



Report and Recommendation of the President to the Board of Directors

Project Number: 53223-001
November 2020

Proposed Loan and Technical Assistance Grant Republic of the Union of Myanmar: Accelerated Rural Electrification Project

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 15 October 2020)

Currency unit	–	kyat/s (MK)
MK1.00	=	\$0.000754774
\$1.00	=	MK1,324.90

ABBREVIATIONS

ADB	–	Asian Development Bank
COVID-19	–	coronavirus disease
DAS	–	distribution automation system
EMP	–	environmental management plan
ESE	–	Electricity Supply Enterprise
GAP	–	gender action plan
GESI	–	gender equity and social inclusion
GRM	–	grievance redress mechanism
IEE	–	initial environmental examination
JICA	–	Japan International Cooperation Agency
MOEE	–	Ministry of Electricity and Energy
NAPA	–	National Adaptation Programme of Action
PAM	–	project administration manual
PIC	–	project implementation consultant
PIU	–	project implementation unit
PMU	–	project management unit
PPP	–	public–private partnership
REGDP	–	resettlement and ethnic group development plan
SCS	–	stakeholder communication strategy
SDG	–	Sustainable Development Goal
TA	–	technical assistance
VEC	–	village electrification committee

WEIGHTS AND MEASURES

GWh	=	gigawatt-hour
km	=	kilometer
kV	=	kilovolt
kWh	=	kilowatt-hour
MVA	=	megavolt-ampere

NOTES

- (i) The fiscal year (FY) of the Government of the Republic of the Union of Myanmar ends on 30 September. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2020 ends on 30 September 2020.
- (ii) In this report, “\$” refers to United States dollars.

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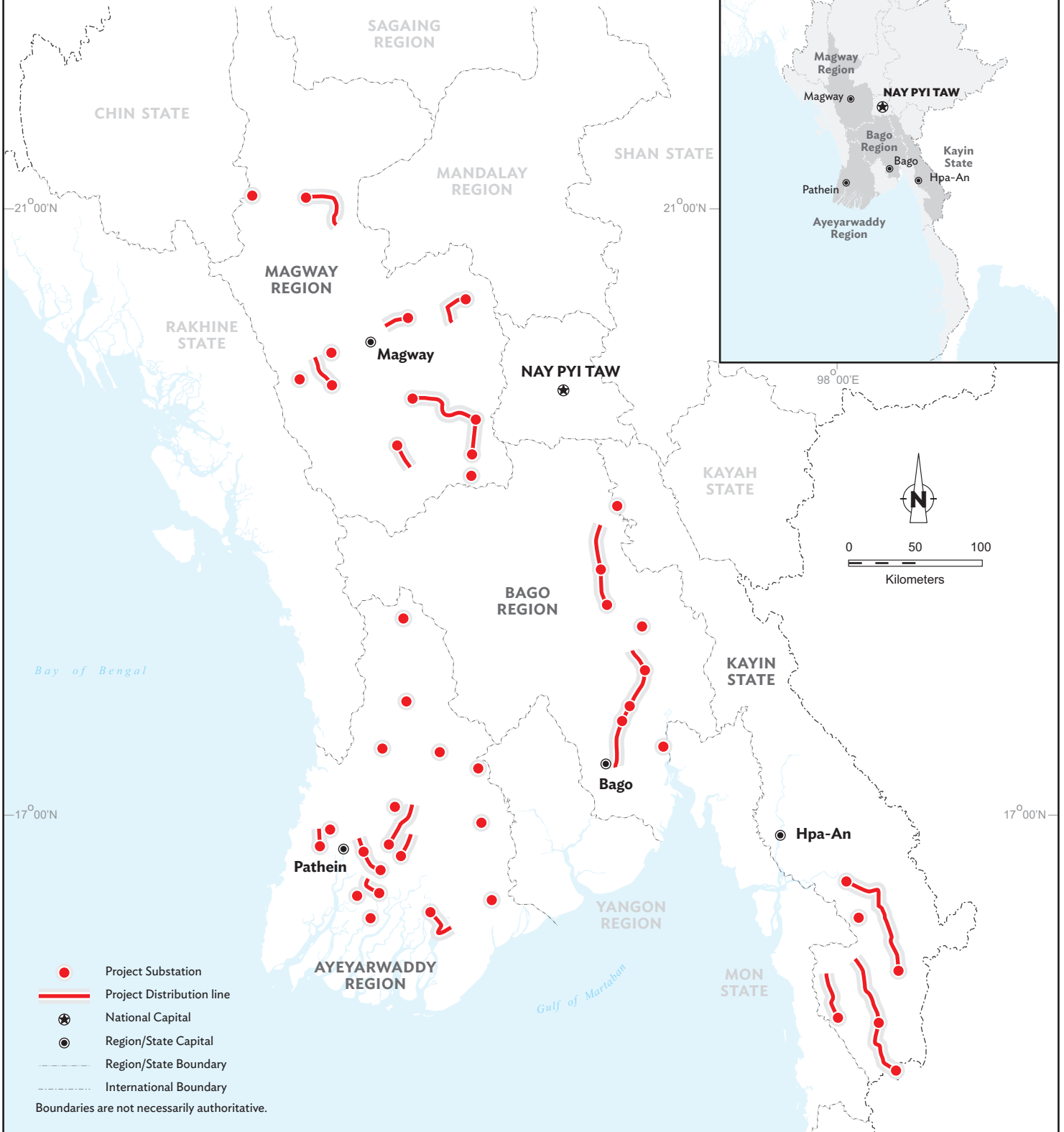
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PROJECT AT A GLANCE

1. Basic Data		Project Number: 53223-001	
Project Name	Accelerated Rural Electrification Project	Department/Division	SERD/SEEN
Country	Republic of the Union of Myanmar	Executing Agency	Ministry of Electricity and Energy
Borrower	Republic of the Union of Myanmar		
Country Economic Indicators	https://www.adb.org/Documents/LinkedDocs/?id=53223-001-CEI		
Portfolio at a Glance	https://www.adb.org/Documents/LinkedDocs/?id=53223-001-PortAtaGlance		
2. Sector		ADB Financing (\$ million)	
✓ Energy	Electricity transmission and distribution		171.27
		Total	171.27
3. Operational Priorities		Climate Change Information	
✓ Addressing remaining poverty and reducing inequalities		GHG reductions (tons per annum)	25,762
✓ Accelerating progress in gender equality		Climate Change impact on the Project	Medium
✓ Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability			
✓ Promoting rural development and food security			
		ADB Financing	
		Adaptation (\$ million)	8.56
		Mitigation (\$ million)	78.00
		Cofinancing	
		Adaptation (\$ million)	0.00
		Mitigation (\$ million)	0.00
Sustainable Development Goals		Gender Equity and Mainstreaming	
SDG 1.1		Effective gender mainstreaming (EGM)	✓
SDG 5.5			
SDG 7.1		Poverty Targeting	
SDG 13.a		Geographic Targeting	✓
4. Risk Categorization:	Low		
5. Safeguard Categorization	Environment: B Involuntary Resettlement: B Indigenous Peoples: B		
6. Financing			
Modality and Sources		Amount (\$ million)	
ADB		171.27	
Sovereign Project (Concessional Loan): Ordinary capital resources		171.27	
Cofinancing		0.00	
None		0.00	
Counterpart		20.46	
Government		20.46	
Total		191.73	
Note: An attached technical assistance will be financed on a grant basis by the Technical Assistance Special Fund (TASF-6) in the amount of \$1,000,000.			
Currency of ADB Financing: US Dollar			

MYANMAR ACCELERATED RURAL ELECTRIFICATION PROJECT



- Project Substation
- Project Distribution line
- ⊛ National Capital
- ⊙ Region/State Capital
- Region/State Boundary
- International Boundary

Boundaries are not necessarily authoritative.

This map was produced by the cartography unit of the Asian Development Bank. The boundaries, colors, denominations, and any other information shown on this map do not imply, on the part of the Asian Development Bank, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries, colors, denominations, or information.

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed loan to the Republic of the Union of Myanmar for the Accelerated Rural Electrification Project. The report also describes proposed technical assistance (TA) for Enhancing Gender Equality and Social Inclusion in Rural Electrification, and if the Board approves the proposed loan, I, acting under the authority delegated to me by the Board, approve the TA.

2. The project will construct 44 substations and about 1,006 kilometers (km) of 66 kV and 33 kV distribution lines in Ayeyarwady, Bago (East), and Magway regions; and Kayin State in Myanmar. The project will establish, for the first time in Myanmar, a computerized distribution automation system (DAS) to improve the operational efficiency and management of the distribution systems.¹ The project will enable the government to electrify an additional 400,300 households in 2,815 villages, contributing to the achievement of the country's plan of universal electricity access by 2030. The project aims to support Myanmar's inclusive growth by expanding electricity access in rural areas; and improve the project regions' response to the impacts of the coronavirus disease (COVID-19) pandemic through better access to information, education, and work opportunities. The TA will support the empowerment of women in villages for the safe and productive use of electricity in the project areas.

II. THE PROJECT

A. Rationale

3. **Macroeconomic context.** Myanmar sustained strong growth averaging 6.4% in 2015–2019, buoyed by the boom in manufacturing, construction, tourism, and services and increased foreign investment. The poverty rate decreased from 42.4% in 2010 to 28.4% in 2017.² However, the COVID-19 pandemic threatens to undermine the strong progress, and the growth rate for 2020 has been revised downward from 6.8% to 1.8%.³ To mitigate the adverse social and economic impacts of the pandemic, the government is implementing the COVID-19 Economic Relief Plan,⁴ a comprehensive socioeconomic assistance program.⁵ The construction of the electricity distribution system that enables reliable and sustainable electricity supply, is important to create employment and support the country's post-COVID-19 economic recovery. Myanmar's economy is projected to recover to 6.0% growth in 2021 and continue to grow in the future. To support long-term sustainable economic growth and socioeconomic development, reliable and affordable electricity supply is essential.

4. **Energy sector constraints and the government's response.** The Myanmar Sustainable Development Plan 2018–2030 prioritizes (i) reliable and affordable electricity to support economic development and poverty reduction, and (ii) universal electricity access by 2030.⁶ To realize these goals, Myanmar needs to overcome the energy sector's core development

¹ ADB provided a technical assistance to prepare the project. ADB. 2018. [Technical Assistance for Southeast Asia Energy Sector Development, Investment Planning and Capacity Building Facility](#). Manila.

² Government of Myanmar, Ministry of Planning and Finance. 2019. [Myanmar Living Conditions Survey 2017 – Poverty Report](#). Nay Pyi Taw.

³ ADB. 2020. [Asian Development Outlook 2020 Update Wellness in Worrying Times](#). September 2020.

⁴ Government of Myanmar. 2020. [Overcoming as One: COVID-19 Economic Relief Plan](#). Nay Pyi Taw.

⁵ ADB. 2020. [Report and Recommendation of the President to the Board of Directors: Proposed Countercyclical Support Facility Loan to the Republic of the Union of Myanmar for the COVID-19 Active Response and Expenditure Support Program](#). Manila.

⁶ Government of Myanmar, Ministry of Planning and Finance. 2018. [Myanmar Sustainable Development Plan, 2018–2030](#). Nay Pyi Taw.

problems: the current inadequate power generation capacity, and insufficient and obsolete transmission and distribution infrastructure. In response, the government has advanced policy and institutional reforms to improve the efficiency of investment in, and operation and management of, the energy sector; and has mobilized resources to (i) construct new power plants to increase generating capacity; (ii) expand the transmission network to remove transmission constraints; and (iii) expand distribution systems to connect more consumers to the electricity grid, particularly in underserved rural areas.

5. **Policy and institutional reforms.** Since 2013, the government has implemented several policy and institutional reforms, including the adoption of the National Energy Policy in 2013 and the National Electrification Plan in 2014, the finalization of the National Electricity Master Plan in 2017,⁷ and the preparation of rules and regulations for off-grid electrification. These reforms support establishing a transparent mechanism for setting and implementing cost-reflective electricity tariffs, developing a public–private partnership (PPP) mechanism to mobilize private investment, and corporatizing electricity supply entities to increase efficiency.

6. **Investment requirement.** The electrification rate rose from 33% in 2015 to 50% in 2019. Annual electricity consumption grew 10%–12% from 2015 to 2019,⁸ and demand is projected to reach 60–80 terawatt-hours by 2030. To meet this demand and achieve the goal of universal electrification by 2030, the National Electricity Master Plan projects that about \$37 billion will be needed for investment in power generation (\$20 billion), the transmission network (\$7 billion), and the distribution system (\$10 billion). To enable open access to generation sources, the government is developing the transmission and distribution network through public funding while scaling up private sector financing for power generation. Independent power producers (IPPs) generated 40% of electricity in 2018 and the share continues to increase. About half of the planned new capacity (18 gigawatt; \$10 billion) to meet the projected demand by 2030 is expected from IPPs. Between 2018 and 2020, the Ministry of Electricity and Energy (MOEE) issued notices to proceed to IPPs totaling more than 6.3 gigawatt, including 1.1 gigawatt of solar capacity.

7. **ADB’s holistic support.** ADB has supported the government in both policy reforms and infrastructure development since 2012 including: (i) \$440.0 million of sovereign lending for the development of transmission and distribution networks;⁹ (ii) \$152.2 million of nonsovereign investment and political risk guarantee for a high-efficiency gas-fired power plant to boost generation capacity;¹⁰ and (iii) \$4.7 million in TAs for the Myanmar Energy Master Plan (2013), Electricity Law (2014), draft renewable energy and energy efficiency policies, regional grid code harmonization and cross-border power trade opportunities, and PPP advisory for the corporatization of distribution entities and renewable energy development.¹¹ Experience from ADB’s previously financed projects show that implementation delays can be mitigated by (i) a high degree of project readiness, (ii) advance procurement action, and (iii) close implementation support. ADB will apply these lessons to the project.

⁷ Government of Myanmar, Ministry of Electricity and Energy (MOEE). *National Energy Policy*. Unpublished; Government of Myanmar, MOEE. *National Electrification Plan*. Unpublished. Government of Myanmar, MOEE. *National Electricity Master Plan*. Unpublished.

⁸ Ministry of Electricity and Energy. *Annual Statistics 2014–2019*. Unpublished.

⁹ ADB. [Myanmar: Power Distribution Improvement Project](#); ADB. [Myanmar: Power Transmission Improvement Project](#); and ADB. [Myanmar: Power Network Development Project](#).

¹⁰ ADB. [Myanmar: Myingyan Natural Gas Power Project](#).

¹¹ ADB. [Institutional Strengthening of National Energy Management Committee on Energy Policy and Planning](#); ADB. [Harmonizing the Greater Mekong Subregion Power System to Facilitate Regional Power Trade](#); and ADB. Myanmar. [Support for Public Private Partnership Development](#).

8. **Development coordination.** ADB, Japan International Cooperation Agency (JICA), the World Bank, and other development partners are closely coordinating on assistance for the energy sector in Myanmar through the Power Sector Coordination Group. Guided by the Myanmar Development Assistance Policy, the coordination group discusses and prioritizes areas for assistance, reviews implementation challenges, and proposes actions to ensure efficient use of international assistance for the sector.¹² ADB focuses on strengthening the 230 kV transmission system and the 66 kV and 33 kV distribution systems, developing solar- and wind-based renewable energies to power, and improving the framework for PPP. JICA finances the 500 kV backbone transmission network and the gas-based generation capacities. The World Bank supports off-grid rural electrification, rehabilitation of generation capacities, and tariff reform.

9. The project is aligned with ADB's Strategy 2030 (Table 1) and the country partnership strategy, 2017–2021 for Myanmar.¹³

Table 1: Alignment with Strategy 2030

Strategy 2030 Priorities	Contributions
Addressing remaining poverty and reducing inequalities	The project will provide electricity access to 400,300 households in rural areas, thereby ensuring reliable and affordable electricity to support economic development and poverty reduction.
Accelerating progress in gender equality	The project will build the capacity of the Electricity Supply Enterprise, the implementing agency, to empower women in the rural electrification program at the corporate and village levels.
Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability	The project will (i) improve operational efficiency and reduce electricity losses, thus effectively reducing greenhouse gas emissions; (ii) integrate climate and disaster resilience measures in the preliminary design; and (iii) enhance the automation of distribution systems, which will allow faster damage detection and service recovery after extreme climate events.
Promoting rural development and food security	The project will target states and regions with high rural populations and electrification rates below the country's already low average, to help the government achieve its national goal of universal electrification by 2030.

Source: Asian Development Bank.

10. **Project focus.** In addition to the support received under the Power Network Development Project, the government requested ADB to further support the expansion of power distribution networks in Ayeyarwady, Bago (East), and Magway regions; and Kayin State.¹⁴ These areas have higher poverty and lower electrification rates than the national average. For example, the poverty rates are 31.7% in Ayeyarwady and 35.6% in Magway, while electrification rates are 17.2% in Ayeyarwady and 28.1% in Magway.¹⁵ The project is expected to electrify an additional 400,300 households in 2,815 villages.¹⁶ Thousands of schools, clinics, hospitals, and libraries are also expected to gain access to grid electricity. This will help these regions cope with and recover from the impacts of COVID-19 as migrant workers have returned to rural areas from cities and abroad.

¹² Government of Myanmar, Ministry of Planning and Finance. 2018. [Myanmar Development Assistance Policy](#). Nay Pyi Taw. The policy established the Power Sector Coordination Group in 2017. ADB, JICA, and the World Bank co-lead the group, which includes other development partners from France, Germany, Italy, Norway, the United Kingdom, and the United States.

¹³ ADB. 2018. [Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific](#). Manila; and ADB. 2017. [Country Partnership Strategy: Myanmar, 2017–2021—Building the Foundations for Inclusive Growth](#). Manila. The project is included in ADB. 2019. [Country Operations Business Plan: Myanmar, 2020–2022](#). Manila.

¹⁴ The Power Network Development Project is helping to build new 66 kV, 33 kV, and 11 kV distribution systems in Ayeyarwady, Bago, Mon, Kayin, and Rakhine.

¹⁵ Government of Myanmar, Ministry of Planning and Finance. 2019. [Myanmar Living Conditions Survey 2017 – Poverty Report](#). Nay Pyi Taw and MOEE statistics.

¹⁶ This is in addition to the 330,000 households in 2,000 villages that will be electrified under the Power Network Development Project.

11. **Vulnerability to climate change.** Myanmar is highly vulnerable to the impacts of climate change because of its geography. It was ranked the second most impacted economy in the world by extreme weather events during 1999–2018.¹⁷ The project design integrates resilience measures that make Myanmar’s power distribution system resilient to climate risks to provide reliable electricity to rural vulnerable communities. As stated in its Intended Nationally Determined Contributions, climate mitigation and adaptation measures were integrated as priorities in the National Adaptation Programme of Action (NAPA) 2012. The project is aligned with the implementation of NAPA in energy and industry, one of the NAPA’s four priority sectors.¹⁸

B. Project Description

12. The project is aligned with the following impact: (i) reliable and affordable electricity supply provided to support socioeconomic development and poverty reduction, and (ii) universal electricity access achieved (footnotes 6 and 7). The project will have the following outcome: capacity, regional coverage, and operational efficiency of power distribution system in Myanmar increased.

13. **Output 1: New distribution facilities added to the distribution systems in Ayeyarwady, Bago (East), and Magway regions; and Kayin State.** This will be delivered through the construction and commissioning of 44 distribution substations (18 in Ayeyarwady, 8 in Bago [East], 12 in Magway, and 6 in Kayin); and about 1,006 km of distribution lines (232 km in Ayeyarwady, 221 km in Bago [East], 315 km in Magway, and 238 km in Kayin).

14. **Output 2: New computerized distribution automation system established and pilot tested.** This includes the design, installation, and operation of a pilot DAS in each of the four project regions and state and Nay Pyi Taw; and the training of Electricity Supply Enterprise (ESE) engineers in DAS operations. The DAS will optimize the power distribution operation through real-time monitoring, minimization of network faults, and fast detection of faults and restoration of power supply.

15. **Output 3: Social and gender-inclusive capacity of the Ministry of Electricity and Energy, Electricity Supply Enterprise, and village electrification committees in the project areas enhanced.** This will be delivered through the gender action plan (GAP) and the development and implementation of a gender equity and social inclusion (GESI) road map for rural electrification, which the ESE will apply in the electrified rural areas. The GESI road map will include policies and actions for the ESE to mobilize gender-balanced village electrification committees (VECs) in (i) optimizing the demand for, and affordability of, connections for all households, and (ii) raising awareness on safe and efficient use of electricity for time saving and livelihoods among women in newly electrified areas.

C. Value added by ADB

16. The proposed project adds value by helping the government achieve inclusive growth. It will support the Ayeyarwady region, the most populous region with one-fifth of Myanmar’s population but one of the lowest electricity access rates, through 18 out of 44 new substations. It will introduce new technology (the DAS), which will integrate a database for automating the scheduling and contracting of maintenance works for the electricity distribution facilities. Improved

¹⁷ GermanWatch. [Global Climate Risk Index 2020 \(accessed 6 September 2020\)](#).

¹⁸ Government of Myanmar. 2013. [Myanmar’s National Adaptation Programme of Action \(NAPA\) to Climate Change, 2012](#). Nay Pyi Taw.

access to electricity in rural areas, combined with the GESI to empower women, will enhance the effectiveness of rural community development efforts by the government.¹⁹

17. **Conflict-sensitive approach.** The project design includes measures to ensure that project-affected people are properly informed of and involved in project decision-making, particularly regarding compensation for adverse impacts; and have opportunities to benefit from the project. Such measures are detailed in a stakeholder communication strategy (SCS) and a resettlement and ethnic group development plan (REGDP). The implementation of the conflict-sensitive measures will be closely monitored by ADB in all project areas including Kayin State, which may be considered conflict affected.

Box: Noteworthy Features of the Project

- The project will enable electrifying the poor and populous rural areas (e.g., Ayeyarwady) which have high potential economic growth once electrified, thus support poverty reduction and socioeconomic development.
- More women will participate in the village electrification committees and receive trainings on safe and productive use of electricity. The project integrates gender mainstreaming measures across all project outputs.
- Distribution automation systems will be introduced to improve operational efficiency and service reliability through real-time monitoring and fast detection of faults and restoration of power supply.
- The project is the third since 2015 to help expand the electricity grid and demonstrates ADB's growing engagement with the government to meet important gaps in infrastructure and institutional development.

D. Summary Cost Estimates and Financing Plan

18. The project is estimated to cost \$191.73 million (Table 2).

Table 2: Summary Cost Estimates

Item	Amount (\$ million)
A. Base Cost^a	
1. New distribution facilities added to the distribution systems in Ayeyarwady, Bago (East), and Magway regions; and Kayin State	141.19
2. New computerized distribution automation system established and pilot tested	15.51
3. Social and gender-inclusive capacity of MOEE, ESE, and village electrification committees in the project areas enhanced	6.89
B. Contingencies^b	22.98
C. Financing Charges During Implementation^c	5.16
Total (A+B+C)	191.73

ESE = Electricity Supply Enterprise, MOEE = Ministry of Electricity and Energy.

^a In mid-2020 prices as of June 2020. Includes taxes and duties of \$15.33 million, financed by the government through cash contribution. The Asian Development Bank will not finance taxes and duties.

^b Physical contingencies computed at 7.1% of base costs. Price contingencies computed using ADB forecasts of international and domestic inflation. Includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^c Interest during implementation has been computed at 1%.

Sources: Government of Myanmar, Ministry of Electricity and Energy; and Asian Development Bank estimates.

19. The government has requested a concessional loan of \$171.27 million from ADB's ordinary capital resources to help finance the project. The loan will have a 32-year term, including a grace period of 8 years; an interest rate of 1.0% per year during the grace period and 1.5% per year thereafter; and such other terms and conditions set forth in the draft loan agreement. ADB loan will finance the procurement, construction, and commissioning of substations, distribution lines, and the DAS; contingencies; and financing charges during project implementation. The government will provide counterpart financing of \$20.46 million through budget contribution to

¹⁹ ADB. 2019. [Report and Recommendation of the President to the Board of Directors: Proposed Loan, Grant, and Administration of Grants Republic of the Union of Myanmar: Resilient Community Development Project](#). Manila.

finance taxes and duties; and the costs of project administration, the implementation of environmental and social safeguard measures, communication, and the GAP. The summary financing plan is in Table 3. Detailed cost estimates by expenditure category and by financier are included in the project administration manual (PAM).²⁰

Table 3: Summary Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Ordinary capital resources (concessional loan)	171.27	89.0
Government	20.46	11.0
Total	191.73	100.0

Sources: Government of Myanmar, Ministry of Electricity and Energy; and Asian Development Bank estimates.

20. Climate mitigation is estimated to cost \$78.00 million and climate adaptation is estimated to cost \$8.56 million. The project will reduce greenhouse gas emissions from the introduction of DAS to improve efficiency and the displacement of carbon-intensive fuels (e.g., kerosene and diesel). ADB will finance 100% of mitigation and adaptation costs (\$86.56 million). Details are in the Climate Change Assessment.²¹

E. Implementation Arrangements

21. The MOEE will be the executing agency. The ESE will be the implementing agency and will set up a project management unit (PMU) at the ESE headquarters in Nay Pyi Taw and four project implementation units (PIUs, one in each ESE regional or state office) to manage the day-to-day implementation.²² Procurement will be undertaken following the ADB Procurement Policy (2017, as amended from time to time) and the Procurement Regulations for ADB Borrowers (2017, as amended from time to time). Implementation arrangements are summarized in Table 4 and described in detail in the PAM (footnote 20).

22. The impact of COVID-19 is evolving, and the project will be responsive and flexible in meeting emerging needs and new guidance. The project will strictly follow government guidance on safe working in COVID-19 conditions, adhering to the most robust medical and scientific advice. The project parties will be required to incorporate emerging international construction best practice on distancing (where practical for works of this nature), implementation methodologies, effective use of forced air ventilation systems, and personal protective equipment.

Table 4: Implementation Arrangements

Aspects	Arrangements
Implementation period	June 2021–June 2027
Estimated completion date	30 June 2027
Estimated loan closing date	31 December 2027
Management	
(i) Oversight body	Ministry of Planning, Finance and Industry
(ii) Executing agency	MOEE
(iii) Implementing agency	ESE
(iv) Implementation unit	PMU (ESE headquarters, Nay Pyi Taw) and PIUs (ESE offices in Ayeyarwady, Bago [East], Magway regions and Kayin State)

²⁰ Project Administration Manual (accessible from the list of linked documents in Appendix 2).

²¹ Climate Change Assessment (accessible from the list of linked documents in Appendix 2) also shows the estimation of greenhouse gas reduction (25,762 tons of carbon dioxide per year).

²² The Electricity Supply Enterprise (ESE) is a unit under the MOEE operating with an annual government budget allocation. ESE has operational autonomy and has been assigned by the government to implement the project.

Aspects	Arrangements		
Procurement	Open competitive bidding (internationally advertised)	6 contracts	\$115.60 million
	Open competitive bidding (nationally advertised)	9 contracts	\$23.26 million
Consulting services	QCBS 90:10 (firm)	587 person-months	\$5.97 million
Advance contracting	PIC recruitment		
Disbursement	Disbursement of the loan proceeds will follow ADB's <i>Loan Disbursement Handbook</i> (2017, as amended from time to time) and detailed arrangements agreed between the government and ADB.		

ADB = Asian Development Bank, ESE = Electricity Supply Enterprise, MOEE = Ministry of Electricity and Energy, PIC = project implementation consultant, PIU = project implementation unit, PMU = project management unit, QCBS = quality- and cost-based selection.

Source: Asian Development Bank estimates.

III. ATTACHED TECHNICAL ASSISTANCE²³

23. Attached TA will support the implementation of output 3. The project has developed a GAP that will integrate gender mainstreaming measures across all project outputs. In addition, the project will develop a GESI road map to be adopted and applied by the ESE across its rural electrification program. The TA will help implement measures devised by the GESI road map to promote women's participation in VECs, by organizing information and training sessions for women on village and household connections and electrical safety. The TA will support the ESE to promote efficient electricity-based livelihood and time-saving options among women, including ethnic minority women. It will also support the ESE to work with VECs to develop viable options to increase connection rates among poor and vulnerable households. The TA 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 6). The government will provide counterpart support in the form of staff, office space, office supplies, secretarial assistance, local communication facilities, domestic transportation, and other in-kind contributions.

IV. DUE DILIGENCE

A. Technical

24. Technical due diligence has ensured that the capacity and type of substations are appropriate, and the distance between existing and new substations are optimal to minimize voltage drops along the lines. The DAS configuration will have immediate benefits for the small number of feeders selected for it, and the ESE will subsequently be able to replicate it throughout its network. The project was screened for climate and geophysical hazards and was classified *medium* risk. The preliminary design is in line with national seismic design standards and integrates climate and disaster resilience measures to reduce vulnerability to the risks of extreme climate events and geophysical hazards.²⁴

B. Economic and Financial Viability

25. **Economic analysis.** The project's economic viability assessment followed ADB's Guidelines for the Economic Analysis of Projects by comparing the societal costs and benefits of

²³ Attached Technical Assistance Report (accessible from the list of linked documents in Appendix 2).

²⁴ These measures include ensuring that substations and distribution tower and pole footings are raised above the highest flood level; paving and raising the embankment height of access roads; maintaining natural land drainage; avoiding landslide-prone areas; and including specifications for effective cooling for substations and transformers and resilient high-capacity overhead distribution towers and poles.

the with- and without-project scenarios.²⁵ The project's quantifiable benefits include increased electricity supply with higher reliability and electrification of 400,300 households and more than 2,815 public buildings (schools, clinics, and village offices) for the regions covered under the project. At the beginning of project operations, their consumption of grid electricity will reach 310 GWh, increasing to full utilization of substation capacity. The economic internal rate of return for the project is 10.6%. A sensitivity analysis confirms the project's economic viability with respect to important project variables.²⁶

26. **Financial analysis.** The financial evaluation of the project followed ADB's Guidelines for Financial Management and Analysis of Projects.²⁷ The analysis examined the financial viability of the proposed expansion of the distribution network owned and operated by the ESE. It was performed by comparing the future incremental benefits accrued from additional electricity sales and the incremental costs to the ESE. The post-tax real financial internal rate of return of the project is estimated at 1.9%, which is higher than the weighted average cost of capital of 0.9%.²⁸

27. The ESE's profitability fell from net profit before tax of MK18.3 billion in FY2015 to a net loss of MK2.5 billion in FY2018 because of the growing inadequacy of the gross tariff margin set by the government. Tariffs increased by an average of 48% in July 2019, but the rate at which the ESE buys electricity increased by 57%, resulting in a MK1 per kilowatt-hour (kWh) gross tariff margin. Since the ESE's operational and administrative expenses are MK5/kWh, and depreciation is MK3/kWh, its cash and accounting losses will increase significantly from the current financial year. Recognizing this situation, the MOEE proposed to the Parliament to implement regular tariff adjustments from 2022, and is working to establish a mechanism for cost-reflective tariff adjustment which will allow the ESE to cover its investment, operation, and maintenance expenditure and return the ESE to profitability. In the meantime, the government is allocating an annual budget to ensure that the ESE can meet its financial and operational obligations.²⁹

C. Sustainability

28. The medium voltage facilities built under the project will be an integral part of the country's long-term power systems. The ESE has sufficient staff and expertise to operate and maintain the project facilities in the long term. The PIC will help ensure that contracts are awarded to qualified bidders and that the construction complies with approved technical specifications. Regular monitoring will ensure that the technical design and environmental and social safeguard requirements are fully implemented. The TA and GAP will involve and empower women from the ESE and at the grassroots level in utilizing the benefits brought about by the project. The project's sustainability is embedded in its design and implementation.

D. Governance

29. The MOEE is fully responsible for policy decision-making and the implementation of all energy-related businesses in Myanmar. For the energy sector, the MOEE develops long- and medium-term development plans and mobilizes resources to implement the plans. The MOEE is responsible for implementing the national electrification targets. It prepares electricity tariff reform measures and requests parliamentary approval for those measures. Under the MOEE, the ESE

²⁵ ADB. 2017. [Guidelines for the Economic Analysis of Projects](#). Manila.

²⁶ Economic Analysis (accessible from the list of linked documents in Appendix 2).

²⁷ ADB. 2005. [Financial Management and Analysis of Projects](#). Manila.

²⁸ Financial Analysis (accessible from the list of linked documents in Appendix 2).

²⁹ Financial viability through cost reflective tariffs or budgetary allocation or other reform measures is included in the loan covenant.

is responsible for the distribution business in Myanmar, except for Yangon and Mandalay cities. Consumer tariff and power supply cost to ESE are set by the MOEE.

30. The assessed pre-mitigation financial management risk is *substantial* because of (i) the ESE's dependence on the tariff margin, the difference between the ESE's electricity purchasing price and the end-user tariff that the ESE receives by selling electricity, both set by the MOEE; (ii) lack of computerization across the ESE's finance and accounting functions; and (iii) weaknesses in internal financial management and reporting. To mitigate these risks, the project includes the following measures: (i) budget support to the ESE will be closely monitored and agreed with the government to ensure the ESE's financial sustainability; (ii) an entity-wide road map will be developed for the management information system; and (iii) support will be provided to the Office of the Auditor General to upgrade Myanmar's accounting and auditing standards and to address the Office of the Auditor General's capacity building needs.

31. Strategic procurement planning was carried out by ADB to ensure that fit-for-purpose procurement approaches are developed to maximize value for money by (i) using open competitive bidding methods for all procurement; (ii) utilizing engineering, procurement, and construction contracts for more complex substation packages to increase international bidders' interest and safeguard quality; (iii) maximizing opportunities for local suppliers and contractors on the less complex and geographically dispersed distribution line packages, based on local capacity and experience with previous similar projects; and (iv) engaging the PIC, via advance action, to support the executing agency in all subsequent procurement activities.

32. The government is committed to promoting good governance and addressing corruption. Myanmar's Anticorruption Law was promulgated in July 2013. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and the MOEE. The specific policy requirements and supplementary measures are described in the PAM (footnote 20). ADB has provided and will continue to provide training for the MOEE and ESE staff on ADB guidelines and procedures for procurement, disbursement, reporting, monitoring, and the prevention of fraud and corruption.

E. Poverty, Social, and Gender

33. By supporting the government to provide grid electricity to 400,300 households and more than 2,815 public buildings (schools, clinics, religious buildings, and hospitals), the project will contribute to Myanmar reaching the Sustainable Development Goal (SDG) of affordable, reliable, and sustainable energy for all by 2030 (SDG 7), while contributing to ending poverty (SDG 1) and promoting gender equality (SDG 5). All communities and groups—including rural women, men, elderly people, boys and girls, businesses, and public institutions—in the poor rural areas of Ayeyarwady, Bago (East), and Magway regions and Kayin State will benefit equitably from the availability of reliable electricity. The electrification of public facilities will increase access to better health care and education outcomes, improving the development of communities in the project areas. The increase in access to time-saving energy-based equipment for domestic and productive tasks will reduce women's time poverty. Electrification will also create more opportunities for small and medium-sized enterprise development.

34. The project is classified *effective gender mainstreaming*. It has developed a GAP that integrates measures across all project outputs. The GAP's actions include (i) training ESE staff and management on integrating gender-responsive recruitment and employment promotion measures into ESE human resource policies and practices; (ii) leadership training for women to access management positions; and (iii) nontraditional technical occupations such as the DAS.

Attached TA (para. 23) will support the ESE to promote efficient electricity-based livelihood and time-saving options among women. It will also support the ESE to work with VECs to develop viable options to increase connection rates among poor and vulnerable households. During construction, contractors will be required to conduct awareness campaigns to mitigate any risks related to HIV/AIDS, human trafficking, and COVID-19.³⁰

35. The MOEE prepared an SCS that aims to build trust and productive relationships between affected communities and the ESE, and promote greater transparency, responsiveness, and accountability of project management. Key SCS elements include (i) timely dissemination of relevant and user-friendly project information, including a project information booklet, through appropriate communication channels; (ii) facilitating meaningful two-way consultations, based on the prior disclosure of information; (iii) building the capacity of the ESE to engage effectively with different groups of stakeholders; (iv) expanding outreach to vulnerable groups, including households headed by women, and amplifying their voices through collaboration and partnership with civil society organizations; and (v) establishing and maintaining a functional grievance redress mechanism (GRM). The SCS envisages systematic collaboration and communication among environmental, social, and gender staff within the PMU and PIUs; and serves as an implementing platform for the resettlement and ethnic group development plan (REGDP), environmental management plan (EMP), and GAP.

F. Safeguards

36. The ESE, in collaboration with ADB, has prepared project safeguard documents following government laws and regulations and ADB's Safeguard Policy Statement (2009).³¹ These include an initial environmental examination (IEE) and a combined involuntary resettlement plan and indigenous development plan (the REGDP).³² In compliance with ADB's Safeguard Policy Statement, the project's safeguard categories are as follows.³³

37. **Environment (category B).** The draft IEE was disclosed on the ADB website. Public consultations to inform the project affected communities about the project design and the environmental assessment process have begun and will continue during project implementation. The project GRM will handle environmental complaints and grievances. All the proposed subprojects are in modified habitats. No protected areas or other sensitive environmental receptors have been identified in the project area of influence. The identified impacts are site-specific and can be reduced to an acceptable level through mitigation measures. These impacts will primarily occur during construction, e.g., vegetation clearance, some earthworks and site leveling, dust, noise, vibration, disposal of construction debris and/or spoils, occupational and community health and safety hazards, increased traffic, and disruption because of power outages (e.g., when constructing towers and/or poles and stringing conductors). The EMP includes mitigation measures during construction and operation and identifies the responsible parties for EMP implementation and an implementation and monitoring budget. The ESE will update the IEE and EMP which will be cleared by ADB before civil works start.

38. **Involuntary resettlement (category B) and indigenous peoples (category B).** Based on the feasibility design, the social safeguard impacts and risks were identified. The impacts

³⁰ Summary Poverty Reduction and Social Strategy (accessible from the list of linked documents in Appendix 2).

³¹ During the project preparation, 55 stakeholder consultations were held, involving 2,023 participants (1,498 men and 525 women).

³² Initial Environmental Examination and Resettlement and Ethnic Group Development Plan (accessible from the list of linked documents in Appendix 2), disclosed on ADB website on 10 October 2020.

³³ ADB. [Safeguard Categories](#).

include permanent acquisition of land for substations and temporary impacts on land for the distribution lines (e.g., right-of-way and temporary damage of crops during stringing of towers and poles). The REGDP was prepared to address the identified permanent and temporary impacts on land and indigenous peoples and to ensure that the project will not cause any severe impacts or loss of livelihoods.

39. For substations, the required land will be permanently procured through a negotiated settlement mechanism (willing buyer willing seller procedures) with clear criteria and requirements described in the REGDP, which include records of meaningful consultation with affected people and third-party verification. About 37.35 hectares are needed for the substations—21.06 hectares of private land, 9.30 hectares owned by the ESE or regional departments, and 6.99 hectares of community land owned by village communities or Buddhist monastery. The land acquisition for substations will not involve any physical displacement of people. If the negotiated settlement for land for any substation fails, the ESE has agreed to find alternative suitable land.

40. The distribution lines will temporarily use 2,247.94 hectares for the right-of-way (27% government land and 73% private land). The temporary impacts are expected to be minimal because of the wide use of road easements, the short construction period, and construction during the dry season when most of the farmland lies fallow. All the affected households are entitled to compensation at full replacement cost for their loss of non-land assets such as trees, perennial and small crops, or any other standing properties within the proposed right-of-way of distribution line alignment as described in the entitlement matrix. The REGDP specifies the implementation arrangements, entitlement matrix, monitoring requirements, meaningful consultation (particularly with ethnic groups), and the GRM. The compensation budget is included in the project costs to be financed by the MOEE. The ESE will update the REGDP based on the detailed engineering design and obtain ADB approval before any physical or economic displacement takes place.

41. The project area is inhabited by various ethnic groups. However, the project will not (i) acquire lands that are traditionally used by ethnic groups; (ii) cause any adverse impacts on the identity, society, culture, and areas of spiritual importance of ethnic groups; or (iii) interfere with their sociocultural beliefs and livelihood systems. Ethnic group communities will benefit equally from the project through job opportunities and household electrification. During the project implementation the project implementation units will conduct meaningful consultation and assessment of the socioeconomic situation of ethnic groups. Any loss of crops or trees because of distribution lines will be assessed and compensated following the entitlement matrix in the REGDP. The REGDP also includes measures to ensure that the concerns of ethnic groups are addressed accordingly. The ESE has consulted the ethnic groups adequately and will address their concerns during the REGDP implementation. The ESE will recruit a PIC with international and national safeguard specialists to assist the PMU and the PIUs in implementing the EMP and the REGDP. The project implementation costs incorporate the estimated budget for the implementation of the safeguard mitigation plans.

G. Summary of Risk Assessment and Risk Management Plan

42. Significant risks and mitigating measures are summarized in Table 5 and described in detail in the risk assessment and risk management plan.³⁴

³⁴ Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

Table 5: Summary of Risks and Mitigating Measures

Risks	Mitigation Measures
The government's multilayer approval requirements, which may delay the recruitment of consultants and works and goods contracts	ADB and other development partners are working with the government (DACU and FERD) to streamline approval procedures. Advance contracting is applied for the recruitment of the project implementation consultant. Consultants recruited under the transaction TA for project preparation have prepared all bidding documents and taken advance procurement action as necessary.
Uncertainty regarding timely mobilization of large capital investments for the expansion of the generating capacity and rural electrification	ADB and other development partners are working closely with the government (the MIFER, MOPFI, FERD, and DACU) to prioritize investment needs and help the government mobilize financing, including multilateral, bilateral, and private financing. ADB is supporting the MOEE in applying a framework for PPP in generation investment and in corporatizing distribution companies to make them more attractive to investors.
Delay in implementing a mechanism for a full cost recovery electricity tariff	ADB and the World Bank are supporting the MOEE in establishing and implementing tariffs based on full cost recovery principles. The World Bank is providing TA to support the preparation of a financial sustainability study and methodology for electricity tariffs. The MOEE has requested parliamentary approval of the next electricity tariff increases to be implemented starting in 2022 to return the ESE to profitability.
The ESE's weak financial management (limited internal audit function and financial reporting, and delays in the completion of external audits)	To help ESE improve its financial management, the project includes the following measures: (i) budget support to the ESE will be closely monitored and agreed with the government to ensure the ESE's financial sustainability; (ii) an entity-wide road map will be developed for the management information system; and (iii) support will be provided to the Office of the Auditor General to upgrade Myanmar's accounting and auditing standards and to address the Office of the Auditor General's capacity building needs

ADB = Asian Development Bank; DACU = Development Assistance Coordination Unit; ESE = Electricity Supply Enterprise; FERD = Foreign Economic Relations Department; MIFER = Ministry of Investment and Foreign Economic Relations; MOEE = Ministry of Electricity and Energy; MOPFI = Ministry of Planning, Finance and Industry; PPP = public-private partnership; TA = technical assistance.

Source: Asian Development Bank estimates.

V. ASSURANCES

43. The government and the MOEE have assured ADB that implementation of the project shall conform to all applicable ADB policies, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and loan documents. The government and the MOEE have agreed with ADB on certain covenants for the project, which are set forth in the draft loan agreement.

VI. RECOMMENDATION

44. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank and recommend that the Board approve the loan of \$171,270,000 to the Republic of the Union of Myanmar for the Accelerated Rural Electrification Project, from ADB's ordinary capital resources, in concessional terms, with an interest charge at the rate of 1.0% per year during the grace period and 1.5% per year thereafter; for a term of 32 years, including a grace period of 8 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan agreement presented to the Board.

Masatsugu Asakawa
President

11 November 2020

DESIGN AND MONITORING FRAMEWORK

Impact the Project is Aligned with Reliable and affordable electricity supply provided to support socioeconomic development and poverty reduction (Myanmar Sustainable Development Plan, 2018–2030); and universal electricity access achieved (National Electrification Plan, 2014) ^a			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
<p>Outcome</p> <p>Capacity, regional coverage, and operational efficiency of power distribution system in Myanmar increased</p>	<p>By 2028</p> <p>a. Capacity of distribution systems (66 kV and 33 kV) in rural areas increased by 410 MVA^b (2018 baseline: 4,870 MVA)</p> <p>b. Electricity supply to the project areas increased by 310 GWh per year (2018 baseline: 2,600 GWh)</p> <p>c. Household access to electricity increased by at least 400,300 households^c (2018 baseline: 4.0 million households)</p> <p>d. At least 15% of poor households, including poor female-headed households, connected in the villages electrified in the project areas (2018 baseline: 0)</p> <p>e. Annual CO₂ emissions reduced by 25,762 tons of CO₂ (2018 baseline: 104,440 tons of CO₂)</p>	<p>a.–e. MOEE and ESE annual reports; and project benefit monitoring and post-evaluation reports</p>	<p>Uncertainty in timely mobilization of large capital investments needed for the expansion of the generating capacity and rural electrification</p>
<p>Outputs</p> <p>1. New distribution facilities added to the distribution systems in Ayeyarwady, Bago (East), and Magway regions; and Kayin State</p>	<p>By 2027</p> <p>1a. 44 new 66/33/11 kV substations constructed and operational (2018 baseline: not applicable)</p> <p>1b. 1,006 km of new 66 kV and 33 kV distribution lines constructed and operational (2018 baseline: not applicable)</p> <p>1c. At least 20% of local laborers hired for construction are women (2018 baseline: not applicable)</p> <p>1d. 100% of electrified villages receive electrification safety training and women are at least 30% of the training participants (2018 baseline: not applicable)</p>	<p>1a.–1d. ESE annual reports; surveys; and PIC quarterly reports</p>	<p>Implementation delays in the recruitment of consultants and works and goods contracts because of the government's multilayer approval requirements and impact of the COVID-19 pandemic</p>

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
<p>2. New computerized DAS established and pilot tested</p> <p>3. Social and gender-inclusive capacity of MOEE, ESE, and VECs in the project areas enhanced</p>	<p>2a. DAS installed and made operational (2018 baseline: zero)</p> <p>2b. DAS operation and maintenance expertise transferred to the ESE, so that at least five ESE staff (at least 40% of whom are women) can operate the DAS independently (2018 baseline: zero)</p> <p>3a. At least 40% of ESE staff at headquarters and targeted regions and townships^d report increased knowledge of gender equality and social inclusion (2018 baseline: not applicable)</p> <p>3b. GESI road map for rural electrification developed, adopted, and applied by the ESE (2018 baseline: not applicable)</p> <p>3c. At least 30% of new jobs in targeted regional and township^d ESE offices created during project implementation are filled by women (2018 baseline: not applicable)</p> <p>3d. Training program on electricity-based livelihoods for women developed and implemented (at least 10 women per village benefit from the program for at least 10 villages per project region) (2018 baseline: not applicable)</p> <p>3e. At least 25% of VEC members of newly electrified villages are women (2018 baseline: not applicable)</p>	<p>2a.–2b. ESE annual reports; surveys; and PIC quarterly reports</p> <p>3a.–3e. ESE annual reports; surveys; and PIC quarterly reports</p>	
<p>Key Activities with Milestones</p> <p>1. New distribution facilities added to the distribution systems in Ayeyarwady, Bago (East), Magway regions; and Kayin State</p> <p>1.1 Mobilize project implementation consultant (Q3 2021–Q3 2027)</p> <p>1.2 Update bidding documents; update and implement resettlement and land acquisition plans (Q4 2021–Q3 2022)</p> <p>1.3 Tender EPC contracts for substations (Q2 2022–Q4 2023)</p> <p>1.4 Implement EPC contracts (Q3 2022–Q4 2025)</p> <p>1.5 Tender goods contracts for distribution lines (Q3 2022–Q3 2023)</p> <p>1.6 Deliver goods (Q2 2023–Q2 2025)</p> <p>1.7 Tender work contracts for distribution lines (Q1 2023–Q3 2025)</p> <p>1.8 Implement work contracts (Q4 2023–Q4 2026)</p> <p>1.9 Test and commission distribution facilities (Q3 2024–Q2 2027)</p> <p>1.10 Develop and implement electricity safety trainings with participation of women (Q3 2024–Q2 2027)</p>			

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
<p>2. New computerized DAS established and pilot tested</p> <p>2.1 Prepare bidding documents for DAS (Q3 2022–Q4 2022)</p> <p>2.2 Tender contracts (Q1 2023–Q4 2023)</p> <p>2.3 Award contracts (Q1 2024)</p> <p>2.4 Implement network reconfiguration (Q3 2022–Q1 2023)</p> <p>2.5 Customize and install system (Q3 2022–Q2 2023)</p> <p>2.6 Commission and conduct performance evaluation (Q2 2023–Q2 2024)</p> <p>2.7 Provide capacity building for DAS operations (Q2 2023–Q4 2024)</p> <p>3. Social and gender-inclusive capacity of the MOEE, ESE, and VEC in the project areas enhanced</p> <p>3.1 Mobilize the GESI team (the PIC GESI specialists and the PMU and PIU gender responsible persons) (Q3 2021–Q3 2027)</p> <p>3.2 Update, implement, and monitor the project gender action plan (Q3 2021–Q3 2027)</p> <p>3.3 Conduct training on the GESI for ESE headquarters staff, the PMU, PIUs, and PIC (Q3 2022)</p> <p>3.4 Conduct consultations, develop the GESI road map for rural electrification, and adopt the GESI road map (Q2–Q4 2023)</p> <p>3.5 Design and implement campaigns to increase the recruitment of women in new positions in the ESE (Q1 2024–Q3 2027)</p> <p>3.6 Engage a service provider(s) to support the implementation of the GESI road map in target areas (Q4 2023)</p> <p>3.7 Conduct training for women in electricity-based livelihood development (Q1 2024–Q4 2026)</p> <p>3.8 Develop awareness materials and train VECs in the GESI road map (Q1 2024–Q4 2026)</p>			
<p>Project Management Activities</p> <p>Full establishment of implementing units, including the PMU, PIUs, and working mechanism between the implementing and executing agencies (Q3–Q4 2020)</p> <p>PIC recruitment (Q3 2021)</p>			
<p>Inputs</p> <p>ADB: \$171,270,000 (loan)</p> <p>\$1,000,000 (TASF 6)</p> <p>Government: \$20,460,000</p>			
<p>Assumptions for Partner Financing</p> <p>Not applicable</p>			

ADB = Asian Development Bank; CO₂ = carbon dioxide; DAS = distribution automation system; EPC = engineering, procurement, and construction; ESE = Electricity Supply Enterprise; GESI = gender equality and social inclusion; GWh = gigawatt-hour; km = kilometer; kV = kilovolt; MOEE = Ministry of Electricity and Energy, MVA = megavolt-ampere; PIC = project implementation consultant; PIU = project implementation unit; PMU = project management unit; Q = quarter; TASF = Technical Assistance Special Fund, VEC = village electrification committee.

^a Government of Myanmar, Ministry of Planning and Finance. 2018. [Myanmar Sustainable Development Plan, 2018–2030](#). Nay Pyi Taw; and Government of Myanmar. 2014. *National Electrification Plan*. Unpublished.

^b This is in addition to the 840 MVA to be added under ADB. 2018. [Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Republic of the Union of Myanmar for the Power Network Development Project](#). Manila.

^c This is in addition to the 330,000 households to be electrified under the Power Network Development Project (footnote b).

^d In Myanmar, the administrative hierarchy includes states or regions, townships, and villages.

Source: Asian Development Bank estimates.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/RRPs/?id=53223-001-3>

1. Loan Agreement
2. Sector Assessment (Summary): Energy
3. Project Administration Manual
4. Financial Analysis
5. Economic Analysis
6. Summary Poverty Reduction and Social Strategy
7. Risk Assessment and Risk Management Plan
8. Attached Technical Assistance Report
9. Climate Change Assessment
10. Gender Action Plan
11. Initial Environmental Examination
12. Resettlement and Ethnic Group Development Plan

Supplementary Document

13. Conflict-Sensitive Approach