



STANDARD OPERATING PROCEDURE FOR POWER ALLOCATION TO INDUSTRIES

DEPARTMENT OF HYDROPOWER AND POWER SYSTEMS

MINISTRY OF ECONOMIC AFFAIRS

June 2022 (Revision 01)

Table of Content

| | |
|-------------------------------------|---|
| Table of Content | 1 |
| 1 Introduction | 2 |
| 2 Objective..... | 2 |
| 3 Scope | 3 |
| 4 Institutional Arrangements | 3 |
| 5 Issuance of Power Clearance | 4 |
| 5.1 Application Type..... | 4 |
| 5.2 Assessment Criteria..... | 6 |
| 6 Issuance of Power Sanction..... | 7 |
| 7 Adoption and Review | 8 |
| 8 Glossary | 9 |

1 Introduction

Hydropower is recognized as a strategic national resource and has been one of the primary sources of revenue generation for Bhutan from export after meeting its own growing domestic demand. Further, electricity is an enabler for economic development, a key facilitating factor for the promotion of industries to enhance the economic growth in the country.

The Bhutan Sustainable Hydropower Development Policy (SHDP) 2021, under section 15.4, mandates the Nodal Agency (i.e., the Department of Hydropower and Power Systems) to “*assess and allocate power to an industry based on the recommendation of the Royal Government of Bhutan (RGoB) agencies on the type of industry to be promoted*”. Thus, DHPS needs to ensure efficient and reliable supply of power to the industries including the allocation of power to the upcoming/planned industries in a coordinated, rationalized and sustainable manner.

Furthermore, due to the growing domestic demand, the peak demand has surpassed the firm power capacity. Although Bhutan has surplus generation on an annual basis, during the dry winter seasons domestic generations drop to its lowest (firm capacity) and owing to the growing domestic demand, power deficit is forecasted during these lean months. While RGoB will strive to secure energy by enhancing domestic capacity, energy diversification, entering into import mechanisms, promoting energy efficiency and conservation, amongst other viable interventions, it is imperative to utilize the available resource in a strategic manner.

Therefore, to operationalize the mandates stated in the SHDP 2021, this Standard Operating Procedure (SOP) is prepared to serve as a guidance for allocating power to the industries through coordination and harmonization amongst the relevant stakeholder to deliver efficient public services.

2 Objective

To allocate reliable and secure power supply to industries through sound and rationalized assessment and efficient coordination amongst the power sector agencies and utilities for effective public service delivery.

3 Scope

The SOP sets down the process and the responsibilities of relevant agencies in allocating power to industries (new industries as well as existing industries with new expansion plans).

4 Institutional Arrangements

The following institutions identified shall be responsible for the matters related to the power allocation:

i. Department of Hydropower and Power Systems (DHPS)

The DHPS under the Ministry of Economic Affairs (MoEA) shall serve as the Nodal Agency of the RGoB responsible for assessing and allocating power to industries through the issuance of Power Clearance and Power Sanction.

ii. Druk Green Power Corporation (DGPC)

The DGPC shall be responsible for submitting the generation and supply status of hydropower plants in the country to DHPS including the import mechanism, during any deficit period.

iii. Bhutan Power Corporation Limited (BPC)

The BPC shall be responsible for carrying out the detailed system studies and field assessment on the new/augmentation/modification required for infrastructure expansion for power supply to the industry. BPC shall also be responsible for signing of the Capacity Reserve Agreement (CRA) and the Contract Demand Agreement (CDA) with the Proponent.

5 Issuance of Power Clearance

The Power Clearance is one of the prerequisites, a sectoral clearance for obtaining a license from the Department of Industry (DoI) to set up an industry by a Proponent.

The Proponent should submit the Power Clearance Form (attached as FORM 1) to the Department of Industry (DoI). The Power Clearance shall be valid for twelve months from the date of its issuance.

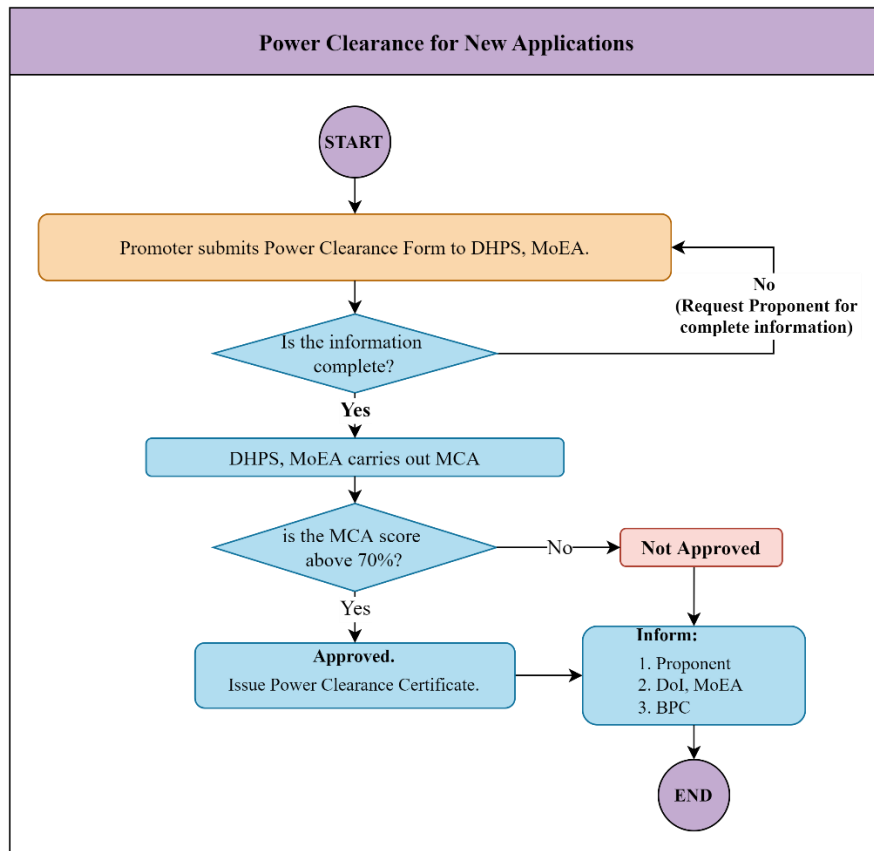
5.1 Application Type

There are three types of applications envisaged for a Power Clearance and submission of the Power Clearance Form is required for all the applications.

1. New Application:

Applicable when setting up of new industry wherein Power Clearance is required to obtain the industry/business license.

The following process (Flowchart 1) will be followed for this type of application:

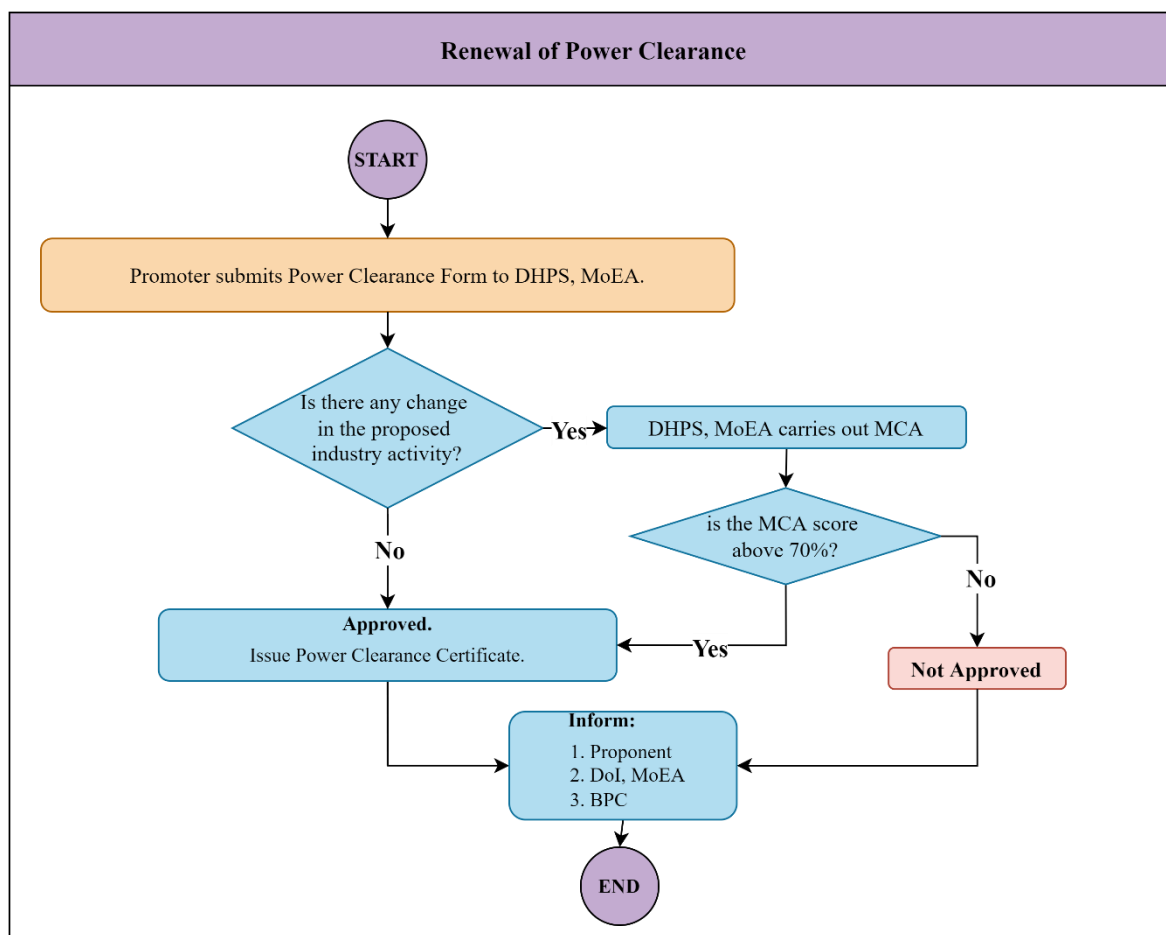


Flowchart 1: Process for Power Clearance issuance for New Applications

2. Renewal

Applicable for renewal of Power Clearance, upon the expiry of the Power Clearance issued before for setting up of a new industry.

The following process (Flowchart 2) will be followed for this type of application:

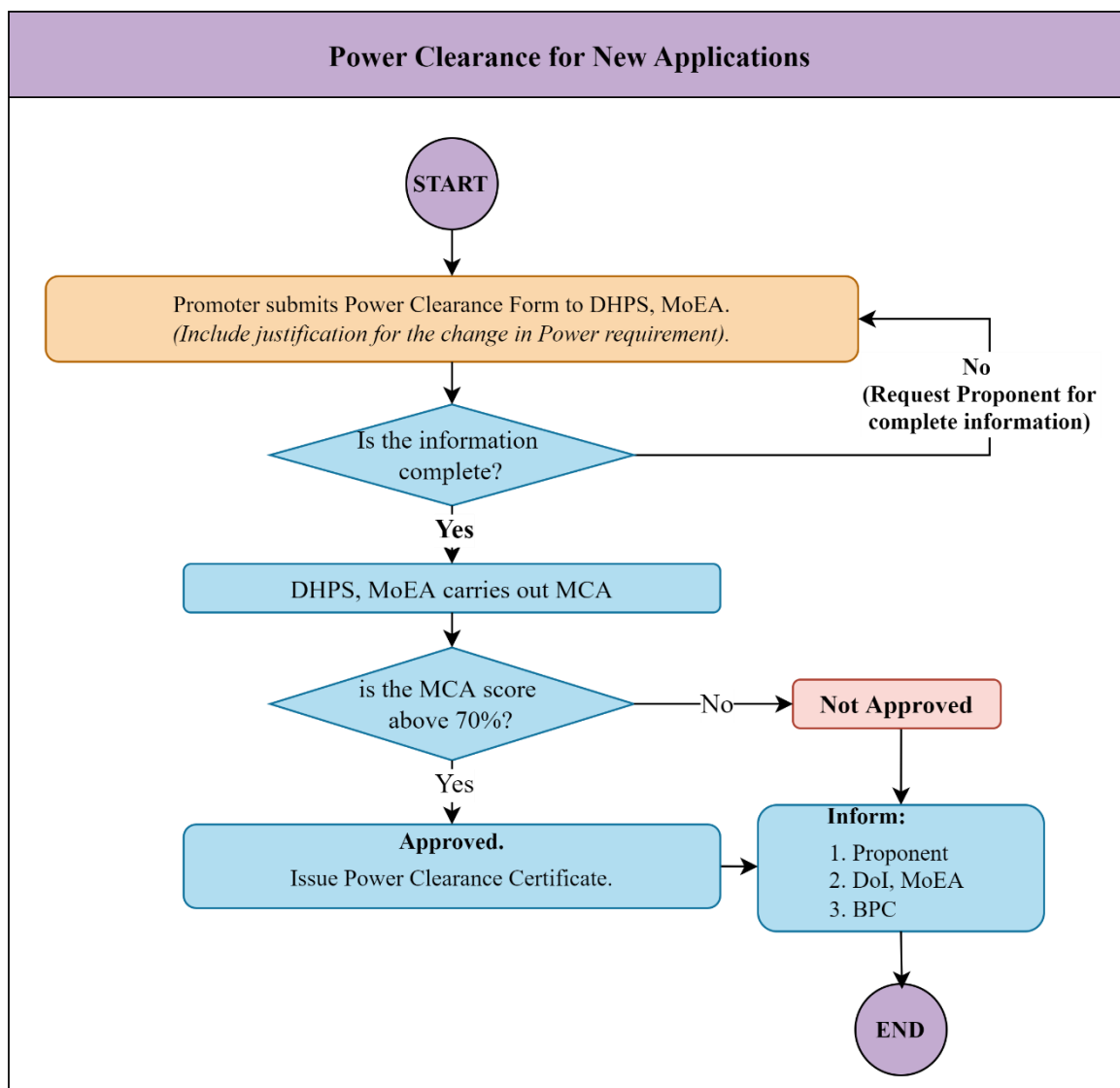


Flowchart 2: Process for Power Clearance issuance for Renewal of Power Clearance

3. Additional Power Requirement

Applicable for requirement of additional power for an existing industry. This is required for an existing industry planning to expand/augment the existing industrial capacity.

The following process (Flowchart 3) will be followed for this type of application:



Flowchart 3: Process for Power Clearance issuance for Additional Power Requirement

5.2 Assessment Criteria

The issuance of the Power Clearance shall be based on the Multi Criteria assessment (MCA) carried out by DHPS. The criteria are as follows:

1. National Interest (30%)

The strategic nature of the proposed industry/ proposed expansion will be assessed as per the policies and strategies of the Royal Government.

2. Power Supply and Infrastructure (20%)

During the assessment, due consideration will be given on the availability of the power supply and viability of infrastructure expansion to cater to the power demand.

3. Equitability (25%)

Equitable distribution of power to the proponents will be considered.

4. Sustainability (10%)

Sustainability of the proposal will be assessed based on the Proponent's short term, mid-term and long-term plans. Risk assessment will also be considered.

5. Environmental Impact (7.5%)

The impact on the environment from the proposed industry will be considered inline with national interest to promote clean and green industries in the country.

6. Promotion of Energy Efficient Equipment (7.5%)

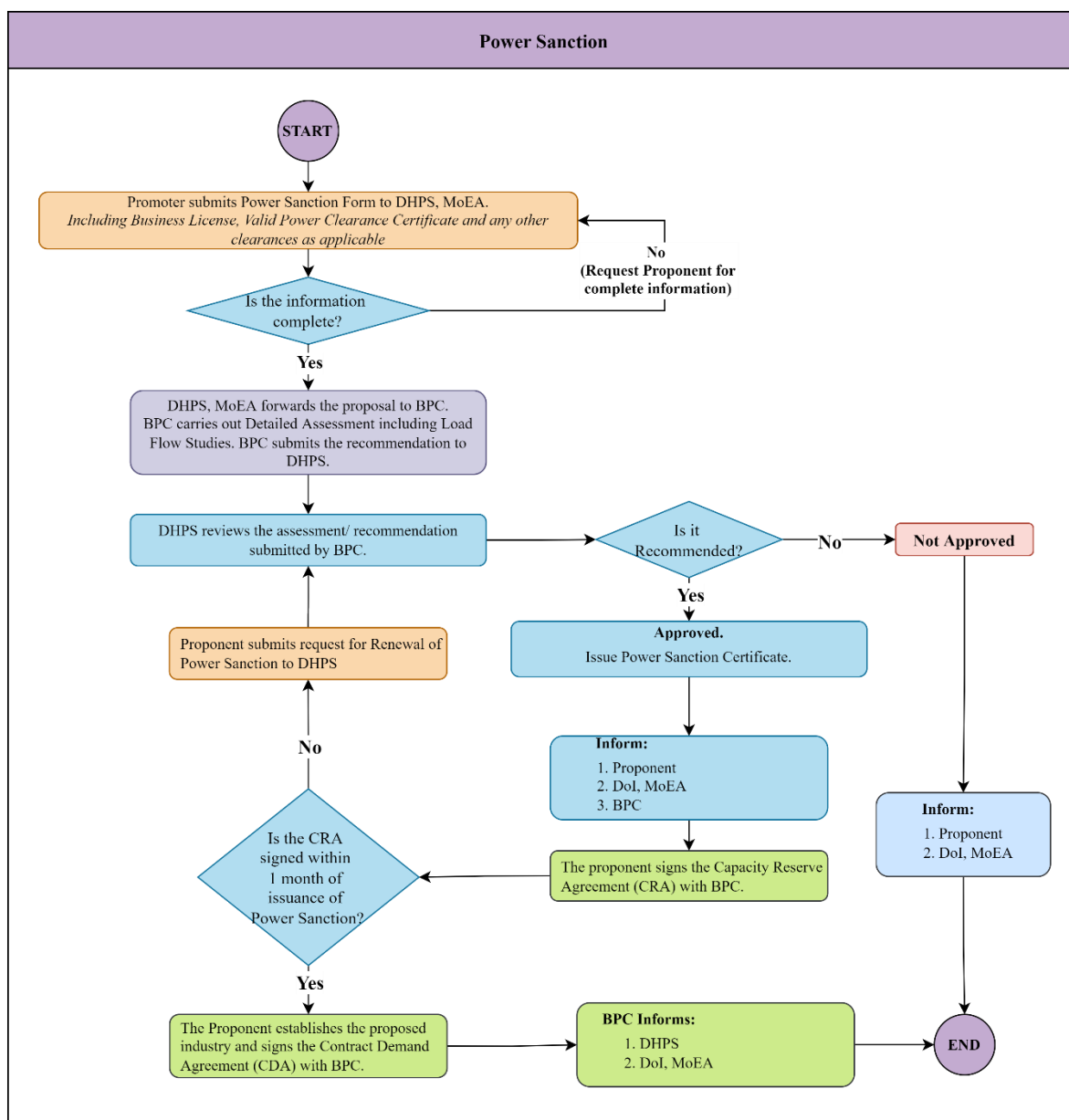
Promotion of energy efficient machines/equipment will be considered during the assessment of the proposal to ensure that strategic hydropower resources are utilized efficiently as well as ensuring that industries reduce energy intensity to the extent possible.

A minimum of 70% during the MCA assessment should be secured to obtain a Power Clearance. The Power Clearance shall be contingent on the Terms and Conditions in the Power Clearance Form.

6 Issuance of Power Sanction

After the Proponent receives the License from the Department of Industry, the Proponent may request for Power Sanction from DHPS. Power Clearance does not guarantee the supply of power, however, Power Sanction shall be the basis for reserving power supply for an industry.

The Proponent should submit the application to DHPS for issuance of the Power Sanction. Upon issuing the final approval for Power Sanction, BPC will be informed to sign the Capacity Reserve Agreement (CRA) with the Proponent within a month, and failing to do so will result in the cancellation of the Power Sanction.



Flowchart 4: Process for Power Sanction issuance

The Power Sanction shall be contingent on the Terms and Conditions in the Power Sanction Form.

7 Adoption and Review

- a) The revised SOP shall come into effect from 1st June, 2022 and shall supersede the previous SOP(s). However, the Power Clearances and Power Sanctions issued prior to this date shall not be affected.
- b) The SOP will be reviewed and amended, as deemed necessary by DHPS.

8 Glossary

- i. **Capacity Reserved Agreement** – Agreement between BPC and the proponent wherein, a mutually agreed date on which BPC shall commence the supply of electricity and the proponent shall be obliged to draw electricity is determined.
- ii. **Customer** – shall mean any person or any entity supplied with electrical energy by BPC either as owner or occupier and whose premises are for the time being connected to the BPC’s system and also includes a person or an entity whose supply has been disconnected for the time being.
- iii. **High Voltage (HV)**– Voltage level of 66kV and above.
- iv. **Industry(ies)** – Production & Manufacturing and Service Industries
- v. **License** – Industry License.
- vi. **Medium Voltage (MV)**– Voltage level of 6.6kV, 11 kV and 33kV.
- vii. **Proponent** – Applicant who wishes to set up an industry or expand an existing industry.



ལྷན་འགྲུས་ལས་ཁུངས་ལྷན་ཁུངས་། བསྟར་རྒྱུ་རྩུལ་ལག་ཁུངས་།
DEPARTMENT OF HYDROPOWER & POWER SYSTEMS
MINISTRY OF ECONOMIC AFFAIRS
THIMPHU: BHUTAN



FORM 1: POWER CLEARANCE APPLICATION FORM FOR INDUSTRY

1. Application Type (*Tick the appropriate box below*):
New Application: Renewal: Additional power requirement:
2. Name of Proponent: _____
3. CID No. of Proponent: _____
4. Contact detail: Mobile No: _____ Email: _____
5. Industry Name: _____
6. Location: _____
7. Type of Industry: _____
8. Raw Materials: _____

9. Final Product/Activity: _____

10. Date of Power Requirement (*Month-Year*): _____
11. Total Power Requirement (in MW/MVA): In MW: In MVA:

Undertaking of the Proponent

1. I hereby agree that if the electricity is used for any other purpose other than that for which supply is requested for, it shall be considered as an offense and if I, the Proponent is found to be indulging in activities other than the prescribed, shall be liable for penalties as per the prevailing laws of the Kingdom of Bhutan.
2. I undertake to uphold all the laws of the Kingdom of Bhutan and observe all internationally accepted norms, codes and ethics of business.
3. I understand that the issuance of Power Clearance does not guarantee the supply of power.
4. I hereby certify that the information furnished herewith are true to the best of my knowledge. In the event of detection of false or misleading information, I confer herewith the Ministry of Economic Affairs to take any action deemed appropriate including cancellation of the Power Clearance/ License as appropriate:

Affix
Legal
Stamp

Signature of the Proponent



ལྷན་སྐྱོད་ལྷན་ཁག་གི་ལས་ཁུངས། བསྟར་རྒྱུ་རྒྱུ་ལག་ཁག་
DEPARTMENT OF HYDROPOWER & POWER SYSTEMS
MINISTRY OF ECONOMIC AFFAIRS
THIMPHU: BHUTAN



FORM 2: POWER SANCTION APPLICATION FORM FOR INDUSTRY

1. Name of Proponent: _____
2. CID No. of Proponent: _____
3. Contact detail: Mobile No: _____ Email: _____
4. Industry Name: _____
5. Location: _____
6. Type of Industry: _____
7. Raw Materials: _____

8. Final Product/Activity: _____

9. Date of Power Requirement (*Day-Month-Year*): _____
10. Total Power Requirement (in MW/MVA): In MW: In MVA:
11. Is power required in phase-wise manner: (*Please tick*)
 Yes: No:

12. If yes in Sl. No. 10: (*add rows if required*)

| <u>Month-Year</u> | <u>Power Requirement (MW)</u> |
|-------------------|-------------------------------|
| Month - Year 1 | _____ |
| Month - Year 2 | _____ |
| Month - Year 3 | _____ |

Undertaking of the Proponent

1. I hereby agree that if the electricity is used for any other purpose other than that for which supply is requested for, it shall be considered as an offense and if I, the Proponent is found to be indulging in activities other than the prescribed, shall be liable for penalties as per the prevailing laws of the Kingdom of Bhutan.
2. I undertake to uphold all the laws of the kingdom of Bhutan and observe all internationally accepted norms, codes and ethics of business.
3. I hereby agree that all the provisions to draw power from BPC's nearby infrastructure shall be arranged by the Proponent.
4. I hereby agree to allow BPC to supply power to other customers from the lines/substation so built by the Proponent, if BPC requires in the future.
5. For MV/HV connection, the Proponent may sign a Capacity Reserve Agreement (CRA) with the BPC and failure to do so within one month from the date of issuance of this Power Sanction shall result in the expiry of the aforesaid Power Sanction.
6. I hereby agree to inform the RGoB of any major change in the power requirement or usage including any need for additional power, for issuance of new Power Clearance.
7. The cost of import of electricity during deficit period shall be allocated to HV industries as per the Domestic Electricity Tariff Policy 2016 or its amendments thereof.



ལྷན་འབྲེལ་གྱི་འཕུལ་རྒྱུ་ལེན་ལྷན་ཁང་། བསྐྱོན་རྒྱུ་ལྷན་ཁང་།
DEPARTMENT OF HYDROPOWER & POWER SYSTEMS
MINISTRY OF ECONOMIC AFFAIRS
THIMPHU: BHUTAN



8. The merit of power supply and load shedding if required, shall be as per the order specified in the Sustainable Hydropower Development Policy 2021.
9. I hereby agree to submit the quarterly reports on the progress of the establishment to the DHPS after the signing of CDA with the BPC.
10. I hereby agree to allow periodic inspection including energy auditing of the Industry during operation period.
11. I hereby agree to undertake power demand scheduling 24 hours ahead in 96 blocks (15 minutes time block) as per the format to be provided by BPC and any deviations from the forecast schedule shall be dealt as per the BPC Service Rules.
12. I hereby agree to adhere to grid discipline mechanism/Grid Code/Distribution code prevalent.
13. I hereby certify that the information furnished herewith are true to the best of my knowledge. In the event of detection of false or misleading information, I confer herewith the Ministry of Economic Affairs to take any action deemed appropriate including cancellation of the Power Clearance/ License as appropriate.

Affix
Legal
Stamp

Signature of the Proponent