# ELECTRICITY REGULATORY COMMISSION

Nepal



# Five-year Roadmap for ERC (2024-2029)



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## Five-year Roadmap for ERC

#### **Abbreviations**

AD Availability Declaration
ADB Asian Development Bank

CREE Community Rural Electricity Entities

DoED Department of Electricity Development

ERC Electricity Regulatory Commission

EU European Union

FCDO Foreign, Commonwealth & Development Office

FY Fiscal Year

GCMC Grid Code Management Committee

GIOMS Government Integrated Office Management System

GIZ German Agency for Technical Cooperation

GON Government of Nepal

IEC Information, Education and Communication

KFW Kreditanstalt für Wiederaufbau (Reconstruction Credit Institute)

kWh Kilowatt-hour (Units)

MCA-N Millennium Challenge Accounts – Nepal

MCC Millenium Challenge Corporation
MIS Management Information System

MVA Mega Volt-Ampere

MW Megawatts

NEA Nepal Electricity Authority
NIA Nepal Insurance Authority

NRB Nepal Rastra Bank

OCR Officer of Company Registrar

PROR Peaking Run-off River

PSC Public Service Commission, Nepal

ROR Run-off River

SEBON Securities Board of Nepal

UNDP United Nations Development Programme

USAID United States Agency for International Development

US-DOS United States Department of State
US-DOI United States Department of Interior

WBG World Bank Group

WECS Water and Energy Commission Secretariat

# **Executive Summary**

#### Introduction

The Electricity Regulatory Commission Act of 2017 established the Electricity Regulatory Commission (The Commission) as a comprehensive regulatory body for electricity industry in Nepal. The Commission is responsible for regulating the generation, transmission, distribution, and trade of electricity. Its mandate includes setting electricity tariffs, protecting consumer rights, and ensuring that electricity services are reliable, accessible, high-quality, competitive, and safe.

# Status of the Commission

Over the past five years, the Commission has developed and implemented numerous regulatory instruments, including directives and bylaws. The Commission also deliberated and decided to adjust consumer tariffs of Nepal Electricity Authority, including a 9% reduction in the average monthly tariff rate in 2020, with further reductions in 2021. Another key strength was amending regulations to support small hydropower plants by allowing flexibility in availability declarations to mitigate penalties and improve generation planning. Despite these accomplishments, the Commission faces several challenges. These include the inability to secure approval for financial and employee administration bylaws, staffing and office space constraints hinder full functionality, difficulty in effectively communicating its authority and responsibilities to stakeholders, challenges in managing petitions and decision-making processes, weak implementation of regulatory instruments, insufficient preparation for sector reforms, including open access and competition in transmission networks and difficulty in adapting its experience in terms of improving upon existing regulatory instruments. The Commission aims to tackle these challenges in the coming months with the help of relevant stakeholders.

## Roadmap of the Commission

A stable and predictable regulatory environment is crucial for fostering trust among stakeholders, including utilities, investors, consumers, and the government. This roadmap has been developed to clearly communicate the mission, vision, objectives, and priorities of the Commission to regulators, thereby establishing a consistent regulatory framework.

The National Planning Commission's 16th Plan for 2024/25 to 2028/29 outlines ambitious objectives for expanding Nepal's electricity capacity and exports, increasing domestic consumption, and ensuring energy security. With the recent appointments of Dr. Ram Prasad Dhital as Chairperson and Dr. Madhusudan Adhikari and Dr. Jhamak Prasad Sharma as members, the Commission is well-positioned to strategically align its activities with national priorities. This roadmap consolidates the work plans proposed by the new leadership and aligns them with government policies.

The Commission has following institutional priorities:

I. Establish the Commission as an independent and competent institution in technical, financial, structural, and functional aspects.

- 2. Incorporate Information and Communication Technology in operations and service delivery.
- 3. Implement methodologies to ensure transparency, accountability, and consumer confidence.

The Commission has the following regulatory priorities:

- 1. Ensure safe and reliable power system operations through technical standards and guidelines.
- 2. Improve competition in the wholesale electricity market through competitive power procurement and trade facilitation.
- 3. Enable open access in transmission networks to support domestic and cross-border power trade.
- 4. Establish a transparent and systematic consumer tariff framework to ensure utilities' financial sustainability.
- 5. Conduct evidence-based research on electricity regulation and reform in partnership with academic institutions and experts.
- 6. Develop a sound dispute resolution mechanism.

#### **ROADMAP OF ELECTRICITY REGULATORY COMMISSION** (2024/25 - 2028/29)

#### **KEY TARGETS FOR 2024/25**

- · Internal Strengthening & Preparatory Works
- Dispute Resolution Bylaws
- · Internal Control System Bylaws
- Tariff Studies (Storage Project Tariff, **Progressive & Regressive Tariff, Piloting Smart** Metering)

#### **KEY TARGETS FOR 2026/27**

- Tariff Frameworks for Generation & Distribution
- Directives to Foster Competition in Power **Purchase of Pre-Construction Projects**
- · Directives on Brownfield PPA
- · Directives on Corporate Governance of

#### **KEY TARGETS FOR 2028/29**

- · Review and Monitoring
- Stabilization of ERC



#### **KEY TARGETS FOR 2025/26**

- Directives on General Network Access and **Determination of Wheeling Charges**
- Cost of Service Study for distribution licensees
- Sustainability Study of CREEs

#### **KEY TARGETS FOR 2027/28**

- Evidence Generation for Next Stage Reforms
- **Regulatory Accounting Standards**
- **Distribution Code**
- Study of wholesale competitive market & retail competition

# Workplan for the Roadmap

The roadmap includes a detailed workplan focused on institutional and regulatory priorities, including recruitment, office relocation, issuance of SOPs, capacity building of the staffs and officials of the commission, financial bylaw approval, and enhanced coordination among electricity entities. The roadmap highlights several key regulatory priorities across technical

management, rate determination, competition and consumer rights protection, organizational capacity development, dispute resolution, policy suggestions, and risk mitigation. The Commission plans to roll out 42 activities belonging to 11 distinct areas of powers, function and responsibilities of the Commission including but not limited to Technical Management, Rate Determination by Licensees, Competition and Consumers' Rights Protection.

Key activities under these priorities include:

- Technical Management: Implementing the Nepal Electricity Grid Code 2023, preparing and implementing a distribution code, and conducting electricity demand forecasts.
- 2. **Rate Determination**: Conducting tariff reform studies, preparing a comprehensive consumer tariff framework, and implementing a template for Power Purchase Agreements.
- 3. **Competition and Consumer Rights Protection**: Issuing directives for open access to the transmission network, cross-border electricity trade, and consumer rights protection.
- 4. **Organizational Capacity Development**: Benchmarking operating and capital expenditures, measuring performance indicators, and preparing regulatory accounting standards.
- 5. **Policy recommendations to government**: Conducting evidence generation studies on matters pertaining to electricity generation, transmission, distribution, electricity market, power sector reform, etc. and making policy recommendations to the government.

# Implementation Plan

To achieve the outlined regulatory priorities, the Commission recognizes the need for efficient resource management in three key areas:

- I. **Human Resources:** The Commission will hire full-time personnel through competitive examinations conducted by the Public Service Commission (PSC) and supplement staff by requesting additional human resources from the Government of Nepal (GoN) if necessary. If that is delayed, the Commission shall seek for temporary staffs from merit list of the PSC from other competitive exams.
- 2. **Expertise:** Given the nascent nature of regulatory practices in Nepal, the Commission will rely on external expertise sourced from development partners and international experts to adopt global best practices.
- 3. **Financial Resources:** The Commission has projected its income and expenditure for the next five years, primarily funded through regulatory fees from licensees, which are expected to be sufficient for implementing its programs. However, assistance from development partners may be necessary for procuring services from outside Nepal.

The roadmap emphasizes the importance of support from the Government of Nepal in several areas:

I. **Bylaws Approval:** The approval of Employee Administration Bylaws and Financial Administration Bylaws by the Ministry of Finance is crucial for the Commission to recruit permanent staff.

- 2. **Legal and Policy Facilitation:** Support from the GoN is essential for legal and policy facilitation in areas such as power trade, cross-border electricity trade, and retail supply.
- 3. **Sub-committee Collaboration:** Collaboration with GoN officials may be required during discussions on regulatory instruments, necessitating the formation of sub-committees for in-depth discussions.

# **Outcomes of Implementation**

Successful implementation of the roadmap will benefit various stakeholders, including:

- I. **Regulatory Improvements:** Enhanced regulatory oversight and efficiency in the electricity sector.
- 2. **Consumer Benefits:** Better protection of consumer rights and improved access to electricity services.
- 3. **Sector Growth:** Expansion and diversification of the electricity market, fostering competition and innovation.

# **Evaluation and Amendment**

The roadmap is designed as a dynamic document, subject to annual evaluation and amendments based on actual outcomes. The Commission will present its analyses and any amendments in the Annual Report, ensuring adaptability to changing circumstances and maintaining alignment with its strategic objectives.

#### I Introduction

Electricity regulation in Nepal began with the enactment of the Electricity Act, 1994, which established a tariff fixation commission responsible for setting consumer electricity tariffs. Subsequently, the Hydropower Policy, 2001 envisioned a regulatory authority for the electricity sector. The enactment of the Electricity Regulatory Commission Act, 2017, and the Electricity Regulatory Commission Rules, 2018, provided the legal basis for the establishment of the Electricity Regulatory Commission (hereafter referred to as the "Commission" or "ERC"). This full-fledged regulatory body is tasked with maintaining the balance between the demand and supply of electricity by simplifying, regulating, systematizing, and ensuring transparency in the generation, transmission, distribution, and trade of electricity. The Commission also regulates electricity tariffs, protects the rights and interests of electricity consumers, and aims to make electricity service reliable, accessible, high-quality, competitive, and safe.

#### 2 Current status of the Commission

## 2.1 Review of Past Work

In the past five years, the Commission has drafted and implemented various necessary regulatory instruments pertaining to various matters within its jurisdiction. The list of directives, procedures and bye-laws prepared and implemented by the Commission are:

- 1) Electricity Regulatory Commission's Board Meeting Procedure, 2019
- 2) Byelaws on Purchase and Sale of Electricity and Terms and Conditions to be Complied by Licensees, 2019
- 3) Directive on electricity consumer tariff determination, 2019
- 4) Directive on public issuance of shares of electricity related companies, 2019 (Repealed)
- 5) Directives for Conducting Electricity Regulatory Commission Public Hearing, 2020.
- 6) Electricity Regulatory Commission Directives on Mergers, Amalgamations of Licensees with Each Other or Other Corporate Bodies, Purchase of Shares, Purchase, Sale or Transfer, Acquisitions or Taking Over of Structure, 2020.
- 7) The Electricity Regulatory Commission Directives on Prior Approval and Regulation of Public Offerings of Shares of Electricity Related Companies, 2021
- 8) Nepal Electricity Grid Code, 2023
- 9) Directive relating to Protection of interests of electricity consumer, 2023
- Key Performance Indicators Manual for Monitoring the Performance of Electric Utilities,
   2023

During course of operation, the Commission has deliberated and provided decisions on following number of petitions:

| S.  | Particulars Particulars                                | Quantity |
|-----|--|----------|
| No. |  |          |
| 1.  | Pre-approval of IPO and Rights Share issuance          | 128      |
| 2.  | Approval of Change in Share Structure of Electricity   | 123      |
|     | Companies  |          |
| 3.  | Determination of Power Purchase Rate and Approval of   | 168      |
|     | Power Purchase Agreements of Electricity Companies     |          |
| 4.  | Approval of Amendments in Power Purchase Agreements of | 494      |
|     | Electricity Companies                                  |          |
| 5.  | Merger and acquisition, handover, etc. of Electricity  | 28       |
|     | Companies  |          |
| 6.  | Share purchase and sale of Electricity Companies       | 63       |
|     | Total  | 1,023    |

Accordingly, Electricity Regulatory Commission had also completed the following activities within a period of five years:

- a) The Commission determined the consumer tariff of the Nepal Electricity Authority for the first time since its inception, the Commission decided to reduce the average monthly tariff rate for overall consumers by 9 percent, including a reduction of more than 50 percent for consumers in the drinking water category, effective from June 2020. Likewise, for the second time, in November 2021, the Commission determined the monthly tariff rate by decreasing the overall consumer tariff by 1.04 percent.
- b) With a view of preventing small hydropower plants from being insolvent due to high penalties and easing generation planning for NEA, the Commission amended the provision regarding the Availability Declaration (AD) of hydropower plants to offer flexibility to power projects with a capacity under 10 Megawatts, allowing them to submit AD details to the Nepal Electricity Authority (NEA) up to one week in advance in case of a projected decrease in generation due to hydrological conditions. Previously, these generators were required to submit the AD one month in advance even during the dry season and were levied a 100 percent penalty if they failed to forecast their generation with the necessary accuracy.

# 2.2 Challenges and opportunities

A review of the current situation of the electricity sector including evaluation of past work of the Commission was made to assess the gap with the responsibilities assigned by the acts and rules. The Commission observed the following shortcomings:

I. Delay in receiving approval on financial administration bylaws and employee administration bylaws, thereby limiting the Commission's technical, administrative, and financial potential.

- 2. Delay to source its permanent staffs or manage adequate office for full functioning of the Commission.
- 3. Gap in communicating Commission's authority, role and responsibility to stakeholders.
- 4. Issues in effectively managing regulatory instruments; delay in managing petitions; processing files in a transparent manner.
- 5. Limited movement on issues related to power sector reform, open access in the transmission network, wholesale competition, and the determination of transmission and distribution (wheeling) charges.
- 6. Inability to review and amend provisions relating to electricity consumer tariffs, power purchase agreements, pre-approval of public share issuances, etc. in line the commission's evolving experience as regulator.

All the above challenges faced by the Commission over the past few years creates larger opportunity to transform the sector in a time bound manner. Time is of essence going forward. The path forward which can create opportunity for Commission to take the sector forward:

- I. Implementing regulatory activities with appropriate processes and vigor to avoid the twin risks of regulatory capture or regulatory shock.
- 2. Managing the technical expertise necessary for implementing appropriate regulatory activities and bolstering sector reform.
- 3. Navigating resource constraints associated with operation of the Commission such as full-time staffs, financial resources, office space, etc.
- 4. Cementing the Commission's position in public perception as a relevant, competent, and crucial entity within the state administration.
- 5. Preventing pressures, interference, and undue influence from any source from affecting the Commission's decision-making.

# 3 Roadmap of the Commission

# 3.1 Background

A regulator must be predictable to ensure stability, build trust, and foster confidence among stakeholders, including utilities, investors, consumers, and government. Predictability in regulatory actions allows businesses to plan and invest with a clear understanding of future regulatory expectations, reducing the risk of sudden, unexpected changes that could disrupt operations and financial planning. By establishing and communicating a detailed roadmap, the regulator can outline its priorities, timelines, and planned initiatives, providing stakeholders with a transparent workplan of upcoming activities. This communication helps to manage expectations, align stakeholder efforts with regulatory goals, and mitigate uncertainties. Furthermore, a well-communicated roadmap enables the regulator to gather valuable

feedback, address concerns proactively, and adjust its strategies in response to stakeholder input, ultimately enhancing the overall effectiveness and credibility of the regulatory process.

The National Planning Commission (hereafter referred to as "NPC"), the specialized and apex advisory body of the Government of Nepal (hereafter referred to as "GoN"), has recently issued its 16th Plan for fiscal years 2024/25 to 2029/30. According to the plan, a total of 3,200 MW of installed capacity from hydroelectric and alternative sources has been connected to the national grid. Meanwhile, 84 MW of installed capacity, promoted by the Alternative Energy Promotion Center, has been developed but not yet integrated into the national grid. Currently, 96.7% of households in Nepal receive electricity from the national grid, and when including alternative energy sources, the percentage of households with access to electricity increases to 98%. The share of renewable energy in total energy consumption is 7.4%.

As of fiscal year 2022/23, the total length of transmission lines with a voltage capacity of 66 kV or above has reached 5,742 circuit kilometers, and the total installed capacity of grid substations has reached 8,867 MVA. By 2022/23, Nepal's electricity exports amounted to 1,478 GWh, generating an income of NPR 9 billion. However, there remains a shortage of electricity during the dry seasons, compelling the country to import energy to meet its electricity needs.

The Plan aspires to significantly expand the nation's installed capacity to 11,769 megawatts (MW) and elevate per capita electricity consumption to 700 kilowatt-hours (kWh) by 2029/30. It further aims to boost electricity exports from 450 MW to an impressive 5,500 MW within the period of 5 years. The Plan envisions the development of infrastructure capable of generating 28,500 MW within the next 12 years, while fostering power trade and inviting private sector participation. Additionally, the document underscores the importance of achieving energy security and enhancing domestic electricity usage.

The Commission, which had come to operations subsequent to the assumption of office by the inaugural Chairperson and members in May 2019, recently completed the first five years of operation. Following the completion of term by the inaugural Chairperson and the member, a selection committee was constituted pursuant to the Act to recommend the Chairperson and the members of the Commission to GON. The selection/recommendation committee scrutinized the applications from all candidates, shortlisted potential candidates, evaluated the proposed Workplan and presentations from shortlisted candidates and made recommendations to GoN on appointment of the Chairperson and the Members of the Commission. On 24<sup>th</sup> June, 2024, GoN appointed Dr. Ram Prasad Dhital as the Chairperson of the Commission and Dr. Madhusudan Adhikari and Dr. Jhamak Prasad Sharma as the members of the Commission. A position of member was already being held by Mr. Gautam Dongol. Hence, it is an opportune juncture for the Commission to assess the current situation and strategically plan for the future, aligning with the mandates specified in the Act and the Rules and policies of GoN. Accordingly, this Roadmap consolidates provisions of the

Workplan proposed by all the members, including the Chairperson with due consideration to the policies of GoN, particularly those reflected on the 16<sup>th</sup> Plan.

## 3.2 Vision of the Commission

The Commission's vision is to evolve as an eminent and credible regulator of electricity in the country, serving the interests of consumers and utilities in a fair and balanced manner.

## 3.3 Mission of the Commission

The Commission's mission is to guide improvements in internal functioning as well as regulatory operations towards establishing the Commission as a proactive, open, transparent, responsive, and competent regulator.

# 3.4 Guiding Principles of the Commission

The Commission endeavors to operate according to the five guiding principles of transparency, impartiality, accountability, proactivity, and responsiveness.

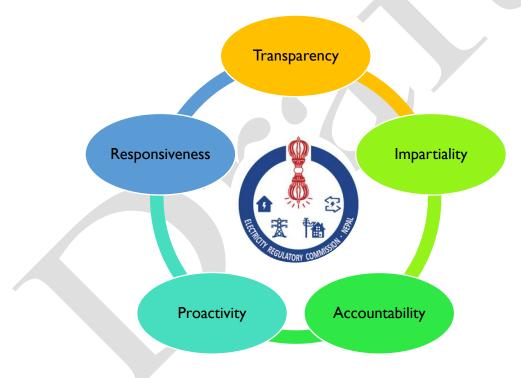


Figure 1: Guiding Principles of the Commission

## I. Transparency

The Commission shall adopt transparency in its day-to-day activities through implementation of information and communication technology, periodic disclosure, continuous stakeholder consultation and easy accessibility to information on the Commission's activities.

## 2. Impartiality

The Commission shall demonstrate impartiality by making unbiased and fair decisions based on evidence and by striving to create a level playing field for all stakeholders.

# 3. Accountability

The Commission shall uphold accountability by establishing clear regulatory instruments and following them through as well as establishing regulatory practices that sustainably ensures consumer welfare.

# 4. Proactivity

The Commission shall demonstrate proactivity by methodically and preemptively conducting studies and research on areas pertaining to its jurisdiction so as to aid further decision making.

# 5. Responsiveness

The Commission shall demonstrate responsiveness through timely and adequate efforts to identify potential issues and the emerging needs of the electricity sector and framing and implementing appropriate instruments to address such issues or needs.

# 3.5 Objective of the five-year roadmap

The objective of this roadmap document is to strengthen the regulatory regime to effectively adopt government policy, ensure the financial viability of service providers, protect investors' investments, and safeguard consumer interests.

# ROADMAP OF ELECTRICITY REGULATORY COMMISSION (2024/25 - 2028/29)

#### **KEY TARGETS FOR 2024/25**

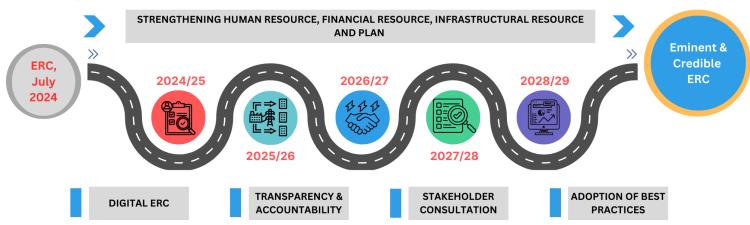
- Internal Strengthening & Preparatory Works
- Dispute Resolution Bylaws
- Internal Control System Bylaws
- Tariff Studies (Storage Project Tariff, Progressive & Regressive Tariff, Piloting Smart Metering)

#### **KEY TARGETS FOR 2026/27**

- · Tariff Frameworks for Generation & Distribution
- Directives to Foster Competition in Power Purchase of Pre-Construction Projects
- Directives on Brownfield PPA
- Directives on Corporate Governance of Licensees

#### **KEY TARGETS FOR 2028/29**

- · Review and Monitoring
- · Stabilization of ERC



#### **KEY TARGETS FOR 2025/26**

- Directives on General Network Access and Determination of Wheeling Charges
- · Cost of Service Study for distribution licensees
- · Sustainability Study of CREEs

#### **KEY TARGETS FOR 2027/28**

- Evidence Generation for Next Stage Reforms
- Regulatory Accounting Standards
- · Distribution Code
- Study of wholesale competitive market & retail competition



# **Transparency and Accountability**

- Getting approval on financial administration bylaws and employee administration bylaws and implementing internal control systems for internal regulation.
- Implementing Regulatory Information
   Management System (RIMS) and E-Document
   Management System for sound management
   of files and petition within ERC.
- Frequent updating of website, Facebook page, etc. of ERC.
- Formulation of a strategy on communication with stakeholders.

# **Employees and Consultants**

- Recruitment of Commission's Permanent
  - **Employees**
- Sourcing of Temporary Employees
- Sourcing of Temporary Consultants
- Sourcing of Senior Experts
- Constitutions of Advisory Committee

# Regulation

- For decision support regarding regulation, the Commission shall conduct studies regarding Cost of Service Study, Price Elasticity of Electricity, Decrement of Tariff Slabs, Promotional tariff, regressive tariff, time of day meter, smart meter, etc.
- Implementing instruments on technical regulation, directives on open access, directives on generation and distribution tariff, directives on transmission and distribution wheeling charge, and standard template for power purchase agreement for regulation of electricity sector.

Figure 3: Immediate priorities for the Commission (Year-I)

# 3.6 Broad Areas of Action (Priorities)

Based on the evaluation of the current situation in the electricity sector, including the status, shortcomings, and challenges faced by the Commission, as well as the responsibilities assigned to it by acts and regulations, the Commission shall prioritize the following over the next five years:

# 3.6.1 Institutional Priorities

- a) Establishing the Commission as an independent and competent institution technically, financially, structurally, and functionally.
- b) Incorporating Information and Communication Technology in internal operation and service delivery.
- c) Implementing clear methodologies to ensure transparency, accountability, and consumer confidence in the Commission.

# 3.6.2 Regulatory Priorities

- a) Ensuring safe and reliable operation of power system through issuance of necessary technical standards, guidelines, and instructions and amendment to the same.
- b) Improving competition in wholesale side of electricity through implementing means for competitive procurement of power from generators and enabling power trade.
- c) Enabling open access in transmission network to aid domestic and cross-border trade of power generated in Nepal.
- d) Establishing framework for a more transparent, systematic, and cost reflective consumer tariff ensuring financial sustainability of utilities as well.
- e) Evidence generating on electricity regulation and reform with partnership with academic institutions, thinktanks, experts for decision support and for providing policy recommendation to GoN.
- f) Establishing a sound dispute resolution mechanism.

# 4 Workplan for the Roadmap

The roadmap of the Commission consists of workplan related to its institutional priorities as well as regulatory priorities. The details of the workplan are as follows:

# 4.1 Workplan Related to Institutional Priorities

The following activities will be pursued under the internal or institutional priorities:

#### 4.1.1 Recruitment of Employees

- a) The Commission shall complete all necessary tasks to fill permanent staff positions as per the commission's organizational structure as approved by GON, to be recruited via the Public Service Commission in accordance with the Commission's Employees Administration Bylaw, upon approval from the Ministry of Finance.
- b) Until permanent staff are recruited, temporary contracts will be issued to alternative candidates identified by the PSC. Additionally, a few staff members will be hired on a contractual basis to ensure that ERC functions seamlessly.

c) The Commission shall restructure the organizational framework and appoint additional staff to ensure the long-term capacity of the commission is fully staffed and operational.

#### 4.1.2 Relocation of Office

The Commission shall relocate its office to a facility that adequately supports the full operation of the Commission.

# 4.1.3 Issuance of Standard Operating Procedure and Internal Control System Bylaws

To manage the day-to-day operations of the Commission and eliminate procedural ambiguity, the Commission shall develop and implement standard operating procedures (SOPs). Additionally, regulations pertaining to the internal control system will be issued to define the scope of daily activities of employees and officials, establish communication protocols, and ensure the monitoring and control of activities.

# 4.1.4 Capacity Building and Knowledge Management

- a) Formulate and implement the Commission's internal policy on knowledge management and capacity development for employees/staff and officials.
- b) Create an annual calendar for the capacity development of the officers and employees of the Commission under the internal policy and organize capacity development programs accordingly/send them to participate in programs organized by other national and international agencies.
- c) Establish library, archives of national and international journals within the Commission and obtain membership access of international bi-lateral and multilateral regulatory forums and agencies.

## 4.1.5 Approval of Financial Administration Bylaws

The Commission shall finalize all necessary procedures for the approval of the Financial Administration Bylaw, 2022, which has been submitted and is currently pending approval by the Ministry of Finance.

# 4.1.6 Increase Coordination between Electricity Related Entities:

- a) To foster inter-agency coordination, the Commission shall organize following coordination meetings, each on a quarterly basis:
  - i. Meeting between MoEWRI and the Commission,
  - ii. Meeting between NEA, RPGCL and other public sector licensee and the Commission,
  - iii. Meeting between IPPs and the Commission

Such coordination meetings can be held more frequently as needed, and officials from other agencies may be invited as required.

b) The Commission shall organize a discussion session between different regulator having relevance to electricity development such as DoED, Securities Board of Nepal (SEBON), Office of Company Registrar (OCR), Nepal Insurance Authority (NIA) and Nepal Rastra

- Bank (NRB) to seek coordination in matters related to electricity regulation and development, at least on an annual basis.
- c) The Commission shall conduct regular meetings of Grid Code Management Committee (GCMC) as provided for by the Nepal Electricity Grid Code, 2023.
- d) The Commission will obtain membership of international forums comprising energy sector and regulatory bodies.
- e) Commence apprenticeship, internship and knowledge exchange programs with academic institutions and frequently engage with think tanks as well as academic institutions for evidence generation for developing regulatory instruments.
- f) To provide trainings related to issues of regulatory practices to licensees, large consumers, and consumers groups as well as to obtain their opinion, advise and recommendations, the Commission shall organize programs, at least on a semi-annual basis. Representatives from other agencies may also be invited as necessary.

# 4.1.7 Formation of Advisory Committee

The Commission shall establish an Advisory Committee comprising former secretaries of the GoN, former diplomats, international experts, and national experts. Meetings of the Advisory Committee shall be conducted at least on a semi-annual basis.

# 4.1.8 Activities related to transparency and accountability:

The Commission shall carry out the following activities to ensure increased transparency and accountability of the Commission:

- a) Implement Government Integrated Office Management System (GIOMS) for internal use and implement Management Information System to interact with licensees gradually transitioning into a totally paperless institution.
- b) Issue a "statement of reasons" while issuing new or amending existing regulatory instruments issued by the commission.
- c) Prepare and implement a fund utilization guideline to establish internal norms of fund utilization.
- d) Ensure the stakeholder's right to information through periodic disclosure through the official website of Commission.
- e) Appoint spokesperson and Information Officer of the Commission and publish the information thereof on the official website of the commission.
- f) Build a mechanism based on information technology to acquire the complaints from consumers and stakeholders,
- g) Develop IEC (Information, Education and Communication) materials for creating awareness amongst the consumers and stakeholders on issues related to investment in the electricity sector, consumer electricity tariffs, electrical safety, etc.

# Five-year Roadmap for ERC

- h) Periodically organize public hearings in every province to obtain opinions, suggestions and complaints related to electricity supply, security, and service level of electricity suppliers.
- i) Make arrangements for conducting public hearings via the medium of information technology and provide for e-court and e-hearing, if necessary.
- j) Implement grievance handling and whistleblower protection policy to ensure good governance within the institution.
- k) Analyze the need of establishment of the Commission's branch office on other provinces and take required initiation thereafter.



# 4.2 Workplan Related to Regulatory Priorities

As per the regulatory priorities set forth in the previous sections, the Commission shall pursue following activities relating to regulatory priorities:

# 4.2.1 Technical Management

| S.N. | Commission's<br>Activities   | Details of the Activity   | Necessity/<br>Legal Basis                                  | Necessity of<br>Legal/ Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|--|---|--|---|---------------------------------------|
| 1.   | Implement Nepal<br>Electricity Grid Code,<br>2023 and review as<br>necessary                         | To implement Nepal Electricity Grid Code, 2023, to review the provision therein and update it based as required.  | Electricity<br>Regulatory                                  | No  | Yes                                   |
| 2.   | Prepare and implement<br>Distribution Code   | To prepare a distribution code to provide for criteria for connection to and operation of distribution system, responsibilities of distribution system operator, preparation of distribution system plan, etc.                  | Commission<br>Act, 2017<br>Section 12 (a)<br>and 12 (c)    | No  | Yes                                   |
| 3.   | Prescribe and review necessary instruments prescribing the responsibilities of power system operator | To specify the responsibilities of power system operator in the Nepal Electricity Grid Code, 2023 or other instruments as necessary, to ensure impartiality of the power system operator in multiple-buyers electricity market. | Electricity Regulatory Commission Act, 2017 Section 12 (d) | No  | Yes                                   |
| 4.   | Conduct Short-term, Medium-term, and Long-term electricity demand forecast and update it accordingly | To cause the distribution licensee to forecast the electricity to be purchased to meet the short-term, medium-term, and long-term demand of electricity and revise it continuously in a periodic manner.                        | Decision<br>Support  | No  | Yes                                   |
| 5.   | Conduct a study to determine the supply  | To determine the proportion of electricity to be supplied by RoR hydropower, PRoR   | Decision<br>Support  | No (Better to be specified)                             | Yes                                   |

| S.N. | Commission's<br>Activities   | Details of the Activity   | Necessity/<br>Legal Basis   | Necessity of<br>Legal/ Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|--|---|---|---|---------------------------------------|
|      | electricity mix of electricity to be purchased by the distribution licensees   | hydropower, Storage hydropower, Utility Scale Solar PV, import, other sources, etc. to ensure energy security on a periodic basis.  |   |   |                                       |
| 6.   | Prepare and implement<br>a plan to purchase the<br>required electricity at<br>the lowest possible<br>cost by distribution<br>licensees | To prepare the directives guiding the distribution licensees to purchase electricity at the lowest possible rate by means of long-term PPA, medium-term PPA, and short-term market which fulfilling electricity mix determined as per activity no. 5 of the Workplan. | Electricity Regulatory Commission Act, 2017 Section 12 (f) and 13 (d) | No  | Yes                                   |

# **4.2.2 Rate Determination by Licensees**

| S.N. | Commission's<br>Activities                                 | Details of the Activity  | Necessity/<br>Legal Basis | Necessity of<br>Legal/ Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|--|--|---------------------------|---|---------------------------------------|
| 7.   | Conduct necessary studies oriented towards tariff reform   | To conduct studies on relevance of various kinds of tariff such as promotional tariff, dynamic pricing, regressive tariff, etc. as well as on matters such as tariff slab reduction, elasticity of tariff, improvement of electricity consumptions, replacement of traditional energy fuels and through regulatory sandboxing. | Decision<br>Support       | No  | Yes                                   |
| 8.   | Conduct cost of service studies for distribution licensees | To conduct cost of service studies for each voltage levels in relevant geographical divisions for distribution   | Decision<br>Support       | No  | Yes                                   |

| S.N. | Commission's<br>Activities   | Details of the Activity   | Necessity/<br>Legal Basis   | Necessity of<br>Legal/ Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|--|---|---|---|---------------------------------------|
|      |  | licensee to understand actual state of cost of supply and cross-subsidy in electricity distribution.  |   | 4   |                                       |
| 9.   | Prepare and implement<br>a comprehensive<br>consumer tariff<br>framework   | To prepare a comprehensive consumer tariff framework based on experience gained by the Commission over the years while incorporating international best practice.   | Electricity Regulatory Commission Act, 2017 Section 13 (1) (a)                        | No  | Yes                                   |
| 10.  | Prepare and implement<br>the template of Power<br>Purchase Agreement   | To prepare a template of the Power Purchase Agreements to be used by Distribution Licensees while procuring power with a view of bringing uniformity in power purchase agreements and ensuring consumer rights.   |   | No  | Yes                                   |
| 11.  | Prepare and implement<br>new directives to<br>foster competition in<br>power purchase of<br>pre-construction<br>projects | To prepare detailed Directive on power purchase to repeal the prevailing Bylaws on Electricity Purchase Sale and Conditions to be followed by the Licensee, 2019 including competitive basis and criteria to be followed by distribution licensees while purchasing power, in accordance with activity 5 of the Workplan. | Electricity Regulatory Commission Act, 2017 Section 13 (1) (b), 13 (1) (c) and 14 (b) | No  | Yes                                   |
| 12.  | Prepare and implement<br>directives related to<br>the second stage of<br>power purchase<br>agreements                    | To prepare a directive specifying the basis and standards of power purchase rat rates of electricity generation licenses, in cases where the period of the PPA has expired but the license period has not expired, or   |   | No  | Yes                                   |

| S.N. | Commission's<br>Activities  | Details of the Activity   | Necessity/<br>Legal Basis                                      | Necessity of<br>Legal/ Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|---|---|--|---|---------------------------------------|
|      |   | when power purchase rate should to be reviewed even though the PPA remains in place.  |  | 4   |                                       |
| 13.  | Prepare and implement<br>the directives on<br>Determination of<br>Transmission and<br>Distribution Wheeling<br>Charge                                 | To issue directives, specifying the basis and procedure for determining the transmission wheeling charge and distribution wheeling charge, to implement open access to the electricity transmission and distribution network and to provide business model to electricity transmission licensee.  | Electricity Regulatory Commission Act, 2017 Section 13 (1) (e) | No  | Yes                                   |
| 14.  | Issue the directives on<br>Power Purchase for<br>Energy Storage Project<br>including BESS, Storage<br>Hydropower and<br>Pumped Storage<br>Hydropower. | To conduct relevant studies and set criteria for purchasing electricity and basis of determining electricity rate of electricity to be purchased by distribution licensee from storage systems such as Battery Energy Storage Systems, Storage Hydropower and Pumped Storage Hydropower Plants by issuing a separate directive accordingly. | Electricity Regulatory Commission Act, 2017 Section 13 (1) (b) | No  | Yes                                   |

# 4.2.3 Competition and Consumers' Rights Protection

| S.N. | Commission's<br>Activities  | Details of the Activity  | Necessity/<br>Legal Basis   | Necessity of<br>Legal/Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|---|--|---|--|---------------------------------------|
| 15.  | Issue Open Access<br>Directives to<br>Transmission Network                    | To issue directives with procedural and technical provisions on qualifications and priorities on open access in the transmission network, institutions receiving applications for open access, application process, approval of applications, surcharges, dispute resolution, etc.   | Electricity<br>Regulatory<br>Commission<br>Act, 2017<br>Section 14 (j)        | Yes (Necessary<br>initiation<br>already took<br>place) | Yes                                   |
| 16.  | Issue Directives related<br>to Cross-border<br>Electricity Trade              | To issue Cross-border Electricity Trade related Directives to facilitate the direct sale of electricity by licensees to international market.  | Electricity Regulatory Commission Act, 2017 Section 12 (h)                    | Yes  | Yes                                   |
| 17.  | Install the Citizen's<br>Charter of Electricity<br>Regulatory<br>Commission   | To issue a consumer charter containing the provisions of the service provided by the Commission, service period, officer providing the service, and officer who hears the complaint and keep it in the office premises accordingly.  | Electricity Regulatory Commission Act, 2017 Section 14 (a)                    | No   | Yes                                   |
| 18.  | Review the Electricity<br>Consumers' Rights<br>Protection Directives,<br>2023 | <ul> <li>To review the Consumers' Rights         Protection Directives, 2023 to add clauses such as situation where it is suitable to cut electricity supply, consumers' group service to be impacted first, length of such interruptions, contents of the information, etc.     </li> <li>To add of safety level standards to be adopted by the electricity distribution</li> </ul> | Electricity Regulatory Commission Act, 2017 Section 14 (a) and Section 12 (e) | No   | Yes                                   |

| S.N. | Commission's<br>Activities  | Details of the Activity  | Necessity/<br>Legal Basis                              | Necessity of<br>Legal/Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|---|--|--|--|---------------------------------------|
|      |   | licensees in Consumers' Rights Protection Directives, 2023 to reduce electrical accidents and electrical hazards.  To review the Consumers' Rights   |  |  |                                       |
|      |   | Protection Directives, 2023 as per requirement, strongly enforcing the rights to information about power cut, penalty provisions, etc.   |  |  |                                       |
| 19.  | Study of relevance and implementation model of Wholesale Competitive Market     | To conduct study on importance and feasibility of wholesale competitive market such as Power Exchange, OTC Platform, etc. and make policy recommendations to the GoN accordingly.            | Decision<br>Support                                    | No   | Yes                                   |
| 20.  | Study of implementation model of retail competition included electricity market | To study the appropriate options and methods for the implementation of a competitive retail market in Nepal where consumers have the right and options to choose their electricity supplier. | Decision<br>Support                                    | No   | Yes                                   |
| 21.  | Issue Directives related to conditions to be followed by the trade licensees    | To issue Directives related to Conditions to be followed by Electricity Trade Licensees including the provisions of trade margin while conducting electricity trade.                         | Electricity Regulatory Commission Rules, 2018 Rules 16 | Yes  | Yes                                   |
| 22.  | Conduct sustainability study of Community Rural Electricity Entities (CREEs)    | To gather evidence supporting the modification of the tariff structure for electricity purchased by CREEs, ensuring sustainability, and to formulate policy-level                            | Decision<br>Support                                    | No   | Yes                                   |

| S.N. | Commission's<br>Activities | Details of the Activity  | Necessity/<br>Legal Basis | Necessity of<br>Legal/Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|----------------------------|--|---------------------------|--|---------------------------------------|
|      |                            | recommendations for seeking long-term solutions to this issue. |                           |  |                                       |

# 4.2.4 Organizational Capacity Development and Corporate Governance

| S.N. | Commission's<br>Activities                                     | Details of the Activity   | Necessity/<br>Legal Basis | Necessity of<br>Legal/Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|--|---|---------------------------|--|---------------------------------------|
| 23.  | Benchmarking Operating Expenditure of licensees                | To benchmark the operating expenditures of electricity licenses to assist the Commission in gaining sector insights and enhancing decision-making.  | Decision<br>Support       | No   | Yes                                   |
| 24.  | Benchmarking Capital<br>Expenditure of<br>licensees            | To benchmark the capital expenditures of electricity licenses to assist the Commission in gaining sector insights and enhancing decision-making.  | Decision<br>Support       | No   | Yes                                   |
| 25.  | Measuring key performance indicators of distribution licensees | To evaluate the performance of distribution licensees, establish improvement targets for them, and implement mechanisms that tie the achievement of these targets to employee incentives and the return on investment for the distribution licensees. | Decision<br>Support       | No   | Yes                                   |
| 26.  | Measuring key performance indicators of generation licensees   | To implement key performance indicator (KPIs) for measuring the performance of generation licensees and for implementing mechanisms that ties the achievement of  | Decision<br>Support       | No   | Yes                                   |

| S.N. | Commission's<br>Activities  | Details of the Activity   | Necessity/<br>Legal Basis  | Necessity of<br>Legal/Policy<br>Initiative<br>from GoN                              | Necessity<br>of<br>External<br>Expert |
|------|---|---|--|---|---------------------------------------|
|      |   | these targets to certain discounts and prioritizations.   |  |   |                                       |
| 27.  | Issue and implement one or more Directives related to Corporate Governance of Licensees as per necessity  | To issue and implement directives on the corporate governance of licensees, encompassing provisions including but not limited to disclosures to be made by by the board of directors and chief executives, disclosures by licensees regarding power project contracts and leases, insurance policies, debt-equity ratios, transparency of equity holdings, qualifications of the chief executive, costing and procurement norms, and compliance with standards, to ensure comprehensive oversight and promote best practices within the sector. | Electricity<br>Regulatory<br>Commission<br>Act, 2017<br>Section 15 (f) | No  | Yes                                   |
| 28.  | Review the existing Directives on Merger, Acquisition, Takeover, Joining, Purchase/Sale of Licenses, etc. | To analyze the benefits and challenges for the electricity sector of activities such as merger, acquisition, joining and takeover of electricity licensees, and purchase and sale of licenses, etc. and formulate a policy accordingly, making necessary amendments to the existing directives.   | Electricity Regulatory Commission Act, 2017 Section 15 (c)             | No (Yes, if government intends to incentivize such activities for greater interest) | Yes                                   |
| 29.  | Prepare and implement workplan on expansion, diversification, and promotions of electricity market.       | To conduct necessary studies on the role licensees can play in the expansion, diversification, and on promotion of the electricity market, and implement appropriate arrangements based on the findings.  | Electricity Regulatory Commission Act, 2017 Section 15 (d)             | No  | Yes                                   |

| S.N. | Commission's<br>Activities   | Details of the Activity  | Necessity/<br>Legal Basis                                  | Necessity of<br>Legal/Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|--|--|--|--|---------------------------------------|
| 30.  | Prepare and implement Regulatory Accounting Standards  | To prepare and implement a Regulatory Accounting Standards that include provisions for the auditing of electricity licensees, disclosure norms, charts of accounts, accounting policies, reporting formats, and directives for maintaining separate accounts for different segments of the electricity supply chain, such as generation, transmission, and distribution (wires and supply) businesses. | Electricity Regulatory Commission Act, 2017 Section 15 (g) | No   | Yes                                   |
| 31.  | Prepare and implement code of conduct for licensees to protect the interests of general shareholders | To issue a code of conduct including the provisions to be followed by the licensees that collect funds through public issuance including matters like investment norms, business planning norms, periodic disclosure, provisions related to penalties, etc.  | Electricity Regulatory Commission Act, 2017 Section 15 (g) | No   | Yes                                   |
| 32.  | Study and identify project risk mitigation options   | To evaluating the natural, financial, socio-<br>economic, managerial, and other risks<br>associated with electricity projects, and to<br>conduct studies and provide<br>recommendations on the steps that can be<br>taken to minimize these risks.   | Decision<br>Support  | No   | Yes                                   |

# 4.2.5 Dispute Resolution

| S.N. | Commission's<br>Activities  | Details of the Activity   | Necessity/<br>Legal Basis                              | Necessity of<br>Legal/Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|---|---|--|--|---------------------------------------|
| 33.  | Issue Bylaws related to<br>Electricity Regulatory<br>Commission Dispute<br>Resolution | To issue bylaws related to the Electricity Regulatory Commission Dispute Resolution, including provisions for the method of application submission, procedures to be followed by the Commission, service charges, and other relevant details. | Electricity Regulatory Commission Act, 2017 Section 19 | No   | No                                    |

# 4.2.6 Review of Decision

| S.N. | Commission's<br>Activities                       | Details of the Activity  | Necessity/<br>Legal Basis                              | Necessity of<br>Legal/ Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|--|--|--|---|---------------------------------------|
| 34.  | Issue Bylaws related<br>to Review of<br>Decision | To issue bylaws related to the review of decisions made by the Commission, including provisions for the format of applications, required details and documents, fees, and the internal procedures of the Commission for reviewing decisions. | Electricity Regulatory Commission Act, 2017 Section 22 | No  | No                                    |

# **4.2.7 Providing Policy Suggestions**

| S.N. | Commission's<br>Activities  | Details of the Activity  | Necessity/<br>Legal Basis                              | Necessity of<br>Legal/ Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|---|--|--|---|---------------------------------------|
| 35.  | Provide suggestions<br>on matters<br>requested by the<br>GoN  | To conduct the necessary studies on matters requested by the GoN and providing suggestions within the stipulated time frame.   |  | No  | Yes                                   |
| 36.  | Conduct studies on power sector improvement and provide policy-level suggestions to the GoN.  | To analyze the benefits and risks associated with implementing various activities aimed at improving the power sector, generating evidence to validate their relevance (or lack thereof) in Nepal's context, and providing policy-level suggestions to the GoN.  |  | No  | Yes                                   |
| 37.  | Conduct studies and analyses of prevalent laws in order to clarify the jurisdiction of the Electricity Regulatory Commission and provide policy-level suggestions to the GoN. | <ul> <li>To study and analyzing policies, acts, and regulations related to electricity, identifying existing laws conflicting with the Electricity Regulatory Commission Act, 2017, and providing a report to the GoN recommending amendments to align these laws accordingly.</li> <li>To analyze existing laws and recommending amendments to the Electricity Regulatory Commission Act, 2017, and Electricity Regulatory Commission Rules, 2018, as necessary to enhance the effectiveness of the Commission's operations.</li> </ul> | Electricity Regulatory Commission Act, 2017 Section 16 | No  | Yes                                   |
| 38.  | Provide policy-level suggestions to the GoN on handover of electricity projects to the GoN post-  | To provide recommendations to the GoN outlining technical, managerial, and procedural aspects to consider during the handover of electricity projects upon expiration of the generation license period.  |  | No  | Yes                                   |

| S.N. | Commission's<br>Activities | Details of the Activity | Necessity/<br>Legal Basis | Necessity of<br>Legal/ Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|----------------------------|-------------------------|---------------------------|---|---------------------------------------|
|      | generation license period. |                         |                           |   |                                       |

# 4.2.8 Investigation and Inspection

| S.N. | Commission's<br>Activities   | Details of the Activity  | Necessity/<br>Legal Basis   | Necessity of<br>Legal/ Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|--|--|---|---|---------------------------------------|
| 39.  | Set legal arrangement<br>for immediate<br>investigation and on-<br>site inspection | To establish necessary protocols for emergency investigations, including appointment of external experts, delineating responsibilities for Commission representatives during on-site inspections, defining reporting standards, setting priorities and timelines, etc. | Electricity Regulatory Commission Act, 2017 Section 15 (f) and Section 17 | No  | No                                    |

# 4.2.9 Imposing Fines

| S.N.            | Commission's<br>Activities | Details of the Activity                        | Necessity/<br>Legal Basis | Necessity of<br>Legal/ Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|-----------------|----------------------------|--|---------------------------|---|---------------------------------------|
|                 |                            | To establish necessary provisions for          | Electricity               |   |                                       |
|                 | Introduce necessary        | imposing fines on licensees who fail to        | Regulatory                |   |                                       |
| <del>4</del> 0. | provisions regarding       | comply with orders or instructions issued      | Commission                | No  | No                                    |
|                 | imposition of fines        | by the Electricity Regulatory Commission,      | Act, 2017                 |   |                                       |
|                 |                            | or who act in violation of this Act, including | Section 19                |   |                                       |

| S.N. | Commission's<br>Activities | Details of the Activity  | Necessity/<br>Legal Basis | Necessity of<br>Legal/ Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|----------------------------|--|---------------------------|---|---------------------------------------|
|      |                            | those who obstruct or provide electricity services without prior notice. |                           |   |                                       |

# 4.2.10 Service Charges

| S.N. | Commission's<br>Activities                                       | Details of the Activity  | Necessity/<br>Legal Basis                              | Necessity of<br>Legal/ Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|--|--|--|---|---------------------------------------|
| 41.  | Amendment of provision(s) relate to service charges as necessary | To clarify the provisions related to service charges that must be submitted to the Commission by the licensees while applying for decisions within the Commission's decisions. | Electricity Regulatory Commission Act, 2017 Section 20 | No  | No                                    |

# 4.2.11 Conducting Public Hearing

| S.N. | Commission's<br>Activities                          | Details of the Activity   | Necessity/<br>Legal Basis                   | Necessity of<br>Legal/ Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|---|---|---|---|---------------------------------------|
| 42.  | Periodically hold public hearings to address public | To provide for conducting of an annual provincial public hearing under chairmanship of a Member of the Commission to be attended by the head(s) of the provincial | Electricity Regulatory Commission Act, 2017 | No  | No                                    |

| S.N. | Commission's<br>Activities | Details of the Activity                       | Necessity/<br>Legal Basis | Necessity of<br>Legal/ Policy<br>Initiative<br>from GoN | Necessity<br>of<br>External<br>Expert |
|------|----------------------------|---|---------------------------|---|---------------------------------------|
|      | grievances in all          | office of the relevant distribution licensee, | Section 14 (a)            |   |                                       |
|      | provinces                  | the provincial head(s) of the distribution    | and Section 21            |   |                                       |
|      |                            | licensee, and the affected consumers to       |                           |   |                                       |
|      |                            | provide platform for consumers to voice       |                           |   |                                       |
|      |                            | their grievances and to prescribe a           |                           |   |                                       |
|      |                            | procedure and format for submission of a      |                           |   |                                       |
|      |                            | report thereof, to the Commission.            |                           | ,   |                                       |

# 5 Implementation of the Roadmap

# 5.1 General Approach. of Implementation

For implementation of the roadmap, the following approach shall be adopted:

| TASKS                        | FRAMING D<br>BYLAWS/ POLICI<br>TEMP                    | ES/ PROCESSES/   | CAPACITY I                                 |  | DEVELOP INTE                    | RNAL SYSTEMS            | SERVICE DELIVERY  |   |  |  |  |  |
|------------------------------|--|--|--|--|---------------------------------|-------------------------|---|---|--|--|--|--|
|                              | Grid Code  | Distribution Code  | Power Sector<br>Restructuring              | Dispute resolution   | RIMS (including DMS,            | Budget Plan             | Consumer Tariff   | Surcharges  |  |  |  |  |
|                              | Open Access Directives                                 | Consumer Tariff<br>Directive   | Cost of Service Analysis                   | Open Access  | E-court, etc.)                  |                         | Transmission and wheeling charges   | Resolve Disputes  |  |  |  |  |
| AREA OF                      | Mechanisms for<br>Operation of the<br>Wholesale Market | IRP/GTD Planning<br>Rules  | Tariff Modelling,<br>Analysis & Design     | Grid Code  | Public Consultation<br>Strategy | Internal Control System | Power purchase rates<br>determination and<br>approval thereon               | Approval on M&A,<br>Takeover, Joining, Sale                     |  |  |  |  |
| WORK                         | PPA Directives and<br>Template                         | Rules for Competitive procurement of power   | Technical Standards                        | Consumer Service<br>Standards                                | Pre-approval of Public          | of Plant, etc.          |   |   |  |  |  |  |
|                              | Technical and Service<br>Standards                     | Responsibilities of<br>system operator   | Issuance of Share                          | Review of Decisions  |                                 |                         |   |   |  |  |  |  |
|                              | Terms and conditions fo                                |  | Power Trading/Compet                       | titive wholesale market                                      | Strategy                        | Plan/ Strategy          | True-ups of Different<br>Tariff Determined                                  | Decide on other various petitions of licensees                  |  |  |  |  |
|                              | Need assessment  | Wider Public<br>Consultation   | Conduct Training Need<br>Assessment        | Conduct<br>Trainings/Workshops                               | Need assessment                 | Drafting                |   | Due Diligence   |  |  |  |  |
|                              | Review of Previous<br>Work                             | Direct Stakeholder<br>Consultation   | Organize study trips,<br>trainin           |  | Review of Pi                    | revious Work            | Incorporation of ICT to<br>receive applications<br>and enable file tracking |   |  |  |  |  |
| APPROACH<br>TO BE<br>ADOPTED | Review of international best practices                 | Procurement of<br>consultancy services (if<br>necessary)   | Advise on archiving of reference materials | Conduct regular<br>knowledge-sharing                         | Review of best practices        | Stakeholder             |   | Receiving support from<br>TA program by<br>Development Partners |  |  |  |  |
|                              | Drafting   | Incorporation of public comments   | Encourage Self-<br>Learning by advising    | Prudence Check   |                                 |                         |   |   |  |  |  |  |
|                              | Receiving support from<br>developme                    |  | online courses, books,<br>websites, etc.   | Development of<br>training materials with<br>help of experts | Incorporation of sta            | keholder comments       | Procurement of consultancy services   | Public hearing  |  |  |  |  |
| OLUTINITE                    | Discretion But   |  | Issue Paper/Staff Paper                    | Increased  | Internal Co.                    |                         |   |   |  |  |  |  |
| OUTPUT                       | Directives, Bylaws, C                                  | tives, Bylaws, Codes, Standards, etc.  Discussion Papers/Reports  organizational and personnel performance Performance |  |  |                                 | eunes/ Bylaws           | Deci  | isions  |  |  |  |  |

Figure 4: Approach of implementation of Roadmap

# Five-year Roadmap for ERC

For development and implementation of regulatory instruments such as directives, bylaws, codes, standards, etc., the following general process will be adopted.

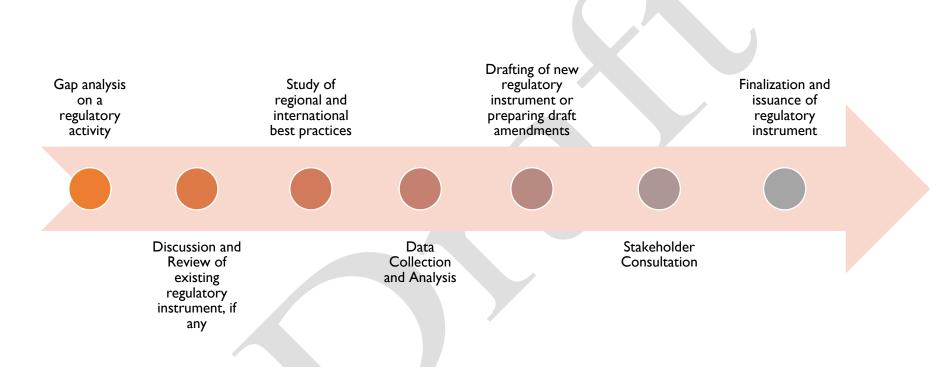
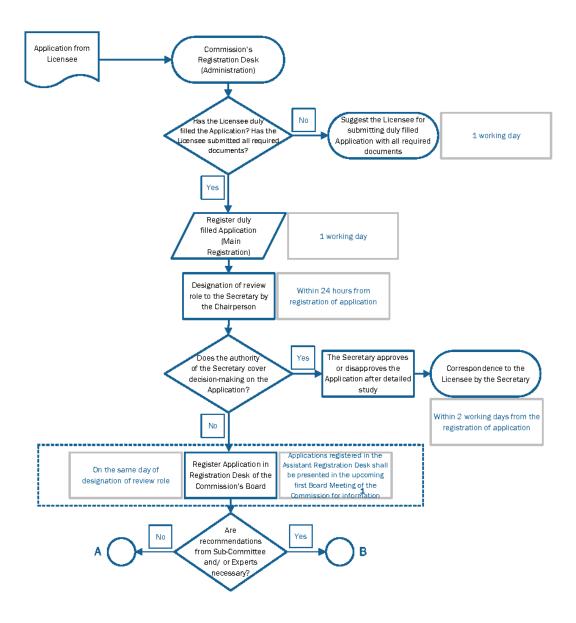


Figure 5: General Process of Finalization of Regulatory Instrument

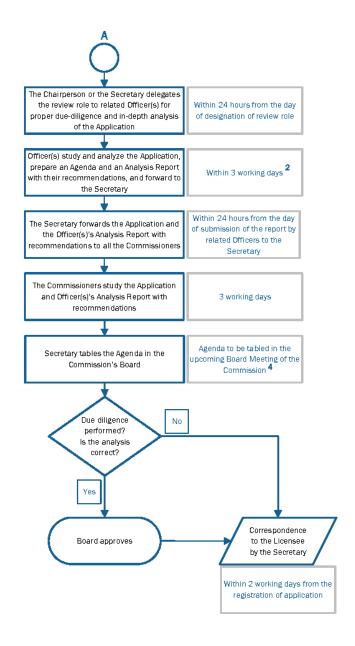
# 5.2 General Decision-Making Process

In order to improve transparency, accountability and shorten the decision time during review of petition, following general process shall be adopted.



<sup>(1)</sup> The upcoming first Board Meeting of the Commission means the Board Meeting of the Commission held on Thursday in the case of applications registered from Sunday to Tuesday and the Board Meeting of the Commission held on Monday of the following week in the case of applications registered from Wednesday to Friday.

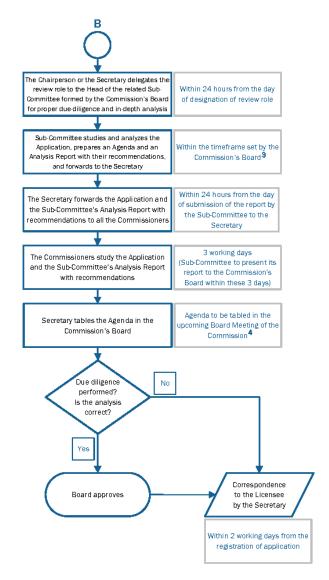
Figure 6: The Commission's General Process for Decision Making (Part I)



<sup>(2)</sup> In the event of issue-specific complexities, situations where additional details are required from the Licensees, and/ or unforeseen circumstances during the study and analysis phase, additional time period for study shall be requested and approved from the Chairperson or the Secretary.

Figure 7: The Commission's General Process for Decision Making (Part 2)

<sup>(4)</sup> The upcoming Board Meeting of the Commission means the Board Meeting of the Commission held right after the end of the study and analysis period.



- (3) In case of applications where recommendation from Sub-Committee and/ or Experts are required, the Commission's Board shall come to a decision within the stipulated timeframe as pursuant to the relevant Bylaws, Directives, Codes and/ or Guidelines of the Commission. The Sub-Committee shall study the application and submit their Analysis Report with their recommendations to the Secretary within the timeframe stipulated by the Commission's Board.
- (4) The upcoming Board Meeting of the Commission means the Board Meeting of the Commission held right after the end of the study and analysis period.

#### Note:

- (A) The Secretary shall document and implement the decision (approved or disapproved) of the Commission's Board.
- (B) The Commission shall request the Applicant/ Licensee for any additional documents and details relevant to the application at any stage.
- (C) Generally, the Commission shall make a decision on a duly filled and submitted Application within 15 days from the date of registration of the Application. For some applications, such as application for RCOD extension, application for change in share structure, etc., where study and analysis can be carried out in a shorter time frame as compared to other complex cases, the Commission may decide on the applications before the 15-day mark. For other applications, the Commission shall make its decision within the stipulated timeframe while following all procedures as pursuant to the relevant Bylaws, Directives, Codes and/ or Guidelines of the Commission.

Figure 8: The Commission's General Process for Decision Making (Part 3)

The activity-specific process flow for individual activity is outlined in the Work Plan represented in form of a Gantt Chart in the Annexure.

## 5.3 Resource Management for Implementation

For implementation of activities under this workplan, necessary resource shall be managed in the following manner:

## 5.3.1 Human Resource

Since its establishment, the Commission's operations have been supported by employees seconded from the GoN. So far, the staff have been essential for the administrative and regulatory functioning of the Commission.

The Commission requires sufficient number of trained human resources to fully discharge its responsibilities as outlined by the Act and to implement its Roadmap. Therefore, hiring full-time personnel for the Commission through a competitive examination conducted by the Public Service Commission of Nepal (hereafter referred to as the "PSC") is of paramount importance. Until full-time employees are hired through the PSC, the Commission shall request that the GoN provide additional human resources as needed. If the Government is unable to provide the necessary personnel, the Commission shall hire temporary staff from the waiting list of the competitive exams conducted by the PSC for relevant bodies of GoN.

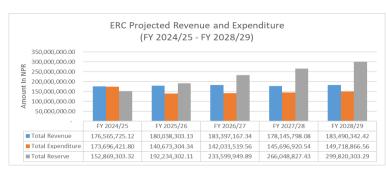
# 5.3.2 Expertise

Regulatory practices in the electricity sector are still new to Nepal. To develop the Commission as a competent institution and to intensify its regulatory efforts, it is necessary to adopt best practices from different countries and regions. Therefore, to establish itself as a capable regulatory body for the electricity sector, the Commission must rely on external sources for expertise in most regulatory activities. Necessary expertise shall be sourced from various technical assistances to be provided by various development partners to the extent available. Additionally, the Commission will contract additional national and international experts on a short-term basis.

### 5.3.3 Financial Resources

Electricity Regulatory Commission Act, 2017 provides that the Commission may levy specific percentage of fees from various kinds of licensees. Accordingly, the Commission has been charging regulatory fees from NEA and BPC not exceeding 1% of the annual electricity sales, which generally seems to be sufficient for implementing the Commission's programs.

Provided herewith is a brief overview of the Commission's projection of income and expenditure for the 5 years:



| PROJECTION OF REVENUE, EXPENDITU (2024-2029) | RES AND RESERVES |
|--|------------------|
|  |                  |
| REVENUE                                      |                  |
| PPA Agreement Fee                            | 111,176,734.13   |
| Share Issuance Pre-approval Fee              | 85,185,935.29    |
| Share Purchase/Sale Agreement Fee            | 24,474,666.67    |
| Share Structure Change Fee                   | 800,000.00       |
| Regulatory Fee                               | 680,000,000.00   |
| Total Revenue                                | 901,637,336.09   |
| EXPENDITURE                                  |                  |
| Salary, Remuneration & Allowances            | 202,327,011.85   |
| Office Rent                                  | 52,953,600.00    |
| Event Expenditures                           | 50,900,000.00    |
| Service and Consultancy Fees                 | 15,930,375.00    |
| Capital Expenditure                          | 51,229,499.90    |
| Others                                       | 378,476,546.05   |
| Total Expenditure                            | 751,817,032.80   |
| RESERVE                                      |                  |
| Existing Reserve (2024)                      | 150,000,000.00   |
| Total Reserve at the end of 2029             | 299,820,303.29   |

Figure 9: Summary of Draft of Estimated Incomes and Expenditure for 2024-2029

Despite sufficiency of funds, GoN procurement norms and lack of immediate mechanisms to efficiently utilize the financial resources may create bottleneck in procuring certain kinds of services and goods, specifically those that is to be sourced from outside Nepal. In this case, the Commission expects assistance from various development partners, specifically in matters pertaining to sourcing expertise for inheritance of global best practices, capacity building and knowledge sharing events.

## 5.4 Support from GoN

Implementing some of the Commission's activities outlined in this workplan will require support from the Government of Nepal (GoN). The Commission's ability to effectively implement the Roadmap depends on its capacity to recruit permanent staff, which in turn hinges on the approval of the Employee Administration Bylaws and Financial Administration Bylaws. The drafts of these bylaws have been submitted to the Ministry of Finance. Therefore, the Commission expects prompt support from the GoN in securing their approval.

Additionally, matters pertaining to power trade, cross-border electricity trade, retail supply (Consumer Service), etc. shall require legal and policy facilitation from GoN. The Commission shall request government for the necessary support through co-ordination committee formed under this roadmap and through policy suggestions made to GoN.

Accordingly, during development of and discussion on many kinds of regulatory instruments to be made by the Commission, it may be required to constitute different sub-committees for intense discussion on subject matter. During such discussions, officers from GoN, Ministry of Energy, Water Resource and Irrigation and Department of Electricity Development may be required.

## **6** Expected Outcomes of Implementation of the Roadmap

Successful implementation of the roadmap shall lead to the following advantages to various stakeholders.

### **Government**

- GoN shall obtain a competent regulatory body for electricity sector.
- Activities pertaining to electricity regulation shall not cause any burden on government's fund.
- Government shall obtain a mature and reliable institution with knowledge of electricity sector to provide policy inputs.

### **Licensees**

- Investment friendly environment for licensees and investors.
- Regulation process and service delivery shall become predictable.
- Regulatory regime that fosters corporate governance and organizational strengthening shall be established.

#### Consumers

- Establishment of rights of consumers.
- Voice of consumers will be ensured in decision making.

Figure 9: Outcomes of implementation of the Roadmap

## 7 Evaluation of Implementation and Amendment of the Roadmap

The Commission has envisioned the Roadmap as a dynamic document. Therefore, the Commission shall evaluate the implementation of the Roadmap on an annual basis. Accordingly, the Commission shall amend the roadmap to the necessary extent based on actual outcomes of the implementation. The Commission shall also present its analyses on implementation of the Roadmap and subsequent amendments, if any, in the Annual Report of the Commission pursuant to section 38 (3) of the Act.

## 8 Risk Identification and Mitigation

This Roadmap aims to complete all activities related to its roll-out, capacity building, and stabilization of the Commission, as well as to initiate necessary electricity sector reforms, all within a period of five years. While this is a challenge, it is also essential, as the electricity sector is rapidly evolving, and the Commission needs to keep pace to effectively fulfill its mandates. The roadmap has been prepared with the following assumption that the Commission:

- Shall be timely able to onboard and train necessary human resources in timely manner,
- Shall have sufficient financial resources,
- Shall receive necessary support from GoN and adequate technical assistance from development partners,
- Shall be able to foster communication and cooperation with relevant stakeholders.

Unless the assumptions hold true, undertaking all these activities as proposed in the roadmap will be risky and may lead to half measures and improper roll-out of regulatory activities which may compromise the Commission's ability to carry out its objectives. This in turn subjects the Commission to high degree of reputational risk. Therefore, to

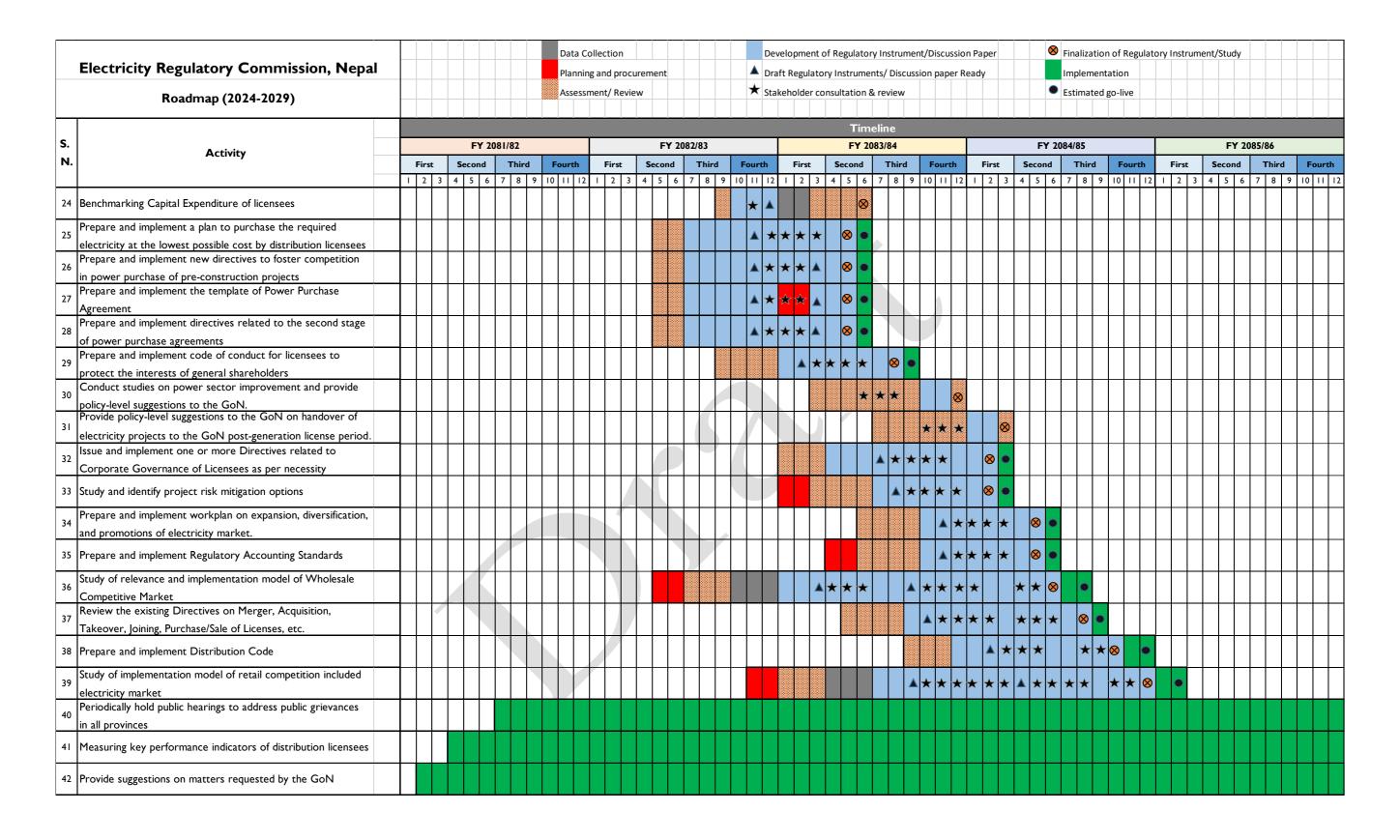
mitigate these adverse circumstances, the Commission shall be ready to change its approach and priorities based on actual status of availability of resources, assistance and co-operation.





**Annexure: Gantt Chart for the Roadmap (Workplan)** 

|     | Electricity Regulatory Commission, Nepal  |              |          |                 |          |            |          | Pla      | ata Col  | and p      | rocur |              |            |           |           | <b>A</b>   | Draft    | elopmen<br>t Regula<br>eholder | tory I | nstrun | nents/ | Discu: |      |       |     |      |       | mplem<br>Estimat | entatio |                | ory Inst | rume | nt/Stud | y            |           |    |       |
|-----|---|--------------|----------|-----------------|----------|------------|----------|----------|----------|------------|-------|--------------|------------|-----------|-----------|------------|----------|--------------------------------|--------|--------|--------|--------|------|-------|-----|------|-------|------------------|---------|----------------|----------|------|---------|--------------|-----------|----|-------|
| L   | Roadmap (2024-2029)   |              |          |                 |          |            |          |          |          |            |       |              |            |           |           |            |          |                                |        |        |        |        |      |       |     |      |       |                  | J       |                |          |      |         |              |           |    |       |
|     |   |              |          |                 |          |            |          |          |          |            |       |              |            |           |           |            |          |                                |        | Ti     | melir  | 1e     |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| S.  | Activity  |              |          | F               | Y 20     | 81/82      |          |          |          |            |       | F            | Y 2082     | 2/83      |           |            |          |                                |        | FY     | 2083/  | 84     |      |       |     | F    | Y 208 | 34/85            |         |                |          |      | FY      | Y 2085/      | /86       |    |       |
| N.  |   | Fit          | rst      | <b>Seco</b> 4 5 |          | Thin       |          | Four     |          | Firs       |       | Secor<br>4 5 |            | Third     |           | Fourt      |          | First                          |        | econd  |        | Third  |      | ourth | rst | Seco |       | Third            |         | ourth<br>11 12 | Firs     |      | Secon   |              | Third     |    | ourth |
| _   | Install the Citizen's Charter of Electricity Regulatory  Commission  Amendment of provision(s) relate to service charges as |              |          | 7 3             |          | , 0        |          | 10 11    | 12       | 1 2        |       | 1 3          | ,          |           | <u> </u>  | 11         | 12       | 1                              | J 1    |        | ,      |        | , 10 | 11 12 | 2 3 | 7 3  |       | , 0              | 7 10    | 11 12          | 1 2      | 3    | 7 3     | <del>"</del> |           | 10 | 11 12 |
| 2   | necessary   | 7            | •        |                 |          |            |          |          |          |            |       |              |            |           |           |            |          |                                | L      | П      |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 3   | Issue Bylaws related to Electricity Regulatory Commission Dispute Resolution  |              | *        | * ^             | •        |            |          |          |          |            |       |              |            |           |           |            |          |                                |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 4 1 | Conduct Short-term, Medium-term, and Long-term electricity demand forecast and update it accordingly                        | $\perp \mid$ |          |                 | <b>A</b> | * *        | 8        |          |          |            |       |              |            |           |           |            |          |                                |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              | $\coprod$ |    |       |
| 5   | Introduce necessary provisions regarding imposition of fines  |              |          |                 |          | *          |          |          |          |            |       |              |            |           |           |            |          |                                |        |        |        | Ц      |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 6   | Issue Bylaws related to Review of Decision  |              |          |                 |          |            | *        | <b>*</b> |          |            |       |              |            |           |           |            |          |                                |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 7   | Set provisions for immediate investigation and on-site inspection   |              |          |                 |          |            |          |          | <b>A</b> | <b>★</b> ⊗ |       |              |            |           |           |            |          |                                |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 8   | Review the Electricity Consumers' Rights Protection Directives, 2023  |              |          |                 |          | <b>A</b>   | *        | **       | *        | 8          | •     |              |            |           |           |            |          |                                |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 9   | Conduct a study to determine the supply electricity mix of electricity to be purchased by the distribution licensees        |              |          |                 |          |            | <b>A</b> | * *      | *        | 8          | •     |              |            |           |           |            |          |                                |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 10  | Issue the directives on Power Purchase for Energy Storage Project including BESS, Storage Hydro and Pumped Hydro.           |              |          |                 |          |            |          | <b>A</b> | *        | **         | *     | 8            | •          |           |           |            |          |                                |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
|     | Issue Open Access Directives to Transmission Network  |              | <b>A</b> | **              | *        | <b>▲</b> ★ | *        | *        |          | *          | *     | 8            | •          |           |           |            |          |                                |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 12  | Prepare and implement the directives on Determination of Transmission and Distribution Wheeling Charge                      | П            |          |                 |          |            |          | <b>A</b> | *        | **         | *     | 8            | •          |           |           |            |          |                                |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 13  | Implement Nepal Electricity Grid Code, 2023 and review as necessary   |              |          |                 |          | <b>A</b>   | *        | * *      |          | *          | *     | 3            | •          |           |           |            |          |                                |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 14  | Prescribe and review necessary instruments prescribing the responsibilities of power system operator                        |              |          |                 |          |            |          | <b>A</b> | *        |            | Q     | 3            | •          |           |           |            |          |                                |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 15  | Conduct necessary studies oriented towards tariff reform  |              |          |                 |          |            |          |          |          |            |       |              | <b>A</b> 7 | <b>∀⊗</b> |           |            |          |                                |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 16  | Issue Directives related to Cross-border Electricity Trade  |              |          |                 |          |            |          | <b>A</b> | *        | *          | ,     | **           | 8          |           | •         |            |          |                                |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 17  | Conduct studies of prevalent laws to clarify the jurisdiction of the Commission & provide recommendations to the GoN.       |              |          |                 |          |            |          |          |          |            | 7     | * *          | *          |           | $\otimes$ |            |          |                                |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 18  | Conduct cost of service studies for distribution licensees  |              |          |                 |          |            | 4        |          |          |            |       |              |            |           |           |            |          |                                |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 19  | Conduct sustainability study of Community Rural Electricity Entities (CREEs)  |              |          |                 |          |            |          |          |          |            |       |              |            |           |           |            |          |                                |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 20  | Prepare and implement a comprehensive consumer tariff framework   | $\prod$      |          |                 |          |            |          |          |          |            |       | *            | **         | *         |           |            | * >      | <b>★</b> ⊗                     |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 21  | Issue Directives related to conditions to be followed by the trade licensees  |              |          |                 |          |            |          |          |          |            |       |              |            | <b>A</b>  | **        | *          | *        | 8                              |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 22  | Measuring key performance indicators of generation licensees  |              |          |                 |          |            |          |          |          |            |       |              | A          | *         | * *       | <b>k</b> * |          | 8                              |        |        |        |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |
| 23  | Benchmarking Operating Expenditure of licensees   |              |          |                 |          |            |          |          |          |            |       |              |            |           |           | *          | <b>A</b> |                                |        | Ó      | 8      |        |      |       |     |      |       |                  |         |                |          |      |         |              |           |    |       |





# ELECTRICITY REGULATORY COMMISSION Nepal