



	<b>Construction Permit Requirements for Electricity Generation for Own Use</b>	<b>Doc. Type.</b>	Form
		<b>Doc. No.</b>	LN.FM-003
Licensing		<b>Issue Date</b>	2024-01-26
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*Please provide any other details in support of the application, if any?*

**(For information purposes only)**

- a) Please submit a financial model detailing the cost components used in the determination of the tariff (*wheeling charges, distribution pricing model, etc*). The model should state the underlying assumptions to demonstrate the financial viability and technical feasibility of operating the distribution asset.
- b) Project financing: Please provide details of who will fund the project, and how the project will be financed including the components (*debt, equity, export credits, bonds, etc*).

**C. Key Technical Personnel for Construction Permit** (*initial application only*)

Key engineering/project personnel that are expected to provide expertise for quality assurance.

No	Name	Responsibility <sup>1</sup>	Certification No.	Certification Body	Expiry Date

**D. Permission from other Authorities**

Requirement	Issue date	Expiry date	Reference No.
Environmental clearance			
Local Authority ( <i>Zoning Approval</i> )			
Heritage site conservation			
Water abstraction			

<sup>1</sup> Indicate respective responsibility e.g Project supervisor, SHEQ, site foreman, etc

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Parks & wildlife			
Protected forests			
Feasibility study			

Expected life of the generation plant (years) \_\_\_\_\_

Construction start date \_\_\_\_\_ End date \_\_\_\_\_

**E. Details of the Proposed Generation Plant**

Name of generating station \_\_\_\_\_

**Describe the location of the project and utilities** (Detailed project location, including a topographical map of scale 1:50,000. with GPS coordinates of 'power house' or 'control room' provided in degrees. The map should be printed on at least A1 paper for clarity)

**I. Key Project Parameters**

**i. Hydropower**

Installed Capacity (MW)	15
Plant Capacity Factor (%)	60%
Project Type (run-of-river or storage)	
Design Flow (m <sup>3</sup> /s)	
Gross Head (m)	
Net Head (m)	
Turbine type (Francis, Kaplan, Pelton etc.)	
Number of turbines	
Manufacturer	
Rated capacity of each turbine (MW)	
Length of Headrace (m)	
Length of Penstock (m)	
Length of Tailrace (m)	
Length of Dam/Weir (m)	
Height of Dam/Weir (m)	
Required water flow (m <sup>3</sup> /s)	

Name of the river / waterfalls / reservoir \_\_\_\_\_

**ii. Solar Photovoltaic**

Details of PV Modules	Description
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<b>Details of PV Modules</b>	<b>Description</b>
Installed Capacity (MWdc) / (MWac)	
Capacity Utilization Factor (%)	
PV Module Rating (Wdc)	
Manufacturer	
Number of PV Modules	
Number of PV Arrays	
Average Performance Ratio	

Measured average solar irradiance (W/m<sup>2</sup>) \_\_\_\_\_

PV mounting structures (fixed/tracking) \_\_\_\_\_

Inclination angle / orientation if fixed \_\_\_\_\_

<b>Details of Inverters</b>	<b>Description</b>
Manufacturer	
Inverter Type	
Number of Inverters	
Inverter Rating (kW/kVA)	
Voltage input / output (Vdc / Vac)	

Name of the river / waterfalls / reservoir \_\_\_\_\_

### iii. Wind

<b>Details of Wind Turbines</b>	<b>Description</b>
Installed capacity (MW)	
Wind power extraction efficiency (%)	
Wind turbine rating (MW)	
Manufacturer	
Number of wind turbines	
Wind turbine swept area	
Cut in wind speed (m/s)	
Cut off wind speed (m/s)	
Average wind speed (m/s)	
Wind turbine hub height (m)	
Turbine axis (Vertical / Horizontal)	

### iv. Thermal Power Plants (biomass, bagasse, coal, HFO, etc)

<b>Details of turbines / burners</b>	<b>Description</b>
Installed Capacity (MWac)	
Plant capacity factor (%)	
Turbine / burner rating (MW)	
Manufacturer	
Number of turbines / burners	

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Type of fuel (e.g., bagasse, HFO)	
Fuel requirement (tonnes per year)	

Air pollution control technology \_\_\_\_\_

## 2. Auxiliary Facilities

### i. Switch Yard

Power Evacuation Line Voltage (kV)	
Power Evacuation Line Length (km)	
Grid integration point capacity (MVA)	
Transformers Capacity (kVA)	

### ii. Grid Integration Point

Name of Substation (if applicable)	
Voltage Level (kV)	
Transformers capacity (MVA)	

**Transmission and Distribution Infrastructure Required for Power Evacuation** (Please provide information on the proposed interconnection point, the length of the distribution/transmission (evacuation) line, the voltage, and the grid owner/operator)


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**Applicable technical standards and regulations** (Outline of safety, design, installation, communication, equipment, construction, etc)

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## F. Application for Extension

- a) Please fill in “Form XI” and “Part I” of this “Checklist”
- b) Please ensure that the application is submitted at least three (3) months before the expiry of the “Construction Permit”
- c) Please attach the project implementation plan in the “ERB Prescribed Format” showing the milestones achieved
- d) Please include a “Cover Letter” stating the justification for the extension of the permit and the implementation status (as a percentage) which should be aligned to milestones in (c)

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above

### G. Declaration by Applicant

I (full name in block letters) \_\_\_\_\_


declare that the particulars, details and information given in this Application Form are true and correct to the best of my knowledge

\_\_\_\_\_

**Signature****Date**

### H. Appendices (Please attach the following to your application where applicable)

Requirement	Y	N	NA
WARMA Water Abstraction Permit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NHCC consent letter, <i>(if project is impacting on national heritage site)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Local Authority Zoning Approval	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DNPW consent letter <i>(if project falls in national parks &amp; game management area)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Forestry Department consent letter <i>(if project falls in national protected forest)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ZEMA project approval letter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feasibility Study Authorisation from Ministry of Energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Single line As-Built Drawings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Single line site layout plan drawn to scale	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Documented SHEQ Plan for construction phase	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Letter appointing an EPC contractor / Registered Engineer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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<b>Review of the Application</b>

**Recommendation**     Approval                       Reject                       Request for information

<b>Reason(s) or Condition(s) for the Recommendation</b>

**Reviewed by** \_\_\_\_\_ **Sign** \_\_\_\_\_ **Date** \_\_\_\_\_

**Checked by** \_\_\_\_\_ **Sign** \_\_\_\_\_ **Date** \_\_\_\_\_

**Approved by** \_\_\_\_\_ **Sign** \_\_\_\_\_ **Date** \_\_\_\_\_