ELECTRICITY REGULATORY COMMISSION

Nepal



Five-year Roadmap for ERC (2024-2029)

Five-year Roadmap for ERC

Contents

Exe	cutive Summary	I
ı	Introduction	5
2	Current status of the Commission	5
2.1	Review of Past Work	5
2.2	Challenges and opportunities	6
3	Roadmap of the Commission	7
3.1	Background	7
3.2	Vision of the Commission	9
3.3	Mission of the Commission	9
3.4	Guiding Principles of the Commission	9
3.5	Objective of the five-year roadmap	10
3.6	Broad Areas of Action (Priorities)	13
4	Workplan for the Roadmap	13
4 . I	Workplan Related to Institutional Priorities	13
4.2	Workplan Related to Regulatory Priorities	17
5	Implementation of the Roadmap	34
5. I	General Approach. of Implementation	34
5.2	General Decision-Making Process	36
5.3	Resource Management for Implementation	39
5.4	Support from GoN	40
6	Expected Outcomes of Implementation of the Roadmap	41
7	Evaluation of Implementation and Amendment of the Roadmap	41
8	Risk Identification and Mitigation	41
Anr	nexure: Gantt Chart for the Roadmap (Workplan)	43

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:

- I. 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 Licensees

KEY TARGETS FOR 2028/29

Review and MonitoringStabilization 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:

- 1. **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 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	Quantity
No.		
I.	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.

Furthermore, in its latest Nationally Determined Contribution (NDC), Nepal has set a target to increase the share of renewable energy, including hydropower, solar, and wind, to 15% by 2030. It also aims to ensure universal access to clean energy and to improve energy efficiency by 5% across industries, buildings, and transport by 2030. Together, these targets contribute to Nepal's Long-Term Strategy (LTS) for achieving net-zero emissions by 2045 and align with Sustainable Development Goal 7 for affordable and clean energy.

The Commission, which had come to operations after 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 24th 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, 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 16th 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.

3.3 Mission of the Commission

The Commission's mission is to enhance the quality and reliability of electricity services, ensuring transparency and accountability among stakeholders, by implementing regulatory instruments and advising the Government of Nepal on policy reforms for effective electricity distribution and trade.

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.

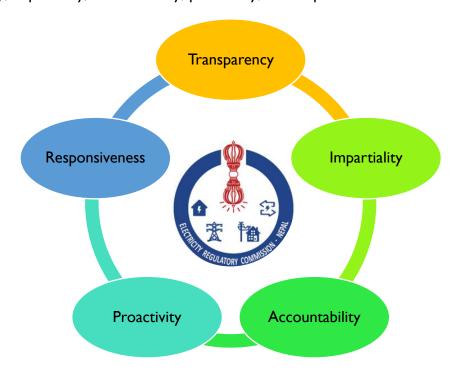


Figure 1: Guiding Principles of the Commission

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

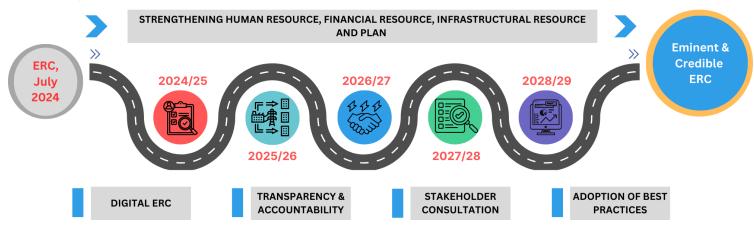
- Internal Strengthening & Preparatory Works
- Dispute Resolution Bylaws
- · Internal Control System Bylaws
- Tariff Studies (Storage Project Tariff, Progressive & Regressive Tariff, Piloting Smart Metering)

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

Figure 2: Roadmap of the Commission

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 its organizational structure (as approved by the GoN). The recruitment process will be led by the Public Service Commission in accordance with the Commission's Employees Administration Bylaws, 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, national experts, and representatives from consumer groups. Meetings of the Advisory Committee shall be conducted at least on a semi-annual basis (subject-based discussions).

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 as well as a communication strategy for creating awareness amongst the consumers and

Five-year Roadmap for ERC

- stakeholders on issues related to investment in the electricity sector, consumer electricity tariffs, electrical safety, etc.
- 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 Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/ Policy Initiative from GoN	Necessity of External Expert
1.	Implement Nepal Electricity Grid Code, 2023 and review as necessary	To implement Nepal Electricity Grid Code, 2023, to review the provision therein and update it based as required.		No	Yes
2.	Prepare and implement Distribution and Metering 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. The distribution code shall recognize, regulate and make it safe, for community housing arrangements. The metering code (usually included within the distribution code) shall facilitate the multiple customers living in the same premises. 	Electricity Regulatory Commission Act, 2017 Section 12 (a) and 12 (c)	No	Yes
3.	Prescribe and review necessary instruments prescribing the responsibilities of power system	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 and market	Electricity Regulatory Commission Act, 2017 Section 12 (d)	No	Yes

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/ Policy Initiative from GoN	Necessity of External Expert
	operator and market operator	operators in multiple-buyers electricity market.			
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 Support	No	Yes
5.	Conduct a study to determine the supply electricity mix of electricity to be purchased by the distribution licensees	To determine the proportion of electricity to be supplied by RoR hydropower, PRoR hydropower, Storage hydropower, Utility Scale Solar PV, import, other sources, etc. to ensure energy security on a periodic basis.	Decision Support	No (Better to be specified)	Yes
6.	Prepare and implement a plan to purchase the required electricity at the lowest possible cost by distribution 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 (1) (d)	No	Yes
7.	Conduct a study [Update RPGCL's study] on transmission lines capacity requirement for internal consumption and export	To conduct or update a study on transmission line capacity requirements for internal consumption and export to ensure that Nepal's electricity grid can reliably support both growing domestic demand and potential export opportunities. Accurate transmission capacity assessments help ERC identify infrastructure needs, prevent power losses,	Electricity Regulatory Commission Act, 2017 Section 12 (c) and 12 (f)	No (Better to be specified)	Yes

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/ Policy Initiative from GoN	Necessity of External Expert
		and avoid congestion in the grid. This also supports Nepal's long-term goals to increase renewable energy production, facilitate cross-border energy trade, and enhance overall energy security and economic growth by maximizing the value of its energy resources.			
8.	Conduct a study on potential benefits of carbon trade for Nepal (focusing on energy projects)	To conduct a study on potential benefits of carbon trade for Nepal's energy sector and develop policies to support the participation of energy projects in carbon markets, benefiting Nepal's economy while incentivizing low-carbon energy solutions aligned with national and international climate commitments.	Decision Support	No	Yes
9.	Conduct a study on the impact of climate change on Nepal's energy sector	To conduct a study on the impact of climate change on Nepal's energy sector in order to understand how climate change affects energy generation, transmission, and consumption patterns, and to anticipate and mitigate risks such as changes in hydropower availability, extreme weather events, and temperature-driven demand fluctuations.	Decision Support	No	Yes
10.	Conduct a study on disaster risk resiliency and management of energy infrastructure in Nepal	To conduct a study on disaster risk resiliency and management of energy infrastructure in Nepal and develop standards for infrastructure resilience, ensuring quicker recovery and minimal	Decision Support	No	Yes

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/ Policy Initiative from GoN	Necessity of External Expert
		disruption to electricity services, which is essential for economic stability and public safety.			

4.2.2 Rate Determination for Licensees

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/ Policy Initiative from GoN	Necessity of External Expert
II.	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, incentive-based tariff (peak clipping and valley filling), improvement of electricity consumptions, replacement of traditional energy fuels and through regulatory sandboxing. To conduct a study on subsidies and cross-subsidies and develop a methodology to gradually reduce subsidies, make electricity tariff 	Decision Support	No	Yes

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/ Policy Initiative from GoN	Necessity of External Expert
		cost-reflective, and make any subsidies focused and targeted toward the intended customer segments. To also conduct periodic review of the established subsidy system.			
12.	Conduct cost of service studies for distribution licensees	To conduct cost of service studies (including fixed and variable costs) for each voltage levels in relevant geographical divisions for distribution licensee to understand actual state of cost of supply and cross-subsidy in electricity distribution.	Decision Support	No	Yes
13.	Prepare and implement a comprehensive consumer tariff methodology	To prepare a comprehensive consumer tariff methodology 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
14.	Review, prepare, and implement the template of Power Purchase Agreement	To review and prepare templates 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.	Electricity Regulatory Commission Act, 2017 Section 13 (1)	No	Yes
15.	Prepare and implement new directives to foster competition in power	To prepare detailed Directive on power purchase to repeal the prevailing Bylaws on Electricity	(b), 13 (1) (c) and 14 (b)	No	Yes

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/ Policy Initiative from GoN	Necessity of External Expert
	purchase of pre- construction projects	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.			
16.	Prepare and implement directives related to the second stage of power purchase 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 when power purchase rate should to be reviewed even though the PPA remains in place.		No	Yes
17.	Prepare and implement the directives on Determination of Transmission and Distribution Wheeling 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
18.	Develop regulatory instruments relating to congestion related mechanism, deviation	To issue regulatory instruments relating to congestion management, deviation settlement, metering, and energy accounting to enable effective	Electricity Regulatory Commission Act, 2017	No (Better to be specified)	Yes

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/ Policy Initiative from GoN	Necessity of External Expert
	settlement mechanism, metering mechanism, energy accounting mechanism, etc. which are essential for OA	Open Access (OA) to the electricity grid. By addressing congestion and balancing deviations, ERC can minimize grid instability, ensure accurate billing and accountability, and enhance competition.	Section 12 (d), 14 (e), and 14 (h)		
19.	Issue the directives on Power Purchase for Energy Storage Project including BESS, Storage Hydropower and Pumped Storage 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
20.	Study on Distributed Generation at the Customer-level (especially Rooftop Solar PV Installation)	To conduct a study on Distributed Generation at the Customer-level (especially Rooftop Solar PV Installation) focusing on facilitation and regulation of such distributed generation, including concept of netmetering, in order to assess the technical, economic, and regulatory requirements for safely integrating rooftop solar into the existing grid, addressing issues like grid stability, peak load reduction, and energy storage needs.	Electricity Regulatory Commission Act, 2017 Section 14 (b) and 14 (c)	No	Yes

4.2.3 Competition and Consumers' Rights Protection

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/Policy Initiative from GoN	Necessity of External Expert
21.	Issue Open Access Directives to 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 Regulatory Commission Act, 2017 Section 14 (j)	Yes (Necessary initiation already took place)	Yes
22.	Issue Directives related to Cross-border 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
23.	Review and update Citizen's Charter of Electricity Regulatory Commission	To review and update the 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
24.	Review the Electricity Consumers' Rights Protection Directives, 2023	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	Electricity Regulatory Commission Act, 2017 Section 14 (a)	No	Yes

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/Policy Initiative from GoN	Necessity of External Expert
		 interruptions, contents of the information, etc. To add safety level standards to be adopted by the electricity distribution licensees in Consumers' Rights Protection Directives, 2023 to reduce electrical accidents and electrical hazards. To strongly enforce the rights to information about power cut, penalty provisions, compensations, etc. To study, draft and implement Consumer Grievance Redressal Mechanism. 	and Section 12 (e)		
25.	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 Support	No	Yes
26.	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 Support	No	Yes
27.	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

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/Policy Initiative from GoN	Necessity of External Expert
28.	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 recommendations for seeking long-term solutions to this issue.	Decision Support	No	Yes

4.2.4 Organizational Capacity Development and Corporate Governance

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/Policy Initiative from GoN	Necessity of External Expert
29.	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 Support	No	Yes
30.	Benchmarking Capital Expenditure of licensees	To benchmark the capital expenditures of electricity licenses to assist the Commission in gaining sector insights and enhancing decision-making.	Decision Support	No	Yes
31.	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	Decision Support	No	Yes

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/Policy Initiative from GoN	Necessity of External Expert
		 investment for the distribution licensees. To also establish Monitoring and Evaluation parameters of the indicators. 			
32.	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 these targets to certain discounts and prioritizations. To also establish Monitoring and Evaluation parameters of the indicators. 	Decision Support	No	Yes
33.	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 code of conduct for Board of Directors of licensees, disclosures to be made 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 Regulatory Commission Act, 2017 Section 15 (f)	No	Yes
34.	Review the existing Directives on Merger,	To analyze the benefits and challenges for the electricity sector of activities such as	Electricity Regulatory	No (Yes, if government	Yes

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/Policy Initiative from GoN	Necessity of External Expert
	Acquisition, Takeover, Joining, Purchase/Sale of Licenses, etc.	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.	Commission Act, 2017 Section 15 (c)	intends to incentivize such activities for greater interest)	
35.	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
36.	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
37.	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

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/Policy Initiative from GoN	Necessity of External Expert
38.	Study and identify project risk mitigation options	To evaluating the natural, financial, socio- economic, managerial, and other risks associated with electricity projects, and to conduct studies and provide recommendations on the steps that can be taken to minimize these risks.	Decision Support	No	Yes

4.2.5 Dispute Resolution

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/Policy Initiative from GoN	Necessity of External Expert
39.	Issue Bylaws related to Electricity Regulatory Commission Dispute 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

4.2.7 Providing Policy Suggestions

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/ Policy Initiative from GoN	Necessity of External Expert
4 0.	Provide suggestions	To conduct the necessary studies on	Electricity	No	Yes
40.	on matters	matters requested by the GoN and	Regulatory	INO	162

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/ Policy Initiative from GoN	Necessity of External Expert
	requested by the GoN	providing suggestions within the stipulated time frame.	Commission Act, 2017		
41.	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.	Section 16	No	Yes
42.	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.	 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. 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. 		No	Yes
43.	Provide policy-level suggestions to the GoN on handover of electricity projects to the GoN postgeneration license period.	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 Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/ Policy Initiative from GoN	Necessity of External Expert
44.	Provide policy-level suggestions to the GoN on matters pertaining to issuance of licenses	To provide recommendation to the GoN regarding authority to issue transmission (and distribution) licenses by the Commission.	Electricity Regulatory Commission Act, 2017 Section 16	No	Yes

4.2.8 Investigation and Inspection

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/ Policy Initiative from GoN	Necessity of External Expert
45.	Set legal arrangement for immediate investigation and on- 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 Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/ Policy Initiative from GoN	Necessity of External Expert
46.	Introduce necessary provisions regarding imposition of fines	To establish necessary provisions for imposing fines on licensees who fail to comply with orders or instructions issued by the Electricity Regulatory Commission, or who act in violation of this Act, including those who obstruct or provide electricity services without prior notice.	Electricity Regulatory Commission Act, 2017 Section 19	No	No

4.2.10 Service Charges

S.N.	Commission's Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/ Policy Initiative from GoN	Necessity of External Expert
47.	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 Activities	Details of the Activity	Necessity/ Legal Basis	Necessity of Legal/ Policy Initiative from GoN	Necessity of External Expert
48.	Periodically hold public hearings to address public grievances in all provinces	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 office of the relevant distribution licensee, the provincial head(s) of the distribution 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.	Electricity Regulatory Commission Act, 2017 Section 14 (a) and Section 21	No	No

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

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.

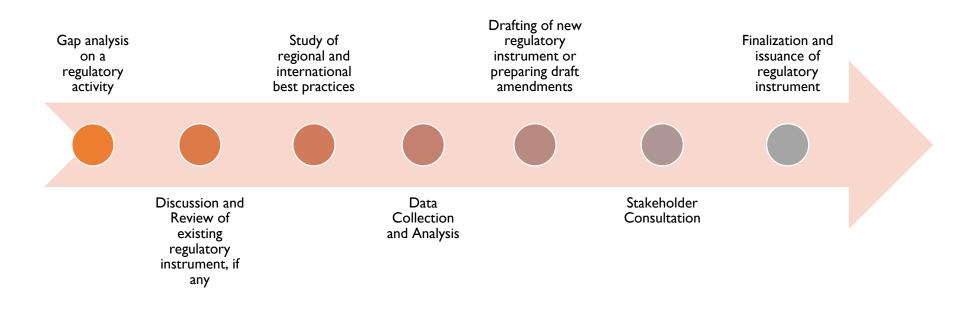
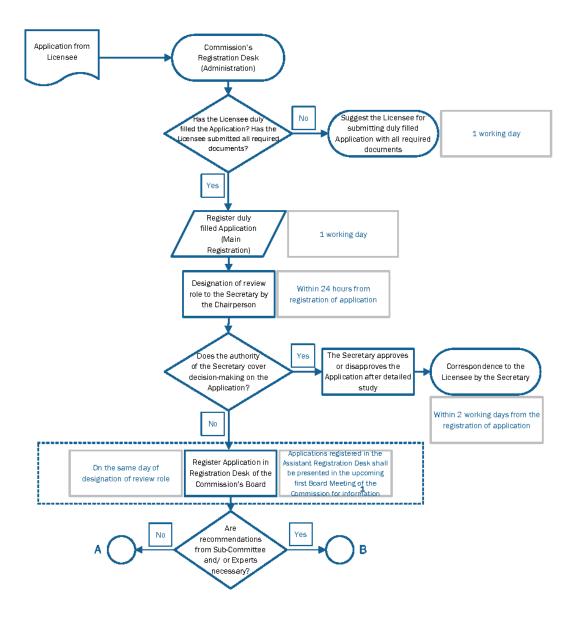


Figure 5: General Process of Finalization of Regulatory Instrument

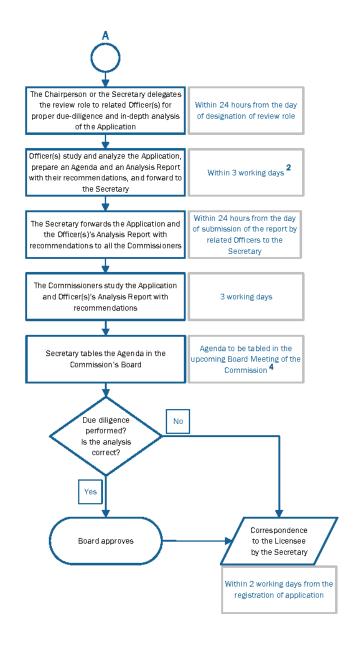
5.2 General Decision-Making Process

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



⁽¹⁾ 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.

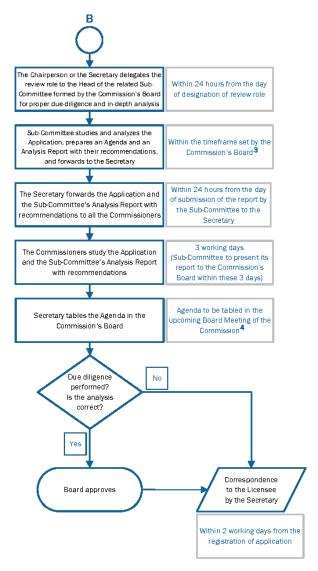
Figure 6: The Commission's General Process for Decision Making (Part I)



⁽²⁾ 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)

⁽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.



- (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.

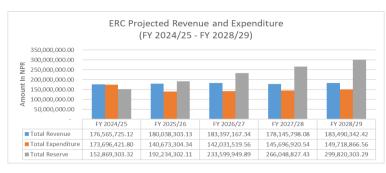
5.3.2 Expertise

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
(2024-2029)	
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

Five-year Roadmap for ERC

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 Roadmap (2024-2029)						0000	PI.	ita Co anning sessi	g and	proc	uremer ew	nt		1 4	Dra	ft Reg	julato	of Reg ory Inst	rumer	nts/ 🗆	liscus						lm	leme	on of f ntatior d go-li	1	atory Ir	strun	nent/:	Study		
Т	,		÷	н	Н	-				Н	-	ш		н		н		Н	Ti	melir	ne	н									<u></u>			Н		\perp	
3 .	Activity			F	Y 20	81/82			T			FY 2	082	/83						2083				Г			FY 2	084	85		耳			FY:	2085/	86	
v .			r st 2 3		0 a d	7 8		Four		First		5 6		Nird 8 9	10 t		Firs		Seco:				11 1:		irst 2 3		cond			10 1		First		econ		Nird 8 9	Fou 10 11
1 I	Install the Citizen's Charter of Electricity Regulatory Commission and Periodic Review		•															000000	A	•															****	A •	
2	Amendment of provision(s) relate to service charges as necessary			₩,	•																																
3	Issue Bylaws related to Electricity Regulatory Commission Dispute Resolution		A	* 6	•																																
4 1	Conduct Short-term, Medium-term, and Long-term electricity demand forecast and update it accordingly	\perp								oc 000		Ш		4	**	⊗			Ш			Ш									Ш					\perp	\coprod
5	Introduce necessary provisions regarding imposition of fines										*	•																									
6	Set provisions for immediate investigation and on-site inspection						3000000		*	*	•											Ш															
7	Review the Electricity Consumers' Rights Protection Directives, 2023										4	*	*	*	⊗ •	•																					
°	Conduct a study to determine the supply electricity mix of electricity to be purchased by the distribution licensees						***								П					▲ ★	*	k	8	•													\prod
э I	Issue the directives on Power Purchase for Energy Storage Project including BESS, Storage Hydro and Pumped Hydro.											A >	*	* *	8	•																					
Т	Issue Open Access Directives to Transmission Network	\prod			A	* *	*	*	* *	4	T	**	8	•		П			П			П				П					П	П					
11 I	Prepare and implement the directives on Determination of Transmission and Distribution Wheeling Charge					I		36 36 36 36 36 36		A	**	* *	7	⊗ •																							
12	Implement Nepal Electricity Grid Code, 2023 and review as necessary				П			^	*>	*		*	k ⊗	•																							
13	Prescribe and review necessary instruments prescribing the responsibilities of power system operator and market operator																		À	*		8	•	•													
14	Conduct necessary studies oriented towards tariff reform															П									^	*	8										
15	Issue Directives related to Cross-border Electricity Trade		T		T	\top		T		\prod	\top	\prod										*	¥	*		*	*	9	•		П		T	П			T
16	Conduct studies of prevalent laws to clarify the jurisdiction of the Commission & provide recommendations to the GoN.												***	*	* *	000	80																				\prod
17	Conduct cost of service studies for distribution licensees									Ш					8	•																					
8 .	Conduct sustainability study of Community Rural Electricity Entities (CREEs)																			8																	
19	Prepare and implement a comprehensive consumer tariff methodology											A	+	**		7	**	8	•																		
:O	Issue Directives related to conditions to be followed by the trade licensees														88888	000000		4	*	**	*	8	•														
21	Measuring key performance indicators of generation licensees												*	**	*																						
2	Benchmarking Operating Expenditure of licensees	1 †	\top		$\dagger \dagger$	\top	\prod	\top		***	*	A			8				\prod	\top	\sqcap	\prod	\top		\top	П		\parallel	\top		\prod	\parallel	\top	\prod	\top	\top	\prod

																					Time	eline																	
S.	Activity				FY 2	2081	/82			Т			FY :	2082	/83					F	Y 20	83/8	4		П			FY	2084	/85					FY	2085	5/86		
N.	,		First		econo				ourt					id 1			ourth			Sec				Fou		Firs				ſkird		ourth			Seco		Third		ourti
	Benchmarking Capital Expenditure of licensees	╀	2 :	3 4	5 6	6 7	8	9 10	11	12 1	2	3 4	5	6 7	8	9 10	11 12	1	2 3	4	5 6	7 8	3 9	10 11	12	1 2	3 4	5	6 7	8 :	9 10	11 12	1 2	2 3 .	4 5	6 7	8	9 10	11 1
23		┸	Ш	\perp	Ш	\perp	Ц	\perp	Ш	\perp	Ш	\perp	Ц	***	7	< ▲				8			Ш	\perp	Ш	\perp	Ш	Ш	\perp	Ш	Ш	'	Ш	Ш	Ш	\perp	Ш	\perp	Ц
24	Prepare and implement a plan to purchase the required electricity at the						$ \ $				Ш							Ш	A	(*)	+	8			$ \ $							/				ιl			
_	lowest possible cost by distribution licensees Prepare and implement new directives to foster competition in power	╀	\vdash	+	₩	+	₩	+	₩	+	₩	+	╀		888	*		999	986		1 .	+			Н		\vdash	₩	+	₩	$+\!+\!$		\vdash	++	$+\!\!+\!\!\!-$	$+\!\!+$	++	+	\vdash
25	purchase of pre-construction projects						$ \ $				Ш									Ш		A	\★	⋆▲		9										ιl			
26	Review, prepare and implement the template of Power Purchase	1	\Box	\top	\vdash	\top					П			A.A.			⊗ •			П			П		П		\vdash	\top	\top	H	\top	\top	一	+	+	\sqcap	T	\top	\sqcap
20	Agreement	┸	Ш	\perp	Ш	\perp	Ц	_		*	Ц	_	^	* *	×	A	•	Ш	\perp	Ш			Ш	\perp	Ш		Ш	Ш	\perp	Ш	Ш		Ш	$\perp \! \! \perp$	Ш	\perp	Ш	\perp	Ц
27	Prepare and implement directives related to the second stage of power										П		A	**	*		⊗ •								$ \ $							/				ιl			
	purchase agreements Prepare and implement code of conduct for licensees to protect the	╂	Н	+	₩	+	888 S	**	3000		Н	+	Н	-				┩┤	+	₩	+	+	++	+	₩	+	\vdash	₩	+	₩	++	+-'	\vdash	++	+	+	₩	+	\vdash
28	interests of general shareholders									▲ ★	*	\	1	8	Ш										$ \ $											ιl			
29	Conduct studies on power sector improvement and provide policy-level	1	П	\top	\sqcap	\top				\top	П		П		Ħ	П	\top	П	\top	\sqcap	***	**		% %			200	\top	\top	П	\top	\top	一	\top	\top	\sqcap	T	\top	П
23	suggestions to the GoN.	4	Щ	\perp	Ш	\perp	Ш	\perp	\coprod	\perp	\coprod	\perp	\coprod	\perp	\coprod	Ш											×	\coprod	\perp	\coprod	Щ		Щ	\coprod	Ш	\perp	\coprod	\perp	\coprod
30	Provide policy-level suggestions to the GoN on handover of electricity																			*	* *		8																
	projects to the GoN post-generation license period. Issue and implement one or more Directives related to Corporate	╀	\vdash	+	\vdash	+	$\vdash \vdash$	+	++	+	H	+	++	+	++	+	\vdash	200	***				888							++	++	+	+	++	+	+	++	+	+
31	Governance of Licensees as per necessity																							▲ ★	*	*		8	•										
32	Study and identify project risk mitigation options	1	П				П		П	\top	П	\top	П	\top	П			П					П					A	**	*	ŧ.	8	П	П			\prod		П
	Prepare and implement workplan on expansion, diversification, and	╅	\vdash	+	\vdash	+	\vdash	+	╫	+	H	+	++	+	H	+	+	₩	+	++		+	╁╀		3000		*** ****	8						++	++	\vdash	++	+	H
33	promotions of electricity market.																												*	* *	*	8	•						
34	Prepare and implement Regulatory Accounting Standards																									•	*	*	k	⊗ (•								
35	Study of relevance and implementation model of Wholesale Competitive	†	П	\top	П	T	П	\top	П	十	П	\top	П		000000		***			,	*	* *	· · ·		*	+ +	*		* *	8	•		П	\prod	\top	\sqcap	\prod		П
	Market Review the existing Directives on Merger, Acquisition, Takeover, Joining,	╅	\vdash	+	\vdash	+	\vdash	+	╫	+	H	+	╫	-	•	****	888	П	_	Н			+		1											\vdash	++	+	\forall
36	Purchase/Sale of Licenses, etc.																			Ш									*	*	* *	*	**						
37	Prepare and implement Distribution and Metering Code									Т				▲ ★	*	*	*	*	8	•																			
38	Study of implementation model of retail competition included electricity	1	П	\top	\sqcap	\top	П	\top	╽				П	\top	П	П		П		П		***		*				4	44	4.	LL	4 4		- 4	+	+ 0		_	П
30	market	┸	Ш	_	Ш	\perp	Ш	_	Ш	_	Ш	_	Ш	_	Ш			Ш	_	Ш		8		#	Ш			X	× ×	Χ. 2	XX	^ ×	× >		^	^ "		_	Ц
39	Periodically hold public hearings to address public grievances in all						$ \ $		Ш		П		П		П			П		Н			Ш		Н			Ш		П	Ш						П		
	provinces	╫	\vdash	+	\vdash			+	Н	+	Н	+	₩	+	Н			Н	+	Н			₩	+	Н	+	Н	₩	+	H	+	+	+	++	+	+	₩	+	H
40	Measuring key performance indicators of distribution licensees						Ш		Ш		П		П		П			П		Н			Ш		Н			Ш		П	Ш						П		
41	Provide suggestions on matters requested by the GoN						П		П	T	П		П		П			П		П				T				П		П				П			П		П
42	Conduct a study [Update RPGCL's study] on transmission lines capacity	Г							П		П		П		П			П		П	***	**	888	À	4.	L.	+		80					Ħ			П		
7-	requirement for internal consumption and export	╀	Ш	4	Ш	\bot	Ш	4	\sqcup	\bot	Н	\bot	\sqcup	\bot	\sqcup	Ш	4	\sqcup	\bot		***	888			^ /	`^	^	03000	00 300		\perp		\sqcup	+	_	\vdash	\sqcup	_	\sqcup
43	Conduct a study on potential benefits of carbon trade for Nepal (focusing on energy projects)																										300000				*	**	*	9	8	1			
44	Conduct a study on the impact of climate change on Nepal's energy sector		T							T	\prod	T			\prod	\prod		П					\prod				500000				*	**	*		3				
45	Conduct a study on disaster risk resiliency and management of energy	1		\top	$ \uparrow $			\top	$\dagger \dagger$	\top		\top	$\dagger \dagger$	\top	$\dagger \dagger$	\parallel	\top	$\dagger \dagger$	\top	$\dagger \dagger$	\top	\Box	$\dagger \dagger$	\top	\dagger						88	▲ ★	* *	*		8	$\dagger \dagger$		\prod
	infrastructure in Nepal Develop regulatory instruments relating to congestion related	╅	\vdash	+	\vdash	+	$\vdash \vdash$	+		** ***													╫	+	╁	+			**	2000	RER		+	++		\blacksquare	++	+	$\vdash \vdash$
46	mechanism, deviation settlement mechanism, metering mechanism,											•	*	**	A	**	*		*	*	8	•																	
47	Study on Distributed Generation at the Customer-level (especially	1	\sqcap	\top	\sqcap	\top	\sqcap	\top	ΙŤ										*		88	,			+			$\dagger \dagger$	\top	$\dagger \dagger$	\top	\top	一	+	+	\sqcap	$\dagger \dagger$	\top	\sqcap
47	Rooftop Solar PV Installation)																					ď	×	X X	×		o												



ELECTRICITY REGULATORY COMMISSION Nepal