

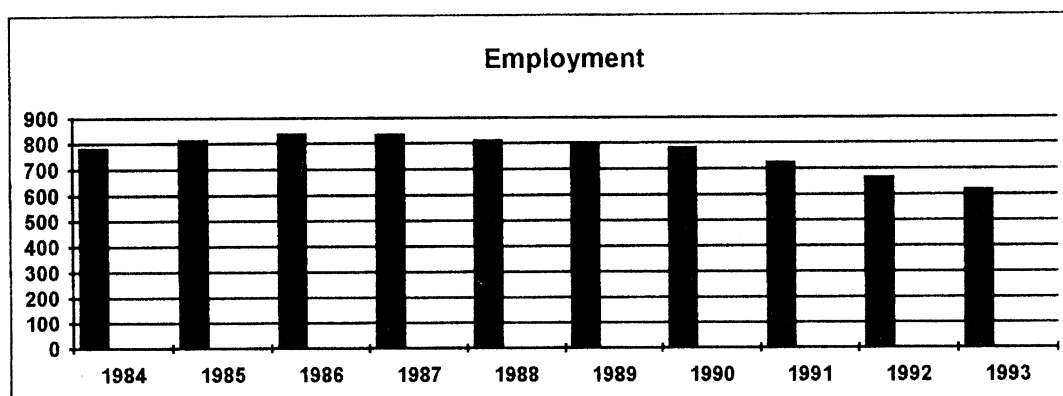
Fields and Anglovaal. Other mining companies are Sasol, the oil-from-coal corporation, Iscor (iron and steel) and two international mining companies, RTZ and Lonrho. Government revenue accruing from mining went predominantly to improve the life chances of the small white minority via racially biased social spending in areas such as health, education and social welfare.

With the attainment of democracy in South Africa the mining industry will finally come to benefit all of its people. Government revenue will now be spent on the basis of need rather than colour, all racist legislation restricting the mobility of workers in the industry has been removed and the industry together with government and the unions are embarking on a programme of training and re-training of workers and reassessing the system of job categorisation.

However, changing the racially-skewed ownership patterns of the industry will be a slow process. There are major limitations to new entrants in the industry other than via the purchase of an existing mining company. This is due to the fact that, unlike most of the rest of the world, in South Africa mineral rights are predominantly privately owned over the most prospective mineral terrains, generally by the large white mining houses. The new democratic government of national unity is committed to exploring ways of easing up access to mineral rights for both new domestic investors and foreign investors.

Employment

Direct employment in mining peaked in 1986 at 833,000 workers. Since then it has steadily fallen to about 600,000 in 1994. Most of the losses were in the gold mining industry which employed 390,000 workers in 1993. However, in the face of these huge retrenchments the principal union, the National Union of Mineworkers (NUM), was able to steadily increase its influence and membership by unionising a greater proportion of the workforce from about 200,000 in 1986 to 311,000 in 1994.



Mining in South Africa is particularly dangerous due to both to the lack of workers rights and the depth of the mines resulting in frequent deadly rock bursts. On average about 600 miners are killed each year and about 8,000 are disabled. Since the turn of the century roughly 70,000 workers have died on the mines and an unknown number have perished off the mines as a result of their mining work, mainly from lung diseases. It has been reliably estimated that a worker who spends twenty years on South Africa's mines will have a 1 in 30 chance of being killed and an astonishing 1 in 2 chance of being disabled.

The general tendency in the formal mining sector will be towards an increase in mineral production per worker across the industry due to greater mechanisation and improved work practices, particularly in a post-apartheid situation. This will cause a shrinkage of the labour

MINERALS INVESTMENT POLICY

1. Measures are required to attract investors through improving the investment climate of South Africa. Such measures include access to information, finance, the freeing up of mineral terrains for exploration, the creation of a suitable tax system and many others.
2. The state's role is to gather, collate and disseminate geological and mineral information to prospective investors. The practice of withholding of exploration information on land that is not currently being explored should be prohibited and replaced by a system that requires the submission of all exploration data to the relevant state authority.
3. Mining operations should be taxed as a special category. The taxation system developed for gold mining which takes account of varying profitability and promotes optimal mining, should be extended to cover non-gold mining as well.
4. The institutional framework for the mineral sector should include the establishment of a minerals promotion body, independent from the states regulatory bodies, charged with the task of disseminating information to potential investors and facilitating exploration and investment. The deployment of mineral attaches (councillors) should be considered for key countries.
5. South Africa's well established infrastructure with regard to research and development, mining equipment and services, finance and technical skills base should be marketed to promote investment in the sector.
6. Measures to attract foreign junior resource companies (JRCs) and to stimulate the development of local flexible medium sized mining companies are required. This can in part be addressed by widening access to prospective mineral terrains.

11. Draft Policy on Mineral Rights

INTRODUCTION

South Africa is amongst the worlds richest countries in terms of mineral wealth. This wealth is a key national heritage and the property of all South Africans. Current mineral rights laws have limited the optimal development of mining and appropriate use of urban land. It is the stated view of the ANC that private mineral rights should be returned to the democratic government, as is the case in the rest of the world, including those countries which have successful mining industries and in which small and large scale mining takes place side by side. Revision of mineral rights laws, and related statutes and institutional support mechanisms, must be done in full consultation with all stakeholders. Prospectors, miners and investors must be confident that their risk finance will not be jeopardised by changes in policy, and equally that the allocation and tenure of mineral rights will be properly managed.

ISSUES FOR CONSIDERATION

Aside from the USA, South Africa and a few exceptions elsewhere for specific minerals, most countries assume public ownership of minerals. The United Nations passed various resolutions on these issues in the 1960's and most African States have adopted the approach of "Permanent Sovereignty" over their mineral resources. Importantly this does not prevent the allocation of secure title to mining rights to private parties, nor does it imply that rights cannot

6. A comprehensive support system will go a long way towards encouraging small scale operators to cooperate with the state, thereby resolving to some degree the common problem of "illegality" of mining SMEs.
7. Special attention should be given to the well-known problems of environmental degradation associated with small and micro scale mining. In this regard special rehabilitation funds covering small scale mining zones with a small levy on sales could be considered.

13. Draft Policy on Export Promotion

INTRODUCTION

South Africa is blessed with abundant minerals resources, to an extent that its economy is commonly termed a minerals-based economy. The minerals contribution to the GDP and exports reflects this dominant role. Minerals and mineral products are South Africa's largest earner of foreign exchange. The overall policy objectives are to extend the international competitiveness of this industry, to encourage minerals beneficiation as a drive to industrialisation and to reduce capital leakage particularly transfer pricing.

ISSUES FOR CONSIDERATION

- Mining involves exploitation of a wasting resource and therefore bears the implications of a limited life span. Investment in exploration and mining beneficiation is required to sustain and expand South Africa's mineral exports. Minerals exporters will need to avoid retaliatory measures from ore importers when they engage in exporting more beneficiated products.
- The export marketing efforts of certain companies may result in lower prices being realised due to competition among South Africa producers. Larger market shares may be realised through increased marketing cooperation between producers of similar products. Counteracting this tendency there is the security of supply from the consumer point of view which can be perceived to decrease when marketing coordination is introduced.
- It is commonly accepted that South Africa suffers from high levels of capital leakage. It is argued that the lack of free movement of capital into and out of a country is the cause of the resultant transfer pricing (over and under invoicing), excessive commissions, license payment and management fees and many other mechanisms to externalise funds.
- The South African minerals industry will have to measure up to international competitiveness in term of productivity and quality standards for it to expand its exports in the long term.
- The promotion of SA mineral products internationally will need to be strengthened through review of barriers to mineral exports. All measures still in place which prevent the opening up of trade should be reviewed, and foreign governments be requested to review and remove legislative and administrative restrictions imposed during the sanctions era.
- In the past many of South Africa's mineral exports were subjected to an "apartheid discount", such as coal. It is alleged that some of these discounts continue despite the fact that apartheid has been replaced by a democratic government.

- v The Department of Health should promote social forestry in relation to nutrition programmes and raise awareness of the need for improving air quality within dwellings.
 - vi The Department of Minerals and Energy Affairs should have the responsibility for ensuring continued fiscal support for the Biomass initiative and for controlling Biomass initiative budgetary flows to implementing departments. They should also be responsible for the continued integration of Biomass initiative activities and the funding of research.
 - vii Provincial governments should ensure that integrated rural development planning is undertaken. They should prioritise areas of intervention and co-ordinate extension services.
 - viii Local governments should identify needs in specific localities and prioritise actions based on these needs. This should happen through participatory planning and implementation of projects.
3. Research should be informed by the SADC experience and include programmes on:
- participatory planning methodologies;
 - indigenous farming practices;
 - natural woodland management;
 - propagation of indigenous species;
 - assessment of bush clearing as a potential resource; and
 - the rational use and distribution of forestry wastes.

15. DRAFT POLICY ON ENERGY EFFICIENCY

Introduction

Energy efficiency programmes should be implemented in South Africa for the environmental, economic and equity benefits that flow from them. It is necessary that the government takes a clear and committed lead in encouraging energy efficiency and conservation.

Least-cost planning refers to the consideration of both the demand-side and supply-side when planning. This is done in order to arrive at optimum solutions to consumers energy service needs whilst keeping environmental impacts as low as possible. DSM is, in essence, a way of achieving a least-cost option.

Policy

1. Least-cost planning methods should be used by energy authorities.
2. Life-cycle cost analysis should be adopted when estimating the initial costs, maintenance and the running costs of appliances, equipment and buildings over their usefulness.
3. Thermal performance upgrades of dwellings need to be vigorously pursued. These should be applicable to both the existing housing stock through retrofitting and to the RDP housing programme. Thermally efficient building standards and regulations should be developed and appropriate incentives for builders should be considered.
4. Water heating forms a significant portion of domestic electricity consumption. The use of solar water heaters, efficient water heaters and various forms of demand side management systems must be encouraged.
5. Minimum efficiency standards must be established for different appliances and equipment and applied through standardised testing procedures. Life-cycle cost analysis must be used in estimating costs to be provided as part of the appliance labelling information.

5. A policy framework for rural energy provision must be developed by the National Energy Policy Forum and other forums to define institutional responsibilities and implementation roles. Responsible institutions must formulate strategies for the financing, pricing and implementation of rural energy programmes in co-operation with rural stakeholders, particularly with women.
6. Capacity building and training programmes should be developed for local institutions and local government in order to facilitate their participation in the planning and implementation of rural energy programmes.

13. DRAFT POLICY ON RENEWABLE ENERGY

Introduction

Renewable energy sources can be used to meet many of the energy needs of remote or rural communities where the costs of extending the electricity grid are prohibitive. Photovoltaic, stand-alone systems are well suited for South African conditions given our high levels of solar radiation. These systems have been shown to be cheaper for remote areas than other fuels such as diesel, paraffin, batteries and gas, when life cycle costs are taken into account. Renewable energy may also be economically viable when used in demand side management programmes by electricity utilities.

In general the use of renewable energy should be encouraged by government since it is a sustainable form of energy which does not harm the environment. However, these technologies are still highly priced which limits their application.

Issues for Consideration

The use of renewable energy for utility scale applications is not yet economically viable because the technology cannot yet compete economically with coal and other conventional generation systems. It is realistic to assume, however, that in the long run the price of these technologies will decrease. South Africa, through research and testing of different technologies in local conditions, should then be in a situation where it is capable of employing renewable energy technologies. Furthermore, in the very long run a policy of more realistically priced electricity and coal, i.e. a price that includes externalities like environmental degradation and health costs as a result of pollution, will make the use of renewable energy for small and large scale applications more economically attractive.

Regulations which would encourage the use of renewable energy are those that promote a cleaner environment. These would include limiting pollution and emissions and stipulating that a percentage of electricity generation should be from cleaner sources.

Policy

1. Consideration should be given to funding renewable energy research and development programs within the framework of priorities established for allocating state energy R&D expenditure.
2. The practical application of renewable energy technologies should be informed by the principle that they constitutes one element of an integrated rural development strategy.

- The use of differential tax levels to assist the market penetration of unleaded petrol.
- Incentives for commercial users to switch to diesel.

Environmental and health safety issues

Regulations and incentives must be provided for all players in the petroleum industry to improve their environmental performance. Post Apartheid South Africa must now use the opportunity to join international organisations and become a signatory to many international conventions which will provide access to world trends, advice and levels of appropriate standards.

The DMEA should continue to fund studies into the social and environmental impacts of the liquid fuels industry in order to obtain an independent assessment of the extent of the problems that exist.

Environmental and health and safety audits should be undertaken at regular intervals. These should be overseen by the relevant employer and trade union bodies.

Regulatory structures

Given the position of the petroleum industry as a provider of a critical strategic commodity, and given the potential for collusion and other uncompetitive practices, there is a clear need for a dedicated regulatory authority in the sector to work closely with the DMEA. Its functions would include the regulation of prices, which might change to a wholesale price cap in the future, and the management of retail sector regulation. It would also play the role of dedicated competition authority for the industry, with statutory powers to subpoena, audit, scrutinise company's books and conduct public enquiries. The regulator would also monitor transfer pricing with respect to:

- oil from parent companies to local multi-nationals;
- coal sales within Sasol;
- product sales within Sasol to its chemical production interests.

The creation of an industry level forum, consisting of all the stakeholders in the petroleum industry, is a priority. This forum should have broader membership than the LFTF.

8. Draft Policy on Natural Gas Transmission Distribution and Use

Background

The main downstream issues are arrangements regarding gas pipelines and distribution and pricing of gas. Gas pipelines require large amounts of capital investment on a long term basis. The investment is justified in terms of gaining sufficient utilisation of the pipeline: this requires stable arrangements between gas producers, large users and the pipeline administration. In immature or small gas industries the pipeline is most often in a monopoly situation. Also, large users may depend entirely on one source of gas and one pipeline to conduct their operations. Because of the monopoly situation and the dependence of users there is a strong possibility that pipeline operators can over-exploit their position once it has become operational. Ownership does not affect this possibility: experience is that private or state-owned pipelines have an equal tendency to exploit this relationship and inflate tariffs to the maximum. This has

establishment of a cross-sectoral environmental monitoring agency should be investigated (as per the Alliance Mission Report).

7. Instead of the current format of rehabilitation funds, to consider the creation of mine-specific trust funds that could cover all aspects of mining impact (environment, workers and communities), managed by boards of trustees which would include all stakeholders, particularly the workers and affected communities.
8. To investigate applying a small mining levy and the value of minerals extracted, part of which should be used to repair past damage where the perpetrator cannot be identified and future damage that cannot be linked to a specific producer.
9. South Africa should endeavour to ensure that the environmental policy complies with international norms for mining.

B. MINERALS DEVELOPMENT

8. Draft Policy on Mineral Exploration

INTRODUCTION

The perceived geological potential of a country or region is the fundamental factor which may lead to minerals exploration, mining and investment. Given favourable geology and market demands, exploration and subsequent mining and associated developments will be determined and controlled by state policies and by the quality of the state infrastructures. If the policies and practices are poor, exploration and mining will suffer and not reach its potential in terms wealth and infrastructure generation.

ISSUES FOR CONSIDERATION

Exploration is a critical phase in the location and mining of minerals. The first requirement is that the investor has access to mineral terrains to carry out exploration. It is also important that state institutions are able to provide potential investors and small operators with reliable and up to date geological and mineralogical information relating to areas of potential interest. Similarly there should be easy access to other information such as legal, fiscal, environmental, health and safety requirements. All relevant information pertaining to earlier prospecting should be made readily accessible to new exploration companies and potential investors from a centralised facility, similar to the 'One Window Approach' which has been successfully adopted by many states and countries that consider exploration and mining as key parts of their economies. In doing this, however, it is also relevant to consider the role of related institutions, primarily to ensure that their activities are all clearly defined, that duplication is minimal and that each one can function as efficiently as possible. The stock of exploration data available to new investors is a key aspect in the reduction of risk in an inherently risky sector.

POLICY

1. Access to prospective mineral terrains is key to encouraging mineral exploration. This includes access to minerals beneath the surface (mineral rights) and to the surface to carry out exploration. In order to free up prospective mineral terrains for exploration a mineral rights tax should be considered that would be deductible against any exploration expenditure.
2. An exploration license should be considered to allow exploration over areas where the state holds the mineral rights. There should be annual minimum work commitments and

A. GOVERNANCE OF THE MINERALS SECTOR

1. Draft Policy on Institutional Support for Minerals and Mining

BACKGROUND

In order to promote, support and regulate minerals and mining it is essential that government institutions are competent and efficient. Exploration and mining are high risk businesses and consequently it is important that individuals and companies are confident in their dealings with state institutions and that decisions are made timeously and efficiently. If contracts are to be negotiated and investment mobilised it will be important that institutions respond rapidly and professionally.

In South Africa there has been significant white private sector involvement in the minerals and mining sector. Consequently the mining ministry has tended to take a back seat to the much more influential industries represented for example by finance and trade. Equally the functions of this ministry have become one of policing and regulating the industry and there has been little emphasis on promotion of minerals and mining. As a result government departments, and statutory bodies have tended to be looked upon as unhelpful bureaucrats who frequently became obstacles to ongoing and effective policy reform and new commercial endeavour. The private mining companies also played the role of promoters and salesmen for the industry, and although much good was done and South Africa has a highly developed large scale mining industry, very often the needs of individuals and communities, and the state were overlooked or ignored.

ISSUES FOR CONSIDERATION

A major problem of the present South African institutional system is that a considerable amount of geological data and information is locked up in company files and there is no adequate state repository of all the geological work and allied data and information, done and compiled over many years in South Africa. Equally South Africa has a series of fragmented and unrelated institutions all providing some form of minerals and mining services, in some cases with duplication of effort.

POLICY

1. A healthy balance is required between state controlled functions carried out by appropriate institutions and private sector activities. In this respect, the Mining Summit could be revived as a National Forum to give new life to the process of developing the industry with the involvement of all sectors of the community. This would facilitate the balance of interests of all stakeholders, not only the State and the private sector. However, the Summit should be broadened to include all stakeholders including communities affected by mining.
2. There should be a small number of adequately funded and equipped institutions with well defined roles, professional staff, and well defined decision making processes.

6. Draft Policy on Research and Development for the Minerals Industry

INTRODUCTION

Developing a research and development policy aimed at stimulating the minerals industry forms part of the bigger debate on Science and Technology Policy in South Africa. It is important that the economic importance of the minerals industry be recognised in this regard without allowing it to dominate the other areas of research. These issues need to be examined against the backdrop of the ongoing debate on the balance between applied and fundamental research.

ISSUES FOR CONSIDERATION

A number of issues exist of which the most important include:

- the relatively large number of stakeholders representing a variety of disciplines;
- the relatively large number of mineral related R & D organisations resulting in a distinct lack of coordination.
- the present approach is of an extremely fragmented nature;
- the role of the State under the system of framework autonomy is perceived as unilateral restructuring of State funding and needs revisiting;
- the role and responsibilities of University and Technikon Departments are indistinct.

POLICY

1. R & D efforts should in the short term be focused on the needs of the present main stream industry's needs, particularly health and safety. More resources should be given to the new fields such as mineral beneficiation and small scale mining.
2. State influence over state funds spent on joint R&D projects with industry should be guaranteed.
3. The system of matching grants should be considered for funding R & D projects.
4. The present structure with many uncoordinated institutes and research organisations results in a sub-optimal use of scarce resources. A mining and mineral processing R & D commission, linked to the DMEA, consisting of all stakeholders, including the unions, needs to be created to coordinate the national effort and to ensure that the R & D carried out is compatible with the overall national objectives for the industry.

7. Draft Environmental Policy for the Minerals Industry

INTRODUCTION

The issue of environmental management in the industry has in the past been largely neglected. Mines are by nature damaging to the environment, and until recently there has been little effective control over environmental management on mines. The Minerals Act of 1991 introduced, for the first time, comprehensive environmental regulation and rehabilitation. The problems faced by the State in the management of mines which closed down prior to the promulgation of this Act, primarily the old coal, asbestos and deep level gold mines, is

terrain in the world, excluding hydrocarbons. These resources are mainly concentrated in only six geological units, namely:

- 1) **The Witwatersrand** (2.6-2.9 Ga²): gold and uranium
- 2) **The Bushveld Igneous Complex (BIC)** (2.1 Ga): platinum group metals (Pt, Pd, Rh, Ru, Ir, Os), chromium, vanadium, iron and titanium (not produced).
- 3) **The Transvaal (Griqualand West)** (2.4 Ga): manganese and iron.
- 4) **The Karoo** (0.18-0.25 Ga): coal and uranium (not mined)
- 5) **Kimberlite pipes** (intrusive, various ages): diamonds
- 6) **Coastal Sands** (recent): titanium, pig iron, zircon and silica.

The following table gives South Africa's position in world mineral reserves. For six major minerals South Africa has the world's largest reserves, namely, manganese, the platinum group metals (PGMs), chromium, vanadium, gold and aluminosilicates. For another six minerals, South African reserves rank in the top four. In addition, South Africa has vast reserves for many other minerals such as iron ore, coal and base metals.

South Africa: ROLE IN WORLD MINERAL RESERVES				
Mineral	Reserves	%West	%World	Rank*
Manganese (metal)	4.0 Gt	90	82	1
Platinum Group Metals	30.2 kt	85	78	1
Chromium (ore)	2.4 Gt	58	56	1
Vanadium (metal)	7.8 Mt	64	47	1
Gold (metal)	20.0 kt	53	44	1
Aluminosilicates (ore)	51.6 Mt	47	37	1
Diamonds	360.0 Mcts	27	24	2
Zirconium (metal)	6.9 Mt	16	14	2
Uranium (metal)	317.0 kt	13	N/A	3 or 4
Fluorspar (CaF ₂)	32.0 Mt	30	11	3
Titanium (metal)	31.1 Mt	12	11	4
Coal (recoverable)	58.4 Gt	20	10	4
Nickel (metal)	11.4 Mt	12	10	6

In general the mineral potential has been realised and mineral production reflects mineral reserves. By far the most important mineral in terms of value is gold. This is followed by coal, platinum, diamonds, iron ore and copper. However many of these minerals are beneficiated before export in which case the order would be gold, iron and steel, PGMs (and byproducts), coal and ferro-alloys. In terms of global output the minerals for which South Africa's share is greater than one-fifth are: platinum (67%), rhodium (63%), vanadium (50%), chromium (38%), palladium (31%), gold (28%) and titanium (22%).

In the past, the exploitation of South Africa's vast mineral resources predominantly went to the betterment of the small white minority. Within the mining industry, black South Africans were limited by a plethora of racist legislation (job reservation). A black South African could not even become a miner until a few years ago. In addition, the surplus generated from mining went to the whites-only mining companies as black entrepreneurs had been excluded from mining since the discovery of diamonds in Kimberly in the 1860's. Today there is not a single black mining company and the industry is dominated by four large mining houses that account for well over three-quarters of mineral production. These are Anglo-American, Gencor, Gold

² Ga: billions of years ago.

DISCUSSION DOCUMENT

DRAFT MINERAL & ENERGY POLICY

DISCUSSION DOCUMENT

Prepared at the
Mineral & Energy Policy Workshop
NUM Training Centre, Johannesburg, 12/13 November 1994

NOTE: This is a discussion document and not ANC Policy!

force which will be aggravated by the gradual downscaling of gold mining. However, there could be some employment growth over the same period if predictions for world platinum demand are fulfilled. Employment for other minerals is likely to remain constant with growth in volumes being offset by increases in productivity. The only other area with significant employment potential, would be the micro, small and medium scale mining sector, but this would require a change in the mineral rights system and a major commitment on the part of the state to supporting such a programme.

ANC Policies

ANC mineral policy is centered on the Freedom Charter of 1955 which states that:

***"The People shall share in the country's wealth", and that
"The mineral wealth beneath the soil ... shall be transferred to the people as a whole."***

This was amplified at the ***Ready to Govern*** Conference in 1992 which stated:

"The mineral wealth beneath the soil is the national heritage of all South Africans, including future generations. As a diminishing resource it should be used with due regard to socio-economic needs and environmental conservation. The ANC will, in consultation with unions and employers, introduce a mining strategy which will involve the introduction of a new system of taxation, financing, mineral rights and leasing. The strategy will require the normalisation of miners' living and working conditions, with full trade union rights and an end to private security forces on the mines. In addition, the strategy will, where appropriate, involve public ownership and joint ventures. Policies will be developed to integrate the mining industry with other sectors of the economy by encouraging mineral beneficiation and the creation of a world class mining and mineral processing capital goods industry."

The key policy themes are firstly that minerals in the ground are part of the nation's wealth, that workers and the nation should get their fair share of the wealth generated and that minerals mined are integrated into the rest of the economy through further processing (beneficiation) before export.

The ANC's minerals policy was significantly further developed at the ***Reconstruction and Development Programme*** Conference in February 1994, together with the Alliance Partners, which adopted the following 14 policy points:

- 1) South Africa is one of the world's richest countries in terms of minerals. Up to now, however, this enormous wealth has only been used for the benefit of the tiny white minority.
- 2) The minerals in the ground belong to all South Africans, including future generations. Moreover, the current system of mineral rights prevents the optimal development of mining and the appropriate use of urban land. We seek the return of private mineral rights to the democratic government, in line with the rest of the world. This must be done in full consultation with all stakeholders.
- 3) Our principal objective is to transform mining and mineral-processing industries to serve all of our people. We can achieve this goal through a variety of government interventions, incentives and disincentives. Estimates suggest that the establishment of a government minerals marketing auditors' office and the national marketing of certain minerals would enable South Africa to realize greater foreign-exchange earnings. The management and marketing of our minerals exports must be examined together with employers, unions and the government to ensure maximum benefits for our country.
- 4) Minerals and mineral products are our most important source of foreign exchange and the success of our RDP will in part depend on the ability of this sector to expand exports to avoid balance of payments constraints in the short to medium term.
- 5) Mining and minerals products contribute three-quarters of our exports and the industry employs three-quarters of a million workers, but this could be much higher if our raw materials were processed into intermediate and finished products before export. Our RDP must attempt to increase the level of

2. DRAFT POLICY ON ENERGY PRICING

Issues for consideration

Pricing policy goals

Pricing policy for all energy carriers should accord with the broad national goals of:

- improving *social equity*, particularly by addressing energy poverty;
- enhancing the *efficiency and competitiveness* of the South African economy, through the provision of low price, high quality energy inputs to productive activities; and
- achieving *sustainability* in both the short and long term usage of our natural energy resources and the environment.

Price regulation

The broad objectives of regulation should be to achieve the national pricing policy goals. The degree of price regulation will vary according to the degree of market functionality.

Externalities

The pricing of energy carriers should move to include externalities, in particular environmental externalities which are not currently included in price build ups.

Taxation

Taxation could be used as a policy instrument to achieve the national pricing policy objectives and the state will tax energy carriers where appropriate in line with national fiscal policies.

Pricing policy

Petroleum pricing

This complex matter has to be addressed within the context of the tri-partite petroleum negotiating forum.

Electricity pricing

Domestic electricity pricing principles for grid supplies

Domestic tariffs, or user charges, will be determined on the basis of a reasonable trade-off between the principles of affordability; equity and fairness; sustainability; efficiency in the allocation of resources; transparency; price stability; and simplicity. Ultimately the principle of sustainability must be paramount, seen within the context of the overall financial situation of service providers.

Domestic electricity tariff structures

Tariffs will be structured so as to promote access for poor households, in other words connection fees will be kept low.

A number of tariff structures will be offered to households including:

1. subsidised low level tariffs for limited capacity supplies;
2. a straight line tariff (fixed c/kWh); and

Particular attention should be paid to the development of regional energy resources. In many cases regional initiatives may provide greater opportunities than those limited to a national basis and should be used to stimulate regional trade.

South Africa should co-operate with regional agencies to share knowledge and research and to develop resources, particularly around energy efficiency work in the region.

South Africa should promote the development of compatible regulatory and legislative frameworks governing cross border energy transfers, e.g., in electricity and natural gas.

6. DRAFT POLICY ON ENERGY RESEARCH & DEVELOPMENT

Introduction

Good policy requires good data and a good understanding of the energy system and energy end-uses. Key policy questions need to be identified and then linked to information requirements. The implication is that if energy policy formulation is to be effective, it requires a strong national institutional base to co-ordinate research, information gathering and analysis.

Policy formulation needs a sustained programme of research which analyses the requisite data, develops an understanding of the linkages between energy use and social and economic needs, evaluates supply possibilities, analyses policy options in a systematic way, and investigates the potential impact of energy policies on the economy and society.

Successful integrated national energy planning thus requires an investment in research, to develop the capacity to advance knowledge which acts as a resource for policy making. There will be a need for both short-term policy analysis to answer immediate questions and longer term policy research which deepens knowledge and understanding. The latter is best achieved in multi-year, multi-person research programmes under experienced research leadership.

Issues for consideration

The Energy Research Group (ERG), a panel of international experts brought together by the International Development Research Centre in 1983 argues that competent policy research requires, in the first instance, the establishment of professional research institutions which are, preferably, independent but supported by the government.

What distinguishes university-based research institutions from research facilities in business or government is their potential to bring greater breadth and depth of knowledge to bear on problematic issues. The quality of research often depends on researchers' experience, which accumulates from sustained application to meticulous research in an environment of peer review.

Government departments often have a use-orientated and short-term approach to knowledge. If they fund research it is usually project-oriented and neglects the basic infrastructure and management support so essential for continuity of research experience and quality. Funding research only at its marginal cost orients researchers towards a series of unrelated short-term projects and inhibits the deepening of knowledge in a systematic way. Captive research

The deeply entrenched migrant labour system operating on the mines has been preserved into South Africa's democratic era. The situation whereby migrant workers are subject to controls that deprive them of basic worker rights is untenable. The housing of miners in single-sex hostels violate workers basic rights to choice, privacy and family life.

POLICY

1. The practice of compulsory circulating migrant labour should be phased out and the concomitant negative effects on neighbouring countries should be ameliorated by entering into joint discussions with them.
2. South Africa should subscribe to the relevant ILO conventions on migrant labour.
3. South African miners should be granted the same rights and freedoms as all other workers in the country. Employers and foreign states shall be prohibited from treating migrant workers as a special category as they have in the past.
4. Mining companies shall have the right to hire workers from anywhere they chose, including all the countries in the region. Employment contracts for mine workers shall be identical to those for all other workers. Workers and their trade union representatives should be entitled to renegotiate their employment contracts directly with their employers and not be compelled to return home to do so.
5. The system of compulsory deferred pay shall be prohibited as this constitutes a fundamental violation of an employees right to receive and spend their earnings where and how they chose. Foreign miners shall be taxed in terms of the law governing the taxation of earnings of temporary residents.
6. Foreign miners shall have the right to be treated as any other potential immigrant to South Africa or temporary resident. Employers will be required to observe the law and protocols of immigration law in their hiring practices. All rights and benefits of a particular category of employment shall be enjoyed by foreign miners, including the right of temporary residents to bring accompanying dependants into the country. Migrants should be afforded permanent residence status or citizenship once they have worked in SA for the required period, excluding the annual end of contract breaks.
7. Existing hostels on mines should be converted into family units and into single units for miners without families. Included in the provision of family housing shall be community and education services and facilities. The process of hostel upgrading shall be monitored by representatives of the state housing authority, employers and employees.
8. Mineworkers should be granted access to end-user finance by qualifying for a mortgagee indemnity insurance scheme where they are unable to obtain a mortgage due to their low wage, lack of collateral security, or traditional form of tenure applicable in the area they wish to build. Land owned by mines should be assessed for housing needs and where found suitable, made available for low cost housing development.

21. Draft Policy on Mining Health and Safety

ISSUES FOR CONSIDERATION

The ANC should become part of the debate seeking solutions to the Health and Safety problems outlined by the Leon Commission of Inquiry into Mining Health and Safety. The ANC should actively promote the implementation of the recommendations of the Leon Commission and promote tripartite co-operation and consultation.

- Contributing to the national imperative of maintaining and creating employment
- Optimising the contribution of the industry to the fiscus
- Maintaining and promoting small business opportunities
- Guaranteeing the delivery of low cost, quality petroleum products throughout the country
- Promoting constructive labour relations

Issues for consideration

- Is the industry a strategic industry? If so, what are the implications?
- Should South Africa have a national oil company? If so, how could this be achieved?

The Central Energy Fund

The activities of the Central Energy Fund, namely exploration, licensing, production, crude procurement, stockpiling and crude trading should be separated and financial flows between the different activities should be halted. The operation of each activity should be reviewed and the new separate operations should be transparent and accountable to the state. In addition there is an urgent need to review membership of the CEF Board. In principle representatives from the organised business and labour sectors, and communities, should be considered.

Regulation of the petroleum industry

Crude procurement, refining, product wholesaling, retailing fuel transport and the synfuels industry are closely regulated and inter-linked. Before considering policies for each area general policy issues should be considered.

The petroleum sector has major impacts on the national economy. Adjustments to South Africa's regulatory framework cannot easily be made in a piecemeal manner because of the interconnectedness of the whole system. The changes to the system need to be very carefully considered and negotiated and should be subject to the following considerations:

- a more efficient industry;
- lower prices;
- no disruptions in supply, particularly to rural and poor areas;
- control of job losses and good labour relations: compensation for job losses;
- foreign exchange considerations.

Synfuels production

The synfuels industry must eventually be exposed to the same commercial and competitive environment as the rest of the petroleum industry in South Africa. It is currently the case that the production of liquid fuels from South African coal and gas has significant foreign exchange saving benefits. However, it is not obvious that these savings will in the medium to long term future justify the cost of the tariff protection needed to support Sasol and Moss gas at times of low crude prices.

One option is for Sasol's synfuel production, crude oil refining, chemicals and mining activities to be unbundled and separated so that financial flows between the operations are transparent. An institutional and financial format for independence should be agreed upon. A phased introduction of the operations, in particular Sasol Oil to the retail market should then be negotiated. Another option would be for the more profitable parts of Sasol to subsidise the less profitable parts.

- industry. Critical areas for attention are affirmative action, restructuring of the DMEA, health and safety awareness and basic adult education.
3. The promotion of small scale mining will require the provision of a range new skills. Structures to provide these need to be established.
 4. The following specific training measures should be introduced:
 - i) New training programmes should be developed with a standardised quality. A Mining Education and Training Qualifications Authority will need to be established as the national executing body.
 - ii) Job grading systems (categorisation) in the formal sector must be reviewed and standardised in order to come in line with the proposed national certification standards.
 - iii) Emphasis should be given to needs-specific vocational training through technical colleges. This must include fast track management training for the disadvantaged groups.
 - iv) Mining towns affected by downscaling and closure of the core mines should be sustained by advance training of the employees in self-help skills to enable creation of a new life in the same locality.
 - v) On-mine training capacity and programmes should be reviewed to incorporate life long skills and multi-skilling to provide flexibility in worker's career paths in preparation for downscaling of the industry.
 - vi) The Department of Minerals and Energy Affairs should be re-organised to show the correct signals for affirmative action in the industry. It must be more active in the training of its own staff, in particular the inspectorate.
 5. The state should make provision for subsidising the education and training of students in disciplines related to mining in line with educational policies for technical and vocational training. Also, the industry should bear some of the cost of this education
 6. Government ministries must exemplify affirmative action to send the right signals to the mining and other sectors.
 7. A training levy fund should be established into which employers pay a small percentage of the wage bill. Refunds for training expenditure will be paid from this fund with evidence of recognised training having been funded by the employer.
 8. Training done by NGOs should be recognised and co-ordinated among providers of education and informal skills.

20. Draft Policy on Migrant Labour and Miners' Living Conditions

BACKGROUND

The migrant mine labour system was created by the Chamber of Mines to drastically reduce wages through an employers cartel that prohibited the free sale of a worker's labour. This system later provided the theoretical basis for Grand Apartheid and the creation of the "bantustans". The migrants were recruited via a system of labour offices on contracts that guaranteed they return, repatriated their wages and blocked their movement. Once on the mines, foreign and local workers were forced to live in austere, regimented single-sex hostels, subject to strict legal and extra-legal controls. Gold mining in South Africa has been made possible by securing a supply of low-wage unskilled migrant workers drawn from all over southern Africa. In 1993, 48 percent of the mine workforce was foreign.

NOTE

This Discussion Document was put together at the *Minerals & Energy Policy Workshop* held in Johannesburg in November 1994 and attended by ANC delegates from HQ and all regions, ANC Parliamentarians, the ANC Minerals and Energy Group, the National Union of Mineworkers, the Chemical Workers Industrial Union, the Women Energy Group, the Land & Agriculture Policy Centre and the Minerals & Energy Policy Centre.

PARTICIPATION IS WELCOME!

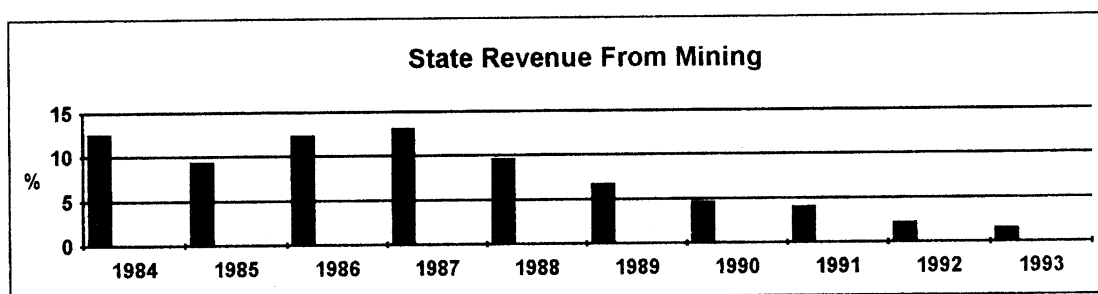
This discussion document, generated by the ANC in consultation with its Alliance Partners, is open to comment and advice from all stakeholders. Suggestions, corrections and amendments are welcome and should be directed to:

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by the end of 1994.

**"The People Shall Share in
the Country's Wealth"**
(Freedom Charter 1955)

In 1993, the mining industry contributed 9% of GDP (R30 billion) and during the eighties averaged 15%. In the same year mining contributed about 10% to gross national fixed investment (average 12.1% from 1980-91) and in total mineral production was about R47 billion (about 15 bn USD), about two-thirds from gold output. Unfortunately, the smelting and refining (beneficiation) of some minerals comes under mining (eg copper, nickel and tin) while for others it is grouped under manufacturing, thus it is difficult to separate mining from beneficiation and beneficiation from manufacturing. However, if beneficiated mineral-based products such as ferroalloys and steel are included, the mining industry's share of GDP and GNFI would be significantly higher (15-20% of GDP).



In 1993 mineral exports were valued at R38 billion, half of total exports of R78 billion, and 80% of mineral sales of R47 billion. On average, minerals contributed 60% of national exports in the eighties, 69% of which was gold and if certain processed mineral-based products such as ferroalloys (but not steel) are included, the mining industry's share of exports averaged two-thirds. Direct government revenue from mining was only 1.1 billion Rand in 1993, a mere 1.5% of total revenue, down from 13% in 1987 due to the crisis in gold mining. From 1980 to 1991 mining directly contributed on average 11.5% to State receipts, 80% from gold mining. From 1983 to 1990 gold mining alone contributed on average 8.3% of total government revenue, but this has recently fallen off drastically due weak mineral prices, particularly gold. However, if all the indirect taxes paid by the industry were included, such as regional taxes, employees tax, sales tax, excise, duties, mining supplier and contractors company tax and foreign shareholders dividends tax, the contribution to the fiscus would be substantially higher.

The South African economy is vertically integrated into the economies of the developed nations and almost all mineral production is exported, either in a crude form (77% of mineral sales) or in a beneficiated form (mainly ferroalloys and steel) and is not used by local industry for further transformation into finished products. Mining profits have historically provided the capital for the development of the other sectors of the economy, particularly the manufacturing sector. The mining sector is the largest earner of foreign exchange and other sectors, such as manufacturing, rely heavily on the mining industry to supply forex for their essential imported inputs, particularly capital goods. The manufacturing sector is a net forex consumer, although there are some exports of capital goods, particularly mining equipment. Although the manufacturing sector is dependent on the minerals and agricultural sector for forex, it is also limited by the primary commodity sectors as these sectors, due to their economic integration into the industrialised economies with declining terms of trade, pay relatively low wages (determined to a large degree by international commodity prices) and thus limit the domestic market for manufactured goods.

Exceptional Mineral Resources

South Africa has been blessed with an exceptional mineral resource endowment and has been aptly described as a country of "geological superlatives" and is arguably the richest geological

5. Energy efficiency and conservation must be a cornerstone of energy policies. This will involve the adoption of least-cost planning approaches; the improvement of dwelling thermal performance; the promotion of energy-efficient appliances, the use of solar water heaters, appliance labeling, and the implementation of time-of-use electricity tariffs. Financial assistance to ensure households have access to efficient appliances will be essential. The environmental impact of different energy sources must be assessed.

6. The regulation of liquid fuels is necessary to ensure a stable, high-quality supply, stable investment and low input prices to the economy and consumers.

7. **Electricity for all.** An accelerated and sustainable electrification programme must provide access to electricity for an additional 2.5 million households by the year 2000, thereby increasing the level of access to electricity to about 72 percent of all households (double the present number). Both grid and non-grid power sources (such as solar cells and generators) must be employed. All schools and clinics must be electrified as soon as possible. Communities must be involved in the planning and execution of this programme. Micro, small and medium-sized enterprises must be given support and shown preference in the tendering process.

8. The electrification programme will cost around R12 billion with annual investments peaking at R2 billion. This must be financed from within the industry as far as possible via cross-subsidies from other electricity consumers. Where necessary the democratic government will provide concessionary finance for the electrification of poor households in remote rural areas. A national Electrification Fund, underwritten by a government guarantee, must be created to raise bulk finance from lenders and investors for electrification. Such a fund could potentially be linked to a Reconstruction Fund to be utilised for other related infrastructural financing needs. A national domestic tariff structure with low connection fees must be established to promote affordability.

9. **Energy Policy Council.** A national Energy Policy Council should be established to bring together stakeholders including the government, unions, civics, the energy industries, and consumers. This Energy Policy Council should manage the Electrification Fund and formulate energy policies.

10. Until the formation of the Energy Policy Council the National Electricity Forum must continue to work towards agreement on the restructuring of the fragmented electricity industry. To assist with this a powerful, independent, national electricity regulator must be established to enforce public policy, ensure long-term financial viability, assure environmental sustainability, and act as an ombuds in the event of conflicts between consumers, government and the electricity industry.

1. DRAFT POLICY ON ENERGY INDUSTRY GOVERNANCE

Governance objectives

Energy policy making, governance and regulatory arrangements for South Africa's energy industries will meet the following objectives:

- energy policy will be developed in an *integrated framework* which takes adequate account of national social and economic goals, desired energy end-uses, demand side management strategies, environmental concerns and the potential of all energy sub-sectors to meet demands;
- key *stakeholders* will *participate in the policy making process*; and
- stakeholders will also participate in the *supervision* of energy industries where appropriate.

The roles of policy making, supervision and regulation will be achieved by clearly identifiable and separate institutions.

Although recent decisions at NELF excluded the possibility of competition in the generation of electricity in South Africa, the regional competition that will be introduced by the power pool and the existence of municipal generators (and possibly independent generators) will again raise the question of competition within South Africa.

A re-evaluation and adjustment (if necessary) of Eskom's *transmission pricing* policies to adjust to the ESI's current circumstances and objectives is required.

Independent policy research and public policy formation is required to determine the extent of interventions required to reduce particulate, NO_x, SO₂ and other *polluting emission*.

An urgent *independent* investigation into the environmental and economic viability of Koeberg's ongoing operation is required.

The following generation and supply options should be evaluated to determine policy to meet South Africa's growing electricity demand:

- Conservation and DSM
- Regional hydro-electricity
- Coal
- Nuclear
- Natural gas
- Renewables (solar thermal)

It will be difficult to determine a coherent policy framework for all these issues over the short-term but, an indication of basic principles on the rationale for dealing with the ownership issue and on issues such as the regional power pool, nuclear electricity and DSM will provide a sound basis for further policy development.

The central role that the ESI plays in the economy of South Africa and in the lives of the ANC's partners in the MDM, means that it should pursue an inclusive process with the unions and civics for policy formation on the future of the generation and transmission industry.

Policy

Generation planning should be undertaken within a national integrated energy planning framework which takes the Southern African regional situation into account. The NEPF will play a key role in setting broad policy guidelines for the IEP process.

5. DRAFT POLICY ON REGIONAL ENERGY CO-OPERATION

Policy

South Africa will play a constructive role in the region in order to build regional energy linkages as a means of stabilising and developing regional economies.

South Africa will play an active role in the development of the SADC Energy Protocol and will support and participate in regional initiatives such as the Power Pool.

3. a time of use tariff.

Domestic electricity tariff levels

A common national tariff level should be applied for each of the tariff structures listed above, insofar as the structure of the electricity supply industry permits this.

Transmission tariff

An investigation into the Eskom transmission tariff will be performed with the objective of developing policy options for its restructuring.

Taxation of electricity

Municipal electricity undertakings will move towards a system of separating the price of electricity from the taxation (or surplus) imposed on municipal tariffs.

Illuminating paraffin

Recognising that paraffin is the fuel of the poor in the short term the price of paraffin will be kept as low as possible through a variety of policy measures. In the medium term an integrated approach to pricing policy will be adopted to encourage an appropriate fuel mix.

3. DRAFT POLICY ON THE ELECTRICITY SUPPLY INDUSTRY

Introduction

Electricity is a key factor in South Africa's prospects for economic growth and in the development of our people's capabilities and quality of life. Traditionally the electricity industry has served only the interests of industry and the elite. Changes to national priorities are resulting in tensions around this industry which require national policy guidance.

Policy

Development of public policy for the electricity supply industry

Government will generate public policy on the ESI:

- on the basis of advice from the National Electricity Regulator;
- after consultation with key stakeholders via an appropriate electricity stakeholder forum.

Until a National Energy Policy Forum is established the National Electrification Forum (NELF) will advise government on appropriate policies for the ESI.

National goals for the electricity supply industry

The ESI will:

- **electrify** 2 500 000 homes by the year 2000 as set out in the RDP;
- become more **accountable** through the involvement of communities in planning processes and through the involvement of stakeholders in policy making for the sector; and
- provide a reliable and secure supply while keeping **electricity prices** as low as possible for both households and productive activities.

7. SADC countries are involved in energy management programmes and we should co-operate, and plan joint action with them with the aim of using energy more efficiently in the southern African region.

17. Draft Policy on Construction Materials

INTRODUCTION

The provision of housing and related infrastructure is one objective of the RDP. To meet this objective, aggregate and sand will be required in sufficient quantity and at acceptable costs. Specific policy issues or questions for this sector are set out below:

ISSUES FOR CONSIDERATION

A paradigm shift is needed for the industry to deliver materials for the projected RDP demand of 300,000 houses per annum. The quarrying industry has become more concentrated as more firms have closed down due to economic instabilities. This will require new and old quarries to be opened at the potential construction areas.

Cost effective transport for construction materials is important. This can be achieved by the optimal combination of the competitive advantages of rail and road respectively. For rail this will largely lie on its ability to transport over a longer distance quickly and effectively, especially where loading and off - loading points have rail sidings, while the flexibility of short haul road delivery lends itself to efficient distribution between depots and building areas.

While research has been done in a number of construction materials sectors, e.g. cement, policy research on aggregate and sand as leading materials for housing and infrastructural development has often been ignored and remains undeveloped. Research in the future should also include aggregate and sand.

POLICY

1. The cost of construction materials must be kept as low as possible while increasing productive output. This can be realised by encouraging strong competition policies while investigating the effects of cartels, price and market share agreements.
2. Methods must be considered for lowering barriers to entry to small and medium enterprises, including access to finance and human resource development (training).
3. Investigate the possibility of using alternative building material inputs to reduce the demand on limited traditional (large-scale) resources. In this regard the potential for SMEs in building supplies such as clay quarryies (brick and tile kilns) and lime kilns should be investigated.

output than in many other countries. Only 10 countries have higher commercial primary energy intensities. This high energy intensity is largely a result of the structure of the economy and its reliance on coal for production of electricity and liquid fuels. Both of these energy transformation processes are relatively inefficient in their conversion of energy. The country also does not employ latest developments in energy efficient technology, and government energy policy has favoured supply-side actions rather than encouraging more efficient use of energy.

Energy production and utilisation has resulted in significant environmental costs, which have also arisen because of inequitable access to fuels of choice for the majority of South Africans. Air pollution as a result of the combustion of wood and coal is of increasing concern. Recent studies have indicated serious health risks associated with poor indoor and outdoor air quality resulting primarily from coal and fuelwood combustion. Peoples' exposures to certain air pollutants have been found to be many times higher than local and international health guidelines, and epidemiological studies have observed higher incidences of respiratory and other illnesses in inhabitants of unelectrified houses. Respiratory diseases are the second highest cause of South Africa's unacceptably high infant mortality rate. Yet two thirds of South Africans remain without access to electricity in spite of large excess electricity generation capacity.

Similarly, the social costs of current energy usage patterns are enormous. The additional time spent collecting and purchasing fuels where electricity is not available or affordable, is significant, and represents the loss of time for potentially more productive activities such as farming, child-minding, education and entertainment. Women generally have the responsibility in rural areas to collect fuelwood and often spend upwards of 2 to 3 hours per trip with 2 to 4 trips per week. This represents a huge social burden. Further, the lack of high-quality lighting in the home, which is delivered most effectively by electricity, severely impedes the education process and at street-level does nothing to increase security and combat crime. Moreover, the lack of access to electricity means that millions of people are denied the convenience and improved quality of life which comes with electric appliances.

The pattern of energy investment in the apartheid era has mirrored the disparities in provision of social infrastructure with the consequence that South Africa has a highly unequal distribution of income and access to basic services. The unprecedented representation in government of the majority of South Africans will inevitably lead to greater redistributive investment and government expenditure directed more at the basic needs of the poor. Indeed this has already begun. Growing international environmental concerns and the likelihood of environmental conditionality related to foreign investment and exports, and growing local health costs associated with pollution, will mean that energy policy will also have to promote environmental sustainability. And to grow a successful economy, South Africa has to become more competitive in manufactured exports. Low energy prices will assist that objective.

New imperatives for energy policy

The context for energy policy and planning in South Africa is shifting radically. Gone are the exclusive concerns of fuel security and self sufficiency held by an apartheid government beleaguered with international sanctions. As the country moves towards widened democracy and is accepted back into the international community, energy policy will align itself with new social and economic policies aimed at reconstruction and development. Energy policy specifically will seek to:

- improve *social equity* by specifically addressing the energy requirements of the poor;

POLICY

1. The extent to which all types of capital transfer may take place, which results in lower state revenue and reduced export earnings, should be researched and, if necessary, policy developed to address problems that may be identified.
2. The RDP calls for a Minerals Marketing Audit Office to limit transfer pricing in the export of minerals. The optimal location of such an office should be investigated.
3. All barriers to the export of South Africa's minerals, particularly beneficiated minerals, need to be identified and appropriate strategies for their removal need to be devised.
4. As a means to increase foreign exchange earnings, the issue of co-ordinated marketing of certain commodities should be carefully researched.
5. The opportunities to increase the global consumption of certain minerals and metals produced in South Africa by joint marketing and promotion efforts (e.g. The World Gold Council), and R&D should be encouraged. In this regard the funding of such efforts via a small levy on sales should be considered.

14. Draft Policy on Mineral Beneficiation and Domestic Raw Material Pricing

INTRODUCTION

Mining is a primary industry that exploits a national asset, part of the wealth of present and future generations. Through adding value or beneficiating mineral resources a country can maximise the economic rent it derives from the asset, develop its economy and stimulate economic growth from its mineral sectors. The export of unbeneficiated ores is often sub-optimal use of a wasting national asset.

A considerable amount of South Africa's mineral resources are exported as raw ores or only partially processed. South Africa has steadily improved its ratio of beneficiated to primary products exported since the 1970s, but these ratios are still well below the potential suggested by the quality and quantity of its mineral resources.

South Africa has the potential to raise the proportion of mineral output that becomes beneficiated by virtue of its large reserves, major transport advantage accruing to beneficiating close to the resource source, local skills base in engineering and related areas and most crucially, low energy costs. A number of constraints on further beneficiation efforts do exist in the form of the large scale capital requirements needed by most projects, distance to final markets for much of the output from local plants, the high cost of intermediate inputs and skills shortages in certain technical and managerial categories. The countries experience of large scale beneficiation projects has tended to be export oriented. While this has had a positive impact on export earnings, down stream value adding fabrication industries have been neglected.

Beneficiation involves processing a natural resource to transform it into a higher value product, usually an intermediate product used as an input by fabricators. Fabrication involves the

development function a successful model internationally has been mixed ownership with private oil-companies providing capital and expertise and the state, often holding 51%, representing the interests of the people. The function for promotion of the optimum utilisation of resources should be a function of the state.

Policy

1. On-shore, ownership of gas and oil should revert back to the state, as per the situation before the 1991 Minerals Act.
2. Ring fencing for oil and gas exploration and development should not be lifted. Instead an alternative system that does not prejudice foreign investors should be investigated.
3. A stand-alone Petroleum Act should be promulgated in line with international standards and practice.
4. An independent body, linked to the DMEA, should be instituted to administer the Petroleum Act. The body should draw on substantial existing capacity at Soekor.
5. Soekor should be commercialised with mixed state and private ownership. Soekor should then be allowed to compete internationally with other exploration companies.

10. Draft Policy on Mineral Investment

INTRODUCTION

Mining and mineral processing are, on the whole, high risk and capital intensive industries which require the mobilisation of large amounts of risk capital to get projects going. South Africa can benefit from foreign investment into mineral prospects, into energy projects and into mineral processing and beneficiation projects in several important ways. Foreign investment will reduce domestic capital shortages and spread risk. Foreign direct investment (FDI) is particularly important for three reasons: mining is a global industry and specialist expertise can be brought to bear upon a prospect by international corporations; organisational and production methods and management is introduced into the local industry with potentially invigorating effects; foreign companies bring with them links to other markets and new technology. In either form, new investment into South Africa will contribute to strengthening the capital account and will contribute much needed foreign exchange arising from sales and allow for imported inputs and the repatriation of profits.

ISSUES FOR CONSIDERATION

In a world of competitive investment options, attracting investors into South Africa's mining and mineral processing industries requires addressing investor perceptions of mineral potential, risk and return. Three factors are important. First, account needs to be taken of the characteristics of mining finance in that risk levels are high, lead times to a return are frequently long and high and ongoing levels of capital investment required. Secondly, prospective investors need certainty in their ability to do business, and this can be largely assured by a well developed regulatory framework, usually referred to as a mining code. Thirdly, a country's economic and fiscal policies are critical issues upon which its relative attractiveness will be judged. Potential investors place a high premium on the maintenance of macro-economic stability, well developed infrastructure and in a consistent fiscal regime that compares favourably with other prospective investment sites.

Nuclear power stations are very dangerous to operate, can lead to catastrophic accidents (such as Chernobyl), and they produce large amounts of radioactive wastes that need to be stored for many thousands of years. At present, no country has developed a programme for the proper disposal of this waste, nor has a station the size of Koeberg been dismantled (decommissioned) yet. This implies that the environmental, technical and financial implications of waste disposal and decommissioning are not known.

Policy background

At the ANC Nuclear Policy conference in February 1994, delegates proposed that the GNU should initiate a public enquiry into environmental, social and economic costs of electricity from Koeberg and other power stations, enabling the public to make an informed choice on the matter. A call was also made for a comparison between the costs of Koeberg and those of alternative energy sources.

Policy

1. South Africa will never again undertake nuclear weapons development.
2. The full cost of electricity from Koeberg should be established, including that of decommissioning and waste disposal. A balanced public debate, facilitated by government, must be held over the desirability of continuing the operation of Koeberg.
3. Full public participation and disclosure must occur in the drawing up of strategies for Koeberg's waste disposal and decommissioning.
4. An investigation will be performed into the effect of radio-active emissions on the environment, the health and safety of workers and surrounding communities.
5. The role of the Council for Nuclear Safety should be investigated with a view to defining its functions more clearly.
6. Labour representatives will be included in nuclear safety activities.

11. DRAFT POLICY ON HOUSEHOLD ENERGY

Introduction

The approach in the RDP is that energy should be recognised as a basic need:

Past South African energy policies concentrated on achieving energy self sufficiency at enormous cost (such as the Moss gas project), but seriously neglected the household sector. Future energy policy must concentrate on the provision of energy services to meet the basic needs of poor households, stimulate productive capacity and urgently meet the energy needs associated with community services such as water supplies. Energy policies must be developed on the basis of an integration of supply-side and demand-side considerations. (RDP, par. 2.73, p. 32)

In essence, the goals of the RDP are to meet the energy needs not only of household but those of community and productive services. Clearly energy provision must be seen to be part of an integrated development approach.

The immediate priority regarding household energy is to ensure that the urban and rural poor gain wider access to adequate and affordable supplies of energy. To achieve this we need a clear understanding of how much energy should be provided to meet a household's basic

The apartheid regime played a very destructive role in the region. The Government of National Unity, under the leadership of the ANC, has the potential to try to correct this by enhancing South Africa's capacity to contribute to the development of the region. South Africa's capacity should not be taken for granted. There are fears that a free and democratic South Africa integrated into the region's economy could, dominate the region as well as attract resources from her relatively smaller neighbours. These fears can be partially addressed by formulating policies that will create conditions for a mutually beneficial, balanced and equitable regional growth.

South Africa has enormous capacity in mineral exploration and mining. Its mining companies have historically been dominant in the region and are in the process of repenetration since the demise of apartheid and the normalisation of relations with our neighbours.

A regional framework for the mining sector will a) make it easier for mining companies to assess and exploit the regional mining potential, b) reduce destructive competitiveness between regional governments in their search for investment capital and foreign exchange, to the detriment of the region as a whole, and c) serve as a medium for intra-regional technology transfer.

ISSUES FOR CONSIDERATION

The accession of South Africa into SADC, could give a major boost to efforts already underway to promote co-operation and integration in southern Africa. It should be stressed, however, that this will not of itself automatically resolve the problems created by the acute imbalance, inequities and domination and dependency that characterises existing regional relations. Therefore, it is imperative that South Africa's neighbours also be urged to contribute to co-operation programmes so that the region can be developed to the benefit of all concerned.

POLICY ON CO-OPERATION

1. The policies of southern African countries should be co-ordinated so that the region can benefit directly from its mineral wealth.
2. The potential for cross-border mineral processing which optimises capacity utilisation on plants and increases value-added in the region should be encouraged.
3. Regional co-operation in technology development should be facilitated through the exchange of geoscience information, technology, facilities and expertise.
4. South Africa should encourage co-operation on the development of human resources to facilitate the upgrading of the institutional capacity of southern Africa mining and geology departments at tertiary institutions, and pool resources together in the use of laboratory facilities, research centres and institutions.
5. Cooperation should be sought in the harmonisation of the minerals and related legislation in the region. In addition, through the SADC, the harmonisation of mineral related industrial and technical standards should be promoted.
6. The feasibility of creating an 'investment window' for South African outward investment into the region, currently restricted by exchange control, should be prioritised. Steps must be taken to encourage the dissemination of investment and exploration information among member countries through the creation of an investment centre.

energy needs and then develop a clear time frame within which to meet these needs. We need an integrated energy plan.

A National Energy Policy Forum must be established. This body should take the lead in formulating an integrated energy planning framework and ensuring that energy planning occurs within an integrated development planning process.

Background

Integrated energy planning

The planned household electrification programme will not meet all household energy needs. First, some households will not have access to electricity for many years to come. Secondly, electricity does not provide an optimum solution to all household energy needs. It is therefore necessary, for the successful implementation of energy programmes in the RDP, to understand how households use energy and what mix of energy they use.

Socio-economic factors shape a household's energy use and energy mix. Recent experience has shown that many newly electrified homes continue to use a range of other energy carriers, such as wood for cooking, water heating and space heating. Reasons for this range from the fact that wood can usually be collected for free to the fact that it is expensive to buy new electric appliances. Also, many poor households do not earn monthly or weekly wages and consequently do not plan spending on time frames longer than a few days. Consequently fuels like paraffin, which can be bought on a daily basis, are used, resulting in a sub-optimal fuel mix. An integrated approach to energy planning for households must take into account the energy needs of the household and how best to meet these energy needs.

The involvement of women in energy planning

Community involvement in integrated energy planning for households is very important. Often women, who are the heads of households and the managers of energy in the household, are left out of this planning process. Energy provision will not be adequate unless communities are involved in the planning processes.

Fuel switching

Household environmental issues are important as they affect the quality of life of most people. (see draft policy on household energy and the environment). Fuels such as wood and coal are major health hazards due to their noxious emissions. Paraffin is also a dangerous energy source with thousands of cases of paraffin ingestion by children occurring annually. Energy policies should therefore aim to move households towards cleaner fuels as part of the integrated energy plan.

Financing schemes for poor households

As mentioned earlier, financial considerations shape the energy mix in households. Financial support and financing schemes could play an important role in assisting households to switch to cleaner and more efficient fuels. This would include financing mechanisms for investment in more efficient and cleaner types of fuels.

Information dissemination and developing local capacity

Central to the success of this approach is education and information dissemination on the efficient, healthy and safe use of energy. The development of local capacity with regard to energy training and technical skills is also important.

Paraffin poisoning is a relatively common incident in paraffin-using households with young children. It is one area where real improvements can be effected very rapidly.

The main areas to be addressed:

- *Education and publicity programmes* about keeping paraffin in safe containers and out of the reach of infants.
- The development of *child-resistant lids*. In the long term, *legislation* may be introduced to enforce the use of safe containers at all stages of the production and consumption cycle.

Policy

1. An integrated household energy plan must maximise environmental benefits.
2. A national programme should be established to identify the areas of major health risk resulting from energy usage by the urban and rural poor. Affected communities should be involved in these programmes which should systematically monitor the environmental effects associated with the full range of household fuel usage patterns.
3. Current efforts to develop a low-soke coal to substitute bituminous coal must be stepped up with active support in at least the following areas:
 - research and development of low smoke coal products' technical characteristics and social acceptability;
 - ensuring support and technology transfer, through training, to small-scale producers;
 - marketing assistance and facilitating access to credit for new producers.
4. The current regulatory and institutional arrangement in the area of air pollution monitoring and control operates in an unsatisfactory manner. A set of national air pollution *standards* should be established. These air quality standards may have two aspects: one which concerns the *quantities emitted* and another which is concerned with *ambient air quality*.
5. Government should establish a single *well-staffed and funded National Pollution Control Office*, situated within the *Department of Environment Affairs*, rather than its present location in the Department of National Health and Population Development, which will establish policy guidelines and co-ordinate monitoring functions so as to ensure that those resources are allocated to specific areas or regions on the basis of priority for national health and safety.

*****ENDS*****

Funding the RDP and other government programmes requires collecting more tax. This can be done by raising tax rates or, preferably, increasing the tax base in the following ways. First, by providing incentives that will stimulate the industry and bring new mines into production. Secondly, by encouraging the return of mineral rights to the State, revenues from rentals for access to these rights will be increased. Thirdly, by introducing a Minerals Rights Tax which would serve both to increase revenues to the fiscus, as well as encouraging exploration activity and the possibility of new mines.

ISSUES FOR CONSIDERATION

With the exception of gold mines, mines are subject to the same tax regime as other industries. Gold mines are not taxed on a flat rate, as are other mines, but are taxed on profitability, by means of the tax "formula". The tax formula for gold mines was first introduced in 1936 with a view to encouraging the mining of marginal ores at deeper levels by easing the tax burden on the less profitable mines in order to increase the profit to revenue ratios, and hence the return on investment. In doing this it introduced an element of cross-subsidisation from the more profitable mines by increasing the State's share of profits from these mines, while reducing its share from the less profitable mines.

The system of variable taxation linked to profitability has allowed the gold mines to successfully negotiate difficult periods and has given the state a reasonable share of windfall rent and differential rent. In this respect, the formula has been very successful. It is desirable that the extension of formula tax to non-gold mines be investigated as a means for stimulating the industry as well as ensuring its long term survival and for giving the state a fair share of mining rents. The taxation level must be reasonable both to promote international and domestic investments and to ensure that a fair share of the rent goes back to the State.

Mines tend to be capital intensive with very long lead times. Thus the cost of capital is a crucial element in the viability of new projects and should continue to be ameliorated through the current system of immediate write-off in the first year of operation with the balance carried over to the next and following years, but the effect of inflation on the size of the write-offs needs to be taken into account. As mineral refining and beneficiation projects also have long lead times, this system should be extended to cover their capital expenditure, rather than the old system of giving immediate negotiable tax write-offs (37E) which could severely compromise the fiscus and the RDP.

POLICY

1. To consider a Mineral Rights Tax on privately held mineral rights that could be offset against any exploration expenditure over the same area.
2. To consider the imposition of a small levy on all minerals extracted, based on the tonnage removed (depleted). Such levies should be low so as not to inordinantly raise the investment threshold and should be mineral specific. Part of the levy could be used to fund rehabilitation of past environmental damage and, possibly, mineral promotion programmes.
3. To consider the application of a small beneficiation related levy on all minerals exported, at a declining rate depending on the degree of beneficiation (zero for the export of metals).
4. To consider the extension of formula taxation to all mining (not just gold and uranium), but with mineral specific formulas.

balance of payments and other aspects of the economy, this presents a major economic and political problem for the future. Awareness of this problem and farsighted planning around the downscaling of the industry is essential. The priorities facing the industry include:

- management of the downscaling of the industry in terms of employment;
- the extension of the life of what mineral resources remain;
- the discovery of new resources through investment in exploration;
- the exploitation of known, but unexploited, mineral deposits;
- increased focus on the optimisation of mineral exploitation;
- increased incentives to add value to minerals prior to export, and disincentives for exporting unbeneficiated ores.

POLICY

1. Measures to enhance the optimal exploration and exploitation of all mineral resources need to be devised. The current legislation neither defines what is meant by optimal mining, nor has sufficient powers to enforce optimal mining practices. Incentives and disincentives need to be built into the tax and royalties regime to encourage optimal mining (at the lowest possible cut-off grades) and the optimal use of South Africa's minerals (through beneficiation before exports). In this regard consideration should be given to the extension of the gold formula tax to other mining and the imposition of a small royalty that decreased depending on the stage of beneficiation before export.
2. A national plan to address all aspects of downscaling of the industry, including the question of sustainable development to replace the declining contribution of mining to the economy and the use of infrastructure created around mining operations after cessation of mining. Such a plan should also include measures to promote the reskilling of redundant mine labour.
3. Closure planning incorporating sustainable development around mining infrastructure; redeployment of the work force; reskilling and social reconstruction should be a pre-requisite for mining authorisation in much the same manner as the EMPR is in terms of environmental planning and management.
4. In respect of closure planning, a closure fund for displaced workers should also be introduced in the same fashion as mine-specific rehabilitation funds are required to be in place for mining authorisation to be granted.

4. Draft Policy on Mining taxation

INTRODUCTION

Minerals are one part of a country's natural wealth or patrimony for which users must pay rent to the 'people' or state to deplete (mine). The State derives its share of rent from the industry through both the taxation levied on the industry, as well as income from rentals on State-owned mineral rights. Such rentals are in effect what are termed *royalties* elsewhere in the world where the mineral rights belong to the state. Royalties to compensate the state for the depletion of its mineral wealth are generally calculated on the volume or value (sales) of the mineral mined. In the past South Africa had a lease tax that was imposed to this end but which was scrapped in the new Minerals Act of 1991.

ENERGY POLICY

INTRODUCTION TO ENERGY POLICY IN SOUTH AFRICA

Background

Energy policy under apartheid was governed primarily by the desire for greater energy security. A white minority government, facing the opprobrium of the world and a United Nations led oil embargo, spent many billions of Rands on the Sasol and Mossgas synthetic petroleum fuel plants and building up a local nuclear capability through the Atomic Energy Corporation. Although these investments resulted in foreign exchange savings, South Africa still pays a premium for locally produced petroleum and nuclear fuels. The cost to the economy has been enormous and the opportunity for investment in more productive social infrastructure has been squandered.

South Africa has never become fully self-sufficient in either petroleum or nuclear fuels and in spite of international sanctions continued to import these fuels. Energy policy under apartheid government was a costly failure, if evaluated against the objective of energy self-sufficiency.

The energy sector during this period was also governed by excessive secrecy which made rational and public debate on energy policy impossible. The Petroleum Products Act (no 120 of 1977) prohibited the "publication, releasing, announcement, disclosure or conveyance to any person of information or the making of comment regarding the source, manufacture, transportation, destination, storage, consumption, quantity or stock-level of any petroleum product acquired or manufactured or being acquired or manufactured for or in the Republic." The penalties were severe, and secrecy was effectively maintained. The corollary of these secrecy provisions was an absence of state commitment to collect and publish data on the energy sector which would allow the development of rational and balanced energy policies. These restrictions were finally repealed in December 1993 and a more rational debate on energy policy is now possible.

The state is deeply involved in particular energy sub-sectors. In some respects, this is unsurprising. Energy projects typically involve huge investments. Traditionally the state has paid a crucial role in developing the infrastructure which is essential to the successful functioning of a developed economy. The scale of these investments and the period over which a reasonable return could be expected were such that private capital was generally unable or unwilling to participate. However the state has effectively controlled all aspects of the commercial energy system. The electricity industry is an effective state monopoly, as is the nuclear industry and along with the petroleum industry they are tightly regulated. It is only recently that coal prices and distribution were finally deregulated. Woodfuel is possibly the only un-regulated energy sector, although even here, a modicum of regulation exists in certain traditional tribal authorities. The effectiveness of the energy regulatory system is a legitimate area for policy investigation.

Energy use in South Africa

South African energy prices (for industry and mining) are low by international comparison (and could have been lower if more economically efficient investments had been made). South Africa has an above average energy intensity; i.e. more energy is used per unit of economic

18. Draft Policy on Minerals Transport

INTRODUCTION

Although South Africa has huge and varied mineral resources they are generally far from the coast for export. The three most important geological systems are deep in the interior. These are: the Witwatersrand (gold and uranium), the Bushveld Igneous Complex (platinum group metals, chromium, vanadium and iron), the Transvaal (manganese and iron) and to a lesser degree the Karoo (coal). Hence the bulk of South Africa's minerals need to be transported long distances to the coast which makes transport (road and rail) and port handling costs critical to their competitiveness. In addition, geographically, South Africa is far from all the main markets for its minerals, namely Europe, North America and the Pacific Rim resulting in greater seaborne costs than those of its main competitors. For example coal exports from Columbia and Indonesia are from deposits close to the coast and both countries are close to at least one of the main markets.

ISSUES FOR CONSIDERATION

- Rail transport in South Africa is the monopoly of Spoornet.
- Oil and liquid fuels pipelines are the monopoly of Petronet.
- Ports are a virtual monopoly of Portnet, except for Richards Bay Coal Terminal (RBCT) which is owned by the large coal exporters.
- Other potential coal exporters are considering the construction of a new terminal if they cannot get reasonable allocations from the RBCT.
- Small scale coal producers are forced to use more costly ports such as Durban and Maputo for exports.
- Rail costs are often related to the value of the item rather than the cost of the operation which results in a bias against beneficiated minerals.
- Before 1975 Maputo used to handle over 40% of the Transvaal's trade. This fell off with the independence of Mozambique and later Renamo/SADF sabotage of the line. The port is currently in need of major rehabilitation.

POLICY

1. The state mineral transport monopolies, Spoornet, Portnet and Petronet, need to be investigated and possibly restructured to ensure that optimum efficiencies are achieved.
2. Dedicated mineral rail lines such as Sishen-Saldana and Richards Bay, need re-assessed and if necessary, the concept expanded.
3. Private facilities such as the Richards Bay Coal Terminal must be investigated to ensure that other potential exporters are not excluded, particularly from future expansions. Small scale operators must also be catered for.
4. The feasibility constructing a second coal terminal, for exports beyond the expanded capacity of the RBCT, needs to be assessed to ensure that coal exports are never limited by rail or port capacity.
5. The practice of charging according to the value of the goods rather than the cost of the operation must cease as it limits the potential for beneficiation.

Governance of the electricity supply industry

The governance of the ESI is performed at a number of levels. Given the need to increase the accountability of the industry this area is the most critical to achieving the national goals for the industry.

Electrification planning

All electricity distributors will participate in a national electrification planning process and will be accountable for their connection targets.

The Office of the Minister responsible for the RDP will take a lead in this process.

A performance compact for Eskom

Eskom will establish on an annual basis a five year rolling performance compact with the government covering:

- electricity prices;
- electrification targets;
- key financial indicators (e.g. foreign debt);
- quality of service; and
- environmental indicators.

Relationships between local government and the electricity distribution industry

The nature of the relationship between local government and the electricity industry will be determined by the following three principles, irrespective of whether the local authority is the owner of the distributor or not:

local authorities could have the **right to tax electricity**. If so taxation of electricity should occur independently of the setting of electricity prices. This right will be subject to broader policies on the fiscal powers of local government as determined by the Finance and Fiscal Commission;

local authorities will retain the power to **plan and prioritise the electrification programme** within their local areas; and

local authorities will have the power to **negotiate performance standards** with the local distributor (a local performance compact). Guidelines on appropriate performance indicator parameters will be set by the national electricity regulator (NER).

The National Electricity Regulator

The NER will implement government policy by issuing licences to utilities. The NER will receive adequate funding from government to perform its role.

Restructuring the Electricity Distribution Industry

The EDI will move towards achieving a national character as rapidly as possible. The preferred model is to consolidate all electricity distribution undertakings into either a single national distributor or a limited number of regional distributors, separate from local government but still under public ownership.

- enhance the *efficiency and competitiveness* of the South African economy by providing low-cost and high quality energy inputs to industrial, mining and other sectors; and
- work towards *environmental sustainability* by addressing both short-term environmental problems, and planning for a long-term transition towards renewable sources of energy with minimum negative environmental impact.

In the South African context, these three principles encapsulate the desirable features of post-apartheid energy policy. The primary goal of democratic government will be to address the high levels of inequality which characterise both the energy sector, and the economy as a whole. At the same time, inefficiencies in the energy sector will have to be eliminated, particularly those which were shielded by the state's energy security policies, so as to maintain and enhance the comparative advantage inherent in the country's relatively cheap supplies of energy. On the other hand, the low cost of South African coal and electricity is attributable, at least in part, to the lenience of environmental controls over the various stages of the electricity generation cycle, and energy policy will therefore have to include adequate management of environmental impacts arising from energy production and use. It is likely that some of South Africa's major trading partners will increasingly impose environmental conditionality on its exports and, as a disproportionate contributor to global warming, the energy sector will come under pressure to lower emissions. In the longer-term, policy will have to address the essentially finite resource base on which the energy sector, and indeed, the whole economy, is based.

Clearly, equity, efficiency and sustainability are three goals which may necessitate direct trade-offs, but in many cases these goals tend to converge around specific policy options.

ANC Policy

The Freedom Charter of 1955 calls for all of our peoples to have access to lighting and at the Reconstruction and Development Conference in February 1994 the ANC and its Alliance Partners adopted the following policy on energy and electrification:

1. Although energy is a basic need and a vital input into the informal sector, the vast majority of South African household and entrepreneurs depend on inferior and expensive fuels. Rural women in particular face a heavy burden collecting wood which is an inefficient and unhealthy fuel. Urban households face high costs for paraffin and gas. Coal, where it is available, is cheap but results in severe health problems, an underpaid workforce, and the failure to assess and internalize environmental cost. Although Eskom has excess generating capacity, only 36 percent of South African households have access to electricity, leaving some three million households unelectrified. Furthermore, some 19000 black schools (86 percent) and around 4000 clinics are currently without electricity. Little attention has been paid to utilise sustainable energy sources such as solar power.
2. The control of electricity distributed by the system of racially separate local government has resulted in a terribly fragmented industry currently unable to finance or sustain a large-scale electrification programme in an equitable fashion. At present there are around 430 electricity distributors and more than 1000 domestic electricity tariffs in South Africa. Rural electrification has been largely ignored for commercial white farms.
3. Past South African energy policies concentrated on achieving energy self-sufficiency at enormous cost (such as the Moss gas project), but seriously neglected the household sector. Future energy policy must concentrate on the provision of energy services to meet the basic needs of poor households, stimulate productive capacity and urgently meet the energy needs associated with community services such as schools, clinics and water supplies. Energy policies must be developed on the basis of an integration of supply-side and demand-side considerations.
4. **Energy sources.** Immediate policies to meet energy needs must include a low-smoke coal programme, improved management of natural woodlands, social forestry programmes, commercial woodlots, and support for the transport of wood from areas of surplus to areas of need. Gas and paraffin prices must be reduced through better regulation and by bringing bulk supplies closer to households.

Electrification financing

Electrification will be financed as far as possible from within the industry itself. Concessionary finance will be made available for the less viable connections.

Electrification pricing

(See the chapter on pricing.)

4. Draft Policy on Electricity Generation and Supply in Southern Africa

Introduction

Over the last three years the policy debate in the electricity sector focused on distribution, but three important developments suggest that the policy focus will soon turn to the generation and transmission sectors of the industry.

Although Eskom still has significant over capacity on the national grid it is expected that all surplus capacity will be taken up any time from 2001 onwards. Policy debate will thus essentially revolve around the question of meeting the demand for additional supply capacity but, this debate will be heavily influenced by developments in the regional and global electricity sectors.

The basic agreements to construct a Southern African power pool in the region will be signed next year. South Africa has taken the lead in establishing the power pool and the involvement of our ESI there will fundamentally influence its future development.

South Africa can not escape the global pressure to reduce the emission of green house gasses and other environmental pollutants.

Issues for consideration

It is further suggested that the policy objectives for the ESI will change, in line with the rest of national energy policy, away from self security concerns towards the three themes of equity, efficiency and environmental sustainability. Very little public policy development has been undertaken for the generation and transmission sectors. Some of the central issues that will have to be addressed are:

The *power pool* will have a fundamental effect on the regional energy economy and much public debate is required on the nature of the pool agreements and the investment programmes that will follow its establishment.

The establishment of the power pool and recent developments in the natural gas sector could require policy decisions about the desirability of *independent private generation investments* sooner than anticipated.

Clarity is required on whether the *municipal power generators* should continue to operate their stations and whether they will be allowed to expand their capacity.

MINERAL POLICIES

Introduction to Minerals Policy in South Africa

History

Mining has been important to the peoples of southern Africa for a long time. One of the oldest mines in the world is in this region at Ngwenya (Swaziland) where haemetite and specularite were mined for paint. This ancient working has been dated at more than 40,000 years old. Iron mining and smelting sites are common across the subcontinent dating from 2,000 years ago and over 4,000 gold workings have been identified dating from as far back as 1,400 years ago. There are over 500 base metal workings, particularly copper, in the region and copper mining at Phalaborwa started about 1,300 years ago and on the Copperbelt of Zambia and Zaire about 1,200 years ago. It is estimated that southern Africa was the world's largest gold producer in the 13th Century, a position it only regained this Century.

Today South Africa can broadly be defined as a minerals economy¹ with low levels of mineral fabrication in that most minerals are exported as ores, alloys or metals rather than high value intermediate or finished products. South Africa is exceptionally well-endowed with mineral resources and possesses almost all the minerals necessary for a mineral-based industrialisation strategy. Moreover the subcontinent (southern Africa) has complete mineral resource integrity. These vast mineral resources could provide the basis for sustainable industrial development by being further beneficiated into intermediate and finished products for the local, regional and overseas markets. Such a *value-added* policy would have a significant impact on forex earnings, employment, state revenue and service industries.

Although South Africa is exceptionally rich in mineral resources the vast majority of its people live in poverty. The impressive mineral wealth has not increased the life chances of the people, instead, under the racist colonial and settler regimes the fruits of mineral exploitation have gone almost exclusively to the small white sector of the population.

Cornerstone of the Economy

Since the discovery of diamonds in the Cape and the Witwatersrand gold in the Transvaal the mining industry's role changed from being the source of raw materials for the local economy to being the source of raw materials for the colonial metropolitan economies and this situation continues much the same today. This export oriented mining sector has become the cornerstone of the modern South African economy and makes a major contribution in the following crucial areas:

- 1) **Foreign exchange** (forex) earnings, about two-thirds of total exports (or about three-quarters if mineral-based exports such as iron and steel are included).
- 2) **State revenue**, usually about 13% of receipts, but recently only about 2%.
- 3) **Employment**, about 11% of all workers, directly.
- 4) **Market** for mining input industries (equipment, chemicals, etc.)
- 5) **Raw materials** source for numerous mineral-based industries (metals, chemicals, fuels, construction materials, etc.)

¹ >10% of GDP and >40% of exports.

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- The redefinition of the DMEA regions according to geological rather than political boundaries.

POLICY

1. Affirmative action and alternative influences in the department need to be facilitated as a matter of urgency;
2. A development branch for the department needs to be investigated and specified. This should include a capacity to promote investment.
3. One-stop interdepartmental planning for health and safety and environmental regulation needs to be introduced. In addition the advisability of removing responsibility for these areas from the DMEA needs to be investigated as there could be tensions between the role of minerals development and that of maintaining health, safety and environmental standards.
4. Union representation on SIMRAC should be established as a matter of urgency.
5. A programme for upgrading the health & safety inspectorate needs to be introduced as soon as possible. In this respect conditions of employment and remuneration of the inspectorate needs to be revised.
6. The inspectorate needs to be opened up to experienced miners with significant experience but lacking the pre-requisite qualifications. This could be achieved by having different grades of inspectors for different sectors and size of mine, and by introducing a development programme for inspectors not having the necessary qualifications.
7. Mineral-specific inspectorates should be introduced in order that they specialise in their sectors, eg coal, deep-level gold, marine diamonds, etc.
8. The current budget of the department would be adequate if the allocation to the AEC were to be radically reduced. This would allow the department to increase its effectiveness in terms of both regulation and as an agent for development of the industry.
9. The role of the Minerals Bureau needs to be reassessed, and it should play a far more creative and influential role than it does at present, particularly in the formulation of minerals policy.

3. Draft Policy on Mineral Resource Management for South Africa

BACKGROUND

Mining has been important to the economies of southern Africa for the past two millenia and the minerals industry has supported South Africa's economy since its creation as a state in 1910. The focus of the minerals industry has been very much on large scale mining, primarily gold, diamonds, platinum, coal, iron ore, manganese and an assortment of other base minerals. However, it should always be borne in mind that minerals are a non-renewable resource (or a wasting asset) that must be carefully husbanded to give maximum service to the nation, including future generations.

ISSUES FOR CONSIDERATION

The country is relatively well explored and it is unlikely that new *major* deposits will be found. While iron ore, coal, the platinum group metals and chromite have a long term future, the gold mining and diamond mining industries are mature and will decline in the longer term. As these two minerals represent about two-thirds of total value, employment and contribution to the

5. To reassess ring fencing in order to encourage development of otherwise uneconomic mineral deposits. However, the removal of ring fencing should be qualified and discretionary.
6. To consider the increase of the tax deductible capital for gold mines at the rate of inflation from the year of expenditure to the year of write-off, to compensate for the effects of inflation on the cost of capital.
7. To extend the gold mining inflated capital write-off system to other mining as well as mineral beneficiation projects (rather than a re-introduction of 37E).
8. To expand the industry tax base by promoting minerals development through encouraging foreign and local investment in exploration by introducing creative minerals tax incentives that could include greater than 100% write-offs and, possibly, flow-through share schemes.
9. The economic and social impact of the above policies should be investigated to ensure that the overall goals of growing the industry's contribution to national well-being are achieved.

5. Draft Policy on Mining Industry Ownership

INTRODUCTION

In the significant control exercised by a small group of shareholders, often families, who control the major mining houses and financial institutions that dominate the South African economy there is nothing that better represents the inequalities in personal wealth and economic power that is South Africa. This central feature of the modern economy originated in the racist ownership and control patterns that grew in the diamond and later gold mining industries founded over a century ago. The major mining houses: Anglo American, Gencor, Gold Fields and Anglovaal are major players in the South African economy. In the mining houses are found a unique form of corporate structure that is often tightly bound up with a sophisticated financial service sector. Most of the major mining houses hold an extensive portfolio of industrial interests, often with its own financial institution. Control is generally exercised by pyramid structures of strategic holdings in subsidiary companies, cross holdings and interlocking directorships that tie together the majors and extend their control to all aspects of the economy.

ISSUES FOR CONSIDERATION

- It is unconscionable that racially exclusive ownership of the mining industry shall continue in a political democracy. Black ownership and participation in so central a part of the economy as the mining industry is essential for this country's development as a democracy.
- Conglomerate size in itself is not important, large well-resourced groups are necessary for South African firms to compete internationally, so size is not necessarily a problem.
- Market structures arising from conglomerate domination contain some critical problems as they result in oligopolistic markets, and contrary to examples of vigorous competition between large conglomerates in their own domestic markets such as in Korea and Japan, key product markets have become in effect dominated by single firms. What has happened in South Africa is that the conglomerates have turned to market sharing agreements through a range of collusive practices that carves up markets between themselves and results in collusion to refrain from competing in some markets in return for undisturbed operations on

6. Programmes to promote the use of efficient lighting technologies must be promoted.
7. Energy audits should be carried out in the industrial, mining and commercial sectors prior to investments into energy efficiency. Home rating schemes could also be carried out for households.
8. The capacity building and training requirements for the implementation of energy efficiency programmes must be investigated, with specific reference to the financing of such training and appropriate institutions to provide such training.
9. The feasibility of employing renewable energy technologies in energy efficient applications must be further researched.
10. Responsibility for promoting energy efficiency should rest with the government.

16. Draft Policy on Household Energy and the Environment

Introduction

The energy sector has many unfavourable impacts on the natural and social environments in South Africa. Most public and policy attention on the energy-environment interface has been concerned with the macro-environmental impacts of coal-based electricity generation, acid precipitation, and, increasingly, global climate change. Less attention has been given to energy-related environmental problems occurring at the *household* level where environmental conditions have the greatest effect on the quality of life of the largest number of people. Household energy-environment issues should be amongst the top priorities in the national energy-environment policy arena.

Electrification will not displace coal use in households because coal stoves are an efficient method of cooking and heating. Whilst low-smoke coals are not a solution to all environmental problems, (such as sulphur dioxide emissions), they can significantly reduce particulate emissions, which are the major health hazard. At the same time, some of the 40 million tons of coal waste produced annually can be utilised, and income-earning opportunities can be created using labour-intensive production methods. Thus, government should consider supporting a national low-smoke coal programme to facilitate the development and production of low-smoke coals in order to substitute for conventional bituminous coal use in households.

It is expected that once low-smoke coals are ready for production on a larger scale, they may require a price advantage (at least initially) to gain acceptance by consumers. Three options are:

- A *direct subsidy* for low-smoke coal producers, which would be offset by reduced health care expenditure once air quality improvements are manifested in better health.
- A *levy*, at wholesale level, on the price of conventional coal, to cross-subsidise low-smoke coal. This alternative is theoretically preferable, since it entails the internalisation of the health and environmental externalities associated with normal coal.
- In the longer-term, if and when low-smoke coal is widely available at a price which is competitive with bituminous coal, it will be possible and desirable to move towards applying existing air pollution legislation in townships to enforce smoke-free zones.
- Consider phased in legislation to prevent coal mines from selling non-low-smoke coal directly to the household sector.

16. Draft Policy on Energy in the Mining and Minerals Processing Industries

INTRODUCTION

The ANC policy on energy use in industry must be approached from the perspective of how effectively energy resources can be used to meet national development goals. It should be implemented within an integrated energy plan, balancing the goals of economic efficiency, environmental sustainability and social equity. Policy should be aimed at the more efficient use of energy and the substitution of more appropriate fuels.

ISSUES FOR CONSIDERATION

The mines and mineral processing sectors are important to the economy as foreign exchange earners and are the major consumer of energy, particularly electricity. Energy pricing is a vital component of policy on energy in industry. Changes in the energy price will affect the competitiveness of mineral products on the international market. In the long run South Africa cannot afford to substantially increase the price of energy. We have to guarantee a secure supply of energy at present prices, if we wish to maintain our level of exports and increase beneficiation.

Activities which will increase the efficient use of energy include:

- the development of a local energy efficiency industry ;
- the development of a local energy efficient capital equipment industry;
- research and development into the development of energy efficient capital equipment;
- the early retirement or retrofitting of old inefficient equipment and for cogeneration;
- energy audits and the development of energy efficiency plans;

POLICY

1. A stable supply of energy at the present level of prices must be secured to maintain the level of mineral exports and to increase beneficiation.
2. Special electricity supply contracts related to the prices of commodities between electricity suppliers and mining and minerals processing industries should be encouraged as these lead to increased mining and promote beneficiation. They furthermore help reduce the effects of cyclical volatility experienced by producers in the minerals industry and the state in terms of revenues.
3. In the case where an electricity supply authority is incapable of effectively providing the necessary quantity and quality of supply needed by a large industrial firm such as a large mineral beneficiation plant another utility should be allowed to provide electricity to the industry in that supply area.
4. Economic incentives and disincentives should be used to encourage the use of energy more efficiently.
5. The development of local energy efficient capital goods for the mining and minerals processing industry should be encouraged.
6. The setting of standards for machinery and equipment could ensure that new machinery installed is energy efficient and should be investigated.

Energy planning and delivery institutions

The only household energy service which receives attention under current legislation is, ironically, electricity. The Constitution, the Local Government Transition Act and the Electricity Act all contain references to the responsibility of local government's to ensure the provision of electricity to their residents. No similar references exist on the responsibility for planning and provision of other energy services, even though energy is a basic need for all people.

In addition to the legal vacuum around energy service provision there is also a serious institutional capacity problem around energy service planning and delivery. Essentially the state plays very little role in these functions, leaving them mainly to the private sector. There is a clear need to identify appropriate roles for local, provincial and central government in this regard. Whilst it would not be practical to establish new large scale public sector energy delivery structures, given that private sector actors already exist, the case for a parastatal energy planning and financing institution certainly deserves more debate.

Policy

1. Household energy policy for urban and rural areas should be informed by an Integrated Energy Planning (IEP) approach.
2. Energy policy interventions should be part of integrated urban and rural development planning frameworks.
3. The National Energy Policy Forum should co-ordinate integrated energy planning for household energy services.
4. Household energy policy should take into consideration the perspectives of women as managers of energy in the household as well as socio-economic factors affecting fuel and appliance choice. Household energy policy research must be based on an interactive process directly informed by women, their needs, interests and knowledge.
5. The long term goal for household energy policy is to connect all urban households to the electric grid. For rural households which cannot be connected to the grid Remote Area Power Supply systems (RAPS) should be considered, particularly renewable energy systems such as photovoltaics.
6. Households should pay for the energy services that they receive. The present culture of non-payment for electricity should be addressed.
7. Financing mechanisms aimed at addressing the needs of the poor should be implemented. These financing schemes must help households invest in better types of energy and more efficient appliances. Possible mechanisms include:
 - the provision of appliances by electricity utilities when new connections are made;
 - financing co-operatives; and
 - government guarantees on loans for the purchase of efficient appliances.
8. Fuelwood management and social forestry programmes must ensure the sustainable utilisation of fuelwood.
9. The feasibility of substituting bituminous (high ash) coal by low-smoke coal (LSC) must be investigated and government subsidies should be employed if this should be necessary.
- 10 Demand-side-management (DSM) interventions should accompany the electrification programme, including:
 - improvements to the thermal efficiency of dwellings;
 - solar water heating;
 - time-of-use(TOU) tariffs; and

station). Recently, the cabinet approved AEC plans for the shutdown of the most expensive of these plants, the "enrichment" plant.

In the long-term, the AEC is hoping to establish itself as a competitive nuclear fuel supplier on the global market. There are at least two reasons why this may not happen. First, the global market is very depressed due to global oversupply and will remain so for at least the next ten years. Second, it is not clear how the AEC will be able to produce nuclear fuel once the enrichment plant has been shut. It is hoping that a new enrichment technology - called MLIS - will enable it to open a viable new enrichment plant, but this would only happen in about 2005-2010.

The AEC is also involved in research and development of many other nuclear and non-nuclear technologies, some of which may have potential for becoming high-tech products. Sales of non-nuclear products are apparently producing profits.

Policy Background

At the ANC Nuclear Policy conference in February 1994, delegates proposed that no public funds should support uranium production, that all uranium processing must be profitable, and that the economics of the uranium export market should be discussed openly. It was also recommended that the AEC's R&D activities be reviewed, specifically the MLIS programme.

Policy

1. The AEC conversion plant should be commercialised without delay. If this cannot be achieved within one year, it should be shut.
2. The Nuclear Fuel Production (NFP) division of the AEC should be shut forthwith.
3. The MLIS enrichment programme should be independently investigated for its viability. Resources allocated to this technology should not be out of proportion to this spent on other research and development programmes.
4. The inappropriate allocation of 70% of the DMEA budget to nuclear development needs to be reversed in order to reflect more accurately the RDP's development objectives.
5. The lack of transparency in the governance of the AEC, and the relations between it and the DMEA, need public exposure and discussion. In particular the governance structures of the AEC should be made more transparent.
6. The production of non-nuclear technology products should be privatised and R&D in non-nuclear technologies should be transferred to the CSIR.
7. The human resource implications of restructuring the AEC need to be investigated. Appropriate plans must be made to deal with any re-deployment, retrenchments or retraining that may be necessary. This should occur in consultation with organised labour.

10. DRAFT POLICY ON NUCLEAR ENERGY

Introduction

The Koeberg nuclear power station was built during the apartheid era to hide the military applications of the country's nuclear industry, and to ensure electricity supplies to Cape Town in the event of guerrilla warfare. Koeberg produces about 4% of Eskom's electricity, and is more expensive to operate than any other station.

- compulsory release of area after a defined period. For the small operator a prospecting license should be considered.
3. At the expiry of an exploration license the holder must release the area or take out a mining license or apply for a mineral retention license with a limited life, if a deposit has been identified but conditions do not permit mining.
 4. A 'One-Window' approach whereby prospectors and investors can rapidly obtain the full range of information and support necessary to implement exploration programs. In this regard relevant information should only remain confidential while the the property is ongoing exploration. As soon as activities cease the data should become available to potential new explorers.
 5. Make available to new license holders exploration data surrendered by explorers whose licenses have expired.
 6. Make available to the minerals and mining industry up-to-date geoscience and land status information through the Geological Survey Department (Geoscience Council).
 7. Automaticity of mining permission: It is essential that the explorer is guaranteed a mining license if a viable deposit is delineated.
 8. Greater transparency must be encouraged throughout the minerals and mining industry.

9. Draft Policy on Oil and Gas Exploration

Background

Offer of South African acreage for international exploration:

Cognisance has to be taken of the fact that success in bidding rounds can only be achieved if terms and condition are in line with international standards.

Off-shore oil and gas is owned by the state and, in general, there are no current problems with offshore oil and gas, other than that, by lifting ring fencing, oil transnationals operating in South Africa are privileged in comparison with those that divested during sanctions in that the latter do not have local profit centers to write exploration expenditure off against. An alternative write-off system that applies equally should be formulated. Consideration could be given to the application of the proposed mining system (see above), based on the current gold mining system.

Under the 1991 Minerals Act ownership of on-shore oil and gas, along with all other minerals, was placed with the owner of the land under which the oil and gas is found. This is an untenable position for oil and gas exploration and development and ownership should revert back to the state. Thus, the conditions for on- and off-shore oil and gas exploration, development and production should be made the same as for current off-shore conditions. For development of Coal Bed Methane (CBM) this is urgent.

Soekor

Soekor currently carries out two logically separate functions: promotion of oil and gas resources exploration and development and actual oil and gas exploration. A conflict or confusion of interests arises with this institutional arrangement. In many countries it has been found that these are better separated. In terms of ownership of the exploration and

production of final goods by transforming intermediate inputs, i.e. beneficiators supply inputs to fabricators to make final goods.

POLICIES TO PROMOTE BENEFICIATION

1. The local fabricator should, as far as possible, not be disadvantaged through oligopolistic pricing of inputs and South Africa's distance from alternative suppliers. They should be charged the export parity price or profit parity price (profit parity between export and domestic markets) or, even cost plus reasonable return. Beneficiation projects should be required to provide pricing structures that will at best favour the local fabricator, or are at least neutral with regard to export price structures, to qualify for capital expenditure write-off schemes or any other state incentives or support.
2. Qualification for tax concessions and finance for beneficiation projects should require advantageous domestic pricing such as export parity prices for local fabricators.
3. A small levy, payable on unbeneficiated ores which are exported, could be considered to encourage their local beneficiation. The levy levels could reduce depending on the level of beneficiation.
4. Tax breaks are often necessary to make large beneficiation projects viable due to the long lead times to earnings in the context of high inflation. Features of the current tax regime applicable to capital expenditure for gold mines in which capex tax credits may be brought forward in their entirety with a consideration for annual inflation, should be extended to cover mineral beneficiation projects, but carried forward at actual inflation rather than an arbitrary consideration. The application of these provisions to cover all ex-mine value adding processes that terminate with the production of dimensional products should be investigated.
5. The state through the Department of Trade and Industry and development finance institutions, in particular the Industrial Development Corporation, should give emphasis to supporting downstream industries able to exploit the opportunities created by the availability of competitively priced inputs from beneficiation projects.
6. The state through the Department of Finance and the Reserve Bank should take steps to lower economic and fiscal uncertainty and permit long term planning to be undertaken, crucial for projects of the magnitude of mineral beneficiation projects. By lowering the risks involved in launching beneficiation projects the returns required by providers of capital are lowered and the financing costs correspondingly reduced.

15. Draft Policy On Southern Africa Mining Sector Cooperation

INTRODUCTION

The objectives of the policy on co-operation in the minerals and mining sectors of SADC countries is to achieve an equitable, balanced and mutually beneficial regional order in the post-apartheid southern Africa.

Southern Africa has immense mineral wealth producing over 30 percent of the world's diamond, gold, platinum group minerals, vanadium, chrome, vermiculite, and cobalt and over 10 percent of the world's production of copper, manganese, asbestos, granite, uranium, and zircon.

other, unrelated markets. These oligopolies result in over-priced mineral-based inputs to the high value-added manufacturing sector making them internationally uncompetitive.

- Due to the dominance of the mining sector by a few very large conglomerates the potential of the small and medium scale mining sector has not been limited.
- Measures to increase black participation and ownership in the mining industry will require a long term approach to mobilise the necessary capital and to acquire attractive operations.
- Nationalisation is not necessarily an effective method to achieve equity and efficiency changes to the conglomerates and would divert scarce resources to compensate existing owners' constitutionally protected property rights.

POLICY

1. Measures to promote the unbundling of the conglomerates, such as a prohibition on pyramid companies, should be investigated as a matter of urgency. Three objectives shall inform the investigation on unbundling:
 - i) measures to introduce new actors to the mining and mineral processing sector;
 - ii) measures to increase competition and remove the propensity for collusion in oligopolistic markets;
 - iii) measures to encourage mining companies to focus on their core mining business in line with global tendencies to specialisation and focused business activities.
2. Investigate measures to increase black ownership and participation in the mining industry, in particular to investigate a tax regime that would facilitate employee stock ownership schemes.
3. Investigate measures to dilute control of the mining industry by a minority of shareholders and increase participation of a wider spread of citizens, through measures such as effective employee share ownership schemes and management and worker buy-outs.
4. As change of ownership materially affects the conditions of employment of the workers, workers should be consulted on change of ownership developments.
5. Foreign as well as domestic ownership patterns should be transparent to all stakeholders.
6. The State should take a constructive interventionist role in altering the patterns of ownership in the industry, and promoting Black ownership at all levels.
7. In this respect measures that could be taken could be:
 - i) The IDC could be given earmarked funding from the State to facilitate change in ownership patterns. The issue of government mining bonds could be considered to cover this expense;
 - ii) Affirmative action could be exercised in the issue of distribution of State-owned mineral rights, provided that this does not jeopardise the potential success of the exploitation programme, or compromise standards in health and safety or environmental management because of lack of funding or technical expertise.
 - iii) Black involvement should be encouraged in all aspects of mining including in minerals marketing and distribution, exploration, downstream beneficiation and fabrication.

3. In addition to the Department of Mineral and Energy Affairs, and the existing science councils, viz Mintek, Geosciences Council and the CSIR, state agencies should be introduced. While the DMEA has primarily a regulatory function, the role of the Agencies would be primarily promotional.

Proposed promotional agencies are:

- Research and Development Agency
- Small Mines Bureau
- Environmental Management Agency
- Human Resources Development Agency

2. Draft Policy on Governance of the South African Mining Industry

INTRODUCTION

The Governance of the mining industry involves a number of players apart from the Department of Mineral and Energy Affairs (DMEA). Other State Departments that have a primary influence on the industry are Environment, Water Affairs, Finance, Labour and many others. However, it is the DMEA which has the central role in governance. It is stated ANC policy to stimulate the mining industry through reviewing the ownership of mineral rights, encouraging foreign and local investment, and encouraging minerals beneficiation.

The DMEA has traditionally served the large scale mining industry over the last century, in which the laws have in essence not changed significantly. A revitalised mining industry will need creative new government policies, which will require a re-orientated DMEA to initiate progressive policies and catalyse change.

ISSUES FOR CONSIDERATION

The issues that arise with the DMEA are both structural and functional. The issues are:

- The racial and cultural make-up of the department is reminiscent of the previous government, and as such tends to be conservative and bureaucratic in nature;
- The DMEA has a regulatory culture as opposed to the developmental culture required to stimulate the industry;
- The unions are not represented on the board of the department's safety research programme SIMRAC;
- The quality of the inspectorate responsible health and safety and environmental regulation is unacceptably low;
- Interdepartmental communications, particularly between the DMEA and Environment and Water Affairs needs to be improved in order to decrease the potential for cross-cutting legislation;
- The department is a relatively junior department, and as such, commands an unacceptably low budget outside of the AEC allocation;
- The span of control of the department is stretched in some areas, and the reintroduction of sub-offices or commissioners offices needs to be considered in order to provide support to RDP projects.

sufficient motivation in itself to ensure that mines take responsibility for their own environmental management during the operation of the mine, and ensure that the property has been rehabilitated to the extent that it does not pose a threat to the physical environment and the community on closure.

The ANC's policy on environmental management, as expressed in its document "An introduction to ANC Environmental Policy", states that the ANC believes that all citizens, present and future, have the right to a life of well-being. In addition, the Alliance Mission document of August³ 1994 makes several recommendations on mining.

ISSUES FOR CONSIDERATION

- A balance must be struck between encouraging development and maintaining high standards of environmental management;
- The fact that private ownership of mineral rights limits the capacity of the State for environmental regulation (Alliance Mission).
- The problem of potentially cross-cutting environmental legislation and regulation introduced by different State department's and private members motions;
- The management of environmental damage caused by artisanal and small-scale mines;
- The establishment and administration of rehabilitation funds;
- The damage caused by acid mine drainage from the sulphur-rich gold and coal mines;
- The limitations of the Environmental Management Programme Reports (EMPR's) compared to the normal full Environmental Impact Assessments (EIAs), particularly in the process of generating and monitoring them.
- In future, trade barriers could be based on the environmental effects of our production methods, that do not take into consideration (cost) environmental degradation.
- The current concept of the "environment" does not adequately include the human environment, particularly the effects of mine closure on communities and workers.

POLICY

1. Mining can be very destructive to the environment. There must be a balance between the economic benefits of a mine development and the ecological damage caused. The basic principle must be that the mining companies should be responsible for the rehabilitation of a closed down mine site and attendant social costs. The 'polluter pays' principle should apply to all impacts of mining activities.
2. To transfer mineral rights to State to give it adequate basis for full regulation of the industry, including the right to refuse mining.
3. To consider the introduction of State-managed water management schemes in catchment areas affected by acid mine drainage, the costs of which could be met on a pro-rata basis determined by water quantity and quality, as is done for the SIMRAC programme.
4. To replace the EMPR system with the international EIA system which provides for broader consultation on mining environmental issues at planning and monitoring stages.
5. To educate small-scale miners on environmental management as a pre-requisite to being granted mining authorisation, and to resource them to enable them to comply with the more stringent regulations. In addition, State environmental management should be considered for areas where there is a high spatial concentration of small-scale miners.
6. To investigate the feasibility of a one-stop shop for processing mining-related environmental legislation and regulation. This should initially be done through the DMEA, but the

³ "Environment, Reconstruction and Development in the New South Africa, IDRC, 1994.

the effects of extracting and inappropriate rent and denying both the producers a fair rent and the users the advantages that gas may offer. If these parties are in different countries the problems are exacerbated. An additional problem is that the pipeline may deny access to additional producers and thus prevent these resource being made available for exploitation.

Thus, policy objectives for the pipeline should be to regulate the pipeline tariff so that a fair rent is apportioned between producers and the pipeline operators and that users may experience appropriate benefits that gas availability may have to offer. In the case of large users these benefits may have considerable potential for enhancing international competitiveness in export-orientated industries. An additional objective should be to ensure that necessary access to the monopoly pipeline is facilitated where appropriate. However, these objectives should be seen against the background of attracting the scale of investment necessary for construction of the pipeline.

In terms of distribution, it needs to be acknowledged that a very wide variety of users needs to be catered for. Some very large users may want, and need, to negotiate directly with the gas producers. Other may need high value-added services, best provided by small market responsive operators.

Policy

1. Pipeline ownership is not the most important issue: regulation is. However, in many cases some state ownership of the pipeline is desirable so that the state may have the necessary access to information which an ownership stake will entitle it to. Also, the state may require an option to take up greater ownership of a privately-owned pipeline once the pipeline has paid back the investment, including a premium for the risk of the investment.
2. In advance of pipeline construction regulation should be in place to provide protection of users and producers and to provide the environment that a large international investment requires. There are numerous models which satisfy the requirements specified in the background section above. The most favourable would be **price cap regulation**. Open access provisions can be clearly stated to come into effect at the appropriate maturity of the industry. **For South Africa, timing of gas industry development is such that it is urgent that policy and regulation is finalised.**
3. Regulation of distribution should take the wide variety of needs of consumers into account. Technical and health and safety aspects should be according to international standards. Small users, such as households, should receive necessary protection against unfair pricing. However, pricing for larger users should be allowed to compete with other fuels.

9. Draft Policy on Uranium Beneficiation and the Atomic Energy Corporation

Introduction

Uranium is produced as a by-product of gold and copper mining and is processed by the Nuclear Fuels Corporation (Nufcor owned by the Chamber), which earns about R140m per year from exports. Most is exported as marginally beneficiated uranium. The Atomic Energy Corporation (AEC) operates three uranium processing plants, all of them at a loss. Collectively, these plants cost about R230m to run each year, but they generate income of only about R90-100m from sales of nuclear fuel to ESKOM (for the Koeberg nuclear power

- efficient lighting.
- 11 Supply authorities and communities should be encouraged to set up community energy centres to educate consumers and promote safe, economical energy practices.
 - 12 The possibility of establishing a national energy planning and financing organisation should be researched and debated.

12. DRAFT POLICY ON RURAL ENERGY

Introduction

The rural areas of South Africa, housing about 40 per cent of the population, bear the worst legacy of apartheid repression and neglect. Practically all poor people in rural areas depend on fuel wood for their cooking and heating energy needs. Candles, paraffin and gas are used to a limited extent. With the exception of commercial farmers, and some farm worker houses, few rural dwellers have access to electricity. Although wood is often collected free of charge its use comes at a tremendous cost. The burden of collecting firewood falls mainly on woman, who have to make an average of 3 trips per week, each lasting about 2 to 3 hours. Recent research indicates that the air pollution caused by wood fires exposes rural dwellers to risks of respiratory illness. A further problem is the alarmingly high rate of infant mortality and injury caused by paraffin ingestion and burns.

Energy is required for a wide range of household, communal and productive activities such as food preparation, space heating, lighting, the operation of electronic media, the provision of services (water, health care & education), and agricultural and other productive activities. The intimate involvement of energy in the provision of community services and in productive activities implies that planning for energy provision cannot be undertaken on its own, but has to be co-ordinated with other development planning. The complexity of rural development needs requires local communities to be given a high level of control over the planning and implementation of their development.

Policy

1. Essential electricity services should be provided to support health care, education, income generation and urban-rural integration. A government funding programme for the systematic electrification of clinics and rural institutions should be established.
2. Further investigation is required into methods to improve coal, paraffin and gas distribution networks and improve the effectiveness of paraffin price regulation.
3. Fuelwood is likely to remain the primary source of energy in rural areas, even given widened access to alternatives such as electricity, gas and paraffin. A fuelwood security programme must ensure the sustainable utilisation of wood resources to provide cheap and renewable energy. This programme should include projects to improve woodland management, social forestry projects, woodlots and plantations projects, expanded small-grower schemes and support to small wood traders transporting wood from surplus to deficit areas.
4. Strategies to reduce the exposure of rural people to air pollution must be developed using system-oriented and gender-sensitive approaches. The prevention of child paraffin poisoning and burns must become a high priority of energy policy.

miners, creation of an appropriate institutional and legislative framework and the introduction of a wide ranging support system.

ISSUES FOR CONSIDERATION

The introduction of small scale mining in South Africa would achieve both political and economic objectives of the ANC. The political objective is to address the imbalances of ownership in the mining industry (empowerment of the historically disadvantaged South Africans, hence availing opportunities to own and run mining ventures to all, regardless of race or educational standard), provision of skills and the revitalisation of the entrepreneurial spirit in South Africa in particular and the southern African region in general. The economic objective is to ensure better utilisation of the mineral deposits in SA, by the exploitation of scattered, numerous, otherwise uneconomic mineral resources.

The small scale mining support system should include financial schemes, technical advice, exploration support, marketing research, R & D aid, technical, financial and managerial training, mineral processing support, organisational structures and the recommendations and monitoring of environmental issues, health and safety systems.

POLICY

1. The current mineral rights dispensation in South Africa will have to be changed if small scale mining is to be promoted. The problem of access to mineral rights could be addressed in the short term by direct negotiations with the current holders, and in the medium term by the introduction of a system which will ensure that the mineral rights revert back to the state, such as a tax.
2. A system of licences or rights with a specified time period could be immediately introduced over state held mineral rights to avoid sterilisation of our mineral resources. In addition, the creation of special mining zones, with exploration and mining regimes that are friendly to the small operator, over terrains with high small scale mining potential should be considered.
3. Further investigation could be carried out into the utilisation of old currently uneconomic mines and mine dumps by small operators who might have lower overhead costs.
4. A proper institutional framework is a prerequisite to the establishment of a viable and sustainable small scale mining sector in South Africa. The current proposal of the ANC is the establishment of the Small Mines Bureau (SMB). The SMB will play a facilitating, co-ordinating, and supporting role to the small mining enterprises, by networking with and mobilising funds from the existing government structures (DMEA, Geoscience Council, Mintek, CSIR, IDC, etc.) and the private sector. The SMB would categorise small mining ventures and recommend the appropriate level and type of support that is required. The policy on small scale mining goes beyond the narrow focus of mining as end itself and recommend that small scale mining should be used as a vehicle and nucleus around which other small manufacturing enterprises could be established. The SMB would be a structure well positioned to facilitate the establishment of these SME complexes.
5. The small scale mining support system should include financial schemes, technical advice, exploration support, marketing research, R & D aid, technical, financial and managerial training, mineral processing support, organisational structures and the recommendations and monitoring of environmental issues, health and safety systems.

3. The application of renewable energy technologies within an integrated energy planning process should be evaluated by bodies such as the National Energy Policy Forum.
4. Appropriate institutions and financing mechanisms should be established to consider the use of photovoltaics for use in remote homes, schools and clinics.
5. Education and information dissemination on renewable energy should be promoted.

14. DRAFT POLICY ON FUEL WOOD

Introduction

The most important fuel for South Africans is fuel wood. The majority of people meet the major part of their energy needs through the burning of wood. Cooking, space heating, water heating and even lighting are provided by this one energy carrier. A household can cook, and heat their home at the same time using wood. It has been found that in many newly electrified areas people continue to use wood (and coal) for cooking and heating. This is generally because wood is usually collected free (coal is cheap). Also electrical appliances are expensive and it takes a long time before poor households invest in these. People, especially those in rural areas, will remain dependent on fuelwood. Even if there is an electrification project that covers all rural people, electricity will not meet all the needs of rural communities. The need is thus for an integrated approach to energy planning which is done in conjunction with rural communities, that is part of specific rural development plans and processes in different areas.

The negative aspect of wood fuel is that people, usually women, have to walk for hours every week to collect wood. There is an increasing problem of deforestation and people end up spending more hours to find the same amount of wood. The environmental consequences of deforestation are well known. Added to this, there is a negative environmental impact when burning fire wood. The major environmental concern is the health problems (usually respiratory problems) of people exposed to emissions from these open fires.

Policy

1. The recommendations from the Biomass Initiative/Plant for Life conference could be considered as a basis for policy development.
2. Regulation and Institutional Responsibilities:
 - i. Central government should be responsible for a national policy on biomass. It is imperative that government departments co-operate and that the biomass programmes should not be hindered by departmental boundaries.
 - ii. The Department of Water Affairs and Forestry should implement programmes to promote social forestry and develop stronger linkages between water and forestry. They should also commit parts of their budgets to training, extension staff for forestry and water and the setting up of nurseries and other infrastructural support.
 - iii. The Department of Agriculture should be responsible for developing programmes to ensure the integration of tree planting into farming activities. This should include plans for agroforestry, the planting of fruit trees and other multi-purpose trees by rural communities.
 - iv. The Department of Land Affairs should be responsible for sorting out issues related to the security of land tenure which will lead to more people planting trees on their land.

be tradable. It does however establish that the State can charge for access to the resource and that it has a legitimate interest in the manner of its exploration and exploitation.

The international trend over the last forty years has been towards public ownership of mineral rights. This has variously been achieved through the introduction of mineral rights taxes as well as several forms of expropriation.

POLICY

1. Security and continuity of tenure for mineral exploration and mining is essential to encourage high-risk exploration and to ensure that companies marshal large sums of money to undertake mining.
2. Investors need to be assured of the right to proceed from exploration to mining provided pre-defined criteria are met.
3. Mining licenses must be of sufficient duration to make exploration and development commitments worthwhile.
4. The practice of freezing potential mineral wealth in areas of privately owned mineral rights should be discouraged. The imposition of a mineral rights tax, that would be deductible against any exploration expenditure, should be considered. If the private owner of mineral rights abandoned them to the state he/she should have first option on an exploration license over the same area, in exchange for submitting all past exploration data on the property.
5. Where the state is the holder of mineral rights, a system of licenses or rights should be introduced consisting of exploration and mining licenses with defined periods and work commitments, which will ensure a turnover of exploration properties and encourage new investors. The minimum work requirements should be substantially less than the mineral rights tax to encourage the return of privately held rights to the public domain.
6. The power to grant mineral licenses should reside with one authority and not be subject to overlapping or concurrent jurisdictions (the lack of clear rules will hinder the orderly development of mining).
7. To prevent monopolization of territory it may be necessary to limit the number of licenses that can be granted to any one company or group of related companies.
8. A suitable legal framework for small scale mining may be necessary, such as the creation of special mining zones with a high small scale mining potential.

12. Draft Policy On Small Scale Mining

INTRODUCTION

South Africa has a noticeably inactive micro and small scale mining sector principally due to the following factors:

- lack of access to mineral rights;
- lack of a comprehensive support system and an appropriate institutional and legislative framework;
- the presence of an active anti-small scale mining tradition.

Given the low capital costs and high employment potential of small scale mining, the ANC small mining policy is premised on availing access to prospective mineral terrain's to small

6. In the short term a review is needed of current pricing policies and practices within Spoornet and Portnet, with a view to facilitate mineral exports.
7. The possibility of rehabilitating the port of Maputo to handle its former share of South African trade needs to be assessed as a matter of urgency, as it offers the shortest route to the coast for many minerals.
8. The status of current and planned oil and gas pipelines needs to be assessed, particularly on the advisability of making them open access facilities.

C. HUMAN RESOURCES

19. Draft Policy on Human Resource Development for the Mining Sector

INTRODUCTION

The mining sector of South Africa is one of the largest employers of the nation. Because of that pivotal economic role it entrenched deep-seated apartheid practices such as job reservation and scheduled persons provisions to uphold the supremacy of the Whites. To redress the glaring anomalies a vigorous human resource development programme is imperative.

ISSUES FOR CONSIDERATION

The present state of affairs in mining human resource development is characterised by:

- fragmented provision of training without national standardisation in the industry;
- lack of access to education and training for all as evidenced by 62% of the total formal workforce being functionally illiterate;
- negative impact on health and safety standards;
- none or little involvement of the stakeholders in development planning;
- absence of real affirmative action in managerial ranks.

Progress in human resource development requires, comprehensive national approach based on a completely reformed political and institutional dispensation. This necessitates re-ordering of training priorities with the involvement of all stakeholders.

A Presidential statement could be considered on this issue to be disseminated through the media and government machinery to give direction and time frame prescriptions on affirmative action.

POLICY

1. A more comprehensive concept of human resource development must be adopted which aims to upgrade the quality of life of the entire workforce through basic education and life skills training
2. The training responsibilities should be differentiated: Formal sector should take responsibility and costs for on-mine training cost for technical and management skills. The state has the obligation and authority to determine the pace and parameters of change in the

POLICY

1. A separate Mining Health and Safety Act and adjoining Regulations should be drafted. The Act should guarantee mining health and safety standards and not allow self-regulating practices by individual mines.
2. The creation of a tripartite Health and Safety Committee to make considerations and recommendations on improvements to Mining Health and Safety should be promoted.
3. The mining houses should agree to have Trade Union and Association representatives on important decision-making committees to redress the historical imbalance of power prevailing in the mining industry.
4. A strategy should be developed to investigate the re-structuring of the mines inspectorate so that they may be more effective in enforcing Health and Safety Legislation.
5. The resources allocated to the inspectorate within the DMEA should be substantially increased.
6. Health and safety training must take priority position in the training programmes of the mines.
7. The practice of allowing exceptions to the regulations should be minimised.

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New policy for the retail sector should make effective objectives of the RDP for the promotion of new small black business. Franchise laws should be improved to give franchisees greater powers in their relationships with oil companies. Oil companies should be encouraged to apply the principle of affirmative action when appointing new franchisees.

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Taxes on petroleum products are a vital source of government revenue. They are also easy to collect, cost effective, environmentally sound, and very progressive. Tax levels in South Africa are low by comparison to international averages. Increasing tax levels from petroleum should take the following into account:

- Exempting paraffin from further levies and taxes
- The widening of the petrol : diesel price differential through changes to the levels of their respective fuel levies.

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In transforming the petroleum industry's objectives from supporting a siege apartheid economy to the objectives of a petroleum industry in a democratic state with the special requirements for reconstruction and development the policies that are implemented should be measured against the following objectives:

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Whilst policy making remains the prerogative of the elected government of the day the process of policy formulation will be facilitated by a National Energy policy Forum which will advise the Minister responsible for national energy policy on appropriate energy policies.

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Existing and future industry fora such as NELF and the Liquid Fuels Task Force could become sub-fora of the NEPF. Macro-economic co-ordination could be achieved through linkages with the National Economic Forum and its successors.

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Staffing the NEPF

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The role of the Department of Mineral and Energy Affairs

The DMEA will be strengthened in order to assist the Minister in the formulation of energy policy and its implementation and administration.

Regulation of energy industries

The regulation of energy industries (particularly electricity , petroleum and nuclear) will be achieved by independent bodies, supported by professional staff, separate from the government and accountable to parliament. Regulators will monitor the implementation of government policy.

The role of the Parliamentary Standing Committee

The Parliamentary Standing Committee, apart from screening legislation and reviewing the budget, will play a role in the development of energy policy through regular interaction with the DMEA, the NEPF and the regulators.

mineral beneficiation through appropriate incentives and disincentives in order to increase employment and add in value to our natural resources before export. Moreover, this policy should provide more appropriate inputs for manufacturing in South Africa.

6) Minerals are a vital input for numerous mineral-based industries. These industries, however, have difficulty in becoming internationally competitive due to the fact that the refining companies usually set higher prices for the domestic market than their export prices, a practice known as import parity pricing. A democratic government must consider mechanisms to encourage companies to sell to local industries at prices that will enhance their international competitiveness.

7) Existing tripartite structures such as the Mining Summit must be strengthened in order to facilitate national development strategies for the mining and mineral-processing industry.

8) Democratisation of the mining sector must involve new laws to build workplace democracy for miners by requiring employers to negotiate the organisation of work with their employees and their unions. Programmes must be established to allow financial participation by workers in mining companies in a meaningful way (including measures to influence the policies of financial institutions, especially insurance companies and pension funds, which hold significant stakes in the mining sector and in which our people have substantial investments). And anti-trust legislation and other measures must be implemented to permit the monitoring and appropriate control of mining, mineral processing and marketing.

9) International demand and supply patterns for metals and minerals have undergone fundamental changes in recent years that necessitate the restructuring of this major industry. In the medium term, this probably means a continued decline in the number of people employed in the mines. Up to now, the heaviest burdens associated with down-scaling have been borne by miners, one third of whom have been retrenched. The RDP must put into place mechanisms to ensure orderly down-scaling of our mines so as to minimize the suffering of workers and their families. Measures should include the reskilling and training of workers for other forms of employment.

10) Mining is a hard and dangerous job, and mineworkers labour under stressful conditions, often deep under the earth. The RDP envisages a new set of minimum standards for the mining industry that ensure fair wages and employment conditions for all workers and a health and safety system that recognises the special hazards related to mining.

11) Most mineworkers are forced to live in single-sex hostels and remit part their salaries. In future all workers must have the right to live at or near their place of work in decent accommodation and shall have full control over their after-tax salaries. In addition, the mining companies must take some responsibility for the education, training and social needs of miners and their families as an integral part of labour policy on the mines.

12) Mining can be extremely destructive of our natural environment. Our policy is to make the companies that reap the profits from mining responsible for all environmental damage. Existing legislation must be strengthened to ensure that our environment is protected. Before a new mine can be established there must be a comprehensive environmental impact study.

13) The Southern African region also has enormous mineral resources that have not been mined, due in part to the destabilisation policies pursued by the apartheid state in the last twenty years. In the spirit of mutual cooperation, the RDP should extend across our borders by using our considerable expertise in mineral exploration and exploitation to rehabilitate and develop the mineral potential of our neighbours. In this regard a special facility should be created to promote investment in the sub-continent.

14) The government must consider ways and means to encourage small-scale mining and enhance opportunities for participation by our people through support, including financial and technical aid and access to mineral rights. However, standards in respect of the environment, health, and safety and other working conditions must be maintained.

This document constituted the the basis for the formulation of the following 19 discussion points developed at the ANC and alliance partners Minerals & Energy Policy Workshop. The key themes are:

- a) Mining Sector Governance**
- b) Minerals Development**
- c) Human Resources Development**

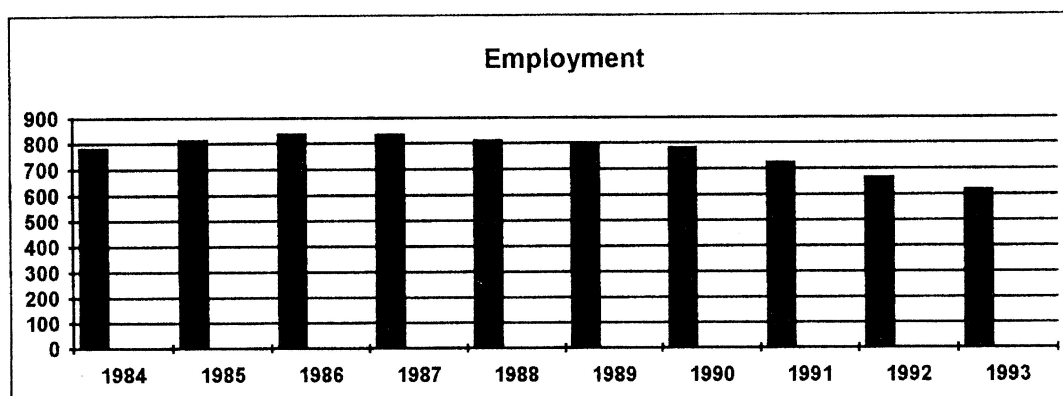
Fields and Anglovaal. Other mining companies are Sasol, the oil-from-coal corporation, Iscor (iron and steel) and two international mining companies, RTZ and Lonrho. Government revenue accruing from mining went predominantly to improve the life chances of the small white minority via racially biased social spending in areas such as health, education and social welfare.

With the attainment of democracy in South Africa the mining industry will finally come to benefit all of its people. Government revenue will now be spent on the basis of need rather than colour, all racist legislation restricting the mobility of workers in the industry has been removed and the industry together with government and the unions are embarking on a programme of training and re-training of workers and reassessing the system of job categorisation.

However, changing the racially-skewed ownership patterns of the industry will be a slow process. There are major limitations to new entrants in the industry other than via the purchase of an existing mining company. This is due to the fact that, unlike most of the rest of the world, in South Africa mineral rights are predominantly privately owned over the most prospective mineral terrains, generally by the large white mining houses. The new democratic government of national unity is committed to exploring ways of easing up access to mineral rights for both new domestic investors and foreign investors.

Employment

Direct employment in mining peaked in 1986 at 833,000 workers. Since then it has steadily fallen to about 600,000 in 1994. Most of the losses were in the gold mining industry which employed 390,000 workers in 1993. However, in the face of these huge retrenchments the principal union, the National Union of Mineworkers (NUM), was able to steadily increase its influence and membership by unionising a greater proportion of the workforce from about 200,000 in 1986 to 311,000 in 1994.



Mining in South Africa is particularly dangerous due to both to the lack of workers rights and the depth of the mines resulting in frequent deadly rock bursts. On average about 600 miners are killed each year and about 8,000 are disabled. Since the turn of the century roughly 70,000 workers have died on the mines and an unknown number have perished off the mines as a result of their mining work, mainly from lung diseases. It has been reliably estimated that a worker who spends twenty years on South Africa's mines will have a 1 in 30 chance of being killed and an astonishing 1 in 2 chance of being disabled.

The general tendency in the formal mining sector will be towards an increase in mineral production per worker across the industry due to greater mechanisation and improved work practices, particularly in a post-apartheid situation. This will cause a shrinkage of the labour

The level of tariff protection received by Sasol synfuel production and Mossgas should be reviewed. The current formula used in respect of Sasol has enabled Sasol shareholders to benefit unfairly. A commission should be established forthwith to determine an appropriate level of tariff protection for these two operations. One option could be for funds from the levy only to be made available as debt or further state equity (possibly through the IDC) with a possible subsidy on the interest rate, in lieu of tariff protection.

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The current regulatory regime for the retail sector should continue to be the subject of negotiations and investigations. Given the vulnerability of the retail sector in the face of changes in the industry a comprehensive social plan should be formulated to deal with adverse effects on service station workers. The oil companies retailing fuel through a service station outlet should take responsibility for the costs of such agreements, irrespective of the ownership of that station.

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- Exempting paraffin from further levies and taxes
- The widening of the petrol : diesel price differential through changes to the levels of their respective fuel levies.

POLICY

1. A separate Mining Health and Safety Act and adjoining Regulations should be drafted. The Act should guarantee mining health and safety standards and not allow self-regulating practices by individual mines.
2. The creation of a tripartite Health and Safety Committee to make considerations and recommendations on improvements to Mining Health and Safety should be promoted.
3. The mining houses should agree to have Trade Union and Association representatives on important decision-making committees to redress the historical imbalance of power prevailing in the mining industry.
4. A strategy should be developed to investigate the re-structuring of the mines inspectorate so that they may be more effective in enforcing Health and Safety Legislation.
5. The resources allocated to the inspectorate within the DMEA should be substantially increased.
6. Health and safety training must take priority position in the training programmes of the mines.
7. The practice of allowing exceptions to the regulations should be minimised.

6. In the short term a review is needed of current pricing policies and practices within Spoornet and Portnet, with a view to facilitate mineral exports.
7. The possibility of rehabilitating the port of Maputo to handle its former share of South African trade needs to be assessed as a matter of urgency, as it offers the shortest route to the coast for many minerals.
8. The status of current and planned oil and gas pipelines needs to be assessed, particularly on the advisability of making them open access facilities.

C. HUMAN RESOURCES

19. Draft Policy on Human Resource Development for the Mining Sector

INTRODUCTION

The mining sector of South Africa is one of the largest employers of the nation. Because of that pivotal economic role it entrenched deep-seated apartheid practices such as job reservation and scheduled persons provisions to uphold the supremacy of the Whites. To redress the glaring anomalies a vigorous human resource development programme is imperative.

ISSUES FOR CONSIDERATION

The present state of affairs in mining human resource development is characterised by:

- fragmented provision of training without national standardisation in the industry;
- lack of access to education and training for all as evidenced by 62% of the total formal workforce being functionally illiterate;
- negative impact on health and safety standards;
- none or little involvement of the stakeholders in development planning;
- absence of real affirmative action in managerial ranks.

Progress in human resource development requires, comprehensive national approach based on a completely reformed political and institutional dispensation. This necessitates re-ordering of training priorities with the involvement of all stakeholders.

A Presidential statement could be considered on this issue to be disseminated through the media and government machinery to give direction and time frame prescriptions on affirmative action.

POLICY

1. A more comprehensive concept of human resource development must be adopted which aims to upgrade the quality of life of the entire workforce through basic education and life skills training
2. The training responsibilities should be differentiated: Formal sector should take responsibility and costs for on-mine training cost for technical and management skills. The state has the obligation and authority to determine the pace and parameters of change in the

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MINERAL POLICIES

Introduction to Minerals Policy in South Africa

History

Mining has been important to the peoples of southern Africa for a long time. One of the oldest mines in the world is in this region at Ngwenya (Swaziland) where haemetite and specularite were mined for paint. This ancient working has been dated at more than 40,000 years old. Iron mining and smelting sites are common across the subcontinent dating from 2,000 years ago and over 4,000 gold workings have been identified dating from as far back as 1,400 years ago. There are over 500 base metal workings, particularly copper, in the region and copper mining at Phalaborwa started about 1,300 years ago and on the Copperbelt of Zambia and Zaire about 1,200 years ago. It is estimated that southern Africa was the world's largest gold producer in the 13th Century, a position it only regained this Century.

Today South Africa can broadly be defined as a minerals economy¹ with low levels of mineral fabrication in that most minerals are exported as ores, alloys or metals rather than high value intermediate or finished products. South Africa is exceptionally well-endowed with mineral resources and possesses almost all the minerals necessary for a mineral-based industrialisation strategy. Moreover the subcontinent (southern Africa) has complete mineral resource integrity. These vast mineral resources could provide the basis for sustainable industrial development by being further beneficiated into intermediate and finished products for the local, regional and overseas markets. Such a *value-added* policy would have a significant impact on forex earnings, employment, state revenue and service industries.

Although South Africa is exceptionally rich in mineral resources the vast majority of its people live in poverty. The impressive mineral wealth has not increased the life chances of the people, instead, under the racist colonial and settler regimes the fruits of mineral exploitation have gone almost exclusively to the small white sector of the population.

Cornerstone of the Economy

Since the discovery of diamonds in the Cape and the Witwatersrand gold in the Transvaal the mining industry's role changed from being the source of raw materials for the local economy to being the source of raw materials for the colonial metropolitan economies and this situation continues much the same today. This export oriented mining sector has become the cornerstone of the modern South African economy and makes a major contribution in the following crucial areas:

- 1) **Foreign exchange** (forex) earnings, about two-thirds of total exports (or about three-quarters if mineral-based exports such as iron and steel are included).
- 2) **State revenue**, usually about 13% of receipts, but recently only about 2%.
- 3) **Employment**, about 11% of all workers, directly.
- 4) **Market** for mining input industries (equipment, chemicals, etc.)
- 5) **Raw materials** source for numerous mineral-based industries (metals, chemicals, fuels, construction materials, etc.)

¹ >10% of GDP and >40% of exports.

18. Draft Policy on Minerals Transport

INTRODUCTION

Although South Africa has huge and varied mineral resources they are generally far from the coast for export. The three most important geological systems are deep in the interior. These are: the Witwatersrand (gold and uranium), the Bushveld Igneous Complex (platinum group metals, chromium, vanadium and iron), the Transvaal (manganese and iron) and to a lesser degree the Karoo (coal). Hence the bulk of South Africa's minerals need to be transported long distances to the coast which makes transport (road and rail) and port handling costs critical to their competitiveness. In addition, geographically, South Africa is far from all the main markets for its minerals, namely Europe, North America and the Pacific Rim resulting in greater seaborne costs than those of its main competitors. For example coal exports from Columbia and Indonesia are from deposits close to the coast and both countries are close to at least one of the main markets.

ISSUES FOR CONSIDERATION

- Rail transport in South Africa is the monopoly of Spoornet.
- Oil and liquid fuels pipelines are the monopoly of Petronet.
- Ports are a virtual monopoly of Portnet, except for Richards Bay Coal Terminal (RBCT) which is owned by the large coal exporters.
- Other potential coal exporters are considering the construction of a new terminal if they cannot get reasonable allocations from the RBCT.
- Small scale coal producers are forced to use more costly ports such as Durban and Maputo for exports.
- Rail costs are often related to the value of the item rather than the cost of the operation which results in a bias against beneficiated minerals.
- Before 1975 Maputo used to handle over 40% of the Transvaal's trade. This fell off with the independence of Mozambique and later Renamo/SADF sabotage of the line. The port is currently in need of major rehabilitation.

POLICY

1. The state mineral transport monopolies, Spoornet, Portnet and Petronet, need to be investigated and possibly restructured to ensure that optimum efficiencies are achieved.
2. Dedicated mineral rail lines such as Sishen-Saldana and Richards Bay, need re-assessed and if necessary, the concept expanded.
3. Private facilities such as the Richards Bay Coal Terminal must be investigated to ensure that other potential exporters are not excluded, particularly from future expansions. Small scale operators must also be catered for.
4. The feasibility constructing a second coal terminal, for exports beyond the expanded capacity of the RBCT, needs to be assessed to ensure that coal exports are never limited by rail or port capacity.
5. The practice of charging according to the value of the goods rather than the cost of the operation must cease as it limits the potential for beneficiation.

ENERGY POLICY

INTRODUCTION TO ENERGY POLICY IN SOUTH AFRICA

Background

Energy policy under apartheid was governed primarily by the desire for greater energy security. A white minority government, facing the opprobrium of the world and a United Nations led oil embargo, spent many billions of Rands on the Sasol and Mossgas synthetic petroleum fuel plants and building up a local nuclear capability through the Atomic Energy Corporation. Although these investments resulted in foreign exchange savings, South Africa still pays a premium for locally produced petroleum and nuclear fuels. The cost to the economy has been enormous and the opportunity for investment in more productive social infrastructure has been squandered.

South Africa has never become fully self-sufficient in either petroleum or nuclear fuels and in spite of international sanctions continued to import these fuels. Energy policy under apartheid government was a costly failure, if evaluated against the objective of energy self-sufficiency.

The energy sector during this period was also governed by excessive secrecy which made rational and public debate on energy policy impossible. The Petroleum Products Act (no 120 of 1977) prohibited the "publication, releasing, announcement, disclosure or conveyance to any person of information or the making of comment regarding the source, manufacture, transportation, destination, storage, consumption, quantity or stock-level of any petroleum product acquired or manufactured or being acquired or manufactured for or in the Republic." The penalties were severe, and secrecy was effectively maintained. The corollary of these secrecy provisions was an absence of state commitment to collect and publish data on the energy sector which would allow the development of rational and balanced energy policies. These restrictions were finally repealed in December 1993 and a more rational debate on energy policy is now possible.

The state is deeply involved in particular energy sub-sectors. In some respects, this is unsurprising. Energy projects typically involve huge investments. Traditionally the state has paid a crucial role in developing the infrastructure which is essential to the successful functioning of a developed economy. The scale of these investments and the period over which a reasonable return could be expected were such that private capital was generally unable or unwilling to participate. However the state has effectively controlled all aspects of the commercial energy system. The electricity industry is an effective state monopoly, as is the nuclear industry and along with the petroleum industry they are tightly regulated. It is only recently that coal prices and distribution were finally deregulated. Woodfuel is possibly the only un-regulated energy sector, although even here, a modicum of regulation exists in certain traditional tribal authorities. The effectiveness of the energy regulatory system is a legitimate area for policy investigation.

Energy use in South Africa

South African energy prices (for industry and mining) are low by international comparison (and could have been lower if more economically efficient investments had been made). South Africa has an above average energy intensity; i.e. more energy is used per unit of economic

Electrification financing

Electrification will be financed as far as possible from within the industry itself. Concessionary finance will be made available for the less viable connections.

Electrification pricing

(See the chapter on pricing.)

4. Draft Policy on Electricity Generation and Supply in Southern Africa

Introduction

Over the last three years the policy debate in the electricity sector focused on distribution, but three important developments suggest that the policy focus will soon turn to the generation and transmission sectors of the industry.

Although Eskom still has significant over capacity on the national grid it is expected that all surplus capacity will be taken up any time from 2001 onwards. Policy debate will thus essentially revolve around the question of meeting the demand for additional supply capacity but, this debate will be heavily influenced by developments in the regional and global electricity sectors.

The basic agreements to construct a Southern African power pool in the region will be signed next year. South Africa has taken the lead in establishing the power pool and the involvement of our ESI there will fundamentally influence its future development.

South Africa can not escape the global pressure to reduce the emission of green house gasses and other environmental pollutants.

Issues for consideration

It is further suggested that the policy objectives for the ESI will change, in line with the rest of national energy policy, away from self security concerns towards the three themes of equity, efficiency and environmental sustainability. Very little public policy development has been undertaken for the generation and transmission sectors. Some of the central issues that will have to be addressed are:

The *power pool* will have a fundamental effect on the regional energy economy and much public debate is required on the nature of the pool agreements and the investment programmes that will follow its establishment.

The establishment of the power pool and recent developments in the natural gas sector could require policy decisions about the desirability of *independent private generation investments* sooner than anticipated.

Clarity is required on whether the *municipal power generators* should continue to operate their stations and whether they will be allowed to expand their capacity.

- enhance the *efficiency and competitiveness* of the South African economy by providing low-cost and high quality energy inputs to industrial, mining and other sectors; and
- work towards *environmental sustainability* by addressing both short-term environmental problems, and planning for a long-term transition towards renewable sources of energy with minimum negative environmental impact.

In the South African context, these three principles encapsulate the desirable features of post-apartheid energy policy. The primary goal of democratic government will be to address the high levels of inequality which characterise both the energy sector, and the economy as a whole. At the same time, inefficiencies in the energy sector will have to be eliminated, particularly those which were shielded by the state's energy security policies, so as to maintain and enhance the comparative advantage inherent in the country's relatively cheap supplies of energy. On the other hand, the low cost of South African coal and electricity is attributable, at least in part, to the lenience of environmental controls over the various stages of the electricity generation cycle, and energy policy will therefore have to include adequate management of environmental impacts arising from energy production and use. It is likely that some of South Africa's major trading partners will increasingly impose environmental conditionality on its exports and, as a disproportionate contributor to global warming, the energy sector will come under pressure to lower emissions. In the longer-term, policy will have to address the essentially finite resource base on which the energy sector, and indeed, the whole economy, is based.

Clearly, equity, efficiency and sustainability are three goals which may necessitate direct trade-offs, but in many cases these goals tend to converge around specific policy options.

ANC Policy

The Freedom Charter of 1955 calls for all of our peoples to have access to lighting and at the the Reconstruction and Development Conference in February 1994 the ANC and its Alliance Partners adopted the following policy on energy and electrification:

1. Although energy is a basic need and a vital input into the informal sector, the vast majority of South African household and entrepreneurs depend on inferior and expensive fuels. Rural women in particular face a heavy burden collecting wood which is an inefficient and unhealthy fuel. Urban households face high costs for paraffin and gas. Coal, where it is available, is cheap but results in severe health problems, an underpaid workforce, and the failure to assess and internalize environmental cost. Although Eskom has excess generating capacity, only 36 percent of South African households have access to electricity, leaving some three million households unelectrified. Furthermore, some 19000 black schools (86 percent) and around 4000 clinics are currently without electricity. Little attention has been paid to utilise sustainable energy sources such as solar power.
2. The control of electricity distributed by the system of racially separate local government has resulted in a terribly fragmented industry currently unable to finance or sustain a large-scale electrification programme in an equitable fashion. At present there are around 430 electricity distributors and more than 1000 domestic electricity tariffs in South Africa. Rural electrification has been largely ignored for commercial white farms.
3. Past South African energy policies concentrated on achieving energy self-sufficiency at enormous cost (such as the Moss gas project), but seriously neglected the household sector. Future energy policy must concentrate on the provision of energy services to meet the basic needs of poor households, stimulate productive capacity and urgently meet the energy needs associated with community services such as schools, clinics and water supplies. Energy policies must be developed on the basis of an integration of supply-side and demand-side considerations.
4. **Energy sources.** Immediate policies to meet energy needs must include a low-smoke coal programme, improved management of natural woodlands, social forestry programmes, commercial woodlots, and support for the transport of wood from areas of surplus to areas of need. Gas and paraffin prices must be reduced through better regulation and by bringing bulk supplies closer to households.

Governance of the electricity supply industry

The governance of the ESI is performed at a number of levels. Given the need to increase the accountability of the industry this area is the most critical to achieving the national goals for the industry.

Electrification planning

All electricity distributors will participate in a national electrification planning process and will be accountable for their connection targets.

The Office of the Minister responsible for the RDP will take a lead in this process.

A performance compact for Eskom

Eskom will establish on an annual basis a five year rolling performance compact with the government covering:

- electricity prices;
- electrification targets;
- key financial indicators (e.g. foreign debt);
- quality of service; and
- environmental indicators.

Relationships between local government and the electricity distribution industry

The nature of the relationship between local government and the electricity industry will be determined by the following three principles, irrespective of whether the local authority is the owner of the distributor or not:

local authorities could have the **right to tax electricity**. If so taxation of electricity should occur independently of the setting of electricity prices. This right will be subject to broader policies on the fiscal powers of local government as determined by the Finance and Fiscal Commission;

local authorities will retain the power to **plan and prioritise the electrification programme** within their local areas; and

local authorities will have the power to **negotiate performance standards** with the local distributor (a local performance compact). Guidelines on appropriate performance indicator parameters will be set by the national electricity regulator (NER).

The National Electricity Regulator

The NER will implement government policy by issuing licences to utilities. The NER will receive adequate funding from government to perform its role.

Restructuring the Electricity Distribution Industry

The EDI will move towards achieving a national character as rapidly as possible. The preferred model is to consolidate all electricity distribution undertakings into either a single national distributor or a limited number of regional distributors, separate from local government but still under public ownership.

station). Recently, the cabinet approved AEC plans for the shutdown of the most expensive of these plants, the "enrichment" plant.

In the long-term, the AEC is hoping to establish itself as a competitive nuclear fuel supplier on the global market. There are at least two reasons why this may not happen. First, the global market is very depressed due to global oversupply and will remain so for at least the next ten years. Second, it is not clear how the AEC will be able to produce nuclear fuel once the enrichment plant has been shut. It is hoping that a new enrichment technology - called MLIS - will enable it to open a viable new enrichment plant, but this would only happen in about 2005-2010.

The AEC is also involved in research and development of many other nuclear and non-nuclear technologies, some of which may have potential for becoming high-tech products. Sales of non-nuclear products are apparently producing profits.

Policy Background

At the ANC Nuclear Policy conference in February 1994, delegates proposed that no public funds should support uranium production, that all uranium processing must be profitable, and that the economics of the uranium export market should be discussed openly. It was also recommended that the AEC's R&D activities be reviewed, specifically the MLIS programme.

Policy

1. The AEC conversion plant should be commercialised without delay. If this cannot be achieved within one year, it should be shut.
2. The Nuclear Fuel Production (NFP) division of the AEC should be shut forthwith.
3. The MLIS enrichment programme should be independently investigated for its viability. Resources allocated to this technology should not be out of proportion to this spent on other research and development programmes.
4. The inappropriate allocation of 70% of the DMEA budget to nuclear development needs to be reversed in order to reflect more accurately the RDP's development objectives.
5. The lack of transparency in the governance of the AEC, and the relations between it and the DMEA, need public exposure and discussion. In particular the governance structures of the AEC should be made more transparent.
6. The production of non-nuclear technology products should be privatised and R&D in non-nuclear technologies should be transferred to the CSIR.
7. The human resource implications of restructuring the AEC need to be investigated. Appropriate plans must be made to deal with any re-deployment, retrenchments or retraining that may be necessary. This should occur in consultation with organised labour.

10. DRAFT POLICY ON NUCLEAR ENERGY

Introduction

The Koeberg nuclear power station was built during the apartheid era to hide the military applications of the country's nuclear industry, and to ensure electricity supplies to Cape Town in the event of guerrilla warfare. Koeberg produces about 4% of Eskom's electricity, and is more expensive to operate than any other station.

Energy planning and delivery institutions

The only household energy service which receives attention under current legislation is, ironically, electricity. The Constitution, the Local Government Transition Act and the Electricity Act all contain references to the responsibility of local government's to ensure the provision of electricity to their residents. No similar references exist on the responsibility for planning and provision of other energy services, even though energy is a basic need for all people.

In addition to the legal vacuum around energy service provision there is also a serious institutional capacity problem around energy service planning and delivery. Essentially the state plays very little role in these functions, leaving them mainly to the private sector. There is a clear need to identify appropriate roles for local, provincial and central government in this regard. Whilst it would not be practical to establish new large scale public sector energy delivery structures, given that private sector actors already exist, the case for a parastatal energy planning and financing institution certainly deserves more debate.

Policy

1. Household energy policy for urban and rural areas should be informed by an Integrated Energy Planning (IEP) approach.
2. Energy policy interventions should be part of integrated urban and rural development planning frameworks.
3. The National Energy Policy Forum should co-ordinate integrated energy planning for household energy services.
4. Household energy policy should take into consideration the perspectives of women as managers of energy in the household as well as socio-economic factors affecting fuel and appliance choice. Household energy policy research must be based on an interactive process directly informed by women, their needs, interests and knowledge.
5. The long term goal for household energy policy is to connect all urban households to the electric grid. For rural households which cannot be connected to the grid Remote Area Power Supply systems (RAPS) should be considered, particularly renewable energy systems such as photovoltaics.
6. Households should pay for the energy services that they receive. The present culture of non-payment for electricity should be addressed.
7. Financing mechanisms aimed at addressing the needs of the poor should be implemented. These financing schemes must help households invest in better types of energy and more efficient appliances. Possible mechanisms include:
 - the provision of appliances by electricity utilities when new connections are made;
 - financing co-operatives; and
 - government guarantees on loans for the purchase of efficient appliances.
8. Fuelwood management and social forestry programmes must ensure the sustainable utilisation of fuelwood.
9. The feasibility of substituting bituminous (high ash) coal by low-smoke coal (LSC) must be investigated and government subsidies should be employed if this should be necessary.
- 10 Demand-side-management (DSM) interventions should accompany the electrification programme, including:
 - improvements to the thermal efficiency of dwellings;
 - solar water heating;
 - time-of-use(TOU) tariffs; and

16. Draft Policy on Energy in the Mining and Minerals Processing Industries

INTRODUCTION

The ANC policy on energy use in industry must be approached from the perspective of how effectively energy resources can be used to meet national development goals. It should be implemented within an integrated energy plan, balancing the goals of economic efficiency, environmental sustainability and social equity. Policy should be aimed at the more efficient use of energy and the substitution of more appropriate fuels.

ISSUES FOR CONSIDERATION

The mines and mineral processing sectors are important to the economy as foreign exchange earners and are the major consumer of energy, particularly electricity. Energy pricing is a vital component of policy on energy in industry. Changes in the energy price will affect the competitiveness of mineral products on the international market. In the long run South Africa cannot afford to substantially increase the price of energy. We have to guarantee a secure supply of energy at present prices, if we wish to maintain our level of exports and increase beneficiation.

Activities which will increase the efficient use of energy include:

- the development of a local energy efficiency industry ;
- the development of a local energy efficient capital equipment industry;
- research and development into the development of energy efficient capital equipment;
- the early retirement or retrofitting of old inefficient equipment and for cogeneration;
- energy audits and the development of energy efficiency plans;

POLICY

1. A stable supply of energy at the present level of prices must be secured to maintain the level of mineral exports and to increase beneficiation.
2. Special electricity supply contracts related to the prices of commodities between electricity suppliers and mining and minerals processing industries should be encouraged as these lead to increased mining and promote beneficiation. They furthermore help reduce the effects of cyclical volatility experienced by producers in the minerals industry and the state in terms of revenues.
3. In the case where an electricity supply authority is incapable of effectively providing the necessary quantity and quality of supply needed by a large industrial firm such as a large mineral beneficiation plant another utility should be allowed to provide electricity to the industry in that supply area.
4. Economic incentives and disincentives should be used to encourage the use of energy more efficiently.
5. The development of local energy efficient capital goods for the mining and minerals processing industry should be encouraged.
6. The setting of standards for machinery and equipment could ensure that new machinery installed is energy efficient and should be investigated.

production of final goods by transforming intermediate inputs, i.e. beneficiators supply inputs to fabricators to make final goods.

POLICIES TO PROMOTE BENEFICIATION

1. The local fabricator should, as far as possible, not be disadvantaged through oligopolistic pricing of inputs and South Africa's distance from alternative suppliers. They should be charged the export parity price or profit parity price (profit parity between export and domestic markets) or, even cost plus reasonable return. Beneficiation projects should be required to provide pricing structures that will at best favour the local fabricator, or are at least neutral with regard to export price structures, to qualify for capital expenditure write-off schemes or any other state incentives or support.
2. Qualification for tax concessions and finance for beneficiation projects should require advantageous domestic pricing such as export parity prices for local fabricators.
3. A small levy, payable on unbeneficiated ores which are exported, could be considered to encourage their local beneficiation. The levy levels could reduce depending on the level of beneficiation.
4. Tax breaks are often necessary to make large beneficiation projects viable due to the long lead times to earnings in the context of high inflation. Features of the current tax regime applicable to capital expenditure for gold mines in which capex tax credits may be brought forward in their entirety with a consideration for annual inflation, should be extended to cover mineral beneficiation projects, but carried forward at actual inflation rather than an arbitrary consideration. The application of these provisions to cover all ex-mine value adding processes that terminate with the production of dimensional products should be investigated.
5. The state through the Department of Trade and Industry and development finance institutions, in particular the Industrial Development Corporation, should give emphasis to supporting downstream industries able to exploit the opportunities created by the availability of competitively priced inputs from beneficiation projects.
6. The state through the Department of Finance and the Reserve Bank should take steps to lower economic and fiscal uncertainty and permit long term planning to be undertaken, crucial for projects of the magnitude of mineral beneficiation projects. By lowering the risks involved in launching beneficiation projects the returns required by providers of capital are lowered and the financing costs correspondingly reduced.

15. Draft Policy On Southern Africa Mining Sector Cooperation

INTRODUCTION

The objectives of the policy on co-operation in the minerals and mining sectors of SADC countries is to achieve an equitable, balanced and mutually beneficial regional order in the post-apartheid southern Africa.

Southern Africa has immense mineral wealth producing over 30 percent of the world's diamond, gold, platinum group minerals, vanadium, chrome, vermiculite, and cobalt and over 10 percent of the world's production of copper, manganese, asbestos, granite, uranium, and zircon.

- compulsory release of area after a defined period. For the small operator a prospecting license should be considered.
3. At the expiry of an exploration license the holder must release the area or take out a mining license or apply for a mineral retention license with a limited life, if a deposit has been identified but conditions do not permit mining.
 4. A 'One-Window' approach whereby prospectors and investors can rapidly obtain the full range of information and support necessary to implement exploration programs. In this regard relevant information should only remain confidential while the the property is ongoing exploration. As soon as activities cease the data should become available to potential new explorers.
 5. Make available to new license holders exploration data surrendered by explorers whose licenses have expired.
 6. Make available to the minerals and mining industry up-to-date geoscience and land status information through the Geological Survey Department (Geoscience Council).
 7. Automaticity of mining permission: It is essential that the explorer is guaranteed a mining license if a viable deposit is delineated.
 8. Greater transparency must be encouraged throughout the minerals and mining industry.

9. Draft Policy on Oil and Gas Exploration

Background

Offer of South African acreage for international exploration:

Cognisance has to be taken of the fact that success in bidding rounds can only be achieved if terms and condition are in line with international standards.

Off-shore oil and gas is owned by the state and, in general, there are no current problems with offshore oil and gas, other than that, by lifting ring fencing, oil transnationals operating in South Africa are privileged in comparison with those that divested during sanctions in that the latter do not have local profit centers to write exploration expenditure off against. An alternative write-off system that applies equally should be formulated. Consideration could be given to the application of the proposed mining system (see above), based on the current gold mining system.

Under the 1991 Minerals Act ownership of on-shore oil and gas, along with all other minerals, was placed with the owner of the land under which the oil and gas is found. This is an untenable position for oil and gas exploration and development and ownership should revert back to the state. Thus, the conditions for on- and off-shore oil and gas exploration, development and production should be made the same as for current off-shore conditions. For development of Coal Bed Methane (CBM) this is urgent.

Soekor

Soekor currently carries out two logically separate functions: promotion of oil and gas resources exploration and development and actual oil and gas exploration. A conflict or confusion of interests arises with this institutional arrangement. In many countries it has been found that these are better separated. In terms of ownership of the exploration and

5. To reassess ring fencing in order to encourage development of otherwise uneconomic mineral deposits. However, the removal of ring fencing should be qualified and discretionary.
6. To consider the increase of the tax deductible capital for gold mines at the rate of inflation from the year of expenditure to the year of write-off, to compensate for the effects of inflation on the cost of capital.
7. To extend the gold mining inflated capital write-off system to other mining as well as mineral beneficiation projects (rather than a re-introduction of 37E).
8. To expand the industry tax base by promoting minerals development through encouraging foreign and local investment in exploration by introducing creative minerals tax incentives that could include greater than 100% write-offs and, possibly, flow-through share schemes.
9. The economic and social impact of the above policies should be investigated to ensure that the overall goals of growing the industry's contribution to national well-being are achieved.

5. Draft Policy on Mining Industry Ownership

INTRODUCTION

In the significant control exercised by a small group of shareholders, often families, who control the major mining houses and financial institutions that dominate the South African economy there is nothing that better represents the inequalities in personal wealth and economic power that is South Africa. This central feature of the modern economy originated in the racist ownership and control patterns that grew in the diamond and later gold mining industries founded over a century ago. The major mining houses: Anglo American, Gencor, Gold Fields and Anglovaal are major players in the South African economy. In the mining houses are found a unique form of corporate structure that is often tightly bound up with a sophisticated financial service sector. Most of the major mining houses hold an extensive portfolio of industrial interests, often with its own financial institution. Control is generally exercised by pyramid structures of strategic holdings in subsidiary companies, cross holdings and interlocking directorships that tie together the majors and extend their control to all aspects of the economy.

ISSUES FOR CONSIDERATION

- It is unconscionable that racially exclusive ownership of the mining industry shall continue in a political democracy. Black ownership and participation in so central a part of the economy as the mining industry is essential for this country's development as a democracy.
- Conglomerate size in itself is not important, large well-resourced groups are necessary for South African firms to compete internationally, so size is not necessarily a problem.
- Market structures arising from conglomerate domination contain some critical problems as they result in oligopolistic markets, and contrary to examples of vigorous competition between large conglomerates in their own domestic markets such as in Korea and Japan, key product markets have become in effect dominated by single firms. What has happened in South Africa is that the conglomerates have turned to market sharing agreements through a range of collusive practices that carves up markets between themselves and results in collusion to refrain from competing in some markets in return for undisturbed operations on

- The redefinition of the DMEA regions according to geological rather than political boundaries.

POLICY

1. Affirmative action and alternative influences in the department need to be facilitated as a matter of urgency;
2. A development branch for the department needs to be investigated and specified. This should include a capacity to promote investment.
3. One-stop interdepartmental planning for health and safety and environmental regulation needs to be introduced. In addition the advisability of removing responsibility for these areas from the DMEA needs to be investigated as there could be tensions between the role of minerals development and that of maintaining health, safety and environmental standards.
4. Union representation on SIMRAC should be established as a matter of urgency.
5. A programme for upgrading the health & safety inspectorate needs to be introduced as soon as possible. In this respect conditions of employment and remuneration of the inspectorate needs to be revised.
6. The inspectorate needs to be opened up to experienced miners with significant experience but lacking the pre-requisite qualifications. This could be achieved by having different grades of inspectors for different sectors and size of mine, and by introducing a development programme for inspectors not having the necessary qualifications.
7. Mineral-specific inspectorates should be introduced in order that they specialise in their sectors, eg coal, deep-level gold, marine diamonds, etc.
8. The current budget of the department would be adequate if the allocation to the AEC were to be radically reduced. This would allow the department to increase its effectiveness in terms of both regulation and as an agent for development of the industry.
9. The role of the Minerals Bureau needs to be reassessed, and it should play a far more creative and influential role than it does at present, particularly in the formulation of minerals policy.

3. Draft Policy on Mineral Resource Management for South Africa

BACKGROUND

Mining has been important to the economies of southern Africa for the past two millenia and the minerals industry has supported South Africa's economy since its creation as a state in 1910. The focus of the minerals industry has been very much on large scale mining, primarily gold, diamonds, platinum, coal, iron ore, manganese and an assortment of other base minerals. However, it should always be borne in mind that minerals are a non-renewable resource (or a wasting asset) that must be carefully husbanded to give maximum service to the nation, including future generations.

ISSUES FOR CONSIDERATION

The country is relatively well explored and it is unlikely that new *major* deposits will be found. While iron ore, coal, the platinum group metals and chromite have a long term future, the gold mining and diamond mining industries are mature and will decline in the longer term. As these two minerals represent about two-thirds of total value, employment and contribution to the

6. Programmes to promote the use of efficient lighting technologies must be promoted.
7. Energy audits should be carried out in the industrial, mining and commercial sectors prior to investments into energy efficiency. Home rating schemes could also be carried out for households.
8. The capacity building and training requirements for the implementation of energy efficiency programmes must be investigated, with specific reference to the financing of such training and appropriate institutions to provide such training.
9. The feasibility of employing renewable energy technologies in energy efficient applications must be further researched.
10. Responsibility for promoting energy efficiency should rest with the government.

16. Draft Policy on Household Energy and the Environment

Introduction

The energy sector has many unfavourable impacts on the natural and social environments in South Africa. Most public and policy attention on the energy-environment interface has been concerned with the macro-environmental impacts of coal-based electricity generation, acid precipitation, and, increasingly, global climate change. Less attention has been given to energy-related environmental problems occurring at the *household* level where environmental conditions have the greatest effect on the quality of life of the largest number of people. Household energy-environment issues should be amongst the top priorities in the national energy-environment policy arena.

Electrification will not displace coal use in households because coal stoves are an efficient method of cooking and heating. Whilst low-smoke coals are not a solution to all environmental problems, (such as sulphur dioxide emissions), they can significantly reduce particulate emissions, which are the major health hazard. At the same time, some of the 40 million tons of coal waste produced annually can be utilised, and income-earning opportunities can be created using labour-intensive production methods. Thus, government should consider supporting a national low-smoke coal programme to facilitate the development and production of low-smoke coals in order to substitute for conventional bituminous coal use in households.

It is expected that once low-smoke coals are ready for production on a larger scale, they may require a price advantage (at least initially) to gain acceptance by consumers. Three options are:

- A *direct subsidy* for low-smoke coal producers, which would be offset by reduced health care expenditure once air quality improvements are manifested in better health.
- A *levy*, at wholesale level, on the price of conventional coal, to cross-subsidise low-smoke coal. This alternative is theoretically preferable, since it entails the internalisation of the health and environmental externalities associated with normal coal.
- In the longer-term, if and when low-smoke coal is widely available at a price which is competitive with bituminous coal, it will be possible and desirable to move towards applying existing air pollution legislation in townships to enforce smoke-free zones.
- Consider phased in legislation to prevent coal mines from selling non-low-smoke coal directly to the household sector.

3. a time of use tariff.

Domestic electricity tariff levels

A common national tariff level should be applied for each of the tariff structures listed above, insofar as the structure of the electricity supply industry permits this.

Transmission tariff

An investigation into the Eskom transmission tariff will be performed with the objective of developing policy options for its restructuring.

Taxation of electricity

Municipal electricity undertakings will move towards a system of separating the price of electricity from the taxation (or surplus) imposed on municipal tariffs.

Illuminating paraffin

Recognising that paraffin is the fuel of the poor in the short term the price of paraffin will be kept as low as possible through a variety of policy measures. In the medium term an integrated approach to pricing policy will be adopted to encourage an appropriate fuel mix.

3. DRAFT POLICY ON THE ELECTRICITY SUPPLY INDUSTRY

Introduction

Electricity is a key factor in South Africa's prospects for economic growth and in the development of our people's capabilities and quality of life. Traditionally the electricity industry has served only the interests of industry and the elite. Changes to national priorities are resulting in tensions around this industry which require national policy guidance.

Policy

Development of public policy for the electricity supply industry

Government will generate public policy on the ESI:

- on the basis of advice from the National Electricity Regulator;
- after consultation with key stakeholders via an appropriate electricity stakeholder forum.

Until a National Energy Policy Forum is established the National Electrification Forum (NELF) will advise government on appropriate policies for the ESI.

National goals for the electricity supply industry

The ESI will:

- **electrify** 2 500 000 homes by the year 2000 as set out in the RDP;
- become more **accountable** through the involvement of communities in planning processes and through the involvement of stakeholders in policy making for the sector; and
- provide a reliable and secure supply while keeping **electricity prices** as low as possible for both households and productive activities.

Although recent decisions at NELF excluded the possibility of competition in the generation of electricity in South Africa, the regional competition that will be introduced by the power pool and the existence of municipal generators (and possibly independent generators) will again raise the question of competition within South Africa.

A re-evaluation and adjustment (if necessary) of Eskom's *transmission pricing* policies to adjust to the ESI's current circumstances and objectives is required.

Independent policy research and public policy formation is required to determine the extent of interventions required to reduce particulate, NO_x, SO₂ and other *polluting emission*.

An urgent *independent* investigation into the environmental and economic viability of Koeberg's ongoing operation is required.

The following generation and supply options should be evaluated to determine policy to meet South Africa's growing electricity demand:

- Conservation and DSM
- Regional hydro-electricity
- Coal
- Nuclear
- Natural gas
- Renewables (solar thermal)

It will be difficult to determine a coherent policy framework for all these issues over the short-term but, an indication of basic principles on the rationale for dealing with the ownership issue and on issues such as the regional power pool, nuclear electricity and DSM will provide a sound basis for further policy development.

The central role that the ESI plays in the economy of South Africa and in the lives of the ANC's partners in the MDM, means that it should pursue an inclusive process with the unions and civics for policy formation on the future of the generation and transmission industry.

Policy

Generation planning should be undertaken within a national integrated energy planning framework which takes the Southern African regional situation into account. The NEPF will play a key role in setting broad policy guidelines for the IEP process.

5. DRAFT POLICY ON REGIONAL ENERGY CO-OPERATION

Policy

South Africa will play a constructive role in the region in order to build regional energy linkages as a means of stabilising and developing regional economies.

South Africa will play an active role in the development of the SADC Energy Protocol and will support and participate in regional initiatives such as the Power Pool.

5. Energy efficiency and conservation must be a cornerstone of energy policies. This will involve the adoption of least-cost planning approaches; the improvement of dwelling thermal performance; the promotion of energy-efficient appliances, the use of solar water heaters, appliance labeling, and the implementation of time-of-use electricity tariffs. Financial assistance to ensure households have access to efficient appliances will be essential. The environmental impact of different energy sources must be assessed.

6. The regulation of liquid fuels is necessary to ensure a stable, high-quality supply, stable investment and low input prices to the economy and consumers.

7. **Electricity for all.** An accelerated and sustainable electrification programme must provide access to electricity for an additional 2.5 million households by the year 2000, thereby increasing the level of access to electricity to about 72 percent of all households (double the present number). Both grid and non-grid power sources (such as solar cells and generators) must be employed. All schools and clinics must be electrified as soon as possible. Communities must be involved in the planning and execution of this programme. Micro, small and medium-sized enterprises must be given support and shown preference in the tendering process.

8. The electrification programme will cost around R12 billion with annual investments peaking at R2 billion. This must be financed from within the industry as far as possible via cross-subsidies from other electricity consumers. Where necessary the democratic government will provide concessionary finance for the electrification of poor households in remote rural areas. A national Electrification Fund, underwritten by a government guarantee, must be created to raise bulk finance from lenders and investors for electrification. Such a fund could potentially be linked to a Reconstruction Fund to be utilised for other related infrastructural financing needs. A national domestic tariff structure with low connection fees must be established to promote affordability.

9. **Energy Policy Council.** A national Energy Policy Council should be established to bring together stakeholders including the government, unions, civics, the energy industries, and consumers. This Energy Policy Council should manage the Electrification Fund and formulate energy policies.

10. Until the formation of the Energy Policy Council the National Electricity Forum must continue to work towards agreement on the restructuring of the fragmented electricity industry. To assist with this a powerful, independent, national electricity regulator must be established to enforce public policy, ensure long-term financial viability, assure environmental sustainability, and act as an ombuds in the event of conflicts between consumers, government and the electricity industry.

1. DRAFT POLICY ON ENERGY INDUSTRY GOVERNANCE

Governance objectives

Energy policy making, governance and regulatory arrangements for South Africa's energy industries will meet the following objectives:

- energy policy will be developed in an *integrated framework* which takes adequate account of national social and economic goals, desired energy end-uses, demand side management strategies, environmental concerns and the potential of all energy sub-sectors to meet demands;
- *key stakeholders* will *participate in the policy making process*; and
- stakeholders will also participate in the *supervision* of energy industries where appropriate.

The roles of policy making, supervision and regulation will be achieved by clearly identifiable and separate institutions.

output than in many other countries. Only 10 countries have higher commercial primary energy intensities. This high energy intensity is largely a result of the structure of the economy and its reliance on coal for production of electricity and liquid fuels. Both of these energy transformation processes are relatively inefficient in their conversion of energy. The country also does not employ latest developments in energy efficient technology, and government energy policy has favoured supply-side actions rather than encouraging more efficient use of energy.

Energy production and utilisation has resulted in significant environmental costs, which have also arisen because of inequitable access to fuels of choice for the majority of South Africans. Air pollution as a result of the combustion of wood and coal is of increasing concern. Recent studies have indicated serious health risks associated with poor indoor and outdoor air quality resulting primarily from coal and fuelwood combustion. Peoples' exposures to certain air pollutants have been found to be many times higher than local and international health guidelines, and epidemiological studies have observed higher incidences of respiratory and other illnesses in inhabitants of unelectrified houses. Respiratory diseases are the second highest cause of South Africa's unacceptably high infant mortality rate. Yet two thirds of South Africans remain without access to electricity in spite of large excess electricity generation capacity.

Similarly, the social costs of current energy usage patterns are enormous. The additional time spent collecting and purchasing fuels where electricity is not available or affordable, is significant, and represents the loss of time for potentially more productive activities such as farming, child-minding, education and entertainment. Women generally have the responsibility in rural areas to collect fuelwood and often spend upwards of 2 to 3 hours per trip with 2 to 4 trips per week. This represents a huge social burden. Further, the lack of high-quality lighting in the home, which is delivered most effectively by electricity, severely impedes the education process and at street-level does nothing to increase security and combat crime. Moreover, the lack of access to electricity means that millions of people are denied the convenience and improved quality of life which comes with electric appliances.

The pattern of energy investment in the apartheid era has mirrored the disparities in provision of social infrastructure with the consequence that South Africa has a highly unequal distribution of income and access to basic services. The unprecedented representation in government of the majority of South Africans will inevitably lead to greater redistributive investment and government expenditure directed more at the basic needs of the poor. Indeed this has already begun. Growing international environmental concerns and the likelihood of environmental conditionality related to foreign investment and exports, and growing local health costs associated with pollution, will mean that energy policy will also have to promote environmental sustainability. And to grow a successful economy, South Africa has to become more competitive in manufactured exports. Low energy prices will assist that objective.

New imperatives for energy policy

The context for energy policy and planning in South Africa is shifting radically. Gone are the exclusive concerns of fuel security and self sufficiency held by an apartheid government beleaguered with international sanctions. As the country moves towards widened democracy and is accepted back into the international community, energy policy will align itself with new social and economic policies aimed at reconstruction and development. Energy policy specifically will seek to:

- improve *social equity* by specifically addressing the energy requirements of the poor;

7. SADC countries are involved in energy management programmes and we should co-operate, and plan joint action with them with the aim of using energy more efficiently in the southern African region.

17. Draft Policy on Construction Materials

INTRODUCTION

The provision of housing and related infrastructure is one objective of the RDP. To meet this objective, aggregate and sand will be required in sufficient quantity and at acceptable costs. Specific policy issues or questions for this sector are set out below:

ISSUES FOR CONSIDERATION

A paradigm shift is needed for the industry to deliver materials for the projected RDP demand of 300,000 houses per annum. The quarrying industry has become more concentrated as more firms have closed down due to economic instabilities. This will require new and old quarries to be opened at the potential construction areas.

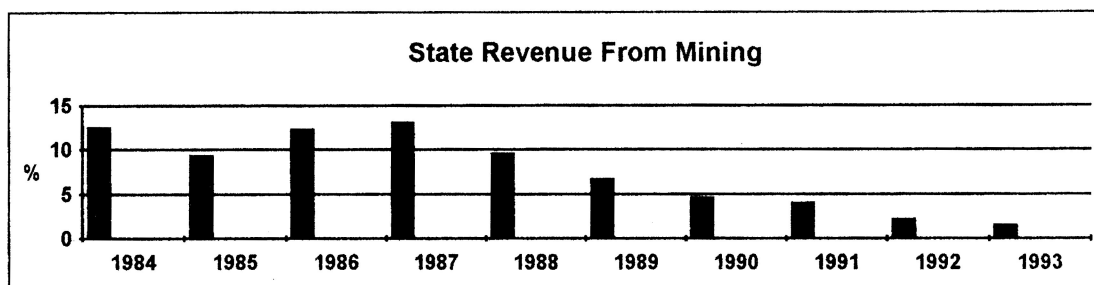
Cost effective transport for construction materials is important. This can be achieved by the optimal combination of the competitive advantages of rail and road respectively. For rail this will largely lie on its ability to transport over a longer distance quickly and effectively, especially where loading and off - loading points have rail sidings, while the flexibility of short haul road delivery lends itself to efficient distribution between depots and building areas.

While research has been done in a number of construction materials sectors, e.g. cement, policy research on aggregate and sand as leading materials for housing and infrastructural development has often been ignored and remains undeveloped. Research in the future should also include aggregate and sand.

POLICY

1. The cost of construction materials must be kept as low as possible while increasing productive output. This can be realised by encouraging strong competition policies while investigating the effects of cartels, price and market share agreements.
2. Methods must be considered for lowering barriers to entry to small and medium enterprises, including access to finance and human resource development (training).
3. Investigate the possibility of using alternative building material inputs to reduce the demand on limited traditional (large-scale) resources. In this regard the potential for SMEs in building supplies such as clay quarryies (brick and tile kilns) and lime kilns should be investigated.

In 1993, the mining industry contributed 9% of GDP (R30 billion) and during the eighties averaged 15%. In the same year mining contributed about 10% to gross national fixed investment (average 12.1% from 1980-91) and in total mineral production was about R47 billion (about 15 bn USD), about two-thirds from gold output. Unfortunately, the smelting and refining (beneficiation) of some minerals comes under mining (eg copper, nickel and tin) while for others it is grouped under manufacturing, thus it is difficult to separate mining from beneficiation and beneficiation from manufacturing. However, if beneficiated mineral-based products such as ferroalloys and steel are included, the mining industry's share of GDP and GNFI would be significantly higher (15-20% of GDP).



In 1993 mineral exports were valued at R38 billion, half of total exports of R78 billion, and 80% of mineral sales of R47 billion. On average, minerals contributed 60% of national exports in the eighties, 69% of which was gold and if certain processed mineral-based products such as ferroalloys (but not steel) are included, the mining industry's share of exports averaged two-thirds. Direct government revenue from mining was only 1.1 billion Rand in 1993, a mere 1.5% of total revenue, down from 13% in 1987 due to the crisis in gold mining. From 1980 to 1991 mining directly contributed on average 11.5% to State receipts, 80% from gold mining. From 1913 to 1990 gold mining alone contributed on average 8.3% of total government revenue, but this has recently fallen off drastically due weak mineral prices, particularly gold. However, if all the indirect taxes paid by the industry were included, such as regional taxes, employees tax, sales tax, excise, duties, mining supplier and contractors company tax and foreign shareholders dividends tax, the contribution to the fiscus would be substantially higher.

The South African economy is vertically integrated into the economies of the developed nations and almost all mineral production is exported, either in a crude form (77% of mineral sales) or in a beneficiated form (mainly ferroalloys and steel) and is not used by local industry for further transformation into finished products. Mining profits have historically provided the capital for the development of the other sectors of the economy, particularly the manufacturing sector. The mining sector is the largest earner of foreign exchange and other sectors, such as manufacturing, rely heavily on the mining industry to supply forex for their essential imported inputs, particularly capital goods. The manufacturing sector is a net forex consumer, although there are some exports of capital goods, particularly mining equipment. Although the manufacturing sector is dependent on the minerals and agricultural sector for forex, it is also limited by the primary commodity sectors as these sectors, due to their economic integration into the industrialised economies with declining terms of trade, pay relatively low wages (determined to a large degree by international commodity prices) and thus limit the domestic market for manufactured goods.

Exceptional Mineral Resources

South Africa has been blessed with an exceptional mineral resource endowment and has been aptly described as a country of "geological superlatives" and is arguably the richest geological

NOTE

This *Discussion Document* was put together at the *Minerals & Energy Policy Workshop* held in Johannesburg in November 1994 and attended by ANC delegates from HQ and all regions, ANC Parliamentarians, the ANC Minerals and Energy Group, the National Union of Mineworkers, the Chemical Workers Industrial Union, the Women Energy Group, the Land & Agriculture Policy Centre and the Minerals & Energy Policy Centre.

PARTICIPATION IS WELCOME!

This discussion document, generated by the ANC in consultation with its Alliance Partners, is open to comment and advice from all stakeholders. Suggestions, corrections and amendments are welcome and should be directed to:

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by the end of 1994.

**"The People Shall Share in
the Country's Wealth"**

(Freedom Charter 1955)

Paraffin poisoning is a relatively common incident in paraffin-using households with young children. It is one area where real improvements can be effected very rapidly.

The main areas to be addressed:

- *Education and publicity programmes* about keeping paraffin in safe containers and out of the reach of infants.
- The development of *child-resistant lids*. In the long term, *legislation* may be introduced to enforce the use of safe containers at all stages of the production and consumption cycle.

Policy

1. An integrated household energy plan must maximise environmental benefits.
2. A national programme should be established to identify the areas of major health risk resulting from energy usage by the urban and rural poor. Affected communities should be involved in these programmes which should systematically monitor the environmental effects associated with the full range of household fuel usage patterns.
3. Current efforts to develop a low-soke coal to substitute bituminous coal must be stepped up with active support in at least the following areas:
 - research and development of low smoke coal products' technical characteristics and social acceptability;
 - ensuring support and technology transfer, through training, to small-scale producers;
 - marketing assistance and facilitating access to credit for new producers.
4. The current regulatory and institutional arrangement in the area of air pollution monitoring and control operates in an unsatisfactory manner. A set of national air pollution *standards* should be established. These air quality standards may have two aspects: one which concerns the *quantities emitted* and another which is concerned with *ambient air quality*.
5. Government should establish a single *well-staffed and funded National Pollution Control Office*, situated within the *Department of Environment Affairs*, rather than its present location in the Department of National Health and Population Development, which will establish policy guidelines and co-ordinate monitoring functions so as to ensure that those resources are allocated to specific areas or regions on the basis of priority for national health and safety.

*****ENDS*****

balance of payments and other aspects of the economy, this presents a major economic and political problem for the future. Awareness of this problem and farsighted planning around the downscaling of the industry is essential. The priorities facing the industry include:

- management of the downscaling of the industry in terms of employment;
- the extension of the life of what mineral resources remain;
- the discovery of new resources through investment in exploration;
- the exploitation of known, but unexploited, mineral deposits;
- increased focus on the optimisation of mineral exploitation;
- increased incentives to add value to minerals prior to export, and disincentives for exporting unbeneficiated ores.

POLICY

1. Measures to enhance the optimal exploration and exploitation of all mineral resources need to be devised. The current legislation neither defines what is meant by optimal mining, nor has sufficient powers to enforce optimal mining practices. Incentives and disincentives need to be built into the tax and royalties regime to encourage optimal mining (at the lowest possible cut-off grades) and the optimal use of South Africa's minerals (through beneficiation before exports). In this regard consideration should be given to the extension of the gold formula tax to other mining and the imposition of a small royalty that decreased depending on the stage of beneficiation before export.
2. A national plan to address all aspects of downscaling of the industry, including the question of sustainable development to replace the declining contribution of mining to the economy and the use of infrastructure created around mining operations after cessation of mining. Such a plan should also include measures to promote the reskilling of redundant mine labour.
3. Closure planning incorporating sustainable development around mining infrastructure; redeployment of the work force; reskilling and social reconstruction should be a prerequisite for mining authorisation in much the same manner as the EMPR is in terms of environmental planning and management.
4. In respect of closure planning, a closure fund for displaced workers should also be introduced in the same fashion as mine-specific rehabilitation funds are required to be in place for mining authorisation to be granted.

4. Draft Policy on Mining taxation

INTRODUCTION

Minerals are one part of a country's natural wealth or patrimony for which users must pay rent to the 'people' or state to deplete (mine). The State derives its share of rent from the industry through both the taxation levied on the industry, as well as income from rentals on State-owned mineral rights. Such rentals are in effect what are termed *royalties* elsewhere in the world where the mineral rights belong to the state. Royalties to compensate the state for the depletion of its mineral wealth are generally calculated on the volume or value (sales) of the mineral mined. In the past South Africa had a lease tax that was imposed to this end but which was scrapped in the new Minerals Act of 1991.

Funding the RDP and other government programmes requires collecting more tax. This can be done by raising tax rates or, preferably, increasing the tax base in the following ways. First, by providing incentives that will stimulate the industry and bring new mines into production. Secondly, by encouraging the return of mineral rights to the State, revenues from rentals for access to these rights will be increased. Thirdly, by introducing a Minerals Rights Tax which would serve both to increase revenues to the fiscus, as well as encouraging exploration activity and the possibility of new mines.

ISSUES FOR CONSIDERATION

With the exception of gold mines, mines are subject to the same tax regime as other industries. Gold mines are not taxed on a flat rate, as are other mines, but are taxed on profitability, by means of the tax "formula". The tax formula for gold mines was first introduced in 1936 with a view to encouraging the mining of marginal ores at deeper levels by easing the tax burden on the less profitable mines in order to increase the profit to revenue ratios, and hence the return on investment. In doing this it introduced an element of cross-subsidisation from the more profitable mines by increasing the State's share of profits from these mines, while reducing its share from the less profitable mines.

The system of variable taxation linked to profitability has allowed the gold mines to successfully negotiate difficult periods and has given the state a reasonable share of windfall rent and differential rent. In this respect, the formula has been very successful. It is desirable that the extension of formula tax to non-gold mines be investigated as a means for stimulating the industry as well as ensuring its long term survival and for giving the state a fair share of mining rents. The taxation level must be reasonable both to promote international and domestic investments and to ensure that a fair share of the rent goes back to the State.

Mines tend to be capital intensive with very long lead times. Thus the cost of capital is a crucial element in the viability of new projects and should continue to be ameliorated through the current system of immediate write-off in the first year of operation with the balance carried over to the next and following years, but the effect of inflation on the size of the write-offs needs to be taken into account. As mineral refining and beneficiation projects also have long lead times, this system should be extended to cover their capital expenditure, rather than the old system of giving immediate negotiable tax write-offs (37E) which could severely compromise the fiscus and the RDP.

POLICY

1. To consider a Mineral Rights Tax on privately held mineral rights that could be offset against any exploration expenditure over the same area.
2. To consider the imposition of a small levy on all minerals extracted, based on the tonnage removed (depleted). Such levies should be low so as not to inordinantly raise the investment threshold and should be mineral specific. Part of the levy could be used to fund rehabilitation of past environmental damage and, possibly, mineral promotion programmes.
3. To consider the application of a small beneficiation related levy on all minerals exported, at a declining rate depending on the degree of beneficiation (zero for the export of metals).
4. To consider the extension of formula taxation to all mining (not just gold and uranium), but with mineral specific formulas.

development function a successful model internationally has been mixed ownership with private oil-companies providing capital and expertise and the state, often holding 51%, representing the interests of the people. The function for promotion of the optimum utilisation of resources should be a function of the state.

Policy

1. On-shore, ownership of gas and oil should revert back to the state, as per the situation before the 1991 Minerals Act.
2. Ring fencing for oil and gas exploration and development should not be lifted. Instead an alternative system that does not prejudice foreign investors should be investigated.
3. A stand-alone Petroleum Act should be promulgated in line with international standards and practice.
4. An independent body, linked to the DMEA, should be instituted to administer the Petroleum Act. The body should draw on substantial existing capacity at Soekor.
5. Soekor should be commercialised with mixed state and private ownership. Soekor should then be allowed to compete internationally with other exploration companies.

10. Draft Policy on Mineral Investment

INTRODUCTION

Mining and mineral processing are, on the whole, high risk and capital intensive industries which require the mobilisation of large amounts of risk capital to get projects going. South Africa can benefit from foreign investment into mineral prospects, into energy projects and into mineral processing and beneficiation projects in several important ways. Foreign investment will reduce domestic capital shortages and spread risk. Foreign direct investment (FDI) is particularly important for three reasons: mining is a global industry and specialist expertise can be brought to bear upon a prospect by international corporations; organisational and production methods and management is introduced into the local industry with potentially invigorating effects; foreign companies bring with them links to other markets and new technology. In either form, new investment into South Africa will contribute to strengthening the capital account and will contribute much needed foreign exchange arising from sales and allow for imported inputs and the repatriation of profits.

ISSUES FOR CONSIDERATION

In a world of competitive investment options, attracting investors into South Africa's mining and mineral processing industries requires addressing investor perceptions of mineral potential, risk and return. Three factors are important. First, account needs to be taken of the characteristics of mining finance in that risk levels are high, lead times to a return are frequently long and high and ongoing levels of capital investment required. Secondly, prospective investors need certainty in their ability to do business, and this can be largely assured by a well developed regulatory framework, usually referred to as a mining code. Thirdly, a country's economic and fiscal policies are critical issues upon which its relative attractiveness will be judged. Potential investors place a high premium on the maintenance of macro-economic stability, well developed infrastructure and in a consistent fiscal regime that compares favourably with other prospective investment sites.

POLICY

1. The extent to which all types of capital transfer may take place, which results in lower state revenue and reduced export earnings, should be researched and, if necessary, policy developed to address problems that may be identified.
2. The RDP calls for a Minerals Marketing Audit Office to limit transfer pricing in the export of minerals. The optimal location of such an office should be investigated.
3. All barriers to the export of South Africa's minerals, particularly beneficiated minerals, need to be identified and appropriate strategies for their removal need to be devised.
4. As a means to increase foreign exchange earnings, the issue of co-ordinated marketing of certain commodities should be carefully researched.
5. The opportunities to increase the global consumption of certain minerals and metals produced in South Africa by joint marketing and promotion efforts (e.g. The World Gold Council), and R&D should be encouraged. In this regard the funding of such efforts via a small levy on sales should be considered.

14. Draft Policy on Mineral Beneficiation and Domestic Raw Material Pricing

INTRODUCTION

Mining is a primary industry that exploits a national asset, part of the wealth of present and future generations. Through adding value or beneficiating mineral resources a country can maximise the economic rent it derives from the asset, develop its economy and stimulate economic growth from its mineral sectors. The export of unbeneficiated ores is often sub-optimal use of a wasting national asset.

A considerable amount of South Africa's mineral resources are exported as raw ores or only partially processed. South Africa has steadily improved its ratio of beneficiated to primary products exported since the 1970s, but these ratios are still well below the potential suggested by the quality and quantity of its mineral resources.

South Africa has the potential to raise the proportion of mineral output that becomes beneficiated by virtue of its large reserves, major transport advantage accruing to beneficiating close to the resource source, local skills base in engineering and related areas and most crucially, low energy costs. A number of constraints on further beneficiation efforts do exist in the form of the large scale capital requirements needed by most projects, distance to final markets for much of the output from local plants, the high cost of intermediate inputs and skills shortages in certain technical and managerial categories. The countries experience of large scale beneficiation projects has tended to be export oriented. While this has had a positive impact on export earnings, down stream value adding fabrication industries have been neglected.

Beneficiation involves processing a natural resource to transform it into a higher value product, usually an intermediate product used as an input by fabricators. Fabrication involves the

energy needs and then develop a clear time frame within which to meet these needs. We need an integrated energy plan.

A National Energy Policy Forum must be established. This body should take the lead in formulating an integrated energy planning framework and ensuring that energy planning occurs within an integrated development planning process.

Background

Integrated energy planning

The planned household electrification programme will not meet all household energy needs. First, some households will not have access to electricity for many years to come. Secondly, electricity does not provide an optimum solution to all household energy needs. It is therefore necessary, for the successful implementation of energy programmes in the RDP, to understand how households use energy and what mix of energy they use.

Socio-economic factors shape a household's energy use and energy mix. Recent experience has shown that many newly electrified homes continue to use a range of other energy carriers, such as wood for cooking, water heating and space heating. Reasons for this range from the fact that wood can usually be collected for free to the fact that it is expensive to buy new electric appliances. Also, many poor households do not earn monthly or weekly wages and consequently do not plan spending on time frames longer than a few days. Consequently fuels like paraffin, which can be bought on a daily basis, are used, resulting in a sub-optimal fuel mix. An integrated approach to energy planning for households must take into account the energy needs of the household and how best to meet these energy needs.

The involvement of women in energy planning

Community involvement in integrated energy planning for households is very important. Often women, who are the heads of households and the managers of energy in the household, are left out of this planning process. Energy provision will not be adequate unless communities are involved in the planning processes.

Fuel switching

Household environmental issues are important as they affect the quality of life of most people. (see draft policy on household energy and the environment). Fuels such as wood and coal are major health hazards due to their noxious emissions. Paraffin is also a dangerous energy source with thousands of cases of paraffin ingestion by children occurring annually. Energy policies should therefore aim to move households towards cleaner fuels as part of the integrated energy plan.

Financing schemes for poor households

As mentioned earlier, financial considerations shape the energy mix in households. Financial support and financing schemes could play an important role in assisting households to switch to cleaner and more efficient fuels. This would include financing mechanisms for investment in more efficient and cleaner types of fuels.

Information dissemination and developing local capacity

Central to the success of this approach is education and information dissemination on the efficient, healthy and safe use of energy. The development of local capacity with regard to energy training and technical skills is also important.

The apartheid regime played a very destructive role in the region. The Government of National Unity, under the leadership of the ANC, has the potential to try to correct this by enhancing South Africa's capacity to contribute to the development of the region. South Africa's capacity should not be taken for granted. There are fears that a free and democratic South Africa integrated into the region's economy could, dominate the region as well as attract resources from her relatively smaller neighbours. These fears can be partially addressed by formulating policies that will create conditions for a mutually beneficial, balanced and equitable regional growth.

South Africa has enormous capacity in mineral exploration and mining. Its mining companies have historically been dominant in the region and are in the process of repenetration since the demise of apartheid and the normalisation of relations with our neighbours.

A regional framework for the mining sector will a) make it easier for mining companies to assess and exploit the regional mining potential, b) reduce destructive competitiveness between regional governments in their search for investment capital and foreign exchange, to the detriment of the region as a whole, and c) serve as a medium for intra-regional technology transfer.

ISSUES FOR CONSIDERATION

The accession of South Africa into SADC, could give a major boost to efforts already underway to promote co-operation and integration in southern Africa. It should be stressed, however, that this will not of itself automatically resolve the problems created by the acute imbalance, inequities and domination and dependency that characterises existing regional relations. Therefore, it is imperative that South Africa's neighbours also be urged to contribute to co-operation programmes so that the region can be developed to the benefit of all concerned.

POLICY ON CO-OPERATION

1. The policies of southern African countries should be co-ordinated so that the region can benefit directly from its mineral wealth.
2. The potential for cross-border mineral processing which optimises capacity utilisation on plants and increases value-added in the region should be encouraged.
3. Regional co-operation in technology development should be facilitated through the exchange of geoscience information, technology, facilities and expertise.
4. South Africa should encourage co-operation on the development of human resources to facilitate the upgrading of the institutional capacity of southern Africa mining and geology departments at tertiary institutions, and pool resources together in the use of laboratory facilities, research centres and institutions.
5. Cooperation should be sought in the harmonisation of the minerals and related legislation in the region. In addition, through the SADC, the harmonisation of mineral related industrial and technical standards should be promoted.
6. The feasibility of creating an 'investment window' for South African outward investment into the region, currently restricted by exchange control, should be prioritised. Steps must be taken to encourage the dissemination of investment and exploration information among member countries through the creation of an investment centre.

Nuclear power stations are very dangerous to operate, can lead to catastrophic accidents (such as Chernobyl), and they produce large amounts of radioactive wastes that need to be stored for many thousands of years. At present, no country has developed a programme for the proper disposal of this waste, nor has a station the size of Koeberg been dismantled (decommissioned) yet. This implies that the environmental, technical and financial implications of waste disposal and decommissioning are not known.

Policy background

At the ANC Nuclear Policy conference in February 1994, delegates proposed that the GNU should initiate a public enquiry into environmental, social and economic costs of electricity from Koeberg and other power stations, enabling the public to make an informed choice on the matter. A call was also made for a comparison between the costs of Koeberg and those of alternative energy sources.

Policy

1. South Africa will never again undertake nuclear weapons development.
2. The full cost of electricity from Koeberg should be established, including that of decommissioning and waste disposal. A balanced public debate, facilitated by government, must be held over the desirability of continuing the operation of Koeberg.
3. Full public participation and disclosure must occur in the drawing up of strategies for Koeberg's waste disposal and decommissioning.
4. An investigation will be performed into the effect of radio-active emissions on the environment, the health and safety of workers and surrounding communities.
5. The role of the Council for Nuclear Safety should be investigated with a view to defining its functions more clearly.
6. Labour representatives will be included in nuclear safety activities.

11. DRAFT POLICY ON HOUSEHOLD ENERGY

Introduction

The approach in the RDP is that energy should be recognised as a basic need:

Past South African energy policies concentrated on achieving energy self sufficiency at enormous cost (such as the Moss gas project), but seriously neglected the household sector. Future energy policy must concentrate on the provision of energy services to meet the basic needs of poor households, stimulate productive capacity and urgently meet the energy needs associated with community services such as water supplies. Energy policies must be developed on the basis of an integration of supply-side and demand-side considerations. (RDP, par. 2.73, p. 32)

In essence, the goals of the RDP are to meet the energy needs not only of household but those of community and productive services. Clearly energy provision must be seen to be part of an integrated development approach.

The immediate priority regarding household energy is to ensure that the urban and rural poor gain wider access to adequate and affordable supplies of energy. To achieve this we need a clear understanding of how much energy should be provided to meet a household's basic

establishment of a cross-sectoral environmental monitoring agency should be investigated (as per the Alliance Mission Report).

7. Instead of the current format of rehabilitation funds, to consider the creation of mine-specific trust funds that could cover all aspects of mining impact (environment, workers and communities), managed by boards of trustees which would include all stakeholders, particularly the workers and affected communities.
8. To investigate applying a small mining levy and the value of minerals extracted, part of which should be used to repair past damage where the perpetrator cannot be identified and future damage that cannot be linked to a specific producer.
9. South Africa should endeavour to ensure that the environmental policy complies with international norms for mining.

B. MINERALS DEVELOPMENT

8. Draft Policy on Mineral Exploration

INTRODUCTION

The perceived geological potential of a country or region is the fundamental factor which may lead to minerals exploration, mining and investment. Given favourable geology and market demands, exploration and subsequent mining and associated developments will be determined and controlled by state policies and by the quality of the state infrastructures. If the policies and practices are poor, exploration and mining will suffer and not reach its potential in terms wealth and infrastructure generation.

ISSUES FOR CONSIDERATION

Exploration is a critical phase in the location and mining of minerals. The first requirement is that the investor has access to mineral terrains to carry out exploration. It is also important that state institutions are able to provide potential investors and small operators with reliable and up to date geological and mineralogical information relating to areas of potential interest. Similarly there should be easy access to other information such as legal, fiscal, environmental, health and safety requirements. All relevant information pertaining to earlier prospecting should be made readily accessible to new exploration companies and potential investors from a centralised facility, similar to the 'One Window Approach' which has been successfully adopted by many states and countries that consider exploration and mining as key parts of their economies. In doing this, however, it is also relevant to consider the role of related institutions, primarily to ensure that their activities are all clearly defined, that duplication is minimal and that each one can function as efficiently as possible. The stock of exploration data available to new investors is a key aspect in the reduction of risk in an inherently risky sector.

POLICY

1. Access to prospective mineral terrains is key to encouraging mineral exploration. This includes access to minerals beneath the surface (mineral rights) and to the surface to carry out exploration. In order to free up prospective mineral terrains for exploration a mineral rights tax should be considered that would be deductible against any exploration expenditure.
2. An exploration license should be considered to allow exploration over areas where the state holds the mineral rights. There should be annual minimum work commitments and

6. Draft Policy on Research and Development for the Minerals Industry

INTRODUCTION

Developing a research and development policy aimed at stimulating the minerals industry forms part of the bigger debate on Science and Technology Policy in South Africa. It is important that the economic importance of the minerals industry be recognised in this regard without allowing it to dominate the other areas of research. These issues need to be examined against the backdrop of the ongoing debate on the balance between applied and fundamental research.

ISSUES FOR CONSIDERATION

A number of issues exist of which the most important include:

- the relatively large number of stakeholders representing a variety of disciplines;
- the relatively large number of mineral related R & D organisations resulting in a distinct lack of coordination.
- the present approach is of an extremely fragmented nature;
- the role of the State under the system of framework autonomy is perceived as unilateral restructuring of State funding and needs revisiting;
- the role and responsibilities of University and Technikon Departments are indistinct.

POLICY

1. R & D efforts should in the short term be focused on the needs of the present main stream industry's needs, particularly health and safety. More resources should be given to the new fields such as mineral beneficiation and small scale mining.
2. State influence over state funds spent on joint R&D projects with industry should be guaranteed.
3. The system of matching grants should be considered for funding R & D projects.
4. The present structure with many uncoordinated institutes and research organisations results in a sub-optimal use of scarce resources. A mining and mineral processing R & D commission, linked to the DMEA, consisting of all stakeholders, including the unions, needs to be created to coordinate the national effort and to ensure that the R & D carried out is compatible with the overall national objectives for the industry.

7. Draft Environmental Policy for the Minerals Industry

INTRODUCTION

The issue of environmental management in the industry has in the past been largely neglected. Mines are by nature damaging to the environment, and until recently there has been little effective control over environmental management on mines. The Minerals Act of 1991 introduced, for the first time, comprehensive environmental regulation and rehabilitation. The problems faced by the State in the management of mines which closed down prior to the promulgation of this Act, primarily the old coal, asbestos and deep level gold mines, is

A. GOVERNANCE OF THE MINERALS SECTOR

1. Draft Policy on Institutional Support for Minerals and Mining

BACKGROUND

In order to promote, support and regulate minerals and mining it is essential that government institutions are competent and efficient. Exploration and mining are high risk businesses and consequently it is important that individuals and companies are confident in their dealings with state institutions and that decisions are made timeously and efficiently. If contracts are to be negotiated and investment mobilised it will be important that institutions respond rapidly and professionally.

In South Africa there has been significant white private sector involvement in the minerals and mining sector. Consequently the mining ministry has tended to take a back seat to the much more influential industries represented for example by finance and trade. Equally the functions of this ministry have become one of policing and regulating the industry and there has been little emphasis on promotion of minerals and mining. As a result government departments, and statutory bodies have tended to be looked upon as unhelpful bureaucrats who frequently became obstacles to ongoing and effective policy reform and new commercial endeavour. The private mining companies also played the role of promoters and salesmen for the industry, and although much good was done and South Africa has a highly developed large scale mining industry, very often the needs of individuals and communities, and the state were overlooked or ignored.

ISSUES FOR CONSIDERATION

A major problem of the present South African institutional system is that a considerable amount of geological data and information is locked up in company files and there is no adequate state repository of all the geological work and allied data and information, done and compiled over many years in South Africa. Equally South Africa has a series of fragmented and unrelated institutions all providing some form of minerals and mining services, in some cases with duplication of effort.

POLICY

1. A healthy balance is required between state controlled functions carried out by appropriate institutions and private sector activities. In this respect, the Mining Summit could be revived as a National Forum to give new life to the process of developing the industry with the involvement of all sectors of the community. This would facilitate the balance of interests of all stakeholders, not only the State and the private sector. However, the Summit should be broadened to include all stakeholders including communities affected by mining.
2. There should be a small number of adequately funded and equipped institutions with well defined roles, professional staff, and well defined decision making processes.

- v The Department of Health should promote social forestry in relation to nutrition programmes and raise awareness of the need for improving air quality within dwellings.
 - vi The Department of Minerals and Energy Affairs should have the responsibility for ensuring continued fiscal support for the Biomass initiative and for controlling Biomass initiative budgetary flows to implementing departments. They should also be responsible for the continued integration of Biomass initiative activities and the funding of research.
 - vii Provincial governments should ensure that integrated rural development planning is undertaken. They should prioritise areas of intervention and co-ordinate extension services.
 - viii Local governments should identify needs in specific localities and prioritise actions based on these needs. This should happen through participatory planning and implementation of projects.
3. Research should be informed by the SADC experience and include programmes on:
- participatory planning methodologies;
 - indigenous farming practices;
 - natural woodland management;
 - propagation of indigenous species;
 - assessment of bush clearing as a potential resource; and
 - the rational use and distribution of forestry wastes.

15. DRAFT POLICY ON ENERGY EFFICIENCY

Introduction

Energy efficiency programmes should be implemented in South Africa for the environmental, economic and equity benefits that flow from them. It is necessary that the government takes a clear and committed lead in encouraging energy efficiency and conservation.

Least-cost planning refers to the consideration of both the demand-side and supply-side when planning. This is done in order to arrive at optimum solutions to consumers energy service needs whilst keeping environmental impacts as low as possible. DSM is, in essence, a way of achieving a least-cost option.

Policy

1. Least-cost planning methods should be used by energy authorities.
2. Life-cycle cost analysis should be adopted when estimating the initial costs, maintenance and the running costs of appliances, equipment and buildings over their usefulness.
3. Thermal performance upgrades of dwellings need to be vigorously pursued. These should be applicable to both the existing housing stock through retrofitting and to the RDP housing programme. Thermally efficient building standards and regulations should be developed and appropriate incentives for builders should be considered.
4. Water heating forms a significant portion of domestic electricity consumption. The use of solar water heaters, efficient water heaters and various forms of demand side management systems must be encouraged.
5. Minimum efficiency standards must be established for different appliances and equipment and applied through standardised testing procedures. Life-cycle cost analysis must be used in estimating costs to be provided as part of the appliance labelling information.

6. A comprehensive support system will go a long way towards encouraging small scale operators to cooperate with the state, thereby resolving to some degree the common problem of "illegality" of mining SMEs.
7. Special attention should be given to the well-known problems of environmental degradation associated with small and micro scale mining. In this regard special rehabilitation funds covering small scale mining zones with a small levy on sales could be considered.

13. Draft Policy on Export Promotion

INTRODUCTION

South Africa is blessed with abundant minerals resources, to an extent that its economy is commonly termed a minerals-based economy. The minerals contribution to the GDP and exports reflects this dominant role. Minerals and mineral products are South Africa's largest earner of foreign exchange. The overall policy objectives are to extend the international competitiveness of this industry, to encourage minerals beneficiation as a drive to industrialisation and to reduce capital leakage particularly transfer pricing.

ISSUES FOR CONSIDERATION

- Mining involves exploitation of a wasting resource and therefore bears the implications of a limited life span. Investment in exploration and mining beneficiation is required to sustain and expand South Africa's mineral exports. Minerals exporters will need to avoid retaliatory measures from ore importers when they engage in exporting more beneficiated products.
- The export marketing efforts of certain companies may result in lower prices being realised due to competition among South Africa producers. Larger market shares may be realised through increased marketing cooperation between producers of similar products. Counteracting this tendency there is the security of supply from the consumer point of view which can be perceived to decrease when marketing coordination is introduced.
- It is commonly accepted that South Africa suffers from high levels of capital leakage. It is argued that the lack of free movement of capital into and out of a country is the cause of the resultant transfer pricing (over and under invoicing), excessive commissions, license payment and management fees and many other mechanisms to externalise funds.
- The South African minerals industry will have to measure up to international competitiveness in term of productivity and quality standards for it to expand its exports in the long term.
- The promotion of SA mineral products internationally will need to be strengthened through review of barriers to mineral exports. All measures still in place which prevent the opening up of trade should be reviewed, and foreign governments be requested to review and remove legislative and administrative restrictions imposed during the sanctions era.
- In the past many of South Africa's mineral exports were subjected to an "apartheid discount", such as coal. It is alleged that some of these discounts continue despite the fact that apartheid has been replaced by a democratic government.

MINERALS INVESTMENT POLICY

1. Measures are required to attract investors through improving the investment climate of South Africa. Such measures include access to information, finance, the freeing up of mineral terrains for exploration, the creation of a suitable tax system and many others.
2. The state's role is to gather, collate and disseminate geological and mineral information to prospective investors. The practice of withholding of exploration information on land that is not currently being explored should be prohibited and replaced by a system that requires the submission of all exploration data to the relevant state authority.
3. Mining operations should be taxed as a special category. The taxation system developed for gold mining which takes account of varying profitability and promotes optimal mining, should be extended to cover non-gold mining as well.
4. The institutional framework for the mineral sector should include the establishment of a minerals promotion body, independent from the states regulatory bodies, charged with the task of disseminating information to potential investors and facilitating exploration and investment. The deployment of mineral attaches (councillors) should be considered for key countries.
5. South Africa's well established infrastructure with regard to research and development, mining equipment and services, finance and technical skills base should be marketed to promote investment in the sector.
6. Measures to attract foreign junior resource companies (JRCs) and to stimulate the development of local flexible medium sized mining companies are required. This can in part be addressed by widening access to prospective mineral terrains.

11. Draft Policy on Mineral Rights

INTRODUCTION

South Africa is amongst the worlds richest countries in terms of mineral wealth. This wealth is a key national heritage and the property of all South Africans. Current mineral rights laws have limited the optimal development of mining and appropriate use of urban land. It is the stated view of the ANC that private mineral rights should be returned to the democratic government, as is the case in the rest of the world, including those countries which have successful mining industries and in which small and large scale mining takes place side by side. Revision of mineral rights laws, and related statutes and institutional support mechanisms, must be done in full consultation with all stakeholders. Prospectors, miners and investors must be confident that their risk finance will not be jeopardised by changes in policy, and equally that the allocation and tenure of mineral rights will be properly managed.

ISSUES FOR CONSIDERATION

Aside from the USA, South Africa and a few exceptions elsewhere for specific minerals, most countries assume public ownership of minerals. The United Nations passed various resolutions on these issues in the 1960's and most African States have adopted the approach of "Permanent Sovereignty" over their mineral resources. Importantly this does not prevent the allocation of secure title to mining rights to private parties, nor does it imply that rights cannot

- The use of differential tax levels to assist the market penetration of unleaded petrol.
- Incentives for commercial users to switch to diesel.

Environmental and health safety issues

Regulations and incentives must be provided for all players in the petroleum industry to improve their environmental performance. Post Apartheid South Africa must now use the opportunity to join international organisations and become a signatory to many international conventions which will provide access to world trends, advice and levels of appropriate standards.

The DMEA should continue to fund studies into the social and environmental impacts of the liquid fuels industry in order to obtain an independent assessment of the extent of the problems that exist.

Environmental and health and safety audits should be undertaken at regular intervals. These should be overseen by the relevant employer and trade union bodies.

Regulatory structures

Given the position of the petroleum industry as a provider of a critical strategic commodity, and given the potential for collusion and other uncompetitive practices, there is a clear need for a dedicated regulatory authority in the sector to work closely with the DMEA. Its functions would include the regulation of prices, which might change to a wholesale price cap in the future, and the management of retail sector regulation. It would also play the role of dedicated competition authority for the industry, with statutory powers to subpoena, audit, scrutinise company's books and conduct public enquiries. The regulator would also monitor transfer pricing with respect to:

- oil from parent companies to local multi-nationals;
- coal sales within Sasol;
- product sales within Sasol to its chemical production interests.

The creation of an industry level forum, consisting of all the stakeholders in the petroleum industry, is a priority. This forum should have broader membership than the LFTF.

8. Draft Policy on Natural Gas Transmission Distribution and Use

Background

The main downstream issues are arrangements regarding gas pipelines and distribution and pricing of gas. Gas pipelines require large amounts of capital investment on a long term basis. The investment is justified in terms of gaining sufficient utilisation of the pipeline: this requires stable arrangements between gas producers, large users and the pipeline administration. In immature or small gas industries the pipeline is most often in a monopoly situation. Also, large users may depend entirely on one source of gas and one pipeline to conduct their operations. Because of the monopoly situation and the dependence of users there is a strong possibility that pipeline operators can over-exploit their position once it has become operational. Ownership does not affect this possibility: experience is that private or state-owned pipelines have an equal tendency to exploit this relationship and inflate tariffs to the maximum. This has

5. A policy framework for rural energy provision must be developed by the National Energy Policy Forum and other forums to define institutional responsibilities and implementation roles. Responsible institutions must formulate strategies for the financing, pricing and implementation of rural energy programmes in co-operation with rural stakeholders, particularly with women.
6. Capacity building and training programmes should be developed for local institutions and local government in order to facilitate their participation in the planning and implementation of rural energy programmes.

13. DRAFT POLICY ON RENEWABLE ENERGY

Introduction

Renewable energy sources can be used to meet many of the energy needs of remote or rural communities where the costs of extending the electricity grid are prohibitive. Photovoltaic, stand-alone systems are well suited for South African conditions given our high levels of solar radiation. These systems have been shown to be cheaper for remote areas than other fuels such as diesel, paraffin, batteries and gas, when life cycle costs are taken into account. Renewable energy may also be economically viable when used in demand side management programmes by electricity utilities.

In general the use of renewable energy should be encouraged by government since it is a sustainable form of energy which does not harm the environment. However, these technologies are still highly priced which limits their application.

Issues for Consideration

The use of renewable energy for utility scale applications is not yet economically viable because the technology cannot yet compete economically with coal and other conventional generation systems. It is realistic to assume, however, that in the long run the price of these technologies will decrease. South Africa, through research and testing of different technologies in local conditions, should then be in a situation where it is capable of employing renewable energy technologies. Furthermore, in the very long run a policy of more realistically priced electricity and coal, i.e. a price that includes externalities like environmental degradation and health costs as a result of pollution, will make the use of renewable energy for small and large scale applications more economically attractive.

Regulations which would encourage the use of renewable energy are those that promote a cleaner environment. These would include limiting pollution and emissions and stipulating that a percentage of electricity generation should be from cleaner sources.

Policy

1. Consideration should be given to funding renewable energy research and development programs within the framework of priorities established for allocating state energy R&D expenditure.
2. The practical application of renewable energy technologies should be informed by the principle that they constitutes one element of an integrated rural development strategy.

Particular attention should be paid to the development of regional energy resources. In many cases regional initiatives may provide greater opportunities than those limited to a national basis and should be used to stimulate regional trade.

South Africa should co-operate with regional agencies to share knowledge and research and to develop resources, particularly around energy efficiency work in the region.

South Africa should promote the development of compatible regulatory and legislative frameworks governing cross border energy transfers, e.g., in electricity and natural gas.

6. DRAFT POLICY ON ENERGY RESEARCH & DEVELOPMENT

Introduction

Good policy requires good data and a good understanding of the energy system and energy end-uses. Key policy questions need to be identified and then linked to information requirements. The implication is that if energy policy formulation is to be effective, it requires a strong national institutional base to co-ordinate research, information gathering and analysis.

Policy formulation needs a sustained programme of research which analyses the requisite data, develops an understanding of the linkages between energy use and social and economic needs, evaluates supply possibilities, analyses policy options in a systematic way, and investigates the potential impact of energy policies on the economy and society.

Successful integrated national energy planning thus requires an investment in research, to develop the capacity to advance knowledge which acts as a resource for policy making. There will be a need for both short-term policy analysis to answer immediate questions and longer term policy research which deepens knowledge and understanding. The latter is best achieved in multi-year, multi-person research programmes under experienced research leadership.

Issues for consideration

The Energy Research Group (ERG), a panel of international experts brought together by the International Development Research Centre in 1983 argues that competent policy research requires, in the first instance, the establishment of professional research institutions which are, preferably, independent but supported by the government.

What distinguishes university-based research institutions from research facilities in business or government is their potential to bring greater breadth and depth of knowledge to bear on problematic issues. The quality of research often depends on researchers' experience, which accumulates from sustained application to meticulous research in an environment of peer review.

Government departments often have a use-orientated and short-term approach to knowledge. If they fund research it is usually project-oriented and neglects the basic infrastructure and management support so essential for continuity of research experience and quality. Funding research only at its marginal cost orients researchers towards a series of unrelated short-term projects and inhibits the deepening of knowledge in a systematic way. Captive research

2. DRAFT POLICY ON ENERGY PRICING

Issues for consideration

Pricing policy goals

Pricing policy for all energy carriers should accord with the broad national goals of:

- improving *social equity*, particularly by addressing energy poverty;
- enhancing the *efficiency and competitiveness* of the South African economy, through the provision of low price, high quality energy inputs to productive activities; and
- achieving *sustainability* in both the short and long term usage of our natural energy resources and the environment.

Price regulation

The broad objectives of regulation should be to achieve the national pricing policy goals. The degree of price regulation will vary according to the degree of market functionality.

Externalities

The pricing of energy carriers should move to include externalities, in particular environmental externalities which are not currently included in price build ups.

Taxation

Taxation could be used as a policy instrument to achieve the national pricing policy objectives and the state will tax energy carriers where appropriate in line with national fiscal policies.

Pricing policy

Petroleum pricing

This complex matter has to be addressed within the context of the tri-partite petroleum negotiating forum.

Electricity pricing

Domestic electricity pricing principles for grid supplies

Domestic tariffs, or user charges, will be determined on the basis of a reasonable trade-off between the principles of affordability; equity and fairness; sustainability; efficiency in the allocation of resources; transparency; price stability; and simplicity. Ultimately the principle of sustainability must be paramount, seen within the context of the overall financial situation of service providers.

Domestic electricity tariff structures

Tariffs will be structured so as to promote access for poor households, in other words connection fees will be kept low.

A number of tariff structures will be offered to households including:

1. subsidised low level tariffs for limited capacity supplies;
2. a straight line tariff (fixed c/kWh); and

- industry. Critical areas for attention are affirmative action, restructuring of the DMEA, health and safety awareness and basic adult education.
3. The promotion of small scale mining will require the provision of a range new skills. Structures to provide these need to be established.
 4. The following specific training measures should be introduced:
 - i) New training programmes should be developed with a standardised quality. A Mining Education and Training Qualifications Authority will need to be established as the national executing body.
 - ii) Job grading systems (categorisation) in the formal sector must be reviewed and standardised in order to come in line with the proposed national certification standards.
 - iii) Emphasis should be given to needs-specific vocational training through technical colleges. This must include fast track management training for the disadvantaged groups.
 - iv) Mining towns affected by downscaling and closure of the core mines should be sustained by advance training of the employees in self-help skills to enable creation of a new life in the same locality.
 - v) On-mine training capacity and programmes should be reviewed to incorporate life long skills and multi-skilling to provide flexibility in worker's career paths in preparation for downscaling of the industry.
 - vi) The Department of Minerals and Energy Affairs should be re-organised to show the correct signals for affirmative action in the industry. It must be more active in the training of its own staff, in particular the inspectorate.
 5. The state should make provision for subsidising the education and training of students in disciplines related to mining in line with educational policies for technical and vocational training. Also, the industry should bear some of the cost of this education
 6. Government ministries must exemplify affirmative action to send the right signals to the mining and other sectors.
 7. A training levy fund should be established into which employers pay a small percentage of the wage bill. Refunds for training expenditure will be paid from this fund with evidence of recognised training having been funded by the employer.
 8. Training done by NGOs should be recognised and co-ordinated among providers of education and informal skills.

20. Draft Policy on Migrant Labour and Miners' Living Conditions

BACKGROUND

The migrant mine labour system was created by the Chamber of Mines to drastically reduce wages through an employers cartel that prohibited the free sale of a worker's labour. This system later provided the theoretical basis for Grand Apartheid and the creation of the "bantustans". The migrants were recruited via a system of labour offices on contracts that guaranteed they return, repatriated their wages and blocked their movement. Once on the mines, foreign and local workers were forced to live in austere, regimented single-sex hostels, subject to strict legal and extra-legal controls. Gold mining in South Africa has been made possible by securing a supply of low-wage unskilled migrant workers drawn from all over southern Africa. In 1993, 48 percent of the mine workforce was foreign.

- Contributing to the national imperative of maintaining and creating employment
- Optimising the contribution of the industry to the fiscus
- Maintaining and promoting small business opportunities
- Guaranteeing the delivery of low cost, quality petroleum products throughout the country
- Promoting constructive labour relations

Issues for consideration

- Is the industry a strategic industry? If so, what are the implications?
- Should South Africa have a national oil company? If so, how could this be achieved?

The Central Energy Fund

The activities of the Central Energy Fund, namely exploration, licensing, production, crude procurement, stockpiling and crude trading should be separated and financial flows between the different activities should be halted. The operation of each activity should be reviewed and the new separate operations should be transparent and accountable to the state. In addition there is an urgent need to review membership of the CEF Board. In principle representatives from the organised business and labour sectors, and communities, should be considered.

Regulation of the petroleum industry

Crude procurement, refining, product wholesaling, retailing fuel transport and the synfuels industry are closely regulated and inter-linked. Before considering policies for each area general policy issues should be considered.

The petroleum sector has major impacts on the national economy. Adjustments to South Africa's regulatory framework cannot easily be made in a piecemeal manner because of the interconnectedness of the whole system. The changes to the system need to be very carefully considered and negotiated and should be subject to the following considerations:

- a more efficient industry;
- lower prices;
- no disruptions in supply, particularly to rural and poor areas;
- control of job losses and good labour relations: compensation for job losses;
- foreign exchange considerations.

Synfuels production

The synfuels industry must eventually be exposed to the same commercial and competitive environment as the rest of the petroleum industry in South Africa. It is currently the case that the production of liquid fuels from South African coal and gas has significant foreign exchange saving benefits. However, it is not obvious that these savings will in the medium to long term future justify the cost of the tariff protection needed to support Sasol and Mossgas at times of low crude prices.

One option is for Sasol's synfuel production, crude oil refining, chemicals and mining activities to be unbundled and separated so that financial flows between the operations are transparent. An institutional and financial format for independence should be agreed upon. A phased introduction of the operations, in particular Sasol Oil to the retail market should then be negotiated. Another option would be for the more profitable parts of Sasol to subsidise the less profitable parts.

The deeply entrenched migrant labour system operating on the mines has been preserved into South Africa's democratic era. The situation whereby migrant workers are subject to controls that deprive them of basic worker rights is untenable. The housing of miners in single-sex hostels violate workers basic rights to choice, privacy and family life.

POLICY

1. The practice of compulsory circulating migrant labour should be phased out and the concomitant negative effects on neighbouring countries should be ameliorated by entering into joint discussions with them.
2. South Africa should subscribe to the relevant ILO conventions on migrant labour.
3. South African miners should be granted the same rights and freedoms as all other workers in the country. Employers and foreign states shall be prohibited from treating migrant workers as a special category as they have in the past.
4. Mining companies shall have the right to hire workers from anywhere they chose, including all the countries in the region. Employment contracts for mine workers shall be identical to those for all other workers. Workers and their trade union representatives should be entitled to renegotiate their employment contracts directly with their employers and not be compelled to return home to do so.
5. The system of compulsory deferred pay shall be prohibited as this constitutes a fundamental violation of an employees right to receive and spend their earnings where and how they chose. Foreign miners shall be taxed in terms of the law governing the taxation of earnings of temporary residents.
6. Foreign miners shall have the right to be treated as any other potential immigrant to South Africa or temporary resident. Employers will be required to observe the law and protocols of immigration law in their hiring practices. All rights and benefits of a particular category of employment shall be enjoyed by foreign miners, including the right of temporary residents to bring accompanying dependants into the country. Migrants should be afforded permanent residence status or citizenship once they have worked in SA for the required period, excluding the annual end of contract breaks.
7. Existing hostels on mines should be converted into family units and into single units for miners without families. Included in the provision of family housing shall be community and education services and facilities. The process of hostel upgrading shall be monitored by representatives of the state housing authority, employers and employees.
8. Mineworkers should be granted access to end-user finance by qualifying for a mortgagee indemnity insurance scheme where they are unable to obtain a mortgage due to their low wage, lack of collateral security, or traditional form of tenure applicable in the area they wish to build. Land owned by mines should be assessed for housing needs and where found suitable, made available for low cost housing development.

21. Draft Policy on Mining Health and Safety

ISSUES FOR CONSIDERATION

The ANC should become part of the debate seeking solutions to the Health and Safety problems outlined by the Leon Commission of Inquiry into Mining Health and Safety. The ANC should actively promote the implementation of the recommendations of the Leon Commission and promote tripartite co-operation and consultation.

DISCUSSION DOCUMENT

DRAFT MINERAL & ENERGY POLICY

DISCUSSION DOCUMENT

Prepared at the
Mineral & Energy Policy Workshop
NUM Training Centre, Johannesburg, 12/13 November 1994

NOTE: This is a discussion document and not ANC Policy!

terrain in the world, excluding hydrocarbons. These resources are mainly concentrated in only six geological units, namely:

- 1) **The Witwatersrand** (2.6-2.9 Ga²): gold and uranium
- 2) **The Bushveld Igneous Complex (BIC)** (2.1 Ga): platinum group metals (Pt, Pd, Rh, Ru, Ir, Os), chromium, vanadium, iron and titanium (not produced).
- 3) **The Transvaal (Griqualand West)** (2.4 Ga): manganese and iron.
- 4) **The Karoo** (0.18-0.25 Ga): coal and uranium (not mined)
- 5) **Kimberlite pipes** (intrusive, various ages): diamonds
- 6) **Coastal Sands** (recent): titanium, pig iron, zircon and silica.

The following table gives South Africa's position in world mineral reserves. For six major minerals South Africa has the world's largest reserves, namely, manganese, the platinum group metals (PGMs), chromium, vanadium, gold and alumino-silicates. For another six minerals, South African reserves rank in the top four. In addition, South Africa has vast reserves for many other minerals such as iron ore, coal and base metals.

South Africa: ROLE IN WORLD MINERAL RESERVES				
Mineral	Reserves	%West	%World	Rank*
Manganese (metal)	4.0 Gt	90	82	1
Platinum Group Metals	30.2 kt	85	78	1
Chromium (ore)	2.4 Gt	58	56	1
Vanadium (metal)	7.8 Mt	64	47	1
Gold (metal)	20.0 kt	53	44	1
Alumino-silicates (ore)	51.6 Mt	47	37	1
Diamonds	360.0 Mcts	27	24	2
Zirconium (metal)	6.9 Mt	16	14	2
Uranium (metal)	317.0 kt	13	N/A	3 or 4
Fluorspar (CaF ₂)	32.0 Mt	30	11	3
Titanium (metal)	31.1 Mt	12	11	4
Coal (recoverable)	58.4 Gt	20	10	4
Nickel (metal)	11.4 Mt	12	10	6

In general the mineral potential has been realised and mineral production reflects mineral reserves. By far the most important mineral in terms of value is gold. This is followed by coal, platinum, diamonds, iron ore and copper. However many of these minerals are beneficiated before export in which case the order would be gold, iron and steel, PGMs (and byproducts), coal and ferro-alloys. In terms of global output the minerals for which South Africa's share is greater than one-fifth are: platinum (67%), rhodium (63%), vanadium (50%), chromium (38%), palladium (31%), gold (28%) and titanium (22%).

In the past, the exploitation of South Africa's vast mineral resources predominantly went to the betterment of the small white minority. Within the mining industry, black South Africans were limited by a plethora of racist legislation (job reservation). A black South African could not even become a miner until a few years ago. In addition, the surplus generated from mining went to the whites-only mining companies as black entrepreneurs had been excluded from mining since the discovery diamonds in Kimberly in the 1860's. Today there is not a single black mining company and the industry is dominated by four large mining houses that account for well over three-quarters of mineral production. These are Anglo-American, Gencor, Gold

² Ga: billions of years ago.

force which will be aggravated by the gradual downscaling of gold mining. However, there could be some employment growth over the same period if predictions for world platinum demand are fulfilled. Employment for other minerals is likely to remain constant with growth in volumes being offset by increases in productivity. The only other area with significant employment potential, would be the micro, small and medium scale mining sector, but this would require a change in the mineral rights system and a major commitment on the part of the state to supporting such a programme.

ANC Policies

ANC mineral policy is centered on the Freedom Charter of 1955 which states that:

***"The People shall share in the country's wealth", and that
"The mineral wealth beneath the soil ... shall be transferred to the people as a whole."***

This was amplified at the ***Ready to Govern*** Conference in 1992 which stated:

"The mineral wealth beneath the soil is the national heritage of all South Africans, including future generations. As a diminishing resource it should be used with due regard to socio-economic needs and environmental conservation. The ANC will, in consultation with unions and employers, introduce a mining strategy which will involve the introduction of a new system of taxation, financing, mineral rights and leasing. The strategy will require the normalisation of miners' living and working conditions, with full trade union rights and an end to private security forces on the mines. In addition, the strategy will, where appropriate, involve public ownership and joint ventures. Policies will be developed to integrate the mining industry with other sectors of the economy by encouraging mineral beneficiation and the creation of a world class mining and mineral processing capital goods industry."

The key policy themes are firstly that minerals in the ground are part of the nation's wealth, that workers and the nation should get their fair share of the wealth generated and that minerals mined are integrated into the rest of the economy through further processing (beneficiation) before export.

The ANC's minerals policy was significantly further developed at the ***Reconstruction and Development Programme*** Conference in February 1994, together with the Alliance Partners, which adopted the following 14 policy points:

- 1) South Africa is one of the world's richest countries in terms of minerals. Up to now, however, this enormous wealth has only been used for the benefit of the tiny white minority.
- 2) The minerals in the ground belong to all South Africans, including future generations. Moreover, the current system of mineral rights prevents the optimal development of mining and the appropriate use of urban land. We seek the return of private mineral rights to the democratic government, in line with the rest of the world. This must be done in full consultation with all stakeholders.
- 3) Our principal objective is to transform mining and mineral-processing industries to serve all of our people. We can achieve this goal through a variety of government interventions, incentives and disincentives. Estimates suggest that the establishment of a government minerals marketing auditors' office and the national marketing of certain minerals would enable South Africa to realize greater foreign-exchange earnings. The management and marketing of our minerals exports must be examined together with employers, unions and the government to ensure maximum benefits for our country.
- 4) Minerals and mineral products are our most important source of foreign exchange and the success of our RDP will in part depend on the ability of this sector to expand exports to avoid balance of payments constraints in the short to medium term.
- 5) Mining and minerals products contribute three-quarters of our exports and the industry employs three-quarters of a million workers, but this could be much higher if our raw materials were processed into intermediate and finished products before export. Our RDP must attempt to increase the level of

- efficient lighting.
- 11 Supply authorities and communities should be encouraged to set up community energy centres to educate consumers and promote safe, economical energy practices.
 - 12 The possibility of establishing a national energy planning and financing organisation should be researched and debated.

12. DRAFT POLICY ON RURAL ENERGY

Introduction

The rural areas of South Africa, housing about 40 per cent of the population, bear the worst legacy of apartheid repression and neglect. Practically all poor people in rural areas depend on fuel wood for their cooking and heating energy needs. Candles, paraffin and gas are used to a limited extent. With the exception of commercial farmers, and some farm worker houses, few rural dwellers have access to electricity. Although wood is often collected free of charge its use comes at a tremendous cost. The burden of collecting firewood falls mainly on woman, who have to make an average of 3 trips per week, each lasting about 2 to 3 hours. Recent research indicates that the air pollution caused by wood fires exposes rural dwellers to risks of respiratory illness. A further problem is the alarmingly high rate of infant mortality and injury caused by paraffin ingestion and burns.

Energy is required for a wide range of household, communal and productive activities such as food preparation, space heating, lighting, the operation of electronic media, the provision of services (water, health care & education), and agricultural and other productive activities. The intimate involvement of energy in the provision of community services and in productive activities implies that planning for energy provision cannot be undertaken on its own, but has to be co-ordinated with other development planning. The complexity of rural development needs requires local communities to be given a high level of control over the planning and implementation of their development.

Policy

1. Essential electricity services should be provided to support health care, education, income generation and urban-rural integration. A government funding programme for the systematic electrification of clinics and rural institutions should be established.
2. Further investigation is required into methods to improve coal, paraffin and gas distribution networks and improve the effectiveness of paraffin price regulation.
3. Fuelwood is likely to remain the primary source of energy in rural areas, even given widened access to alternatives such as electricity, gas and paraffin. A fuelwood security programme must ensure the sustainable utilisation of wood resources to provide cheap and renewable energy. This programme should include projects to improve woodland management, social forestry projects, woodlots and plantations projects, expanded small-grower schemes and support to small wood traders transporting wood from surplus to deficit areas.
4. Strategies to reduce the exposure of rural people to air pollution must be developed using system-oriented and gender-sensitive approaches. The prevention of child paraffin poisoning and burns must become a high priority of energy policy.

the effects of extracting and inappropriate rent and denying both the producers a fair rent and the users the advantages that gas may offer. If these parties are in different countries the problems are exacerbated. An additional problem is that the pipeline may deny access to additional producers and thus prevent these resource being made available for exploitation.

Thus, policy objectives for the pipeline should be to regulate the pipeline tariff so that a fair rent is apportioned between producers and the pipeline operators and that users may experience appropriate benefits that gas availability may have to offer. In the case of large users these benefits may have considerable potential for enhancing international competitiveness in export-orientated industries. An additional objective should be to ensure that necessary access to the monopoly pipeline is facilitated where appropriate. However, these objectives should be seen against the background of attracting the scale of investment necessary for construction of the pipeline.

In terms of distribution, it needs to be acknowledged that a very wide variety of users needs to be catered for. Some very large users may want, and need, to negotiate directly with the gas producers. Other may need high value-added services, best provided by small market responsive operators.

Policy

1. Pipeline ownership is not the most important issue: regulation is. However, in many cases some state ownership of the pipeline is desirable so that the state may have the necessary access to information which an ownership stake will entitle it to. Also, the state may require an option to take up greater ownership of a privately-owned pipeline once the pipeline has paid back the investment, including a premium for the risk of the investment.
2. In advance of pipeline construction regulation should be in place to provide protection of users and producers and to provide the environment that a large international investment requires. There are numerous models which satisfy the requirements specified in the background section above. The most favourable would be **price cap regulation**. Open access provisions can be clearly stated to come into effect at the appropriate maturity of the industry. **For South Africa, timing of gas industry development is such that it is urgent that policy and regulation is finalised.**
3. Regulation of distribution should take the wide variety of needs of consumers into account. Technical and health and safety aspects should be according to international standards. Small users, such as households, should receive necessary protection against unfair pricing. However, pricing for larger users should be allowed to compete with other fuels.

9. Draft Policy on Uranium Beneficiation and the Atomic Energy Corporation

Introduction

Uranium is produced as a by-product of gold and copper mining and is processed by the Nuclear Fuels Corporation (Nufcor owned by the Chamber), which earns about R140m per year from exports. Most is exported as marginally beneficiated uranium. The Atomic Energy Corporation (AEC) operates three uranium processing plants, all of them at a loss. Collectively, these plants cost about R230m to run each year, but they generate income of only about R90-100m from sales of nuclear fuel to ESKOM (for the Koeberg nuclear power

be tradable. It does however establish that the State can charge for access to the resource and that it has a legitimate interest in the manner of its exploration and exploitation.

The international trend over the last forty years has been towards public ownership of mineral rights. This has variously been achieved through the introduction of mineral rights taxes as well as several forms of expropriation.

POLICY

1. Security and continuity of tenure for mineral exploration and mining is essential to encourage high-risk exploration and to ensure that companies marshal large sums of money to undertake mining.
2. Investors need to be assured of the right to proceed from exploration to mining provided pre-defined criteria are met.
3. Mining licenses must be of sufficient duration to make exploration and development commitments worthwhile.
4. The practice of freezing potential mineral wealth in areas of privately owned mineral rights should be discouraged. The imposition of a mineral rights tax, that would be deductible against any exploration expenditure, should be considered. If the private owner of mineral rights abandoned them to the state he/she should have first option on an exploration license over the same area, in exchange for submitting all past exploration data on the property.
5. Where the state is the holder of mineral rights, a system of licenses or rights should be introduced consisting of exploration and mining licenses with defined periods and work commitments, which will ensure a turnover of exploration properties and encourage new investors. The minimum work requirements should be substantially less than the mineral rights tax to encourage the return of privately held rights to the public domain.
6. The power to grant mineral licenses should reside with one authority and not be subject to overlapping or concurrent jurisdictions (the lack of clear rules will hinder the orderly development of mining).
7. To prevent monopolization of territory it may be necessary to limit the number of licenses that can be granted to any one company or group of related companies.
8. A suitable legal framework for small scale mining may be necessary, such as the creation of special mining zones with a high small scale mining potential.

12. Draft Policy On Small Scale Mining

INTRODUCTION

South Africa has a noticeably inactive micro and small scale mining sector principally due to the following factors:

- lack of access to mineral rights;
- lack of a comprehensive support system and an appropriate institutional and legislative framework;
- the presence of an active anti-small scale mining tradition.

Given the low capital costs and high employment potential of small scale mining, the ANC small mining policy is premised on availing access to prospective mineral terrain's to small

3. The application of renewable energy technologies within an integrated energy planning process should be evaluated by bodies such as the National Energy Policy Forum.
4. Appropriate institutions and financing mechanisms should be established to consider the use of photovoltaics for use in remote homes, schools and clinics.
5. Education and information dissemination on renewable energy should be promoted.

14. DRAFT POLICY ON FUEL WOOD

Introduction

The most important fuel for South Africans is fuel wood. The majority of people meet the major part of their energy needs through the burning of wood. Cooking, space heating, water heating and even lighting are provided by this one energy carrier. A household can cook, and heat their home at the same time using wood. It has been found that in many newly electrified areas people continue to use wood (and coal) for cooking and heating. This is generally because wood is usually collected free (coal is cheap). Also electrical appliances are expensive and it takes a long time before poor households invest in these. People, especially those in rural areas, will remain dependent on fuelwood. Even if there is an electrification project that covers all rural people, electricity will not meet all the needs of rural communities. The need is thus for an integrated approach to energy planning which is done in conjunction with rural communities, that is part of specific rural development plans and processes in different areas.

The negative aspect of wood fuel is that people, usually women, have to walk for hours every week to collect wood. There is an increasing problem of deforestation and people end up spending more hours to find the same amount of wood. The environmental consequences of deforestation are well known. Added to this, there is a negative environmental impact when burning fire wood. The major environmental concern is the health problems (usually respiratory problems) of people exposed to emissions from these open fires.

Policy

1. The recommendations from the Biomass Initiative/Plant for Life conference could be considered as a basis for policy development.
2. Regulation and Institutional Responsibilities:
 - i. Central government should be responsible for a national policy on biomass. It is imperative that government departments co-operate and that the biomass programmes should not be hindered by departmental boundaries.
 - ii. The Department of Water Affairs and Forestry should implement programmes to promote social forestry and develop stronger linkages between water and forestry. They should also commit parts of their budgets to training, extension staff for forestry and water and the setting up of nurseries and other infrastructural support.
 - iii. The Department of Agriculture should be responsible for developing programmes to ensure the integration of tree planting into farming activities. This should include plans for agroforestry, the planting of fruit trees and other multi-purpose trees by rural communities.
 - iv. The Department of Land Affairs should be responsible for sorting out issues related to the security of land tenure which will lead to more people planting trees on their land.

miners, creation of an appropriate institutional and legislative framework and the introduction of a wide ranging support system.

ISSUES FOR CONSIDERATION

The introduction of small scale mining in South Africa would achieve both political and economic objectives of the ANC. The political objective is to address the imbalances of ownership in the mining industry (empowerment of the historically disadvantaged South Africans, hence availing opportunities to own and run mining ventures to all, regardless of race or educational standard), provision of skills and the revitalisation of the entrepreneurial spirit in South Africa in particular and the southern African region in general. The economic objective is to ensure better utilisation of the mineral deposits in SA, by the exploitation of scattered, numerous, otherwise uneconomic mineral resources.

The small scale mining support system should include financial schemes, technical advice, exploration support, marketing research, R & D aid, technical, financial and managerial training, mineral processing support, organisational structures and the recommendations and monitoring of environmental issues, health and safety systems.

POLICY

1. The current mineral rights dispensation in South Africa will have to be changed if small scale mining is to be promoted. The problem of access to mineral rights could be addressed in the short term by direct negotiations with the current holders, and in the medium term by the introduction of a system which will ensure that the mineral rights revert back to the state, such as a tax.
2. A system of licences or rights with a specified time period could be immediately introduced over state held mineral rights to avoid sterilisation of our mineral resources. In addition, the creation of special mining zones, with exploration and mining regimes that are friendly to the small operator, over terrains with high small scale mining potential should be considered.
3. Further investigation could be carried out into the utilisation of old currently uneconomic mines and mine dumps by small operators who might have lower overhead costs.
4. A proper institutional framework is a prerequisite to the establishment of a viable and sustainable small scale mining sector in South Africa. The current proposal of the ANC is the establishment of the Small Mines Bureau (SMB). The SMB will play a facilitating, co-ordinating, and supporting role to the small mining enterprises, by networking with and mobilising funds from the existing government structures (DMEA, Geoscience Council, Mintek, CSIR, IDC, etc.) and the private sector. The SMB would categorise small mining ventures and recommend the appropriate level and type of support that is required. The policy on small scale mining goes beyond the narrow focus of mining as end itself and recommend that small scale mining should be used as a vehicle and nucleus around which other small manufacturing enterprises could be established. The SMB would be a structure well positioned to facilitate the establishment of these SME complexes.
5. The small scale mining support system should include financial schemes, technical advice, exploration support, marketing research, R & D aid, technical, financial and managerial training, mineral processing support, organisational structures and the recommendations and monitoring of environmental issues, health and safety systems.

3. In addition to the Department of Mineral and Energy Affairs, and the existing science councils, viz Mintek, Geosciences Council and the CSIR, state agencies should be introduced. While the DMEA has primarily a regulatory function, the role of the Agencies would be primarily promotional.

Proposed promotional agencies are:

- Research and Development Agency
- Small Mines Bureau
- Environmental Management Agency
- Human Resources Development Agency

2. Draft Policy on Governance of the South African Mining Industry

INTRODUCTION

The Governance of the mining industry involves a number of players apart from the Department of Mineral and Energy Affairs (DMEA). Other State Departments that have a primary influence on the industry are Environment, Water Affairs, Finance, Labour and many others. However, it is the DMEA which has the central role in governance. It is stated ANC policy to stimulate the mining industry through reviewing the ownership of mineral rights, encouraging foreign and local investment, and encouraging minerals beneficiation.

The DMEA has traditionally served the large scale mining industry over the last century, in which the laws have in essence not changed significantly. A revitalised mining industry will need creative new government policies, which will require a re-orientated DMEA to initiate progressive policies and catalyse change.

ISSUES FOR CONSIDERATION

The issues that arise with the DMEA are both structural and functional. The issues are:

- The racial and cultural make-up of the department is reminiscent of the previous government, and as such tends to be conservative and bureaucratic in nature;
- The DMEA has a regulatory culture as opposed to the developmental culture required to stimulate the industry;
- The unions are not represented on the board of the department's safety research programme SIMRAC;
- The quality of the inspectorate responsible health and safety and environmental regulation is unacceptably low;
- Interdepartmental communications, particularly between the DMEA and Environment and Water Affairs needs to be improved in order to decrease the potential for cross-cutting legislation;
- The department is a relatively junior department, and as such, commands an unacceptably low budget outside of the AEC allocation;
- The span of control of the department is stretched in some areas, and the reintroduction of sub-offices or commissioners offices needs to be considered in order to provide support to RDP projects.

other, unrelated markets. These oligopolies result in over-priced mineral-based inputs to the high value-added manufacturing sector making them internationally uncompetitive.

- Due to the dominance of the mining sector by a few very large conglomerates the potential of the small and medium scale mining sector has not been limited.
- Measures to increase black participation and ownership in the mining industry will require a long term approach to mobilise the necessary capital and to acquire attractive operations.
- Nationalisation is not necessarily an effective method to achieve equity and efficiency changes to the conglomerates and would divert scarce resources to compensate existing owners' constitutionally protected property rights.

POLICY

1. Measures to promote the unbundling of the conglomerates, such as a prohibition on pyramid companies, should be investigated as a matter of urgency. Three objectives shall inform the investigation on unbundling:
 - i) measures to introduce new actors to the mining and mineral processing sector;
 - ii) measures to increase competition and remove the propensity for collusion in oligopolistic markets;
 - iii) measures to encourage mining companies to focus on their core mining business in line with global tendencies to specialisation and focused business activities.
2. Investigate measures to increase black ownership and participation in the mining industry, in particular to investigate a tax regime that would facilitate employee stock ownership schemes.
3. Investigate measures to dilute control of the mining industry by a minority of shareholders and increase participation of a wider spread of citizens, through measures such as effective employee share ownership schemes and management and worker buy-outs.
4. As change of ownership materially affects the conditions of employment of the workers, workers should be consulted on change of ownership developments.
5. Foreign as well as domestic ownership patterns should be transparent to all stakeholders.
6. The State should take a constructive interventionist role in altering the patterns of ownership in the industry, and promoting Black ownership at all levels.
7. In this respect measures that could be taken could be:
 - i) The IDC could be given earmarked funding from the State to facilitate change in ownership patterns. The issue of government mining bonds could be considered to cover this expense;
 - ii) Affirmative action could be exercised in the issue of distribution of State-owned mineral rights, provided that this does not jeopardise the potential success of the exploitation programme, or compromise standards in health and safety or environmental management because of lack of funding or technical expertise.
 - iii) Black involvement should be encouraged in all aspects of mining including in minerals marketing and distribution, exploration, downstream beneficiation and fabrication.

sufficient motivation in itself to ensure that mines take responsibility for their own environmental management during the operation of the mine, and ensure that the property has been rehabilitated to the extent that it does not pose a threat to the physical environment and the community on closure.

The ANC's policy on environmental management, as expressed in its document "An introduction to ANC Environmental Policy", states that the ANC believes that all citizens, present and future, have the right to a life of well-being. In addition, the Alliance Mission document of August³ 1994 makes several recommendations on mining.

ISSUES FOR CONSIDERATION

- A balance must be struck between encouraging development and maintaining high standards of environmental management;
- The fact that private ownership of mineral rights limits the capacity of the State for environmental regulation (Alliance Mission).
- The problem of potentially cross-cutting environmental legislation and regulation introduced by different State department's and private members motions;
- The management of environmental damage caused by artisanal and small-scale mines;
- The establishment and administration of rehabilitation funds;
- The damage caused by acid mine drainage from the sulphur-rich gold and coal mines;
- The limitations of the Environmental Management Programme Reports (EMPR's) compared to the normal full Environmental Impact Assessments (EIAs), particularly in the process of generating and monitoring them.
- In future, trade barriers could be based on the environmental effects of our production methods, that do not take into consideration (cost) environmental degradation.
- The current concept of the "environment" does not adequately include the human environment, particularly the effects of mine closure on communities and workers.

POLICY

1. Mining can be very destructive to the environment. There must be a balance between the economic benefits of a mine development and the ecological damage caused. The basic principle must be that the mining companies should be responsible for the rehabilitation of a closed down mine site and attendant social costs. The 'polluter pays' principle should apply to all impacts of mining activities.
2. To transfer mineral rights to State to give it adequate basis for full regulation of the industry, including the right to refuse mining.
3. To consider the introduction of State-managed water management schemes in catchment areas affected by acid mine drainage, the costs of which could be met on a pro-rata basis determined by water quantity and quality, as is done for the SIMRAC programme.
4. To replace the EMPR system with the international EIA system which provides for broader consultation on mining environmental issues at planning and monitoring stages.
5. To educate small-scale miners on environmental management as a pre-requisite to being granted mining authorisation, and to resource them to enable them to comply with the more stringent regulations. In addition, State environmental management should be considered for areas where there is a high spatial concentration of small-scale miners.
6. To investigate the feasibility of a one-stop shop for processing mining-related environmental legislation and regulation. This should initially be done through the DMEA, but the

³ "Environment, Reconstruction and Development in the New South Africa, IDRC, 1994.

mineral beneficiation through appropriate incentives and disincentives in order to increase employment and add in value to our natural resources before export. Moreover, this policy should provide more appropriate inputs for manufacturing in South Africa.

6) Minerals are a vital input for numerous mineral-based industries. These industries, however, have difficulty in becoming internationally competitive due to the fact that the refining companies usually set higher prices for the domestic market than their export prices, a practice known as import parity pricing. A democratic government must consider mechanisms to encourage companies to sell to local industries at prices that will enhance their international competitiveness.

7) Existing tripartite structures such as the Mining Summit must be strengthened in order to facilitate national development strategies for the mining and mineral-processing industry.

8) Democratisation of the mining sector must involve new laws to build workplace democracy for miners by requiring employers to negotiate the organisation of work with their employees and their unions. Programmes must be established to allow financial participation by workers in mining companies in a meaningful way (including measures to influence the policies of financial institutions, especially insurance companies and pension funds, which hold significant stakes in the mining sector and in which our people have substantial investments). And anti-trust legislation and other measures must be implemented to permit the monitoring and appropriate control of mining, mineral processing and marketing.

9) International demand and supply patterns for metals and minerals have undergone fundamental changes in recent years that necessitate the restructuring of this major industry. In the medium term, this probably means a continued decline in the number of people employed in the mines. Up to now, the heaviest burdens associated with down-scaling have been borne by miners, one third of whom have been retrenched. The RDP must put into place mechanisms to ensure orderly down-scaling of our mines so as to minimize the suffering of workers and their families. Measures should include the reskilling and training of workers for other forms of employment.

10) Mining is a hard and dangerous job, and mineworkers labour under stressful conditions, often deep under the earth. The RDP envisages a new set of minimum standards for the mining industry that ensure fair wages and employment conditions for all workers and a health and safety system that recognises the special hazards related to mining.

11) Most mineworkers are forced to live in single-sex hostels and remit part their salaries. In future all workers must have the right to live at or near their place of work in decent accommodation and shall have full control over their after-tax salaries. In addition, the mining companies must take some responsibility for the education, training and social needs of miners and their families as an integral part of labour policy on the mines.

12) Mining can be extremely destructive of our natural environment. Our policy is to make the companies that reap the profits from mining responsible for all environmental damage. Existing legislation must be strengthened to ensure that our environment is protected. Before a new mine can be established there must be a comprehensive environmental impact study.

13) The Southern African region also has enormous mineral resources that have not been mined, due in part to the destabilisation policies pursued by the apartheid state in the last twenty years. In the spirit of mutual cooperation, the RDP should extend across our borders by using our considerable expertise in mineral exploration and exploitation to rehabilitate and develop the mineral potential of our neighbours. In this regard a special facility should be created to promote investment in the sub-continent.

14) The government must consider ways and means to encourage small-scale mining and enhance opportunities for participation by our people through support, including financial and technical aid and access to mineral rights. However, standards in respect of the environment, health, and safety and other working conditions must be maintained.

This document constituted the the basis for the formulation of the following 19 discussion points developed at the ANC and alliance partners Minerals & Energy Policy Workshop. The key themes are:

- a) Mining Sector Governance**
- b) Minerals Development**
- c) Human Resources Development**