

Bhutan Electricity Authority



System Operator Charges Regulation (2022)

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PREAMBLE

In exercise of power granted by Section 11.1(i) of the Electricity Act of Bhutan 2001, the Bhutan Electricity Authority hereby frames and adopts regulation for determination of System Operator Charges as follows:

TITLE AND COMMENCEMENT

1. This Regulation shall:
 - (1) Be cited as the System Operator Charges Regulation 2022; and
 - (2) Come into force from 1st January 2022.

SCOPE

2. This Regulation shall be applicable for determination of charges to be collected by System Operator from Generation, Transmission, Distribution Licensees and any other Users.

PURPOSE

3. The purpose of this Regulation is to provide guidelines for the determination of System Operator charges in accordance with the Act.

REPEAL

4. This Regulation repeals Clause 77 to Clause 80 of the Tariff Determination Regulation 2016.

AMENDMENT

5. This Regulation may be amended as and when deemed necessary by the Authority.

GENERAL CONDITIONS AND PRINCIPLES

6. The System Operator shall perform its functions in accordance with Section 39 of the Act and the Regulations, Codes, License Conditions and directives issued thereof by the Authority.
7. All Generation, Transmission, Distribution Licensees and any other Users to be connected to the Transmission or Distribution network shall register with System Operator.
8. The System Operator shall levy charges to Generation, Transmission, Distribution Licensees and any other Users as approved by the Authority.
9. The Authority shall determine the System Operator charges according to the following principles:

- (1) Fairness to both service users and service provider;
- (2) Reflect the reasonable operational expenditure and capital expenditure cost of efficient system operation;
- (3) Conducive to efficiency improvement in system operation; and
- (4) Transparency in the determination and presentation of the charges.
- (5) Not earn any returns/profits from the levy of charges

CHARGES APPROVAL PROCESS

10. The System Operator shall submit a petition for determination or revision of charges for the upcoming tariff period to the Authority, at least five months prior to the expiry of the current tariff period.
11. The System Operator shall submit the petition along with information prescribed in Annexure I of this Regulation.
12. The Authority shall review the petition in accordance with this Regulation.
13. The System Operator shall provide all necessary information to the Authority for review of petition.
14. The Authority may hold consultations with relevant stakeholders while reviewing the proposed System Operator petition.
15. The Authority shall approve the System Operator charges to be levied to Generation, Transmission, Distribution Licensees and any new Users for the tariff period and publish it on the BEA website.
16. If the Authority is not able to approve new charges due to unforeseen circumstances, the prevailing charges shall be applicable till such time the new charges are approved.
17. When a new User avails the services of System Operator after the approval of the System Operator charges for the year, the Authority shall calculate the charge for the new User by reallocating the cost of System Operator among all Users including the new User. The excess cost recovered from the incumbent Users shall be adjusted in the subsequent tariff period.
18. At the end of each year, the System Operator shall submit a petition for truing up of actual annual cost incurred against the total charges collected along with System Operator charges petition for the following year.
19. While truing up, any excess amount not utilized in the previous year shall be adjusted and any deficit amount incurred shall be recovered from the Users/Government while determining the subsequent year charges.

20. In case the additional amount is recovered from the Users during the tariff period, the same shall be adjusted in the cost of generation or cost of supply, as the case may be, of the Generation, Transmission and Distribution Licensees in the subsequent tariff period.
21. If the System Operator is required to recover additional cost from a new User for specific services to be provided, the System Operator shall submit a petition to the Authority for approval of such cost.

FORM OF ECONOMIC REGULATION

22. The System Operator cost so established shall apply for the duration of the tariff period for determination of the Generation, Transmission and Distribution Licensees cost of supply.
23. The cost of System Operator shall provide an allowance for operating and maintenance costs, and not the actual operating and maintenance costs.
24. The Authority shall, at each review, determine productivity targets to be used in the determination of System Operator charges.

DETERMINATION OF SYSTEM OPERATOR COST

25. The Authority shall determine the cost of System Operator for the upcoming tariff period.
26. The scope of costs shall include:
 - (1) Operation and maintenance costs;
 - (2) Capital expenditure ; and
 - (3) Any regulatory fees, duties or levies that the System Operator is liable to pay under the Laws of Bhutan.

Determination of Operation and Maintenance costs

27. The operation and maintenance allowance expenses shall include salaries and wages, transportation expenses, insurance of assets, maintenance expenses, office materials, rentals, consumables and all such expenses that are treated as recurrent costs under Bhutan Accounting Standard practices.
28. The operation and maintenance allowance shall exclude Corporate Social Responsibility expenses.
29. The determination of the operation and maintenance allowance shall take into consideration historical costs, as adjusted for inflation, additional costs associated with new assets and growth in the users, appropriate industry benchmarks applicable to the System Operator and opportunities for efficiency improvements.

30. The manpower and capacity building requirement for the tariff period shall be reviewed to include only reasonable cost in the operation and maintenance allowance while determining the charges.

Determination of capital expenditure

31. The capital expenditure to be incurred by the System Operator shall be assessed based on the following criterion:
- (1) Statutory or Regulatory requirement;
 - (2) Need for the capital expenditure; and
 - (3) Reasonableness of the cost.
32. The statutory or regulatory requirement shall be assessed based on whether such capital expenditure is required to fulfill duties or obligations as per the Act and Regulations or Codes or License Conditions or Performance Standards issued by the Authority.
33. The need for capital expenditure shall be assessed whether such capital expenditure is required to cater to growing system operation requirements, replacement of aged equipment or enhancing operational efficiency of the System Operator.
34. The reasonableness of cost shall consider the fulfillment of due process, justifiable competing technology and benchmark cost of similar investments.

Regulatory fees

35. The regulatory fees for the System Operator shall be as per Schedule 1 of Regulatory Fees Regulation 2006.

Determination of the Annual System Operator Cost

36. The total cost of System Operator in any year for the tariff period shall be determined as:

$$TC = OM + CAPEX + FEES - Other\ Income \pm Excess / Deficit\ Amount$$

Where,

- (1) TC is the total cost of the System Operator, in Ngultrum;
- (2) OM is the allowance for operating and maintenance costs in Ngultrum;
- (3) CAPEX is the allowed capital expenditure in Ngultrum;
- (4) FEES is the License fees paid to Authority in line with Regulatory Fees Regulation, 2006;
- (5) Other income is the income from other sources such as rental;
- (6) Excess Amount is the amount unutilized by the System Operator during the previous year; and
- (7) Deficit amount is the amount overspent by the System Operator during the previous year.

Allocation of System Operator Charges

37. The total cost of System Operator shall be recovered from Generation, Transmission, Distribution Licensees, and any other Users as System Operator Charges for the services rendered by System Operator and accordingly shall be allocated as follows:
 - (1) Generation = Half ($\frac{1}{2}$) of total cost of System Operator
 - (2) Transmission and Distribution = Half ($\frac{1}{2}$) of total cost of System Operator
38. The System Operator cost allocated to Generation shall be further allocated to individual Generation Licensee based on the installed capacity (MW).
39. The System Operator cost allocated to Transmission and Distribution shall be further allocated as follows:
 - (1) Half ($\frac{1}{2}$) to Transmission Licensee; and
 - (2) Half ($\frac{1}{2}$) to Distribution Licensee.

DEFINITION

40. In this Regulation, unless the context otherwise provides:

- (1) **“Act”** means the Electricity Act of Bhutan 2001;
- (2) **“Bhutan Electricity Authority” or “Authority”** means the authority of that name established pursuant to Part 2 of the Act;
- (3) **“Charges”** means recurring payments on yearly basis to be collected from Generation, Transmission and Distribution Licensees, and any other Users for the services delivered by System Operator;
- (4) **“Licensee”** means any person issued with a license pursuant to Part 3 of the Act;
- (5) **“Licensed Activities”** means those activities which the Licensee are authorized to undertake as per the license granted under the Act;
- (6) **“MW”** means megawatt;
- (7) **“System Operator”** means the person designated by the Authority in accordance with the Section 39 of the Act;
- (8) **“Tariff Period”** means the period, in a designated number of years, for which the approved Charges shall apply, and
- (9) **“User”** means the Generation, Transmission, Distribution Licensees and any other entity who uses the services of System Operator.

ANNEXURE I

(Information to be included in the System Operator Petition)

The System Operator shall submit the petition with following details:

1. Operation and Maintenance costs

- (1) Provide the historical O&M costs for each year in last tariff period/past three years;
- (2) Propose efficiency gain targets for each year in the tariff period with justifications in addition to the percentages submitted in the form/model;
- (3) Include regulatory fees according to Schedule 1 of the Regulatory Fees Regulation 2006;
- (4) The System Operator shall use inflation rate based on historical average inflation rates published by the National Statistics Bureau of Bhutan in the “Input” sheet in the petition form/model;
- (5) The System Operator shall calculate the Current Replacement Cost (CRC) of the assets in the reference year. This information will be used for reviewing the benchmark O&M cost. The CRC shall either be estimated by using current prices on the current assets or by using historical capital expenditure inflated to current price level using a relevant price index. The method and price index used for calculation of the CRC shall be explained;
- (6) Based on the above, propose the O&M allowance for the upcoming tariff period with detail breakdown of O&M cost in terms of salaries and wages, transportation expenses, insurance of assets, maintenance expenses, office materials, rentals, consumables and all such expenses that are treated as recurrent costs under Bhutan Accounting Standard practices; and
- (7) Provide details requirements of manpower and capacity building for the upcoming tariff period.

2. Capital Expenditure

- (1) Provide the capital expenditure for the upcoming tariff period; and
- (2) Provide the details for the capital expenditure such as need for the capital expenditure, cost breakdown, capitalization schedule, cost-benefit analysis and the financing plan of each project.

3. Additional Information Requirement

The System Operator shall also submit the Audit reports of the Royal Audit Authority, Bhutan for the previous tariff period, if any.