

Sustainable Energy Briefing 8: **White Paper on the Energy Policy of the Republic of South Africa (December 1998)**

With the end of apartheid, South Africa experienced fundamental shifts resulting in significant changes in the energy policy context. The election of a new government mandated a review of existing policy, in response to democratisation. The government formally launched the energy policy white paper process in 1994, to replace the white paper on energy policy of 1986. Comprehensive implementation of the policy, adopted by parliament in 1998, remains a serious challenge.

The general approach to policy formulation has also changed. The energy white paper process thus attempted to achieve commitment from government to the following:

- To make government's approach to energy policy formulation more *transparent*;
- To build public *confidence* in the policy formulation process;
- To clarify *accountability* and organisational roles through the process of policy formulation;
- To *communicate* policy in a manner which is clear and understandable for all; and
- To *integrate* various government policy processes.

Overview

This briefing attempts to provide an overview of the White Paper (WP 1998), which runs to 95 pages, and highlight features relevant to aligning the energy sector with sustainable development. WP 1998 sets out five policy objectives, then considers what they mean for demand sectors (energy users), supply sectors and cross-cutting issues. Short-term (usually 5 years) and medium-term priorities are also provided. There are some tensions within the policy, e.g. between public benefits and commercial interests, that remain unresolved and are reflected in uneven implementation. There are a number of commitments that are in danger of being forgotten entirely. Text in the following sections is taken from the policy document itself and further commentary is confined to the concluding remarks.

Energy sector policy objectives and priorities

Objective 1 – Increase access to affordable energy

Government will promote access to affordable energy services for disadvantaged households, small businesses, small farms and community services. In pursuing this objective government acknowledges that the provision of energy services entails more than just the supply of fuels. Energy is only useful when it is affordable and sustainable, and when safe, easy-to-use, efficient appliances, consumer information and technical advice are available from service providers. In the context of the household sector it is noted that: Government supports the concept of "energisation", i.e. the widening of access to a safe and effective energy package within grasp of low-income households

Short-term policy priorities for increasing access to affordable energy services include:

- improve the delivery of household energy services, including electrification
- develop a national electrification policy, planning and financing system
- treat off-grid electrification in the same way as grid electrification
- facilitate the production and management of woodlands for rural households

Medium-term policy priorities – Increasing access to affordable energy services:

- stimulate the development of new and renewable sources of energy
- promote improved combustion techniques and appliances for fuelwood and other traditional fuels
- support the development and implementation of capacity building, education and information dissemination programmes

Objective 2 - Improving energy governance

An important feature of the energy sector during the apartheid period was excessive secrecy, which made rational and public debate on energy policy nigh impossible. To clarify the relative roles and functions of the various energy governance institutions, the operation of these institutions will become more accountable and transparent, and their membership will become more representative. Stakeholders will be consulted in the formulation and implementation of new energy policies, in order to ensure that policies are sympathetic to the needs of a wider range of stakeholder communities.

Co-ordination between government departments and the different spheres of government will be improved and government capacity will be strengthened. Not only must government increase its capacity to deal with the pressing needs of the day, but it must also improve its ability to address long-term issues, such as the development of renewable energy resources to achieve a more sustainable energy mix.

Short-term policy priorities for improving energy governance include:

- improve energy policy formulation processes
- restructure the budget of the Department of Minerals and Energy to reflect the new policy priorities
- establish suitable energy information, statistical and database systems.

Medium-term policy priorities for improving energy governance include:

- clarify the mandate and role of the various nuclear energy bodies, including the separation of governance and implementation functions by means of appropriate legislation
- establish suitable renewable energy information, statistical and database systems
- create appropriate institutional capacity to implement energy efficiency programmes

Objective 3 - Stimulating economic development

South African energy prices, particularly for industry and mining, are low by international comparison. The high-energy intensity of our economy 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 primary energy. Furthermore, industry has yet to employ recent technological developments in energy efficiency, and government energy policy has historically favoured supply-side actions, rather than encouraging more efficient use of energy. The energy sector provides crucial inputs for all forms of productive activity.

Government policy is to remove distortions and encourage energy prices to be as cost-reflective as possible. To this end prices will increasingly include quantifiable externalities¹

Whilst acknowledging the negative economic impacts on the productive sectors of the economy that arise from the taxation of energy inputs, government nonetheless faces the reality of having to balance multiple objectives for the overall social good. Energy taxation will continue to remain an option within government's fiscal policy, but will be exercised with more consideration for the economic and behavioural impacts of such policies.

Government also recognises the need to stimulate fixed investment in the energy sector, from both local and foreign sources. Government will work towards an investor-friendly climate in the energy sector through good governance, stable, transparent, regulatory regimes and other appropriate policy instruments. Government recognises the fundamental importance of pricing to the efficient operation of energy markets.

¹ Costs of energy supply and use that are externalised – borne by society at large instead of the businesses involved – include: the depletion of finite resources (a value subtracted that is not accounted); damage to health, including childhood development; health care costs incurred through exposure to pollutants; a range of environmental impacts, including air and water pollution and acidic rain.

Short-term policy priorities for stimulating economic development include:

- Encourage energy sector actors to facilitate economic empowerment,
- Develop and implement strategies to remove energy trade barriers, improve the availability of information and facilitate investment in the energy sector.
- Introduce special purpose levies to fund dedicated regulatory and energy development agencies in a transparent manner

Medium-term policy priorities for stimulating economic development include:

- Adjust electricity market structures to achieve effective forms of competition
- Promote energy efficiency in all sectors of the economy
- Develop standards and codes of practice for the correct use of renewable energy systems

Objective 4 - Managing energy-related environmental impacts

Energy production and utilisation result in significant environmental costs. Recent studies have indicated serious health risks associated with indoor and outdoor air pollution, resulting primarily from coal and fuelwood combustion. Government will promote access to basic energy services for poor households, in order to ameliorate the negative health impacts arising from the use of certain fuels and work towards the establishment and acceptance of broad national targets for the reduction of energy-related emissions harmful to the environment. To this end energy-efficiency targets will be established and programmes will be mounted to conserve energy.

Short-term policy priorities for managing energy-related environmental impacts include:

- Improve residential air quality
- Monitor the effect of electrification on the number and severity of fires caused by candles and paraffin

Medium-term policy priorities for managing energy-related environmental impacts include:

- Develop a policy on nuclear waste management
- Facilitate the monitoring, evaluation and demonstration of clean energy technologies.
- Investigate an environmental levy on energy sales to fund the development of renewable energy, energy efficiency and sustainable energy activities.

Objective 5 - Securing supply through diversity

As indicated previously, energy policy under apartheid was governed primarily by the desire for greater energy security, which in turn led to very large investments in synthetic fuels and the nuclear sector. The cost to the economy has been significant and the opportunity for investment in more productive social infrastructure has been forfeited. South Africa has never become fully self-sufficient in either petroleum or nuclear fuels. When measured against the objective of self-sufficiency, energy policy under the apartheid government was a costly failure. Government will pursue energy security by encouraging a diversity of both supply sources and primary energy carriers.

Short-term policy priorities for securing supply through diversity include:

- Actively pursue energy sector co-operation with appropriate countries and international bodies
- Stimulate energy research and development partnerships between local role players and international agencies

Medium-term policy priorities for securing supply through diversity include:

- Utilise integrated resource planning methodologies to evaluate future energy supply options
- Reappraise coal resources and support the introduction of other primary energy carriers as appropriate

Cross-Cutting Issues include

Integrated Energy Planning (IEP):

IEP entails analysing energy needs in terms of how their fulfilment will contribute towards attaining national economic and social goals. Key challenges include establishing appropriate structures and systems to carry out IEP functions, linking IEP technical functions into policy-making processes and facilitating the development of a least-cost energy system, including environmental costs. The Department will ensure that an integrated resource planning approach is adopted for large investment decisions by energy suppliers and service providers, in terms of which comprehensive evaluations of the economic, social and environmental implications of all feasible supply and demand side investments will have to be undertaken. This is an effective means of ensuring that the natural preference of utilities for large supply-side investments is compared on an equal footing with all feasible alternatives, and that their environmental costs are integrated into an economic analysis.

Energy Efficiency:

Since expenditure on energy constitutes a large portion of the country's GDP (15%), and a particularly large proportion of poor households' expenditure, it is necessary to give attention to the effective and efficient use of energy. *Government will establish energy efficiency norms and standards for commercial buildings and establish energy efficiency standards for industrial equipment. The Department will provide assistance in the formulation of fiscal and transport policies to promote energy conservation and efficiency*

Environment, health and safety:

The National Environmental Management Bill principles related to energy include: placing peoples energy needs at the forefront and serving their interests equitably; ensuring that developments in energy are socially, environmentally and economically sustainable; promoting and facilitating public participation in decision-making affecting the environment. *Government will take primary responsibility for monitoring the pollution and resource impacts of bulk energy supply.*

Concluding Remarks

A primary objective of energy policy is to ensure that demand for energy will be met, in an optimal manner and over the long term, without placing unfair or undue burdens on any sector of society, including future generations. There is much in WP 1998 that supports the initiation of a just transition to sustainable energy, but as long as the energy sector is treated as subservient to downstream activities and exempt from detailed scrutiny (e.g. through lack of legislated reporting requirements), the public benefits that could be achieved in the energy sector, through implementation of existing policy, will not be realised.

The White Paper mandates that energy prices be as "cost-reflective" as possible, but this is hindered by a view, promoted by those currently avoiding these costs, that most externalities cannot be properly quantified. The principle has been selectively invoked to reduce prices to industry – particularly energy-intensive 'contestable customers' – under the guise of ending "cross-subsidies" without addressing or even assessing the full extent of subsidies. A short-term priority to "Follow a no-regrets approach on energy-environment decisions" seems to mean that the interests of the established energy sector players and energy-intensive industry will not be constrained by environmental considerations, regardless of the eventual costs.

There has been no progress on the commitment, in the supply section, to "*ensuring that an equitable level of national resources is invested in renewable technologies, given their potential and compared to investments in other energy supply options*", even though high labour intensities are noted as an advantage of renewable energy applications. The sub-section on human resources, under cross-cutting issues, reports the demographics within the energy sector, but not the trends in employment, opportunities for job creation or employment rates for different energy technologies. This information is clearly essential to integrate the social dimension in energy planning, as should be provided for in revisions to the National Energy Bill.