



Distributed Generation Overview: Namibia

Prepared under the Policy Catalyst Distributed Generation Window

The Distributed Generation Window is a technical assistance program for Sub-Sahara African regulators and utilities to facilitate the integration of Distributed Generation onto electricity networks.

Key points

- Namibia has a **strong enabling environment** and regulatory framework for Distributed Generation (DG).
- There has been a growing number of installations of DG systems in recent years, estimated at **96 MW of DG in mid-2024 – about 15% of national demand**.
- Implementation of DG is driven by a **compelling business case**, particularly for C&I customers, partly because of the **excellent solar resource** in the country.
- The existence of **DG permitting processes varies** amongst utilities - some are far advanced while others have little in place.
- Several distribution utilities have **DG export tariffs**.
- Tariffs in Namibia are **generally cost-reflective**, with strong oversight by the Regulator (Electricity Control Board) in this regard.

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Background

Namibia has a relatively progressive electricity sector which is well regulated by the Electricity Control Board. Namibia’s electricity **tariffs are cost-reflective**. Namibia’s peak demand is around 638MW, of which **DG comprises 96MW (around 15%)**.

Distribution utilities comprise three REDs (Regional Electricity Distributors) as well as several municipal or other licensed distributors. Nampower is the national power utility undertaking generation, transmission as well as some distribution. **DG regulatory rules have been in place for several years** (currently being updated), and **many distributors accept DG applications**, although may lack the full set of DG guidelines, contracts and commissioning documentation. Several distributors have **DG tariffs approved by the regulator**.

Partly due to the exceptional solar radiation resource, the **business case for installing DG is attractive** – especially for commercial and industrial customers - where payback **periods are expected to be between 3 to 6 years**. Residential payback periods tend to be longer.

DG Regulatory and Institutional environment

In the DG Support Program [White Paper](#), key building blocks for DG implementation are identified, including regulatory, technical compliance, permitting and capacity building areas – summarised in Figure 1.

FIGURE 1. BUILDING BLOCKS OF DG REGULATION AND PERMITTING

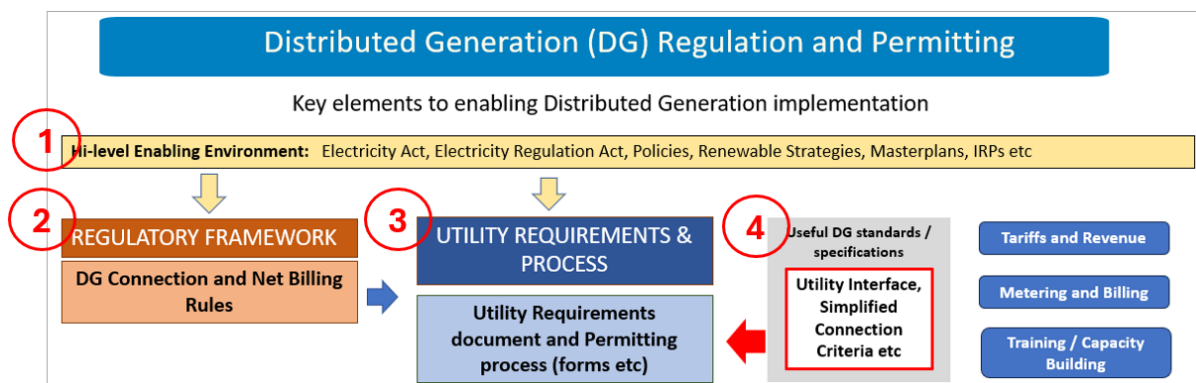


Table 1 provides a high-level overview across all these building blocks, highlighting relevant documents.

TABLE 1. High-level description of the DG enabling environment in Namibia

BUILDING BLOCK	DOCUMENTS	NOTES
1. High-level enabling environment	Reducing electricity imports by expanding local clean energy generation capacity is a clear objective across a number of national policies and strategies.	
	National Energy Policy, 2017 National Renewable Energy Policy, 2017 National Independent Power Producer Policy, 2018	
2. Regulatory framework	National Integrated Resource Plan (NIRP) 2017	The NIRP includes net metering, storage and embedded generation
	Regulatory Rules for DG have been in place since 2016, ensuring the orderly, safe and compliant connection of DG in accordance with the Renewable Energy and Distribution Grid Codes.	
3. Utility permitting process	Net Metering Rules 2016 Net Metering Rules 2023 (draft)	The NMR defines the minimum requirements for interconnecting DG to the grid, including eligible generation technologies, generation capacity limits, metering requirements, and billing and compensation arrangements, amongst others.
	Although several distributors have processes to accept and review DG applications, some do not. Documentation of the permitting process and consistency of approach around the country is not yet in place.	
4. Standards and specifications	Requirements for Embedded Generation (draft)	Initial draft utility 'Requirements for DG' document developed. Technical and legal aspects being clarified. Potential final draft 2024/25
	Namibia has historically used the South African NRS097 specifications for DG connection and grid impact assessment. However, they are developing their own standard in this regard.	
	Namibian Standard for Embedded Generation (NSEG) (draft - out for public comment)	Specifies the technical DG connection requirements at distribution level, including minimum DG sizing, selection, application and function performance requirements.