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USAID Forum on Private Sector Investment In the Energy Sector of Southern Africa

5 – 7 December 2000
Safari Court Conference Centre
Windhoek, Namibia

23865-104-0008

A

Nexant

March 19, 2003
LNW/USAID 03-0034

To: Center for Development Information and Evaluation (CDIE)
1611 North Kent Street
Suite 200
Arlington, VA 22202-2111

Subject: **Contract LAG-I-00-98-00006-00**
USAID Task Order No. 104
Transmittal of Deliverable Documents to CDIE

Dear Sirs:

Enclosed are copies of the following reports for the subject contract:

23865-104-0008 - USAID FORUM ON PRIVATE SECTOR INVESTMENT IN THE POWER SECTOR OF SOUTHERN AFRICA - WINDHOEK, NAMIBIA (4-7 DECEMBER 2000)

B

USAID Forum:
Private Sector Investment in the Power Sector of Southern Africa

The purpose of this Forum is to facilitate the direct interaction between senior SADC government officials and private power developers and financiers in order to gain greater understanding and perspectives on how projects are identified, financed and implemented.

Importance of Private Investments to Power Development

During this last decade, private investors and power developers have been responsible for the financial closing and/or construction of tens of thousands of new installed Megawatt capacity worldwide. This expansion has mostly occurred in countries in Asia, Latin America, and the Middle East that would otherwise have had great difficulty attracting private non- or limited-recourse financing in their countries. In many cases, without private investments, monies would have been unavailable to fund either expansion of or new additions to generating capacity thereby constraining economic and industrial growth. This would then have created an additional drain on budgetary resources available to most governments.

Private Power Investment and SADC Countries

To date, the Southern Africa region, despite its abundant natural resource endowment, has not attracted its proportionate share of private investment in the power sector. SADC countries have not as yet effectively utilized the very limited multilateral development bank funds for the power sector, as these are now geared more towards social and poverty-alleviation efforts.

The challenge for the SADC governments is how to develop a power sector in the region that can attract sufficient private investment, while at the same time contribute to meeting stated social objectives.

The Forum

Forum will be conducted over from 5 – 7 December 2000 in Windhoek, Namibia. Attendees at the Forum are expected to include senior-level energy policy and investment officials of SADC member countries, and a select group of private power developers, investment bankers and project financiers.

The purpose of this workshop is to provide a forum where:

- The SADC and SAPP vision with respect to meeting regional power requirements can be informally expressed and discussed;
- The various key aspects of successful private power development can be brought to the attention of key officials from the region ; and,
- Information can be exchanged within a community of potential project counterparts.

C

USAID Forum on
Private Sector Investment in the Power Sector
of Southern Africa

Windhoek, Namibia
Dates: 4 – 7 December 2000

Monday, December 4th:

1:00 - 5:30 pm	Early Registration at Safari Court Hotel, Windhoek
7:30 pm	Cocktail Reception

Tuesday, December 5th:

7:30 – 8:30 am	Registration at Safari Court Hotel, Windhoek
Chairperson for Morning Session:	Mr. Leon Moller, Acting Director of Energy Ministry of Mines and Energy, Namibia
9:00 – 9:15 am	**Welcome and Statement of Objectives of the Forum**
Speaker:	U. S. Ambassador to the Republic of Namibia, Jeffrey A. Bader
9:15 – 9:45 am	**The Challenges of Regional Market Integration in SADC** USAID Regional Center for Southern Africa
Speaker:	Mr. Randall Peterson, Chief, Office of Regional Market Integration
9:45 – 10:15 am	**SADC Vision on Investments in the Power Sector**
Speaker:	Dr. Raimundo Mbala, Deputy Regional Coordinator, SADC – TAU

10:15 – 10:45 am	**SAPP Vision on Power Sector Requirements**
Speaker:	Dr. Leake Hangala, Managing Director of NamPower and Chairman SAPP Executive Committee
10:45 – 11:00 am	**Coffee / Tea Break**
11:00 am – 11:30 pm	**Government Perspectives on Private Participation in Power**
Speaker:	Mr.John Wright, Director Office of Promotion on Private Power Investment, Zambia
11: 30 – 12:00 am	**"Why the Private Sector and not Donors"** Observations by USAID/Global Bureau
Speaker:	Dr. Samuel Schweitzer
12:00 – 1:00 pm	**Developer's / Financier's Response**
Speakers:	Mr. Kevin Chapman, Cinergy Global Power Dr. Matthew Milukas, Intergen Mr. Mark Gammons, AES Corp.
1:00 – 2:30 pm	**Lunch**
Chairperson for the Afternoon Session:	Ms. Lineo Guni, Principal Legal Officer, Ministry of Natural Resources, Lesotho
2:30 – 4:30 pm	**Developers Needs and Conditions for Entry into National/Regional Power Markets**
Speakers:	Mr. William Drotleff, K&M Engineering and Consulting Corp. Mr. Kevin Chapman, Cinergy Global Power Dr. Matthew Milukas, Intergen
4:30 – 5:00 pm	**Coffee / Tea Break**
5:00 – 6:00 pm	**Question & Answer and Discussion**
7:00 pm	**Dinner**

Wednesday, December 6th:

Chairperson for the Morning Session: Mr Lovemore Bingandadi
Infrastructure Projects Manager, USAID/RCSA

9:00 – 11:00 am **Determinants of Successful Project Finance**
Speakers: Mr. William Drotleff, K&M Engineering and Consulting Corp.
Mr. Mark Gammons, AES Corp.

11:00 – 11:30 am **Coffee / Tea Break**

11:30 am – 12:30 pm Question & Answer and Discussion

12:30 – 2:30 pm **Lunch**

Chairperson for the Afternoon Session: *Mr. Silvester Hibajene, Technical Advisor*
Zambia Energy Regulation Board

2:30 – 3:30 pm **Coherent Legal Frameworks to Support Private Investments**
Speaker: Mr. John Gulliver, International Energy Lawyer, Pierce Atwood

3:30 – 4:30 pm **Compatible Policies & Independent Regulatory Frameworks in Promoting Commercial Agreements**
Speakers: Mr. Frederick Butler, Chairman, International Relations Committee,
National Association of Regulatory and Utility Commissioners
Mr. John Gulliver, International Energy Lawyer, Pierce Atwood

4:30 – 5:00 pm **Coffee / Tea Break**

5;00 – 6:00 pm **Question & Answer and Group Discussions**

7:00 pm **Dinner**

Thursday, December 7th:

Chairperson for the Session: Mr. John Gulliver, International Energy Lawyer
Pierce Atwood

9:00 – 9:30 am **SADC Wrap-Up**
Speaker: Dr. Raimundo Mbala, Deputy Regional Coordinator, SADC – TAU

9:30 –10:00 am **SAPP Wrap-Up**
Speaker: Mr. Leake Hangala, Managing Director of NamPower, and
Chairman of SAPP Executive Committee

10:00 – 10:30 am	**Government Wrap-Up**
Speaker:	Mr. Leon Moller, Acting Director of Energy Ministry of Mines and Energy, Namibia
10:30 – 11:00 am	**Forum Summary and Draft Communique Discussion**
	Session Chairperson to Summarize and Lead Discussion
11:00 – 11:30 am	**Closing Remarks**
Speaker:	Dr. Samuel Schweitzer, USAID Global Bureau

SOUTHERN AFRICAN DEVELOPMENT COMMUNITY

SADC ENERGY SECTOR

TECHNICAL AND ADMINISTRATIVE UNIT (TAU)

USAID Forum on

Private Sector Investment in the Power Sector

of Southern Africa

Windhoek, Namibia 5 - 7 December 2000

SADC Vision on Investment in the Energy Sector

Presented by Raimundo Fernando M´Bala

Deputy Regional Coordinator

Mr. Chairperson,
Distinguished delegates, ladies and gentleman

I am indeed honoured to have been given this opportunity to address this distiguished Forum on Private Sector Investment in the Power Sector of Southern Africa and in so doing, share with you some perspectives on the issues that, from our point of view, need to be focused and the options presented, when we look at ways of attracting private investments to the Sector.

Still, before I proceed, allow me to, first of all, thank the organizers of this important event, for the invitation extended to the SADC Energy Sector Technical and Administrative Unit.

The SADC Energy Protocol, which was approved in 1996 by the SADC Council of Ministers, contains a strong message setting up the principles, in terms of regional policy and strategy formulation regarding the development and use of energy services. It is recognised therein, the need for a multi-sectoral coordinated approach to strategy formulation and planning in Energy, taking into consideration the unevenly distributed energy resources among the SADC Member States. The enhancement of cooperation between SADC and non-SADC Member States is therefore a primary objective, aiming at the achievement of the following far-reaching goals:

- Ensure, through collective action, the progress and well-being of the peoples of the SADC Region through the provision and use of energy throughout the SADC Region, particularly ensuring that low-income citizens have access to energy; and

- Promote the economic and social development and integration of the regional economies with a view towards achieving an increased measure of regional energy self-sufficiency and self-sustaining.

To achieve the goals spelled out above, the SADC Energy Sector Technical and Administrative Unit (TAU) produced a document entitled "SADC ENERGY COOPERATION POLICY AND STRATEGY" which was approved in June 1996, during the SADC Energy Ministers' meeting and ratified by the Council in September 1996, both in Swaziland. This document provides the guidelines for a practical programme of cooperation within the activities of the SADC Energy Sector as a complement to the SADC Energy Protocol, demonstrating that the achievement of many national energy policy goals could be enhanced through cooperation between Member States with accrued mutual benefits.

Mr. Chairperson,
Distinguished delegates, ladies and gentleman

The proposed strategies were formulated within the context of organisational,

human and financial capacity in the region having in mind that the SADC Energy Sector is undergoing a profound restructuring process, leading to the establishment of the Energy Commission which will be in place from April 2001, when its Technical Unit initiates its activity, replacing the existing TAU. Moreover, the striking reality is that neither the existing TAU, nor the future TU coordinating bodies have the human and the financial resources to successfully move ahead on its own, towards the accomplishment of the mentioned goals. Therefore, it will be necessary to rely increasingly on partnership and joint activities with relevant players and stakeholders, with relevance to the private sector, to develop the cooperation in the main four areas:

- Energy Trade;
- Investment and Finance;
- Training and Organisational Capacity Building; and
- Information and Experience Exchange.

With this aim, the ENERGY SECTOR ACTIVITY PLAN (ESAP) was prepared and scrutinised by a workshop gathering a comprehensive cross-section of regional stakeholders and the SADC Energy Officials. It proposes, a set of prioritised activities and respective outputs, covering the above mentioned focus areas to be submitted to the Energy Ministers Committee for approval.

The overall objective of the Activity Plan is to detail a programme of prioritised activities that can be implemented over a 3-5 year period. As it is imperative that the activities be appropriate, affordable and contribute significantly to sustainable development of the energy sector, a further objective is the consideration of the best options for the institutional organisation, co-ordination and management of the programme of activities.

Considering that this document is bound to play a key guiding role in establishing future regional investment programmes in the Sector and that our distinguished organizers of this forum, did not have a chance to attend the Energy Stakeholders Round Table, we count on the indulgence of our audience, to kindly let us go into a bit more detail regarding its content.

Mr. Chairperson,
Distinguished delegates, ladies and gentleman

The rationale for the Activity Plan is a common desire to position the energy sector such that the Region can derive maximum benefits from a *rationalisation of resources and facilities in the region*, and to develop initiatives that contribute to building the capacity of energy institutions in the region to **participate effectively** in future liberalisation of the energy sector, as well as in the regional economy.

A number of regional activities were identified for each activity area. Some were retained from the 1997 Action Plan, while others originated from existing projects included in the SADC Energy Sector Programme of Action. In addition, new activities were identified and developed in response to the views of the stakeholders. The format used for the description of the proposed activities is broken down under the headings, Summary, Activity Description, Case for Regional Implementation, Significant Policy, Design and Implementation Issues.

By and large, the approach is twofold. While putting forward a series of concrete initiatives, which viability may interest the potential investors, the document also points out the initiatives at governmental level, coordinated by the SADC Energy

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Commission (SEC-TU), that should be carried out in order to create an attractive environment for the referred investment.

The latter include, among others, the promotion of risk reduction measures and speeding up the pace of the Sector's restructuring and harmonisation, encompassing parastatal utilities' management, legal and institutional frameworks and the creation of energy regulatory bodies, on which the majority of the member States, are putting considerable efforts, in order that the transparency enforced through their intervention in the energy market works as a catalyst for investment.

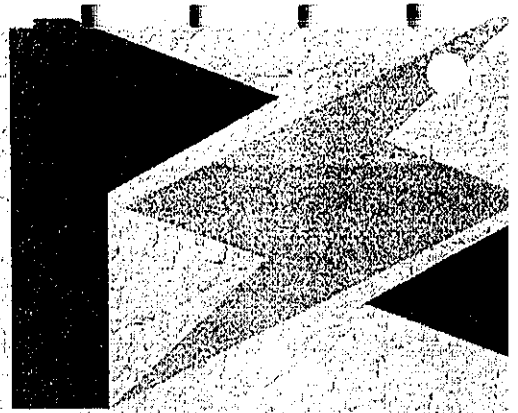
For the SEC-TU this means working towards transparency, clarification and harmonisation of conditions for energy investment in the region. It needs to dialogue with various Ministries of Finance and/or Economy Planning to help in creating an investment climate that would be attractive to investors in the energy sector. It shall also be instrumental in playing the role at the political level in enhancing the security of long-term cross boarder energy demand and supply arrangements through the Southern African Power Pool (SAPP) or other organisations alike.

Definitely, I wouldn't like to be fastidious by elaborating further on this document. Nevertheless I would leave the advise to the distinguished representatives of the investor community, to spare some of your precious time in order to get acquainted with the contents of the ESAP. Therein you will find spelled out, the Region's stand point in terms of Energy priority projects and strategies towards the involvement of new partners, sensitising them to the Region's superior goals, driving the Energy investments policy.

In brief, these goals are consistent with the principle that in the long run it is of common interest for all parties involved, that the development brought about by new investments is environmentally sound and entails a tangible contribution to ease social tensions. The social and economical benefits should have the widest possible impact, avoiding the creation of highly confined islands of development and consequently increasing the differences in the living standards and wealth throughout regions and countries.

As a final remark I would like to stress the relevance of promoting a deeper involvement of the SEC-TU in the monitoring process, leading the end product delivered by the consultants. In the past we had some experiences of considerable deferments in the deadlines previously established and on top of that we have ended up with a product that didn't reflect or take into account our views. We repute as of utmost importance, to increase the co-ordination with the donor/financing agencies, in order that we may have some influence in the process, with significant gains in terms of its effectiveness.

I thank you



NamPowe

The SAPP Vision on Power Sector Requirements

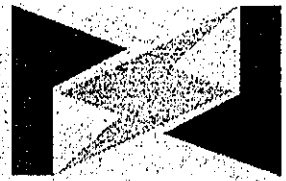
By
Dr. Leake Hangala
SAPP Executive Committee

SAPP Initial Objectives

- **It is a co-operative structure with the following objectives:**
- Improving operational efficiency
- Increasing reliability of supply
- Minimisation of operational costs
- Strengthening of regional infrastructure

SAPP Objectives

- Increase inter-connectivity
- Improve trade in energy
- Train and develop expertise in the energy industry
- Attract investment
- Accelerate economic development

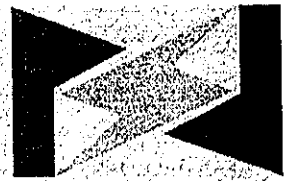


Evolution of SAPP

- Changing from a co-operative to a competitive pool
- Reforms in the ESI in Zimbabwe, Zambia, Malawi, Mozambique, Angola, Namibia and South Africa may have far reaching consequences
- The changing ESI requires careful management because of serious implications to major stakeholders

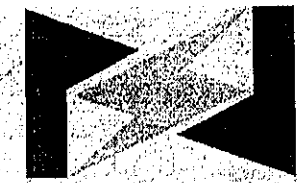
SAPP Stakeholders

- Identified as:
-
- Governments, donors, investors,
- IPP's, generators, transmitters
- System operators, distributors, marketers, end-users, employees
- Environmentalists and regulators



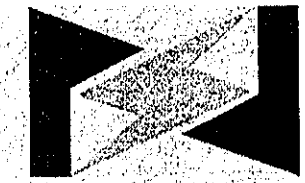
Governments Expectations

- They are satisfied with SAPP performance
- But requires more feedback and more contact points
- Governments relied on SAPP to give leadership
- Expected to get recommendations that would enable the strengthening of regional co-operation, integration and universal access to electricity.



SAPP's Recommendation

- A competitive market to be established within the SAPP
- A uniform enabling policy framework for the region.

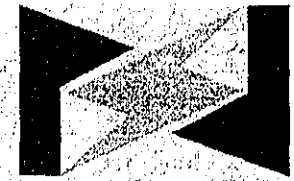


SAPP's Policy Framework

- The ring-fencing of Generation, Transmission, Distribution and Supply functions, to allow a reflection of true costs and thus create opportunities
- Deregulation of electricity prices and allow market forces to set prices.
- Open access to SAPP members who would participate in the wholesale market.

SAPP's Policy Framework

- An independent Regulator within each of the SADC countries, who becomes a contact point for the co-ordination centre.
- Setting up of fund to address rural electrification projects and other issues regarding universal access.
- This is to be financed from electricity sector and other taxes.



Investors and Donors

- It was noted that SAPP had managed to utilise existing assets but had not been able to create new assets to expand the trading activities.
- Emphasis was put on the production of a Pool Plan which identified all investment projects to be promoted.
- Investment promotion function to be carried out by SAPP Co-ordination Centre.

Key Participants in ESI

- It was agreed that the preferred end-state for SAPP market would be one in which any End User in any SADC country would have free access to a supplier of their choice anywhere within the SADC region and beyond.

Key Participants in ESI

- Membership as defined in the Inter-Utility Memorandum of Understanding who would evolve into Independent System Operators.
- These are essentially the regulated Transmission entities who would facilitate operation of the SAPP market at the same time ensuring reliability and safety of the interconnected power system.

Regulators

- The major issue to consider is the consistency of technical staff and their independence.
- For the levelling of playing fields it is important to have competent and independent regulators.

Employees and Environmentalists

- The need to focus on training and development of human resources base at all levels of SAPP
- Environmentalists, their views are to be taken into account during the planning of major investment projects

Confidentiality of Information

- It was observed that conflict of interests where the utility interests were paramount over the SAPP interests.
- This was due to the vertical integration of most SAPP utilities who then viewed information on a micro level as confidential.
- As well as International players also looking for opportunities within the SADC region.

Confidentiality of Information

- The Co-ordination Centre should be structured such that the confidentiality of sensitive SAPP data is maintained at all times and not for release to third parties.
- The Management Committee of SAPP is to provide more details as to the impact of information at micro level.

SAPP Vision

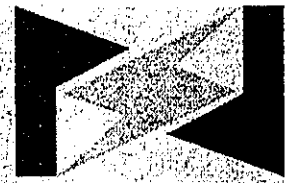
- **The Management Committee would produce a new vision statement on:**
- Competitive electricity market
- Universal access
- Least cost electrical energy to the end user
- Environmental issues
- World class standards

SAPP Conference 2001

- The SAPP Conference has been renamed the "*SADC Energy Conference and Exhibition*" so as to include all SADC Energy activities.
- 5 March 2001 in Victoria Falls
- It is a selling point of achievements, technical capacities and future vision of SAPP to enable universal access at competitive prices.

SAPP Conference 2001

- To involve all SAPP utilities in conference activities
- Involve End Users themselves to get first hand information on SAPP
- The target audience are to be potential investors



The End, I thank you!!

GOVERNMENT PERSPECTIVES ON PRIVATE PARTICIPATION IN POWER

Presentation to the USAID
Forum on Private Sector Investment in The
Power Sector of Southern Africa
Windhoek, Namibia 5th December, 2000

Presented by
John K. Wright - Manager

Office for Promoting Private Power Investment
Ministry of Energy and Water Development
Zambia

CONTENTS

GOVERNMENT PERSPECTIVES ON PRIVATE PARTICIPATION IN POWER

1.0 INTRODUCTION

In 1991, the Government of the Republic of Zambia adopted an economic liberalization policy in order to stimulate development. This meant allowing the private sector to fully participate in the country's development. To this end, legislation was enacted to create the Zambia Privatization Agency and the Zambia Investment Centre in order to privatize in an orderly manner, Zambia's Parastatal companies and to attract private investment to the country.

With regard to the Power Sector, cognisance was taken of Zambia's hydropower potential which is estimated at over 6 000 MW of which some 1 600 MW has been harnessed. The country has a strong transmission grid and is strategically positioned in the region. Electricity generation and trade has the potential to becoming a major economic activity in league with mining and tourism. Zambia's hydropower potential is as follows:

Zambia's Hydropower potential

The hydropower potential sites that have been identified on the Zambian rivers are:

1.1	**Kafue River**		Planned Capacity
	(i)	Kafue Gorge Lower	600 MW
	(ii)	Itezhi-tezhi	120 MW

1.2	**Zambezi River**		*Total Available*	*Zambia's*
		(On Border with Zimbabwe)	*Firm Capacity*	*Share*
	(i)	Batoka Gorge	1,600 MW	800 MW
	(ii)	Devil's Gorge	1,240 MW	620 MW
	(iii)	Mupata Gorge	1,000 MW	500 MW
	(iv)	Kariba North Extension		300 MW
1.3	**Luapula River** (On Border with D. R. Congo)			
	(i)	Mumbotuta Gorge) and		
	(ii)	Mambilima Falls)	1,700 MW	850 MW
1.4	**Kalungwishi River**			120 MW
1.5	**Lusiwasi Extension**			40 MW
1.6	**Small Hydropower Projects** (North Western Part of Zambia)			
	(i)	Chikata Falls, Kabompo		8 MW
	(ii)	West Lunga River, Mwinilunga		3 MW
	(iii)	Chavuma Falls, Zambezi		10-30 MW
	(iv)	Kabompo Gorge		20-30MW

The Development of the sector therefore is a priority and Government has put in place a legal and institutional framework in order to create the necessary enabling environment to attract private investment to the sector.

2.0 LEGAL AND INSTITUTIONAL FRAMEWORK

The present environment in the sector started with the adoption of the National Energy Policy (NEP) in 1994 and the legal and institutional mechanisms to implement the government policy followed thereafter.

2.1 The National Energy Policy

The National Energy Policy encompasses the entire Energy Sector. With regard to the Electricity Sub-Sector, the main objectives are:

i. Develop the untapped hydro potential for power generation to meet the domestic demand as well as the regional market;

ii. Restructure the electricity industry in order to improve service delivery and make it possible for private companies to get involved in the electricity business;

iii. Promote the electrification of productive areas.

iv. Improve accessibility to electricity.

v. Review legislation on electricity in order to bring it into conformity with the envisaged macro-economic environment.

vi. Establish an Energy Regulation Board.

2.2 Review of Legislation

At the time of adopting the National Energy Policy in 1994, there existed three Acts that governed the generation, transmission, distribution and supply of electricity in Zambia and the regulatory framework thereof. These Acts were:-

i. The Electricity Act, i.e., Chapter 811 of the old edition of the Laws of Zambia;

ii. The Zambia Electricity Supply Act, i.e., Chapter 813 of the old edition of the Laws of Zambia;

iii. The National Energy Council Act, i.e., Chapter 424 of the old edition of the Laws of Zambia.

In view of government's policy on liberalization and in order to attract private investment in the power sector, the National Energy Council Act and the Zambia Electricity Supply Act were repealed, while the Electricity Act was amended to pave way to the two Acts under which the electric power industry now operates. These two Acts are:-

i. The Electricity Act, Chapter 433 of the Laws of Zambia, and
ii. The Energy Regulation Act, Chapter 436 of the Laws of Zambia, both of these Acts were passed by parliament in 1995.

3.0 Regulation3

The Energy Regulation Board was established in 1995 following the repeal of the Zambia Electricity Supply Act and the National Energy Council Act and the enactment of the Energy Regulation Act. The Act specifies the functions of the Energy Regulation Board (ERB) as follows:

The Board shall:

(a) Monitor the efficiency and performance of undertakings, having regard to the purposes for which they were established;

(b) Receive and investigate complaints from consumers on price adjustments made, or services provided by any undertaking, and regulate such adjustments and services by the attachment of appropriate conditions to licences held by undertakings;

(c) Receive and investigate complaints concerning the location or construction of any common carrier or any energy or fuel facility or installation – or the carrying out of any works by any undertaking, and regulate such location and

construction by the attachment of appropriate conditions to licences held by undertakings

(d) In conjunction with the Zambia Competition Commission established by the Competition and Fair Trading Act, monitor the levels and structures of competition within the energy sector with a view to promoting competition and accessibility to any company or individual who meets the basic requirements for operating as a business in Zambia;

(e) In conjunction with the Zambia Standards Bureau established by the Standards Act, design standards with regard to the quality , safety and reliability of energy and fuels;

(f) In conjunction with other Government agencies, formulate measures to minimize the environmental impact of the production and supply of energy and the production, transportation, storage and use of fuels and enforce such measures by attachment of appropriate conditions to licences held by undertakings; and

(g) Make recommendations to the Minister as to the measures to be taken through regulations to be made under this Act.

4.0 Electricity Sector Restructuring

The Electricity Sector has to be structured in such a way as to attract private investment.

The Energy Regulation Board is studying various models for restructuring of the electricity sector. The objectives of the restructuring will be the promotion of private sector participation in the electricity industry, promotion of competition, and to increase accessibility to electricity to the majority of Zambians.

The Zambia Privatisation Agency is also carrying out a study for private participation in ZESCO.

5.0 PROMOTION AND PROTECTION OF PRIVATE INVESTMENT

In May 1999, the Government launched the Framework and Package of Incentives for Private Sector Participation in hydropower and Transmission Development (FPI).

This policy document sets out the incentives and concessions available to the private investor. It also gives guidelines and procedures for application and processing of proposals, and implementation of the projects. The purpose of the document is to attract private investment to the sector. An Office for Promoting Private Power Investment (OPPPI) has been set up to implement the provisions of the document. The office was established in October 1999 and is located at the Ministry of Energy and Water Development headquarters in Lusaka. The OPPPI will facilitate private sector involvement in power development.

The OPPPI shall design, implement and manage the competitive process for procurement of private sector power and its associated infrastructure. Specifically, it will:

(i) Solicit for and evaluate proposals;

(ii) Negotiate and process the award of contracts;

(iii) Finalise the Implementation and Power Purchase Agreements (IA and PPA) and Transmission Service Agreements (TSA);

(iv) Represent the interests of Government and shall act as a focal point for coordinating with other agencies such as the Environmental Council of Zambia (ECZ) and the Water Board

(v) Actively interface with other agencies having primary responsibilities for key aspects of private sector power planning, procurement and operation.

The strategic objectives of the OPPPI are:

(a) Attract investment into the Zambian Power Sector
(b) Maximise value of opportunities to Zambia
(c) Create jobs
(d) Create an export market for power

6.0 Selected Projects

The Government has selected a first round of five projects. These are:

- The Kafue Gorge Lower Hydroelectric Project
- The Itezhi-tezhi Hydroelectric Project
- The Zambia-Tanzania 330kv Interconnection
- Development of small Hydropower plants in North Western Province, and
- Electrification of the Mkushi Farming Area.

6.1 Kafue Gorge Lower Hydroelectric Project

The Kafue Gorge Lower Hydroelectric Project is located in the Kafue river, about 65km before its confluence with the Zambezi river and 2km downstream from the existing 900MW Kafue Gorge Upper Power station. The main reservoir for the power station is located at Itezhi-tezhi dam 230km upstream.

This project will utilise a 200m head downstream of the existing Kafue Gorge upper project. The project will have a capacity of 600 MW and will cost about US$430 million.

In 1995, HARZA Engineering Company of the United States presented a feasibility study of the KGLH project. The feasibility study submitted in May 1995 showed that both a Concrete-Faced Rock-fill Dam (CFRD) and a Roller Compacted Concrete (RCC) dam were technically and economically sound and very close in cost. The average and firm annual energy production was estimated at 3,033 GWh and 2,330 GWh respectively. Total construction cost for the RCC dam alternative was estimated at US$430.6 million, while the cost for the CFRD alternative was estimated at US$435.7 million (N.B. costs shown are 1995 costs). The project would be rated for 600MW and be developed in a single stage with a construction time of five years. Both alternatives included an underground powerhouse with four 150MW generators and a 7.8km long tailrace tunnel.

The OPPPI through the Zambia National Tender Board had advertised for Expressions of Interest (EOI) from interested developers in the *United Nations Development Business* publication. The expressions of Interest for pre-qualification were received and evaluated and two prospective consortiums were short-listed. The next stage is to issue the Request For Proposals to the shortlisted developers. Meanwhile the OPPPI has engaged a consultant to assist in the preparation of the Solicitation Documents for the above listed projects.

6.2 Itezhi-tezhi Hydroelectric Project.

The Itezhi-tezhi dam is located on the Kafue river, some 230km upstream of the Kafue Gorge Upper power station. It serves as the main storage dam for the Kafue Gorge Power Station with live storage of about 4.95 billion cubic metres.

The power station will be constructed at the existing Itezhi-tezhi Dam which acts as the reservoir for the existing 900MW Kafue Gorge power station and will use some already existing structures.

In 1999, HARZA presented a feasibility study report of establishing a hydroelectric power station at the Itezhi-tezhi dam.

The installed capacity will be 120 MW and the total cost will be about $100 million. This includes some $28 million for a 200km 220kV transmission line from Itezhi-tezhi to Muzuma, the nearest point of interconnection to the transmission grid.

The OPPPI through the Zambia National Tender Board had advertised for Expressions of Interest (EOI) from interested developers in the *United Nations Development Business* publication. The expressions of Interest for pre-qualification were received and evaluated and three prospective developers firms or Consortia were short-listed. The next stage is to issue the Request For Proposals to the shortlisted developers similar to Kafue Gorge Lower Project.

6.3 Zambia – Tanzania 330kV Interconnector.

This project involves the construction of a 697km 330kV Interconnector from Pensulo in Zambia to Mwakibete in Tanzania with an intermediate substation at Kasama in Zambia. The project is estimated to cost US$153 million. Out of the 697km transmission line 594km will be in Zambia and 103km will be in Tanzania.

This project is earmarked for private sector development. Tanzania has a deficit of electricity and the project is designed to deliver up to 200 MW of power.

The technical, financial, economic and EIA studies have been completed, including detailed design work. The project has been found to be viable. A wheeling price of 2.5 US cents per kWh relates to a project internal Rate of Return of 16%.

Zambia and Tanzania will jointly engage a consultant to prepare the Solicitation documents for the Interconnector Project. ZESCO and TANESCO have agreed to source for not only a consultant to assist in packaging the project for development by the private investor but also funding for the Consultant. Department For

International Development (DFID) may partly fund the Consultancy services and the balance of the funds will be sought from the World Bank.

The tariff negotiations and finalisation of the Power Purchase Agreement have not yet been done. ZESCO and TANESCO will set the dates for the tariff negotiations.

6.4 Supply to Mkushi Farming Area.

The Mkushi Farm Block is a commercial farming area located in the Central Province of Zambia with a high potential for agricultural development. The block has an area of 167 000 hectares comprising 164 commercial farms.

In 1993, ZESCO engaged the Merz and McLellan consultants to review the options for bulk transmission of electricity to the Mkushi Farm Block. In particular an examination of the feasibility of providing supplies at 66kV from Serenje town substation using either materials to be recovered from the existing Lusiwasi-Msoro No. 1 66kV overhead line or a new wood pole line.

This report reviewed alternative methods of providing supplies to the Mkushi Farm Block following earlier feasibility studies which were carried out in two phases in 1983 and 1985. Phase 1 report established the model for agricultural development of the block and the forecast electrical load. Phase 2 report established the electrification scheme, irrigation and electrification activities.

The nearest points of supply to the Mkushi Farm Block considered were:

- Kapiri Mposhi 88/33kV substation and the 33kV overhead line to Mkushi Farmers (in the north west of the block) and Mkushi township 33/11kV substations.
- Serenje town 66/11kV substation
- Lunsemfwa hydro-electric power station 66kV system at the Mita Hills Dam (the normally isolated system supplying Kabwe mine from the Mulungushi and Lunsemfwa Hydropower stations owned by ZCCM).
- Kabwe-Pensulo 330kV overhead line.

In order to facilitate an initial limited development, the distribution system was considered as being developed incrementally by modules to take into account the availability of finance and other resources.

A recent appraisal of the farm block status revealed that the feasibility study information is highly outdated and a new project feasibility study is required in order to have accurate information on the project.

Because of the high cost and other factors the private sector alone cannot develop this project. The options available are Public Sector Capital and financing through grants or soft loans.

The OPPPI will request for Expressions Of Interest for pre-qualification from prospective developer to participate in the development and operation of a transmission and distribution network in the Mkushi Farm Block. The strategy is yet to be finalised.

6.5 Small Hydroelectric Projects in North-Western Zambia.

Norplan in association with ZESCO LTD have recently completed the pre-investment study in small hydropower generation in the North-Western province of Zambia. The study was undertaken in order to, inter-alia, give Government a comprehensive picture on how to supply the area with hydro electricity as an alternative to the current diesel generators whose useful life has drastically reduced coupled with frequent and high operational and maintenance costs. The report includes all findings and evaluation of potential projects and an economic analysis on which a provincial power sector development policy can be based.

In particular, and in the order of priority, the report recommends that the following projects be undertaken:

1. Immediately construct a 33kV transmission line from Mutanda to Kasempa to cover the local demand in Kasempa. The construction costs are estimated at USD 3.8 million.
2. Plan and construct the West Lunga Hydropower plant in Mwinilunga with an initial installed capacity of 2.0 Megawatts for energy supply to Mwinilunga. The cost of the plant is estimated at US$5.8 million.
3. Plan and construct Chikata Falls hydropower plant in Kabompo with an installed capacity of 3.5 Megawatts for energy supply to Kabompo and Manyinga.
4. Plan and construct a 33kV transmission line from Chikata Falls Hydropower plant to Zambezi for energy supply to Mumbeji and Zambezi.

The construction period for the hydropower plants in West Lunga and Chikata Falls is estimated to be in the order of two and a half years, exclusive of the time needed for financing, detailed planning and tendering of the projects.

The cost of 3 and 4 above is estimated at US$13.1 million.

The option of developing the North Western Province projects by public sector capital is being looked at. The rural development aspects coupled with poverty reduction strategy should make these projects attractive for development through grants or soft loans.

7.0 Strategic Business Considerations

The basis for implementing the project will be as follows:

- Zambian Government grants concession to developer, via the Office for Promoting Private Power Investment (OPPPI);
- The OPPPI and the developer arrange the off-taker (buyer); and
- Project developer arranges finance, completes the project and operates the project for the concession period (typically 30 years).

In order to successfully implement the project the following issues need to be analysed and resolved:

7.1 Competition

At present Zambia's interconnected system and that of the Southern African Power Pool are characterised by oversupply as generating capacity is greater than that required to meet demand. In addition, a number of projects are in competition for the next regional project. Among others these include Kudu and Mpanda Uncua. However base scenario forecasts seem to indicate that the region may require new generation by the year 2007.

7.2 Buyer(s) of Electricity

An investor will not develop a project on a "merchant" basis. There is need for a Power Purchase Agreement with a creditworthy buyer. The issues that need to be addressed include:

- The role of the project (e.g. peaking, base load)
- Powers of the parties in terms of reservoir operation and dispatch
- Pass-through of construction risk where tariffs are cost related
- Apportionment of hydrological risk
- Allocation of environmental and resettlement cost
- Servicing of the debt burden
- Tariff structure

Financing may be based on long-term power purchase agreements.

Potential buyers include ZESCO (Zambia) Eskom (RSA), ZESA (Zimbabwe), BPC (Botwana) CEC (Zambia). Signing up of buyer(s) will create value for Zambia.

A major concern are the current low level of tariffs in the Southern African Power Pool which may be a disincentive to investment in generation and transmission infrastructure.

7.3 Credit Issues

These include the quality of the off-taker and the need to establish an equitable risk sharing arrangement between the investor, Government and the off-taker. The risks include:

- Hydrological
- Construction - long construction period and sometimes uncertain geology
- Performance of the project
- Environmental sensitivity and costs
- Market
- Political
- Financial
- Force majeure.

Loan tenure is typically 12-15 years. This is mismatched with the asset lives of hydropower projects, 40 - 60 years, which require long pay-back periods. This gives rise to capital charges dominating annual costs in the initial years.

7.4 TECHNOLOGICAL ISSUES

7.4.1 Hydrology

Optimum hydrology for the projects is still uncertain. The value of the plants needs to be determined more accurately.

7.4.2 Project Interactions

Further studies need to be done in order to establish the interactions of the new hydroprojects with other plants on the Kafue and Zambezi Rivers. This may affect the timing of the projects.

8.0 Creating Value

As we solicit for private investment, there is need to create value for Government. This may take the form of:

- Cash value upfront
- Royalty payments
- Equity participation for free
- Combination of the above

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Value needs to be maximised by increased competition and resolving uncertainties such as the value of the plants (hydrology) and finding a credible buyer.

9.0 Financing

Securing finance will be the responsibility of the investor. The investor is expected to provide a minimum of 20% equity. Financing will be on a non-recourse basis. Sources of finance may include:

- Export Credit Agencies
- Multi-lateral/bilateral institutions
- Commercial banks

It is however important to have a credible off-taker.

10.0 Conclusion

The projects that have been selected have the ability to attract foreign investment and will benefit Zambia. The projects have to be made attractive by minimising risk while at the same time maximising value to Zambia.

Power Sector Development in Africa: Why the Private Sector?

USAID Forum on
Private Sector Investment in the Power Sector
Of Southern Africa

Windhoek, Namibia
December 5—7, 2000

Dr. Samuel Schweitzer
Global Environment Center
U.S. Agency for International Development

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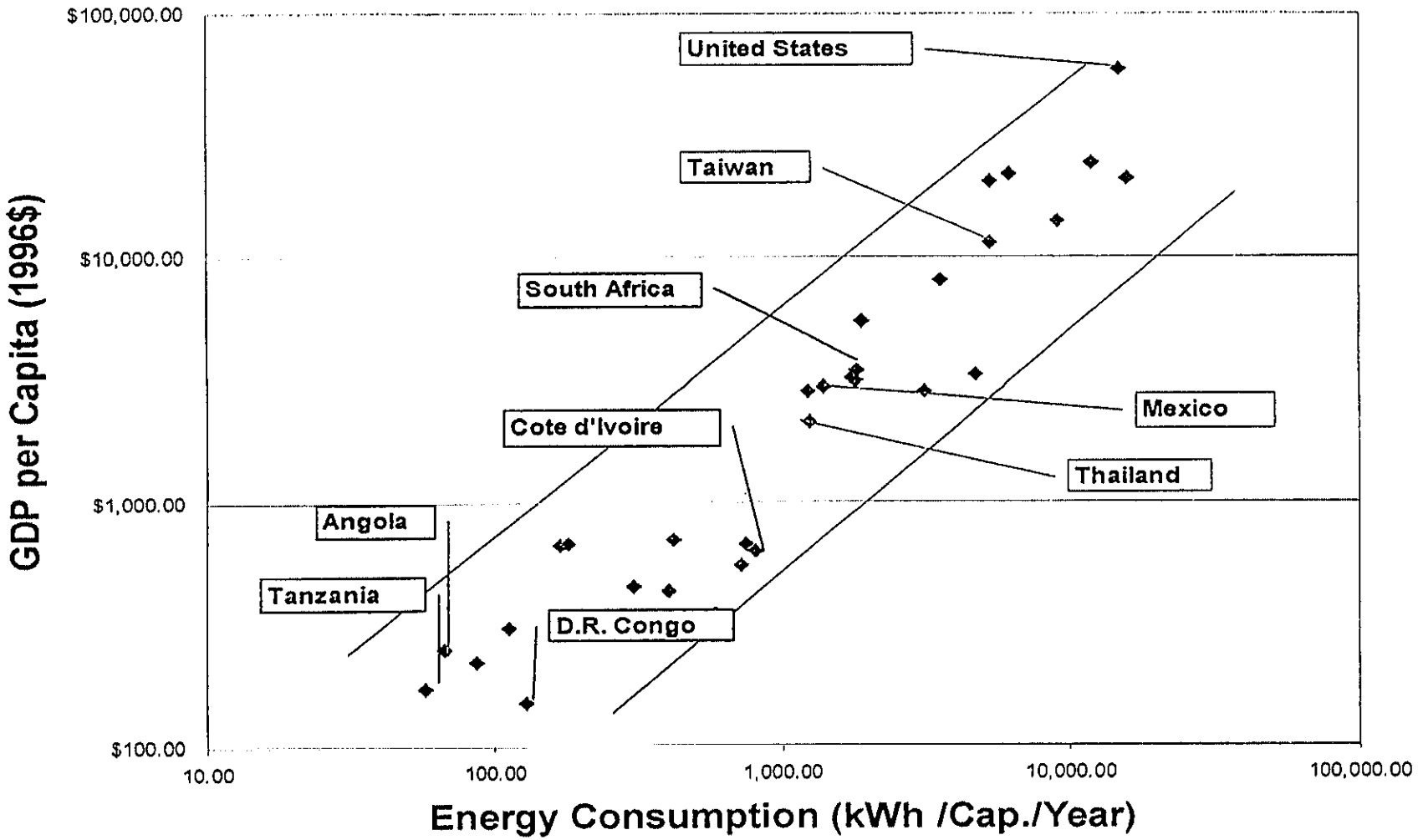
A Strong Correlation Between Income and Commercial Energy



Source: UN Statistics, 1998

Costs of Power Shortages in Developing Countries*

Country	Sector	Cause	Cost
Chile	Industrial	Unplanned Outage	$0.25-12.00/kwh
Egypt	Industrial	Unplanned Outage	$0.40/kwh
India	Industrial	Load Shedding	$1.5-3/kwh
Jamaica	Industrial	Unplanned Outage	$1.25/kwh
Pakistan	Industrial	Load Shedding	$0.46/kwh
Taiwan	Industrial	Unplanned Outage	$0.06-2.27/kwh
Tanzania	Commercial	Unplanned Outage	$1.00/kwh
	Industrial	Unplanned Outage	$0.70-1.40/kwh

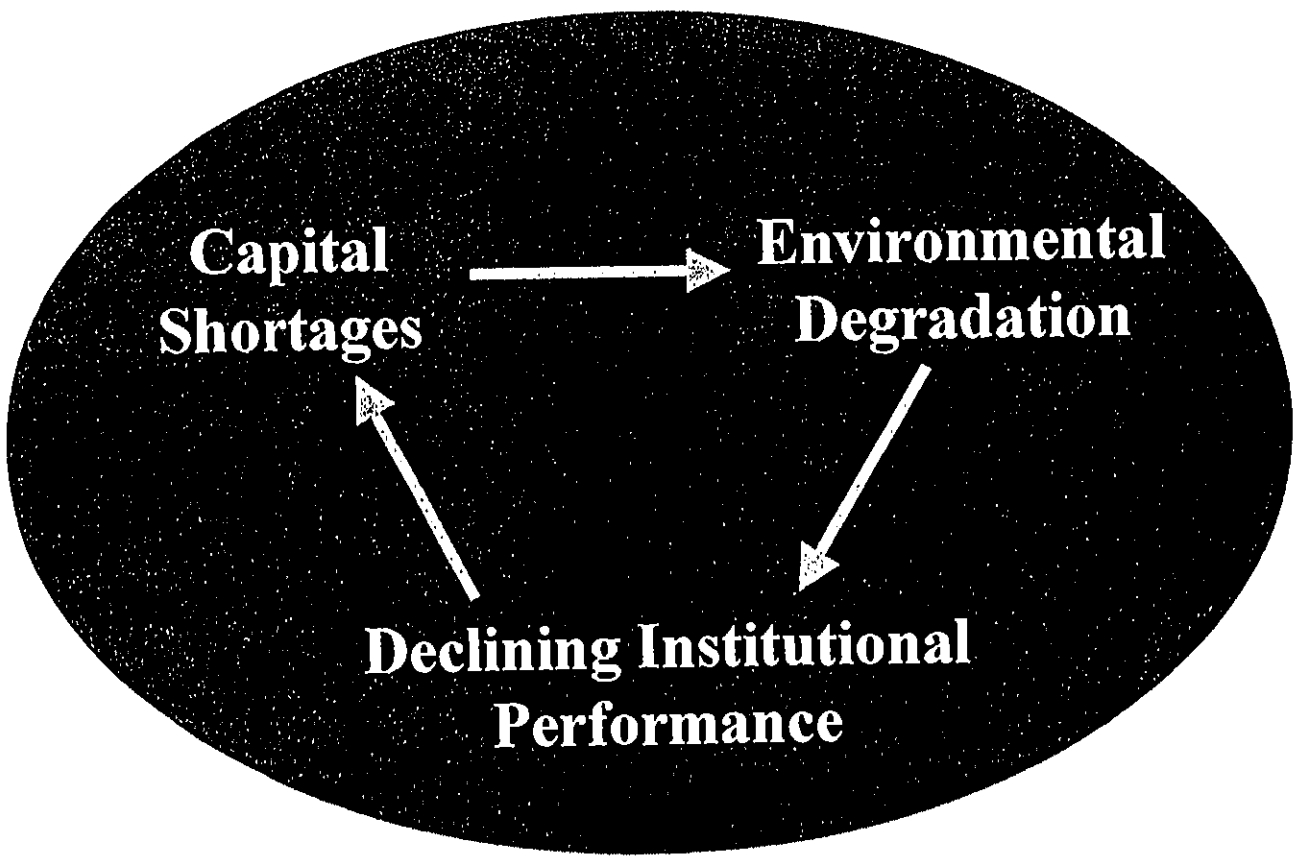
*U.S. Agency for International Development

Deteriorating Utility Performance

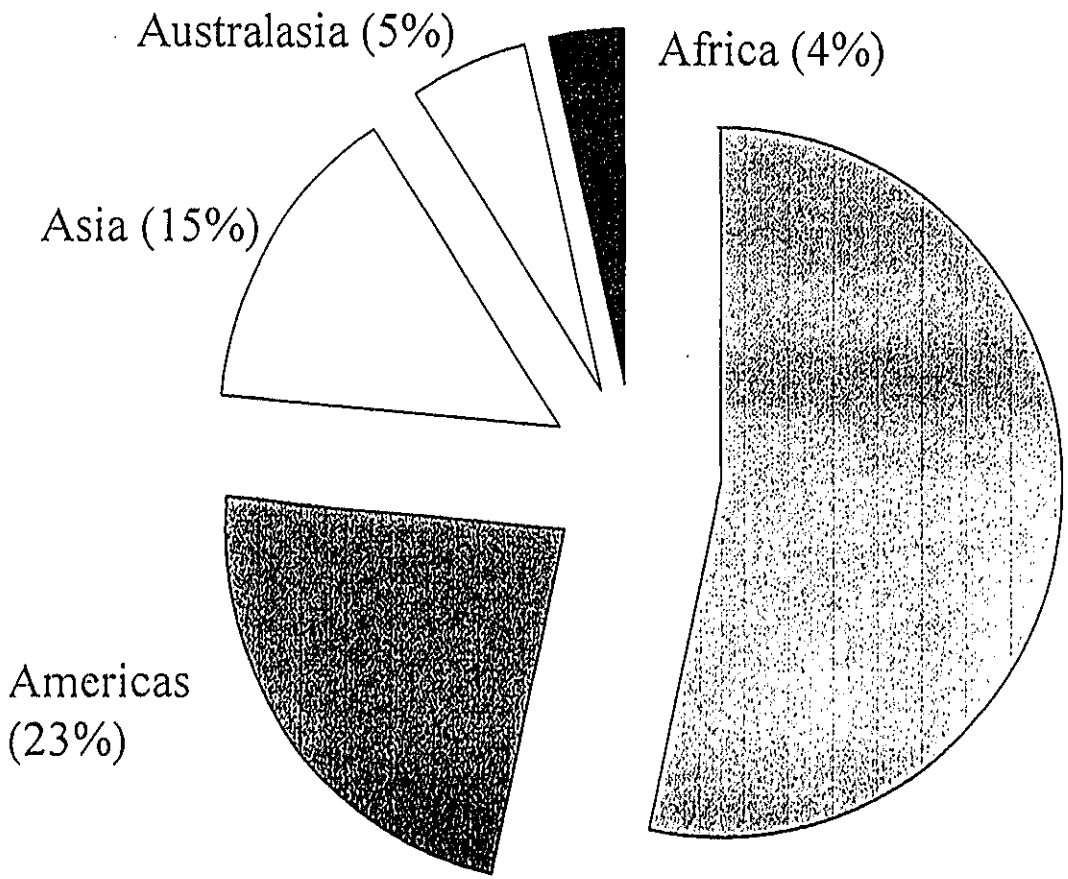
Review of over 300 World Bank-financed utility projects has shown:

- **Poor management and maintenance**
- **High production costs resulting in high prices to consumers**
- **High technical & non-technical energy losses**
- **Over-optimism regarding costs & performance caused by neglect of institutional and management factors**

The Triple Bind



Energy Project Finance by Regions - 1999



Global Total: Approximately US$125.3 Billion

Source: Thompson Financial Services Data, April 2000

Outline

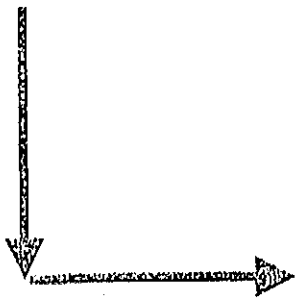
- Power sector development: problems & potential solutions
- USAID's contribution to power sector development
- Challenges & opportunities for Southern Africa
- Examples of USAID assistance for the Power Sector in Africa
- Next steps (to be discussed Thursday)

Power Sector Development: Problems & Potential Solutions

Energy Sector Development: Problems and Potential Solutions

Problems

- Persistent energy shortages and poor reliability
- Constrained economic growth
- Shortages of investment capital
- Limited access to services/coverage



Potential Solutions

- Policy and regulatory reform
- Unbundling vertically-integrated parastatals
- Privatization of state-owned assets
- Attracting private investment
- Institutional capacity building

Environmental Degradation

- **Inefficient parastatals limit ability to better serve rural communities and to promote energy efficiency initiatives in energy supply and end use**

- **Reliance on non-commercial fuels contributes to deforestation and other adverse environmental and health impacts**

Advantages of Private Sector Participation in Power

- Increases the options for financing and investment beyond constrained government resources
- Provides access to managerial resources and best practices
- Develops efficiencies in financing, construction & operation

Enabling Frameworks for Private Participation in the Power Sector

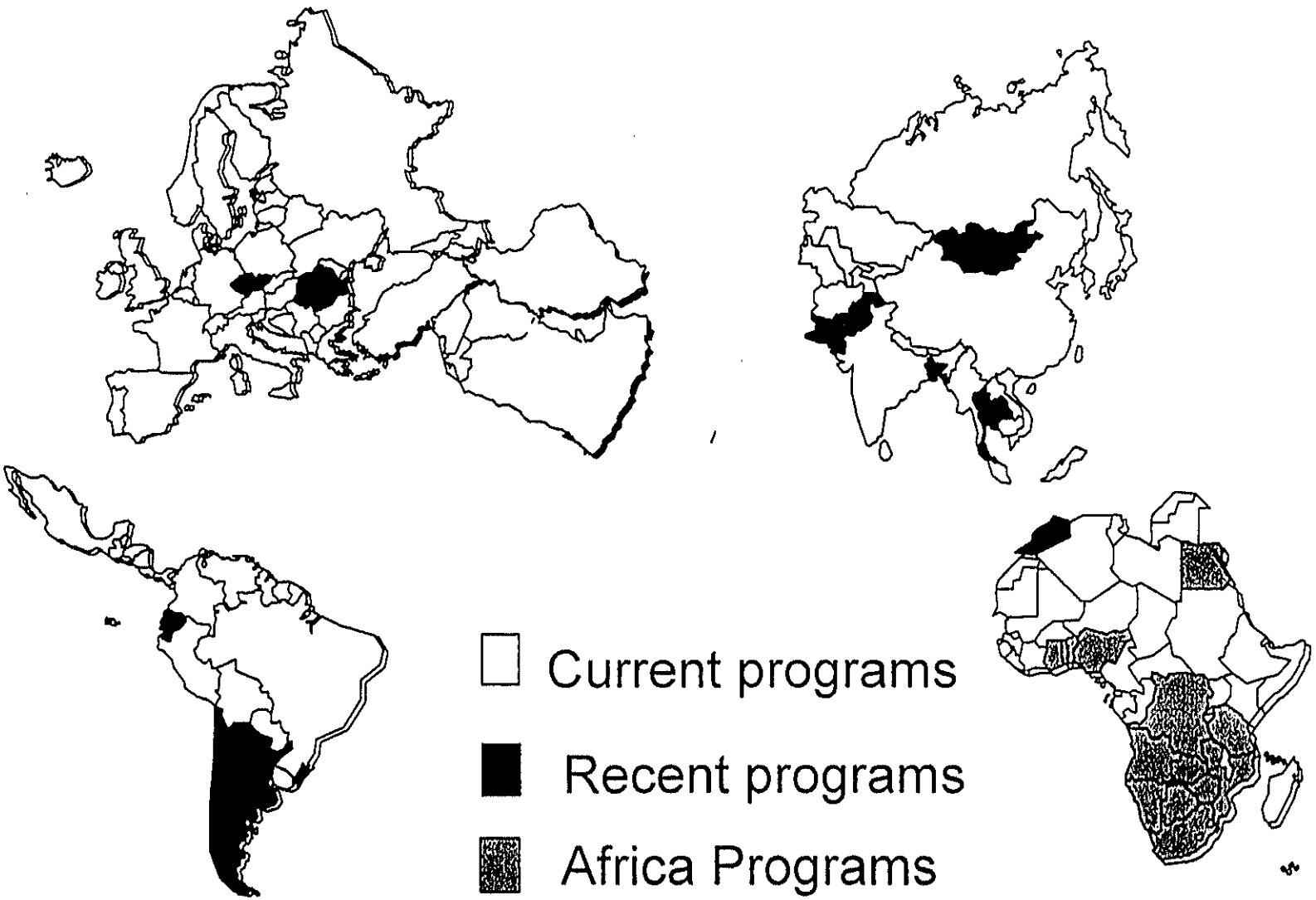
- Attracts and encourages domestic and foreign private investment
- Facilitates more efficient and rational energy production and use
- Harmonizes expansion of generation across countries
- Fosters greater regional cooperation and provides increased manufacturing & trade opportunities

Enabling Frameworks for Private Participation in the Power Sector (contd.)

- Contributes to rationalization of tariff structures
- Provides opportunities for transfer of managerial skills and O&M training

USAID'S Contribution to Power Sector Development

USAID Power Sector Assistance Programs



USAID Interventions

- **Perform Power Sector Assessment**
  - Conduct Definitional & Scoping Missions
  - Analyze Power Sector and Develop Options for Restructuring
- **Provide Legal, Policy and Regulatory Support**
  - Awareness Building with Key Government Energy & Finance Officials
  - Technical Assistance to Aid in Drafting Legislation and Policy, Implementing Rules and Regulation and Determining their Impact
  - Carry Out Focused Training

USAID Interventions (cont.d)

- **Building & Strengthening Institutional Capacity**
  - Utility and Regulatory Partnerships
  - Training & Study Tours
  - On-the Job Training for Key Counterpart Staff
- **Private Sector Promotion**
  - Workshops and Seminars
  - Private - Public Partnerships
  - Policy Design

Examples of USAID Programs

- Assisted Egypt with Legal and Regulatory Reforms that Led to Passage of Law 100 which allows BOOT Contracts
- Assisted Hungary to Devise a Privatization Strategy for Generation and Distribution Companies
- Assessed Regulations on U.S. / Mexico Cross-Border Electricity Sales, Resulting in Immediate Sales Increase
- Armenia: Pre-loan assessment of a 300 MW power plant; assessment of emergency energy needs; and assessment for rehabilitating and privatizing small hydro facilities – all efforts resulted in complete or significant funding for implementation of recommendations
- Regional SARI/E program (Bangladesh, India, Nepal, Sri Lanka)

Challenges and Opportunities for Southern Africa

Challenges and Opportunities for Southern Africa:

- **To attract private sector investment to overcome constraints on governments by**
  - creating a stable investment environment, developing transparent policies to reduce risk and opening the power sector
  - building institutional capacity within the appropriate Ministries of Energy, Finance and Trade & Investment in order to promote and sustain economic growth and industrial development
  - sustaining the commitment to structural reform & greater private participation

Challenges and Opportunities for Southern Africa (cont.d):

- to efficiently tap abundant energy resources
- to develop economically & environmentally sustainable power sectors
- to create viable regional markets and benefit from economies of scale
- to shorten Africa's learning curve by learning from experiences in other developing regions

Benefits to Southern Africa from Private Participation in the Power Sector

- Meets growing demands for reliable power
- Reduces operational costs and improves systems reliability
- Strengthens institutional capacities
- Fosters industrial development
- Provides greater job creation opportunities
- Facilitates regional integration & trade expansion
- Reduces greenhouse gases (GHG)

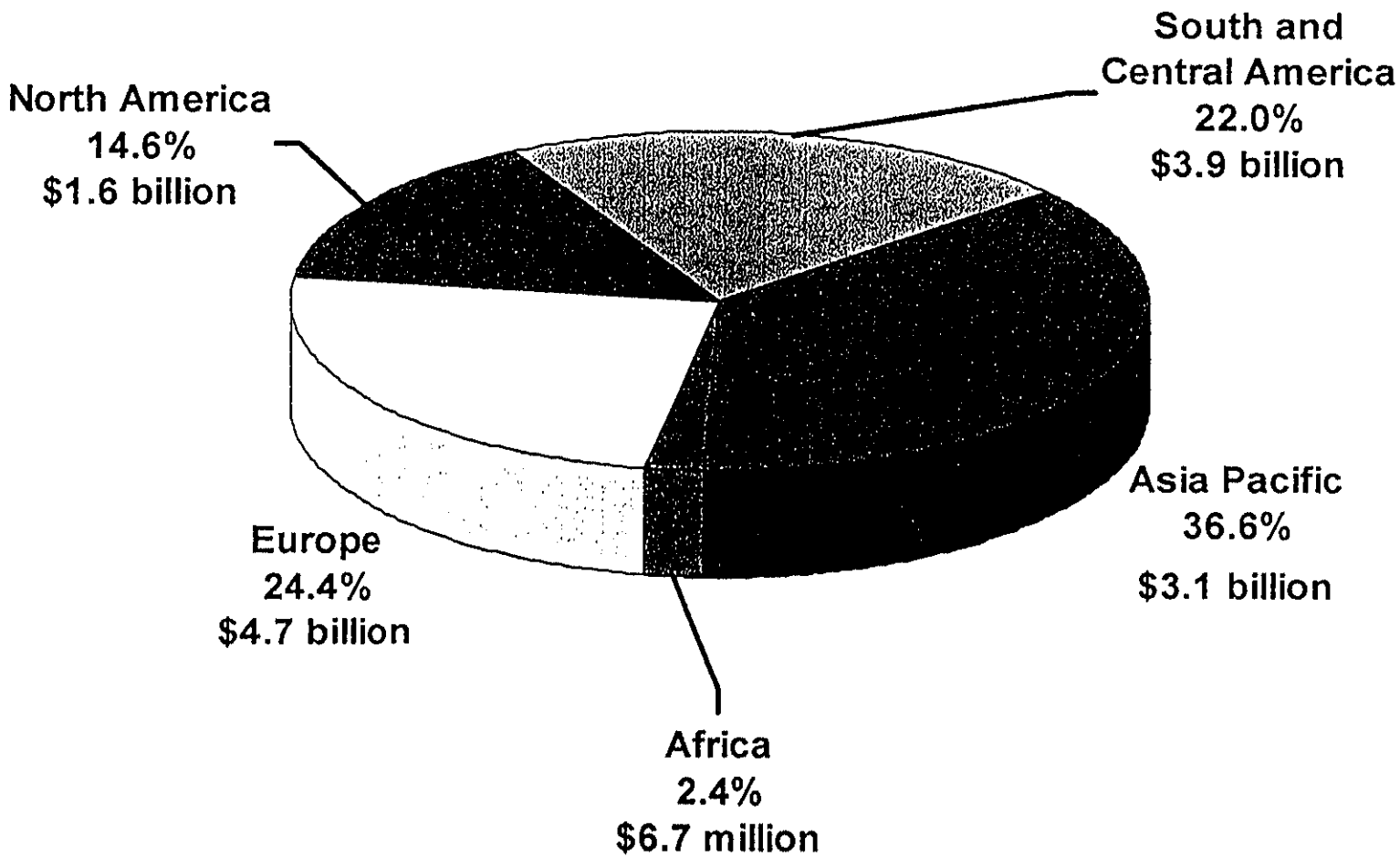
Examples of USAID Assistance for the Power Sector in Africa

Examples of USAID Assistance for the Power Sector in Africa

- Assisting Nigeria with legal and regulatory reform to promote private sector investment and restructuring of National Electric Power Authority
- Assisting Ghana with review of tariff structures
- Assisting Zambia with regulatory reform and developing options for privatization
- Providing long-term technical advisor to Southern Africa Power Pool (SAPP)
- Assisting the development of a West Africa Regional Energy Strategy and Power Pool

Cross-Border Electricity Transaction by Continent

First 5 months 1999 **% of total by number**



Source: Financial Times / PricewaterhouseCoopers

Developers Needs and Conditions for Entry in Southern African Energy Markets

Presentation by:-

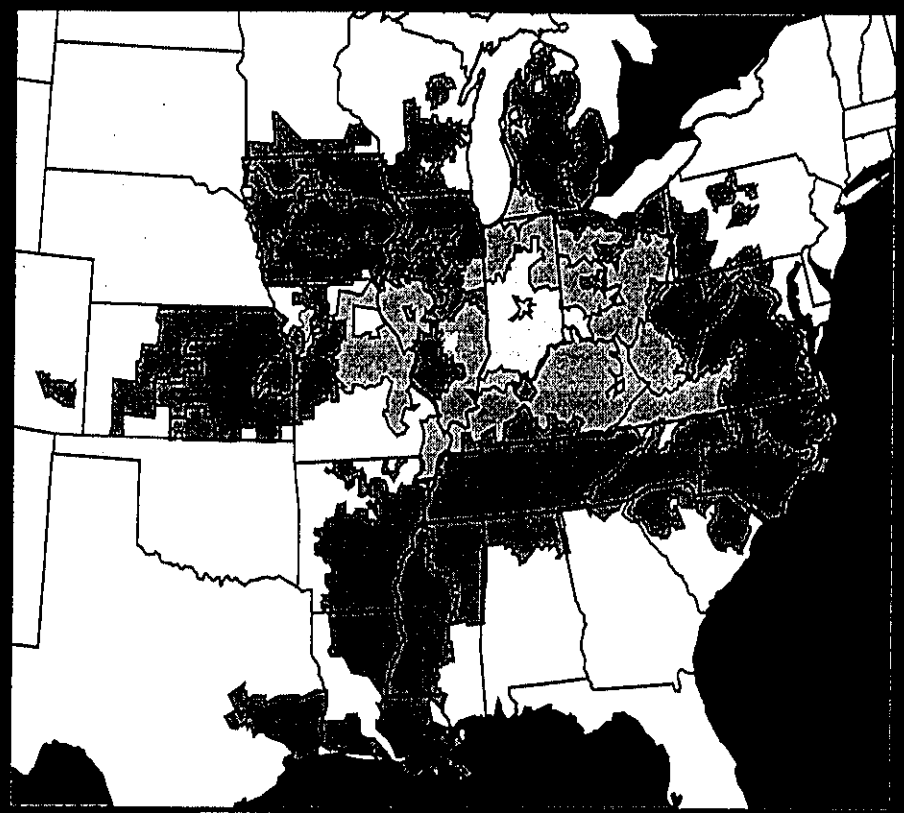
Kevin Chapman
Business Development Director - Africa,
Cinergy Global Power, Inc.

USAID Forum on Private Sector Investment in the Power Sector of Southern Africa

Windhoek Namibia 5 – 7 December 2000

CINERGY
GLOBAL POWER

Cinergy Corp.



- Principal business - Integrated Gas/Electricity Utility, Power Generato & Energy Trader
- 65,000 sq. km 'Franchise' area centre on Kentucky, Ohio, Indiana in the USA
- $5.9 billion annual turnover & assets o $10 billion
- 1.4 million electricity & 473,000 gas customers

- US's largest non-nuclear generator wit 12,000 MW
- US mid-west NYMEX trading floor in Cinergy

CINERGY®
GLOBAL POWE

Cinergy Global Power Inc.

- CGP is the International Business Development arm of Cinergy Corp.
- A developer and investor in energy sector projects around the world
- Experience in the development of over 5,500 MW
- Based in the UK and committed to the region of sub-Saharan Africa

CINERGY®
GLOBAL POWE

Issues that Developers have to deal with:

- Internal
- Geographic
- Financial
- Legal
- Commercial
- Regulatory

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Issues (1) - Internal & Geographic

- **Internal (to Developers themselves):**
  - Perception / Materiality / Lead times
- **Geographic:**
  - Distance and accessibility / Energy demand per km^2 / Projects per km^2 / Separation of energy source and demand sink

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GLOBAL POWE

Issues (2) – Financial & Legal

- **Financial:**
  - Limited choice of lenders / Typically unattractive terms / Costly equity insurance / Often "first ever….."
- **Legal:**
  - Tight, highly structured documentation /Slow process - lack of vendor/customer experience / High legal costs / Usual issues - governing law, arbitration, location, etc.

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Issues (3) – Commercial & Regulatory

- **Commercial:**
  - Preceding factors relatively high tariffs
- **Regulatory:**
  - Often nascent regime / Rules untested / Regulator inexperienced

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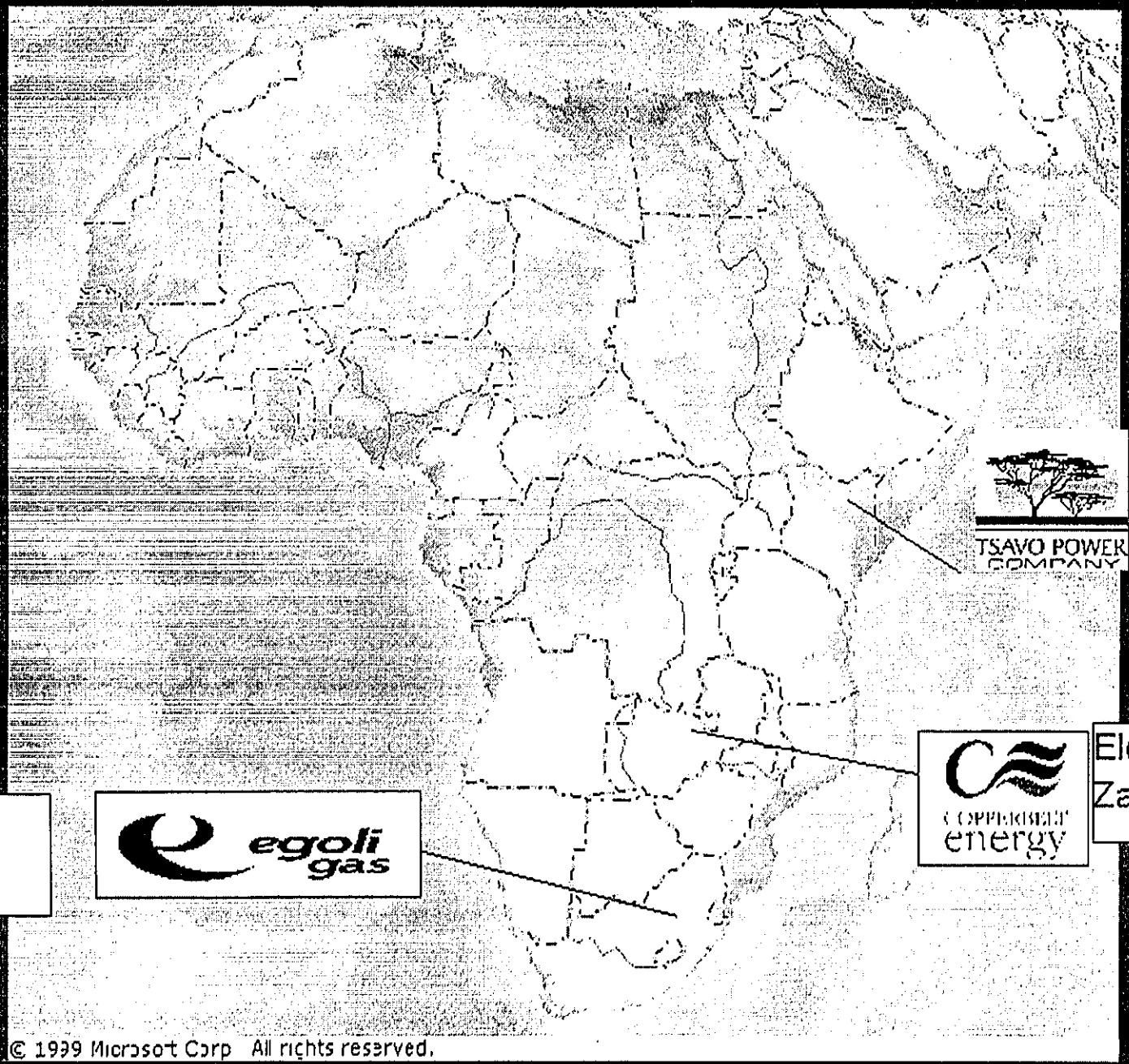
25

Cinergy Global Power activities in Africa



IPP, Kenya

Electricity distr
Zambia

Gas distribution
South Africa

Characteristics of Cinergy's African Portfolio

- Government commitment to the project / process
- Rules of the game generally known or predictable
- Need for creditworthy customers understood
- Parties displayed confidence but not afraid to take advice
- Willingness to engage in dialogue, make decisions **and be innovative !!**

CINERGY.
GLOBAL POW

Barriers Preventing Market Entry

- African Perception
- Lack of political will to make utilities financially viable
  - commercial tariff structures
  - revenue collection
- Regulatory Vacuum
- Bureaucratic Process
- Traditional Structures

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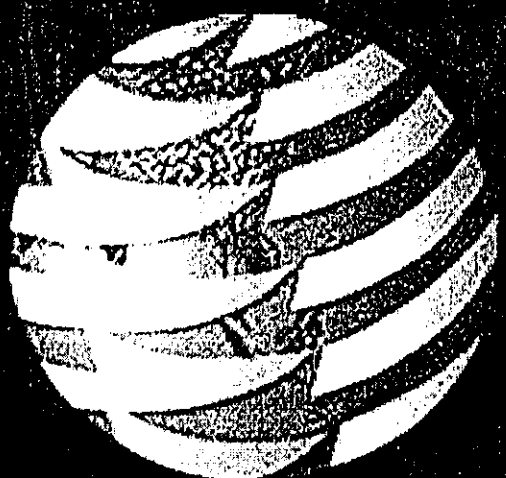
PRIVATE POWER INVESTMENTS

In Southern Africa

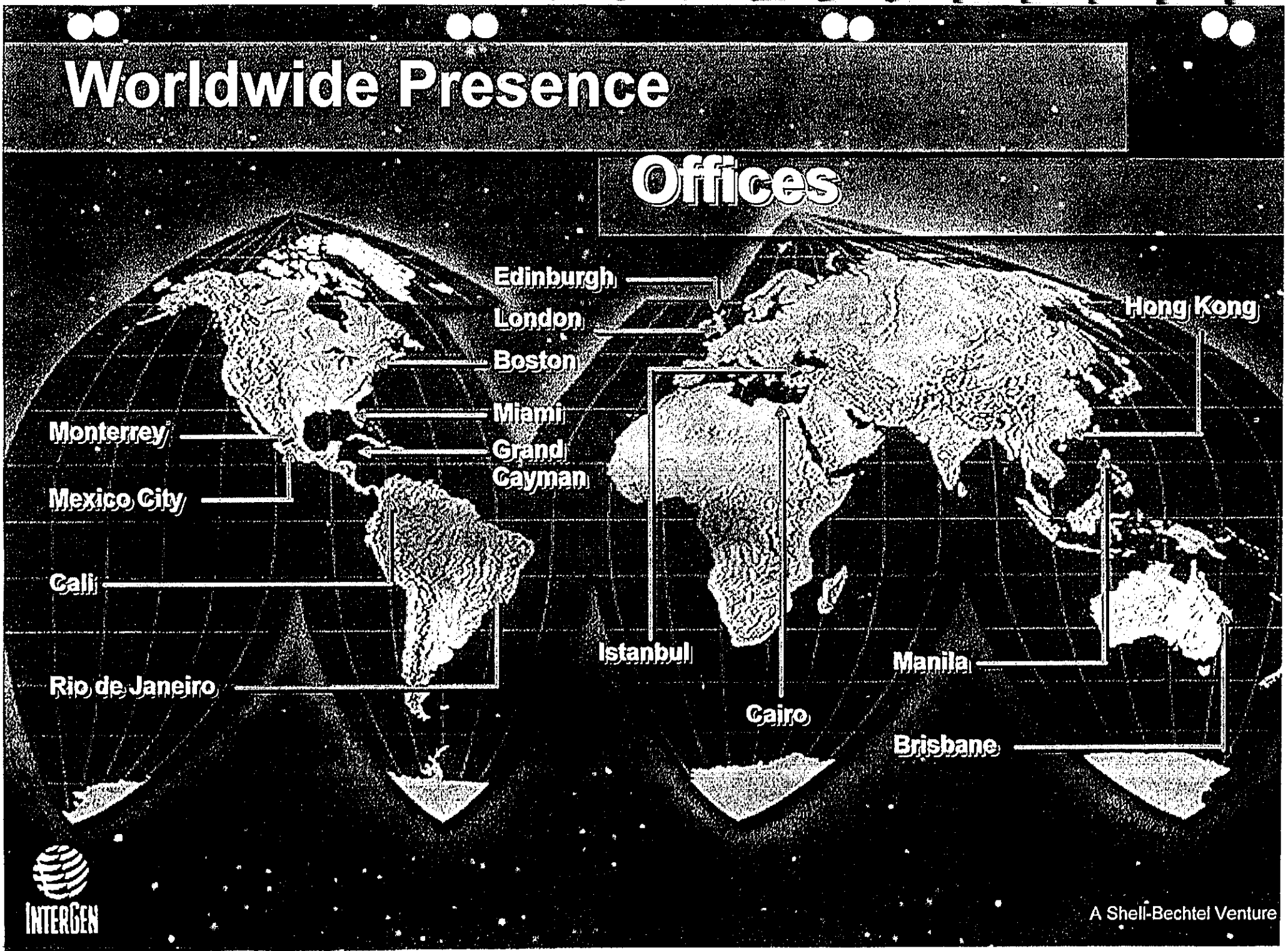


INTERGEN

Dr. Matthew MILUKAS
Director of Development

Windhoek, Namibia
December 2000

A Shell-Bechtel Venture


Worldwide Presence
Offices
Edinburgh
London
Boston
Miami
Monterrey
Grand Cayman
Mexico City
Cali
Rio de Janeiro
Istanbul
Cairo
Hong Kong
Manila
Brisbane
INTERGEN
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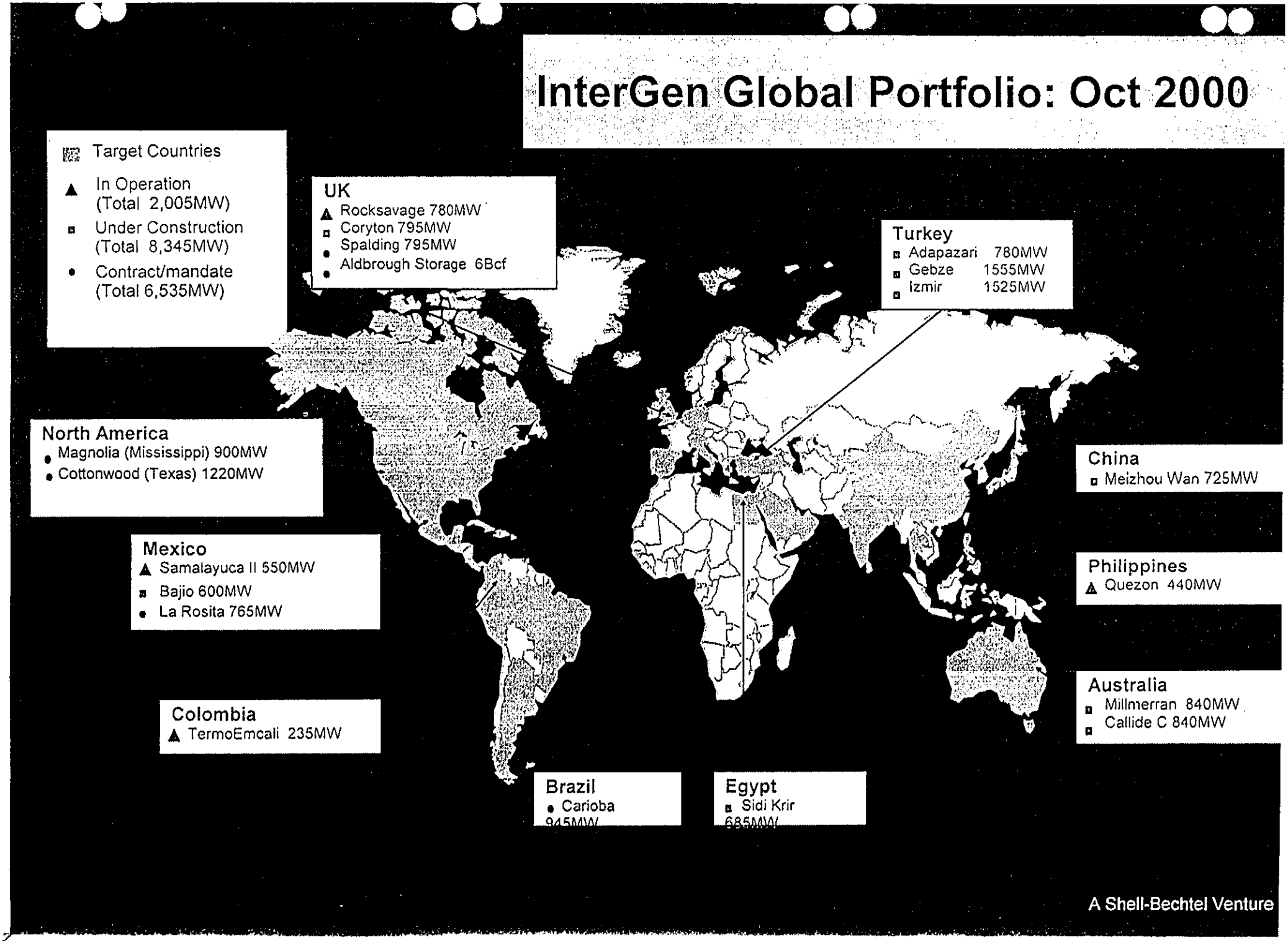
InterGen Today

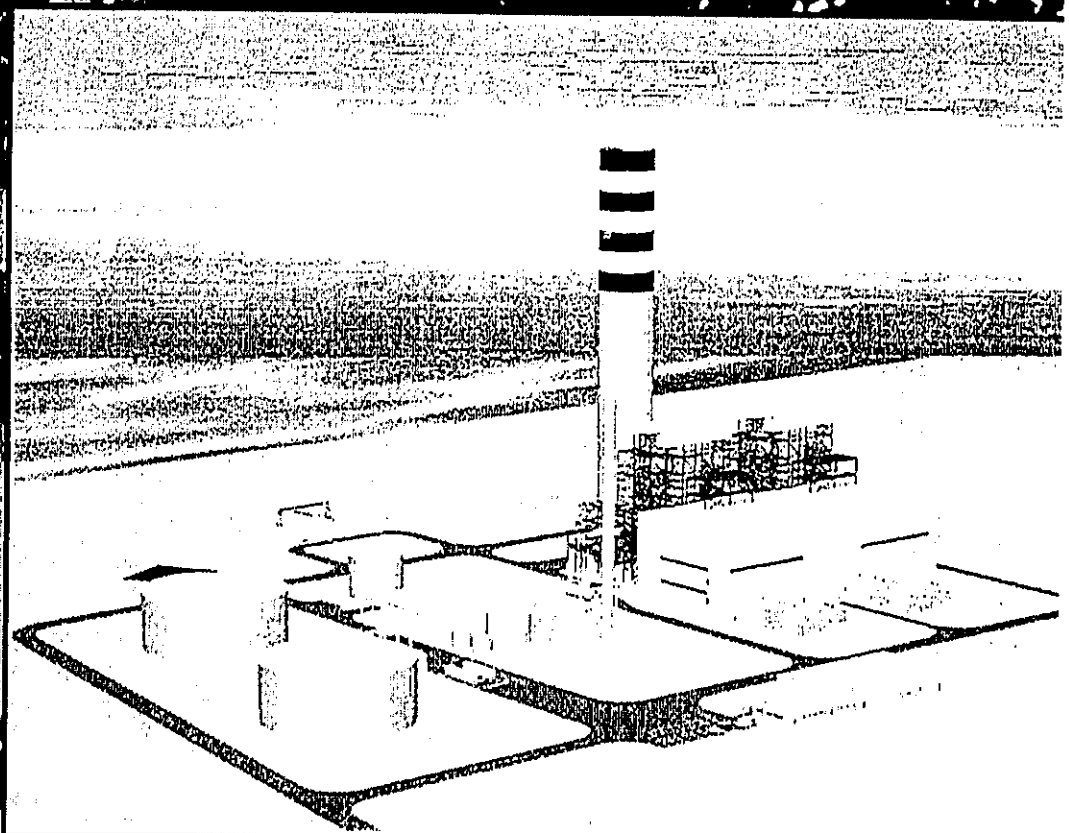
- **10,650 MW in operation or under construction in the UK, Mexico, Colombia, the Philippines, China, Egypt, Turkey and Australia**
- **Eight power projects (6,785 MW) in advanced development**
- **2 dozen projects in early development being pursued in 15 countries**

InterGen Global Portfolio: Oct 2000



Egypt

Sidi Krir



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Egypt

- Sidi Krir facility: 685 MW BOOT 30km west of Alexandria
- InterGen lowest of 11 bidders
- One of largest private power stations in the Middle East
- Contract signed 22 July 1998
- Financial Close in July 1999

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Turkey

Gebze

Adapazari

İzmir

Rendering of Adapazari a

INTERGEN

A Shell-Bechtel Venture

Turkey

- 3 of 5 bids for BOO won
- Izmir 1400MW, Gebze 1400MW, Adapazari 700MW
- Contracts all successfully finalized
- Construction begun March 2000
- Financial Close October 2000

InterGen

A Shell-Bechtel Venture

InterGen's Interest

What Attracts Us

- For a project to attract our company's interest
  - We expect it to be framed within a process built on key principles outlining expectations of both buyer and seller
  - Should be backed by range of contractual guarantees in long-term contracts

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Fundamental Concept

Allocation of Risk

- Risk should be allocated to the party best able to manage the risk
  - Investors take some risk
  - Off-takers take some risk
- Governments need to guarantee their off-takers will live up to their obligations

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Investors Take Risks

What Investors Agree to Do

- Design and build a reliable facility
  - On time, and within budget
- Operate the facility
- for life of agreed contracts
  - Within
  - guaranteed performance levels

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Investors are Motivated

Investors' Incentives

- Penalty for failure to meet investor's obligations
- = Loss of payments under contracts
- Strong incentive not to fail !!

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Political Risks

Investors Need Protection

- Currency Convertability (US$)
- Currency Transferability (offshore)
- Changes in Law
- Expropriation, Nationalization
- Civil Unrest, War
- Permitting Risk (clear regime?)

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More Political Risks

Investors Need Protection

- Freedom to import
- Clarity on import duties
- Clear laws on any local requirements (material / labor)
- International Arbitration
- Governing Law (US or UK)

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Political Risks

Investors Need Protection

- Currency Convertability (US$)
- Currency Transferability (offshore)
- Changes in Law
- Expropriation, Nationalization
- Civil Unrest, War
- Permitting Risk (clear regime?)

Risks Dealing with Off-Taker

Investors Need Protection

- With "no other game in town" ...
  - ¤ Creditworthiness of Off-taker
  - ¤ Late or Non-Payments
  - ¤ Corrupt Practices

Market Risks

Investors Need Protection

- In Absence of Open Markets ...
  - ¤ Realistic demand projections?
  - ¤ Is the project justified?
  - ¤ Fuel Availability & Price
  - ¤ Interconnections Ready On-time
  - ¤ Corrupt Practices

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Political Risks

Further Challenges

- Transparency
- Corruption
- Q of Bids vs. Negotiated Deals
  - ¤ clearly structured process
  - ¤ no complaints later
  - ¤ cheaper prices !

INTERGEN

A Shell-Bechtel Venture

USAID Forum on
Private Sector Investment in the
Power Sector of Southern Africa

AES SIROCCO LTD.

Determinants of Successful Project Finance

Windhoek, Namibia * 4-7 December 2000

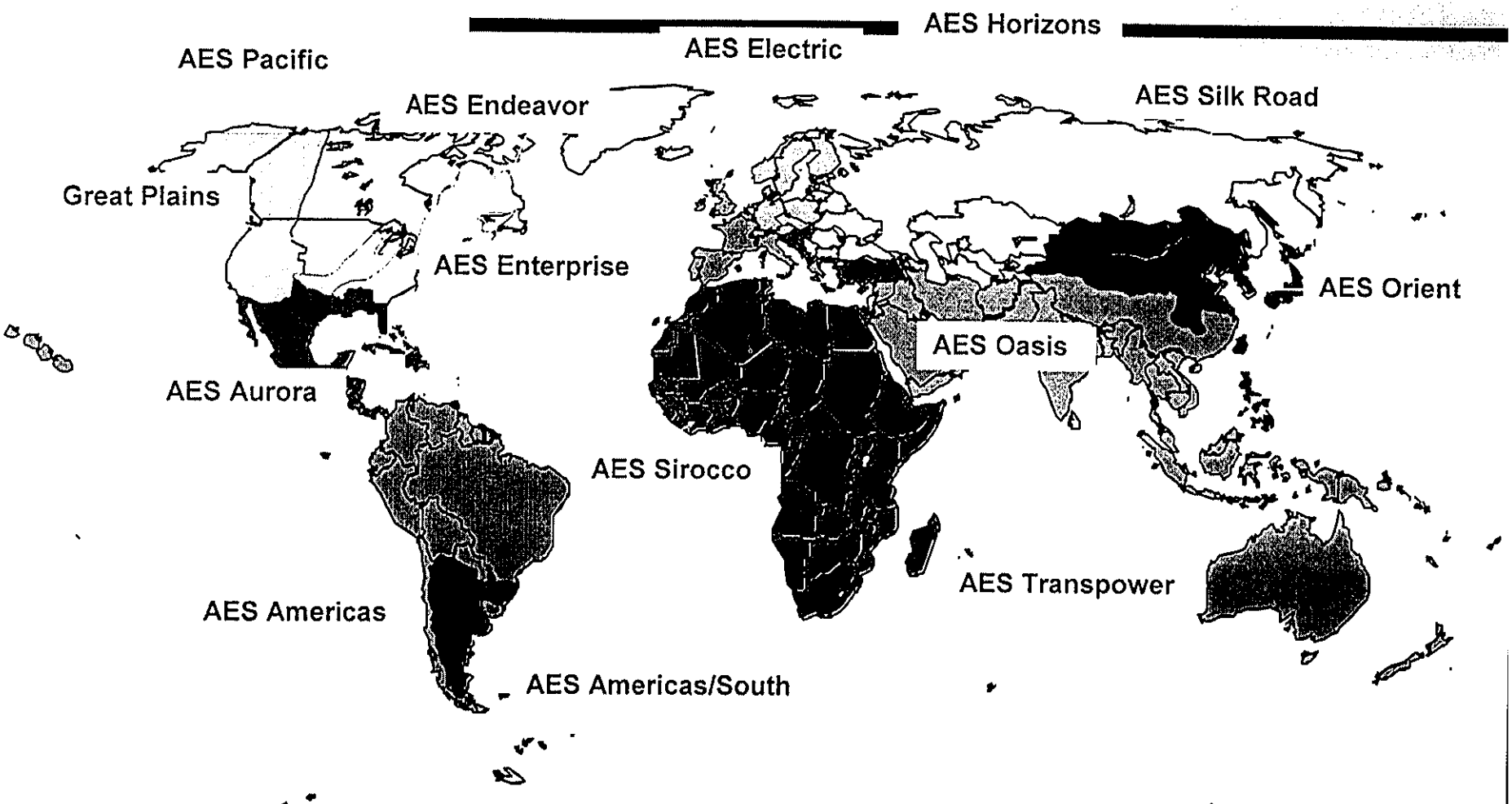
The AES Corporation

- Founded in 1981 and is dedicated to supplying safe, clean, reliable electricity to meet global energy needs.
- Four AES values are fundamental to AES business.
- Owns or has interest in 137 plants totaling over 49,000 MW in 20 countries.
- Distributes electricity in 9 countries through 19 distribution businesses.

The AES Corporation cont.

- Has assets in excess of $29 billion.
- Employs roughly 56,000 worldwide.
- Has numerous projects in construction or late stages of development.
- Has well over 100 business development activities ongoing in more than 40 countries around the world.

AES Groups


AES Horizons
AES Electric
AES Pacific
AES Endeavor
AES Silk Road
Great Plains
AES Enterprise
AES Orient
AES Oasis
AES Aurora
AES Sirocco
AES Transpower
AES Americas
AES Americas/South

AES SIROCCO DEVELOPMENT ACTIVITIES IN AFRICA

- Pursuing or in the process of developing approximately 14 projects in Africa, including:
  - Bujagali - Uganda
  - Songo Songo - Tanzania
  - Kelvin - South Africa
  - Kafue Lower - Zambia
  - Itezhi-tezhi - Zambia

INTRODUCTION

- Macro-view of the determinants of successfully obtaining project finance.
- Project by project approach (national and regional viewpoint).
- No two projects are the same, flexibility and creativity is essential to achieve project success.

Conducive Regulatory and Legal Framework

- Willingness on the behalf of the government to enact energy sector reforms (encompassing both domestic and regional considerations), such as:
  - Instituting suitable privatization structures; and
  - Addressing tariff structure issues, including
    - Confronting political sensitivities
    - Tariff linked to reasonable assumptions and long-term vision.

Conducive Regulatory and Legal Framework (cont.)

- Amendment of energy sector laws to:
  - Accommodate the necessities of project finance; and
  - Avoid undermining the long-term interests of the lenders, investors or the project.
- Willingness to work with investors and financiers in the creation of these structures.
- Competitive and transparent business structures.

Economic, Political and Social Stability

- Economic Stability
  - Strong economic foundations;
    - Strong industrial, commercial and agricultural sectors.
  - Economic trends in GDP, inflation, etc; and
  - Freedom from corruption.

Economic, Political and Social Stability (cont.)

- Political
  - Country free from civil unrest, warfare or conflict;
  - Government's willingness to uphold its obligations (under agreements, etc.);
  - Government's respect of and for private property and its owners; and
  - Freedom from corruption.

Economic, Political and Social Stability (cont.)

- Social
  - Sound education systems.
  - Sound health facilities.
  - Social services and safeguards.
  - Addressing issues of personal safety.

Sound Project Foundations

- Physical Project Attributes
  - Location;
    - Price impact
  - Environmental Considerations; and
  - Access to facilities and interconnections/transmission

Sound Project Foundations (cont.)

- Solid Contractual Structure
  - Power Purchase Agreement
    - Reliable tariff structures;
    - Allocation of major project risks;
    - Agreeable control structure consistent with acceptable regulatory structures;
    - Choice of law, Arbitration Venues, etc.

Sound Project Foundations (cont.)

- Solid Contractual Structure
  - Sovereign Guarantee
  - O&M Agreement
  - EPC Agreement
  - Fuel Supply Agreement

Sound Project Foundations (cont.)

- **Viable Market for the Power**
  - Reliable, creditworthy, committed purchaser(s) willing to commit to the long-term purchase of power
  - Flexibility in how this might be achieved is necessary but there is little flexibility as to its inherent necessity

LONG-TERM COMMITMENTS

- Even if all of the determinants are in place and the project is able to attract and secure the financing, the "success" of the project will depend on:
  - The long-term focus of the project participants; and
  - The commitment and dedication to the implementation of the project.

CONCLUSIONS

- It may take some time to put the necessary structures in place to promote the inflow of investment in the form of project finance in the energy sector, but
- The inherent benefits of this undertaking and the long-term benefit of a solid energy sector are worth the effort for all participants.

DEVELOPER NEEDS AND CONDITIONS

Private Sector Entry into National / Regional Power Markets

Private Sector Investment in the Power Sector of Southern Africa

Windhoek, Namibia
December 5, 2000

Presented by:
William Drotleff
Senior Vice President
K&M Group of Companies
Washington, DC

Why Private Power?

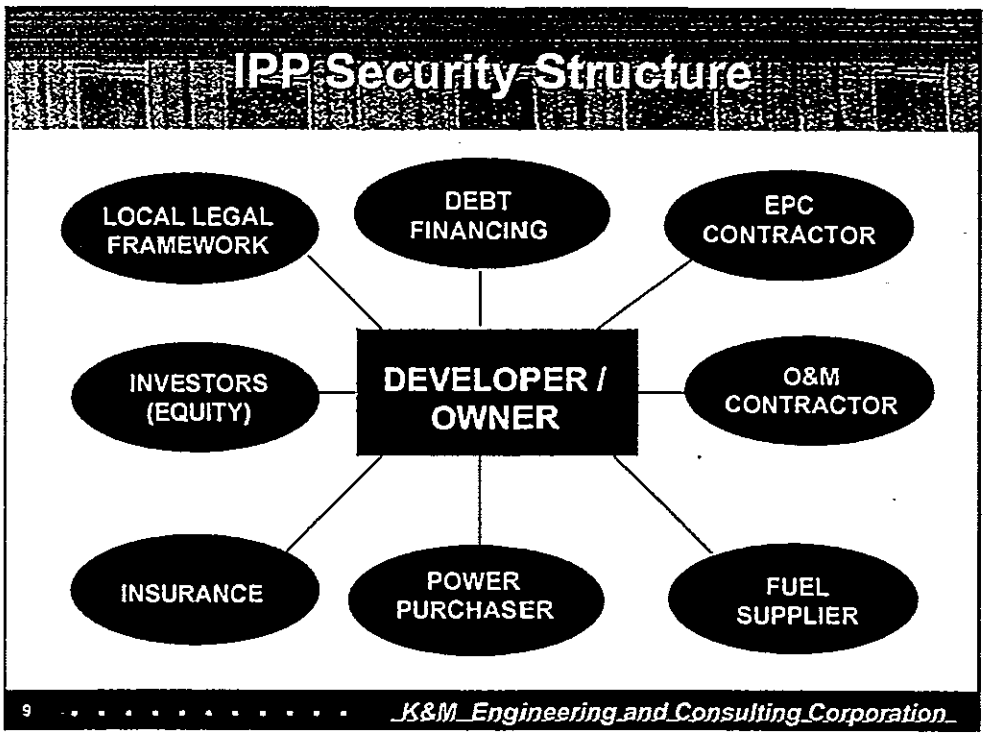
- Improving the supply and delivery of energy
- Lack of financial resources
- New technologies
- Lower tariffs

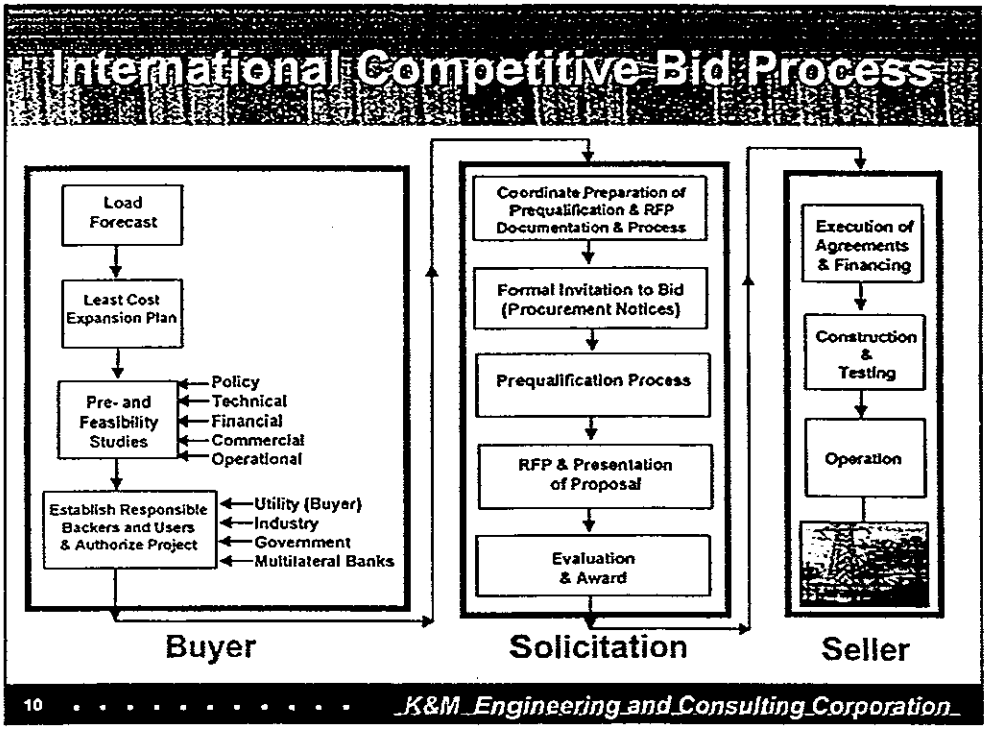
What do IPP Developers Look For?

- Investment opportunities with manageable risks and reasonable returns
- Level playing field, clearly defined rules of the game, transparency
- Stability and predictability
- Knowledgeable counterparts committed to making the development process work

What do IPP Developers Look For?

- Short project development period
  —lengthy, drawn out period costs money
  —TIME IS EXPENSIVE MONEY
- Overall good investment climate
  (is your country more attractive than your neighboring countries?)


IPP Security Structure
LOCAL LEGAL FRAMEWORK
DEBT FINANCING
EPC CONTRACTOR
INVESTORS (EQUITY)
DEVELOPER / OWNER
O&M CONTRACTOR
INSURANCE
POWER PURCHASER
FUEL SUPPLIER
9
K&M Engineering and Consulting Corporation


International Competitive Bid Process
Load Forecast
Least Cost Expansion Plan
Pre- and Feasibility Studies
Policy
Technical
Financial
Commercial
Operational
Establish Responsible Backers and Users & Authorize Project
Utility (Buyer)
Industry
Government
Multilateral Banks
Coordinate Preparation of Prequalification & RFP Documentation & Process
Formal Invitation to Bid (Procurement Notices)
Prequalification Process
RFP & Presentation of Proposal
Evaluation & Award
Execution of Agreements & Financing
Construction & Testing
Operation
Buyer
Solicitation
Seller
10
K&M Engineering and Consulting Corporation

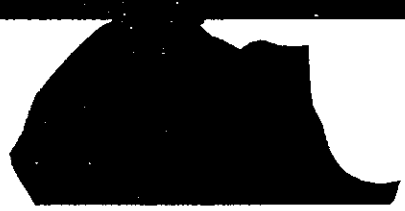
Key to Success

- Basic risks to be assumed (or shared) by government or by developer
- Consider financing sources
  - Borrowing will be necessary for 70% of overall capital costs
  - Developer may use project finance in lieu of balance sheet finance
  - Determine what can be done to reduce financing costs

Key to Success

- Determine role of competition in selecting developer
- Involve all ministries
- Consider needs and goals of developer
- Right conditions must exist

Private Sector Investment in the Power Sector of Southern Africa



Determinants of Successful Project Finance

Presented by:
William Drotleff
Senior Vice President
K&M Group of Companies
Washington, DC

Windhoek, Namibia
December 6, 2000

STRUCTURING IPP POWER SUPPLY PROJECTS

1. Project Screening Criteria
2. Security Structure
3. Tariff
4. Competitive Bidding Process
5. Financing Methods

1. PROJECT SCREENING CRITERIA

Project Screening Criteria

- Project Definition
  - Number, location and size of projects
  - Logistics important
  - Location of interfaces (e.g., interconnection)
- Sector Issues
  - Short to medium term outlook
  - Any market positioning leverage
  - Link IPPs to long term solution
- Structure Project to Optimize Competition

Project Screening Criteria

- **Project Structure Options**
  - Build-Own-Operate (BOO)
  - Build-Own-Operate-Transfer (BOOT)
  - Build-Lease-Transfer (Buyout)
  - Energy Conversion Agreement (ECA)
  - PPA fixed and variable charges
  - Residual value risk mitigation
  - Exit options
- **Technology Options**
  - Short and medium term view
  - Specify or leave open?
  - New and Clean or Refurbished?

Project Screening Criteria

- **Tariff Affordability**
  - What is the anticipated tariff
  - Is the anticipated tariff realistic
- **Fuel Supply**
  - Availability
  - Transportation
  - On-site storage
  - Type, i.e., gas, diesel, heavy oil, distillate
  - Quality / contaminant
  - Supply Agreement

Project Screening Criteria

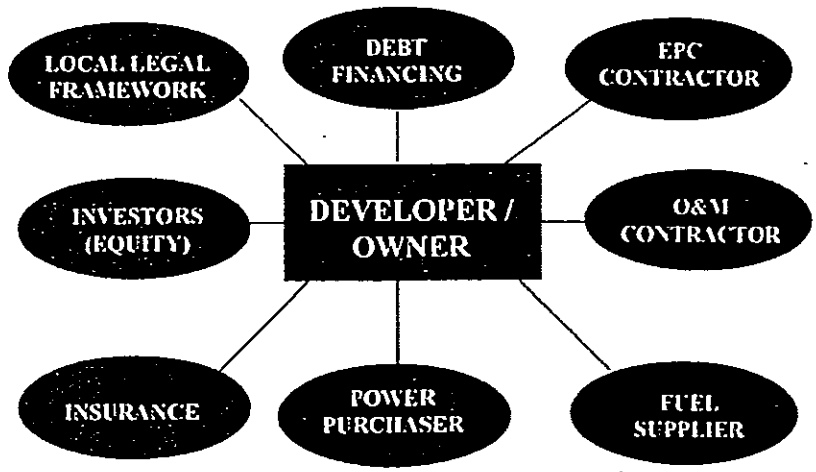
- Country Political/Economic Environment
- How long before project produces cash flow?
- How long before completion of project?

Project Screening Criteria

- Are debt coverage ratios ample and able to withstand adverse events?
- Are the monthly payments based on reasonable capitalized cost, residual value, cost of money, and the lessor's required overhead and profit?
- Is the buyer of electricity creditworthy?
- Are the parties best capable of assuming risks doing so?

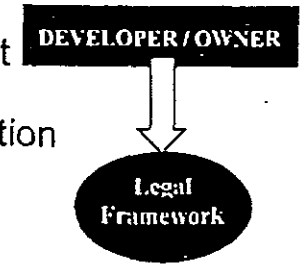
2. SECURITY STRUCTURE

IPP Security Structure



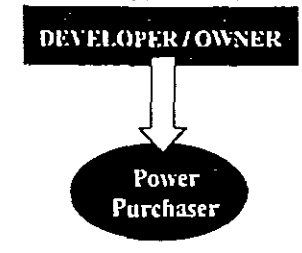
IPP Security Structure
LOCAL LEGAL FRAMEWORK

- Allows Private Sector Involvement
- Provides for Swift Conflict Resolution
  - Arbitration
  - Court System
- Taxes and Tariffs
- Labor Laws
- Transparency in Procurement Process

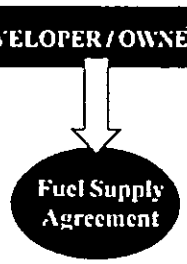


IPP Security Structure
POWER PURCHASE AGREEMENT

- Viability of Power Purchaser
  - –State-owned utility
  - –Industrial Buyer(s)
- Key Elements of PPA for IPP
  - –Term must satisfy debt service period
  - –Sale of Capacity & Energy
    - Take or Pay provisions for capacity (paid in $/kW/month)
    - Energy component based on kWhs produced ($/kWh)
      - –Pass-through on fuel price
      - –Seller guarantees plant efficiency
    - Supplemental Charges for start-up & testing, cycling, etc.
  - –Buyer and Seller Responsibility Sharing
    - Interconnection, Taxes, Insurance

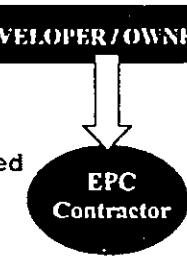


IPP Security Structure
FUEL SUPPLY AGREEMENT



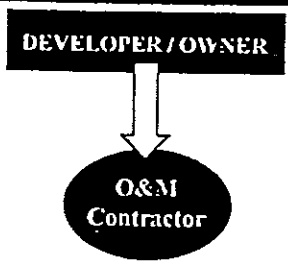
- Key Elements of FSA for IPPs
  - Term must satisfy debt service period
  - Supplier must guarantee fuel availability
  - Delivery delays covered by penalties to cover PPA damages and lost revenue
  - Maximum and Minimum quantities of supply defined
  - Price must be fixed, linked to Index, or stated by Ministry or competent authority in order for price to be passed on to power purchaser
  - Quality and calorific content of fuel must be guaranteed
  - Transportation to plant site must be coordinated and guaranteed
  - Mechanisms for monitoring monthly/hourly/daily fuel requirements, supply and invoicing must be established

IPP Security Structure
EPC CONTRACTOR



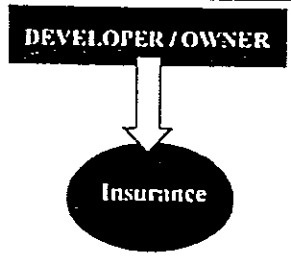
- Reputable Contractor & Equipment
  - Internationally recognized contractor
  - Proven expertise in particular technology requested
  - Historical performance data
- Key Elements of EPC Contract for IPPs
  - Single Responsibility
  - Fixed Price
  - Date-Certain
  - Protection Against Performance/Schedule Delays
  - Reasonable Guarantees

IPP Security Structure
O&M CONTRACTOR



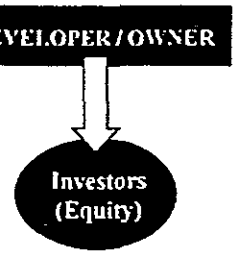
- Reputable Contractor
  - Proven expertise in particular technology
  - Experienced in Developing Countries
  - Typically approved by the Power Purchaser
- Key Elements of O&M Agreements for IPP
  - Reflects owner's obligations under PPA and IA
  - Specific w/ regards to spares, consumables and responsibilities
  - Standards established for availability, heat rate, performance
  - Requirements for Maintenance, outages, overhauls
  - Reflect lines of communication with the power purchaser for plant dispatch and operation
  - Reasonable Guarantees

IPP Security Structure
INSURANCE



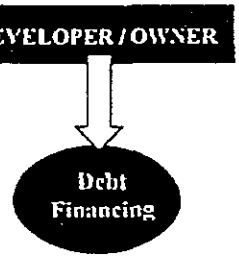
- Commercial Risk Insurance
  - Builder's Risk Insurance (Full EPC)
  - Delay in Start-up / Business Interruption
  - Physical Plant Damage (due to earthquake, fire, hurricane, etc.)
  - Machinery Breakdown
  - Force Majeure
- Political Risk Insurance
  - Political Violence
  - Expropriation
  - Inconvertibiltiy

IPP Security Structure
INVESTORS (Equity)



- Capitalize special purpose project company
- Typically 20%-40% equity in project financing
- Perceived project & country risks determine required IRR
  - –Most Emerging Markets Warrant 20%+ IRRs
- Lender typically wants equity "kicker"
- Developer/Sponsor, Equity Funds, EPC Contractor, O&M Contractor, Equipment Supplier, & Local Partners are sources of equity financing
  - –From developer point of view, not as attractive to have host off-taker (power purchaser) be an equity player in plant as well

IPP Security Structure
DEBT FINANCING



- Project Financing
  - Non / Limited Recourse
  - Loan to single purpose company
  - Security lies in project's future cash flows
  - Project's credibility based on contractual agreements
  - Bridge financing during construction
  - More expensive than conventional financing
- Source of Debt Financing
  - Multilateral Agencies
  - Bilateral Agencies
  - Export Credit Agencies
  - Commercial Banks

3. THE IPP TARIFF

Tariff Objective

- Establishes price of electricity to be paid to power producer
- Provides sufficient revenues to cover producer's fixed and variable costs
- Provides sufficient margins for debt service coverage returns on investment
- Provides power purchaser desired levels of capacity and energy to meet load requirements at comparable or better rates than "avoided" cost
- Longer term, lower tariff

Tariff Components

- Capacity Charge
  - → covers all fixed costs of operation and investor returns
  - → paid in $/kW/month based on plant's dependable capacity (regardless of plant utilization)
- Energy Charge
  - → covers all variable costs of producing energy (fuel, consumables)
  - → Paid in $/kWh based on plant's measured output
- Supplemental Charges
  - → start-up and testing
  - → cycling (hot/cold starts)

The Tariff - CAPACITY CHARGE

- Project Capital Costs
  All construction costs for which financing was arranged.
- Fixed O&M Costs
  Plant labor, spares, maintenance, operator fees, overhaul reserves and other professional services
- Insurance Costs
  Premiums for commercial and political risk insurance
- General & Administrative
  Project management, lender and investor reporting, audits, tax returns, legal service
- Project Operating Taxes
  Local environment, stamp, withholding, VAT, remittance, currency conversion, etc.

The Tariff - ENERGY CHARGE

Fuel Costs

- Cost of fuel consumed to generate electricity pursuant to fuel supply agreement.
- Typically, price/unit is passed through at cost while seller guarantees plant's efficiency

Variable O&M

- Any additional costs incurred solely when operating the plant. (e.g. in combined cycles, chemical treatment in water plant; portion of maintenance reserves)

The Tariff - LEASING

- There are generally four elements that are typically used to calculate the monthly payment
  - →Capitalized cost of the plant
  - →Residual value
  - →Lease factor, cost of money, lessor's overhead, G&A, and profit
  - →Variable costs, fuel

Indicative Tariff for a 150 MW Combined Cycle Power Project at 85% Capacity Factor

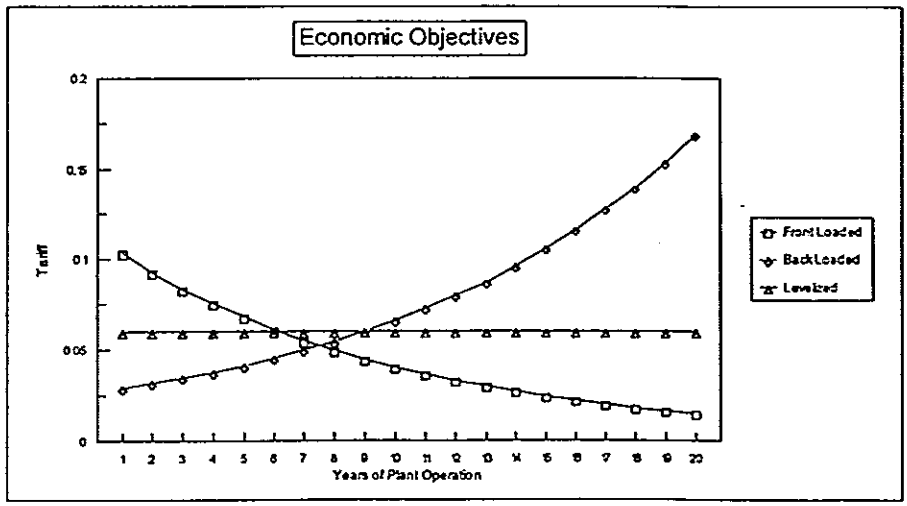
CONSTRUCTION COSTS

Project Hard Costs: EPC, land, spare parts, etc ..	$90,000,000	0.014 $/kWh
Project Soft Costs: IDC, insurance, fees, etc...	$30,000,000	0.004 $/kWh
Total:	$120,000,000	0.018 $/kWh

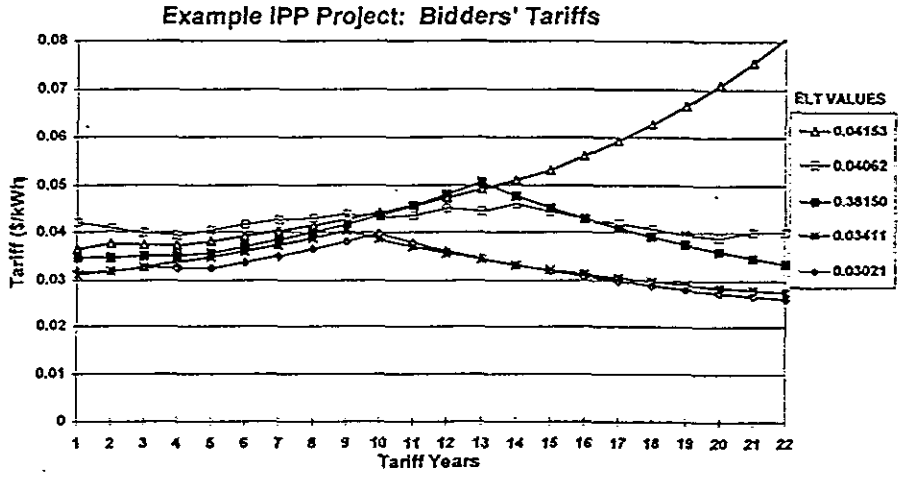
ANNUAL OPERATING COSTS

Fuel Costs: HR = 7,400 BTU/kWh, fuel cost = 2.60$/MM BTU	$21,500,000	0.020 $/kWh	
O&M Costs: Fixed, variable, ins., admin., etc ..	$7,000,000	0.006 $/kWh	Total Tariff:
Total:	$28,500,000	0.026 $/kWh	0.044 $/kWh

Types of Tariffs



Tariff Results



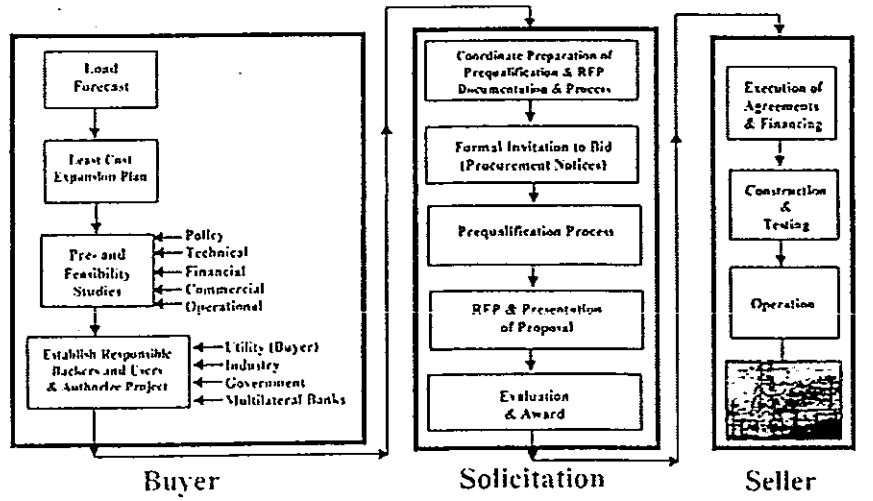
4. COMPETITIVE BIDDING PROCESS

International Experience on Selection Process

OVERVIEW

- International Competitive Bid Process
- Sectoral Issues and Host Government Actions
- Project Definition and Bid Process Objectives
- Procurement Methods, Alternatives/Preparation
- International Competitive Bidding Schedule
- Request for Proposals (RFP)
- Evaluation Considerations

International Competitive Bid Process



Sectoral Issues and Host Government Actions

- Tradition of tendering
- Institutional receptivity
- Public support
- Establish ministerial or purchaser capability to support formalized bidding process
- Establish enabling legislation/policies
- Establish inter-ministerial review/approval process
- Develop project requirements
- Hire outside consultants and attorneys as required

Project Definition and Bid Process Objectives

- Obtain desired capacity and energy at most competitive market cost
- Maximize qualified competition
- Permit open and fair competition
- Evaluate serious offers on rational basis
- Utilize specific and transparent evaluation criteria
- Minimize project development duration

Procurement Methods and Alternative Methods

- International Competitive Bid (ICB)
- Limited International Bid (LIB)
- Direct Award (Memorandum of Understanding)
- Select developer through ICB/LIB
  - Developer is then free to select services, goods, works from eligible sources
- If developer is not selected through ICB/LIB
  - Then goods, works, services must use ICB/LIB

Pre-Bid Project Planning and Selection

- Establish power system needs and desired resources
- Commission comprehensive pre-feasibility study
- Determine method of bid solicitation;
  (i.e. structured vs. unstructured)
- Develop formal bid process and bid documents
- Establish single governmental point of contact to focus the bid process and subsequent IPP negotiations

Project Pre-feasibility Report Features

- Capacity and energy requirements
- Generating plant operational characteristics
- Alternate technologies
- Fuel(s)
- Location
- Environmental Impact
- License/permit/ clearance requirements
- Cost
- Schedule

TYPICAL SCHEDULE * International Competitive Bid

ACTIVITY	COMPLETION DATE
General procurement notice	60 days before RFQ issuance
Prepare Request for Qualifications (RFQ)	45 days (duration)
Issue RFQ	45 days to respond
Start Preparation of Request for Proposal (RFP)	90 days prior to RFP issuance
Receipt of "Qualification Statements" by applicants	DUE DATE
Evaluation & Shortlist	DUE DATE + 45 days
Issue RFP document to qualified applicants	+ 46 days
Pre-bid conference	+ 75 days

TYPICAL SCHEDULE *
International Competitive Bid

ACTIVITY	COMPLETION DATE
◆ Receipt of proposals	→ + 165 days
◆ Selection of the sponsor	→ + 285 days
◆ Incorporate project company	→ + 465 days
◆ Sign project agreements (IA, PPA, FSA)	→ + 465 days
◆ Finalize loans and agreements with lenders and investors	→ + 645 days
◆ Financial close and *start of construction*	→ + 646 days
◆ Commercial operation of plant	→ Financial close + xx months

◆ **Government approval steps are not indicated nor the time required for each.*

Typical RFP Contents

- Information for applicants
- Instructions to applicants
- Security package and financial structure
- Submission documentation; security
- Performance specifications
- Technical information
- Proposal evaluation: methodology and criteria

Typical RFP Contents

- Information for applicants
- Instructions to applicants
- Security package and financial structure
- Submission documentation; security
- Performance specifications
- Technical information
- Proposal evaluation: methodology and criteria

Typical Evaluation Considerations

- Confirm responsiveness to RFP criteria ("pass/fail")
- Is proposal complete and acceptable
- Evaluate technical aspects
- Evaluate project financing scheme
- Weighting of price vs. non-price factors
- Evaluate economics of proposal, particularly tariff

Technical Evaluation Factors

- Capacity (meets requirements, % degradation per year)
- Heat rate (evaluated in the tariff calculations)
- Major equipment components (proven experience)
- Adequacy of design for 30-year operating life (equipment, O&M)
- Designed for high availability redundancy, quality, experience)
- Environmental compliance (noise, air, water)

Evaluating Project Financing Scheme

- Project financing experience
- Creativity of all international financing activities
- Proposed financing structure for referenced project

Project Financing Experience

- True non-recourse and *limited recourse financing*
- Understand nature of previous deal structures
- Separate guarantee / balance sheet structures

Creativity of Financing Structures

- Ability to "Get Deal Done"
- Offshore transactions
- Leases
- Unique security structures

Proposed Financing Structure

- Lead financial advisor qualifications
- Underwriting preferred
- True commitments vs. letters of interest
- MDA / ECA participation
- Equity level and sources
- Reality Check

Evaluation of Project Economics/Tariff

- Tariff structure
- Assumed operating characteristics
- Discounting proposed tariffs
- Reality check

Tariff Structure

- Capacity and energy components
- Local composition vs. FX indexation
- Fuel "pass-through" with guaranteed heat rates
- 3rd party sales allowed?

Operating Characteristics

- Estimated plant load
- Estimated plant utilization
- Expected fuel price
- CRITICAL to be close to actual

Discounting Proposed Tariff

- Weight average discounted price (WADP) or levelized tariff
- Proper discount rate used
- Forcing desired curve through "weightings"
- Avoid "gaming" by bidders

Reality Check

- Assure bidders have included major cost components of IPPs
- Financeable debt coverage ratios
- No "open book" policy
- Assure financeability
  - Interest rate protection
  - Insurance, etc.

Evaluation Approach

- Two Envelopes submitted on Bid Due Date
- Responsiveness Test
  (Past-Fail Criteria for Envelope #1)
  - Submission is Complete (Incl. Proposal Security)
  - Conforms to Terms, Conditions, & Specifications of the RFP
  - No material exceptions taken to draft docs.
  - Technically Acceptable
  - Financeable
  - Meets Schedule Requirements

Evaluation Approach

- Proceed to Envelope 2 only for those Bidders satisfying Envelope 1 criteria.
- Envelope 2 is the Tariff -- Weighted, Two-Step, Levelized Scoring of Price
  - Lowest Priced Bidder becomes First-Ranked Sponsor

5. PROJECT FINANCING

Typical Financing Methods

- On Balance Sheet
- Project Finance
- Short Term Lease

PROJECT FINANCE

- Relies on project ability to generate cash flow
- Project assets and contracts are pledged
- Careful attention is given to quantifying risks and appropriate sharing

ON BALANCE SHEET

- Owners take all or most risks
- Loan is shown as liability / obligation of the owner
- Historically, regulated and state-owned utilities have relied on this type of financing

SHORT-TERM LEASE OF EXISTING ASSETS (3-5 YEARS)

- Lessor takes all or most risks
- Lessee's initial capital outlay is low compared to the asset value
- Assets do not show as liabilities on Lessee's balance sheet
- Lessee pays a fixed monthly payment (excluding fuel charges)
- Lease term is normally 3-5 years

Financing Methods

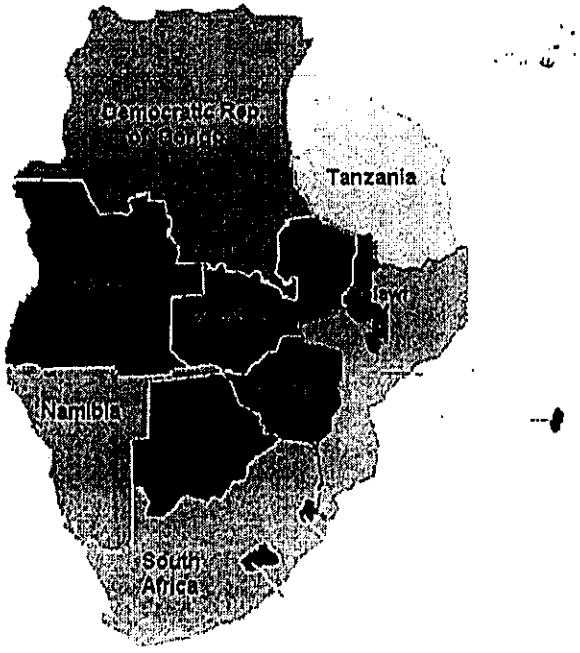
- Typical non-recourse project finance is not an option for emergency power projects

Summary

- Financing Methods
- Project Screening
- IPP Security Structure
- Financing
- IPP Tariff
- IPP Competitive Bid Process

THE LEGAL FRAMEWORK FOR PRIVATE INVESTMENT IN THE POWER SECTOR

SOUTHERN AFRICAN DEVELOPMENT COMMUNITY



Windhoek, Namibia
5-7 December, 2000

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- **Transfer Technology**

I. Goals of SADC Nations

- **Improve Environment**
- **Promote Macroeconomic Growth**
- **Reduce Poverty**
- **Improve Service, Protect Consumers**
- **Gain Revenues for State**

II. Legitimate Investor Expectations

Regulatory Function

- **Independent**
- **Transparent and Open**
- **Predictable, Consistent Standards**

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- **Fair Rates or Functioning Market**
- **Cost Based Tariffs – Georgia**

II. Legitimate Investor Expectations

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II. Legitimate Investor Expectations

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- **Profit Repatriation, Currency Convertibility**
- **Taxes**

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- **"No Surprises" – *e.g.* Environmental**

II. Legitimate Investor Expectations

Judicial Process

- **Fair and Predictable**
- **Prompt**

Integrity

- **Corruption Free – East Europe/NIS**
- **Minimize Country Risk**

III. Legal and Regulatory Framework

Independent Regulator

- **Critical for Private Investors**
- **Transparent, Principled and Consistent**
- **Price Setting and Profit**

Market Structure

- **Competitive and Captive Markets**
- **Clarity and Transition Provisions**

III. Legal and Regulatory Framework

Collection and Cut Off Powers

Country	Current Collection on Billed Amounts	Tariffs	Ownership
Albania	36%	Tariffs < Costs	State
Moldova	85-90%	Tariffs = Costs	Privatized

Not a Function of National Income, But Policy

III. Legal and Regulatory Framework

Corporate and Commercial

- **Authorization for Privatization, Concessions, Greenfield Sites, IPPs**
- **Corporate Governance and Shareholder Rights – Russia**

III. Legal and Regulatory Framework

Corporate and Commercial

- **Commercial, Bankruptcy, Tax, Labor**
  - ✓ **Security Agreements in Tangible and Intangible Property**
  - ✓ **Insurance Coverage/Risk Mitigation**
  - ✓ **Compensation for Termination or Expropriation**

IV. Legal Checklist

Regulatory Act

- ✦ **Declares Independence?**
  - ✓ **Creates fixed, rolling terms?**
  - ✓ **Removal only for cause?**
  - ✓ **Funding?**
- ✦ **Meetings Public and Published?**

IV. Legal Checklist

General Energy Laws

- **Where Authority Resides**
  - ✓ **Who Sets Tariffs?**
  - ✓ **Who Grants Licenses/Concessions?**
  - ✓ **Who Issues Regulations?**
  - ✓ **Who Adopts Market Rules?**

IV. Legal Checklist

- **Structure of Market**
  - ✓ **Monopoly or Competitive Generation and Supply**
- **Transition Process**
  - ✓ **Third Party Access**
  - ✓ **Single Buyer**

IV. Legal Checklist

If Multiple Acts

- **Need Close Coordination**
- **Risk of:**
  - ✓ **Overlap and Contradiction**

    or
  - ✓ **Omission**
- **Investors Read Acts Closely!**

V. Preparation For Privatization

Vertical Unbundling

- **Generation**
- **Distribution**
- **Transmission**
- **Supply and Services Companies**
- **Other Businesses**

V. Preparation For Privatization

Horizontal Unbundling

- Single or Multiple Entities
- Economic Viability
- Market Structure

Scope of Privatization

- Minority or Majority Sale
- Monopoly Distribution Franchise
- End User Choice

V. Preparation For Privatization

Corporatization Tasks

- Create Legal Entities, Separate Governance
- Assign Assets, Liability, Contracts and Labor
- Conform to International Accounting Standards
- Rationalization and Efficiency

V. Preparation For Privatization

Legal Separation

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- **Share Ownership and Rights**
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V. Preparation For Privatization

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- Increases Investor Confidence
- Adds Value
- Lesson of Hungary

V. Preparation For Privatization

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- Security of Supply

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- **Adopt Schedule**
- **Stick to It**
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VI. Transition

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- **Price and Customer Competition**

VII. Conclusion

Private Sector Investment Requires:

- **Clear Political Commitment to Long–Term Reform**
- **Consistent Decision–Making**
- **Rule of Law**

VII. Conclusion

Private Sector Investment Requires:

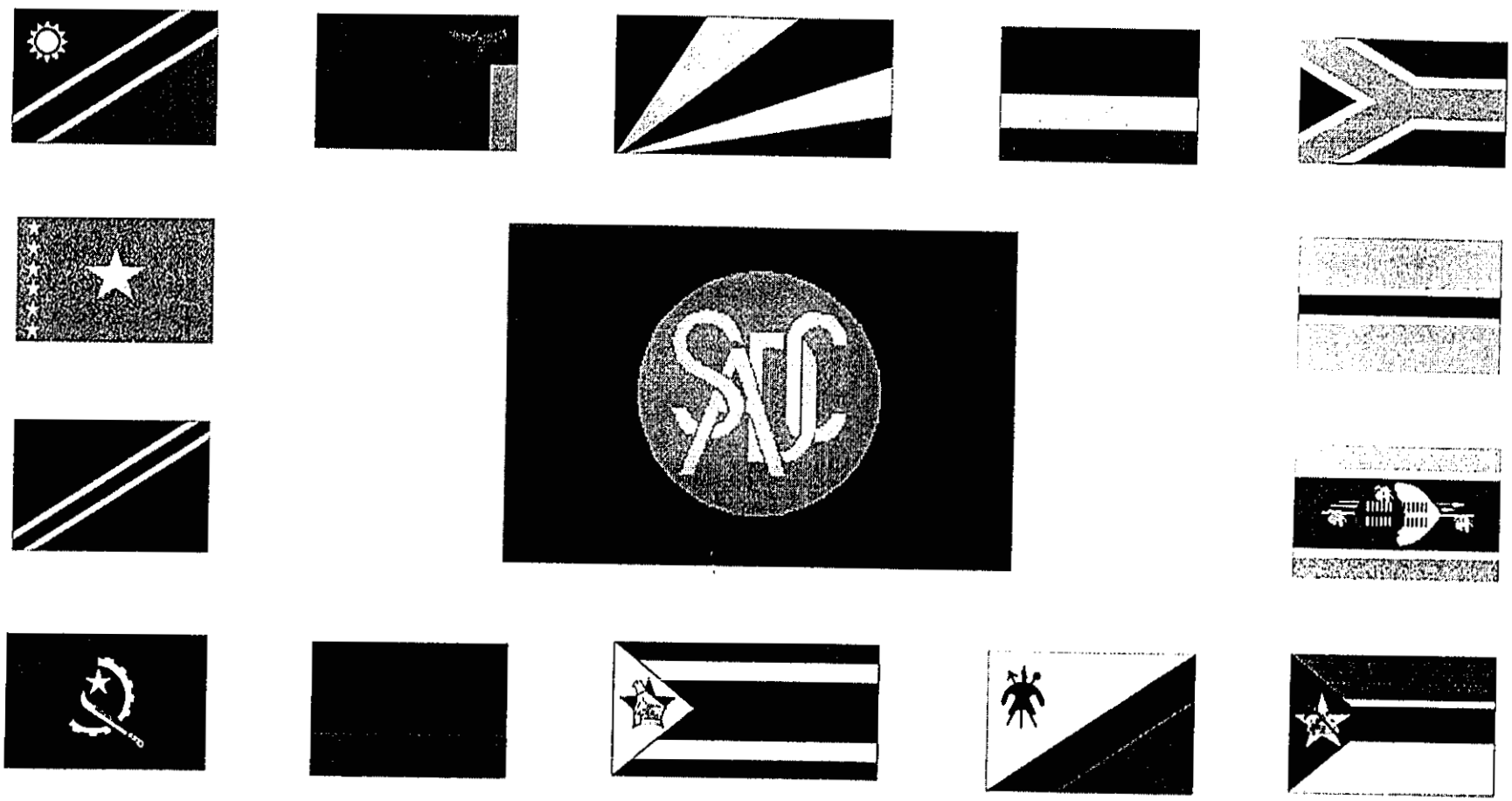
- **Independent Regulation**
- **Cost Based Tariffs**
- **Clear Ownership Rights**
- **Enforceable Contracts**

VII. Conclusion

But the Rewards are Significant

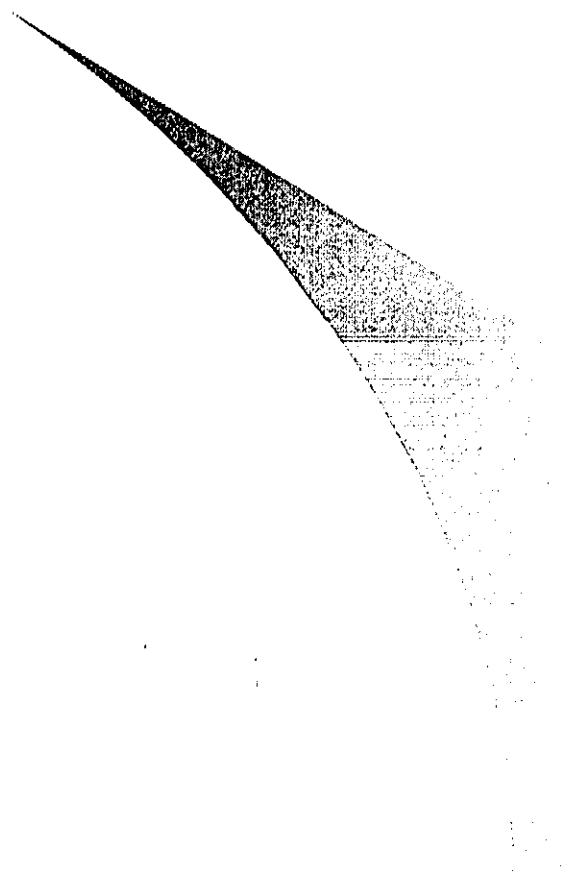
- **Capital for Infrastructure**
- **More and Better Service**
- **Improve Quality of Life**
- **Raise Living Standards for People**

Thank you!



USAID/Nexant/Pierce Atwood

Board Of Public Utilities



FORMATION

1. Title 48 establishes Board of Public Utilities
2. Within Executive Branch of N.J. State Government

APPOINTMENT PROCESS

1. 3 Members Appointed by the Governor
2. Confirmed by the State Senate
3. 6 Year Terms
4. No more than 2 members of the same political party
5. 1 member to be designated President of the Board

12/1/

CREDIBILITY/LEGITIMACY

1. Commissioners can be impeached
2. Legislature gave Board wide range of regulatory power over public utilities
3. Board will be centralized authority throughout the State.

FUNDING

1. The Board is funded through an assessment against utilities revenues
2. The maximum allowable assessment is ¼ of 1% of utilities revenues
3. Governor approves budget

   Fiscal Year 2000 Budget was $23,895,000
4. Last three years .1397% was assessed, that was 56% of the maximum ¼ of 1% allowed by law

OPENNESS & PUBLIC PARTICIPATION

1. Open Public Meetings Act
2. Requires notice of meetings to be given to press and public
3. Allows Public and Press access to all meetings (except for Executive Session)

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ORGANIZATION

1. Single Regulatory Commission cuts down on bureaucracy
2. Cost efficient sharing of administrative and legal staff
3. Staff skills may be transferable across utility sectors

NEED FOR A REGULATORY RESEARCH INSTITUTE

1. Helps establish legitimacy and credibility of Commission
2. Should be located at major university
3. Can conduct research and staff training

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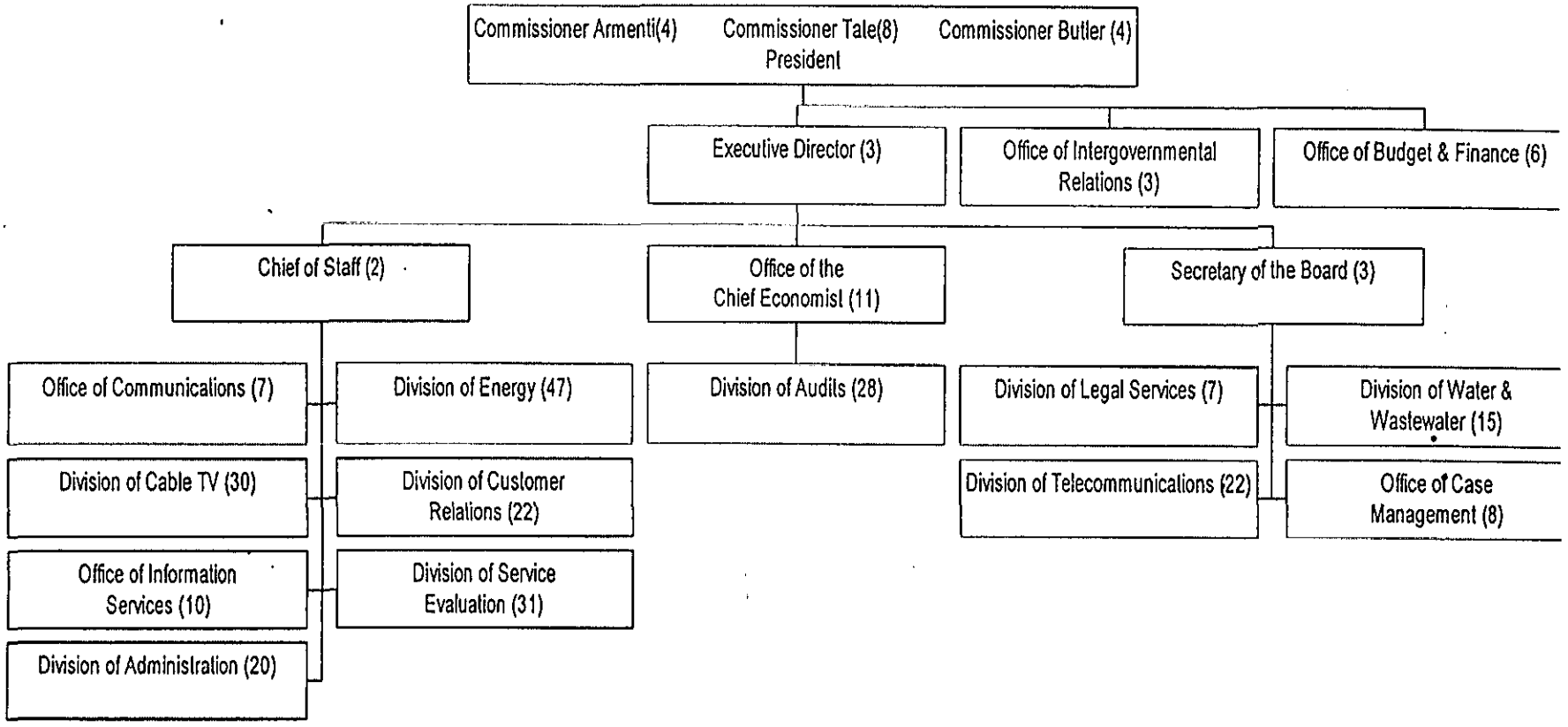
ASSESSMENT HISTORY

($)	FY 95	FY 96	FY 97	FY 98	FY 99	FY 2000
Utility Regulation	15,381,000	16,195,000	16,071,000	16,227,000	16,619,000	17,051,000
Salary Program	814,000	130,000	173,000	391,000	555,000	561,000
Total Appropriation	16,195,000	16,325,000	16,244,000	16,618,000	17,174,000	17,612,000
Fringe Benefits	3,007,000	3,079,000	3,336,000	2,835,000	3,180,000	3,829,000
Rent	1,681,000	1,810,000	1,856,000	2,023,000	1,800,000	2,112,000
Indirect	546,000	0	337,000	277,000	294,000	342,000
Total Assessment	21,429,000	21,214,000	21,773,000	21,753,000	22,448,000	23,895,000
Distribution						
Utilities	18,837,000	18,130,000	18,624,000	18,818,000	19,368,000	20,607,000
Cable	2,592,000	3,084,000	3,149,000	2,935,000	3,080,000	3,288,000

Organizational Chart - NJBPU



( ) = Number of staff

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1. FORMATION

48:2-1 Department of Public Utilities; board of public utility commissioners

There is hereby established in the Executive Branch of the State Government a principal department which shall be known as the Department of Public Utilities. The Board of Public Utility Commissioners, hereinafter in this chapter designated as the "board," created and established by the act entitled "An act concerning public utilities; to create a board of public utility commissioners and to prescribe its duties and powers," approved April 21, 1911 (L.1911, c. 195, p. 374), as amended and supplemented, is continued and it designed the head of such principal department.

2. APPOINTMENT PROCESS

The board shall consist of three citizens of this State who shall devote their entire time to the duties of the board and shall not engage in any occupation, profession or other gainful employment. Members of the board shall be appointed by the Governor with the advice and consent of the Senate, for terms of 6 years. The terms of office of the members of the board shall continue until their successors are appointed and qualified. No person shall act as a member of the board until his appointment has been confirmed by the Senate. Not more than two of the members of the board shall be members of the same political party. All vacancies, except through the expiration of term, shall be filled for the unexpired term only.

48:2-1.1 President of board

The Governor shall designate one of the members of the board of public utility commissioners as president of such board. Any member of the board so designated shall serve as such president at the pleasure of the Governor designating him and until his successor has been designated. The president of the board shall be its presiding officer and the chief administrative officer of the Department of Public Utilities. The other members of the board shall be eligible to appointment to fill a vacancy in the office of the president of the board.

3. CREDIBILITY/ LEGITIMACY

1.Validity

Public Utilities Law §2, prior to amendment of 1921, providing for the Governor's removal of any commissioner for neglect of duty or misconduct upon giving him a copy of charges and opportunity of public hearing, was constitutional and valid, and not in contravention of N.J.S.A. Const. Art. 3, separating the legislative, executive, and judicial departments, and the Governor's power thereunder was not in conflict with the constitutional provisions vesting the courts with the sole power to try impeachments. McGran v. Gaul, 96 J.J.L. 165, 112 A. 603 (1921).

Public Utilities Law, §2, prior to amendment of 1921, providing that the Governor might remove any commissioner for neglect of duty or misconduct in office, did not attempt to confer upon the Governor judicial powers in contravention of article 3 of the

N.J.S.A. Constitution, nor did it attempt to confer upon the Governor, jurisdiction which, by article 5, par. 11, article 6, §1, par. 1, and §3. par. 1, is vested solely in the court for the trial of impeachments, and such statute, as against such objections, was constitutional. McCran v. Gaul, 95 N.J.L. 393, 112 A. 341 (1920), affirmed 96 N.J.L. 165, 112 A. 603.

2. In general

The board of public utility commissioners was intended by the Legislature to have the widest range of regulatory power over public utilities and the provisions of the statute governing public utilities are to be construed liberally. Bergen County v. Department of Public Utilities, 117 N.J. Super. 304, 284 A.2d 543 (A.D. 1971); Trailways, Inc. v. City of Atlantic city, 179 N.J. Super. 258, 431 A.2d 191 (L.1980).

3. Purpose of law

The statutes governing public utilities reflect legislative recognition that public interest in proper regulation of public utilities transcends municipal or county lines, and that centralized control must be entrusted to an agency whose continually developing expertise will assure uniformly safe, proper and adequate service by utilities throughout the state. Bergen County v. Department of Public Utilities, 117 N.J. Super. 304, 284 A.2d 543 (A.D. 1971).

48:2-13 General jurisdiction; "public utility" defined

The board shall have general supervision and regulation of and jurisdiction and control over all public utilities as hereinafter in this section defined and their property, property rights, equipment, facilities and franchises so far as may be necessary for the purpose of carrying out the provisions of this Title.

The term "public utility" shall include every individual, copartnership, association, corporation or joint stock company, their lessees, trustees or receivers appointed by any court whatsoever, their successors, heirs or assigns, that now or hereafter may own, operate, manage or control within this State any railroad, street railway, traction railway, autobus, charter bus operation, special bus operation, canal, express, subway, pipeline, gas, electric light, heat, power, water, oil, sewer, solid waste collection, solid waste disposal, phone or telegraph system, plant or equipment for public use, under privileges granted or hereafter to be granted by this State or by any political subdivision thereof.

4. <u>FUNDING</u>

ARTICLE 8. ASSESSMENTS AGAINST PUBLIC UTILITIES [AND PUBLIC MOVERS]

48:2-59. Annual assessments

To enable the Board of Public Utility Commissioner in the Department of Public Utilities to better perform its lawful duties relating to service, classifications to be used, rates and charges to be made and collected, rules and regulations to be prescribed, and supervision over all public utilities and public movers under its jurisdiction, the Board of Public Utility Commissioners shall annually make an assessment against each public utility and public mover.

48:2-60. Amount of assessment

The assessment shall be equal to a percentage of the gross operating revenue of the public utilities under the jurisdiction of the board derived from intrastate operations during the preceding calendar year at a rate to be determined annually by the board on or before June 30 in the following manner:

The total amount appropriated to the Board of Public Utilities by law for its general purposes for its next fiscal year shall be divided by the total amount of the gross operating revenues of all public utilities under the jurisdiction of the board derived from intrastate operations during the preceding calendar year. The quotient resulting shall constitute the percentage rate of the assessment for the calendar year in which such computation is made. The total amount so assessed to any particular public utility shall not exceed 1/4 of 1% of the gross operating revenue subject to assessment hereunder of that utility derived from its intrastate operation during the preceding calendar year, except that the minimum assessment for any public utility shall be $500.00. L.1989, c.281.

It was estimated that in fiscal year 1990 the 1/6 of 1% assessment ceiling has resulted in a General Fund "subsidization" of the BPU's operations of about $600,000 (compared to an overall BPU budget of approximately $18.9 million). The increase in the maximum assessment to 1/4 of 1% for fiscal year 1991 does not allow the BPU to automatically assess this higher amount against the utilities, but it will allow for sufficient leeway in levying increased assessments so that the BPU may recover its actual costs in the near future, barring any unanticipated expansion of its regulatory mission.

N.J.S.A. 48:2-60 states the total amount assessed to public utility other than Cable Companies during the fiscal year shall not exceed 1/4 of 1% of Gross Operating Revenues derived by the utility from Intrastate Operations during the preceding calendar year. If the Gross Intrastate Revenues of utility is less than minimum required to assess the utility above minimum of $500.00, the minimum of 500.00 is assessed to such utility. During the last three fiscal years beginning from 1996-97 through 1998-99, on an average, all utilities other than cable companies were assessed at .1397% which is 56% of the maximum of 1/4 of 1% allowed by the N.J.S.A. 48:2-60.

Based on Chapter 5A Cable Television Act Section 48:5A-32 and 48:5A-33, the total amount assessed to CATV Company during the fiscal year shall not exceed 2% of Gross Operating Revenues derived from Intrastate operation during the preceding calendar year. There is no minimum assessment for CATV Companies. During the last three fiscal years beginning

from 1996-97 through 1998-99, on an average all CATV Companies were assessed at .2827% which is 14.14% of maximum of 2% allowed by Chapter 5A of Cable Television Act.

5. OPENNESS AND PUBLIC PARTICIPATION

Open Public Meetings Act

This Law requires that the public and the press have advance notice of and the opportunity to attend most meetings, including executive sessions, of public bodies, except where the public interest or individual rights would be jeopardized. The public's right to know the process by which governmental decisions are made and to witness that process in full detail may be obstructed by needlessly barring members of the public and the press from certain policymaking meetings of public bodies. If the public and the press cannot attend, they cannot learn of many positions that are considered or taken at such meetings by individual officials serving the public. Lack of this information can lessen public confidence in governmental decisions and impair the public's function of holding officials accountable in a democracy.

Section 3 determines the scope of the act by defining "public body," "meeting" and "public business." To be covered, a public body must be organized by law and be collectively empowered as a multi-member voting body to spend public funds or affect persons' rights. Therefore, informal or purely advisory bodies with no effective authority are not covered. Neither are groupings composed of a public official with subordinates or advisors, such as a mayor or the Governor meeting with department heads or cabinet members who are not empowered to act by vote. Specific exemptions are provided for the judiciary, parole bodies, the State Commission of Investigation and political party organizations.

To be covered, a meeting must be open to all the public body's members, and the members present must intend to discuss or act on the public body's business. Therefore, typical partisan caucus meetings and chance encounters of members of public bodies are not covered. Specific exemptions are provided for public bodies meeting as part of a convention and meetings where an effective majority fails to attend.

The Board of Public Utilities withholds the right to go into Executive Session after its Board Meetings. This is necessary at times to discuss matters that may not be ready for public consumption. Such as matters that are protected by attorney client privilege or matters that contain proprietary information regarding the utility companies.

6. ORGANIZATION

Joint Service Regulatory Bodies

One reason for establishing a single regulatory commission is because of the economies of scale and scope that can be achieved. In plain language this means that rather than having four separate commissions to deal with electric, natural gas, water, and telecommunications, it can be less expensive to simply have one commission. This is a cost-efficient option as it eliminates the duplication that would otherwise exist. Economies of scope can be achieved if the same, for example, accounting skills used in electricity regulation can also be used in telecommunications regulation.

However, the decision to have multiple utility sectors in one regulatory commission has evolved over time. Originally, joint service regulatory commissions were organized by utility sector. Each office in a commission would cover one sector, although gas and electricity were often combined. This was helpful in terms of allowing specialization, but was not cost efficient indeed the main areas of cost savings were by having the different utility offices share the same commissioners, attorneys, and administrative staff. The next step in the evolution of commissions was to organize regulatory commissions functionally. Typically, a commission would have the following offices: engineering, accounting, consumer complaints, publicity, and rates. The goal here was to more efficiently use staff resources. To the extent that staff skills were transferable across utility sectors, this was a cost-effective option. Most recently, commissions have begun to have functional offices that reflect the transition toward more competitive markets. A commission today may have an office of competition or consumer education.

7. NEED FOR A REGULATORY RESEARCH INSTITUTE

One of the most important things a newly formed regulatory commission can do is to establish the legitimacy of the commission. Legitimacy is not simply a matter of statutory power, but rather establishing the credibility of the commission as a trusted and capable institution. Long-standing governmental agencies establish their legitimacy by their track record over time. A new regulatory commission, however, lacks a track record and generally has a massive up-front assignment to disassemble an old regime and to establish a new one. At a time like this legitimacy is crucial.

One way that a commission can establish legitimacy is to form a regulatory research institute at a university. This accomplishes a number of important credibility benchmarks.

- $ Locating the commission's research Institute at a university gives confidence to all parties that the Institute and the Commission are interested in objective and unbiased research.
- $ It signals that the Commission is in it for the long-haul, why else would it take the time to establish a research Institute
- $ A university setting strengthens the independence of the research Institute
- $ Rather than attempting to establish a research environment at the Commission, the university location comes with an already-established research environment. This differs from the fire-fighting standard operating procedures of a Commission
- $ A Commission, whether new or established, has an ongoing need for staff and commissioner training. Having a viable research Institute in place allows effective training programs to be developed, so that Commissioners and Commission staff can address a rapidly changing menu of high priority regulatory issues.
- $ A research Institute is a good recruitment tool for the Commission. By being at a university, typically research Institute staff are also faculty members. In this role they can teach courses that produce undergraduate and graduate students with specializations in telecommunications, water, electricity, or natural gas. They may also establish expertise in consumer education, environmental protection, measuring market power, and

pricing that would greatly strengthen the staff at a Commission.

In order for a research Institute to be an effective resource a number of things need to be accomplished. Each of these needs to be done in a way that reflects the situation in each country.

1. Governance How will the research Institute be governed? If it is too close to the Commission it will not be perceived as being independent and will lose credibility. If it is completely separate from the Commission, a real danger, is that the Commission will not use it. A Board of Directors with university, commission, and public members is one way to establish the right mix of independence and relevance. A second way is a memorandum of understanding approach where goals and procedures designed to ensure relevance and objectivity are laid out.

2. Funding A reliable revenue stream is necessary for a research Institute to function effectively. The funding needs to be done on a routine or formular basis, so that neither the Commission, the utilities, new entrants, nor the legislature can easily threaten the Institute

3. Staffing The staff of the research institute should not be Commission employees. The Institute staff need to be employees of the university. The status of being associated with the university is a valuable recruitment tool and further helps cement the reputation of the Institute for objective research.

4. Research Agenda A research Institute needs a good mix of forward-looking research, as well as research that is dealing with issues currently in front of the regulatory Commission. Assorted stakeholders must have confidence that high-priority issues are being addressed. A research project selection process needs to be established that allows all stakeholders to have input.

5. Training A research Institute that only does research, but no training, would not be a cost-efficient use of scarce resources. Training not only benefits Commissioners and their staffs, but also helps the Institute develop better linkages with the Commission. It also helps the researchers better understand some of the real world difficulties facing regulators.

6. Outreach The research Institute must have a life outside of the Commission. It can do this by making sure that its research products and training services are also available to journalists, other governmental agencies, utilities, new entrants, other universities, residential consumers, large industrial consumers, rural areas, and to vendors. An annual conference is one mechanism to do this. Another is establishing an active web site.

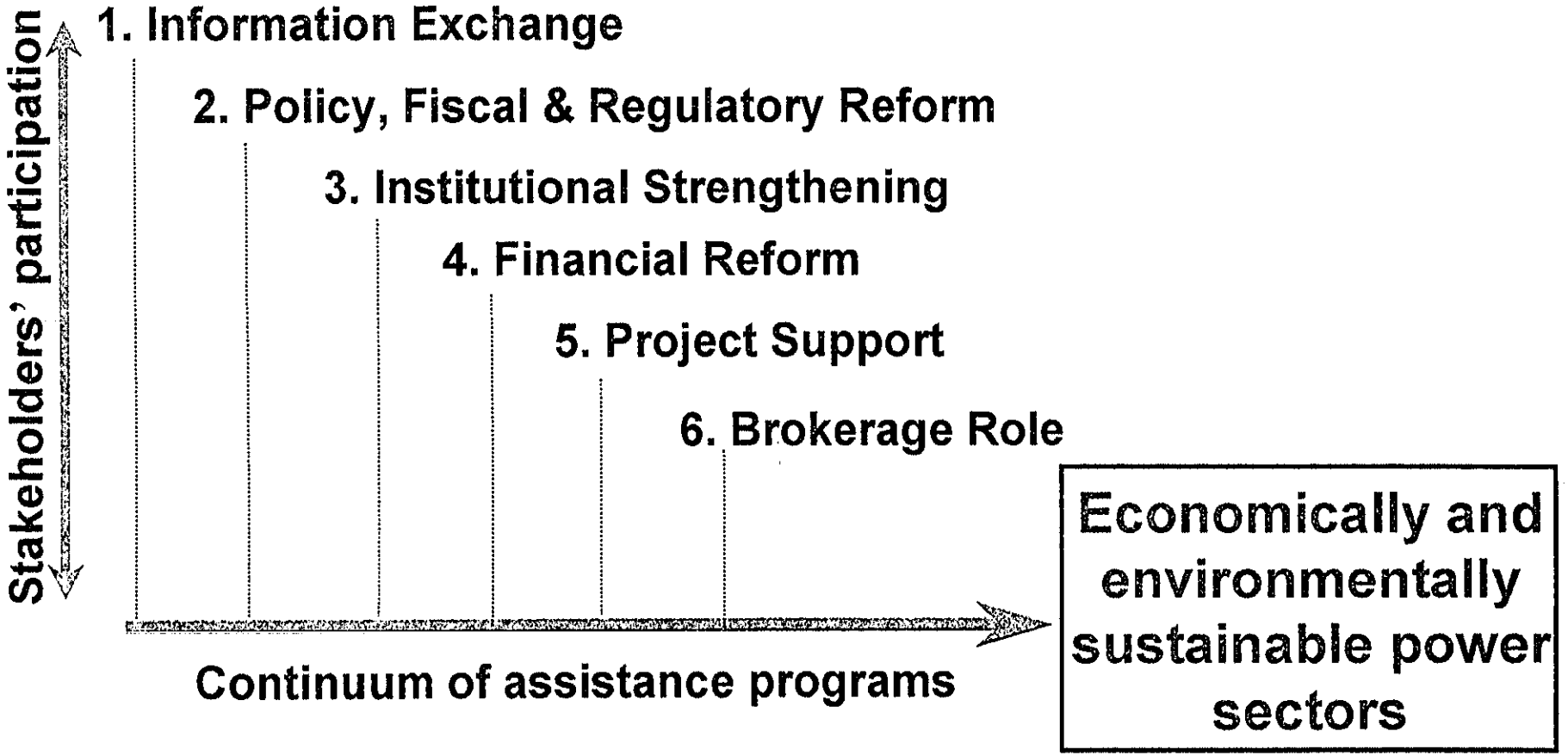
Closing Remarks

USAID Forum on
Private Sector Investment in the Power Sector
Of Southern Africa

Windhoek, Namibia
December 5—7, 2000

Dr. Samuel Schweitzer
Global Environment Center
U.S. Agency for International Development

Types of USAID Energy Assistance Programs



USAID Assistance Tools

- Analysis of power sector reform options
- Providing resident technical advisors
- Strengthening institutional capacities
- Training
- Utility and regulatory partnerships
- Investment support through information exchange & neutral third-party brokering

Analysis of Power Sector Reform Options

- **Based on lessons learned and best practices in developing countries world wide**
- **Assists in developing options package to meet power sector requirements of the individual country**
- **Prioritizes technical assistance to countries and/or region**
- **Fosters private investment**
- **Identifies mechanisms to reduce financial burden on government & electric power authority and to improve utility sector performance**
- **Examples: The assistance to Nigerian National Electric Power Authority (NEPA) and to Zambia Electricity Supply Corporation**

Resident Technical Advisors

- **Provide day-to-day expertise to achieve long-term goals and assist in skills transfer & capacity building**
- **Advisors are recognized experts with developing country and regional experience**
- **Resident advisors are often further supported by short-term consultants to address specific issues**
- **Examples: Resident Advisors to SAPP and to West African Gas Pipeline Project/ECOWAS**

Strengthening Institutional Capacities

- **Assists with strategic planning and improves decision making processes within relevant government authorities**
- **Identifies policies and financial, legal and regulatory reform measures for improving private sector participation in the power sector**
- **Examples: Assistance to Ghana PURC & Zambia OPPPI**

Training

- **Develops local capacity to improve management and operation of electric utilities**
- **Provides access to best practices through participation in conferences, workshops, executive exchanges and study tours**
- **Provides for exchange of experiences from both developed and developing country regions**
- **Examples: West Africa Gas Pipeline Training for commercial negotiations; Nigeria NEPA Diagnostic**

Utility & Regulatory Partnerships

- Through collaboration with the United States Energy Association, identifies and develops appropriate partnerships between US utilities and/or regulatory authorities and their developing country counterparts
- Facilitates practioner-to-practioner, multi-year programs to transfer market-based approaches and "best practices" for energy system operation
- Establishes advisory/commercial relationships to discuss changes affecting the industry, corporate structure and regulation of the energy industry
- **Examples: Partnerships arranged for Ghana PURC; and Zambia ERB**

Investment Support

- Develop forums for exchange of information and views
- Involve developers and financial organizations in USAID activities
- Facilitates access to US power industry and financial & investment community
- Example: This Forum

Next Steps

Proposed Strategic Interventions for Southern Africa

SADC

Encourage Enabling Frameworks in Member Countries

Policy

Legal

Regulatory

USAID

SAPP

Make the Market Work

Operation

Clearing house

Technical

Next Steps ?

- **Need your input, but options include the following:**
  - **Define priority areas for possible assistance within the power sector**
  - **Engage in dialogue with USAID through country missions/RCSA/Global Bureau**
  - **Take advantage of previous USAID experience through partnerships & programs**

USAID Forum on Energy Investment in SADC Region
Windhoek, Namibia; December 5-7, 2000

Closing Discussion - Observations and Comments

The closing session of the forum was chaired by Mr. John Gulliver (Pierce Atwood law firm) to wrap up some general comments and conclusions from the participants. The following notes highlight the themes of this discussion:

1. **Private sector investment** in the sector is holistic – the developer looks at a whole series of variables which are critical to the investment before deciding to further investigate opportunities or proceed with investment:

    a. Review of the basics - energy law, independent regulator, etc,
    b. Socio-economic and cultural context of the country, region
    c. Variables/hurdles are not set in concrete, there is a cumulative valuation which is done in the right context
    d. Need for a common legal framework in the region
    e. Transparency and conformity with international standards

2. Importance of an **Independent Regulator**:

    a. This is a critical marker, but progress has been slow to date throughout the SADC region
    b. Some have learned from development of an independent regulator in the telecom sector; the SADC framework could enable, train and build competency in this area
    c. Needs to be politically independent from the Ministries of energy and political decision-makers
    d. Countries should look outside of the SADC region for experience both on the African continent and to other emerging markets
    e. What is the Common Definition of a Regulator?:
        i. Independent review of utilities
        ii. Non-arbitrary
        iii. Consistent decisions
        iv. Discussions which are open to the public
        v. Financial viability of the utility
        vi. Should be financially sound to operate independently and needs competent technical staff
        vii. Regulator should protect consumers
    f. Is an independent regulator a pre-requisite to liberalization?
    g. Independent regulator can eliminate the need for sovereign guarantees

3. **Government Tenders/RFPs** need to be transparent and open:
    a. Must have consistent and clear government political decisions and the ability to maintain such decisions
    b. Host country expertise in negotiations with investors/developers is critical
    c. Meet established global standards

4. **SAPP Summary** – commitment to move forward on a regional basis

NEXT STEPS:

- More forums like this one should be held on a more regular basis to maintain the dialogue and build further understanding
- SAPP investors conference will be held on 5 March 2001 in Victoria Falls
- Should SADC/SAPP use a website for future communication and discussions?
- More technical workshops should be planned, can USAID support these workshops
- The message from developers on needs and structures presented at this forum should be passed through to Ministers and other government officials, repeated and reaffirmed
- Focus on bilateral and regional initiatives within SADC

SADC POWER SECTOR INVESTMENT FORUM
STATEMENT BY U.S. AMBASSADOR JEFFREY BADER

IT IS A PLEASURE FOR ME TO BE HERE TODAY TO JOIN YOU FOR THIS FORUM. I WELCOME THE OPPORTUNITY TO TALK ABOUT A PRACTICAL AND IMPORTANT SUBJECT, AS OPPOSED TO OTHER AREAS IN WHICH AMBASSADORS ARE MORE FREQUENTLY CALLED ON TO DISCUSS AND WHERE WE ARE REPUTEDLY MORE INFLUENTIAL. INDEED, I WELCOME THE CHANCE TO TALK ABOUT ANY TOPIC OTHER THAN THE U.S. ELECTION.

IN KICKING OFF THIS CONFERENCE, I WANT TO HIGHLIGHT THE PROVEN ADVANTAGE OF THE PRIVATE SECTOR IN SPURRING GREATER EFFICIENCIES AND IN CREATING BROAD-BASED ECONOMIC GROWTH. THE POWER SECTOR IS NO EXCEPTION TO THIS, AND WITH OUR NAMIBIAN

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HOSTS AS A PRIME EXAMPLE, MY SENSE IS THAT IN THE CASE OF MOST OF YOU HERE TODAY, I AM PREACHING TO THE CHOIR ABOUT THE BENEFITS OF PRIVATE SECTOR INVESTMENT IN THE DEVELOPMENT OF THE POWER SECTOR.

THE BENEFITS OF COMPETITION AND PRIVATIZATION ARE INCREASINGLY BEING RECOGNIZED AROUND THE GLOBE. THESE BENEFITS INCLUDE: MAXIMIZING EFFICIENT USE OF RESOURCES, CREATING HEALTHY PRESSURES FOR POWER PRODUCERS TO INNOVATE AND MODERNIZE, REDUCING PRESSURES ON GOVERNMENT BUDGETS, INCREASING CUSTOMER CHOICE AND SATISFACTION, AND INCREASING THE AVAILABILITY OF CAPITAL AND KNOW-HOW. ALL OF THESE BENEFITS ARE NOT ONLY CRITICAL TO THE SUSTAINED DEVELOPMENT OF ENERGY SOURCES AND EFFICIENT POWER

PRODUCTION, BUT INDEED THE FURTHER ECONOMIC DEVELOPMENT AND GROWTH OF COUNTRIES AND REGIONS.

RECOGNIZING THESE BENEFITS, VERTICALLY INTEGRATED STATE OWNED UTILITIES ARE BEING BROKEN UP AND PRIVATIZED IN NORTH AMERICA, WESTERN EUROPE, LATIN AMERICA, AND ASIA. THE OLD RULE OF INTRODUCING PRIVATE OWNERSHIP INTO GENERATION/PRODUCTION FIRST, PREFERABLY THROUGH A NEW CAPACITY, IS ALSO BEING REPLACED BY THE NEW RULE OF STARTING PRIVATIZATION AT THE DISTRIBUTION LEVEL AND THEN MOVING TO GENERATION AND PRODUCTION.

EXPERIENCE HAS ALSO SHOWN THAT COMPETITION AMONG ENTITIES WITH DIFFERENT OWNERS RESULTS IN IMPROVED UTILIZATION OF

EQUIPMENT, MATERIALS, FUELS AND LABOR, LEADING TO LOWER PRICES AND BETTER SERVICE FOR CONSUMERS. IN CONTRAST, COMPETITION AMONG STATE-OWNED ENTITIES RESULTS IN HALF-HEARTED EFFORTS SINCE POTENTIAL WINNERS KNOW THAT THEY WILL BE ASKED TO BAIL OUT THE LOSERS IN THE END. RATIONAL PRICES FOR ENERGY ARE KEY TO PROMOTING CONSERVATION, AND TO ASSURING THAT WE DO NOT PROMOTE INEFFICIENT DEPENDENCE ON COSTLY ENERGY SOURCES. THE PRIVATE SECTOR KNOWS HOW TO PRICE GOODS. GOVERNMENTS DO NOT. GOVERNMENT POWER COMPANIES AND UTILITIES INEVITABLY ARE SUBJECT TO POPULAR PRESSURES TO SET PRICES AT IRRATIONAL LEVELS. CONSUMERS MAY BENEFIT BRIEFLY, BUT THEY SUFFER, ALONG WITH THE CHANCES FOR RATIONAL ENERGY POLICIES, OVER THE LONGER TERM.

THE LESSONS LEARNED AROUND THE WORLD FIND NO EXCEPTIONS IN SOUTHERN AFRICA. ATTRACTING PRIVATE SECTOR INTEREST AND ULTIMATELY INVESTMENT IS KEY TO THE DEVELOPMENT OF THE ENERGY SECTOR HERE. NAMIBIA SETS A REGIONAL AND IN MANY WAYS A WORLD CLASS EXAMPLE IN HOW TO ATTRACT INVESTMENT. MAINTAINING NAMIBIA'S STERLING INFRASTRUCTURE IS A PRIORITY, PRO-BUSINESS AND TRADE PROMOTION POLICIES ARE IN PLACE, NAMIBIA ENJOYS A STRONG RULE OF LAW, AND PRESIDENT NUJOMA CONSISTENTLY MENTIONS THE IMPORTANCE OF ATTRACTING U.S. AND OTHER FOREIGN INVESTMENT IN THE NAMIBIAN ECONOMY.

NAMIBIA'S POWER SECTOR IS OUT IN FRONT IN TRYING TO TAKE ADVANTAGE OF THESE FACTORS.

CHAIRMAN HANGALA HAS A VISION OF THE POWER SECTOR LEADING THE WAY IN REGIONAL INTEGRATION IN SOUTHERN AFRICA, AND NAMPOWER AND THE OTHER ENERGY SECTOR PLAYERS HERE HAVE BEEN AGGRESSIVE AND SUCCESSFUL IN MOVING AN EFFICIENCY, REFORM, AND POWER SHARING AGENDA FORWARD IN NAMIBIA. NAMIBIA HAS ONGOING POWER SHARING ARRANGEMENTS WITH SOUTH AFRICA, BOTSWANA, AND ANGOLA, AND HAS ATTRACTED FOREIGN INVESTMENT AND PARTNERS FOR OIL AND GAS EXPLORATION AND POWER SECTOR DEVELOPMENT. I AM PLEASED THAT BOTH VANCO INTERNATIONAL AND TEXACO, TWO U.S. ENERGY COMPANIES, ARE ACTIVE PARTNERS WITH NAMIBIA IN MAJOR ENERGY EXPLORATION PROJECTS.

I AM ALSO ESPECIALLY PLEASED TO SEE ATTITUDES LIKE CHAIRMAN HANGALA'S THAT ARE SHARPLY IN FAVOR OF REGIONAL INTEGRATION -- AND THE MATURATION AND EFFECTIVENESS OF SADC IS A PIVOTAL PIECE IN ATTAINING THIS OBJECTIVE. THE U.S. GOVERNMENT BELIEVES SADC HAS A VITAL FUTURE IN THE REGION AND WE ARE WORKING WITH SADC IN A VARIETY OF AREAS TO ASSIST IT TO ACHIEVE ITS OBJECTIVES. THIS REGION FACES TOO MANY SERIOUS CHALLENGES FOR EACH COUNTRY TO MANAGE THEM ALONE. THAT SAID, FOR SADC TO ACHIEVE ITS POTENTIAL WILL REQUIRE A GREATER COMMITMENT ON THE PART OF THE GOVERNMENTS OF THE REGION TO SADC'S OBJECTIVES, THAT ARE CLEARLY IN SOUTHERN AFRICA'S BEST INTERESTS. AS YOU KNOW, THE SECRETARIAT HEADQUARTERED IN GABORONE IS TINY COMPARED TO THE MANDATE IT HAS GIVEN

ITSELF. EVEN IF SADC HAD A BASE OF SUCCESSFUL EXPERIENCE IN RUNNING MULTI-NATIONAL AND MULTI-SECTORAL PROGRAMS, NO ORGANIZATION COULD MEET SUCH A LARGE AGENDA WITH SUCH MEAGER RESOURCES. THE SADC COUNTRIES NEED TO COMMIT REAL RESOURCES TO BUILDING THE ORGANIZATION, AND TO ESCAPE AN UNHEALTHY RELIANCE ON DONORS TO FUND IT.

I AM HOPEFUL THAT THE WORTHY OBJECTIVE OF THIS FORUM -- TO FACILITATE THE DIRECT INTERACTION BETWEEN THE VARIOUS SENIOR GOVERNMENT DECISION-MAKERS AND PRIVATE DEVELOPERS AND FINANCIERS -- WILL BEAR FRUIT. I AM HOPEFUL THAT THIS FORUM WILL DEFINE THE NEXT STEPS THAT NEED TO BE TAKEN TO ENSURE GREATER PRIVATE SECTOR INVESTMENT IN SOUTHERN AFRICA. I WOULD LIKE TO WISH ALL OF

YOU SUCCESS IN YOUR EFFORTS TO GUIDE POLICYMAKERS ON HOW TO CREATE THE MOST FAVORABLE ENVIRONMENT FOR SOUND ENERGY POLICIES, AND TO ENCOURAGE THE PRIVATE SECTOR TO TAKE THE LEAD IN DEVELOPMENT. THANK YOU AGAIN FOR INVITING ME TO JOIN YOU TODAY.

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