

**ENERGY
CATALYST**

Country Guide: Nepal

June 2020



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The Federal Democratic Republic of Nepal, located in South Asia, is a landlocked country bordered by China in the north and India in the south, east and west. The country can be divided broadly into three ecological zones: the lowland (Terai), the midland (Hilly), and the highland (Himal), covering 23%, 42% and 35% of the total land area of the country. It is endowed with natural water resources with around 6,000 rivers and 163 wetlands. Nepal is highly susceptible to natural disasters such as earthquakes, floods, and landslides due to its geological structure, which impacts the sustainability of infrastructure.



Figure 1: Map of Nepal. Source: d-maps

In 2008, Nepal abolished monarchy and became a republic. The governance and political structure in Nepal are based on the principles of a parliamentary republic with a multi-party system. The constitution of Nepal defines the distribution of administrative and executive functions between the federation, the state, and the local level. The administrative division comprises of seven provinces and 77 districts. It is a member of the South Asian Association for Regional Cooperation (SAARC), South-Asia Cooperative Environment Program (SACEP), the United Nations and G77, among other global associations.

The climate of Nepal is comprised of a wide range of weather conditions across a varied topography from the tropics to the alpine region. It can be classified into five climatic zones based on elevation: tropical and sub-tropical, temperate, cold, sub-arctic, and arctic. The warmest region is Terai, with the average temperature subsequently decreasing by 6°C for an altitude gain of 1,000 metres. The department of hydrology and meteorology has demarcated five seasons in the country that include winter (December - February), spring (March, April), summer (May - July), monsoon (June - September), and autumn (October and November).

Economy

Nepal is one of the least developed countries in the world with a low gross national income per capita amounting to USD \$745 as of 2018. The country aspires to transition to a developing country by 2021. Its GDP is highly dependent on foreign remittances, trade and tourism. Post 2015 earthquake, economic growth in Nepal improved, with an average rate of 7.3% between 2017 and 2019. However, it is expected that the growth rate could fall by 1.5% to 2.8% in FY 2020 and remain subdued until FY 2021, due to the decrease in trade and tourism and lower remittances and disruptions caused by the COVID-19 outbreak. Still, Nepal has made steady progress in reducing poverty. Between FY 2010 and 2019, the estimated poverty headcount ratio (at the \$1.90 per person per day international poverty line) declined from 15% to 8% at the international poverty line. Between 1990 and 2018, Nepal's HDI value increased by 52.6% with an increase in the country's life expectancy at birth by 16.1 years, mean years of schooling by 2.8 years and expected years of schooling by 4.7 years.

In the annual World Bank survey on "Doing Business", a comparison of business regulations in 190 economies, Nepal secured 94th position in 2020, jumping 16 places from the previous year. This is mainly

attributed to reforms in the areas of getting credit, dealing with construction permits, trading across borders, and enforcing contracts. The study ranks Nepal as 135 out of the 190 countries with a score of 81.7 out of 100 for the ease of starting a business. Figure 2 provides a comparison of Nepal to similar economies for starting a business.

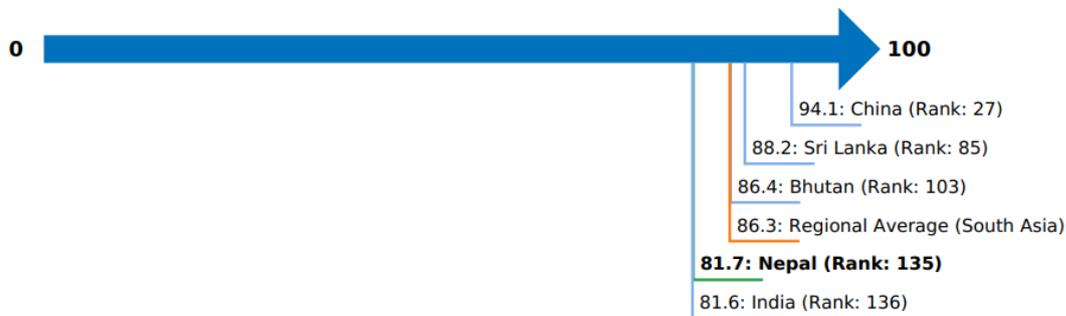


Figure 1: Doing Business 2020 score for starting a business. Data from: World Bank Group, 2020

The energy sector in Nepal

Nepal relies heavily on traditional sources of energy as it has no significant deposits of fossil fuels. The major sources of primary energy are hydroelectricity, biomass, natural gas, coal, and petroleum products. The energy consumption mix in the first eight months of 2018-19 depicted dominance of traditional sources of energy (firewood, agricultural resources, and cow dung) with a 68.6% share. Energy consumption by commercial (electricity, coal and petroleum products) and renewable sources was 28.2% and 3.2% respectively. During this period, consumption of energy by the household sector stood at 42.6% followed by 38.3% by the industrial sector. The remaining was distributed across the sectors of agriculture, transport, and commercial and public services. Factors like rising economic growth, a growing rate of urbanisation, improving standards of living, and increasing use of transportation have contributed to the increasing demand for energy in the country. The total energy consumption in FY19 increased by 13.89% from the previous year, resulting in a rise in energy imported from India by 8.96%. In 2018-19, the total energy available was 7,551.23 GWh, of which 33.75% was contributed by the National Electricity Authority (NEA), 32.75% imported from India, and 29% accessed from independent power producers (IPPs) within Nepal. The main challenges faced by GoN in meeting the required demand is the inadequate energy supply, mainly due to delays in execution of projects, inability to attract foreign direct investment and political instability in the country.

As per the [Annual Report \(2018-19\)](#) of Alternative Energy Promotion Centre (AEP), Nepal had electrified 87.55% of the population, of which 77.8% was enabled through the grid and 9.75% mainly through off-grid renewable energy systems (solar and micro hydro). The Government of Nepal (GoN) aims to achieve 'Electricity for All' by 2023. As per a report prepared by the Ministry of Energy, Water and Irrigation (MoEWRI) in 2018, GoN has a target to generate 15,000 MW of electricity by 2028. Some of the key policies and strategic documents governing the energy sector in Nepal are the [Rural Energy Policy \(2006\)](#), [Renewable Energy Subsidy Policy \(2016\)](#), [National Renewable Energy Framework \(2017\)](#), [Biomass Energy Strategy \(2017\)](#) and [National Energy Efficiency Strategy \(2018\)](#). To support financing of renewable energy initiatives, the Alternative Energy Promotion Centre (AEP) established the [Central Renewable Energy Fund](#). This fund mobilises finances from government agencies and development partners and enables provision of subsidies and loans to market players for investing in renewable energy projects.

As of August 2019, the grid-connected installed power generation capacity in Nepal was 1,182.2 MW. This constituted 1,124.2 MW from large hydropower, 4.5 MW from isolated small hydropower, 53.41 MW of thermal power generated from diesel, gas, or coal, and 0.1 MW from solar. A detailed list of installed, ongoing and planned projects for generation of electricity is provided in [NEA's Annual Report 2018-19](#), also referenced in the section on Further Reading.

The 15th period plan of GoN (FY 2019 to FY 2024) aims to increase the contribution of renewable energy sources to 12% of the total energy in the country. GoN has committed to achieving 80% electrification through renewable energy sources with an appropriate mix and reduce dependency on fossil fuels by 50% by 2050, as per the Nationally Determined Contribution (NDC) that it has submitted to UNFCCC, outlining its climate action plans.

Table 1: Nepal at a glance

Capital	Kathmandu
Total Area	147,180 km ²
Population	28.08 million (2018)
Official languages	English, Nepali
Rural Population	80% (2018)
GDP	USD 29.04 billion (2018)
GDP Per Capita	USD 1,033.91 (2018)
Currency	NPR (Nepalese Rupee)
Exchange rate 01/03/2020	1 USD= 115.52 NPR
Exchange rate 01/03/2018	1 USD= 104.28 NPR
Access to Electricity	87.55% (2018-19)

MW at the local level in Nepal by 2024. The MoEWRI White Paper (2018) proposed the establishment of a challenge fund to support financing of solar power plants being developed by local bodies to build 100 - 500 kW capacity solar PV plants in all 753 local governments. The report also states that the challenge fund would grant 50% of the cost of the solar plants up to a total generation capacity of 200 MW.

In 2012, Nepal launched the National Rural and Renewable Energy Program (NRREP) with international funding from donor agencies, initially for a period of five years. This programme aimed to provide access to energy across rural areas by implementing renewable energy technologies based on solar, hydro and biomass sources. This has been continued by the GoN under its National Renewable Energy Framework (NREF). The GoN has implemented various other programmes and projects with co-financing from development partners to harness solar energy such as the Renewable Energy for Rural Livelihood (RERL) project, Promotion of Energy Efficiency and Renewable Energy, Renewable Energy for Rural Areas (RERA), and the Nepal Renewable Energy Program (NREP). The GoN also implemented a Clean Energy Program targeted at installation of solar home systems (SHS) for disadvantaged groups across Nepal. All these programmes and projects are implemented by the AEPC. The details of these are available on the AEPC website, while key insights are provided below.

Solar power

Nepal is endowed with a solar radiation intensity of approximately 3.9-5.1 kWh per sqm per day and average peak sun hours of 6.8 hours/day. Until August 2019, total solar on-grid installed capacity in Nepal was only 0.1 MW. The off-grid solar electrification projects implemented by AEPC in 2018-19, enabled access to electricity for over 75,000 households in rural areas.

While the GoN has committed to producing 2,100 MW of solar energy by 2030, as per its NDCs, the 15th period plan of GoN (2019 to 2024) has a conservative target to improve access to electricity from solar energy to 127

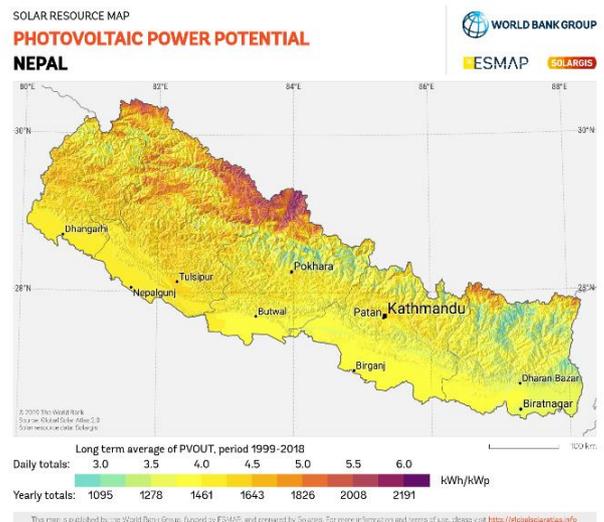


Figure 3: PV Potential for Nepal. (2019 The World Bank, Source: Global Solar Atlas 2.0, Solar resource data: Solargis)

Off-grid solar: The off-grid solar market in Nepal is dominated by small solar home systems (SSHS), solar home systems (SHS) for domestic use, and institutional solar PV systems (ISPS). Under the Renewable Energy Subsidy Policy, the GoN provides subsidies in the range of NPR 4,500 – 5,000 depending on the area of intervention for SSHS (10 - 20 Wp). For SHS of more than 50 Wp, the subsidy lies in the range of NPR 8,000 – 10,000 based on area of intervention. This policy also provides up to 65% of the total systems cost of ISPS installed in institutions in rural areas. Up till 2019, AEPC had installed 952,903 SSHS/SHS and 2,512 ISPS across 75 districts in Nepal, under various projects and programmes supported by the GoN and development partners. In 2018-19, AEPC also installed 22 solar streetlights at places of national and religious importance. Some of the prevalent market players for SHS and solar PV systems in the country are [Gham Power Nepal Pvt. Ltd.](#), [LS Solar Asia Pvt. Ltd.](#) and [Surya Power Company Pvt. Ltd.](#).

Solar rooftop: The Urban Solar Rooftop Programme of the GoN supports the provision of subsidies and loans to commercial enterprises and households for installation of solar rooftops. Solar rooftop systems with a capacity equal to or more than 200 Wp installed for domestic purposes are provided a capital subsidy of NPR 20,000 and a 75% interest subsidy in case of capacity more than 500 Wp. For commercial purposes, capital subsidy amounts to NPR 20,000 along with a 50% interest subsidy for solar rooftop system capacity of more than 1,500 Wp. This initiative had supported installation of around 600 rooftop solar systems in Nepal by 2016. In 2018-19, the AEPC supported provision of subsidy for five rooftop solar systems for connection to the grid. There are around 97 companies in Nepal providing solar rooftop systems. Some of the prominent players include [Aarambha Energy and Electronics Pvt. Ltd.](#), [Sun Farmer Pvt. Ltd.](#) and [Sunshine Energy Pvt. Ltd.](#).

Productive use technologies: Under various initiatives for the promotion of renewable energy technologies in Nepal, the AEPC installed 190 PV Pumping Systems (PVPS), 306 solar based irrigation systems and 2,386 solar dryers/cookers by 2019. To support the enhancement of solar for productive use, the GoN provides subsidies for productive use technologies. For instance, the government offers a maximum subsidy of up to 60% of the total costs of up to NPR 2,000,000 for PV pumping systems for the irrigation of agricultural land managed by a community or private company. The major market players providing productive use technologies in Nepal are [Sun Farmer Pvt. Ltd.](#) (no-for profit) and [Gham Power Nepal Pvt. Ltd.](#)

In recent years, there has been a surge in development of solar projects due to reforms in policies toward supporting development of the solar sector. However, the sector faces various challenges. Considering the abundant availability of water resources and potential for hydropower, there has been less focus on expansion of the solar sector in Nepal. There are also significant economic and market barriers which impact the growth of the solar sector, such as lack of availability of land to construct large-scale solar projects, limited market size and poor private sector investment. Additionally, poor mechanisms for institutional financing and consumer financing coupled with high distribution and transaction costs of providing services in remote rural areas adversely impacts the off-grid solar sector. For promotion of solar water pumps and irrigation systems in Nepal, the key barriers are high upfront capital investment, limited awareness about the technology, and a lack of maintenance and repair services.

Small hydropower (SHP)

Nepal has a potential to harness 100 MW of power through micro hydropower projects (MHPs), especially in rural areas that lack grid connectivity. The hydropower plants fit into three categories based on their capacity: pico hydro (<10 kW), micro hydro (>10 kW – 100 kW), and mini hydro (>100 kW – 1 MW). The AEPC is the main institution mandated to seek potential sites for development of small and micro hydropower in the country. The national target as per the NDC is to generate cumulative electricity of 50 MW from small and micro hydropower plants. The 15th period plan of GoN has a target to provide access to electricity consisting of 13 MW of micro and mini hydro power.

The ADB funded South Asia Sub-regional Economic Cooperation (SASEC) System Expansion Project aims to enhance off-grid electrification by developing 4.3 MW of micro/mini hydro projects by 2022.

As of August 2019, the installed capacity of isolated small hydropower plants connected to the grid by NEA was 4.5 MW. In addition, by 2019, AEPC had installed 32.77 MW of micro/mini hydropower projects (primarily off-grid). In 2018-19, the functional MHPs implemented by AEPC generated 1,453 kW of electricity in rural areas. The majority of these MHPs are developed under a private-public partnership (PPP) model with the community involved in the implementation of the project. AEPC has also begun installing MHPs under a community-owned and privately managed model.

The key policy governing the development of this sector is the Hydropower Development Policy (2001), which focuses on the development of projects through the BOOT (Build, Operate, Own and Transfer) model, enabled by private sector investment and provision of incentives to local governments/institutions for small hydropower projects. Specifically, for mini/micro hydropower projects, this policy gives exemption on royalties, licensing requirements and income tax for plants up to 1 MW. This sector also gained momentum with the establishment of the Renewable Energy Subsidy Policy in 2016, which has the following provisions for mini/micro hydropower projects:

- Subsidy for community, cooperative, PPP owned mini/micro hydropower disaggregated by the category of region; NPR 28,000 – 35,500 for construction of distribution network per household; and NPR 80,000 - 125,000 for equipment for the generation of power per kW.
- Subsidy for community, cooperative, PPP owned mini/micro hydropower between 40 - 55% for energy consumed per kWh with variance in rate based on the region of intervention.
- Subsidy for pico hydropower up to 10 kW disaggregated by the category of region: NPR 10,000 – 11,500 for construction of distribution network per household, and NPR 50,000 - 95,000 for generation of power per kW.

To further support financing and enable private sector lending, a Micro Hydro Debt Fund (MHDF) has been established under AEPC supported by GIZ since 2011. The total value of the fund is 542,000 Euros. This is channelled via two commercial banks, the NMB Bank and the Himalayan Bank in Nepal. The banks provide credit to communities at subsidised interest rates to cover their contribution of the cost of the MHP in their area. Furthermore, the SASEC project facilitates financing by enabling a credit line of USD \$5 million, accessed from the ADB's Special Funds for the development for mini hydro projects.

Some of the market players in micro hydro projects listed by [Nepal's micro hydropower development association](#) and [AEPC](#) include [Nepal Energy Development Private Company Limited](#), [Cream Hydel Pvt. Ltd](#) and [Nepal hydro developer limited.](#), among others.

Despite a favourable policy environment, the micro/small hydropower sector faces some critical barriers that impede its development. These include aspects influencing sustainability i.e. ensuring repair, maintenance, and load management, an increasing risk of abandoned assets due to expansion of grid connectivity, and market supply barriers such as high cost of transportation, lack of standardisation of products, poor quality control and low load factor.

Bioenergy

Under the Nationally Determined Contribution submitted to UNFCCC, the GoN has set a target of achieving 220 MW of bioenergy and improving the share of biogas for cooking purposes in rural areas by 10% till 2030. This exemplifies the high potential of creating biomass power in Nepal. By 2019, the AEPC had installed 220 large biogas plants (>12 cum) and 431,629 household level biogas plants (2 cum to 8 cum). These have been largely used by households for cooking and heating purposes and as replacement of liquified petroleum gas as fuel in the commercial and industrial sector. There are only a few industries

that have established the biomass gasifier electrification and cogeneration process to supplement the inadequate supply of electricity from the grid.

Over the past three decades, the GoN has been promoting and endorsing biogas programmes through its Biogas Support Programme. This aims at installation of community, domestic and institutional level biogas plants. In 2017, it launched the Biomass Energy Strategy to pave the way for further development of the biogas sector. The four key strategies outlined aim at improving the access to clean cooking technologies by promoting modern biomass energy sources; enhancing the production of sustainable biomass energy; increasing the efficiency in use and production of biomass energy; and enabling substitution of fossil fuels with biofuels. This propels the sector towards the production of biomass power.

Additionally, since 2014, the World Bank has supported the Extended Biogas Project in Nepal, through its Scaling-up Renewable Energy Programme (SREP). The overarching objective of this project is to encourage off-grid biogas energy generation through large biogas plants. It targets generation of 30 GWh of electricity through off-grid biogas plants by 2021, of which AEPC had achieved 2.40 GWh by 2019. Currently, the AEPC is supporting development of two biofuel processing plants and conducting biofuel pilot projects in rural areas to generate awareness amongst communities on use of biofuels.

The biogas sector has seen an upsurge in growth with more than 122 local domestic biogas construction companies in Nepal. Two of the key players in the market are [Gobar Gas Company \(GGC\) Public. Ltd.](#) and the [Rastriya Gobar Gas \(RGG\)](#).

The biogas sector has benefitted from the provision of subsidies and credit by the GoN through its various initiatives. Under the Renewable Energy Subsidy Policy, biogas companies can claim subsidies for domestic plants in the range of NPR 16,000-25,000, NPR 20,000-30,000 and NPR 24,000-35,000 for plants of capacity 2 cum, 4 cum and 6 cum and above, respectively. For larger biogas plants, subsidies vary based on their location of operation (commercial, institutional, community, and municipal waste-to-energy) and amount of thermal application produced per cum. There is an additional subsidy for generation of electricity.

In 2000, a Biogas Credit Fund (BCF) was established by KfW to grant sub-loans to farmers who are unable to cover the cost of biogas plant by themselves. This credit is being channelled through more than 300 microfinance and local finance institutions.

However, progress in the biogas sector has been adversely impacted as there has been limited effort by the government to promote biomass energy production and generation, mainly due to lack of data on the operational status of plants and poor coordination among the stakeholders in the energy sector. The development is further hindered because of poor consumer awareness, low purchasing power among end users, and the lack of relevant policy and regulatory frameworks.

Wind power

In Nepal, wind energy remains a highly underutilised resource with only a limited number of small wind installations and no large-scale wind farms. The commercially viable potential of wind energy is estimated at 448 MW, mostly in high altitude areas with the requisite wind speeds. The 15th period plan of GoN aims at 10 MW wind energy at the local level in Nepal by 2024.

At present, AEPC is promoting wind-solar hybrid systems for the generation of electricity. In 2018-19, the wind-solar hybrid systems installed by AEPC with support from ADB produced 30 kW of electricity. To provide impetus for the generation of wind energy in Nepal, the MoEWRI allocated a budget of NPR 100 million to AEPC in FY 2019-20. This budget is expected to be utilised for conducting feasibility studies for wind power projects and setting up 2 MW wind turbines in the Kailali district of Nepal.

To promote development of the wind sector, the GoN provides subsidies for the installation of wind power plants generating up to 100 kW of electricity and off-grid solar-hybrid systems with a capacity of 5 kW up to 100 kW. This has been promoted under the Renewable Energy Subsidy Policy of 2016. However, these subsidies have had partial impact in promoting development of the wind sector in Nepal. A major bottleneck affecting growth of the wind sector is the non-regulation of small wind turbines in Nepal. Some of the other key challenges include lack of transmission lines, poor road infrastructure, delays in land acquisition and environmental clearances, limited incentives for private sector investment, lack of standards and guidelines on technology, high cost of installation and maintenance in high altitude areas and absence of national level data on viable sites.

In 2019, the AEPC prepared a [list of companies](#) engaged in the manufacturing and installation of small wind power projects. The key market players include [Wind Power Nepal Pvt. Ltd](#) and [Sustainable Energy and Technology Management Pvt. Ltd.](#)

RE mini grids

The mini grid sector in Nepal consists of micro/mini hydropower projects, solar and wind hybrid systems, and solar PV systems. By September 2019, the country had installed 11 solar PV mini-grids of 381 kWp, and 10 solar wind hybrid mini-grids of 334 kW. A recent study conducted in 2019 computed the market potential for solar and wind hybrid mini grid systems in Nepal to be 34 MW for small-scale wind turbines and 61 MW for solar PV.

This sector benefits from focussed programmes and projects supported by the GoN and development partners. The GoN has two targeted programmes for development of mini grids. The Ujjyalo Nepal Program focuses on installation of mini grids in off-grid areas and promotion of clean cooking solutions and clean energy. This programme received financing of NPR 150 million in FY 2020. The Himali Tatha Uchha Pahadi Solar Mini-Grid Program aims to improve access to electricity by installing solar PV mini grids in Nepal. The GoN budgeted NPR 220 million for this programme in FY 2020. Additionally, the SASEC System Expansion Project funded by ADB aims to enhance off-grid electrification by development of 500 kW solar and solar/wind hybrid mini grids by 2022. The World-Bank-funded Nepal Private Sector-Led Mini-Grid Energy Access Project (MGEAP) aims to mobilise energy saving companies (ESCOs) to enhance capacity of renewable energy mini grids (solar, micro/mini hydro, solar wind hybrid, and wind) up to 3.8 MW by 2023.

To support the enhancement of the mini grid sector and increase private sector participation, the GoN provides subsidies of up to 60% of energy consumption, for solar mini-grids with a maximum capacity of 1,000 kWp in off-grid areas. In 2016, the GoN began allocation of subsidies across two categories (distribution and generation) for off-grid solar-hybrid systems with a capacity of 5 kW up to 100 kW. The subsidy differs based on the category of region where the project is located, and lies in the range of NPR 28,000 – 32,000 for distribution network construction per household connected, and NPR 150,000 – 175,000 for generation of electricity per kW.

The two key players that have installed solar PV mini grids in Nepal are [Gham Power Pvt. Ltd.](#) and [Saral Urja Pvt. Ltd.](#) Till date, Gham Power has installed over 10 solar PV micro grids with a pay-as-you-go financing mechanism, and Saral Urja has installed two solar micro-grids.

Some of the critical challenges that hinder the development of the mini grid sector in Nepal are the absence of feed-in-tariffs or power purchase agreements, poor rate of return on private investment, lack of technical standardisation for hybrid systems, high cost of operation and maintenance due to poor accessibility in remote areas, consumer perception of grid connection and MHP being the best electrification options, and competition from manufacturers in China and India leading to more imports and subsequently limited local technical capacity and longer supply chains. Furthermore, risks related to environment and disasters cause severe damage to mini-grid systems and have obstructed operations in the past.

Key government institutions

Institution	Role
Ministry of Energy, Water Resources and Irrigation (MoEWRI)	Formulates policies and strategies for the power sector and water resource development. This includes promotion of the government's private power policy, regulation of the National Electricity Authority (NEA), management of the IPP bidding process, deployment of technical assistance to the regulator for fixing tariff rates, and provision of guidance to private investors. Website: http://moewri.gov.np/en/
Water and Energy Commission (WECS)	The overall objective of the WECS is to support government departments and agencies in preparation of policies and projects for water and energy resource planning and development. It is also responsible for the implementation of strategies in the water and energy sectors. Website: https://www.wecs.gov.np/
National Electricity Authority (NEA)	This state-owned utility operates the electricity supply and distribution system, including generation to transmission across urban and rural areas. It is solely responsible for management of all power purchase agreements for energy exchange with India and purchase of electricity from the independent power producers. Website: https://www.nea.org.np/
Nepal Electricity Regulatory Commission	The commission is mandated to establish rules and regulations regarding power distribution and grid development, ascertain competition in the market for electricity and set rates for tariff and power purchase.
Alternative Energy Promotion Centre (AEPCC)	AEPCC is responsible for the development and promotion of renewable energy or alternative energy-based technologies across Nepal. It implements the renewable energy projects or programmes funded by donor and government agencies and ensures compliance with the national level policies and strategies in the sectors of renewable energy, climate change mitigation and adaptation. It has an independent function with representation from the industrial sector, government, and NGOs on its board. Website: https://www.aepcc.gov.np/
Renewable Energy Test Station (RETS)	This is an autonomous body mandated to test renewable energy technologies and ensure compliance with established quality standards. Currently, the laboratory has testing facilities for solar PV systems, biogas, solar dryer, solar cooker, and improved cookstoves. Website: https://retsnepal.org/
Vidhyut Utpadan Company Limited (VUCL)	This is a state-owned company formulated to construct, own, and operate large scale hydropower projects based on a public-private partnership model. This would help the GoN to achieve its potential of electricity generation through hydropower. Website: http://vucl.org/
Rastriya Prasaran Grid Company Limited (RPGCL)	This state-owned company is responsible for operationalisation of the hydropower sector by supporting development of the transmission line system across Nepal. Website: http://www.rpgcl.com/
Hydroelectricity Investment and Development Company Limited (HIDCL)	The main objective of HIDCL is to mobilise funds from international and domestic sources to foster investment for middle to mega hydroelectricity generation, transmission, and distribution projects. Website: http://www.hidcl.org.np/

Industry associations

Industry Association	Features
Nepal Micro Hydropower Development Association	This association comprises of private companies and firms involved in the development and planning of strategies for the micro-hydropower sector. The members of the association also support implementation of diverse types of micro hydro projects, focusing on project survey, identification, design, installation, manufacturing of turbines and accessories, repair and maintenance and research. Website: https://microhydro.org.np/
Solar Electric Manufacturers Association Nepal (SEMAN)	This is a non-profit, non-governmental business association of solar electric manufacturing and trading companies in Nepal. Its core activities include conducting trainings for solar electric technicians, organising orientations for schoolteachers and government stakeholders on solar PV and coordinating with the AEPD and other relevant government agencies on matters related to development of the solar sector in Nepal. Website: https://www.semannepal.org.np/
Nepal Biogas Promotion Association (NBPA)	This is an umbrella organisation of biogas appliance manufacturers and biogas construction companies comprising of around 114 members. Its main objective is to innovate new and improved technologies for development of the biogas sector and provide technical knowledge on solutions related to bio-slurry. The NBPA provides a wide variety of services, such as technical training to stakeholders and beneficiaries and legal assistance to member biogas construction companies in the case of conflicts. Website: https://sites.google.com/site/nepalbiogas/about
Independent Power Producers' Association Nepal (IPPAN)	The overall aim of IPPAN is to foster investment in a competitive market for power development. Its core activities include lobbying for private sector responsive policies and regulations, ensuring effective implementation, disseminating information amongst government stakeholders and beneficiaries, capacity building of IPPs and stakeholders, developing linkages for multi-regional cooperation and fostering strong collaboration between the private and government sector. Website: http://www.ippan.org.np/public/
Energy Efficiency Centre (EEC)	EEC is a central nodal agency established under the Energy and Environment Division (EED) of the Federation of Nepalese Chambers of Commerce and Industry (FNCCI), to enhance energy efficient use in the industrial and business sector. This includes facilitating adaption of energy efficient technologies in enterprises and industries and enhancing competitiveness in the market. Website: http://www.eec-fncci.org/
Kathmandu Alternative Power and Energy Group (KAPEG)	A research organisation with expertise in wind engineering and hydro engineering technologies and projects. It undertakes research and development in new renewable energy technologies for local industry and academia. Website: https://online.kapeg.com.np/home

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Official UK Government travel advice for Nepal

<https://www.gov.uk/foreign-travel-advice/nepal>

Useful contacts

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