



Tsumkwe Energy



European Commission
- ACP Energy Facility



Desert Research
Foundation of Namibia



NamPower
Powering the Nation and beyond
NamPower

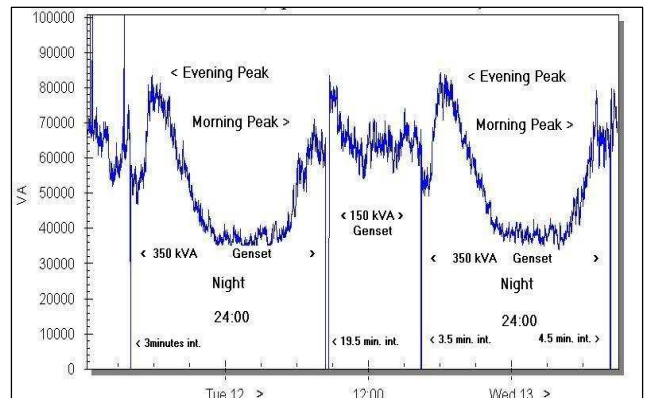


Otjozondjupa Regional
Council

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- **Contracting Authority:** European Commission ACP EU Energy Facility
- **Implementing Agency:** Desert Research Foundation of Namibia
- **Project Partners:** NamPower and the Otjozondjupa Regional Council
- **Strategic Partners:** Ministry of Mines and Energy, Electricity Control Board, Tsumkwe Constituency Council
- **Project Duration:** March 2008 to February 2011
- **Project Budget:** ~N\$ 26,000,000

Project Overview

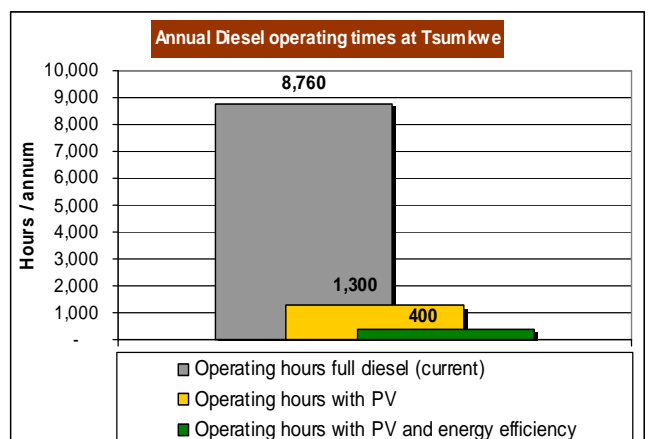
The Tsumkwe Energy Project will establish a 100 to 150 kWp solar PV array with 1,500 to 2,000 kWh battery storage capacity in order to minimise the operation of the current diesel electricity generators and ensure uninterrupted and stable power supply. Furthermore the project will repair, upgrade and expand the current 11 kV mini-grid and initiate mechanisms for access to alternative thermal fuels (such as LPG) and energy efficient appliances. The direct beneficiaries are over 70 households, 20 different institutions and over 15 businesses. Tsumkwe Energy will not only implement technical improvements, but also investigate what additional economic opportunities can be pursued under improved energy supply conditions. This is a vital strategy to ensure that Tsumkwe can reach a level of economic prosperity that will support the financial sustainability of the hybrid system. For this reason a sustained social behaviour change component will be implemented.



Power consumption at Tsumkwe over a 40 hr period; shows peak demand of 85 kVA and regular power interruptions. Tsumkwe's daily energy demand is 1.05 MWh.

Project Outcomes

- Install a solar diesel hybrid electricity generation system to significantly reduce diesel consumption.
- The hybrid electricity system will be managed and operated by an Independent Power Producer.
- Upgrade the existing electricity supply infrastructure and expand connection to unelectrified households and businesses within Tsumkwe.
- Ensure access to alternative thermal fuels and energy efficient appliances to reduce household and business electricity consumption.
- Promote local economic growth opportunities.
- A Trust will be established for the purpose of asset ownership and to ensure that revenue generated from the hybrid electricity system is re-invested into the system and into other upliftment initiatives in Tsumkwe.



Anticipated impact of solar component and energy efficiency on diesel generator operating times in hours per year.