

Legal and Policy Environment for Private Sector Participation in the Power Sector in Nepal

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Nepal is bestowed with immense hydropower potential. Of the total theoretical potential of 83,000 MW only about 43,000 MW is techno-economically feasible, out of which storage projects constitute about 49% and the remaining 51% are run-of-river projects. However, with increased demand for system regulation and new export opportunities opened, peaking storage plant capacities could be significantly increased.

Nepalese hydropower projects have mostly been non-consumptive and are located in the hills. With the development of hydropower, a few cases of adverse effects in utilizing water for consumptive purposes have been documented. To deal with them, laws and regulations are being constantly updated and reviewed.

National water resources strategy

Realising that the development and management of water resources should be undertaken in an holistic and systematic manner aimed at the sustainable use of the resources ensuring conservation and protection of environment, Nepal has adopted the National Water Resources Strategy. This Strategy provides the country with a directional guideline of water resources development over the next 25 years. In order to translate the key outputs identified by the Strategy into concrete action plans, a National Water Plan has recently been adopted by the government. The Plan has set some targets to be fulfilled in a stipulated time frame. The main highlights of this Plan are summarized as follows:

Targets by 2017

- Up to 2,035 MW hydropower electricity is developed to meet the projected domestic demand at base case scenario, excluding export;
- 50% of households are to be supplied with Integrated Nepal Power System (INPS) electricity, 12% by isolated (micro and small) hydro systems, and 3% by alternative energy; and
- Per capita electricity consumption of 160 KWh will be achieved.

Targets by 2027

- 4,000 MW of hydropower is developed to meet the projected domestic demand at base case scenario, excluding export,
- 75% of the households are to be supplied with INPS electricity, 20% by isolated (micro and small) hydro systems and 5% by alternate energy,
- Per capita electricity consumption of over 400 KWh will be achieved, and
- Nepal exporting substantial amounts of electricity to earn national revenue.

Hydropower development policy

The Government is pursuing water resources development in Nepal from three different approaches. Firstly, to develop small and decentralized hydropower projects to meet the local demands in remote and isolated regions of the country. Secondly, to develop medium sized power projects to meet the national demand within the national grid including surplus for export, and to develop local capacity. Thirdly, large-scale multi-purpose projects to meet the regional demand for food, energy and flood control. With this vision, the Government has adopted the Hydropower Development Policy of 2001 for attracting both local and foreign investment. The following are the main highlights of this Policy:

Objectives

- To generate electricity at low cost by utilizing the water resources available in the country,
- To link electrification with the economic activities,
- to render support to the development of rural economy by extending rural electrification, and
- to develop hydro power as an exportable commodity.

Management of investment risk

- No nationalization of Projects.

- Exchange facility (*to repatriate*).
- Government land on lease.
- Water rights.
- Government may be a partner in storage project.
- Transfer of project.
- Export of electricity.

Provision for internal electricity market

- For private sector operated hydropower projects with capacity up to one MW and not linked to the grid, the independent power producer (IPP) may sell and distribute the electricity by determining the tariff rate of the electricity on its own.

Provision relating to visa

- Non-tourist visa and work permit shall be provided to the investor of hydropower project, his/her authorized representative and necessary foreign experts, skilled manpower and their families as provided for in the agreement until the construction and operation of the project.

Government agencies in the power sector

The following are the main agencies for development in the power sector:

- Ministry of Water Resources (MOWR).
- Water and Energy Commission Secretariat (WECS)—planning and policy research.
- Department of Electricity Development (DOED)—licensing, facilitation, promotion, compliance monitoring, project study.
- Nepal Electricity Authority (NEA)—public utility for generation, transmission and distribution of electricity.
- Electricity Tariff Fixation Commission (ETFC)—tariff setting.

Moreover, for the promotion of hydropower projects, the DOED has been designated as 'One Window' under the MOWR, with these responsibilities:

- Issuance of survey and project licenses,
- Providing concessions and incentives,
- assistance in importing goods,
- assistance in obtaining land, and
- assistance in obtaining permits and approvals.

Licensing procedures

The Electricity Act of 1992 has set following time limits for the issuance of licenses:

- Survey license issued within 30 days.
- Period of such license up to 5 years.
- Project license issued within 120 days.
- Period of such license up to 35 years.
- Public consultation before issuance of project license.

Application process for generation/ transmission/distribution

Application process for hydropower projects from 100 kW-1,000 kW

- For a project with capacity in this range no license is required. However, the proponent needs to submit project related information to the MOWR through the DOED. In addition, he/she has to submit desk study report, (topographic map, area of distribution, number of beneficiary, information of other water use, boundaries of survey area, recommendation from VDC/municipality/work schedule; Letter of Interest for the Power Purchase Agreement, financial evidence).

License application process for hydropower projects >1,000 kW

For the development of projects with the capacity more than 1000 kW, the proponent has to obtain:

- *Survey License*
 - To study generation, transmission, distribution survey of a project.
- *Operation License*
 - Production License (for construction and operation of a production facility),
 - Transmission License (for construction and operation of a transmission),
 - Distribution License (for construction and operation of a distribution facility).

Supporting documents required to obtain generation/transmission/distribution license

The proponent will be granted Generation, Transmission, or Distribution License with the submission of following documents:

- *Feasibility Study Report, including:*
 - detailed description of the project,
 - description of related transmission line to evacuate power, and
 - approved IEE/EIA Report from concerned Ministry.
- *Detail Financing Plan, including:*
 - estimated cost of the project,
 - financial capability of the investors of the project,
 - commitment of the financial institutions to be involved directly in the project,
 - percentage of liability of investor, and
 - equity and debt ratio.
- *Power Purchase Agreement*
- *Other Requirements*
 - Certificate of registration,
 - memorandum of article,
 - memorandum of association,
 - industrial registration certificate,
 - PAN (permanent account number), and
 - details of technical capability.

Steps to be taken by the proponent after obtaining generation/transmission/distribution license

Once the proponent obtains the Generation, Transmission, or Distribution License he would have the following obligations:

- Start construction work within 1 year,
- Complete financial closure within 1 year of license issued date,

- Submit bi-annual progress report until construction is completed,
- Testing and commissioning,
- Start commercial operation,
- Pay royalty (Production licensee).

Marketing electricity

For the sale of electricity, two types of markets, domestic and export are available. In order to sell the electricity, the proponent does it through a Power Purchase Agreement (PPA) with the NEA.

For the export of electricity, bi-lateral arrangements exist with the neighboring India. The following are the provisions of the current power exchange arrangement:

- presently about 50 MW,
- agreed in principle to increase to 150 MW,
- 132 kV links available at two points, and
- 220 KV additional links identified.

Status of licenses issued

By June 2006, the number of licenses issued to developers by the Government of Nepal, including NEA-operated projects, is as follows, by category:

▪ Survey License for Generation	230
▪ Transmission Survey	57
▪ Distribution Survey	12
▪ Generation	19
▪ Transmission	19
▪ Distribution	1
▪ Generation, transmission and distribution (including NEA old plants)	18

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