# The electricity scenarios and their implications for various electricity supply industry stakeholders

Mark Pickering and Grové Steyn



MEPC & EDRC
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EDRC
ENERGY & DEVELOPMENT RESEARCH CENTRE

# Electricity Scenarios Project
# *The Electricity Scenarios and their Implications for Various Electricity Supply Industry Stakeholders*

*Mark Pickering (MEPC) & Grové Steyn (EDRC)*
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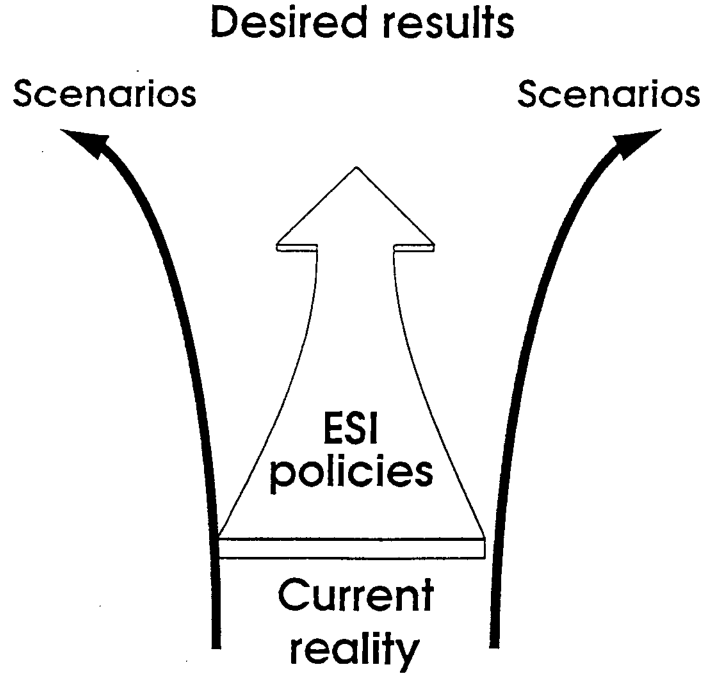
This document is based on the three scenario concepts that emerged from the electricity scenarios workshop of 6 December 1995 and subsequent refinements by the research team. The implications of the various scenarios for the electricity supply industry's various stakeholders were derived in the third and final electricity scenarios workshop, held in January 1996.

## Introduction to the three scenarios

### *Objectives of the scenario project*

The ultimate intention of this project is to make *proposals for a more appropriate system for electrification planning*. In order to do this a sense of the potential evolution of the electricity supply industry is required. Since the future of the electricity industry depends on its economic, social and political environment it is necessary to consider the *context* within which the industry will operate. This is demonstrated in the following diagram which shows how a set of policy proposals based on a set of understandings of the present reality, such as those generated by the Electricity Working Group, will have to cope with a future of increasing uncertainty:

**Figure 1** The use of scenarios in guiding policy making.



Clearly the further we gaze into the future the less certain policy thinkers can be that their policies will remain appropriate and adequate. Hence these scenarios have been designed to assist with the development of polices able to cope with a wide range of possible futures.

In developing scenarios for the context of the electricity supply industry the team have paid particular attention to trends in:

- general economic development; and
- social delivery.

In considering possible trends in social delivery the team have not only looked at the delivery of traditional public sector services, such as education, health, housing, roads, water, transport and telecommunications, but have also considered broader components of the quality of life, such as security, job creation, labour relations and social harmony.

Whilst reading this document the reader should bear in mind that although the scenarios are presented as being very distinct from each other they are not absolutist in their vision of the future. For example, a scenario about a policy of privatisation would not imply that the entire public health system would be privatised. Rather, such a scenario would posit an increasing, and perhaps dominant, role for the private sector in the provision of health care.

### *Understanding of the present*

All three of the scenarios are based on a common understanding of the present. This can be summarised as a *low faith in the ability of the current system to ensure effective and efficient social delivery.* This understanding is based on a number of factors.

Firstly, there is a sense that government has *yet to develop a clear strategy for growth and development.* Whilst the much vaunted RDP has served well as both an election platform and a unifying national vision, its actual accomplishment in terms of infrastructure delivery is clearly beyond the financial means of government within the next five years. Clear strategies will have to be developed to enable a more focused approach to the question of growth and development.

Secondly, there is a sense that *existing social delivery arrangements are unable to meet demand.* It should be noted that demand can be seen as a more complex concept than simply the number of households awaiting services or the number of unemployed looking for jobs. Demand includes the political dimension of expectations that government will achieve its social delivery promises.

Thirdly, there is a sense that *service delivery is currently happening in a sub-optimal fashion.* That is that current expenditures are not resulting in an optimally efficient allocation of society's resources. Some service sectors are over-spending, others under-spending and others mis-spending. This understanding is premised on a perspective that the maximisation of social welfare is an appropriate goal.

Related to this factor is a tension between the desire to increase the level of efficiency in the economy and the desire to increase the level of equity in society. Put simply, should the country spend money on improving services for the productive components of society to make them more productive? Or should the country plough resources into the poorest of the poor in an effort to make their lives more bearable and possibly bring them into the productive sectors of the economy? How this tension should be resolved within the context of an increasingly competitive global market is a major challenge facing policy makers.

Finally, the scenarios assume that the current situation will not continue indefinitely and that, one way or the another, *there will be changes in the dominant mode of social delivery.*

### Branching question

Since we are assuming that the social delivery system is affected by the broader context, and that the current situation is unsustainable, the branching question for the scenarios becomes...

*What will become the dominant mode of development in South Africa?*
*and how will this affect the systems for social delivery?*

The following three scenarios each sketch a very different view of the future context for social delivery. As a lead into the scenarios a summary of their key distinctions is given below.

### Defining facets of the three scenarios

The scenarios propose three future contexts for social delivery, based on very different ideas of *what will drive social and economic development.* These are essentially the classic solutions of development driven by *global markets*, development driven by *national government* and development driven at the *local level*:

**Table 1** Summary of the major scenario features.

| Diagonal Street<br><br>*Development through global competition* | Union Buildings<br><br>*Development through national delivery* | Town Hall<br><br>*Development through local integration* |
|---|---|---|
| • private sector driven<br>• market lead delivery<br>• re-regulation<br>• privatisation<br>• rapid change<br>• competition<br>• uneven development | • national government driven development<br>• centralism<br>• power drawn upwards<br>• sectoral approach to delivery<br>• national delivery targets<br>• no competition<br>• even development | • local government driven development<br>• devolution<br>• power pushed/pulled downwards<br>• local integrated approach<br>• no delivery targets<br>• possible competition<br>• uneven development |

### Assumptions about the economic context

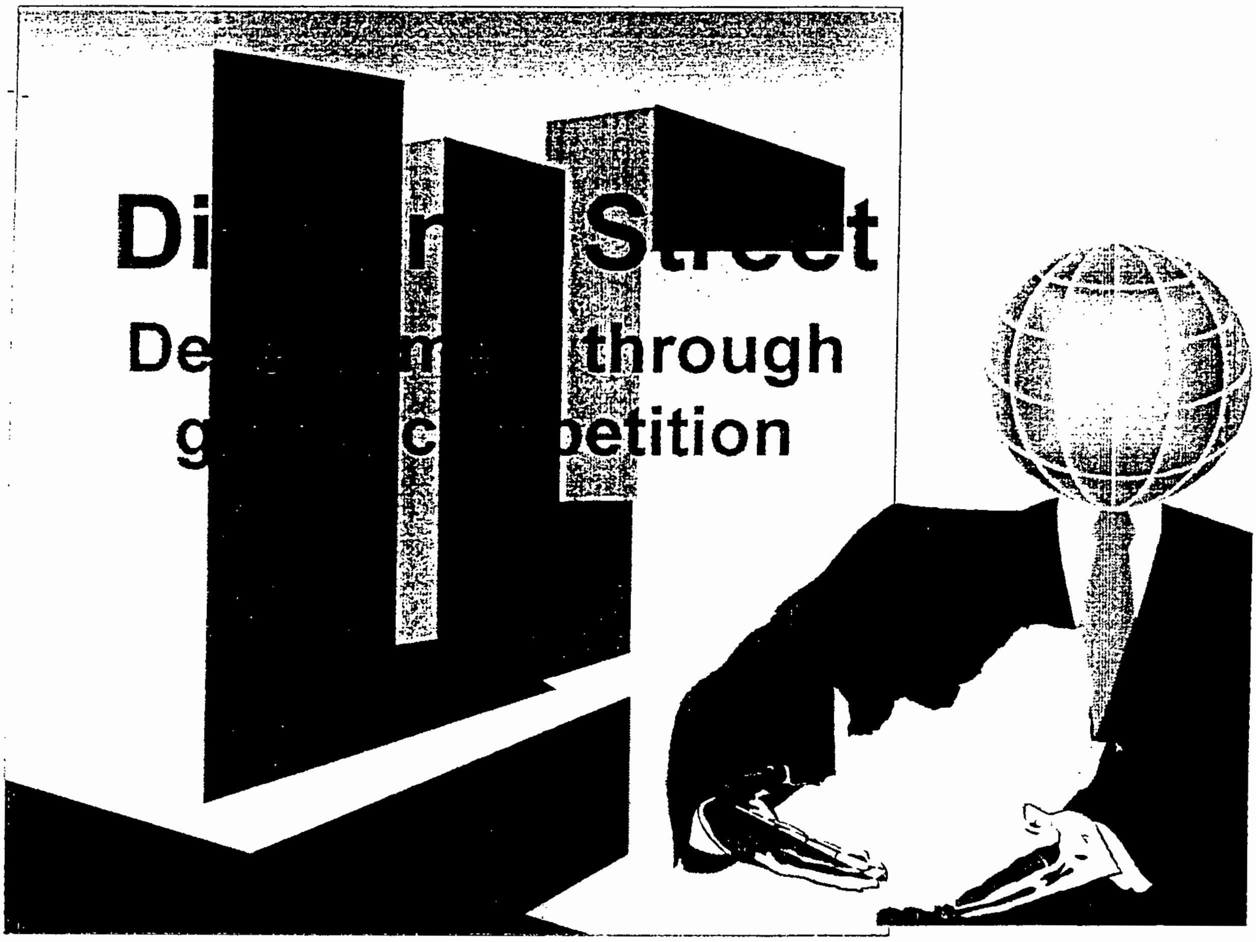
It is important to note that all three of these scenarios are plausible and, furthermore, that each scenario could take place with different levels of economic growth. In fact, it would be counter-productive for the exercise to link the scenarios to particular economic growth rates since this could have the effect of leading readers to choose the scenario with the fastest growing economy. In the opinion of the group each of the scenarios could lead to high or low economic performance.

### Scenario time frames

Although not stated explicitly each of the scenarios take place over the next ten years (1996-2005).

# Scenario A: Diagonal Street

*Development through global competition*




In the Diagonal Street scenario government yields to the ever-mounting pressure for economic reform in line with global trends. Driven partly by a perception that there is essentially no alternative to market-based reform, and partly by a desire to re-integrate with the world, South Africa accelerates its implementation of GATT agreements, liberalises markets far more rapidly than expected and pushes for the strengthening of the various regional trade blocs to which it is aligned. A centralised approach to planning economic and industrial development is largely abandoned in favour of efforts concentrating on achieving the right conditions for *capital to take decisions in the context of free markets.*

Capitalising on post-apartheid goodwill, the remarkably peaceful transition to democracy and a reasonably stable internal climate, government goes all out to *attract foreign investors*. Exchange controls are abandoned, tax holidays are provided, money is poured into the provision of industrial infrastructure and the stock exchange experiences an unprecedented interest in local equity.

Despite an almost obsessive focus on stimulating *high economic growth rates as the best means of achieving its social objectives*, government remains concerned about its democratic roots and pursues initiatives to achieve *social delivery for poor households*. Notwithstanding its best efforts, however, these initiatives fail to achieve significant impacts on accumulated backlogs. In part this is due to the very *slow rate of reform* of government institutions from massive bureaucracies previously programmed for repression and restriction towards the new development and delivery orientation. Furthermore, government faces serious *fiscal pressures*, due in large part to the interest bill stemming from the debt burden, and is unable to fund the delivery of services on the scale desired.

Backed by the private sector, international precedent and multilateral agencies, initiatives around the 'restructuring of state assets' rapidly gain momentum and commercialisation and re-regulation, leading to *privatisation*, become government's automatic response to poor delivery of services.

Policy frameworks for the operation of private sector utilities are strengthened and regulatory systems are firmed up to provide a *stable low-risk climate for investors*. Foreign capital is attracted into the country by selling off traditionally safe and stable state assets and the proceeds are used to *reduce government's debt burden*.

Along with the benefits of open markets and trade with the North come increasing pressures for South African goods to measure up to high *environmental standards*. The regulatory regime responds by adopting innovative market related instruments, such as tradable pollution permits, and encourages a system of self regulation driven by external market forces.

Privatised utilities, free to take internal decisions on resource allocation, base their investment plans on *market related returns*. Utilities therefore restrict investment to projects providing the highest financial returns. They are assisted in this strategy by the regulatory climate which obliges utilities to provide social services to households, but only insofar as such provision is *financially sustainable* for the utility. Central planning for service delivery is abandoned as government effectively 'passes the buck' to the private sector.

Under this new regulatory regimes pricing policies becomes increasingly *cost-of-service* oriented in an effort to keep hidden cross-subsidies to the minimum. This trend is backed by the flourishing private sector as a means of restricting input costs, and thereby increasing the competitiveness of South Africa's manufactured exports. Under this regulatory environment service costs to households rise rapidly. Rather than subsidising these input costs, however, government attempts to address basic service needs through direct income assistance, by increasing state welfare and pension budgets.

Despite these initiatives the Diagonal Street scenario results in *uneven economic development* with local communities in poorer parts of the country unable to afford commercialised services. Consequently, competition between regions and local communities for infrastructure investment escalates. In part this situation is alleviated by market-seeking entrepreneurs who see opportunities for new, lower cost, decentralised technologies and take advantage of the space created by the regulatory environment to provide minimal services to those households that can afford them. A wide range of service standards are offered as a result, depending on affordability levels.

The uneven rate of development places considerable pressure on regional wage rates and some provincial and local tax bases as new industries are established in, or relocate to, the major urban centres. Organised labour, having warily boarded the growth train along with capital, is too absorbed in adapting to the rapidly shifting employment environment, coping with retrenchments as firms come and go, to pursue its historical alliance with the poor with the same vigour as in the past. The corporatist model prevails.

Rural to urban migration accelerates as people scramble for jobs, leaving the old, the sick and the unemployable behind, thereby further reducing the ability of the poor to afford commercialised services. Trickle down effects, flowing from increases in real wages, alleviate some of the poverty, but their impact is limited by structural problems within the labour market and geographical factors. Increases in the social wage, on the other hand, are limited by the constraints on the fiscus and the intractable problems of re-organising government's social welfare systems. Consequently, *wealth disparities continue to increase.*

The ultimate sustainability of the Diagonal Street scenario depends on the ability of government to balance the build-up of social pressures and political resentment with the goodwill generated through increases in employment levels and real wages.

## The electricity supply industry in a Diagonal World

**Table 2** The electricity supply industry of the Diagonal Street world.

| Industry Structure | Legal Form | Ownership | Control |
|---|---|---|---|
| GGG<br>Public, IPPs, SADC | • Companies Act<br>• Listed | • Private<br>• Public equity | • Shareholders<br>• NER: Competition<br>• Company law |
| T&SAPP<br>Open access | • Listed company | • Limited to generators, distributors and the state | • Shareholders<br>• NER: Open access<br>• Company law |
| DDD<br>Open access | • Companies Act<br>• Listed | • Private<br>• Public equity | • Shareholders<br>• NER: Open access<br>• Company law |
| SERVICE PROVIDERS | | | |

In the world of Diagonal Street the electricity supply industry undergoes some radical changes, moving away from the traditional vertically integrated state-owned monopoly supply to increasing levels of competition and open access. This takes place at the level of generation through Independent Power Producers (IPPs) and other SADC power exporters entering the market. Eskom's generation interests are separated out into listed companies with a mixture of public and private shareholders. Governance of the generation sector consists of a balance of forces between shareholder interests and the National Electricity Regulator's (NER's) mandate to ensure the highest level of competition possible.

Whilst transmission is also established as a company ownership is limited to industry participants, in the recognition that this natural monopoly requires a particular form of governance. The NER is tasked with ensuring open access to the system to allow free trade of energy.

Distribution also moves towards a system of open access as retail wheeling is permitted. Distributors are, over time, also privatised, although the state is required to maintain a level of equity share to ensure both confidence and a level of influence of the achievement of social goals.

In the Diagonal Street world a previously unknown set of players enter the industry. Generically known as 'service providers' they complement the market by offering various value-added services not previously considered. For instance brokers trade around power pools and escos (energy service companies) sell 'efficiency' to consumers on the basis of a share of future energy savings.

## Electricity supply industry challenges in a Diagonal World

### *Companies*

Operating electricity companies face the key and historically unprecedented challenge of competing to ensure their survival. Shareholder interest in rates of return on investment, combined with increasing service demands from customers, result in a tough business environment for managers. Market expansion remains a significant issue for distributors who have to meet government's social targets.

### *NER*

The NER faces severe capacity problems in coping with the issues arising from the shift in competition policy. These have to be dealt within in a context of furious lobbying as various stakeholders vie for attention.

### *Government*

Government's concerns shift away from past operational issues towards regulating broader issues to do with the industry. Chief amongst these remain equity issues to do with access and pricing, with environmental concerns a growing factor.

### *Customers*

The Diagonal Street world brings customers an unexpectedly confusing situation as their traditional electricity supplier is replaced by a plethora of companies bidding for their attention. Those that manage to make sense of the options presented to them find themselves able to negotiate increasingly affordable electricity services, although this may require some adaptation on their part.

## Scenario B: Union Buildings

*Development through national delivery*

# Union Buildings

## Development through national delivery

In the Union Buildings scenario government takes a long hard look at the accomplishments of newly industrialised countries and comes to the conclusion that the secret to success is a long term *investment in human resources* and the strengthening of the industrial base through a formula whereby *government picks the winners.* A clear synergy between these two strategies is identified in the form of a kick-start approach to economic development based on a massive *national housing and service delivery programme.* Government's industrialisation strategy is therefore based on perceived significant forward and backward linkages associated with the housing programme and the stimulation of internal markets through classic Keynsian measures.

Armed with this policy, and under heavy pressure from an expectant electorate, strategists in the Union Buildings undertake a serious rethink of the RDP model for housing and service delivery. Firstly, government undertakes extensive planning and financial modelling to develop a reprioritised and strategically targeted service delivery programme. Secondly, government *reorganises governance frameworks* in order to *drive service delivery from a national departmental level.* This is based on two key realisations. Firstly, it is recognised that the present organisation of the RDP, with its management housed in the Office of the President, does not have sufficient power and capacity to control the programme. Secondly, it is realised that public sector resources are not being allocated in the most efficient manner[1], partly because the state does not have effective control over significant public sector funds which are off budget and administered by parastatals.

[1] From the perspective of maximising national welfare through the use of limited national resources.

Government's response is to *scrap the RDP Office* and create a *Department of National Economic Planning and Finance* responsible for overall macro-economic planning and co-ordination. Line departments are assigned responsibility for actual delivery, together with their pertinent parastatals, and are obliged to negotiate *annual targets* to be ratified by cabinet.

In order to carry out their extended mandates government departments increase their capacity to *monitor* and *control* public sector institutions in order to ensure the efficient fulfilment of targets (maximising delivery using available resources). In cases where delivery is fragmented and poorly controlled, government, backed by powerful parastatal managers, intervenes to form *national bodies* which direct or undertake the delivery of services and infrastructure. Such bodies include national development agencies, undertaking planning and financing, and utilities undertaking delivery themselves.

Labour, sensing increased chances of delivery for the poor and better prospects for centralised bargaining, throws its weight wholeheartedly behind this programme. Local business, whilst maintaining the standard rhetoric about the need for less government involvement in the economy, rapidly capitalises on growing internal markets and grants the programme tentative support as a means of achieving necessary social goals in tandem with real economic growth. In essence local capital accepts a strong role for government in the market, in return for favourable treatment. International capital, on the other hand, is frustrated by this approach as it finds itself unable to invest directly in the lucrative service sector and is only allowed limited access to the secondary markets created by the housing programme, since government is concentrating on *stimulating local manufacturing* capacity in preference to relying on imported goods. On the whole though markets continue to operate and flourish. The guiding hand of the state is, however, evident in most economic sectors.

As a product of the 'national approach' environmental governance tends towards a system of top-down directives based on national legislation. *Environmental standards* are the order of the day with government departments generally implementing regulations devised by a central department of environment.

National *'pillars' of service delivery* rapidly develop with sector-specific activity undertaken in a top-down, *target driven* manner. Power is drawn upwards, leaving provincial and local governments with a minimal share of the fiscus and a limited set of responsibilities. Whilst local governments resist this policy most provincial governments support it, knowing that they stand to benefit from national transfers into their regions. National government wins the battle with provinces for political power by arguing that the centralist approach is justified by the need for an equitable sharing of national resources. This approach is supported by communities on the ground who have grown tired of excuses from non-delivering provincial governments and are only too glad to see national government stepping in with effective widespread delivery.

As part of the nation-building theme strenuous efforts are made by planners to ensure a *fair distribution of resources* and particular attention is paid to addressing the urban-rural divide. Government spending is targeted towards reducing overall social inequalities and significant *cross-subsidisation* takes places within service sectors. Financing channels are set up to ensure that international aid and national borrowing result in evenly spread development across provinces. International development financiers support the establishment of a single development finance channel as it simplifies their jobs considerably.

As a consequence of this top-down approach, however, accountability for delivery of social services at the local level is limited. Service delivery is primarily *supply driven* with *low sensitivity to local conditions* and limited flexibility for meeting specific local needs. There is a high variance in the efficiency of resource allocation[2], due to the target driven approach, and a significant number of *financially unsustainable projects* are undertaken. Although national targets are generally met *integration of service delivery at local levels is poor*. In part this is due to uneven performance between the various service sectors as a result of the differences in delivery capacity and variations in the efficiency of the service delivery organisations involved. Service delivery is spread fairly evenly across the country, given the ability of government to cross subsidise between sectors and regions through levies and taxes, and reasonably *balanced regional development* takes place.

The long term sustainability of the Union Buildings scenario depends significantly on the extent to which the national government establishes capable bureaucracies and effective governance systems over public utilities.

## The electricity supply industry in the world of Union Buildings

**Table 3** The electricity supply industry of the Union Buildings world.

| Industry Structure | Legal Form | Ownership | Control |
|---|---|---|---|
| GGG<br>Eskom | • Statutory Corporation | • Public | • Shareholders (including national government)<br>• NER: (Weak) |
| T<br>Eskom | • Statutory Corporation | • Public | |
| DDD<br>Eskom or NED | • Statutory Corporation or<br>• Company | • Public, including local government | |

In the world of Union Buildings the electricity industry is consolidated to ensure effective government control over delivery. In practice this means little for the generation and transmission sectors where Eskom is already, in effect, a monopoly. Change is, however, required at the level of distribution where the fragmented nature of the industry is hampering government the co-ordination and implementation of government policy. Depending on the level of resistance put up by local authorities their electricity interests are either swallowed up by Eskom or merged with Eskom's into a National Electricity Distributor (NED). In the latter case the company route is likely to be the most effective legal vehicle, rather than the statutory corporation format retained for Eskom's G&T interests. The company formulation also allows for the sharing of ownership and control of distribution assets and operation between central and local government. This could be perceived to be one means of overcoming the dangers of over-centralisation and de-linking electricity from local planning.

Although control over the industry is nominally situated in the hands of stakeholders through the mechanism of Eskom and/or NED governing councils the reality is that ministers and their departments really hold the levers of power through the setting of connection targets, allocation of subsidies, appointment of Directors and other means.

[2] Measured in terms of the amount of resources required to achieve service delivery targets.

## Electricity supply industry challenges in a Union Buildings world

### *Utilities*

Constantly aware of the true nature of the game utility managers are driven by the need to meet performance targets set by their political masters. Balancing this imperative is the need to ensure the financial sustainability of the utility through ongoing efficiency improvements.

Although the issue may get lost in the mix from time to time, managers are likely to be concerned about the need for local accountability and community involvement in the planning and delivery of development projects. As the officials closest to the ground they are all too aware of the dangers of unconsidered and unintegrated delivery.

### *NER*

Given the direct, political and non-transparent nature of industry control relationships the NER is reduced to sitting on the sidelines, perpetually unsure of its real role in industry governance.

### *Government*

Besides the usual pressure of having to deliver on promises government faces the difficulty of ensuring that it does not compromise the long-term financial sustainability of the industry. It also struggles with the problem of achieving local level inter-sectoral integration. A problem, ironically, aggravated by its own policy of building massive pillars of delivery which tend to weaken local governments.

### *Customers*

As is usually the case with large bureaucracies individuals struggle to be heard, perhaps resulting in the formation of various customer groups to put collective pressure on the supplying utility.

## Scenario C: Town Hall

*Development through local integration*


In the Town Hall scenario *local governments* emerge as the *key drivers behind social delivery*. Local government's success is based on a number of factors. Firstly, the appointment of non-racial democratic councils leads to a *revitalisation of political will* at this crucial level. Councillors are in touch with community needs, easily accessible to local consumer groups and are able to target expenditure towards highly effective projects addressing the most urgent needs of communities.

Secondly, *local government's capacity to deliver* was greatly under-estimated, despite the fact that local governments have historically delivered many of the country's services and a large proportion of the country's housing stock. Furthermore, *local bureaucracies are small and flexible* and, under the new non-racial leadership, adapt relatively quickly to the challenge of delivering to a broader base than just the white elite served in the past. National government, suffering from endless frustrations in the realignment of the apartheid bureaucracy to the needs of the day, is only too relieved to discover effective delivery going on at local level. As increasing numbers of local governments demonstrate their ability to deliver the goods *national government devolves powers and fiscal resources downwards* in order to support the trend.

Thirdly, the combined effect of a visibly functioning local democracy, coupled with tangible evidence of delivery, slowly *turns the non-payment issue around* resulting in an increasingly healthy financial position for local authorities, strengthening their ability to borrow on local and international capital markets.

National policies are thus adapted to drive *development through local government*. The *national target driven approach is scrapped* and the roles of the respective levels of government in service delivery are clarified.

A key element in the Town Hall approach to national development is an acceptance that global competition for investment is increasingly becoming a matter of *city vs. city*, rather than country vs. country, and that economic development, particularly of small and medium scale enterprises, can be effectively achieved through local leadership in partnership with the private sector. The role of local government is gradually redefined to be the *co-ordinator of development*, particularly economic development, as urban areas industrialise at an increasingly rapid rate. National government recognises this trend and bows to local pressures to allow Export Processing Zones and related trade and industry instruments, demanded by increasingly aggressive local governments.

National government concentrates on creating an *enabling environment* for local government, in particular by allocating *additional fiscal powers* to local authorities, in order to provide new sources of locally controlled revenue to fund integrated service delivery and economic development. Revenues are structured to increase as performance improves, thereby providing significant incentives for local actors to build winning cities. Inter-governmental fiscal transfers to local governments are determined on the basis of both performance and needs based criteria, rather than being used to bail out poor performers at the cost of successful local authorities.

Major cities adopt an *Agenda 21* approach and compete to provide the cleanest possible environment for internationally competing exporters and local inhabitants.

National government also *assists local government* in critical areas of service delivery such as standards, tariff rationalisation, financing, and capacity building. Local governments choose between providing social services through their own departments or by *contracting in* other public or private sector based agencies.

In order to assist local-level integration legislation is passed giving local government *powers of approval over infrastructure development plans*, thereby forcing all service providers to conform with local-level planning processes.

Service standards within local areas are rapidly rationalised as local budgets are spread across a broader base. *Standards differ significantly* from city to city, however, due to the wide variations in the financial well-being of the various cities. *Regional variations* are also significant, due to the increasing level of economic concentration in the metropoles and national government's reluctance to undermine the economic bases of the winning cities through additional taxes and cross subsidies. Also, devolution of fiscal powers has left national government with less room to manoeuvre and an inability to access local fiscal pools.

As a result of regional disparities *labour migrates* from poorer to wealthier areas at an accelerating pace, placing some strain on the larger cities. Despite the centralisation trend *smaller local authorities* also manage to benefit from the enabling environment and confound the critics through entrepreneurial thinking and innovative approaches to service delivery.

Nonetheless, a consequence of driving development from the local level is that the *pace of development is very uneven* across the country. In most *rural areas* local government remains unable to play this role effectively and *social delivery is poor.* Provincial governments consequently become important players in rural areas, acting in support of rural structures to deliver the minimum level of services.

*Industrial relations* at the local level remain an ongoing source of *conflict* as local government's role shifts over time from primary service deliverer to development co-ordinator, resulting in either the privatisation of services or contracting out to both public and private sector agencies. Competition for this money spinning market is fierce and national government facilitates the entry of private sector utilities through improvements to regulatory regimes. Organised labour struggles to adapt to this decentralising environment and is forced to recognise that the increasing number of loci of power fundamentally undermines the centralised bargaining system.

The long-term sustainability of the Town Hall scenario will depend on the ability of local authorities to build effective local accountability, deepen the country's development capacity base, and achieve significant economic gains through integrated planning.

## The electricity supply industry in the Town Hall world

**Table 4** The electricity supply industry of the Town Hall world.

| Industry Structure | Legal Form | Ownership | Control |
|---|---|---|---|
| GGG<br>Eskom & IPPs | • Statutory Corporation | • Public & private | • Stakeholders<br>• Shareholders<br>• NER |
| T<br>Eskom | • Statutory Corporation | • Public | • Stakeholders<br>• NER |
| D & LAs<br>Eskom & Metros | • Mixed | • Public, including local government | • Stakeholders<br>• NER |

In the Town Hall world the electricity industry changes in a gradual, evolutionary, 'bottom-up' manner. Structural change is not a central feature of the industry and is limited mainly to the margins. In generation this entails some new entrants as Independent Power Producers find various niches which make clear economic sense, such as co-producer ventures. Transmission remains firmly in the hands of Eskom, itself still a stakeholder-controlled statutory corporation.

Distribution undergoes a slow process of rationalisation as smaller municipalities, under the fairly firm guidance of the NER, are forced to merge with either their larger local cousins or Eskom's growing distribution interests. A system of regulatory incentives and disincentives, using the licensing powers of the NER, sees consolidation happening at an increasing rate until most urban customers are effectively served by the large metros whilst rural and small town customers fall to Eskom. Various creative solutions are inspired along the way, such as joint ventures and management contracts, to overcome the problems of profit and risk sharing and asset ownership. Despite the plethora of legal forms which come about the industry remains, essentially, in public hands with a fairly constant balance between central (Eskom) and local government.

In the Town Hall world the electricity industry continues to be governed by stakeholders, but with a significant amount of local level input. The NER is busy on all fronts as it struggles to adapt policies to match the rate and unpredictable nature of these incremental changes.

## Electricity supply industry challenges in the Town Hall world

### *Utilities*

Whilst the opening up of structural change possibilities does create uncertainties for utilities the clarification of the 'rules of the game' from a national level as government, via the NER, attempts to facilitate transformation makes it easier for decision makers to operate. Processes of amalgamation within the distribution sector are troubled by a lack of good data, leading to ongoing concerns about the financial viability of new utilities. Within this context, and given the absence of national targets, the financing of large scale electrification projects becomes an increasing risk leading to a slow-down of connection rates until greater confidence is achieved.

### *NER*

The Town Hall scenario brings a somewhat messy context for the NER. Tasked by government with overseeing the rationalisation of the distribution industry, whilst ensuring fair pricing and service quality, the NER is forced to fight fires on numerous fronts simultaneously. Only by developing a applying a firm set of operational policies does the NER manage to assert some control over the industry. This involves the establishment of detailed regulatory oversight processes, driven by a significant internal capacity.

### *Government*

Whilst government is probably less concerned about the ability of the electricity sector to deliver, given its inherent capacity and history of leading the way in local government circles, it is nonetheless forced to step in from time to time to rescue particularly weak areas. These interventions take various forms, from twisting Eskom's arm to direct financial or institutional support in other cases. Alternative technologies in particular benefit from government's realisation that grid electrification will not solve the energy problems of rural dwellers for many years to come, if ever.

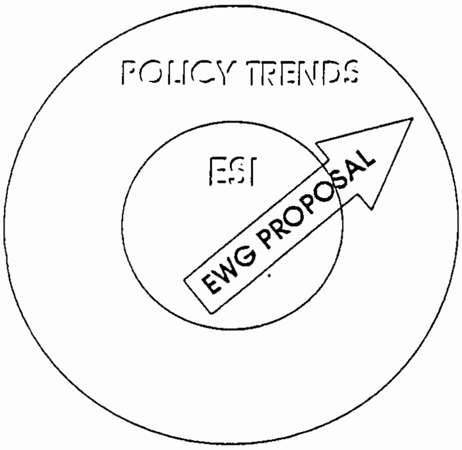
### *Customers*

The variable world of Town Hall presents different challenges for different customers. Large customers remain chiefly concerned about the fairness of electricity pricing, able as they are to make comparisons between different situations.

For the poor the issues of access and affordability remain top of the agenda, issues which are awarded varying levels of attention, largely in proportion to the degree of popular organisation at local level.

# Implications for the Electricity Working Group

*Prepared for the EWG in February 1996*




In the opinion of the research team responsible for running the scenario workshops the exercise highlighted a number of challenges for government's Electricity Working Group. Basically these all resolve down to the question of whether the EWG had taken sufficient account of factors within its contextual environment. It is acknowledged that this is always difficult to achieve, particularly given the potential for government to impact so significantly on the environment.

The team concluded that the EWG faced three main challenges in making a recommendation to government on the future structure of, and financial arrangements within, the electricity distribution sector.

### *Challenge 1: Is government willing to take a decision?*

As the three scenarios show government could choose to involve itself in decision-making around the electricity sector to varying degrees. The scenarios show that the level of government involvement in the electricity industry is likely to be a function of, and consistent with, broader macro-economic policies. As pointed out in the 'Understanding of the Present' section above there is currently a lack of consensus on these issues. Until these broad policies are settled there is a risk that government will be unwilling to take major decisions on the future of the electricity industry.

### *Challenge 2: How will resources be allocated?*

Broadly speaking the scenarios posit three alternative mechanisms for the allocation of development resources:

- the market - Diagonal Street
- central government - Union Buildings
- distributed decision-making -Town Hall

The scenarios demonstrate how the relative domination of any of these modes of decision-making can clearly have a significant impact on broad government policies and consequently on the electricity industry-specific policies. Unless account is taken of these broad trends there is a danger of the EWG proposing policy solutions which are not aligned with other policy trends.

### *Challenge 3: What role for the NER?*

As the scenario implications have attempted to sketch the NER could conceivably be playing very different roles in coming years. The high level of uncertainty will make it difficult for the NER to plan and prepare it self to play a suitable role.

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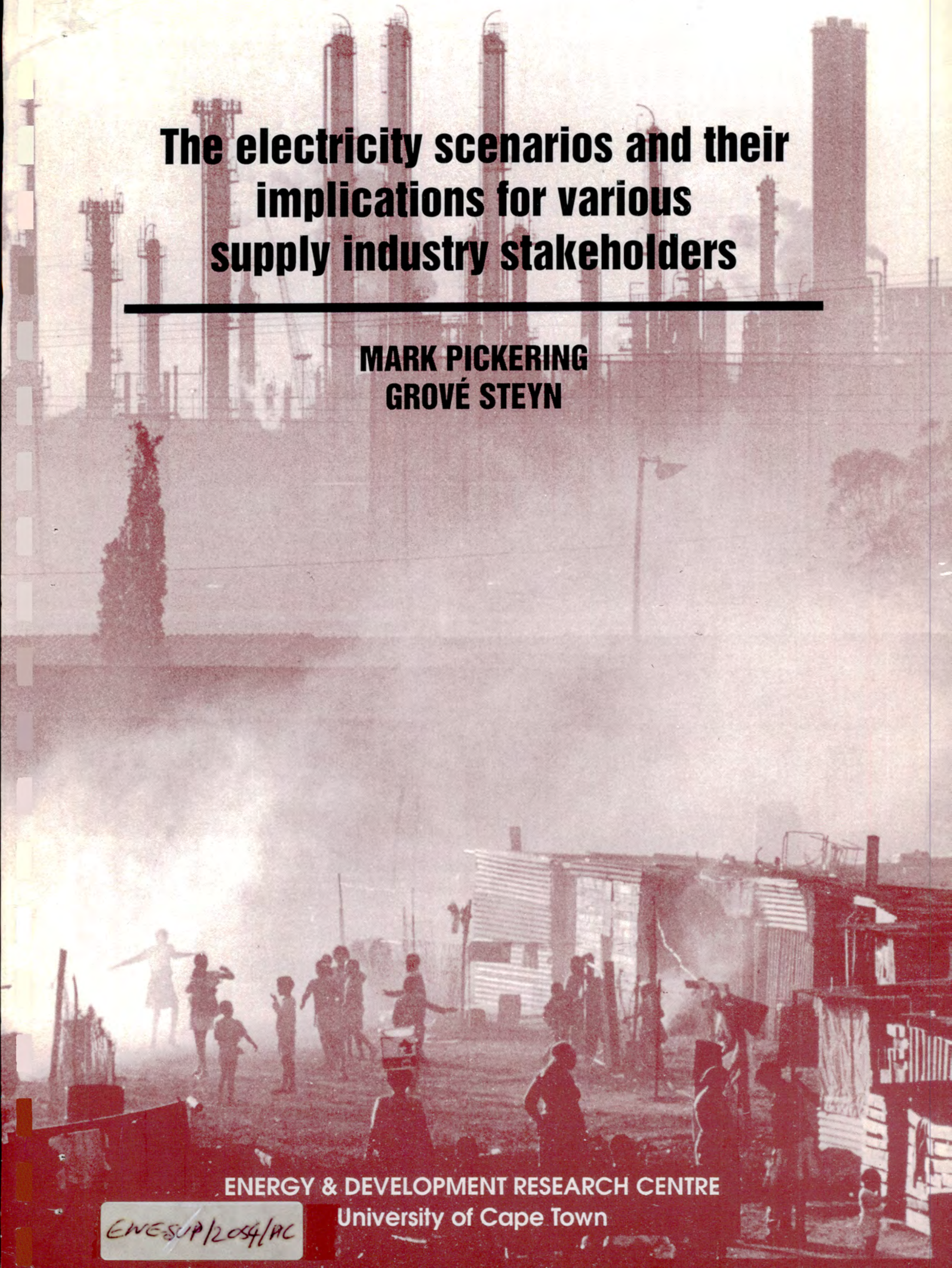

# The electricity scenarios and their implications for various supply industry stakeholders

MARK PICKERING
GROVÉ STEYN

ENERGY & DEVELOPMENT RESEARCH CENTRE
University of Cape Town