



# Program Information Document (PID)

---

Appraisal Stage | Date Prepared/Updated: 8 August 2018 | Report No: 129286



**BASIC INFORMATION**

**A. Basic Project Data**

Country	Project ID	Project Name	Parent Project ID (if any)
Nepal	P154693	First Programmatic Energy Sector Development Policy Credit	
Region	Estimated Board Date	Practice Area (Lead)(s)	Financing Instrument
South Asia	18 September 2018	Energy and Extractives	Development Policy Financing
Borrower(s)	Implementing Agency		
Nepal	Ministry of Finance		

**Proposed Development Objective(s)**

The Energy Sector Development Policy Credit (DPC) operation aims to support the government’s efforts to improve the financial viability and governance of the electricity sector. The programmatic DPC series has two pillars: (i) improving the financial viability of the electricity sector; and (ii) improving the governance of the electricity sector.

**Financing (in US\$, Millions)**

**SUMMARY**

<b>Total Financing</b>	100
------------------------	-----

**DETAILS**

**IDA**

**Decision**

The Decision Meeting authorized the team to appraise and negotiate the DPC.



## B. Introduction and Context

### Country Context

1. Nepal is at a historic juncture, migrating to a federal state structure under a new constitution that defines Nepal as a federal democratic republic. The new Constitution, promulgated in 2015, establishes Nepal as a federal state with sub-national governments. Nepal now has seven Provinces and 753 local governments. With the completion of elections for all three tiers of government, a new government took office in February 2018. This has led to a new alignment of funds, functions and functionaries across the three tiers of the government.
2. Lack of access to reliable, affordable and sustainable electricity is a fundamental reason for Nepal's poor economic competitiveness. While 95% of the population is estimated to have access to electricity through grid and off-grid connections, annual per capita electricity consumption in Nepal, at 1770 kWh, is a twentieth of the global average and a fifth of South Asia average. Installed generation capacity (1,073MW) has not kept up with the growing electricity demand (1,450 MW), leading to power outages of up to 16 hours a day until last year. Two thirds of Nepal's firms identify electricity as a major constraint to doing business in Nepal. The economic loss from load shedding is estimated to be as high as \$1.6 billion per year (in 2016 prices) during 2008-2016.
3. The macroeconomic policy framework remains adequate for this operation. Despite several severe shocks in the past (conflict, unstable governments, earthquakes, trade disruptions, India's demonetization, and introduction of goods and services tax [GST]), Nepal's macroeconomic fundamentals have remained sound. Nepal's growth averaged 4.3 percent during 2005-15. Over the medium term, government interventions to modernize the agriculture sector will strengthen growth which will average 5 percent in the forecast period. A projected increase in the fiscal and current account deficits are supporting the needed spending for reconstruction (following floods and the earthquake) and the transition to a federal structure (including transfers to subnational government for improved service delivery). Although, increased borrowing of around 5 percentage points (between 2018 and 2021) will be needed, the nominal share of debt to gross domestic product (GDP) will remain below 40 percent. In addition, a draw-down on reserves (to a level of five months of imports over the medium term) and reliance on concessional borrowing and grants will support the needed investments and spending for reconstruction and decentralization.
4. Despite political instability and vulnerability, poverty in Nepal has been on a declining trend. The proportion of Nepalese households living in poverty (as measured by the international extreme poverty line) fell from 46 percent in 1996 to 15 percent in 2011. Nepal has also had impressive performance on shared prosperity. From 2003 to 2010, consumption growth of the bottom 40 percent was 7.5 percent compared to 4 percent on average across all households. The key drivers of improvement in the twin goals included an increase in the amount and the number of households receiving remittances, an increase in labor income derived from wage and non-wage employment, and changes in the demographic structure with a lowering of the dependency ratio.

### Relationship to CPF

5. The proposed DPC series is fully aligned with the second pillar of Nepal's proposed Country Partnership Framework (CPF) for 2019-2023, which supports growth and employment through Bank support to Nepal's electricity sector and business environment. It is consistent with the priority of the Nepal's 2017 Systematic Country Diagnostic and Bank's energy strategy for Nepal to increase investment in Nepal's electricity sector as well as the Bank's Maximizing Finance



for Development (MFD, or 'Cascade') approach to development finance. Policies supported by the proposed DPC will contribute to the twin goals of reducing poverty and promoting shared prosperity in a sustainable manner.

### **C. Proposed Development Objective(s)**

6. The development objective of the programmatic DPC series is to support the government's efforts in improving the financial viability and governance of the electricity sector.

#### **Key Results**

7. In line with the objectives, the key results expected under Pillar 1 are as follows: (a) average electricity tariff covers the full cost of electricity supply from a baseline of average electricity tariff 32 percent below the cost of electricity supply, (b) Nepal Electricity Authority's (NEA's) Profits before interest, tax, depreciation and amortization is at least NPR40 billion from a baseline of NPR 0.49 billion in FY2016, and (c) transmission and distribution losses are reduced to less than 18 percent from the baseline of 25.8 percent in FY2016. The key results expected under Pillar 2 are: (a) electricity traded and exchanged has increased by at least 20 percent from a baseline of 2,178 GWH, (b) Power Purchase Agreements (PPAs) are signed based on posted tariff and/or competitive bidding from a baseline where PPAs were signed based on negotiations, and (c) at least one project is informed by the Gender and Social Inclusion (GESI) guidelines from a baseline with no GESI guidelines.

### **D. Program Description**

8. The DPC series support Government of Nepal's efforts to unlock the large economic potential of the hydropower sector. These measures will help the Government of Nepal eliminate the electricity shortage in the country and generate revenue from electricity exports. Furthermore, these measures will lay down the foundation for the transition from a vertically integrated utility to an electricity market over the medium to long term. The operation is anchored in the priorities identified by the government white paper on *Energy, Water Resources and Irrigation Sector's Status and Roadmap for Future* issued in May 2018.
9. There are two pillars to this operation: (i) improving the financial viability of the electricity sector; and (ii) improving the governance of the electricity sector. Under these pillars the credit supported the following specific prior actions:
  - Cabinet approval of the NEA financial restructuring plan.
  - Approval of a financial viability action plan by NEA Board of Directors.
  - Performance contracts with chiefs of NEA regional and district offices to reduce transmission and distribution losses.
  - Adoption of a power sector strategy and action plan by the Ministry of Energy, Water Resources and Irrigation
  - Publication of the Electricity Regulatory Commission Act in the official gazette and approval of implementing regulations by the Cabinet.
  - Establishment of the National Power Trading Company Limited by the Government of Nepal and the appointment of its Managing Director by its Board of Directors.



- Adoption of: (a) power purchase rates and associated rules for PPA of run-of-the river, peaking run-of-the river, and storage hydropower generation projects; and (b) guidelines on foreign currency-denominated PPAs by NEA Board of Directors.
  - Adoption of a hydropower environmental impact assessment manual by the Ministry of Forests and Environment.
10. The indicative triggers for the second and third operations in the series, expected to be prepared in an 18-month interval, are focused on short- and medium-term policy measures to improve financial viability and governance in the electricity sector. The proposed DPC operation was prepared in close collaboration with development partners such as Asian Development Bank, Millennium Challenge Corporation, USAID, Department for International Development, Japanese International Cooperation Agency and has benefited from their technical assistance and advisory support to Government of Nepal.

## **E. Implementation**

### Institutional and Implementation Arrangements

11. The Ministry of Finance is leading the effort in coordinating the overall implementation of the DPC in close coordination with the Ministry of Water Resource, Irrigation and Energy, Ministry of Forests and Environment and Nepal Electricity Authority. Reviews are carried out by the Bank team to monitor the progress of the reforms. Data for monitoring is generally available through the Ministry of Finance and Ministry of Energy, Water Resource and Irrigation website or requests made to both the ministries. Macroeconomic data is available through the central bank and/or the Central Bureau of Statistics.

## **F. Poverty and Social Impacts and Environment Aspects**

### Poverty and Social Impacts

12. The impact of tariff reforms supported in this operation on electricity affordability is likely to be modest. In the worst-case scenario consisting of 51 percent increase in average electricity price and where income stays the same and demand is perfectly price inelastic, the budget share of electricity would increase at most to 1.9 percent for the average population in 2022. It would increase to 2.74 percent for the poorest quintile and 1.58 percent for the richest quintile. The budget share of electricity expenditure even for the poorest income group would still be well below the standard 10 percent affordability benchmark after proposed tariff increase. Female-headed households are slightly more affected than male-headed households because households headed by women spend a marginally higher share of total expenditure on electricity compared to their male counterparts.
13. Government of Nepal is committed to instituting mechanisms to mitigate the adverse impacts of the tariff reforms on the poor. Under ERC Act (Prior Action 5), the new regulatory agency is required to ensure that mitigation mechanisms are in place to protect the poor and vulnerable. The government is also committed to achieving universal electricity access within five years with support from the World Bank and other donors. This DPC series include GESI measures to mitigate the impacts on the generally vulnerable female-headed households.

### Environmental Aspects



14. Most reforms supported by this operation are expected to have potentially positive or neutral effects on the environment. The increased availability of reliable power would increase the use of electricity which will have positive implications on reducing the household air pollution and improving overall health of mainly women and children. Increased hydropower generation in the country will help displace diesel self-generation and imported thermal generation and reduce Greenhouse Gas emissions. Nevertheless, there is a need to strengthen the capacity of government agencies to manage environmental and social issues as Nepal prepares to develop large run-of-river and strategically important storage hydropower projects.
15. The government is making efforts to address environment and social risks in hydropower development. The Hydropower Environmental (and Social) Impact Assessment Manual will provide guidance for environmental and social management good practices in the hydro sector. However, it will be important to improve this manual gradually to reflect new developments, lessons from actual projects, and the recommendations of Cumulative Impact Assessment and Strategic Environmental and Social Assessment under progress and other international good practices and learning from other hydro operations in South Asia. The Bank is also currently supporting a comprehensive program to improve national policies, practices, and capacity related to sustainable hydropower development through its investment and advisory activities.
16. Climate co-benefits assessed from this operation is 50 percent. This reflects the emphasis of the prior actions on improving energy efficiency, increasing hydropower generation, and displacing diesel self-generation and imported thermal generation in the country's electricity system.
17. The climate co-benefits of the operation are expected to be magnified over the medium to long term, once Nepal can export hydropower to displace thermal generation in the Indian electricity system. The World Bank is providing technical assistance to pilot the Bank's climate resilience guidelines in the hydropower sector.

## **G. Risks and Mitigation**

18. The overall risk of the proposed operation is High. The main risks to achieving the results of the proposed policy measures are related to political and governance, sector strategies and policies, institutional capacity, and stakeholders. State restructuring on this scale is an uncharted territory for Nepal and smoothening the transition from the previous unitary system to the new federal one will remain a daunting task. This operation supports the creation of new institutions in the electricity sector and restructuring of the existing institutions. Reforms are likely to be opposed by vested interest groups as this operation supports greater transparency, commercialization, and accountability in the sector. These risks are mitigated by anchoring policy measures based on analytical underpinnings and continuous consensus-building rather than vested interests, the prospect of greater political stability in the country and technical assistance to implement reforms from development partners.
-



**CONTACT POINT**

**World Bank**

Contact: Xiaoping Wang  
Title: Senior Energy Specialist  
Tel: 977-1-4236110  
Email: [xwang3@worldbank.org](mailto:xwang3@worldbank.org)

Contact: Bipulendu Narayan Singh  
Title: Senior Energy Economist  
Tel: +1-(202) 458 2135  
Email: [bsingh2@worldbank.org](mailto:bsingh2@worldbank.org)

**Borrower/Client/Recipient**

Contact: Mr. Shreekrishna Nepal  
Title: Joint Secretary  
Tel: 977-1-4211305  
Email: [sknepal40@mof.gov.np](mailto:sknepal40@mof.gov.np)

**FOR MORE INFORMATION CONTACT**

The World Bank  
1818 H Street, NW  
Washington, D.C. 20433  
Telephone: (202) 473-1000  
Web: <http://www.worldbank.org/projects>

**APPROVAL**

Task Team Leader(s):	Xiaoping Wang, Bipulendu Narayan Singh
----------------------	--

**Approved By**

Country Director:	Qimiao Fan	
-------------------	------------	--