



Technical Assistance Report

Project Number: 53279–001
Transaction Technical Assistance Facility (F-TRTA)
September 2019

India: Enhancing Capacity to Design and Implement Energy Sector Projects

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 28 August 2019)

Currency unit	–	Indian rupee/s (₹)
₹1.00	=	\$0.01397
\$1.00	=	₹71.54420

ABBREVIATIONS

ADB	–	Asian Development Bank
DEA	–	Department of Economic Affairs
GW	–	gigawatt

NOTE

- (i) The fiscal year (FY) of the Government of India and its agencies ends on 31 March. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2019 ends on 31 March 2019.
- (ii) In this report, “\$” refers to United States dollars.

Vice-President	Shixin Chen, Operations 1
Director General	Hun Kim, South Asia Department (SARD)
Director	Priyantha Wijayatunga, Energy Division, SARD
Team leader	Jaimes Kolantharaj, Energy Specialist, SARD
Team members	Angela Francesca Bernaldo, Associate Project Officer, SARD Christoph Meindl, Energy Specialist, SARD Noreen Joy Ruanes, Operations Assistant, SARD Jongmi Son, Financial Specialist (Energy), SARD

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TRANSACTION TECHNICAL ASSISTANCE AT A GLANCE

1. Basic Data		Project Number: 53279-001	
Project Name	Enhancing Capacity to Design and Implement Energy Sector Projects	Department/Division	SARD/SAEN
Nature of Activity Modality	Project Preparation Facility	Executing Agency	Department of Economic Affairs
Country	India		
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Energy	Electricity transmission and distribution		0.75
	Renewable energy generation - small hydro		0.25
		Total	1.00
3. Strategic Agenda	Subcomponents	Climate Change Information	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	Climate Change impact on the Project	Low
4. Drivers of Change	Components	Gender Equity and Mainstreaming	
Governance and capacity development (GCD)	Institutional development	No gender elements (NGE)	✓
5. Poverty and SDG Targeting		Location Impact	
Geographic Targeting	No	Rural	High
Household Targeting	No	Urban	Medium
General Intervention on Poverty	Yes		
SDG Targeting	Yes		
SDG Goals	SDG7, SDG9		
6. Risk Categorization	Complex		
7. Safeguard Categorization	Safeguard Policy Statement does not apply		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		1.00	
Transaction technical assistance: Technical Assistance Special Fund		1.00	
Cofinancing		0.00	
None		0.00	
Counterpart		0.00	
None		0.00	
Total		1.00	
Currency of ADB Financing: USD			

I. THE TECHNICAL ASSISTANCE FACILITY

A. Justification

1. The Government of India has identified development of the power sector as a focus area to promote sustained industrial growth.¹ To boost the Indian power sector, the Government of India has initiated the following: (i) a draft amendment to Electricity Act 2003 introduced in September 2018, which discusses separation of content and carriage, direct benefit transfer of subsidy, 24X7 power supply as an obligation, penalties on violation of power purchase agreement, setting up smart meter and prepaid meters along with regulations related to the same; (ii) release of roadmap to achieve 175 gigawatts (GW) capacity in renewable energy by 2022, which includes 100 GW of solar power and 60 GW of wind power; (iii) Ujwal Discoms Assurance Yojana launched by the Government of India to encourage operational and financial turnaround of state-owned power distribution companies, with aims to reduce aggregate technical and commercial losses to 15% by FY2019; (iv) Integrated Power Development Scheme for strengthening subtransmission and distribution network in urban areas; (v) Dindayal Upadhyaya Gram Jyoti Yojana scheme for strengthening the rural distribution network, separation of agricultural feeders, rural electrification and metering of distribution transformers and feeders; and (vi) Pradhan Mantri Sahaj Bijli Har Ghar Yojana–Saubhagya scheme for electrifying all unelectrified households by 2019. For the past 4 years,² India's (i) ranking on "Ease of Doing Business-Getting Electricity" jumped to 24 in 2014 from 137 in 2018; and (ii) energy deficit reduced to 0.7% of the electricity demand from 4.2% in 2014. However, there are still many states lagging in power generation, transmission, and distribution due to lack of investments. In the distribution sector, these states are grappling with severe technical and commercial losses which seriously impact on the financial stability of the companies. Lack of generation capacity addition and congestion in transmission network are the other constraints faced by these states. To address these issues, the Government of India is now focusing on supporting these states to improve their power infrastructure.

2. In line with pillar 2 of ADB's country partnership strategy for India, 2018–2022, ADB's operation in the energy sector in India is increasingly focusing on lagging states to support inclusive economic growth and reduce disparities in poverty rates across states. Areas of intervention identified for lagging states include (i) distribution renovation and modernization; (ii) transmission strengthening; (iii) generation upgrading and rehabilitation, among others. To strengthen their power sector, small and low-income states, such as Meghalaya, Tripura, and Uttarakhand have submitted or are preparing preliminary project reports for endorsement by the Government of India for ADB financing. However, these states will have difficulty in meeting government and ADB financing requirements given their lack of competency in (i) project identification, design and cost-benefit analysis; (ii) incorporating environmental and social safeguards in project design; (iii) meeting project readiness; (iv) preparing procurement documents; and (v) financial and economic analysis. In addition, project implementation and overall portfolio performance in these states also need to be improved.

3. The proposed transaction technical assistance (TA) facility will help the executing agencies (EA) and implementing agencies (IA) meet government and ADB financing requirements by supporting project preparation, increasing project readiness, building capacity in project implementation and overall portfolio management. The TA will support the following

¹ [Ministry of Power, Government of India.](#)

² [India Brand Equify Foundation.](#)

ensuing projects³ and provide initial implementation support after project approval to ensure smooth project implementation:

- (i) Uttarakhand Transmission Strengthening and Distribution Improvement Project;
- (ii) Meghalaya Power Distribution Sector Improvement Project;
- (iii) Tripura Generation Upgrading and Distribution Strengthening Project; and
- (iv) Other projects to be proposed by the Department of Economic Affairs (DEA), Ministry of Finance for ADB Financing.⁴

4. The projects to be supported by this TA are aligned with the operational priorities of ADB's Strategy 2030 (i) addressing remaining poverty and reducing inequality by providing improved access to electricity and access to quality jobs, health and social services; (ii) tackling climate change, building climate resilience, and enhancing environmental sustainability; (iii) accelerating progress in gender equality by providing new opportunities using energy-based livelihoods; and (iv) promoting rural development and food security through enhanced power supplies to rural areas.⁵

5. The TA facility modality is suitable as (i) it supports ensuing and/or ongoing projects in the energy sector in low-income states in India with similar due diligence requirements; (ii) the TA will enhance project preparation efficiency and improve readiness of projects that have limited processing resources; (iii) the TA will promote sharing of experiences among different states working with the same team of consultants; and (iv) strengthen coordination in project preparation. Overall, this TA facility will reduce transaction costs and time through minimizing the resources of stand-alone transaction TAs.

B. Outputs and Activities

6. **Output 1: Network planning and detailed technical assessment supported.** Technical experts will assist IAs in carrying out basic surveys to ascertain the condition of existing network, network planning to optimize the network configuration, and identification of key areas that require immediate attention. Based on the network planning, technical expertise will support IAs in preparing detailed technical specifications, engineering estimates, and cost-benefit analysis for selected investment projects for potential ADB financing. IAs are expected to improve skills in preparing these documents through handholding and coaching support from technical experts.

7. **Output 2: Procurement, financial and economic assessment supported.** Technical expertise will be provided to support IAs in preparing procurement risk assessment, financial management assessment, financial analysis, and economic analysis necessary in preparing selected investment projects for potential ADB financing. IAs' capacity in these areas will be developed through handholding and coaching interventions by technical experts.

8. **Output 3: Environment and social safeguards due diligence completed.** Technical expertise to conduct due diligence on proposed projects' potential impact on environment, involuntary resettlement, indigenous peoples, and other social dimensions will be provided to support project preparation. Activities will include: (i) preparation of safeguards documents on environmental, involuntary resettlement, and indigenous peoples; (ii) preparation of climate adaptation measures; and (iii) gender and poverty analysis, collection of socioeconomic baseline data, and preparation of gender action plans.

³ The ensuing projects (i), (ii) and (iii) are included in the country operations business plan for India, 2019–2022.

⁴ Projects that have attached technical assistance funds will not be supported by this TA

⁵ ADB. 2018. *Strategy 2030: Achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific*. Manila.

9. **Output 4: Safeguard capacity of implementing agencies improved.** Technical expertise and capacity building will be provided to selected IAs with ongoing or ensuing projects to strengthen the quality of safeguard implementation and monitoring. This will be carried out by supporting additional surveys/studies, seminars, workshops and on-the-job training for IA staff across multiple projects.

C. Cost and Financing

10. The TA facility is estimated to cost \$1,100,000, of which \$1,000,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-other sources). The key expenditure items are listed in Appendix 1. The TA facility scope is expected to be expanded to cover other additional activities, consistent with the TA's outputs and outcome, and supplementary funding may be requested as needed.

11. The government agencies responsible for each project will provide counterpart support in the form of counterpart staff, office space, office supplies, project related information and other in-kind contributions. The government was informed that approval of the TA does not commit ADB to finance any ensuing project.

D. Implementation Arrangements

12. The DEA, Ministry of Finance, Government of India will be the EA of the TA facility. Government department or agencies responsible for each project will be the IAs for the TA, subject to the approval of DEA and ADB. After the initial approval of DEA, ADB will administer the TA facility and work directly with the state line agencies of the projects for all activities connected with the TA, such as finalization of terms of reference and recruitment of consultants specific to the project components and preparation of reports.

13. The TA facility will be implemented over a period of 30 months from September 2019 to February 2022. Disbursements under the TA facility will be in accordance with ADB's Technical Assistance Disbursement Handbook (2010, as amended from time to time).

14. The implementation arrangements are summarized in Table 1.

Table 1: Implementation Arrangements

Aspects	Arrangements		
Indicative implementation period	September 2019–February 2022		
Executing agency	Department of Economic Affairs, Ministry of Finance		
Implementing agencies	Implementing agencies are the agencies that are preparing or implementing energy projects. For practical purposes, the TA will be administered by ADB in close coordination with implementing agencies		
Consultants	To be selected and engaged by IA and ADB		
	ICS (international)	(22 person-months)	\$ 375,000
	ICS (national)	(48 person-months)	\$ 300,000
Disbursement	The TA resources will be disbursed following ADB's <i>Technical Assistance Disbursement Handbook</i> (2010, as amended from time to time).		
Asset turnover or disposal arrangement upon TA completion	None		

ADB = Asian Development Bank, IA = implementing agency, ICS = individual consultant selection, TA = technical assistance.
Source: Asian Development Bank.

15. **Consulting services.** The TA facility will provide an initial 70 person-months of consulting services (22 person-months international and 48 person-months national)⁶ in the field of network planning and technical analysis for energy sector projects, procurement, financial management, financial analysis, economic analysis, environment safeguards, social development (involuntary resettlement, indigenous peoples, gender, and poverty assessment). It is expected that the consultants will be recruited using individual consultant selection method and deployed based on the requirements of each project being prepared or implemented. ADB will engage the consultants following the ADB Procurement Policy (2017, as amended from time to time) and its associated project administration instructions and/or staff instructions. Individual consultant selection, rather than through firm, is appropriate in this instance because the TA facility involves multiple activities that are not necessarily interdependent and will require a varied range of consultants and services. However, where suitable, recruitment through a firm might be considered.

E. Governance

16. Since ADB will administer the TA facility, the financial management, procurement capacity and integrity risks during TA facility implementation are assessed to be low. However, thorough risk assessments for procurement, financial management and integrity for ensuing investment projects will be conducted under the TA facility.

II. THE PRESIDENT'S DECISION

17. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$1,000,000 on a grant basis to India for the Enhancing Capacity to Design and Implement Energy Sector Projects, and hereby reports this action to the Board.

⁶ TA facility savings may be utilized for additional consultant inputs, as may be necessary.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Amount
A. Asian Development Bank^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	375.0
ii. National consultants	320.0
b. Out-of-pocket expenditures	
i. International and local travel	50.0
ii. Report and communications	5.0
iii. Miscellaneous administration and support costs	5.0
2. Surveys	155.0
3. Training, seminars, and conferences	50.0
4. Contingencies	40.0
Total	1000.0

Note: The technical assistance is estimated to cost \$1,100,000, of which contributions from the Asian Development Bank are presented in the table. Implementing agencies of each project will provide counterpart support in the form of counterpart staff, office space, office supplies, project-related information and other in-kind contributions. The value of the government contribution is estimated to account for 10% of the total TA cost.

^a Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-other sources).

Source: ADB.

PROJECTS UNDER TECHNICAL ASSISTANCE FACILITY

Table A2.1: Indicative Consultants' Input Allocation
(person-month)

Item		Project 1 ^a	Project 2 ^b	Project 3 ^c
Indicative risk category	Total	low risk	low risk	complex
A. International	22.0	6.0	3.5	12.5
Power Distribution Specialist	4.0	1.0	1.0	2.0
Power Sector Specialist (Transmission & Generation)	3.0	1.0	0.5	1.5
SCADA and Communication Specialist	2.0	0.5	0.5	1.0
Environmental Specialist	3.5	1.0	0.5	2.0
Social and Gender Specialist	3.5	1.0	0.5	2.0
Energy Economist	1.5	0.5	0.0	1.0
Financial Management Specialist	3.0	0.5	0.5	2.0
Procurement Specialist	1.5	0.5	0.0	1.0
B. National	48.0	9.0	12.5	26.5
Power Distribution Specialist	13.0	2.0	2.0	9.0
Power Sector Specialist (Transmission & Generation)	5.0	1.0	1.5	2.5
SCADA and Communication Specialist	3.0	0.5	1.0	1.5
Environmental Specialist	4.0	1.0	1.0	2.0
Climate Risk Analyst	2.0	0.5	0.5	1.0
Social and Gender Specialist	5.0	1.0	1.5	2.5
Procurement Specialist	6.0	1.0	2.0	3.0
Project Implementation Analyst	10.0	2.0	3.0	5.0
Total	70.0	15.0	16.0	39.0

SCADA = supervisory control and data acquisition.

^a Uttarakhand Transmission Strengthening and Distribution Improvement Project.

^b Meghalaya Power Distribution Sector Improvement Project.

^c Tripura Generation Upgrading and Distribution Strengthening Project.

Source: Asian Development Bank.

Table A2.2: Indicative Technical Assistance Budget Allocation (excluding consultants)
(\$'000)

Item		Project 1 ^a	Project 2 ^b	Project 3 ^c
Indicative risk category	Total	low risk	low risk	complex
Training, seminars, and conferences	50.0	10.0	20.0	20.0
Surveys	155.0	20.0	50.0	85.0
Total	205.0	30.0	70.0	105.0

^a Uttarakhand Transmission Strengthening and Distribution Improvement Project.

^b Meghalaya Power Distribution Sector Improvement Project.

^c Tripura Generation Upgradation and Distribution Strengthening Project.

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/LinkedDocs/?id=53279-001-TARreport>

1. Terms of Reference for Consultants