

Overview of National Power Development Program

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Presentation Outline

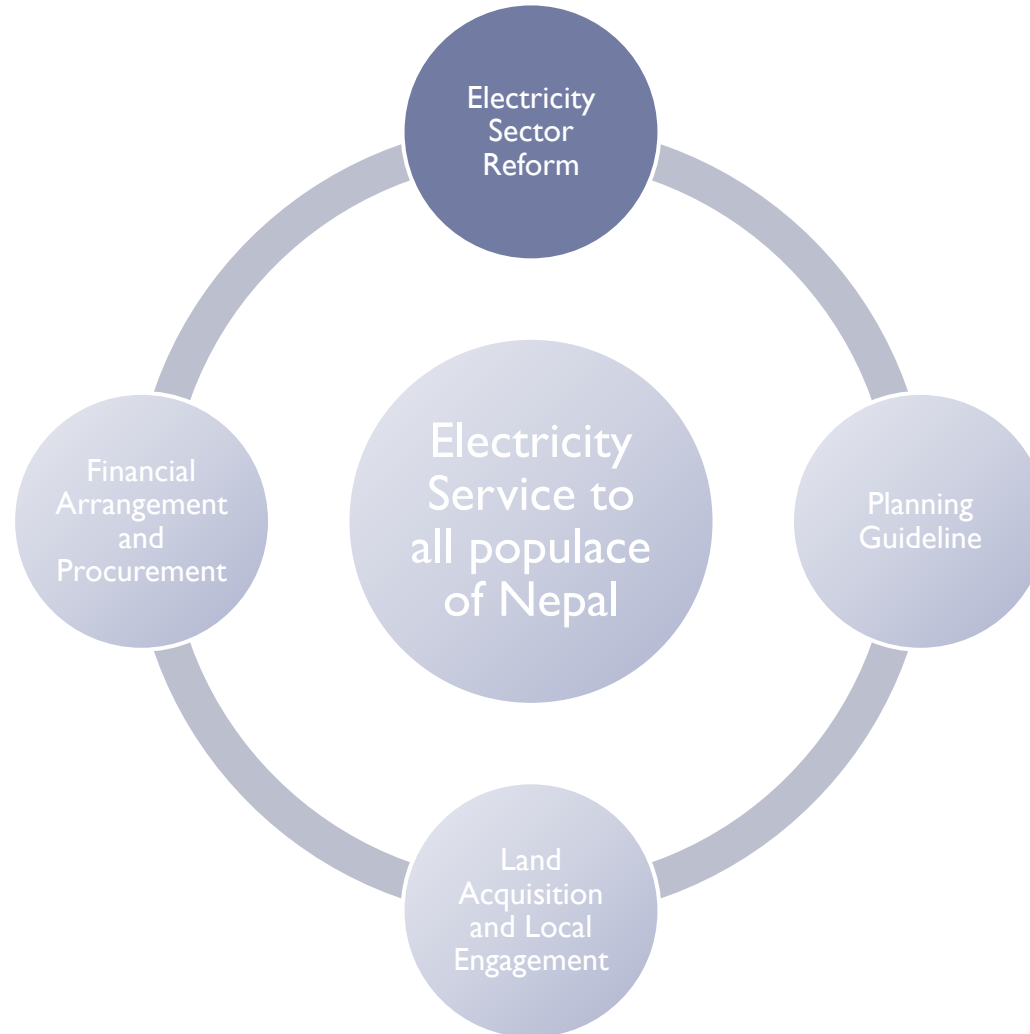


Vision

Recognizing electricity generation, transmission, distribution projects along with related infrastructures development and resettlement activities as national priority projects, provide **affordable, reliable and qualitative** electricity services to all populace of Nepal within the next 10 years.



Electricity Sector Reform



Electricity Sector Reform (1)


Institutional Restructuring and Power Market

- Restructure WECS, MoEn and DoED
- Streamline role of MoEn and IBN
- Establish NERC to regulate the reformed electricity industry
- Reform power sector by operationalizing National Transmission Grid Company Lt, establishing National Power Trade Company, National Electricity Generation Company, Holding companies of NEA on generation and distribution side
- Institutionalize Rural Electrification and energy efficiency program
- Establish a competent engineering consulting firm at govt level.



Electricity Sector Reform (2)

Reform in Licensing Regime, Tariff, PPA, EIAs/IEEs

- Establish issuance of licenses in consonant with transmission master plan and authorize DG of DOED to issue licenses up to 25 MW and up to 132 kV level T/L projects.
 - Align electricity tariff and PPA rate of PROR and Storage projects to accommodate effect of weather and time
 - Determination of wheeling charge
 - Ensure guarantee on payment in lieu of power purchase by NEA
 - Adopt principle of “Take or Pay” instead of “Take and Pay” in PPA and streamline provision of escalation rate across all the capacities in PPA
 - Simplification of documentation requirement of PPA , study, approval process and supplementary documentation in relation to IEEs/EIAs of the projects.
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Electricity Sector Reform (3)

Coordination and Administrative Arrangements

- Establishment of overall and interagency coordination mechanism at different administrative level – Prime Minister, Energy Minister, Chief Secretary, Joint Secretary (Focal at relevant Ministries), and District Level
- Simplification of various administrative procedures related to foreign exchange facilities, granting of different permits, security arrangements, permit to conduct study in the protected areas, approval of trees felling and land lease.
- Formulation of integrated plan on construction/ extension of distribution line in public land.
- Formulation of detailed work plan and monitoring plan.
- Arrangements to outsource to help implementing the plan



Electricity Sector Reform (4)

Improvement in legislative framework and policies

- Revision of Electricity Act and formulation of NERC Act.
 - Formulation and implementation of Energy Crisis Bill
 - Amendment in land ownership ceiling for hydropower and transmission line projects.
 - Enactment to address any obstruction during study, development and construction of projects related to electricity as a public crime
 - Amendment in Electricity Theft Control Act, 2002.
 - Formulation of National Energy Security Policy
 - Harmonization of Financial Administration Bylaw of NEA with Public Procurement Act and Rules
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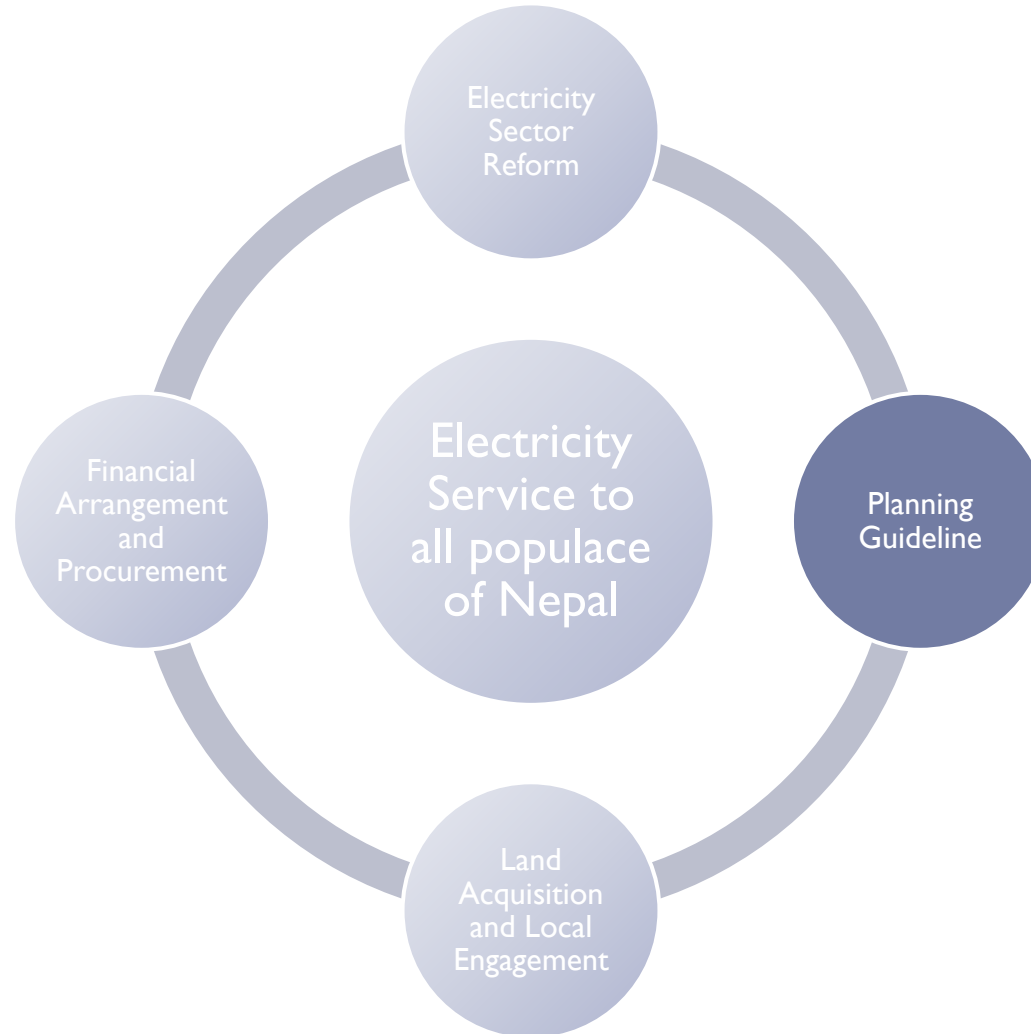
Electricity Sector Reform (5)

Concessions / Waivers

- Incentivizing by providing 50 lakh Nrs/ MW for hydropower projects intending to supply electricity for domestic use that are realized within 10 years.
- Income tax exemption for the projects that are realized within 10 years
- Reimburse NEA for the loss accrued from import of electricity and operation of thermal plant.
- Incentivize the projects affected by devastating flood and earthquake.
- Arrangement to utilize the Industry Revitalization Fund for electricity sector.




Planning Guideline



Planning Guideline(1)

Generation Mix and Load Forecast

- Adoption of specific generation mix in Nepal Power System (Storage : 40-50 %, PROR : 15-20%, ROR : 25-30%, Other Sources : 5-10%)
 - Allow to generate electricity from diesel plant for industrial activity
 - Project actual electricity demand
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Planning Guideline (2)

Generation Project (Prioritization and Ranking)

- Completion of under construction project of total capacity 1450 MW within next 3 years
- Development of storage projects on EPCF model
- Special arrangement to develop storage projects identified in protected area
- Development of reserved hydropower projects through competitive bidding



Planning Guideline (3)

Transmission System Strengthening, cross border trade / exchange

- Approve Transmission Line Master Plan, including River Basin Corridor Transmission Line, East West Transmission Highway and Cross border Transmission line and employ BT model to develop selected lines.
- Nepal Army to mobilize to expedite construction of certain transmission lines
- Additional import of electricity in tune of 100 MW by upgrading existing transmission link.
- Expedite construction of T/Ls that feed Kathmandu Valley
- Stage wise upgradation of DM C/B line along with other associated transmission system
- Implementation of other high voltage C/B T/L per master plan and development of new electrical connectivity route to strengthen the national power system
- Development of 400 kV voltage level substation
- Ensure electricity supply to industrial zone



Planning Guideline (4)

Distribution System Improvement and Demand Side Management

- Preparation and implementation of Distribution Master Plan which will also encompass modern technologies like smart grid, smart meter, TOD meter, single point metering in large apartment buildings, development of underground and indoor distribution network, upgrading of existing distribution system
- Development of plan to extend and strengthen electricity distribution system in Kathmandu Valley.
- Preparation and implementation of electricity conservation program
- Perform technical audit of large electricity consumers
- Preparation and implementation of work plan to control electricity theft.



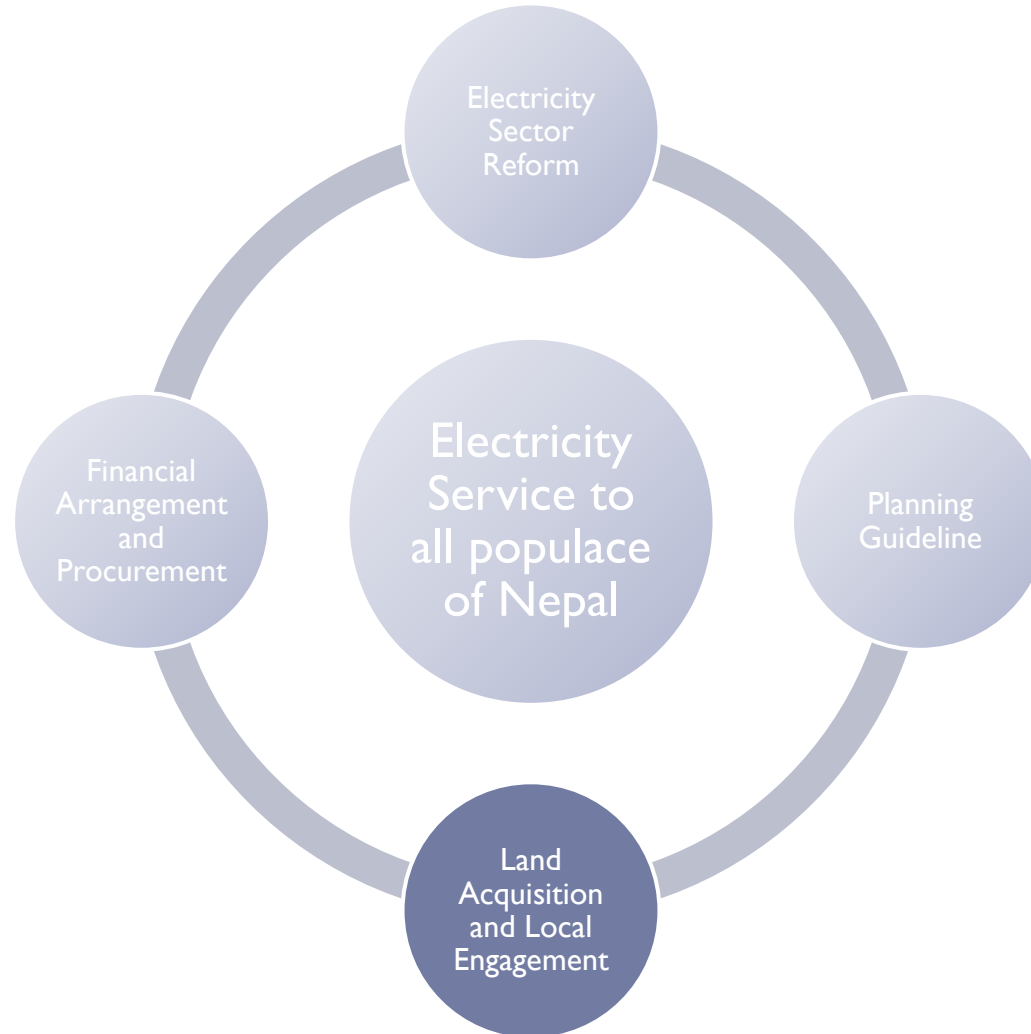
Planning Guideline (5)

Renewable Energy

- Cogenerated electricity produced by sugar mills to be purchased by NEA.
 - Up to 10% capacity of grid connected electricity will be injected in the grid which are generated from solar and wind sources.
 - NEA to buy electricity generated from solar and wind resources on competitive basis.
 - PPA for electricity from solar and wind resource would be for 25 years based on “Take or Pay” principle.
 - Incentivize the installation of off grid solar and roof top solar through grant and soft loan.
 - Incentivize on the PPA rate for the projects that generated electricity from waste.
 - Incentivize commercial farming of biofuel.
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Land Acquisition and Local Engagement



Land Acquisition and Local Engagement(1)

Land Acquisition, addressing local social concerns

- Preparation of additional compensation mechanism for the loss of land under the ROW of transmission line.
- Special arrangement to be in place to relating to land acquisition for hydropower projects, transmission lines and substations
- Mechanism to review the recommendation of land compensation determination committee will be in place.
- Mandatory arrangement to allocate resources for community support program in EIA/IEE document.



Forest Conservation

- While providing forest area on lease, “land for land” or “monetary compensation for land” will be employed.
- For watershed conservation a certain percentage of royalty will be allocated for Ecosystem Services.

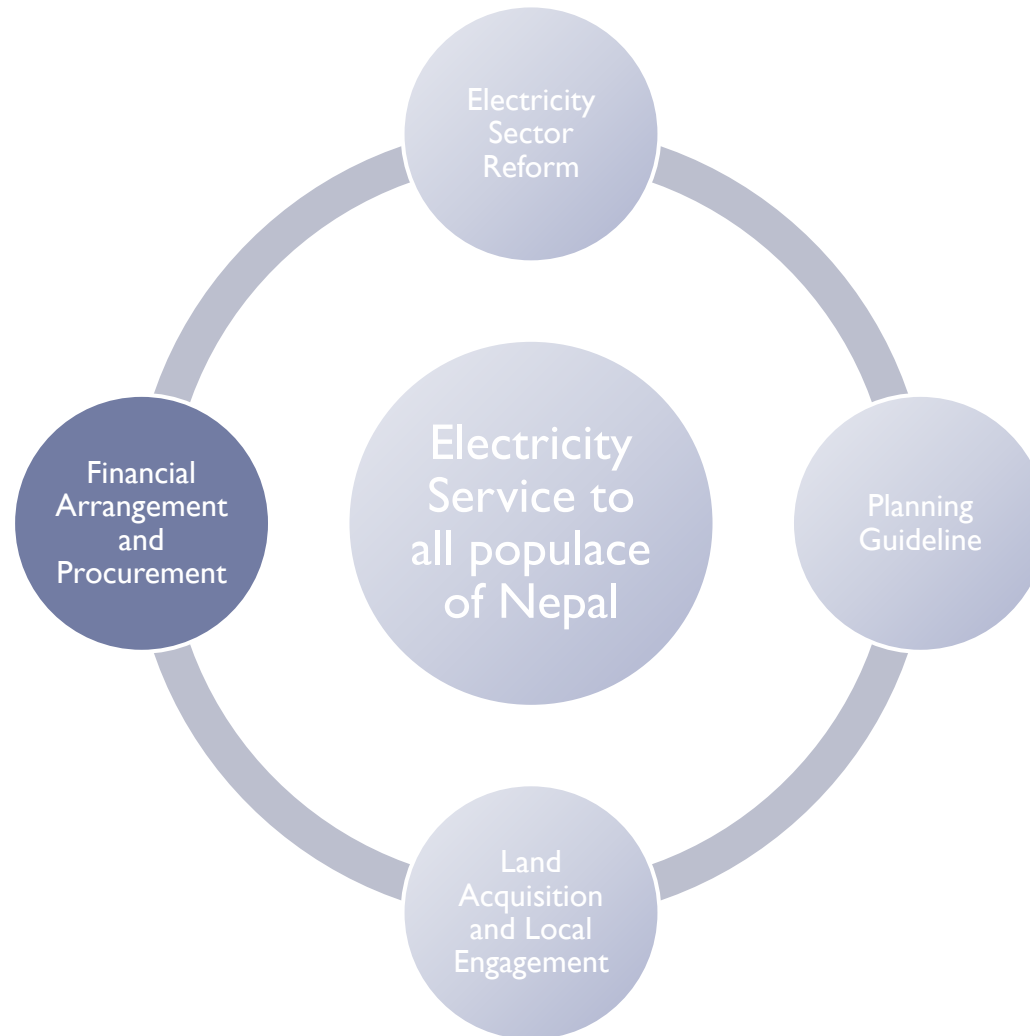


Local engagement in project development

- Transmission facilities to be provided for the projects up to 3 MW that are operated at local level
- Allocation of 10% share on equity for the communities and people of affected districts.



Financial Arrangement and Procurement



Financial Arrangements and Procurements

Financial Resource Mobilization

- Identify and mobilize internal resources for investment in hydropower projects
- Encourage govt. financing institutions to invest more on hydropower project
- Mobilize peoples resources by the way of distributing shares to public
- Set mechanisms to mobilize remittances
- Invite foreign investment for project development through EPCF model
- Execute PPA of hydropower projects in Foreign Currency to attract foreign investment.



Financial Arrangements and Procurements

Procurement Process Improvement

- Adoption of single stage two envelop procurement method
- Adoption BT model for transmission line construction



To Conclude:

- ▶ Execution of National power development programs top priority of the state.
- ▶ The programs have been supported by and large by the recent budget.
- ▶ The action plans for executing the programs are thus the funded ones.
- ▶ MoEn has already started implementation of the programs and will continue to do till the set objectives are met.



Thank You !

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