

REGIONAL ELECTRICITY INVESTMENT CONFERENCE

WINDHOEK, NAMIBIA

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FACILITATING ACCESS TO POWER IN SADC AND ENSURING THE
REGION'S BRIGHT FUTURE



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The Role of SADC

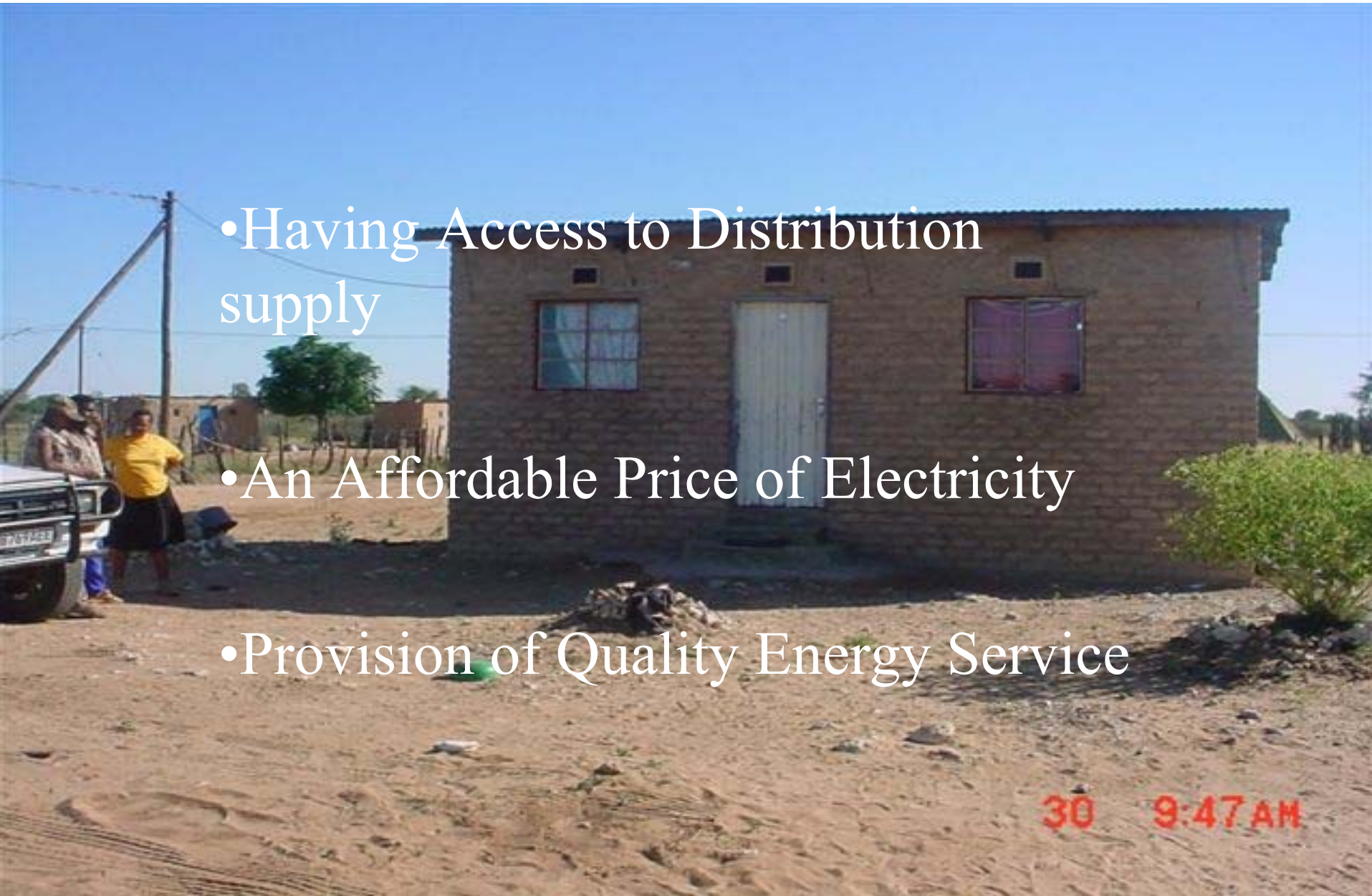
SADC Mission Statement:

To promote sustainable and equitable economic growth and socio-economic development through efficient productive systems, deeper co-operation and integration, good governance, and durable peace and security, so that the region emerges as a competitive and effective player in international relations and the world economy.

Regional Indicative Strategic Development Plan (RISDP)

- Development of strategic infrastructure programmes and projects to address objectives of SADC as outlined in the RISDP;
- Facilitate the implementation of the energy Protocol
- Improvement of security and reliability of supply and production of least cost energy services;
- Facilitate access to affordable energy services for rural communities

Definition of Access to Electricity

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- A photograph of a rural setting. In the center is a single-story brick building with a white door and two windows. To the left, a utility pole stands with power lines extending across the scene. A person in a yellow shirt and another person are standing near a white vehicle on the left. The ground is dry and dusty. The sky is clear and blue.
- Having Access to Distribution supply
 - An Affordable Price of Electricity
 - Provision of Quality Energy Service

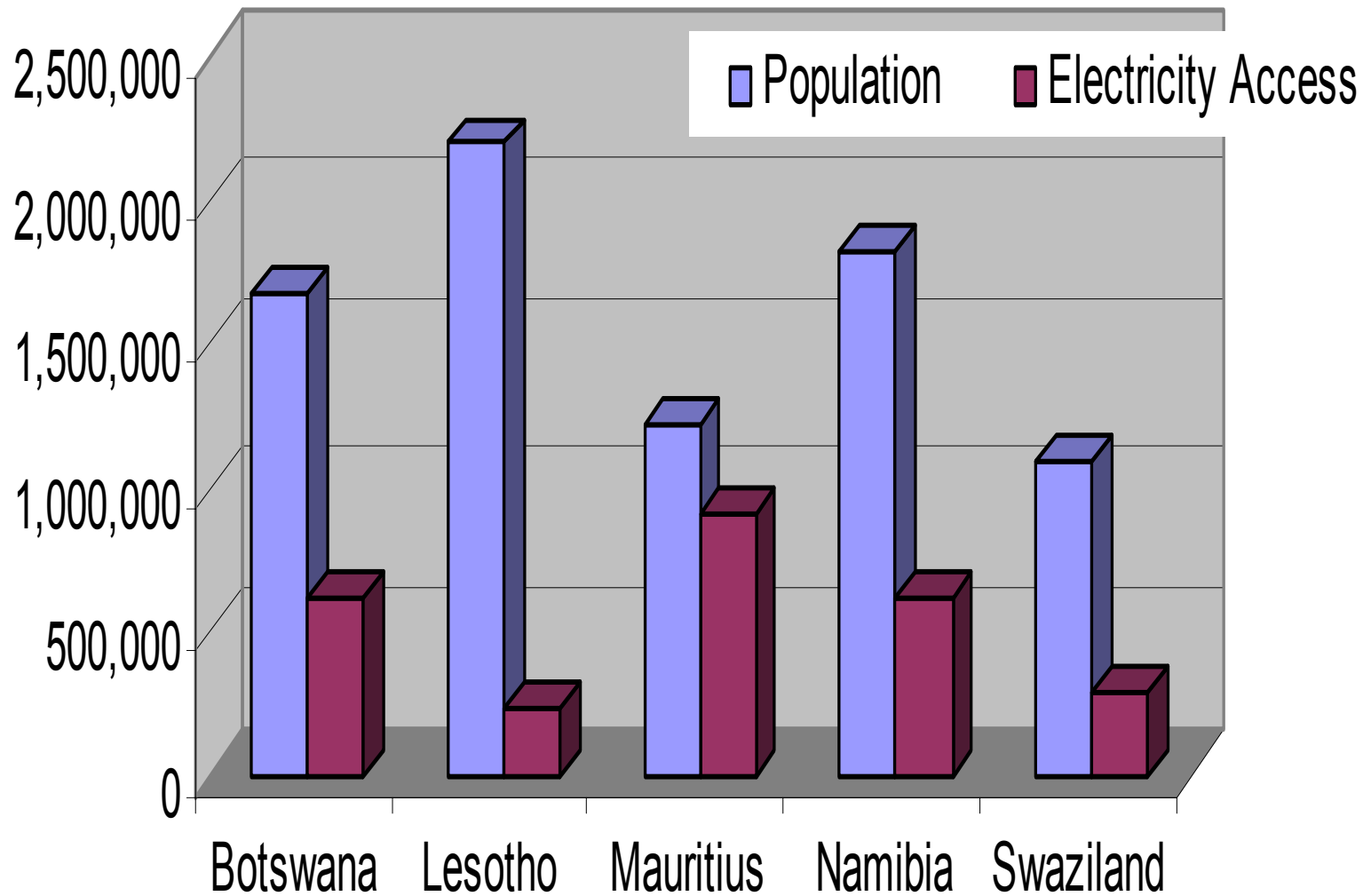
OVERALL ELECTRICITY ACCESS

Country	Population	Access Overall (%)
Angola	14 602 000	20%(2,920,400)
Botswana	1,680,863	37%(621,920)
DRC	55,000,000	6%(3,300,000)
Lesotho	2,200,000	11%(242,000)
Malawi	11,500,000	7%(805,000)
Mauritius	1,220,000	75%(915,000)
Mozambique	18,100,000	6.3%(1,140,000)
Namibia	1,830,000	34%(622,200)
RSA	46,400,000	70%(32,480,000)
Swaziland	1,100,000	27%(297,000)
Tanzania	33,600,000	11%(3,696,000)
Zambia	10,300,000	19%(1,957,000)
Zimbabwe	11,630,000	27%(3,140,000)
Total	207,352,000	52,514,600(25%)



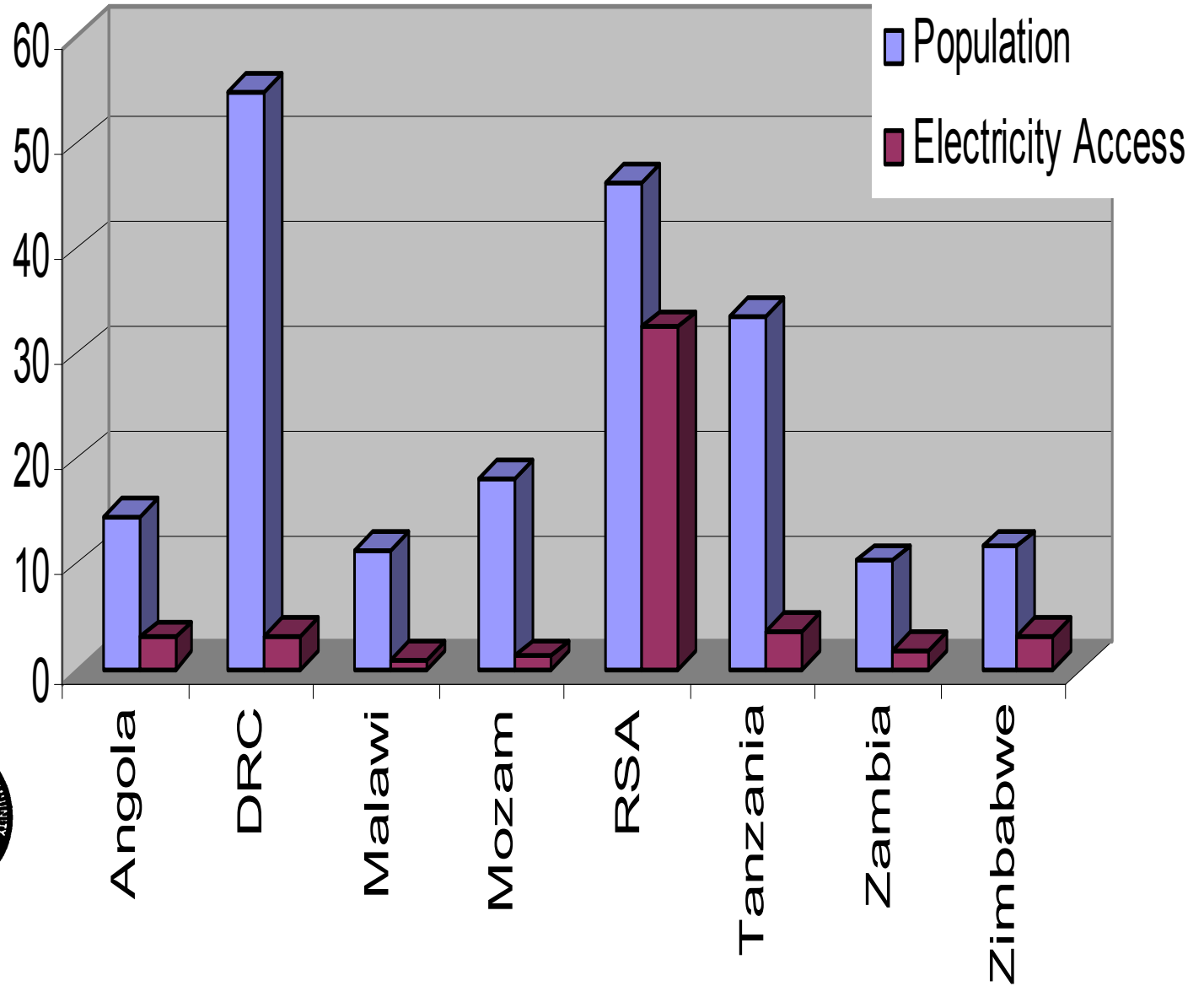
Electricity Access by Country

Population



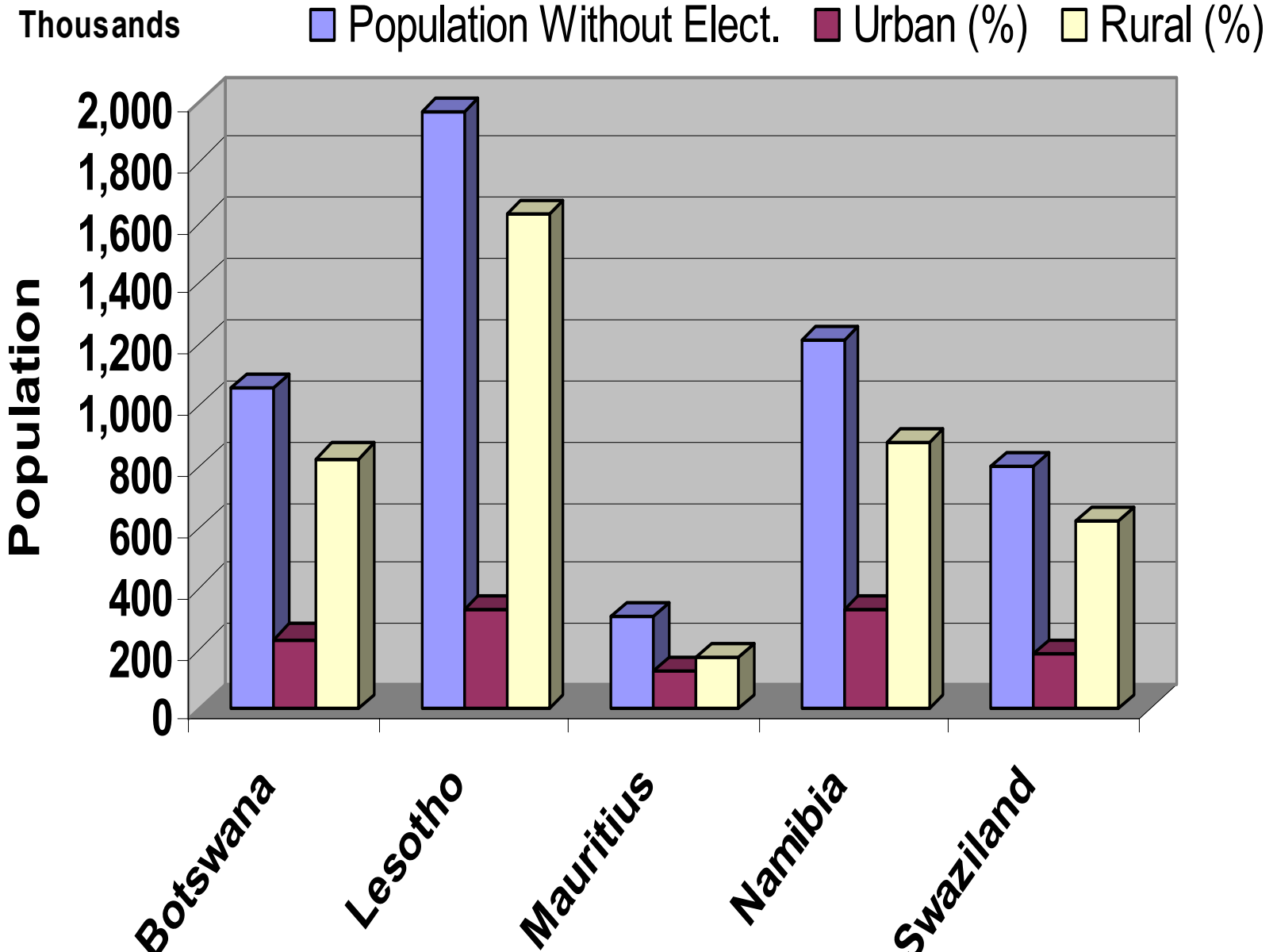
Population
(in Million)

Electricity Access by Country





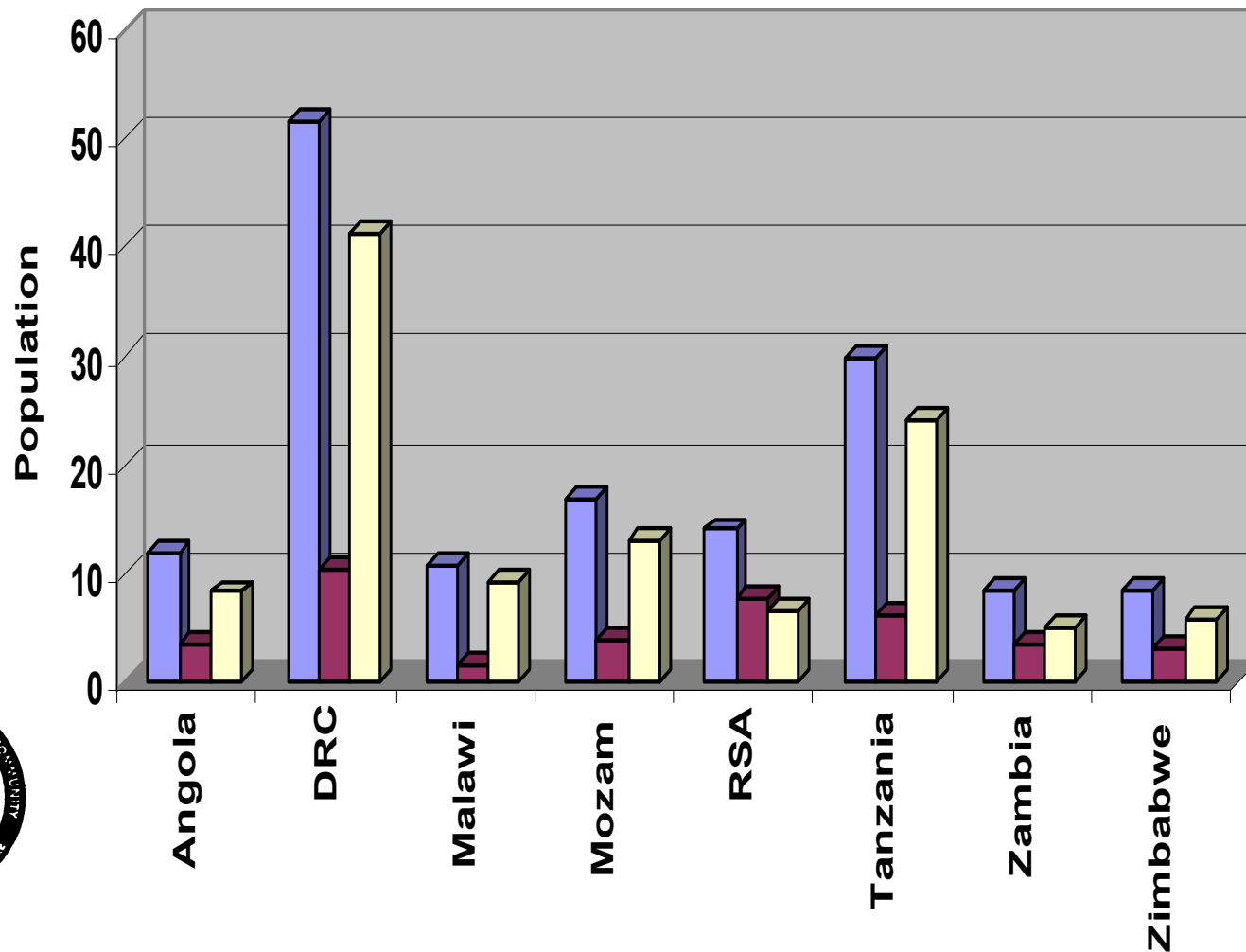
Population without Electricity by Category



Population without Access by Category

Population Without Elect. Urban (%) Rural (%)

Millions



Energy Mix

Abundant Types of Energy Resources

Investment in Small Scale Projects

Renewable Energy Sources

Installed Photovoltaic

Country	Installed kWp
Angola	10
Botswana	13
Lesotho	200
Malawi	40
Mauritius	8
Mozambique	100
Namibia	446
South Africa	11000
Swaziland	50
Zambia	400
Zimbabwe	750
Total	13,017

Wind Potential

Country	Wind Speed (m/s)
Angola	-
Botswana	3.0
DRC	5.5
Lesotho	-
Malawi	-
Mauritius	8.1
Mozambique	2.6
Namibia	14.0
South Africa	8.5
Swaziland	-
Zambia	2.5
Zimbabwe	3.5

Installed Small (Mini) Hydro

Country	(MW)
Angola	4.7
Botswana	0
Lesotho	3.26
Malawi	7
Mauritius	18.4
Mozambique	18.4
Namibia	-
South Africa	10.0
Swaziland	1.0
Zambia	20.0
Zimbabwe	0.4
Total	82.16

Large Hydro Potential

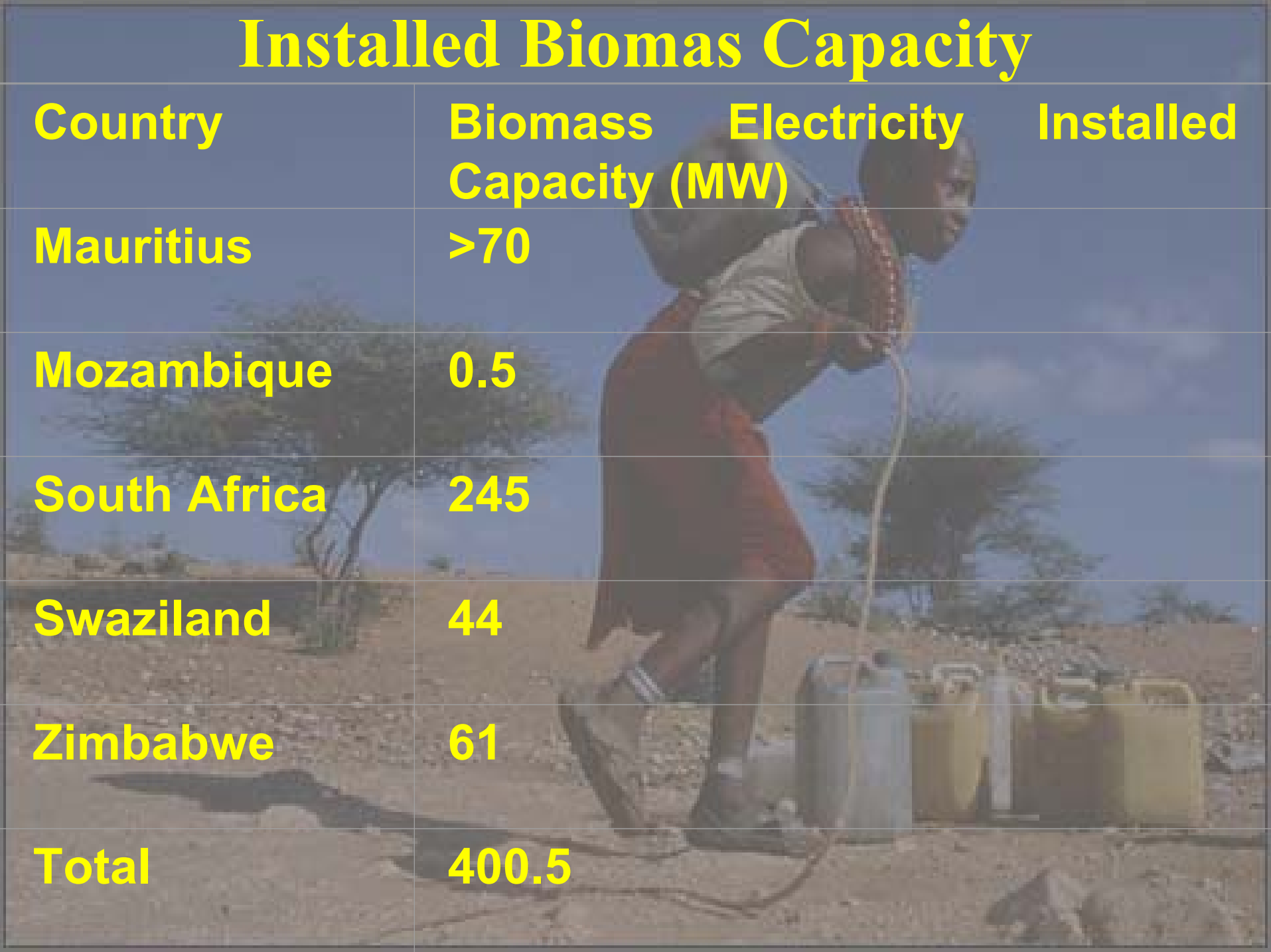
Country	Installed Capacity (MW)	Potential Capacity (MW)
Angola	980	18,267
Botswana	-	-
DRC	2,416	97,584
Lesotho	75	3,000
Malawi	304	900
Mauritius	59	-
Mozamb	2,184	6,398
Namibia	240	520
RSA	668	-
Swaziland	40	440
Tanzania	630	4,700
Zambia	1,670	6,683
Zimbabwe	750	7,200
Total	10,024	145,692

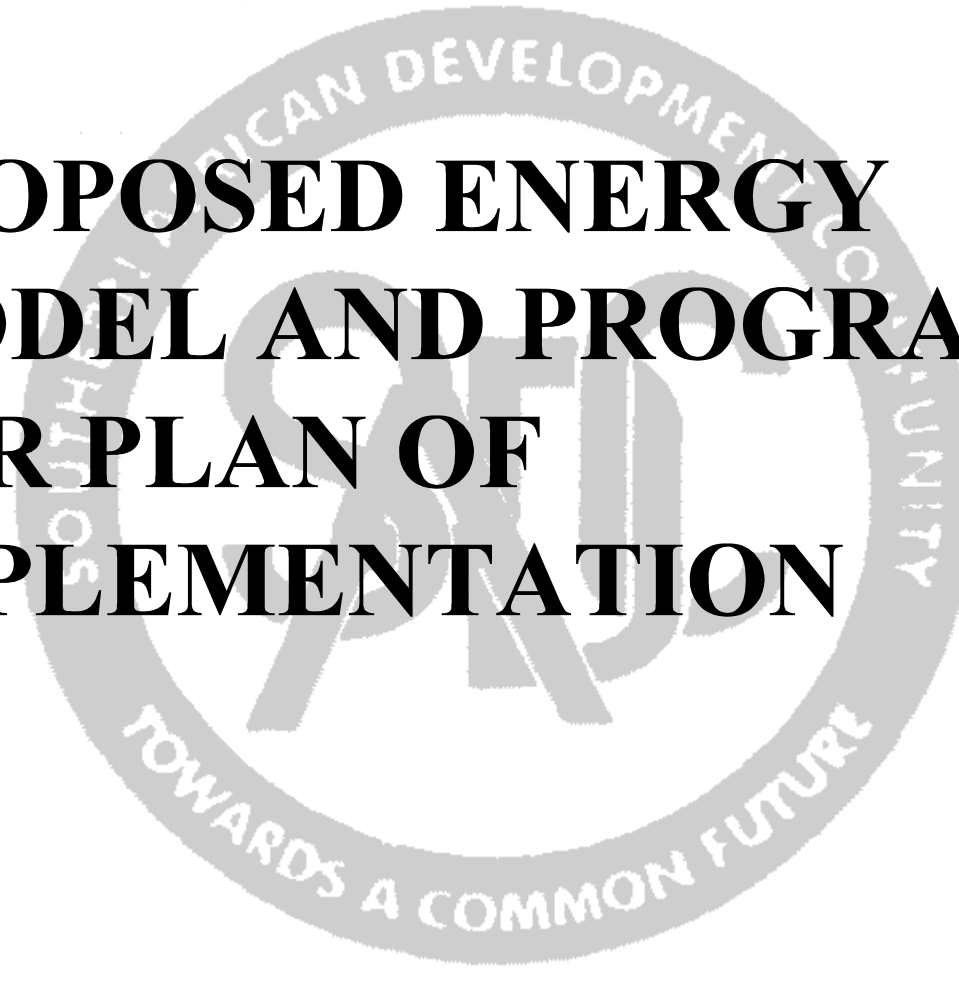
Coal Resources

Country	Proven (Mil. Tones)	Estimated (Mil. Tones)
Angola	n/a	n/a
Botswana	32,112	212,000
DRC	n/a	n/a
Lesotho	n/a	n/a
Malawi	22	1,000
Mauritius	n/a	n/a
Mozamb	n/a	3,000
Namibia	350	n/a
RSA	55,000	n/a
Swaziland	208	1,000
Tanzania	304	1,200
Zambia	30	1,000
Zimbabwe	11,000	26,625
Total	99,026	245,825

Installed Biomass Capacity

Country	Biomass Electricity Capacity (MW)	Installed
Mauritius	>70	
Mozambique	0.5	
South Africa	245	
Swaziland	44	
Zimbabwe	61	
Total	400.5	

A woman in a red dress and white top is walking in a dry, arid landscape, carrying a large, dark, rounded water container on her back. She is holding a long, thin tube that leads down to several yellow and grey plastic water jerrycans on the ground. The background shows sparse, dry vegetation and a clear blue sky.



**PROPOSED ENERGY
MODEL AND PROGRAM
FOR PLAN OF
IMPLEMENTATION**

Electricity Pricing/Economic Measures

- Tariffs - full cost recovery
- Abolishment of Centralised Billing
- Introduce Pre-paid Metering Systems
- Should Urban subsidise the Rural ?
- Review Policies and legislation

Technical Measures

- Retrofitting of Fixtures
- Energy Saving Devices
- Demand Side Management
- Explore other alternative sources of Energy

PROVISION OF QUALITY SERVICE

Energy Efficient Practices

- Use of Compact Fluorescent Lamp
- Best practices by utilities
- Efficient practices by utilities
- Time to respond to call-outs

Public Awareness and Education

- Energy Week – Big annual event?
- Educational Activities in schools and colleges
- Promotional Material and Activities
- Involvement at Community level
- Customer Advisory Services
- Curricula Development
- Street Posters & Bill Boards

Environment and Gender

- Taking advantage of the hydro potential in the region; the use of more energy efficient and alternative technologies will reduce CO₂ emissions.
- The production and marketing of improved technologies by the utilities results in additional job creation opportunities, which benefit local community members (prepaid meters etc).
- The adoption of effective information dissemination techniques ensures lasting benefits in terms of energy and money savings.

Environment and Gender(Cont)

- Women should be targeted and empowered through schemes which could improve their worth and involvement in their communities thus advancing their cause towards gender equality.
- Increased access to electricity could assist in the reduction of indoor air pollution, which substantially reduces the risk of respiratory ailments for both women and children that often lead to chronic obstructive lung diseases and child mortality.

Environment and Gender (Cont)

- The ability to successfully manage energy consumption enables households affected by the HIV/AIDS pandemic to create a better indoor environment and to spend more time on caring properly for the sick, thus alleviating its effects

Conclusion

- **Notable Progress in Access to Electricity**
- **Great potential in the Region, hydro, Pv, Wind**
- **Need to take advantage of what the Congo River has to offer**
- **Lack of Financial Resources**
- **Development of Bankable Projects**



THANK YOU !!!!

