

Country Statement of Nepal

Item 2: Energy security and resilience in the context of the coronavirus disease crisis:

- ✦ Ministry of Energy, Water Resources and Irrigation has prepared the Ministerial White Paper 2018, 15th Periodic Plan (2019-2023) and Revised Nationally Determined Contributions (NDC) Commitments, 2020 for the energy security and for renewable energy development aligning with SDG 7. Various programs have been proposed for generation, transmission and distribution of electricity from hydropower and other alternative sources of energy namely solar, biomass etc.
- ✦ Adoption of Generation Mix with different types of hydropower projects (Run of River projects: 40-45%, Storage and pumped storage projects: 20-25%, Peaking Run of River: 20-30 % and other alternate energy projects (solar, wind and biomass): 5-10 % for energy security and grid stability.
- ✦ Various bilateral and regional electricity trade agreements have been signed to enhance electricity trading with neighboring countries.
- ✦ Himalayan rivers have extreme discharge during monsoon season and low discharge in the lean season and accordingly, more power in monsoon season. So, Nepal has been requesting the neighboring country for energy banking by virtue of seasonal complementarity of power demand and supply between the two countries.
- ✦ Programs being implemented to expand mini-grid in scattered rural areas so as to increase electricity security as per the concept distributed generation.
- ✦ The Government has extended the Generation license period of the power projects by one year considering the time and cost overrun of those projects due to COVID-19 pandemic (lockdown, interruption in supplying human resources, machines, equipment, construction materials etc.).

Item 3: Follow up on the Ministerial Declaration on Regional Cooperation for Energy Transition towards Sustainable and Resilient Societies in Asia and the Pacific of the Second Asian and Pacific Energy Forum:

(a) Review of progress towards Sustainable Development Goal 7 in Asia and the Pacific:

I. Access of Energy;

- ✚ The 90% population has access the electricity (74.4 % in 2016), out of which 86% has been connected to the national grid and remaining are off-grid.
- ✚ The generation of electricity is still very low. The installed capacity of the nation is 1430 MW including thermal and other renewables, though we have the potential of hydropower is about 83000 MW. Various projects are being constructed and studied with aim to produce 15000 MW power by 2030.
- ✚ The supply of electricity is vulnerable due to the old transmission and distribution system. The domestic power demand is being managed with the import of electricity from India.
- ✚ The consumption of electricity is very low. The annual per-capita consumption is 260 kWh now. It was 120 kWh in 2016.
- ✚ We are still using traditional energy sources. The 64% of people are still using firewood for cooking (74.7 % in 2016). Most of them are not using efficient and clean cook stoves.

II. Measures taken by the country in addressing the challenges (e.g., innovative policies, technologies, initiatives and programs);

- ✚ Electricity Regulatory Commission Act 2018 has been approved by the parliament and Electricity Regulatory Commission is in function now.
- ✚ National Energy Efficiency Strategy 2018 has been approved by the Government of Nepal.
- ✚ The new National Water Resources Policy has been approved by the cabinet. Water Resources Act is being revisited. Electricity Bill has been submitted to parliament for approval with mandatory provisions like competition in awarding power project of size >20 MW. It will increase energy security and minimizing inefficiencies in the development and operation of hydropower projects.
- ✚ Renewable Energy Promotion Bill and Energy Efficiency and Conservation Bill are being prepared.

III. Mainstreaming the global targets related to energy into national policies, plans and strategies;

- ✚ Nepal's plan, policies and programs are aligned with the SDGs. The current 15th five year plan has clearly defined vision, goals, objectives, strategies and working policies. We are currently preparing a result matrix with SDGs for five years. We are also discussing about SDGs local indicators. The plan consists of 5 hydropower related strategies and 22 working policies. In the alternative energy sector: we have set 5 strategies and 15 working policies. Those strategies and working policies will help in achieving SDG7.
- ✚ The 15th five year plan clearly mentions strategies to increase investment in hydropower, expand access to energy, encourage in the development and use of renewable energy, strengthen and extend power transmission line/distribution lines, enhance energy security and improve institutional reform. There are also clear policies for renewable energy sector such as extension of renewable energy, use of modern and sustainable technologies, financial benefits from bank, information flow, grant /viability gap funding for constructing power projects in rural and remote areas.

IV. Measures to effectively follow up on and review progress towards targets of Sustainable Development Goal7 at the regional level.

- ✚ A high level Steering Committee has been formed under the chairmanship of Rt. Honorable Prime Minister. Under this committee a co-ordination committee and eight thematic committees have been constituted.
- ✚ Annual Action Plans are formulated for the evaluation and monitoring of the programs so that it will help to meet the targets of SDG7.

b) Status of national road maps for the implementation of Sustainable Development Goal 7:

- ✚ Ministerial White Paper, 2018: with targets of generating 15000 MW power by 2030.
- ✚ Baseline Document for the Fifteenth Periodic Plan (2019-2023)
- ✚ National Planning Commission is the focal point for evaluation and monitoring of SDG targets.
- ✚ National Strategies to achieve SDG7
 - Investment opportunities for foreign and domestic investors on Build, Own, operate and Transfer (BOOT) model for hydroelectricity generation.
 - Phase-wise implementation of transmission line, master plan has been approved keeping in view of probable projects, readiness of projects, size/type of projects, load centers. East-West 400 kV lines both along terai and mid-hill as well as along the river basin corridor have been planned to be constructed at different timelines.
 - Modernization and expansion of transmission line and electricity distribution system have been planned.

- Various bilateral and regional electricity trade agreements as well as the concept of energy banking will be implemented for export of surplus energy and import electricity at the time of low generation time (winter season).
- Mobilize capital in the renewable energy sector by taking subsidized loans and grants from development partners/foreign banks as well by bringing scattered national capital
- Mini-grids (200 no.) have been proposed to increase electricity access in rural areas especially hill and mountain terrain.
- Viability gap funding provisions have been made so as to make energy projects (solar/ micro hydropower) financially viable to private sector.
- Incentive/ subsidy has been given for biomass, solar and micro hydropower project through grant from govt./ development partners/ foreign government.

c) Regional roadmap on power system connectivity: entitled “Promoting cross-border electricity connectivity for sustainable development”.

- ✚ Cross border transmission line is the primary requirement for the sustainable development of hydropower in Nepal.
- ✚ Building trust for cross-border energy connectivity should start from the bilateral dialogue. Nepal has made the power trade agreement with India and separate MOU regarding power cooperation with Bangladesh, China, Qatar and Austria are in place. There are bilateral mechanisms formulated for the discussion and study of power trade, generation and cross-border transmission line.
- ✚ We have the sub-regional mechanisms such as SAARC, BIMSTEC and BBIN to study and explore the way out for cross-border energy connectivity. UNESCAP may coordinate with these sub-regional institutions to further way out the connectivity mechanism in the region. A regional meeting on grid integration might be useful.
- ✚ The policy and regulatory frameworks for transmission planning and operation system should be harmonized and institutionalized in the coordinated way. The preparation of regional grid master plan and the mapping of the region’s existing high voltage transmission network will help the energy connectivity issue.
- ✚ It should be extended the networking of sub-regional intergovernmental institutions to reach the regional cooperation. The remaining sub-regional networks shall be created as soon as possible and the analytical study of gaps in grid policies and standards in each sub-region is required.
- ✚ Studies to evaluate the economic, social and environmental aspects of multilateral electricity trade will be useful.

- ✚ The capacity Building, sharing of information, data, learnings and sharing the best practices are also the major issues for the energy connectivity.