Integrated Resource Plan 2010 (IRP 2)

Submission by the Free Market Foundation
11 June 2010

Having noted the approach adopted in the Integrated Resource Plan of 2009 (IRP 1), the ensuing discourse, and the 29 input parameters for consultation, there is, we respectfully submit, inadequate attention being paid to **regulatory policy**. The unstated assumption, informing most contributions to the process, is that what is required is technical expertise and forecasts in a central-planning rather than a market-based approach.

The Free Market Foundation (FMF) was founded in 1975 and is widely regarded as Africa's leading and most influential economic policy think tank. It participates at the highest international level in the production of widely recognised indices on economic and legal systems, and cross-country comparisons.

The Foundation ran a Private Sector Energy Policy Workshop in November 2009 (delegate list and report attached). We have also undertaken research on international energy policies and the cost to South Africa of power failures. Both of these are work-in-progress. Provisional working drafts (not for circulation or publication) are attached. Also attached are the following articles:

- Shed Eskom's monopoly to solve the electricity crisis
- What the hospital pricing furore and electricity blackouts have in common
- Restructuring South Africa's electric power system
- A real electricity market will rapidly end blackouts
- Should SA be totally dependent for electricity on a single government utility?

The objective of policy should be to have rules of the game that minimise the likelihood of significant surpluses and shortages, in other words, perpetual imbalances.

We obviously appreciate the importance of technical analysis, but express our concern that it is easy to assume that government policy on such matters can or should presuppose omniscience regarding not only the past and the present, but also the future. Government policy on such matters ought to reflect an appropriate degree of humility by all concerned in government, the private sector and academia. The importance of policies that produce spontaneously optimal outcomes without presupposing sufficient knowledge for optimal central planning is obvious from past failure of the central planning approach. Rolling blackouts are a conspicuous aspect of policy failure.

One of the most important benefits of functioning competitive markets is not that they achieve or aspire to equilibrium, but that they result automatically in a perpetual and expeditious tendency towards equilibrium. So-called "equilibrium" is a constantly moving and completely unpredictable target with supply matching demand. The best that can be achieved in any economy is to minimise disequilibrium.

What is lacking in the current discourse in South Africa, is sufficient attention to regulatory policies that promote optimality by means of having a functioning energy market, including competition.

All the expertise now being devoted to the IRP, including the documents in respect of each of the 29 parameters, will be harnessed if there is effective competition not only once for integrated resource planning, but continually for day-to-day planning. Paradoxically, central planning's problem is that there is too little planning. It presumes that experts have all the relevant information, which they don't, and that they can predict the future, which they can't. The best that can be done in a world of imperfect knowledge and markets is to have experts applying their expertise on a daily basis, and to have competition so that those who more commonly "get it right" prevail, and those who don't, fall by the wayside. The present approach allows for no way of establishing timeously, if ever, whose assumptions and predictions are best. It is the ultimate gamble with one of the country's most important services. Whether we get it right is essentially a matter of pure chance, whereas effective competition will allow for rapid adjustment to new information and success for those who make the best decisions regarding production, distribution and consumption.

South Africa's problem is not technical; it is not the lack of integrated resource planning, but the lack of a regulatory system that mobilises resources efficiently through competition.

It will be seen from the accompanying policy scan that South Africa is completely out of step with the rest of the world. There does not appear to be a single comparable or more advanced large country with anything like the Eskom parastatal monopoly. Most countries, and all integrated regions, have progressed to systems in which generation, transmission, distribution and energy trading have been separated. In virtually all cases there is a greater or lesser degree of competition. Entry into the European Union, for example, is conditional upon all members having free competition in services, including electricity. Transmission lines are like roads, harbours and airports providing services to multiple operators. There are sophisticated markets in which energy is traded, usually on an hourly basis, so that there is a continual tendency towards equilibrium between supply and demand, regardless of how low supply might fall or how high demand might rise.

Whilst equilibrium is probably the most important benefit of effective competition, the more popular and visible interest concerns prices. The European Union reports that energy market liberalisation resulted in "marked decreases in the price of electricity from 1996 to 1999", for example, Finland (19.6 percent), Sweden (17.6 percent), Spain (16.2 percent), Portugal (14.0 percent), France (12.7 perceny), Germany (9.6 percent).

The notorious blackout in California is more instructive by virtue of it being an exception to the rule. It is always trotted out as an example of so-called "market failure" because there is virtually no other example. Blackouts and load shedding are the norm in countries with systems comparable to South Africa's and the rare exception in countries with energy competition. This would be true even if the California experience were market-failure. As has been well documented, the blackout was in fact a consequence of price control that discouraged investment and supply and encouraged over consumption relative to supply.

During our work over the years, and our more intensive research during recent months, we have gathered a great deal of relevant data comprising facts and figures on one hand, and energy policies on the other, all of which we will make available during the IRP 2 process.

For South Africa to join the rest of the world does not require complex resource planning where the big picture gets lost in the details. Whatever attention is given to detail, it must not be allowed to occur at the expense of essential policy reform.

Short-term policy needs to acknowledge that the overwhelming bulk of required expertise is currently within or attached to Eskom. This has two implications: First, it means that the country must rely at least in the short term on how Eskom responds to the crisis. Second, it means that Eskom's experts and self-interest must not be allowed to dominate the process of policy formulation. As Minister of Energy Dipuo, Peters said, "The Department respects and acknowledges the desperate and sometimes conflicting interests of various stakeholders. It is therefore our intention to balance these varying interests and eventually emerge with a credible country plan."

The FMF organised last year's policy workshop to contribute towards the virtually total vacuum regarding long-term energy policy. Understandably, a huge amount of effort and resources have been devoted to responding to the crisis and seeking short- to medium-term palliatives. If there is no long-term policy vision, there is a danger that short-term responses will be implemented that undermine what is desirable in the long term. We therefore urge the government to include in IRP 2 scenarios for long-term policy and the adoption of immediate plans that are in harmony with it. The world's experience and global energy policy trends do not leave room for debate. The long-term objective should be a deregulated energy market. To what extent the current functions of Eskom might be privatised is not as important as ensuring that it is subjected to effective competition. The sooner a long-term road map is clarified the sooner an appropriate IRP 2 will be formulated. At the very least, as in virtually all significant countries and regions, Eskom should be unbundled with an independent system operator initially and separate entities soon thereafter owning and managing transmission, generation and distribution. The next phase in the sequencing of reform might be separate entities for different types of generation (coal, nuclear, hydro, renewable, liquid fuel).

South Africa is already contracted into regional energy trading. As far as we can establish, trading within this energy pool can occur as between South African suppliers and consumers. In other words, it does not only apply to cross-border trade. Unless we are mistaken, this may mean that the local energy market has in fact been liberalised even though none of the role-players seem (based on our enquires) to have realised this. What needs to be added now is ease of entry for Independent Power Producers (IPPs). IPPs face two significant constraints, both of which occur at considerable cost to South Africa. The first is the lack of Power Purchasing Agreements (PPAs) with Eskom as the "single buyer". The second is a regulatory obstacle, the National Energy Regulator of South Africa (Nersa).

Much could and should be said about Nersa's contribution to the crisis. A standard cliché in the discourse is that people should avoid "Eskom-bashing". In our view, the call to avoid Eskom-bashing itself implies that Eskom should be bashed, that Eskom is to blame. Without going into the complex question of whether Eskom acted correctly at all times, we make the point that the lack of supply cannot be blamed on Eskom (except to the limited extent that it might have lobbied Nersa and the government for protection against IPPs). The primary responsibility for the lack of supply in South Africa must rest either with Nersa for failing to implement government policy and its mandate to herald the introduction of significant IPP investment and competition during recent years, or with politicians if they prevented Nersa from doing so (which appears to us to be unlikely). It seems to us that Nersa has most to answer for: why did it not facilitate adequate investment in energy when South Africa's future demand was no secret and the looming crisis was inevitable?

What should be considered is a fundamental change in Nersa's mandate so that it becomes more like its counterparts in other countries and regions, namely that it is more concerned with technical, safety and environmental aspects and does not have market interference as a function.

Although the accompanying estimate of the cost of blackouts is brief, it is thorough. It is based on substantive research and reliable assumptions. The bottom line is that the 2008 energy crisis cost South Africa R120 billion, which is over a quarter of the GDP. It is estimated that this reduced the growth rate by 1-2 percent. Compounded over a generation, this means that South Africa will be half as wealthy as it would otherwise have been in 35 years and that it will take nearly twice as long to achieve targeted growth. There is an additional unquantified cost for lost investment of many kinds, from mines to residential townships. If such invisible and dynamic costs are added, the cost of blackouts in 2008 might be over R300 billion or three quarters of the GDP.

Such figures are difficult for anyone to comprehend and can probably best be understood by regarding the cost of the crisis to be the equivalent of two "six-pack" power stations, 100 percent of the housing backlog, 130 percent of the roads backlog, 25 mines, 500,000 vehicles or clothing for all South Africans for three years.

The conventional wisdom amongst technical experts is that there is no short-term solution. To economists, there is never a shortage or a surplus, only a bad price. Economic theory suggests a simple, immediate, and effective solution: raise the price to the market-clearing rate and remove barriers to entry to allow free competition among suppliers. If the price is raised sufficiently, demand will be reduced immediately where it is most flexible and therefore least harmful. Where the impact is greatest, there will be a sufficient supply with least damage. Desirable as this might be economically, it is politically unacceptable. What should be done politically is to raise the price, especially where there is flexibility of demand, as far and fast as is politically possible. The magic of the price mechanism is not just to bring about immediate parity between supply and demand, but also to attract increased supply by the most cost-effective, innovative and expeditious means allowed for by technology.

Regarding environmental concerns, something which is easily overlooked is the obvious fact that a precondition for environmentally sensitive policies is for a country to have the requisite wealth and thus technology. Given the incredible cost to the country of inadequate energy, environmental policies should not be indulged at the expense of prosperity but seen instead as a reward for achieving it.

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