

# Renewable Energy & Energy Efficiency in Rural Namibia

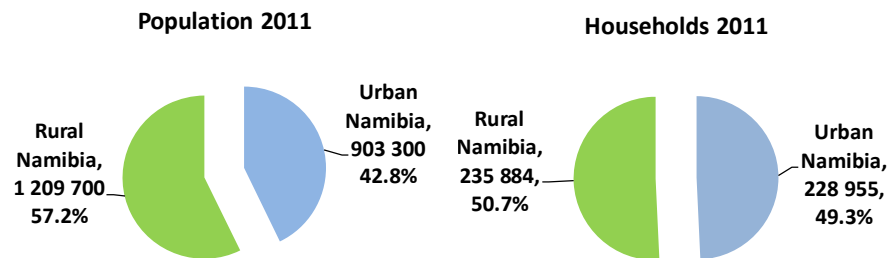
**Namibia's Energy Challenges – A Treasure Box of Opportunities**

**Konrad Adenauer Stiftung**  
**Windhoek, Namibia**  
**8 April 2016**

**Dr Detlof von Oertzen**  
 **VO CONSULTING**

  
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## “Urban” versus “Rural”

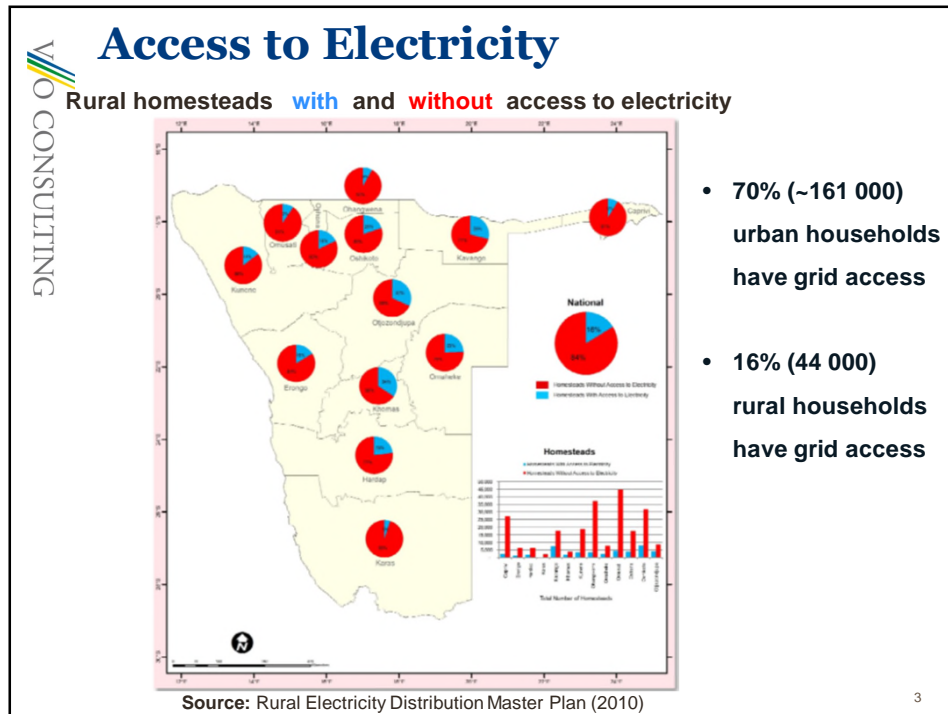


Sources: VO Consulting, Namibia Statistics Agency

### In 25 years (2041):

- population forecast to grow from 2.1 million in 2011, to 3.4 million (> 60%)
- 67% (2.3 million) of the population expected to be urban
- rural population expected to decline to approx. 1.1 million (33%)

Sources: VO Consulting, Namibia Statistics Agency



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## Access to Modern Energy Services

- Development hinges on having access to affordable energy.
- Energy access improves lives & enables people to reduce poverty.
- Our development endeavours must create access to modern energy.

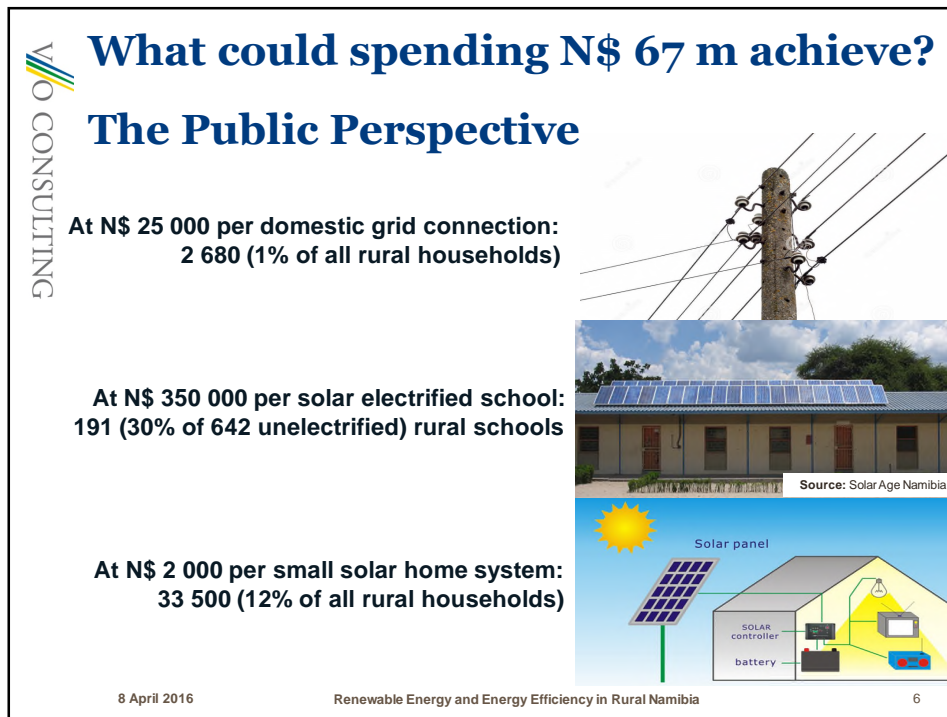
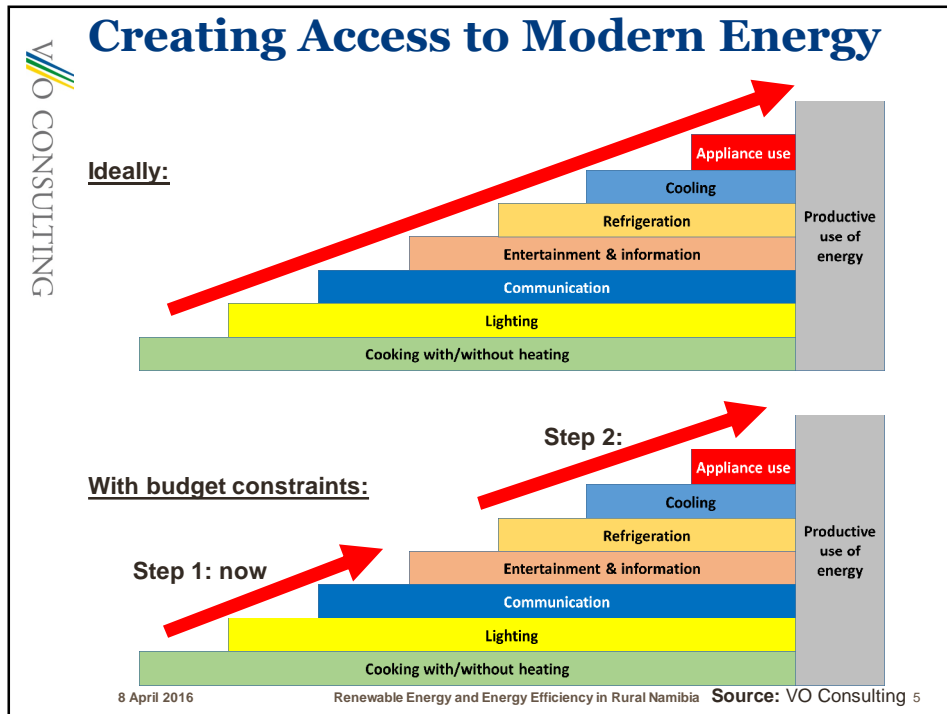
*Not only for the urban populations, but for all.*

**Namibia's Rural Electricity Distribution Master Plan (2010) envisages:**

- Electrification of 740 GRN buildings (642 schools) & ~60 000 rural homesteads
- N\$ 1.47 billion over 20 years, or approx. N\$ 74 million/year (2011)
- 2016/2017: MME budget allocation for rural electrification: N\$ 67 million

**Given current expenditure, are we effective in creating additional access?  
or  
Could we achieve faster access rates by using different approaches?**

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## Electrification using Mini-Grids

Tsumkwe, 4 200+ inhabitants, Otjozondjupa Region, 200 kWp solar PV



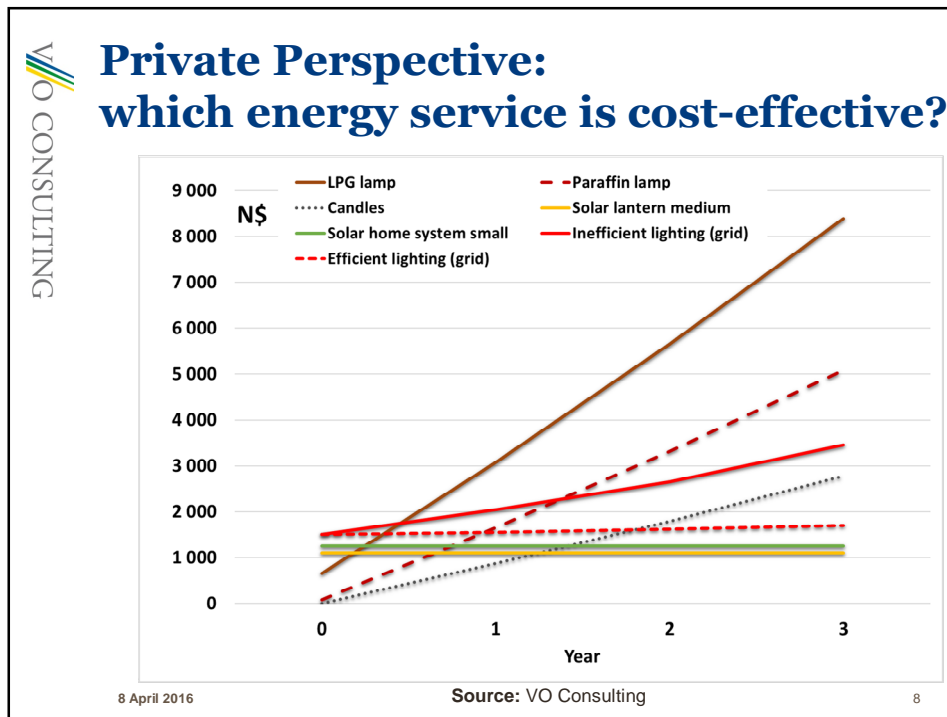
Source: Harald Schütt

Gam, 1 600+ inhabitants, Otjozondjupa Region, 200 kW over 24h



Source: HopSol

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## Main Take Away Messages

- **Access to affordable energy is a key determinant of national development.**
- In rural Namibia, access to electricity will remain beyond the reach of most *unless we use new approaches to create (at least partial) access.*
- Renewable energy (RE) technologies can provide quality access to energy, while energy efficient technologies improve RE *cost-effectiveness.*
- RE can quickly & effectively increase access in rural Namibia.
- *National development is energised by coupling people into the economy.*
- Rural energy-related investments should focus on creating access.

***Not in a decade or more, but starting today.***

## Thank you!

Dr Detlof von Oertzen

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