



Technical Assistance Report

PUBLIC

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Regional Initiative on Accelerated Energy Transition for the Pacific Small Island Developing States

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Asian Development Bank

ABBREVIATIONS

| | | |
|-----|---|-------------------------------|
| ADB | – | Asian Development Bank |
| AET | – | accelerated energy transition |
| DMC | – | developing member country |
| GDP | – | gross domestic product |
| TA | – | technical assistance |

NOTE

In this report, “\$” refers to United States dollars.

| | |
|-------------------------|---|
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1. Design and Monitoring Framework
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KNOWLEDGE AND SUPPORT TECHNICAL ASSISTANCE AT A GLANCE

| | | |
|--|---|--|
| 1. Basic Data | | Project Number: 56329-001 |
| Project Name | Regional Initiative on Accelerated Energy Transition for the Pacific Small Island Developing States | Department/Division SG/SG-ENE |
| Nature of Activity | Capacity Development, Policy Advice, Research and Development | Executing Agency Asian Development Bank |
| Modality | Regular | |
| Country | REG (COO, FIJ, FSM, KIR, NAU, NIU, PAL, PNG, RMI, SAM, SOL, TON, TUV, VAN) | |
| 2. Sector | | ADB Financing (\$ million) |
| ✓ Energy | Energy sector development and institutional reform | 0.500 |
| Finance | Finance sector development | 0.500 |
| | | Total <u>1.000</u> |
| 3. Operational Priorities | | Climate Change Information |
| ✓ OP3: Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability | | GHG Reductions (tons per annum) 0 |
| ✓ OP4: Making cities more livable | | Climate Change impact on the Project Low |
| ✓ OP6: Strengthening governance and institutional capacity | | ADB Financing |
| ✓ OP7: Fostering regional cooperation and integration | | Adaptation (\$ million) 1.000 |
| | | Mitigation (\$ million) 0.000 |
| | | Cofinancing |
| | | Adaptation (\$ million) 0.000 |
| | | Mitigation (\$ million) 0.000 |
| Sustainable Development Goals | | Gender |
| SDG 1.5, 1.a | | No gender elements (NGE) ✓ |
| SDG 7.a | | |
| SDG 8.10 | | Poverty Targeting |
| | | General Intervention on Poverty ✓ |
| 4. Risk Categorization Low | | |
| 5. Safeguard Categorization Safeguard Policy Statement does not apply | | |
| 6. Financing | | |
| Modality and Sources | | Amount (\$ million) |
| ADB | | 1.000 |
| Knowledge and Support technical assistance: Technical Assistance Special Fund | | 1.000 |
| Cofinancing | | 0.000 |
| None | | 0.000 |
| Counterpart | | 0.000 |
| None | | 0.000 |
| Total | | 1.000 |
| Currency of ADB Financing: US Dollar | | |

I. INTRODUCTION

1. The technical assistance (TA) will support Pacific developing member countries (DMCs) to develop an accelerated energy transition (AET) to a cleaner energy pathway.¹ The TA will enable the Asian Development Bank (ADB) to meet emerging requests for analytical support from Pacific DMCs in undertaking AET studies identifying the impact of systemic risks and market distortions such as fossil fuel price volatility at the regional and national levels. The TA will support the development of AET plans to mitigate the negative impact of systemic and external market risks in achieving energy efficiency and renewable energy targets, and help strengthen economic resilience and sustainability. Development of the AET will be informed and guided by (i) regional and country-level studies and policy dialogue, (ii) the facilitation of a regional senior officials' platform to promote continued dialogue and strong country ownership of the AET, and (iii) capacity development to strengthen knowledge and share experience in a range of potential mitigation measures. The AET process will develop a structure to integrate the benefits of addressing systemic and external risks via market solutions, with increased country commitment to energy efficiency and renewable energy targets. The AET's design and implementation are consistent with Pacific DMCs' energy plans and national goals under the Paris Agreement.²

2. The proposed TA responds to the request by ADB's Pacific DMCs to (i) address the immediate knowledge needs and priorities associated with potential mitigating measures against systemic risks and nonmarket distortion events (e.g., imported fuel price volatility and fuel supply chain disruption); (ii) accelerate progress in research and analysis for the transition to clean and efficient energy sources; and (iii) report to the next Pacific DMC Governors' Meetings in 2024–2025.³ The TA is aligned with the aim of ADB's Pacific Approach, 2021–2025, and Fiji and Papua New Guinea's country partnership strategies to build and support a more resilient Pacific subregion and with that of the Pacific Islands Forum's 2050 Blue Pacific Continent Strategy to strengthen investments that promote energy efficiency and a transition to renewable sources of energy.⁴ The TA is aligned with ADB's country knowledge plan.⁵

II. ISSUES

3. The AET and clean energy future in the Pacific is an urgent priority. Pacific DMCs rely heavily on imported fossil fuels for their primary energy supply, although efforts are underway to reduce this, supported by ADB, among others. Despite a considerable increase in installed renewable capacity, from 650 megawatts to 830 megawatts in 2014–2022, fossil fuels (mostly diesel) heavily dominate the energy mix (more than 70%) and absorb expenditure equivalent to 5%–13% of gross domestic product (GDP) in Pacific DMCs.⁶ More than 38% of imported fuel is

¹ The TA first appeared in the business opportunities section of ADB's website on 31 July 2023. ADB is collaborating with regional and international partners to support, study, and pilot-test the energy transition mechanism, which aims to catalyze public and private capital to accelerate the transition to clean energy in ADB DMCs. ADB. 2022. [Establishment of the Energy Transition Mechanism Partnership Trust Fund under the Clean Energy Financing Partnership Facility](#). Manila.

² United Nations. 2015. [Paris Agreement](#). New York. Signed and ratified on 22 April 2016.

³ Memorandum of understanding signed by Pacific DMCs (completed on 14 June 2023).

⁴ ADB. 2021. [Pacific Approach, 2021–2025](#); ADB. 2019. [Fiji: Country Partnership Strategy \(2019–2023\)](#); ADB. 2020. [Papua New Guinea: Country Partnership Strategy \(2021–2025\)](#). Manila; and Pacific Islands Forum. 2022. [2050 Strategy for the Blue Pacific Continent](#). Suva.

⁵ ADB. 2022. Indicative Country Pipeline and Monitoring Report: Twelve Small Pacific Island Countries, 2023–2025; ADB. 2022. Indicative Country Pipeline and Monitoring Report: Papua New Guinea, 2023–2025; and ADB. 2023. Indicative Country Pipeline and Monitoring Report: Fiji, 2023–2025. Manila. Unpublished.

⁶ ADB. 2019. [Technical Assistance for Pacific Region Infrastructure Facility Coordination Office—Leveraging Infrastructure for Sustainable Development](#). Manila.

used for electricity generation. With the expected retirement of 40% of generation assets in 2024–2030, an AET pathway is required to prioritize transformative policy actions in clean and sustainable energy that support Pacific DMCs’ nationally determined contributions and renewable energy investments.

4. Since the 2000s, there has been an unprecedented rise in the scope and impact of the volatility of hydrocarbon prices, as well as supply chain disruptions caused by the coronavirus disease (COVID-19) pandemic. The Russian invasion of Ukraine in 2022 pushed oil prices to a peak, with volatility nearly twice that observed in 2020–2021. With ambitious renewable goals and limited funding, Pacific DMCs are especially vulnerable to higher, more volatile prices that ultimately ripple through all segments of their economies, including prioritizing social subsidy programs over capital investments in a clean energy future.⁷ The cost of electricity production fluctuates with fuel prices, causing far-reaching effects on Pacific DMCs’ fiscal and trade balances; cost of doing business; and household living standards, including food security. The economic effects of high fuel prices manifest over time in real terms as a greater share of fuel imports as a percentage of GDP, a high proportion of oil in the primary energy supply, and rising oil imports and expenditure.

5. Heavy dependence on fossil fuels and fuel subsidies raises a range of important economic and political issues in the Pacific. Fuel subsidies are associated with significant economic, social, and environmental impacts that encourage wasteful consumption, distort markets, impede investment in clean energy sources, and undermine efforts to deal with the threat of climate change and nationally determined contribution commitments under the Paris Agreement. Even excluding nonpriced externalities such as impacts on air pollution, traffic congestion, and climate change, fossil fuel subsidies represent a major burden on the government budget. While fossil fuel subsidies are often defended as being pro-poor, by making fuels affordable for the poor, evidence suggests that such measures tend to be highly regressive, and perversely, generally benefit those who consume the most energy in society.⁸

6. Despite resource, technological, and capacity constraints, Pacific DMCs have committed to achieving 50% renewable energy generation by 2050. However, external systemic risks distort energy sector investment planning and capital resources allocation, specifically in renewable energy. Even if future energy demand could be anticipated, Pacific DMC governments tend to prioritize short-term nonmarket interventions and tariff adjustments to ease the cost of energy for consumers instead of accelerating the deployment of cleaner and more affordable renewable generation. Heightened uncertainty and the perceived political risk cause private investors to delay investment decisions until tariff settings stabilize and nonmarket interventions are addressed.⁹ Uncertainty adds risk to the transition to renewable energy, increasing the possibility of inappropriate and/or irreversible choices that could affect energy costs in the long term. Further, delays in prioritizing technologies to generate clean, efficient, renewable, and affordable power results in a need to divert productive resources (including development grants) to compensate for

⁷ Compared with the size of Pacific DMC economies, as measured by GDP, these subsidies have been recorded between 6.2% and to 12.8% of GDP (including the cost of carbon emissions and local air pollution). These subsidies are mostly recurrent, rather than one-off, reflecting an ongoing cost.

⁸ ADB. 2016. [Fossil Fuel Subsidies in Asia: Trends, Impacts, and Reforms—Integrative Report](#). Manila; and D. Coady, V. Flamini, and L. Sears. 2015. [The Unequal Benefits of Fuel Subsidies Revisited: Evidence for Developing Countries](#). *IMF Working Paper*. No. WP/15/250. Washington, DC: International Monetary Fund.

⁹ J. Maekawa, K. Shimada, and A. Takeuchi. 2021. [Sustainability of Renewable Energy Investment Motivations During a Feed-In-Tariff Scheme Transition: Evidence from a Laboratory Experiment](#). *The Japanese Economic Review*. 73. pp. 83–101; and L. Kilian. 2008. [The Economic Effects of Energy Price Shocks](#). *Journal of Economic Literature*. 46 (4). pp. 871–909.

weaknesses in infrastructure, with potentially constraining implications for the energy transition in Pacific DMCs.

7. **ADB's role and value addition.** ADB has been a key development partner supporting Pacific DMCs in developing and implementing the energy transition through a combination of TA, policy dialogue, transaction advisory services, and financing of investment projects. ADB has been supporting Pacific DMCs through regional initiatives and investment platforms such as the Pacific Regional Infrastructure Facility, the Pacific Renewable Energy Investment Facility, and the Pacific Private Sector Development Initiative.¹⁰ ADB is also engaged in supporting private sector investments in renewables and renewables-plus-storage projects in Pacific DMCs.¹¹ In the public sector, ADB has provided sector reform support for Pacific power utilities corporatization and sustainable regulation.¹² ADB's commitment to regional cooperation is further evident through its support for technical studies, policy dialogues, and the financing of key projects under regional initiatives and cooperation platforms, such as the Office of the Pacific Energy Regulators Alliance. These efforts promote information sharing, harmonization of policies, and the development of a cohesive regional approach to addressing energy challenges.¹³

8. The TA will build on the outcomes of ADB's ongoing regional TA and other country-specific activities that have been pilot-testing clean and efficient energy technologies and business models.¹⁴ The TA will also draw on lessons from other ADB regional teams engaged in energy transition work. In addition, the TA will collaborate and coordinate on the clean energy transition with other development partners. In particular, the TA will engage closely with other multilateral development institutions and commercial banks with a view to explore market solutions for country AET plans.

9. The TA is aligned with ADB's Energy Policy to support (i) efforts to bring affordable, reliable, sustainable, and modern energy to all, to eradicate extreme poverty and reduce social inequalities; (ii) the institutional development, financial sustainability, and good governance of energy sector institutions and companies, as well as private sector participation; (iii) creation of the policy frameworks needed to manage the energy transition;¹⁵ and (iv) the promotion of regional energy cooperation and the integration of energy systems to strengthen energy security.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

10. The TA is aligned with the following impact: negative impact of systemic risks and distortions in achieving energy efficiency and renewable energy targets in Pacific DMCs

¹⁰ ADB. [Technical Assistance for Infrastructure Facility Coordination Office-Leveraging Infrastructure for Sustainable Development](#). ADB. 2017. [Report and Recommendation of the President to the Board of Directors: Proposed Pacific Renewable Energy Investment Facility](#); and ADB. [Technical Assistance for Pacific Private Sector Development Initiative, Phase IV](#). Manila.

¹¹ ADB. [Tonga: 6 Megawatt Hihifo Solar Power Project](#).

¹² ADB. 2022. [Technical Assistance for Development of Pacific Power Utilities Reform Network](#). Manila.

¹³ ADB. 2021. [Technical Assistance for Development of the Pacific Energy Regulators Alliance](#). Manila

¹⁴ ADB. 2021. [Technical Assistance for Development of the Pacific Energy Regulators Alliance](#). Manila; ADB. 2017. [Technical Assistance for Capacity Building and Sector Reform for Renewable Energy Investments in the Pacific](#). Manila; and ADB. 2019. [Technical Assistance Report for Preparing the Pacific Renewable Energy Investment Facility \(Phase 2\)](#). Manila.

¹⁵ ADB. 2021. [Energy Policy Supporting Low-Carbon Transition in Asia and the Pacific](#). Manila.

mitigated.¹⁶ The TA will have the following outcome: Pacific DMCs' capacity for AET design and implementation strengthened.¹⁷

B. Outputs, Methods, and Activities

11. Output 1: Analyses and research for an accelerated energy transition delivered.

The TA will support a regional study on the AET, to include (i) a comprehensive stock-taking and analysis of systemic risks and market disruptions, including imported fossil fuel price volatility and its impact on Pacific DMCs' economic, social, financial, and environmental conditions; and (ii) three country AET plans on the potential for market solutions to mitigate systemic risks (e.g., price hedging for imported fossil fuels in the Pacific DMCs). The TA will support country-level AET plans based on research that includes (i) a supply chain risk assessment that defines the roles and responsibilities of each actor in the sector and describes how each is affected by energy cost volatility; and (ii) a fiscal risk assessment that quantifies the price exposure resulting from specific market solutions (benchmarked to initial market risk exposure), including hedging transactions or policy interventions and decisions. A series of regional senior officials' meetings will be held to (i) jointly review and analyze the findings of the research and studies; (ii) exchange experience on the application of market mitigation solutions in the Pacific DMCs; (iii) provide examples of global market mitigation initiatives pilot-tested by other development partners, and international best practice in mitigation measures in the context of small island developing states; and (iv) agree on joint market solutions to mitigate fossil fuel volatility, which will also benefit the implementation of an AET plan.

12. Output 2: Pacific developing member country government agencies' capacity to design accelerated energy transition strengthened. The TA will provide broad-based and targeted capacity building to all Pacific DMCs in (i) concepts of systemic risks such as fossil fuel price volatility, (ii) options for market mitigation solutions in the context of Pacific small island developing states, and (iii) the development and implementation of country AET plans with potential for energy efficiency and renewable energy investments. The TA will conduct both regional and country workshops to encourage effective learning and experience sharing, and support high responsiveness to the national context of Pacific DMCs. Country-specific policy dialogue will also be held with Pacific DMCs, including regional and country stakeholders.

C. Cost and Financing

13. The TA financing amount is \$1,000,000, which will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF 7). The key expenditure items are listed in Annex 2.

14. The participating Pacific DMCs will provide counterpart support in the form of counterpart staff, office space, and other in-kind contributions.

15. The total TA amount is broken down per output in Table 1.

¹⁶ Pacific Community. 2021. [Framework for Energy Security and Resilience in the Pacific, 2021–2030](#). Noumea.

¹⁷ Design and Monitoring Framework (Annex 1). Linked with Sustainable Development Goal 7 and nationally determined contributions to the United Nations Framework Convention on Climate Change.

Table 1: Cost Breakdown per Output

| Output | Indicative Cost (\$) | Percentage of TA Amount (%) |
|--|-----------------------------|------------------------------------|
| Output 1: Analyses and research for an accelerated energy transition delivered | 500,000 | 50 |
| Output 2: Pacific DMC government agencies' capacity to design accelerated energy transition strengthened | 500,000 | 50 |
| Total | 1,000,000 | 100 |

DMC = developing member country, TA = technical assistance.
Source: Asian Development Bank.

D. Implementation Arrangements

16. ADB is the executing agency and will administer the TA through the Emerging Areas Team under the Energy Sector Office, Sectors Group. The Emerging Areas Team will select, engage, supervise, and evaluate consultants; organize workshops; and provide staff to act as resource persons at the workshop in close coordination with the Pacific Community, which provides administration support to the Office of the Pacific Energy Regulators Alliance.

17. Implementation arrangements are summarized in Table 2.

Table 2: Implementation Arrangements

| Aspects | Arrangements | | |
|----------------------------------|--|--|-----------|
| Indicative implementation period | October 2023–December 2026 | | |
| Executing agency | Emerging Areas Team, Energy Sector Office, Sectors Group | | |
| Consultants | To be selected and engaged by ADB | | |
| | Firm: Quality and Cost-Based Selection | AET Study and Capacity Development | \$750,000 |
| | Individual: individual selection | International and national expertise (6 person-months) | \$100,000 |
| Disbursement | Disbursement of TA resources will follow ADB's <i>Technical Assistance Disbursement Handbook</i> (2020, as amended from time to time). | | |

ADB = Asian Development Bank, AET = accelerated energy transition, TA = technical assistance.
Source: ADB.

18. **Consulting services.** ADB will engage consultants following the ADB Procurement Policy (2017, as amended from time to time).¹⁸

IV. THE PRESIDENT'S DECISION

19. 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 for Regional Initiative on Accelerated Energy Transition for the Pacific Small Island Developing States, and hereby reports this action to the Board.

¹⁸ Terms of Reference for Consultants (Annex 3).