

Planning Power: Review of Electricity Policy in Namibia- Case of Renewable Energy

Institute for Public Policy
Research Workshop

10 September 2009

Windhoek

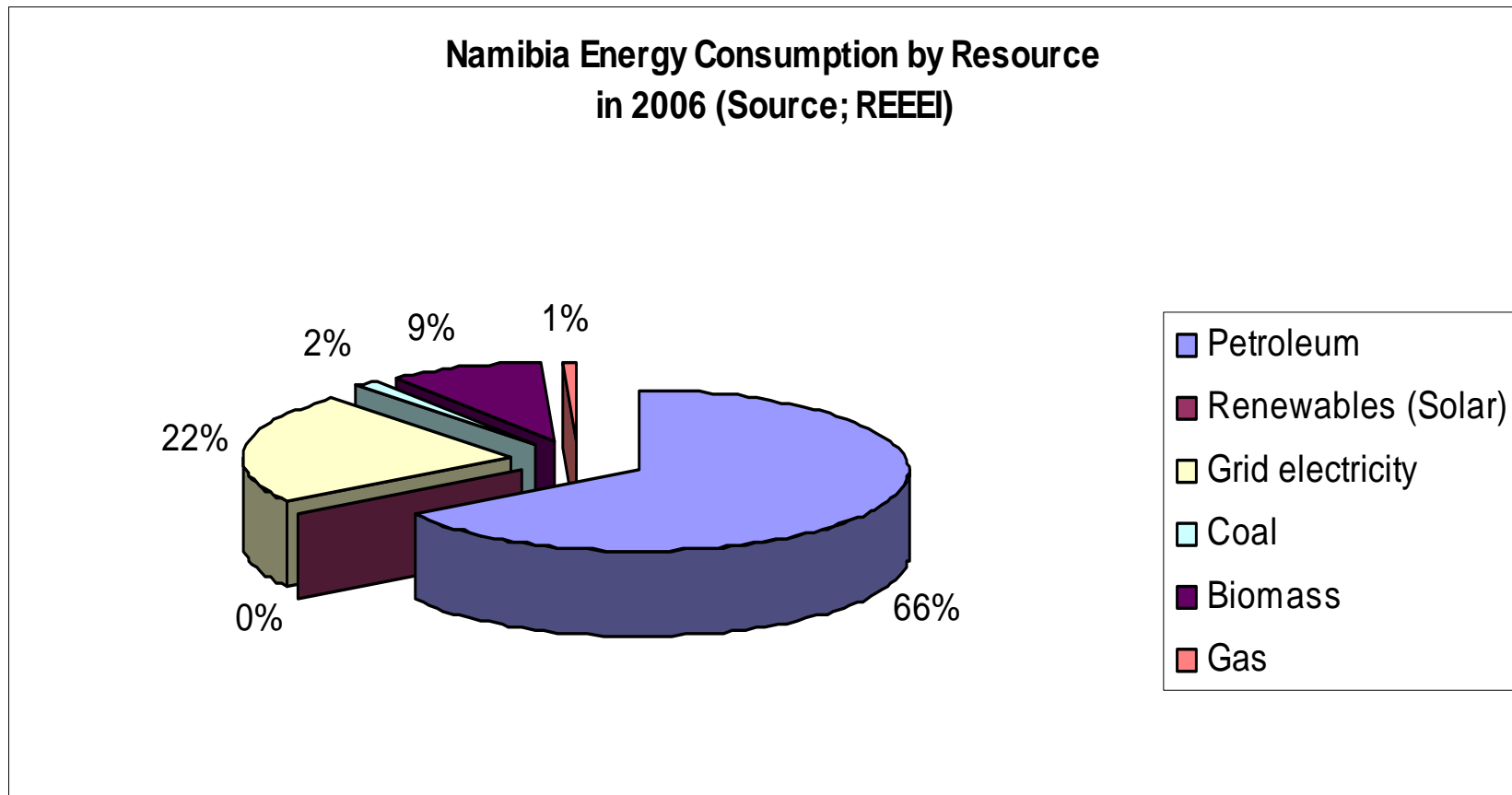
BY

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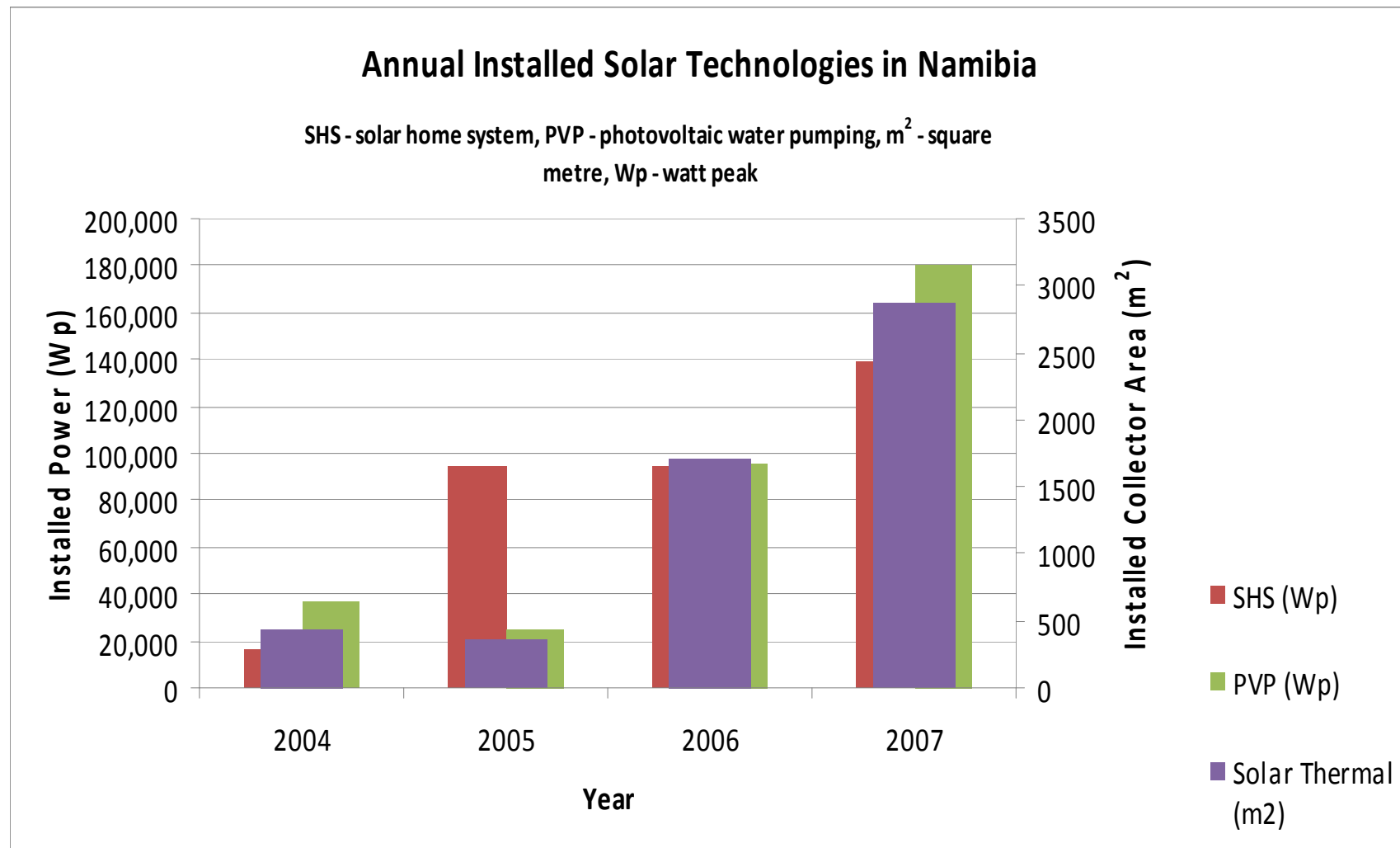
STRUCTURE OF PRESENTATION

- 1. CURRENT ENERGY SITUATION**
- 2. THE RE ROAD TRAVELLED**
- 3. WHITE PAPER ON ENERGY POLICY**
- 4. RURAL & OFF- GRID INITIATIVES**
- 5. POSSIBLE CAUSES FOR LOW RENEWABLE E PENETRATION**
- 6. RECOMMENDATIONS**
- 7. CONCLUSIONS**

1. NAMIBIA ENERGY CONSUMPTION SITUATION



1...RECENT RE INSTALLATIONS



1.....BIGGER PROJECTS

- Wind turbine (220kW)
- Gobabeb Hybrid System
- Proposed Tsumkwe Hybrid System
- Small hydro station along the Orange River

□



2. THE RE ROAD TRAVELLED

- **1993**- “Promotion of the Use of Renewable Energy Sources in Namibia” with GTZ support launched by MME
- **1996**- 1st solar revolving fund under the Home Power Project with Renewable Energy for African Development (REFAD-US) support.
 - loans granted to interested rural households
 - 600 solar home system units sold

2....THE RE ROAD TRAVELLED

- Other projects followed
- **1998- White Paper on Energy Policy**
 - 7 energy goals; security of supply, social upliftment, effective governance, investment and growth, economic competitiveness, economic efficiency and sustainability.
 - Promotion of RE to be driven through
 - ***institutional & planning framework,***
 - ***development of human resources,***
 - ***public awareness & suitable financing systems.***

3. White Paper on Energy Policy- *institutional & planning framework*

- **2004-** Namibia Renewable Energy Programme (**NAMREP -1**) launched
The project has **6** broad outcomes (or components):
 - Addressing capacity barriers
 - Addressing the institutional barriers
 - Increasing public awareness & social acceptability of RETs
 - Reducing financial barriers
 - Addressing technical barriers
 - Implementation & demonstration

3....White Paper on Energy Policy- *institutional & planning framework*

- **2006**- Renewable Energy & Energy Efficiency Institute (**REEEI**) launched to;
 - Promote RE & EE
 - Facilitate & conduct research in RE & EE
 - Facilitate industry cooperation, develop materials & standards, etc.
- **2006**- Renewable Energy & Energy Efficiency Capacity Building (**REEECAP**)
 - Danish support

3....White Paper on Energy Policy- *institutional & planning framework*

- NDP 3- highlighting the need for coordinated planning & RE mainstreaming
- National energy regulatory framework
 - RE, electricity, gas, petroleum,...
 - Energy efficiency – an over-arching component

3... White Paper on Energy Policy- *development of human resources*

- REEEI launched in partnership with Polytechnic of Namibia
 - Mainstreaming RE & EE in curriculum at Poly & schools
 - Short term courses in critical areas such energy auditing, wind power development, concentrating solar power

White Paper on Energy Policy- *public awareness & financing*

- ❑ NAMREP and other partners have devoted a lot of time on awareness
- ❑ Loan scheme- with subsided interest rates launched by MME/NAMREP/UNDP/Banks
- ❑ Development Bank of Namibia financing RE projects/ companies

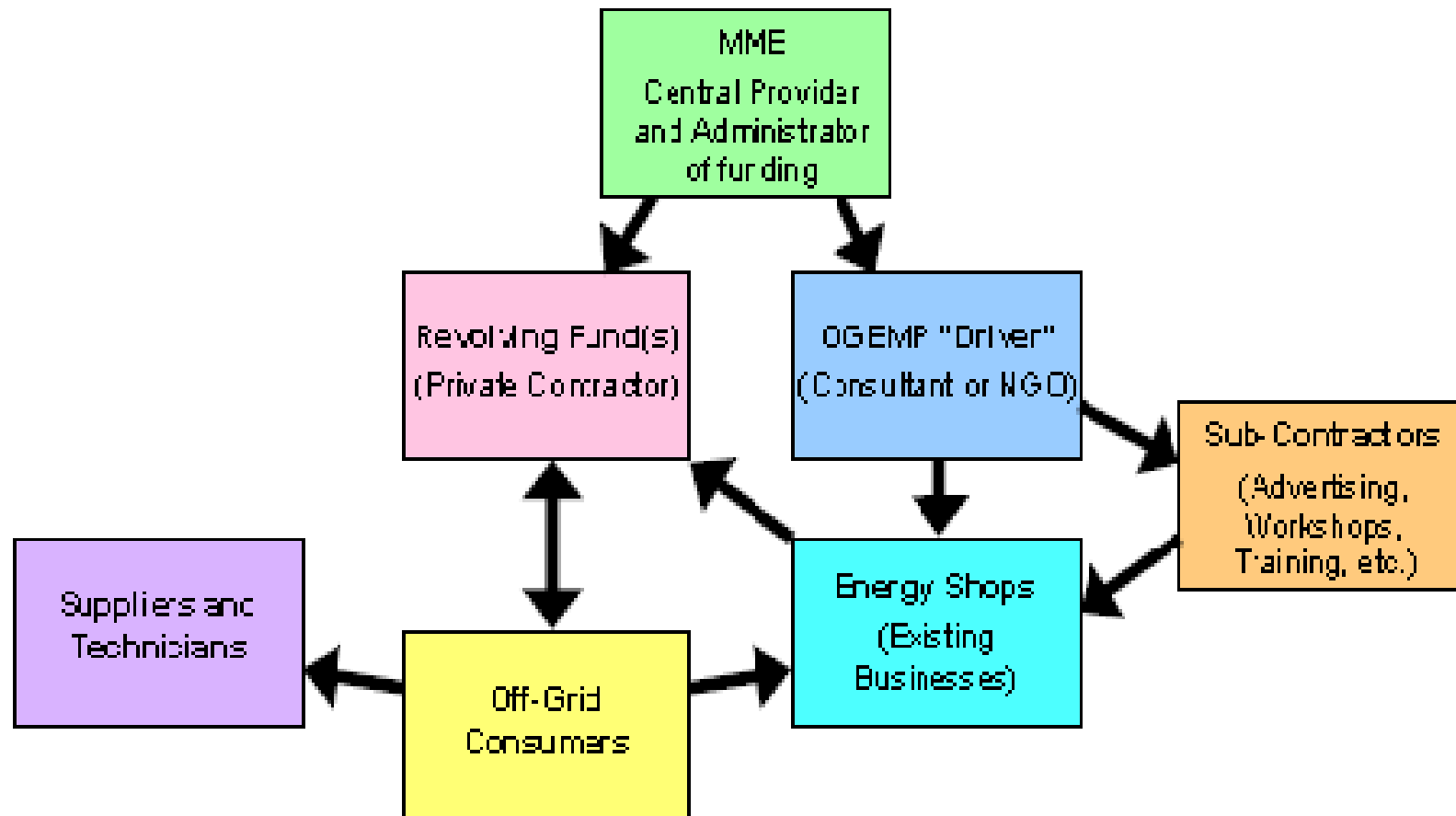
4. RURAL & OFF- GRID INITIATIVES

- Programme guided by the Rural Electrification & Distribution Master Plan (REDMP) 2000 & 2005.
- No. of households without electricity = **224,000** (2005)
- **33,0000** rural households have been electrified since 1990.
- Actual rural electrification 23% in 2009
- Target of 25% by 2010 & 80% by 2030

4. OFF- GRID SOLUTIONS & RENEWABLE ENERGY

- Guided by the Off-Grid Energisation Master Plan (OGEMP)
- Areas not likely to be electrified in the next 10 to 20 years will be prioritised with renewable energy
- OGEMP to be approached from the Energy Shop Concept
 - Each region to have at least 1 energy shop which will act as stockist of clean energy products and a hub of information

4....Energy Shop Approach



4....OFF- GRID SOLUTIONS & RENEWABLE ENERGY (cont..)

- Renewable energy resources that are readily **A**ccessible, **A**vailable & **A**cceptable
 - solar radiation (5.4 - 6.2kWhr/m²/day)
 - wind (annual average speeds of 6.8 - 7.5m/s in Walvis Bay and Lüderitz)
 - Biomass material- invasive bush covering 26 million hectares of grazing land.

5. POSSIBLE CAUSES FOR LOW RE PENETRATION

- ❑ Cost un-competitiveness of some RETs largely due to an uneven playing field,
- ❑ Low electricity tariffs against high cost of RE investment,
- ❑ Lack of an appropriate regulatory framework that supports renewable electricity,
- ❑ Lack of awareness regarding the cost and socio-economic advantages of generating electricity from renewable energy resources.

6. RECOMMENDATIONS

- Three level policy scheme;
- **1st level (priority setting)**- provide general direction & guidance, linking to NDPs & Vision 2030.
- **2nd level (standardisation)**- specify goals & development plans, focussing on priority areas- ***HOW? Integrated Resource Energy Plan (IREP)***
- **3rd level- (operational)** consist of practical & specific incentives & managerial guidelines – very crucial at the level of Namibia. ***HOW? E.g. regulatory frameworks, institutions, etc***

6.... RECOMMENDATIONS

- Necessary conditions;
 - Sector/institutional policies & plans;
 - a conducive regulatory framework with market instruments such feed in tariffs -& quota systems & mandates;
 - skills development to research on & manage the technologies, advise on policies & implement the designed polices

7. CONCLUSIONS

- RET are slowly making in-roads in meeting local energy needs.
- RETs remain localised & off-grid
- Integrated Energy Resource Plan required
 - Others –regulatory frameworks, incentives follow
- Other challenges remain such as skills shortages.

OF COURSE FUTURE IS BRIGHT IN THE END



THANK YOU !!!!!!!