is being quietly broken up and sold as scrap. A tiny newspaper advertisement last weekend belies the massive project to dismantle Plant Z — the Pelindaba site in the North-West province that once held apartheid's dream of being a major nuclear power.

The former government spent at least R700-million building Plant Z to process South African-mined uranium for the Koeberg nuclear reactor and to bolster South Africa's manufacture of nuclear bombs.

But the Atomic Energy Corporation (AEC) said this week it would be lucky if the scrap sales raise R6-million.

AEC is currently inviting offers for 480 tons of mild Plant Z steel, 53 tons of stainless steel, one ton of plastic, 61 tons of aluminium, five tons of cast iron and two tons of instrumentation cable.

All the material for sale has been decontaminated, the corporation says, and material that remains irretrievably radioactive has been buried, pending its removal to the national dump at Vaalputs.

It was unclear this week whether the scrapping project, tagged Omega, signals the end of nuclear capacity at Pelindaba.

The corporation says plans are afoot to build a new uranium-enriching plant on the site with French nuclear specialists Cogema.

Such plans, however, have caught the Department of Mineral and Energy by surprise. It says building a new nuclear plant is not government policy.

Plant Z, which was preceded by a pilot Plant Y, was built in the late 1970s to a uniquely South African design. It was equipped with technology considered cutting-edge at the time and carried a price tag to match.

But the plant was rendered redundant when sanctions against South Africa were lifted, as the uranium could be processed cheaper if it was sent overseas.

The plant's expense, however, did not end with its usefulness. In fact, the AEC is spending R88-million to scrap the project.

AEC subsidiary Pelindaba Radiation Services (PelRad) is stripping tons of mildly radioactive metals from the buildings, and employing 100 labourers to scrub the materials clean. They wear protective clothing.

AEC senior consulting engineer Johan Nienhuys says a new pilot uranium-enriching plant will be established in the Plant Z shell. A full-scale project would use newer nuclear know-how, including Cogema's Molecular Laser Isotope Separation process.

The new plant is intended to create enriched uranium suitable as fuel for Koeberg and other nuclear reactors, and will not enrich the uranium to the levels necessary for nuclear weapons. South Africa's nuclear weapons programme ended in 1991 and it is a condition of the Nuclear Non-Proliferation Treaty.

The fledgling nuclear marriage between Cogema and South Africa was brokered by the former minister of mineral and energy, Pik Botha.

However, those remaining in Botha's department played down a lingering role for Pelindaba.

"We don't have any plans for a new plant," says the department's deputy director general, Dr Gordon Shibya. "South African government policy says that is not on the cards."

Thulani Gcbashe, special adviser to Botha's successor, Penuell Maduna, initially said Plant Z was not being torn down, before revising his statement to agree with AEC's officials.
New electricity distributors 'can curb protest'

Deborah Fine

The proposed establishment of new regional electricity distributors, which would help to curb the violent protest by residents against high electricity rates, was welcomed yesterday. The National Energy Regulator (NER) has approved the distribution functions of Eskom and local authorities into financially viable entities called 'semi-independent regional distributors'.

The NER's customer services officer, Jackie van der Merwe, said that the new distributors would operate under a framework that would ensure that they were financially viable and able to cover their costs. This would help to reduce the number of power cuts and the associated costs to consumers.

van der Merwe also said that the new distributors would be monitored closely to ensure that they were operating effectively. She added that the NER would work with the new distributors to ensure that they were able to provide reliable and affordable electricity to consumers.

The establishment of the new distributors is part of the government's efforts to improve the country's electricity supply. The government has been facing criticism for the high number of power outages and the associated costs to consumers.

The new distributors would be semi-independent and would operate under the NER's framework. They would be expected to cover their costs and provide reliable and affordable electricity to consumers.

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New body to supply power

By Joshua Raboroko

THE newly formed National Electricity Regulator (NER), a body meant to supply electricity directly to consumers, could ease the burden of Eskom and the local councils in combating township residents' resistance to paying.

The NER, which has not yet been launched officially, will replace local councils and Eskom in supplying electricity to consumers. Eskom is the biggest supplier of electricity in the country.

NER customer services general manager Mr Johan de Plessis told Sowetan yesterday that the organisation aimed to supply electricity to consumers.

The organisation, which consists of provincial and local government, the private sector, trade unions, community and political organisations, is to hold an urgent meeting on July 29 to complete a final vision and strategy.

After the meeting it will send recommendations to Minister of Mineral and Energy Affairs Penuel Maduna with the view to introducing legislation when Parliament resumes next month.

The formation of the enterprise comes in the wake of confrontation in which the homes of Secunda councillors were petrol-bombed after a council decision to cut electricity supply to defaulters.

In another incident on the East Rand the homes of Brakpan councillors were burnt down in what police said appeared to be incidents related to non-payment of rates and services in the area.

De Plessis said they planned restructuring the electricity sector by merging the distribution functions of Eskom and local councils into financially viable regional distributors.

It was hoped that with the councils no longer being responsible for supplying or cutting off electricity the whole issue would be depoliticised.

Gauteng MEC for development planning and local government Mr Sicelo Shiceka, who also serves on the NER, said service defaulters should arrange to pay their tariffs before August 1.

He said the NER meeting would propose that workers, including public servants, arrange payment for rates and services via stop orders from their bosses.
Consumption of electricity increases

Lukano Mnyanda

ELECTRICITY consumption in the first half of the year showed a 2.9% increase compared to the figures for the previous six months, reflecting progress in Eskom's electrification drive and indicating that fears of a collapse in economic activity might be exaggerated.

Central Statistical Service (CSS) figures released yesterday also showed that electricity consumption had increased 3.3% on a seasonally adjusted basis in the second quarter compared to the three months to March.

Economists canvassed yesterday said the absence of a complete breakdown of the different users made it difficult to determine how much of the growth was driven by Eskom's electrification drive or robust manufacturing activity.

Eskom spends about R1bn annually on its electrification programme, aimed at ensuring that more than 75% of SA households have access to electricity by 2002, when more than 2-million homes should have been electrified.

An Eskom spokesman said yesterday that domestic households had accounted for most of the increased distribution over the past six months, reflecting progress in the electrification drive. The CSS figures showed that Eskom's electricity distribution increased by 2.6% in the period under review.

Econometrix chief economist Azar Jammine said the growth in consumption might have been driven by the electrification drive. But even if that was the case, it would have a spin-off for other sectors of the economy through increased demands for electrical appliances.

"These figures do not support the view that the economy is about to collapse. The economy is slowing, but the fears (of a collapse) seem a bit exaggerated."

SA Chamber of Business (Sacob) economist Penny Hawkins said the figure was "more or less" in keeping with earlier predictions for economic growth this year. But it was hard to say how much of the growth had been driven by increased manufacturing activity.

Sacob's monthly survey of the manufacturing sector had shown that although manufacturers were more confident about their long-term prospects, they were less optimistic on a short-term basis.
The Minister of Mines and Energy

The minister is advised that the information is true and that the information is complete.

Respectfully submitted,

(Official Signature)

Ministry of Mines and Energy

The Minister of Labour

(Official Signature)

Ministry of Labour

The information is complete and true.

(Official Signature)

Ministry of Labour
Council proposal on electricity rise rejected

Deborah Fine

THE National Electricity Regulator has rejected the Greater Johannesburg Metropolitan Council's proposals to increase the nondomestic electricity tariff for large power users by 7%, and has instead recommended a 3% increase.

The proposed increase was adopted by the council during its 1996/97 municipal budget debate in June, but was subject to approval by the regulator. The council also proposed a 12% domestic tariff increase.

The 7% increase in large power nondomestic tariffs would have resulted in additional income of R74.4m for the council. This, combined with the domestic tariff increase as well as other adjustments in small power tariffs, would have yielded a total additional income of R149.6m.

The 4% decrease, which has been accepted by the council, has meant a reduction of R38.8m in the council’s original estimated additional income from electricity.

National Electricity Regulator spokesman Johan du Plessis said yesterday that the regulator had rejected the council’s original proposal because the current large power-user tariffs in Johannesburg were still regarded as “very high compared to the tariffs paid by large power users in some other metropolitan areas”.

While the regulator would have preferred a zero tariff increase for large power users, it was decided to allow the council a 3% increase given the council’s financial considerations and the fact that there had been no tariff increase in the 1996/97 financial year.

The regulator had, however, approved the 12% residential tariff increase and had recommended further increases to bring residential tariffs in line with distributors in other areas.

Council strategic development support executive officer Alton Lock said yesterday that the council’s electricity department would now be looking to other revenue sources to offset the income loss.

The council would also be holding meetings with Eskom with a view to reducing purchase costs an electricity unit to compensate for the loss.
Costly operation to feed hungry power station

Thirsty turbines expected to gobble 12 Mt/year. Most mining houses keeping weather eye on opportunity

Eskom is working on a new multi-million rand plan to get coal to its Majuba power station. The move follows the closure of Rand Mines’ on-site coal mine in the early Nineties. Coal for the station, which is costing R12bn to build, is now railed 330 km from various sources. A solution to the transport problem, involving new rail and conveyer belt links, could cost between R250m and R700m.

Another part of the solution could be for coal producer Ingwe Coal Corp to open a new mine in the Leandra area in Mpuamalanga. “Depending on the requirements, capex could well total up to R1bn,” says Ingwe project engineer John Pain.

Spoornet, Sasol and most of SA’s major coal mining groups are also interested parties in the feasibility discussions, which could lead to an implementation decision by mid-1998.

The 4 000 MW Majuba station is not yet complete, with about 70% of its budget committed and only two of its six-pack generating units in operation. A new unit will be brought into operation each year, till the station is fully operational. Each unit is capable of generating 660 MW.

Eskom energy management manager Brian Statham says “with Majuba being the most expensive live power station, the economics of its coal transport are critical. Opportunities to exploit the lucrative ‘peaking’ market — when daily demand for electricity peaks — are also an important part of the Majuba strategy for the next 10 years.”

Eskom also remains bound to a number of contractors to complete the Majuba project — and the proposed transport logistics solution should reduce its cost premium.

“While nothing has been finalised yet, the phased new transport project might well kick off with a new R250m, 38 km rail link between Secunda and the existing line serving our Tutuka station. This will cut about 180 km from the round trip line linking up with the Durban rail line,” says Eskom project manager Francois Retief. This will also help shorten Sasol’s access to the Durban port.

This “central corridor” line would also link the Springs/Richards Bay rail line to the KwaZulu-Natal railway system, enhancing the north-south link between the Maputo corridor and KwaZulu-Natal.

Other possible “transport corridor” steps (see map) would include:

- A new rail line (or conveyer belt system) between Opies and Secunda — via the Kendal, Motla and Kriel stations. This would allow access to cheaper coal from the Witbank/Middelburg export coal mines;
- A R350m conveyer belt route, linking Majuba with Tutuka; and
- Other future coal transport corridors which could benefit Eskom, Sasol and coal mining groups, as well as the farming and industrial sectors. With possible upgrading of some existing lines, total transport costs could reach about R700m.

Retief says while Ingwe has already been given the 6 Mt/year contract to supply Majuba’s first half (2 000 MW), the coal supply contract for the second half is still open and might only become operational by about 2008. Coal companies are therefore still in the running for this 40-year supply contract.

Ingwe’s Pain says meeting the initial 6 Mt/year commitment might require upgrading of existing mining infrastructure or opening the new mine in Leandra.

Spoornet strategic markets senior manager Philip van Heenden says the proposed lines could be owned and operated by Spoornet, privately owned or a combination, should a consortium of interested parties join forces.

Arnold van Heysten
French firm in solar energy project

Patrick Wadula

Ed 11/8/97

TOTAL Energie, the French solar energy systems supplier and part of the Total group, has formed a joint venture company with the Rehetable Group to supply alternative electrification for rural schools, clinics and villages using solar energy.

The French company, via its subsidiary Total Energie Southern Africa (Tenesa), is to be part of a company called Khulumani in which both Rehetable and Tenesa will be equal partners.

Rehetable MD Moss Ngwenya said at the weekend the new company would also provide solar energy in the telecommunications industry and solar water pumping.

Five black subcontracting companies would be chosen to carry out installations as part of a broad strategy of empowerment.

"We are also looking at the possibility of local assembling and manufacturing of certain solar products in the medium to long term," he said.

Ngwenya said Tenesa had installed a mini power grid in a village in the Northern Cape. This was would be followed by more in other provinces, including Eastern Cape and Northern province. Tenesa has 15 years' experience in supplying solar energy systems in southern Africa.

Rehetable would lobby government for major projects in electrification, telecommunications and water pumping to supply communities.

Rehetable recently bought 20% of Altron subsidiary Altech for R125m. The company, which is also involved in leisure, tourism information technology and telecommunications, is part of a consortium bidding for Sun Air.
SIGNIFICANT changes were on the cards for the electricity generation and transmission sectors as pressure from private sector players to enter these markets mounted, National Electricity Regulator chairman Jan McRae said in his annual report.

Customers were also demanding that competition in these sectors be allowed. "The entry into the market of independent power producers is a decision that government still has to make. Many regulatory 'rules of the game' will have to be established."

McRae said the distribution sector would experience change this year after the cabinet's acceptance of recommendations on the restructuring of the electricity industry. These included that the industry be rationalised into a number of financially viable regional distributors and that financing of the sector be restructured.

The regulator was improving its economic regulation of the 398 licenses which distributed electricity, but there were problems.

These included the fact that about 75 municipal distributors were supplying electricity at a loss; the poor quality of supply and customer service in many areas; the loss of critical staff; and continuing nonpayment for electricity services. The restructuring of the supply industry should address these issues.

There was also a need to rationalise the more than 2,000 tariffs in SA, particularly as there was a large degree of cross-subsidisation in the tariffs being used. A wholesale purchase tariff would be formulated which would be the basis on which Eskom sold electricity to future regional electricity distributors and certain large customers.

On the electrification programme, the report said 307,047 residential connections were achieved by Eskom last year, which exceeded their target of 300,000 a year. Local government distributors achieved 128,087 new connections, other institutions completed 11,477, and 9,414 new connections to farm worker houses were undertaken.

The number of new connections last year totalled 453,935. The electricity industry proved that with effective organisation and the efficient deployment of resources, it is possible to exceed the reconstruction and development programme target of 450,000.
Atomic Energy Corp in danger of being vapourised

Proposed legislation likely to send shoals of boffins seeking friendlier, foreign climes

Once a formidable force in world nuclear rankings, the State-owned Atomic Energy Corp (AEC) has been whittled down to a shadow of its former self. Staff levels have dropped from 8 000 to 2 000 over the past seven years, with more losses expected.

These could be hastened by the draft Nuclear Energy Act, which calls for a reduction in the AEC's commercial independence and control functions.

There are also concerns that account has not been taken of the Department of Arts, Culture, Science & Technology's Science & Technology White Paper, approved by Cabinet last year and which will see a competence review of all science and technology organisations in September.

AEC executive GM Mojalefa Murphy is a worried man. "We have already lost hundreds of experienced scientists and engineers to overseas research institutions, and the draft Act would be the final nail in our coffin," he says.

With the termination of AEC's fuel fabrication activities last year, fewer than 30 internationally competent scientists and engineers remain, Murphy says. "We have moved so far down the commercial route that we risk losing all capability to do fundamental nuclear research."

He is not alone in his concerns. Other nuclear energy stakeholders, including the Department of Trade & Industry (DTI), Eskom (which buys nuclear fuel internationally for Koeberg power station) and others, have asked for more time to reply to this revision of the 1993 Nuclear Energy Act. The draft was released for comment only on July 22 and responses were due back on July 31.

The Act could also see AEC CE Waldo Stumpf out of a job.

Commenting on Section 43.4 of the draft Act, which states that the AEC's chief executive must reapply for his position, Stumpf says this is unconstitutional. "Should government want to replace me, this does not require legislation."

But Minerals & Energy Affairs deputy director-general Gordon Sibiya says the clause was included to ensure transparency and to allow all South Africans to have an opportunity to be involved in restructuring the sector.

Stumpf says the process was not "entirely transparent" and has sent Sibiya a letter outlining his organisation's concerns.

"We expected to have more input," he says, adding that the AEC board meets again only on August 27.

"Instead of our powers being taken away, we need more freedom if we are to move fast in an increasingly competitive environment. The way the Act is drafted we can't even approve the submission of patents," says Stumpf.

"Our mandate to revise the 1993 Act came from the Deputy President," responds Sibiya, who says his Minister has too little jurisdiction over the AEC.

Sibiya says many of the powers of the AEC pertain to nuclear safeguards and should therefore fall under the Council for Nuclear Safety (CNS), a government body.

Responsible for licensing nuclear installations and for ensuring safe transportation of nuclear material, the CNS has helped to assist in drafting the Nuclear Energy Act into a draft Nuclear Safety Act, which will enlarge its role and is likely to go to parliament next year.

"While the CNS does not have the capacity to administer the Nuclear Nonproliferation Treaty signed two years ago, an answer could be to transfer the specialists from the AEC to the CNS," says an Eskom source. He says this would be preferable to nuclear safeguards falling under the AEC, which is now both the regulator and a commercial player.

Stumpf disagrees, saying that the AEC, which processes about 80% of all safeguarded nuclear material in SA, has designed its internal management control system to double as the State system of accounting and control of nuclear materials, as required by the agreement with the International Atomic Energy Agency in Vienna.

He proposes the control function be vested in the Nonproliferation Council of the DTI, which could then subcontract maintenance back to the AEC, "avoiding costly duplication of facilities."
A man driven to make power for the people
State will restructure electricity distribution

Johannesburg — The electricity distribution industry would be restructured into regional distributors to boost electricity delivery to 2.5 million households by 2006, Penuell Maduna, the energy minister, said last week.

He said the most pressing challenges facing the troubled industry included the disparity in the cost of supplying electricity, the electrification targets and costs, which varied widely by region; differences in service and supply quality standards and the funding of municipal services.

Speaking at the launch of the restructuring process in Pretoria last week, he said Cabinet approved the consolidation of the distribution industry and set up a state team to drive the process, which should be implemented by the middle of next year.

A national electrification fund would be set up to bolster the financial muscles of the distributors. Its structure still had to be determined.

The government has also approved the introduction of cost-effective tariffs, an electrification levy and a capped tax for part funding of municipal services.

The South African Local Government Association (Salga) said regional distributors must be the sole supplier of electricity within their jurisdictions.

"Ownership of all electricity distribution assets, including those of Eskom, should be seen as community property and be transferred to the appropriate regional electricity distributor," Collin Matjila, the Salga chairman, said.

Eskom suggested the electricity supply industry be restructured through "corporatisation" and Eskom be converted into a company by an act of parliament.
Consensus on electricity restructuring

Robyn Chalmers

BROAD consensus on restructuring the R20bn electricity distribution industry — the biggest such exercise undertaken in SA — was forged at a workshop for stakeholders on Friday.

Mineral and Energy Minister Penuell Maduna told the workshop that the industry was in crisis and government recognised that action needed to be taken as soon as possible.

Stakeholders had been invited to nominate members to a stakeholders' advisory committee, which would in turn advise on a full-time professional transformation team. "The stakeholders' committee should be set up as early as next month with a transformation team operational by November."

Maduna said there was gross inefficiency in service delivery, with more than 2,500 different tariffs and an inability by some municipalities to pay their debts to Eskom.

The cabinet recently approved rec-

Continued on Page 2

Electricity

Continued from Page 1

ommendations on restructuring the sector. These included consolidating the industry into the maximum number of financially viable and independent regional electricity distributors. The number still has to be decided.

The introduction of cost-effective tariffs, an electrification levy and a capped tax for part funding of municipal services had also been approved. An electrification fund to be administered nationally was proposed. However, the proposals were approved on condition that public consultations be held with major stakeholders.

Public Enterprises Minister Stella Sigcau said Eskom carried most of the burden of distributing electricity. The proposed restructuring would go a long way towards alleviating this burden.

"The regional electricity distributors will be completely viable entities, so the problem of who (Eskom or municipalities) collects payment will not be an issue anymore either."

Sigcau said she was aware of industry concerns regarding proposals that Eskom pay tax and dividends — it is exempt from both particularly regarding its impact on the low cost of electricity. This issue would be fully debated with each industry concerned.

"We need to level the playing fields as other parastatals such as Transnet have to pay tax and dividends."
National Electricity Regulator CEO appointed
Decide on electricity structure, go told
Mr Electricity tough act to follow

FORMERS National Electricity Regulator chairman and CEO Ian McRae has spent his life to the electricity industry. He started as an apprentice fitter with the Eskom in 1967 and moved up the ranks, eventually taking on the role for many years.

McRae left the regulator last week and with his sudden, albeit largely expected, departure, the industry has lost one of its most experienced, most outspoken and most committed players. It is to be hoped he will still play a role in the electricity supply industry, possibly as a consultant, and industry is likely to call for McRae to guide new regulatory charter through its first months in the position.

It is a largely untested entity in a number of the areas in which the regulator needs to be active, but appears to have a broad background in electrical engineering, having lived in the Northern Province, he obtained a BSc in electrical engineering from Wits University in 1986 and his postgraduate qualifications include an MSc from Finsbury in London. He worked in electrical engineering on various gold mines, and before joining the regulator worked as an independent consultant in civil and electrical engineering.

McRae must be given time to settle himself, but it takes an enormous task which includes driving and keeping tabs on the complex restructuring of the Eskom energy industry. His path will no doubt be shadowed by the fact that he is an integral part of the current minerals and energy ministry and its department, whose officials he will have to liaise with on an ongoing basis.

McRae, on the other hand, was appointed by former mineral and energy minister Piki Bokani in a consultation with the Cabinet, although it was on the recommendation of a panel, and, indeed, insinuates, of a wide range of stakeholders in the supply industry. The appointment may have made McRae's task a little more difficult once current minister Tom Thabane came into office — despite his commitment to 'Eskom and generation capacity (his previous role). By his own admission, there were other problems while having McRae handling the regulator.

It is significant that, as the retired, former CB of Eskom, would be seen as a strong one and we would favour it. This working with the skill with which he is seen as 'Eskom complained that I was seen as an 'Eskom insider,' he said.

The Coal Control Act of 1989 under the Electricity Amendment Act of 1989 as an independent regulator that the Electricity Control Board (ECB) would replace the Electricity Control Board (ECB) and the amalgamated electricity supply industry. The need for a regulator was evident from investigations and negotiations which kicked off among many of the industry's biggest players in 1995 under the National Electricity Regulation Forum (NARF).

The difficult task of the regulator is encapsulated in the lengthy and complex discussions which have ensued on the restructuring of the industry over the past few years. NARF's task was to develop recommendations to make the fragmented industry more effective, and efficient and to recommend a viable strategy for accelerating electrification countrywide.

The regulator then called on government to take charge of the process, and Bokani appointed the Electricity Working Group to further examine and implement NARF's recommendations. Its report was submitted to government. An electricity restructuring interdepartmental committee (IDC), government officials were tasked with formulating government's position on the group's recommendations. ERC completed its report in October last year and the Cabinet broadly approved the recommendations in March. A stakeholders' workshop was held late last month and McRae has agreed to set up a stakeholders' committee. November which will advise on members of a permanent task team to investigate, plan and implement the transformation process.

Effectively, therefore, it has taken five years for government to take a position on the supply industry, during which time local government has lost huge financial crises with current and inherited debts of R50bn. This culminated in the recent spate of cut-offs and a sudden surge in payments. Reflecting on his years at the helm of the regulator, McRae says he is satisfied a credible and independent body has been established. It is perceived as understanding the issues and problems distributors face, as well as an acceptance that it is aware of customer issues.

We played a lead role in the debate on the restructuring of the supply industry, we identified problems facing the sector and real change was spurred needed,

In fact, when the regulator issued warnings two years ago that the industry was in trouble and that distributors could not deal with permanent licence, some critics said it was an alarmist. Recall McRae. Similarly, when the regulator told government that restructuring the industry through litigation would not be effective, that government should take the lead by defining policy, some critics said it had gone overboard.

Many municipalities which are close to bankruptcy, as well as Eskom would no doubt disagree with these cynics today.

We had to take tough decisions," says McRae, and "we had to stand by them in the face of huge pressure.

He tells of Mahlasela's efforts near East London which was experiencing problems with electricity supply and payment. There were supply problems, too, at a neighbouring industrial development, and complaints from tenants at the development alerted the regulator.

Regulator officials found that the East London municipality was the one to, with the Government for the area, but it believed it was not the developer and that Eskom had disposed away from taking over.

As a result, motors had not been used, bills sent or servicing undertaken, for more than five years, so electricity supply was intermittent. After much negotiation, the regulator's board decided to take the licence away from East London and applied to the minister to do so — this would have meant a huge loss of income for the municipality, which also supplied electricity to the East London and would have been unable to do so if the two licences.

'Del' East London has now decided it will, after all, undertake and service electricity supply to Mahlasela.

This was a difficult decision for the board, but I believe we performed well and achieved our objective of restoring electricity supply to an area," he says. McRae says there are many challenges looming for the regulator's officials. There are still more than 2,000 electricity tariffs, major disparities in electricity prices, poor customer service and quality of supply in some areas as well as a need to make 2.5 million new electricity connections under the reconstruction and development programme by the end of 1996.

There is huge amount still to be achieved in the electricity supply industry, and McRae and his team have certainly faced their challenges. The problems facing the sector are as well as faced by those elsewhere within the sector on as seen needed in the future.

He will be a tough act to follow, and Sekonyela will soon need to show himself to be a diplomat who has the ability to make difficult decisions, often in the face of extreme opposition.

SA's former electricity chief Ian McRae spoke to specialist writer Robyn Chalmers after leaving office.
Eskom has ample power for everyone.

The slogan "power to the people" has become a reality as Eskom connects up to a 1,000 households a day and the good news is that there's plenty of electricity for all.

The company has disclosed it will be able to meet all electricity demands until after 2010 without any difficulty in spite of the huge increase in new users.

By then the company hopes to link into big hydroelectricity schemes in neighbouring African countries that should be able to supply South Africa's needs well into the next century.

The ultimate power source for the new millennium is the mighty Congo River, with its vast potential to generate electricity. Eskom energy manager Brian Slatham said the company was now fully able to meet electricity demands and was not investigating new power sources or stations.

"It must be remembered we mothballed several power stations because we are well able to meet demands. When and if it becomes necessary, we can bring these stations back on line," Own Correspondent
Slow solar energy program remains reappointed
Josey Ballenger

SA COULD learn from other nations’ mistakes and “get it right the first time” in developing more cost-effective and environmentally sound methods, an internationally renowned energy expert told Eskom and government officials last week.

“The unique and remarkable circumstances of SA (give the country) extraordinary opportunities to go with (its) challenges,” said Amory Lovins, co-founder and research director of US-based Rocky Mountain Institute.

“Some of the most important (opportunities) are in energy and energy efficiency,” he said. Lovins, whose visit to SA is sponsored by Eskom and the departments of minerals and energy and water affairs and forestry, said government needed to take an integrated approach to development.

“Look at the whole picture. You cannot pass costs from one ministry to another.”

On the other hand, “by re-allocating your capital, you can have a magical affect on development. If you save on infrastructure, you could put more money into housing, health care, education or transportation,” he said.

There was a paradox in Eskom “running wires out to people who cannot pay. It is socially essential to get electricity out, but it is not being done in the most efficient way,” he suggested.

The paraaatatal “leap-frog” to solar energy, which would help customers pay their bills and Eskom meet infrastructure costs.

Many governments, such as Britain, had got it wrong by only rewarding utility companies for increasing electricity consumption. “But if you decoupled profits from how much they sell, you would have more efficient (energy) use,” he said.

Government should reform regulations “so as to reward utilities for efficient behaviour”.

North American utilities had gone that route and, as a result, had made massive savings and increased revenues. Southern California Edison, the third-largest US utility, for instance, gave away fluorescent light bulbs “because it was cheaper than operating incandescent bulbs.” On the whole, US utilities saved $40m through such measures.

Eskom research manager Stephen Lennon said managers had to “learn to think differently”. “The electricity business is not just about increasing sales but about improving the bottom line (by decreasing costs)”.
54.6% of SA homes have electricity
Women can earn money by collecting shredded paper.

**Local authorities do not pay** those who collect shredded paper.

Andries Vlokman

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The捡拾垃圾工人 is a picture taken for payment by most urban Zimbabweans. The wind has it up the future for many more, particularly in rural areas. Still, we'll report the phenomenon.

**But the supply of Recyclers may recently lean to microbes or citizens alike.**
Consumers pay for power game

Durban is one of 400 municipalities stung by Eskom pricing anomalies

Electricity pricing is a sore point in Durban. Forced by consumer pressure to back off from planned tariff increases, the city council still pays more than its fair share for bulk electricity from Eskom.

Durban's problem is not unique, though it may be worse than most: nearly all of SA’s 400 local authorities which distribute Eskom power are hit with pricing anomalies.

National Electricity Regulator (NER) GM Kevin Morgan agrees the complaints have merit but he says the issues are too complex and varied to rectify individually. The NER intends to fix the problem as a whole, once the long awaited electricity industry restructuring programme begins. But that could be several years yet.

The NER’s response angers Durban Electricity executive director Howard Whitehead. Durban’s problems, he says, stem from the fact that the city pays 25%-30% more for bulk electricity (275 KV) than Eskom’s own distribution services pay for the same voltage. If the metro sold power to its consumers at standard Eskom retail tariffs, the city would lose R250m a year.

But that argument wins no sympathy from local industry. “If the metro can’t distribute it as cost-effectively as Eskom then they shouldn’t distribute,” says John Barton, director of Mondi paper, one of Durban’s biggest electricity users.

Whitehead says Durban’s predicament is worsened by its being one of the few distributors of super tension voltages. Eskom’s discounts don’t cover the additional costs to the city of stepping down the high voltage into 220 V consumer power.

Durban also claims it is effectively penalised for taking the lead in RDP electrification. Since 1991 the city has electrified 116 000 homes and given power access to thousands more. The programme has cost the city R574m so far, says Whitehead. Meanwhile, Durban contributes to Eskom’s electrification programme through a 4% surcharge on tariffs.

The NER’s Morgan says it is “investigating the possibility” of making an exception for Durban. But Whitehead scoffs at that. The NER, he says, promised long ago to resolve Durban’s problem, but nothing has been done.

Herb Payne
Electricity Regulator Wants Competition

10/28/02

DAY
Residents demand transfer of accounts

Cape Argus, MONDAY, SEPTEMBER 29, 1997

Department wants to consolidate electricity supplies

The Department of Energy announced plans to merge Eskom with councils, by 1999.
Electrification projects for SA schools in disarray

CAPE TOWN — Parliament's public accounts standing committee has recommended representatives of the mineral and energy affairs and finance departments, as well as ESKOM and the auditor-general's office, meet urgently to address deficiencies in the school electrification programme.

The R1.2bn programme, planned to be implemented over 1995-1999, was aimed at providing electrification to 3,840 schools. During the 1995-96 financial year R17m was spent but auditor-general Henri Khuver was unable to give an audit opinion on the expenditure because of numerous flaws.

Deficiencies included the lack of a formal agreement between mineral and energy affairs and ESKOM, the lack of a formal basis for prioritising the electrification of schools, the lack of formal arrangements to submit reports and the lack of formal strategic planning which resulted in one school being electrified twice.

The committee also urged the finance department to make provision in the 1998/99 Budget for the costs involved in adjusting the computers of all departments and public sector institutions in preparation for 2000.

The committee noted that next year's budget was the final chance for government to cover the cost of programming computers for 2000.
Eskom holds whip hand in tariff negotiations

Glitch in talks as 20-year-old agreement comes back to haunt Portuguese government

The Portuguese government, as owner of Hidro-electrica De Cahora Bassa (HCB), which controls Mozambique’s Cahora Bassa hydropower plant, is in a difficult position in trying to negotiate a favourable tariff deal with Eskom.

Eskom is the only major buyer of Cahora Bassa power, and with 5,000 MW surplus generating capacity and contractual access to a further 450 MW from Cahora Bassa, the SA utility can decide the terms on which to do business.

Under the existing contract between the parties, Eskom has offered to pay US$0.2c/kWh — but the Portuguese want substantially more. The tariff agreement was struck in 1974, with no clause allowing for inflation adjustment.

Eskom and HCB’s current discussions relate to the tariff Eskom is prepared to pay for the 750 MW of Cahora Bassa’s capacity that should soon start flowing into SA’s grid. About 200 MW of the dam’s total generating capacity will flow to Mozambique. Zimbabwe has contracted to buy 500 MW till 2003, when this will also revert to Eskom — and SA.

HCB’s asking price for the 20-year-old dam and hydropower station, with transmission lines to SA, is another issue. The Portuguese government is working towards meeting European Monetary Union entry requirements and has raised the possibility of selling Cahora Bassa.

Built in the Seventies for about US$500m and jointly owned by the Portuguese government, with 82% of the equity, and the Mozambican government, with 18%, Cahora Bassa is now on the market for $3bn. But Eskom is not interested in paying a tariff based on that price.

“Eskom is the world’s cheapest power generator and is selling its power to the local market at about US2.5c/kWh on average. Anybody trying to sell us power at above this rate is knocking on the wrong door. “Nor are we buying the argument that the owners of the Cahora Bassa project are entitled to recover interest at 8% per year since dam completion, together with $30m per year ‘upkeep costs,’ leading to a $3bn price tag,” says Eskom corporate energy adviser Bain McIntyre.

There seems no reason Eskom should pay $1,500/kW for a 20-year-old, 2,000 MW power station when it has the choice of paying only $1,000/kW for a brand new station at Mepanda Uncia on the Zambezi below Cahora Bassa, which, consultants say, could be up and running by 2001.

But at this stage “Eskom needs additional generating capacity like it needs a hole in the head,” says McIntyre, adding that it projects surplus capacity will last until about 2006-2010.

It already has a potential choice between a number of far cheaper, competing power generation options in the subcontinent. “Apart from Mepanda Uncia, the Democratic Republic of Congo’s Inga project could provide hydropower at even cheaper rates.”

Though the talk is tough and Eskom appears to hold all the aces, work is continuing with recommissioning and linking up the 1,432 km, 533 kV HVDC powerline from Cahora Bassa with the SA grid. “We are yet to settle the tariff issue, but the $125m line commissioning — paid for by the Portuguese government — should be completed within a few months,” says McIntyre.

With or without Cahora Bassa, Eskom evidently has sufficient power “on tap,” to meet the 450 MW demands of the first phase of Alusal’s planned Moval aluminium smelter at Maputo, due to be launched by early 1998. But with a second phase for Moval (also 450 MW) in the offering, and the Industrial Development Corp planning to build a linked iron and steel plant at Maputo needing an additional 850 MW, Mepanda Uncia’s projected 2,000 MW might well be absorbed by future industrial growth in Mozambique alone. “Maputo and Beira also need about 100 MW each, and JCI’s planned iron plant and harbour project at Beira could also get power from this project initially,” says McIntyre.

The only cloud darkening the scene could be the equity and currency market upheavals in Asia, which have already affected the JSE, European bourses and the Dow Jones. Expectations of sharply reduced growth are also beginning to affect metal commodity markets — which could arguably put a number of regional projects on hold.

Arnold van Ruysteen
Energy issues are debated at seminar

Josey Ballenger

WHILE the potential for hydroelectric power in Africa was great, the transition from using biomass and coal energy sources would come with risks as well as benefits, utility and environmental experts from industrialised and developed nations agreed last week.

"Generally, hydropower is preferred in the US and the rest of the world, but there is no such thing as a free lunch in providing energy," said Dan Pearson, a project manager at US utility Southern California Edison, at a conference in Midrand.

However, environmental impact assessments — which conference delegates said were essential to development and "made good business sense" — would be necessary to study potential drawbacks and rewards with any type of electricity expansion, including hydropower.

Water-generated power was considered to be a "cleaner" and more efficient energy source, as it did not pollute the environmental nor deplete natural resources — as was the case with coal, wood and other sources.

"But there are costs associated with everything. If you're not polluting the air from coal (which is heavily used to generate power in SA), you may be blocking fish in rivers, for example, with hydropower," Pearson said.

The "disruption" argument could extend to human beings as well, said Yemi Katerere, regional director of the Geneva-based International Union for the Conservation of Nature. For instance, Namibia's proposed northwestern Epupa dam had been hotly contested by the nomadic Himba people whose ancestors were buried under the proposed area.

"Southern Africa has huge hydroelectric power potential," with the Democratic Republic of Congo alone holding 30%, he said.

The two-day conference was organised by the E-7, a group of eight utilities from the industrialised Group of Seven (G-7) nations, and the nonprofit organisation Southern African Development through Electricity.

SA parastatal Eskom has signed a memorandum of understanding with E-7 "as a framework to encourage joint actions".
Privatisation of electricity industry ‘vital’

Robyn Chalmers

THE privatisation of the electricity supply industry should be regarded by government as a priority. Eberhard von Koerber, executive vice president of engineering group ABB in Europe, the Middle East and Africa, said yesterday.

Von Koerber, who has held talks with government and business leaders in SA, said it was vital that large parts of the electricity sector be handed over to the private sector as soon as possible.

The distribution sector should be the first to be privatised into a deregulated environment. Government’s concept of setting up a number of regional electricity distributors was a solid one, but they should be opened up to the private sector rather than being managed by Eskom and municipalities. “As opposed to stifling employment opportunities, this will create new avenues of investment for black entrepre-
Now over black nuclear physicist
An aggressive affirmative action programme will ensure that half the top positions at the Koeberg nuclear power station near Melkboes will be filled by affirmative action appointees within three years. But officials say the programme will not compromise safety standards at the power station.

Nuclear power stations, nationally and internationally, are governed by strict safety regulations applying to their operation and staffing.

Tony Stott, spokesman on nuclear matters for Eskom, said the power station had to follow Eskom’s policy of ensuring that by the year 2000, 50% of recruitments would be affirmative action.

He said the 50% target for affirmative action appointments was an overall figure for Eskom.

Koeberg fell under Eskom’s generation of power section, he said, including hydroelectric stations.

Highly trained specialists are required to staff a nuclear power station, he said, and Eskom had recognised a shortage of people skilled in mathematics and physics.

To overcome this, Mr Stott said, Eskom had doubled the number of bursaries it usually awards to students at school and tertiary education institutions.

“Senior staff for the Koeberg nuclear power station have been head-hunted and suitable candidates have also been sent overseas for additional training,” Mr Stott said.

Mr Stott said operators at the power station had to be well trained and licensed.

In addition to complying with the power station’s training requirements, potential staffers had to pass external examinations set by the Council of Nuclear Policy.

Mr Stott said Eskom did not have a policy of retrenching staff, but that under its policy of voluntary separation, staff close to retirement age and those with easily marketable skills had opted to take separation packages.
Meltdown in a teacup

No hanky panky in sale of SA nuclear plant to China

There is nothing secret or untoward about the sale of the Atomic Energy Corporation's (AEC) nuclear fuel plant to China. But police say they will investigate the reasons for their raid on Chinese technicians who were dismantling the Pelindaba plant.

AEC executive GM Lawrence Hyslop says the tube plant was originally bought to manufacture precision zircaloy tubes as part of the AEC's programme to supply SA's only nuclear power plant at Koeberg with fuel during the sanctions era. The plant cost around R80m in the early Eighties; second-hand it will fetch US$4.65m — about R22m.

The AEC had a licence from the French company, Framatom, to produce nuclear fuel for Koeberg, which was also manufactured by Framatom. This meant that the AEC's fuel plant was specifically configured for Koeberg.

Once sanctions ended, SA was able to buy the appropriate fuel assemblies far more cheaply than it could make them. The terms of the French licence precluded export and when the plant was made redundant three years ago the AEC decided to sell the plant to China.

China could have bought the same type of plant from several countries, but it chose the SA plant for price and deliverability. It could have taken 30 months to commission a new plant from, say, Germany. The plant was designed to make fuel for nuclear power generation and has no bearing on nuclear weapons. Nevertheless, the AEC had to get clearance for the sale from the SA Council for the Non-proliferation of Weapons of Mass Destruction. The Chinese are also signatories to the Nuclear Non-proliferation Treaty, otherwise the sale would have been barred.

The politically sensitive plant used to make weapons grade uranium was dismantled in 1990. All sensitive equipment was destroyed under supervision of the International Atomic Energy Agency (IAEA). SA still has a small quantity of highly enriched, nuclear weapons-grade uranium which, also under IAEA supervision, is being converted into fuel elements to power the Safanti reactor that makes nuclear medicine. SA's nuclear medicine production is now the 4th-biggest in the world.

With the reduction of government assistance, the AEC has been commercialising its activities. Hyslop explains that it uses spinoff technologies from its nuclear activities and makes them commercially viable. The AEC's turnover next year should exceed R200m, of which about 40% is exported. This is not yet enough, Hyslop says. The aim is to have a broad range of products and technologies, not necessarily all nuclear, to replace government's grant — which has been cut from R1bn in 1990 to only R200m next year.

Robin Friedland
Deputy director-general quits energy fund in wake of bribery scandal

[Handwritten note at the bottom of the page]
CAPE TOWN — There had been overwhelming support within the oil industry for the creation of an integrated national oil company as proposed by Minerals and Energy Minister Frenell Maduna, Central Energy Fund chairman Don Mkhwanazi said yesterday.

However, the Chemical Workers' Industrial Union insisted that the fund companies should not be privatised.

Mkhwanazi said there had been an overwhelming number of submissions from oil firms, the union, organised commerce, black consortiums, professional institutions and consultants.

The aim of creating a listed, integrated oil company, consisting of fund companies and state-owned energy assets, would be to cut the cost of energy to the fiscus and involve it in the retail of products. Government would retain a controlling stake.

Mkhwanazi said a report with recommendations would be submitted to the minister, employees and all stakeholders before December 15.
Van Schalkwyk said each school should resist. "Van Schalkwyk added..."
JONATHAN ROSENTHAL
INDUSTRIAL EDITOR

Johannesburg — The 45 000-member Chemical Workers Industrial Union (CWIU) demanded yesterday that the government sack Don Mkhwanazi, the first black chairman of the state-owned Central Energy Fund (CEF), over his award of a R3 million consultancy contract to Emanuel Shaw II.

The union's call comes one day after Gordon Sibiya, a deputy director-general in the department of mineral and energy affairs, confirmed he had resigned from the CEF board over Shaw's appointment, citing a lack of transparency and accountability in the CEF.

"CWIU supports ... the view that a lack of transparency and corruption must be attacked," the union said.

Shaw, a former Liberian finance minister, was appointed by Mkhwanazi without going through a tender process. He has reportedly been associated with fraudulent insurance claims and reportedly solicited bribes on the assurance that he could influence Penuel Maduna, the minister of minerals and energy.

CWIU demanded the removal of Shaw and Mkhwanazi "and following investigation, that appropriate action be taken".

Dick Barker, the acting director-general of the mineral and energy affairs department, said yesterday that an investigation, ordered by Maduna, was under way.

Sources close to the CEF board said it was expected to back Mkhwanazi and defend his appointment of Shaw at its quarterly meeting in the Western Cape tomorrow.

Both Mkhwanazi and Maduna failed yesterday to return telephone calls although staff in their offices confirmed they were present.

Business Watch, Page 17
Atomic body loses round one to scientist.
Lights for Christmas turn on the magic in shanty town

This festive season, candles will be just a memory for empowered family

CHRIS BARRON

7/12/97

For most of the media it was just another forgettable item on the news diary, for the residents of Block X Soshanguve it provided a shower of excitement and a legitimate excuse for missing work.

But for Joseph and Dorothy Matlala, Tuesday was a day they will remember as long as they live.

It was the day President Nelson Mandela turned them on, so to speak. And he almost stayed for tea.

Joseph is 55 and Dorothy 40. They have three children, the oldest 14 and the youngest nine months. They live 20 minutes' taxi ride away from one of the most technologically sophisticated cities in the world, Pretoria. But they have never had electricity.

To iron her husband's clothes and her children's school uniforms, not to mention her own Sunday-best dress which she wore for Mandela, Dorothy has to heat her iron over the open flame of a primus stove.

The Matlales are no poverty-stricken shanty dwellers, even if they do live in a corrugated tin shack which does not have a bathroom, running water or lavatory. With Joseph's pay as a full-time mechanic in Pretoria, they have bought a hi-fi set, television and deep freezer that wouldn't look out of place in the wealthy suburbs.

But before they can listen to the radio, Joseph must connect it to a car battery. For the television they use a generator in the bedroom, which makes such a racket that baby Sampson can't sleep and they can barely bear their favourite programmes.

Noise is not the only reason they keep their viewing to a minimum. Petrol for the generator costs R30 a week.

To conserve gas, which costs R7.5 a canister each month, they switch off the freezer at night.

To see after dark they use candles, eight packs of six a month at R2 a pack. Every time Sampson needs a feed or a happy change the candles must be lit so Dorothy doesn't stick a safety pin into him. But when the wind howls through the gaps in the sheets of tin, the candles go out. And fire is a constant threat.

With three children it is a dread that has become part of the Matlala's lives.

Besides the inconvenience and danger, not having electricity has cost the Matlala R250 a month, now their neighbour, Jacob Khune, who works for the company that installed the units, has told them a card costing R100 will give them power for up to three months.

Joseph built the shack himself when they moved five years ago from the Winburg. It is kept meticulously clean, and on Tuesday boasted a coat of sparkling silver paint in honour of Mandela's visit. So excited were the Matlales that they painted the few metres of fence running in front of it as well.

For the first time in their lives their home was an object of envy. And it will remain so until 34,000 other houses in the area, all of them proudly maintained like the Matlala's, are connected to the electricity source over the next few months.

When Mandela threw the switch, there was a collective sigh of appreciation and renewed hope, as if the multi-coloured lights of a huge Christmas tree had come on instead of just a single globe.

"I was more excited than for Christmas," said Joseph after Mandela had left.

"I had everything ready for him to have tea here," said Dorothy, who had been eerily busy since being told last month to expect the President. "He explained he didn't have time, but he said next time he would. And he gave us an iron and a kettle."

If another presidential visit means enduring the same media circus again then it is one promise the Matlala would not mind him breaking. The taking of photographs and questioning had left her "very tired", Dorothy admitted afterwards. "Very, very tired."

"Anyone for tea?" she asked, flicking a switch. A huge smile creased her face, and suddenly she didn't seem so tired anymore.
OPEC move unlikely to benefit SA

Helmo Preuss

SA CONSUMERS were unlikely to see the full benefit of the recent decline in oil prices following the decision by the Organisation of Petroleum Exporting Countries to raise its production limit 10% last week, analysts said on Friday.

Joachim Hartleb, minerals economist at Gencor, said quota cheating by OPEC members meant the 10% nominal increase translated into an actual increase closer to 3%. "The oil industry had anticipated an OPEC quota increase, so a fall in prices was already factored in even before last week's Jakarta meeting. There may be a short-term break below $16 a barrel on the Dubai oil price, but this is not sustainable.

"I think Dubai will trade between $16 and $19 a barrel during the northern hemisphere winter months," Hartleb said.

The Dubai price declined to $16.53 a barrel on Tuesday from a monthly average of $15.18 in November and $19.02 in October and $21.76 in January.

This resulted in a 2.96c/l over-recovery in the retail petrol price last week despite the recent depreciation in the rand. If recent trends were sustained, there could be a 5c/l cut in the retail price in January.

But industry sources said this was unlikely as there were various players, who "needed" more, despite a 5c/l allocation to non-oil levies in November.

"We would love to have more, as our members are being bled dry and every day another retailer ends belly up," said Johann Scholtz, Fuel Retailers' Association director.

A recent study by the Potchefstroom University jointly with the association and government estimated that there had been a 4.5c/l under-recovery at retailers' level in the year to February. As retailers got only a 2c/l interim increase in November, the latest estimate is that retailers need at least an

other 3c/l increase to break even.

"Nobody undertakes a business just to break even. Some of the oil companies have increased their rentals by as much as 12%," Scholtz said. Wage negotiations, currently under way, will squeeze margins further. "If there is not going to be wholesale blood-letting in this industry, we need that 3c/l and we need it soon," Scholtz said.

In November retailers were given 2c/l, wholesalers 2c/l and the Road Accident Fund 2c/l out of the retail price of petrol. The total amounts going to these parties as a percentage of the December retail petrol price in Gauteng was 8.9%, 7.1% and 5.5% respectively, while government got 35.7%.

Martie Grobler, a Deputy Director at the Central Statistical Services said the decline in the international oil price would be reflected in the producer price index, as that measured oil prices once the oil was in SA, while the consumer price index would reflect change at retail level. — I-Net.
Atomic Corporation denies any spillage at plant
Past mysteries, present shenanigans

Jonathan Rosenhal

step into the tastefully decorated offices of the Central Energy Fund (CEF) on the first floor of a small building in Sandton, and there is nothing to indicate that this was the nerve centre of a shadow trading empire selling the wheels of apartheid.

There are no autographed photographs of the Shah of Iran or gift schnitzers from his successor, the Ayatollah Khomeini, South Africa's two great oil suppliers throughout the embargo years.

There is not even a bouquet of plastic roses with a thank you note from Marino Chiarelli, South Africa's now-deceased oil baron, who, according to the Shipping Research Bureau, earned $7.5 million a month for brokering a secret deal to import oil from Saudi Arabia in 1980.

The Dutch based organisation, which traded oil down to South Africa, went so far as to claim that none of the income was ever declared or brought into South Africa.

Almost any paying was worth paying, and in the aftermath of the fall of the Shah, when it was uncertain what the attitude of the new Iranian government would be towards South Africa, almost any risk was worth taking to keep the oil flowing.

In the 1979 Salem oil scam, a ship picked up $55.5 million worth of Shell's oil. The ship, one being renamed, was then sent to South Africa where it unloaded oil and sold the oil to the Strategic Fuel Fund (SFF), the CEF's oil trading and stockpile subsidiary. The ship was later scuttled off the coast of Senegal, but the secret of the oil supply to South Africa continued.

The SFF ended up having to compensate Shell for its loss.

Traders at SFF are believed to have been equally happy in the arms trade as the oil trade.

US federal indictment against Armcanor and Pacific, which charged these companies with exporting US weapons to Iraq, alleged that South Africa was to be paid for weapons in crude oil, a deal that could have reduced the embargo-busting supply of Iranian crude to South Africa during the Iran-Iraq War.

Oil traders, working for several of the multinational oil companies in South Africa, claim that most of the deals involved middlemen of some description, and that premiums and commissions were routine.

Perhaps the most famous of the middlemen was Marc Rich, the owner of a Swiss-based oil trading company, who is believed to have become South Africa's largest oil supplier.

With millions of rands changing hands each day in a market characterised by oil price fluctuations throughout the day, a couple of cents on a barrel could easily go missing, claim some traders.

When the oil embargo was lifted in 1990 and oil companies could legally import oil into South Africa, the SFF and all its minions found themselves without job security. Yet the move into the world economy has still left them in place as a range of vested interests, and almost none of them are willing to give up their source of easy money.

When President Maduna took over the mineral and energy ministry, he is reliably believed to have been approached and offered a substantial amount of cash if he didn't rock the boat. He is also reliably believed to have refused the offer and launched a series of investigations.

The source claims the investigations were hampered by the mysterious disappearance of companies, packed with information, just before Maduna took office.

Within months Maduna handed in outside investigators and suspended the general manager of the CEF on the basis of a preliminary auditor's report, cancelled the payment of commissions on a large Egyptian oil contract and accused the auditor-general of having covered up missing millions in the SFF.

Seemingly, his investigations have floundered on a lack of evidence pointing to either the culpability of Bob van Zyl, the general manager of the CEF, who was suspended on the suspicion of having been party to alleged overpayments on an Egyptian oil contract, or where the allegedly missing millions have gone.

But while Maduna's office claims to have a strong case against Van Zyl, it has so far failed to press any internal disciplinary charges against him.

That there is something fishy about the state of the CEF is almost without question. Yet when Maduna is presented with his first hard proof of trepangalaries in the award of a R3 million consultancy contract to Emmanuel Shaw, he does nothing.

Shaw, a former Liberian finance minister, was appointed by Den Mkhwanazi, the chairman of the CEF, without a tender process. He has reportedly been associated with fraudulent insurance claims in Liberia and said to have solicited bribes from Fakhry Abdelmonar, a Geneva-based oil trader under investigation by Maduna's ministry in connection with the Egyptian contracts.

That Abdelmonar, who oil industry insiders characterise as extremely well connected and successful, told the Mail & Guardian that he had paid $10,000 to Shaw, is unusual in an industry characterised by secrecy. But, say insiders, it indicates that Shaw has lost credibility with the industry to have warranted such censure from a fellow trader.

As the revelations of Shaw's activities mount, the links between the mysteries of the past and the shenanigans of the present open.

The time for a full, public and independent inquiry is high. Anything less will leave the CEF paralysed by the ghosts of the past and Maduna immobilised and defensive in the face of increasing public and union outrage.
Site off Robben Island wanted for tanker facility
Greens query oil terminal plan

Cape Argus Thursday, December 11, 1992
Fund to streamline Cape operations

Linda Ensor

CAPE TOWN — The Strategic Fuel Fund planned to commercialise its storage facilities at the Milnerton tank farm and was investigating storing and trading in white fuel products like petrol, diesel and niche market crude oils.

Fund GM Piet Coetzee said yesterday that for the project to be viable, a R350m dedicated ship loading and offloading facility would be required to accommodate tankers of up to 160 000 tons because the existing berthing facilities were too small.

The fund proposed to establish a single point mooring facility in Table Bay as part of the project, which was expected to generate a “normal commercial return on investment”.

He said the R350m would be funded as part of the overall funding required for the restructuring of the Central Energy Fund group, of which the Strategic Fuel Fund is a part.

Imported crude oil and white fuel products would be off loaded from tankers anchored at the facility and transferred by an existing pipeline to the Milnerton tank farm from where it would be distributed to retailers.

The 39 tanks at the facility — with a total capacity of 7.8-million barrels — were used in the past to store strategic crude oil, but as government began to reduce its strategic oil reserves the tank farm has been systematically emptied. Already some tanks had been rented out to third parties.

“The under utilisation of the Milnerton facility presents an opportunity in terms of commercialisation options for the fund,” a document on the proposal said. “It will provide the opportunity for emerging companies to compete in the existing fuel market sector; and could have positive economic benefits for Cape Town and the Western Cape as a whole.” The document on the proposed project was compiled by consultants Crowther, Campbell and Associates, commissioned, together with the CSIR, to undertake an environmental impact assessment. Presently there was virtually no excess crude oil refining capacity available in SA.
Pressure still on Mkhwanazi

Questions remain why CEF hired shady oil consultant

Mineral & Energy Affairs deputy director-general Gordon Sibiya is maintaining his terrier-like criticism of his former boss, Central Energy Fund (CEF) chairman Don Mkhwanazi, for the awarding of a R5m contract to shady Liberian businessman Emmanuel Shaw without board approval.

Sibiya resigned in disgust from the CEF board over the issue last week. The board subsequently decided that CEF GM Howard Roberts and his management team — not Mkhwanazi — were responsible for giving Shaw the contract. The board maintained that the CEF had previously awarded such contracts without board approval.

But Sibiya says Mkhwanazi is not off the hook. "The board decision means absolutely nothing. It is inconsequential. What will matter is the decision of the panel appointed by Mineral & Energy Affairs Minister Penuel Maduna." The panel will make a decision after a meeting on December 17.

"The previous contracts, awarded without board approval, happened before the current board took over in March," Sibiya insists. "If mistakes were made during apartheid days, or under Pik Botha (the previous Minister), it does not mean that we should repeat them."

Sibiya appears to have high-level support in the department, even if it is less strident. "Roberts merely carried out instructions from Mkhwanazi," says Maduna’s adviser Thulani GcabaShe. "Ask Roberts if he knew anything about Shaw and what made him choose him as a preferred supplier."

CEF board member Khaya Ngqula is said to also support Sibiya’s stand and to have strongly berated the board for awarding Mkhwanazi. The energy fund boss has been widely criticised for maintaining business and social relationships with Shaw, who has been involved for years in questionable oil deals and shady activities in West Africa.

Over the past month, Sibiya has led what appeared at times to be a one-man crusade against Mkhwanazi, but Maduna has remained strangely silent on the matter. His adviser, GcabaShe, prefers not to be quoted, though he blew the whistle on Mkhwanazi.

The decision to award the contract was "unprocedural", Sibiya says. "Mkhwanazi had no powers to award a contract (relating to the restructuring of State assets) without consulting the board or the Minister."

"The restructuring of State assets is a serious matter that involves all stakeholders. The information we have is that Mkhwanazi instructed Roberts to award the contract to Shaw. Roberts wrote a letter saying that he had been instructed to award the contract."

However, CEF board member Seth Phalatse says Mkhwanazi merely recommended Shaw’s company, International Advisory Services (IAS), to Roberts. In a letter, Mkhwanazi asked Roberts to investigate IAS’s capabilities.

CEF management chose Shaw because he had worked for the company when Botha was Minister. "They chose him because he understood the business," Phalatse says.

Phalatse says CEF management was within its powers to appoint IAS. "The board had previously approved a figure of R5m to be used for consultancy services relating to the restructuring of State assets. From there, it was up to management to decide who to appoint."

"Why has only Sibiya objected publicly to Mkhwanazi’s action? Is he an honest civil servant or a naive scientist causing a storm in a teacup? His detractors say he is a ‘lone ranger’ who does not understand the politics of public service."

But Sibiya says he is driven by a desire to serve the country with his skills. He returned to SA in 1986 with a masters degree in electrical engineering and a doctorate in nuclear reactor physics.

Because he could not use his doctorate — the Atomic Energy Corporation (AEC) would not even have him on its premises — he spent the next 11 years working as an electrical consulting engineer.

Earlier this year, he closed his consulting business and opted for the lesser paid security of public service.

He insists his position in the department has not been undermined. "I volunteered my services to Maduna. This is a CEF matter. It has nothing to do with the department or the Minister."
Sparks fly over atomic energy deal with Chinese

Jacob Dlamini

The Atomic Energy Corporation (AEC) has come under attack following reports that it had failed to inform the foreign affairs department about 40 Chinese scientists working secretly in Pretoria to dismantle SA's nuclear technology.

Foreign affairs spokesman Pieter Swanepoel said his department had not been informed of the scientists' presence or asked to prepare the relevant documents for them.

The Sunday Independent reported the Chinese were involved in dismantling an important part of SA's nuclear material for shipment to China. This follows the sale of the AEC's high-technology plant for making zirconium tubing, described by a scientist as good for holding nuclear material in a reactor.

The paper said the scientists were in SA under false pretences as they had entered on business visas and not work permits. Swanepoel said under normal circumstances people travelling on official or diplomatic passports, as the scientists appear to have done, had to notify the foreign affairs department of this upon entering SA. The AEC and Chinese government had not done this.

But Swanepoel played down suggestions of a diplomatic tussle between SA and the Chinese government. He said foreign affairs had not been approached by the Chinese government or SAPolice Services, which found the scientists after a tip-off about illegal immigrants at AEC's Pretoria plant led them to search it.

Minerals and energy deputy director-general Gordon Sibiya accused the AEC of a "serious omission".

He said when the Chinese tender application for the plant had been approved it had been assumed the AEC would organise the correct documentation for the Chinese. This had clearly not been done.

Democratic Party spokesman James Seifé said: "This is typical of the complete confusion we find in our foreign policy."

Decisions were taken without consulting the foreign affairs department.
Nuclear plant 'had not been in use for years'

A PLANT at the Pelindaba nuclear facility which was recently sold to the People's Republic of China had been redundant for a number of years, the Atomic Energy Corporation said yesterday.

The high-technology plant was used for making the zirconium tubing that sheaths the fuel for nuclear reactors.

"It became politically possible and cheaper to source the product from abroad," the AEC said in a statement.

The sale was approved on July 18 this year following an international tendering process. Clearance was received from the South African Council for the Non-proliferation of Weapons of Mass Destruction.

"Apart from three items for which no clearance has yet been received, the sale of the plant has been approved to Pacific Development Services, who will in turn on-sell to the China Nuclear Energy Industry Corporation of Beijing," the statement said.

Pacific Development Services had arranged a team of engineers, scientists and technicians to dismantle the plant and erect it again in China.

This team was not employed by the AEC but was subjected to its safety and environmental rules.

The AEC said the sale of the plant did not include the transfer of any technology to any party.

The Conservative Party said the sale was a further step towards turning South Africa into a Third World country. The plant had cost about R200 million to build and was being sold for about R20 million.

"This will result in a huge loss of job opportunities," CP spokesman Pieter Aucamp said.

He said it was ironic that South Africa, a country which had always opposed communism, had now sold such a strategic asset to communists.

"The true colours of the African National Congress are coming out in the open. The crown jewels are being sold piece by piece. Of this once proud country nothing will remain but a typical African state," Aucamp said. - Sapa.
The foreign affairs department has defended the Atomic Energy Corporation (AEC) sale of its Pelindaba zirconium tube plant, saying the deal was not secret and did not violate international anti-nuclear proliferation treaties.

"The transaction was purely commercial; the implication was that it was a secret deal with political implications," foreign affairs spokesman Marco Boni said on Monday. "The fact that it was an international tender means it was not a secret deal. Allegations that SA is selling (nuclear) technology are devoid of truth."

After a tender calling for invitations from 17 parties in SA, the US, the UK and Sweden, the AEC awarded the tender in July to British company Pacific Development Services, which then sold the plant to Baodi, Xian-based China Nuclear Energy Industry Corporation.

Boni said the AEC had adhered "scrupulously" to internationally recognised nuclear export regimes, and the sale was not a violation of the 1968 Treaty on the Non-Proliferation of Nuclear Weapons.

However, Boni said, there "may be debate" over whether the SA foreign affairs office in Beijing should have issued work permits, rather than business visas, to the 40 Chinese engineers, scientists and technicians who have been dismantling the plant since October.

AEC executive GM Lawrence Hyslop said the sale did not include the transfer of technology, nor did the AEC strike a deal with the Chinese to build and operate a titanium tube plant in SA. Furthermore, the sale had been approved by the SA Council for the Non-Proliferation of Weapons of Mass Destruction, except for three plant parts which were awaiting clearance.

"The (plant) had been standing idle for four to five years, and it was time to get cash for it."
Govt gives go-ahead for Eskom's outsourcing plan
The Government is about to announce a plan to outsource Eskom's operations.

The plan is to establish an independent regulator to oversee the operations of Eskom. The regulator will be responsible for setting tariffs and ensuring that Eskom operates efficiently.

The plan is part of the Government's broader strategy to reduce the burden on the national budget and to improve the efficiency of the state-owned enterprises.

The plan has been met with mixed reactions from stakeholders, with some expressing concern that it may lead to a loss of jobs and a deterioration in service delivery.

However, the Government argues that the plan is necessary to improve the performance of Eskom and to ensure that the company remains financially viable.

The details of the plan are expected to be announced in the coming weeks.
Ministers slowly opening doors to private sector power distributions