



# Extended Annual Review Report

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**PUBLIC**

Project Numbers: 52126-001 (Phase 1) and 52126-002 (Phase 2)  
Investment Numbers: 7587 and JL05 (Phase 1) and 7643 and JL09 (Phase 2)  
March 2022

Avaada Energy Private Limited  
Avaada Solar Project and Avaada Solar  
Phase 2 Project  
(India)

This is a redacted version of the document, which excludes information that is subject to exceptions to disclosure set forth in ADB's Access to Information Policy.

Asian Development Bank



## CURRENCY EQUIVALENTS

Currency unit – Indian rupee/s (₹)

		<b>At Appraisal</b> (02 July 2021)	<b>At Project Review</b> (7 December 2021)
₹1.00	–	\$0.013	\$0.013
\$1.00	–	₹75.4	₹75.4

## ABBREVIATIONS

ADB	–	Asian Development Bank
AEPL	–	Avaada Energy Private Limited
AVPL	–	Avaada Ventures Private Limited
CAP	–	corrective action plan
CCD	–	compulsory convertible debenture
COVID-19	–	coronavirus disease
CSR	–	corporate social responsibility
DFI	–	development finance institution
E&S	–	environment and social
EGM	–	effective gender mainstreaming
EIRR	–	economic internal rate of return
EPC	–	engineering, procurement and construction
ESAP	–	environment and social action plan
ESIA	–	environment and social impact assessment
ESMP	–	environment and social management plan
ESMS	–	environment and social management system
FIRR	–	financial internal rate of return
GAP	–	gender action plan
GHG	–	greenhouse gas
LEAP	–	Leading Asia's Private Infrastructure Fund
OCR	–	ordinary capital resources
RRP	–	report and recommendation of the President
SGE	–	some gender elements
SPS	–	safeguards policy statement

## WEIGHTS AND MEASURES

GW	–	gigawatt
GWh	–	gigawatt-hour
MW	–	megawatt

## NOTES

- (i) The fiscal year (FY) of Avaada Energy Private Limited ends on 31 March.
- (ii) In this report, "\$" refers to United States dollars.

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**BASIC DATA**  
**Avaada Energy Private Limited**  
**Avaada Solar Project and Avaada Solar Phase 2 Projects**  
(7587 and JL05 [Phase 1] and 7643 and JL09 [Phase 2] – India)

<b>Key Project Data</b>	<b>As per ADB Loan Documents (\$ million)</b>	<b>Actual (\$ million)</b>
ADB Investment:		
Equity		
Approved	32.5	32.5
Invested	32.5	32.5
Outstanding <sup>a</sup>	0.0	0.0
Equity via Official Cofinancing from Leading Asia Private Infrastructure Fund:		
Approved	32.5	32.5
Committed	32.5	32.5
Outstanding <sup>a</sup>	0.0	0.0

ADB = Asian Development Bank.

<sup>a</sup> Entire equity holding divested in July 2021.

<b>Key Dates</b>	<b>Expected</b>	<b>Actual</b>
Concept Clearance	31 Jul 2018	31 Jul 2018
Board Approval	22 Feb 2019	22 Feb 2019
Execution of Investment Agreement	22 Mar 2019	22 Mar 2019
First Disbursement	8 Apr 2019	8 Apr 2019
Exit Completion	31 Mar 2023	31 Jul 2021

<b>Project Administration and Monitoring</b>	<b>Number of Missions</b>	<b>Number of Person-Days</b>
Due Diligence and Appraisal	2	20
Project Monitoring	0	0
XARR Mission	0	0

## EXECUTIVE SUMMARY

In February 2019, the Board of Directors of the Asian Development Bank (ADB) approved an equity investment of \$25 million from ordinary capital resources (OCR) and an equity investment of \$25 million from the Leading Asia's Private Infrastructure Fund (LEAP) administered by ADB to Avaada Energy Private Limited (AEPL). AEPL is an India-based renewable energy generation company promoted by one of the previous promoters of Welspun Renewables Energy Limited. ADB had invested in Welspun and exited successfully in 2016 when Welspun was sold to Tata Power, one of the leading private sector power producers in India.

AEPL had secured power purchase agreements for 1,199 MW of solar power generation capacity by December 2018. AEPL was also planning to develop 793 MW of solar power projects, taking its total capacity to 1,991 MW by FY2023. ADB approved the investment of \$50 million (\$25 million each from OCR and LEAP). ADB's investment of \$50 million was made in April 2019 (referred to as phase 1).

AEPL's business plan targets were revised upwards in 2020 with the goal of reaching 2,622 MW of solar power capacity by March 2023, up from 1,991 MW in the 2019 business plan (referred to as phase 2). ADB's Board of Directors approved an additional investment of \$15 million (\$7.5 million each from OCR and LEAP) in September 2020.

The projects provided an opportunity for ADB to further its commitment to clean energy financing and aligned with ADB's strategy and policies. AEPL was also committed to promote gender equality and women's empowerment in its business, which aligned with ADB's recommendations and policy requirements. The phase 1 project contained a gender action plan (GAP) and was classified as "some gender elements". In the phase 2 project, the scope of gender mainstreaming was expanded to include four more targets: having a female board member, increasing the number of women officers and women in technical internships, training staff on prevention of sexual harassment, and providing at least 1,500 women with livelihood development training. These additional measures were captured in the phase 2 GAP, and the project was classified as "effective gender mainstreaming".

Progress in 2020 and 2021 was affected by the coronavirus disease (COVID-19) pandemic, and most of the projects experienced delays of 1 to 3 months. The company had a target of 2,698 MW of solar capacity by the end of FY2022; by H1 FY2022, 1,088 MW of solar capacity was operational and 1,610 MW was under construction. Thus, the execution risk was substantially mitigated. With substantially mitigated execution risks, the group received interest from multiple reputable commercial investors in H1 2021. ADB and other development finance institutions thus exited the investment in July 2021 supported by investment from the commercial investors.

ADB has learned that investing in a holding company with a portfolio of projects combined with improved safeguards standards across the portfolio and elements of gender mainstreaming can be an effective tool to achieve substantial development results. Yet, successful implementation of improved safeguards standards and governance measures across the portfolio is not immediately feasible in most cases. On this aspect, a portfolio investment requires a different approach by design from a project investment, and a comprehensive and workable solution can open multiple investment avenues for ADB.



## I. THE PROJECT

### A. Project Background

1. In February 2019, the Board of Directors of the Asian Development Bank (ADB) approved an equity investment of \$25 million from ordinary capital resources (OCR) and equity investment of \$25 million from the Leading Asia's Private Infrastructure (LEAP) Fund administered by ADB in to Avaada Energy Private Limited (AEPL). AEPL is an India-based renewable energy generation company promoted by one of the promoters of Welspun Renewable Energy Limited. ADB invested in Welspun and then exited successfully in 2016 when Welspun was sold to Tata Power, one of the leading private sector power producers in India.

2. AEPL secured power purchase agreements for 1,199 MW of solar power generation capacity by December 2018 with both industrial customers and government-owned power distribution companies. AEPL was also planning to secure contracts and operationalize another 793 MW of solar power projects by March 2023, taking the total capacity to 1,991 MW.

3. The total equity required for executing the business plan until March 2023 was \$199 million, of which AEPL had already invested \$99 million when it approached ADB. ADB approved the investment of \$50 million (\$25 million each from OCR and LEAP). ADB's investment of \$50 million was made in April 2019 (referred to as the phase 1 investment).

4. AEPL's business plan targets were revised upwards in 2020 with the goal of reaching 2,622 MW of solar power capacity by March 2023, up from 1,991 MW in the 2019 business plan) (referred to as phase 2). In September 2020, ADB's Board approved an additional investment of \$15 million comprising \$7.5 million each from OCR and LEAP to finance the additional equity.

5. The projects provided an opportunity for ADB to further its commitment to clean energy financing. The project was designed to support the Government of India's target of adding 175 GW of renewable energy generation capacity by 2022, of which 100 GW was expected to come from solar power. As of December 2018, the operational solar power capacity was 28 GW. The government expects the private sector to lead the capacity addition. Solar power tariffs were falling because of multiple factors, including favorable movement in solar panel prices, and had touched lows of ₹2.44 per unit, which was lower than the per unit price of thermal energy.

### B. Key Project Features

6. AEPL had identified the opportunity in solar power generation in India in two modalities: (i) power purchase agreements with government-owned distribution companies to meet the national target of an additional 100 GW of solar power capacity by 2022, and (ii) 5 GW of near-term potential for direct sales to industrial customers under the open access policy of state governments due to higher tariffs paid by end customers compared with the cost of procurement by distribution companies. Thus, to balance the risks and returns, AEPL was looking to build a portfolio of both open access solar power sales to industrial customers and sales to state-owned distribution companies under long-term power purchase agreements.

7. AEPL also undertakes in-house engineering, procurement, and construction (EPC) of its solar power projects. As a part of the de-merger process of Welspun, the EPC credentials were transferred to AEPL and a team of 167 people moved from Welspun group to AEPL.

8. The exit was expected by March 2023, by trade sale or initial public offering.

### **C. Progress Highlights**

9. The coronavirus disease (COVID-19) pandemic resulted in construction delays and delays in fundraising planned at the project level for some of AEPL's projects. Under the base case business plan, AEPL was expected to operationalize 2,447 MW by March 2022. Despite the delays, the company was on track to meet or marginally exceed the overall capacity addition targets by FY2022; however, earnings in FY2022 could still be lower because of the 1–3 months of delay in the commencement of commercial operations for multiple projects.

10. In May 2021, after multiple rounds of discussions, the promoter agreed with ADB and other investors to buy out their stakes. ADB and other investors accepted the offer and exited the investment in July 2021.

## **II. EVALUATION**

### **A. Project Rationale and Objectives**

11. The expanded project scope appraised for phase 2 investment was expected to result in the addition of 2,622 MW of solar power capacity by March 2023, resulting in generation of 5,600 GWh of clean energy per year and avoiding 4.9 million tons of carbon-dioxide per year from 2024 onward. The project would also contribute to the local economy through domestic purchases and boost local employment. The project was aligned with the policy targets of the Government of India to (i) achieve renewable energy generation capacity of 175 GW by 2022 and (ii) increase the share of non-fossil fuel-based power generation capacity to 40% by 2030.<sup>1</sup>

12. AEPL was also committed to promoting gender equality and women's empowerment in its business, aligned with ADB's recommendations and policy requirements. The phase 1 project contained a gender action plan (GAP) and was classified as having "some gender elements" (SGE). In the phase 2 project, the scope of the GAP was expanded with targets to have (i) a female board member, (ii) a greater number of officers who are women, (iii) a greater number of women in technical internship roles, (iv) training for staff on prevention of sexual harassment, and (v) livelihood development training or other opportunities for at least 1,500 women. These additional measures are captured in the phase 2 GAP and the project was classified as "effective gender mainstreaming" (EGM).

13. ADB's phase 2 investment was also expected to add significant value to AEPL by providing it with access to much-needed growth equity, at a time when its capital-raising plans were significantly affected by the market disruptions caused by the pandemic. The investment helped the company to sustain the momentum of implementation of its projects in line with its revised business plan, despite the pandemic.

### **B. Development Results**

#### **1. Contributions to Private Sector Development and ADB Strategic Development Objectives**

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<sup>1</sup> Government of India, *India's Nationally Determined Contribution*, submitted to UNFCCC. New Delhi.

14. The project aimed to promote private sector participation in renewable energy generation, result in effective gender mainstreaming and support the local economy through purchases and employment generation. It was fully aligned with ADB's Energy Policy, which prioritizes support for renewable energy development.<sup>2</sup> It strongly related to two of the five core specializations of ADB: infrastructure and environment. It was consistent with the following operational priorities of ADB's Strategy 2030: (i) addressing remaining poverty and reducing inequalities; (ii) accelerating progress in gender equality; and (iii) tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability.<sup>3</sup> The project aligned with ADB's country partnership strategy for India, 2018–2022, which calls for higher efficiency and carbon mitigation through power generation from renewable sources.<sup>4</sup>

15. The project's design and monitoring framework (DMF) was designed to measure the outputs and outcomes linked to renewable energy generation, gender mainstreaming and stimulation of the local economy through employment generation and purchases. However, it was geared to measure the outputs to be achieved by FY2023, at maturity, and the outcomes to be achieved in FY2024 after achievement of the outputs. The DMF was updated at the time of phase 2 investment appraisal in September 2020. Though it did factor in the delays caused by the first wave of the pandemic in India, the situation deteriorated significantly afterwards, with the second wave in March 2021 resulting in a four-fold rise in case load. DMF targets and achievements as of F20Y21 are shown in Table 1.

**Table 1: AEPL Achievements as of FY2021 under the Design and Monitoring Framework**

Results Chain	Performance Indicators	FY2021 Value
<b>Outcome.</b> By FY2024, renewable power delivered to the domestic grid increased	a. Electricity delivered to offtakers increased to 5,600 GWh per year (FY2018 baseline: 0 GWh)	1,453 GWh
	b. Annual emission of 4,910,000 tons of CO <sub>2</sub> avoided (FY2018 baseline: 0 tons of CO <sub>2</sub> )	Partially achieved in line with generation
	c. Number of jobs provided during operations amounted to at least 600 (FY2018 baseline: 167)	47
	d. Number of contractual jobs provided for operation and maintenance of operating projects amounted to at least 525 (FY2018 baseline: 25)	552
	e. Share of jobs provided to women during operations reached at least 24% (FY2018 baseline: 12%)	22%, excluding project sites located in remote areas
	f. Annual domestic purchase of goods and services amounted to more than \$26.5 million during operation (FY2018 baseline: \$6.0 million)	\$12.6 million
<b>Output 1.</b> By FY2023, installed solar power capacity increased to 2,622 MW	1. Total installed renewable energy electricity generation capacity increased to 2,622 MW (FY2018 baseline: 150 MW)	862 MW operational, 1,835 MW under construction
<b>Output 2.</b> By FY2023, local employment generated	2. Number of jobs provided during construction phase amounted to at least 10,000 (FY2018 baseline: 3,200)	5,150
<b>Output 3.</b> By FY2023, Growth of local economy supported	3a. Total payments to the government in relation to project construction amounted to at least \$90.0 million (FY2018 baseline: \$1.2 million)	\$12.9 million

<sup>2</sup> ADB. 2009. *Energy Policy*. Manila.

<sup>3</sup> ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila.

<sup>4</sup> ADB. 2017. *Country Partnership Strategy: India, 2018–2022—Accelerating Inclusive Economic Transformation*. Manila.

	3b. Total domestic purchases related to construction and operation of the project amounted to at least \$700.0 million (FY2018 baseline: \$88.4 million)	
<b>Output 4.</b> By FY2023, Gender Equality in AEPL enhanced	4a. At least one female member on the AEPL board (FY2019 baselines: 0 of 5)	2
	4b. At least 4 female interns in technical roles (FY2019 baseline: 1 of 5)	2
	4c. At least 6 women officers (FY2019 baseline: 3 of 53)	44
	4d. At least 80% of staff received training on the company's policy on prevention of sexual harassment (FY2019 baseline: 0%)	Added as a part of induction program and set as a specific session; 100% of new employees and 53% of all staff have received this training
<b>Output 5.</b> By FY2023, gender equality in implementing CSR enhanced	5. At least 1,500 women participated in livelihood development training or opportunities (FY2019 baseline: 259)	250

AEPL = Avaada Energy Private Limited, CSR = corporate social responsibility, FY = financial year ending March 31, GWh = gigawatt-hour, MW = megawatt.

Source: Audited financials and information shared by Avaada Energy Private Limited.

16. Given that ADB exited the investment in July 2021, the actual achievement cannot be measured against the targets. Considering that the company would have achieved the output target of increasing capacity to 2,622 MW by FY2023 and as of March 2021 expected to operationalize 2,698 MW by FY2022, it can be inferred that the company was on track to achieve the capacity addition, energy generation and emission reduction targets, despite delays in FY2021 due to the pandemic.

17. Achievements under the project's gender action plans were also partial, as can be expected. The company has implemented the gender measures under phase 1. It has started implementing the GAP defined in the second phase of investment but has not had enough time to fully meet the targets for 2023. For more details on the evaluation, refer to Appendix 2.

## 2. Economic Performance

18. The economic reevaluation for the investment was conducted over 27 years, starting with construction starting in 2018 and operations until 2044 following ADB's Guidelines for the Economic Analysis of Projects.<sup>5</sup> The set of projects in the sample used for analysis represent approximately 86% of the projects identified at the time of the report and recommendation to the President (RRP). The project is economically viable.

## 3. Environment, Social, Health, and Safety Performance

### a. Environment and Social Compliance

19. The investment is a corporate finance transaction. The first investment was classified category B for environment, involuntary resettlement, and indigenous peoples, based on the potential impacts of AEPL's existing and likely portfolio that would be supported by ADB. As the company progressed with its expansion program and more details about the location and environmental risks became available, it was likely that some portfolio projects and associated facilities, especially the large projects could be near sensitive receptors or could result in impact on environmentally sensitive areas or protected species. Hence, ADB took a more conservative

<sup>5</sup> ADB. 2017. *Guidelines for the Economic Analysis of Projects*. Manila.

and precautionary approach and recategorized the initial and second investments as category A for environment. Involuntary resettlement and indigenous peoples retained their B categorizations for the second investment.

20. As a condition precedent to ADB's phase 1 investment, the company improved and upgraded its environmental and social management system (ESMS) to comply with national laws and regulations, ADB's Safeguards Policy Statement (SPS), and other applicable requirements. After the phase 1 investment, AEPL (i) strengthened the environment and social (E&S) team by hiring two qualified staff; (ii) undertook biannual training on the ESMS for all project teams and facilities and provided E&S training to the site team at the start of construction and during operations, as well as sharing training records as part of the annual E&S monitoring reports; (iii) provided to ADB screening and categorization forms, impact assessments, and other information for new projects; (iv) engaged consultants to undertake an E&S audit of projects under construction to ensure compliance with the enhanced ESMS and ADB SPS requirements; (v) developed a waste management procedure to be implemented at each project; and (vi) received expert guidance through a capacity development program from the other investors, during which the ESMS was further reviewed in 2020. Further review of the ESMS was undertaken for the phase 2 investment, following which five more items were added to the action plan in 2020 to further address gaps and enhance risk mitigation. Only one of these was implemented as agreed.

21. As of July 2021, AEPL categorized all projects under implementation or operation as category B for environment. AEPL provided environmental and social impact assessments (ESIAs), environmental and social management plans (ESMPs), and construction audit reports for all projects under construction, and screening checklists for projects in the pipeline. No major occupational health and safety or environmental accidents or fatalities have been reported. AEPL has prepared an operating procedure to respond to the pandemic challenge. The company's stated approach to land access and acquisition was through either negotiated acquisition with private landholders or leased from existing solar park estates, where site screening often favored land that had minimal agricultural value for local users and did not entail any involuntary resettlement. As a precautionary measure by the company, two subprojects were categorized as B for involuntary resettlement but were assessed and reported as not having any such impacts, and the remainder of the subprojects were categorized as C.

22. The project was categorized by ADB as B for impacts on indigenous peoples owing to the potential for unanticipated impacts. As such, provisions were made for the ESMS to enhance the processes. All subprojects that have been developed or were in planning during the tenor of the loan were screened and categorized by the company as C for impacts on indigenous peoples, and no issues or complaints regarding impacts on indigenous peoples have been reported by AEPL to ADB.

23. The ESMS included specific measures regarding labor standards. No significant complaints or claims related to labor standards were reported by AEPL. Of the grievances being registered and reported to ADB, all but three have been resolved, and none are reported to have been escalated to legal cases.

24. The corrective actions agreed with ADB and other investors for the initial investment were documented in an Environmental and Social Action Plan (ESAP) and included in the shareholders agreement in 2019. This was updated with an additional ESAP for the second investment in 2020, following identification through project monitoring and report reviews of five actions for E&S improvement. Of the five actions, only one was completed satisfactorily at the time of ADB's exit. Key concerns that should have been addressed through the ESAP phase 2 (2020)

implementation include (i) proceeding with project construction before completion and disclosure of ESIA's satisfactory to ADB; (ii) lack of clear adoption and implementation of screening and management procedures related to labor and accommodation; and (iii) lack of commencement of the detailed portfolio E&S audit after the lockdowns in India, to evaluate the performance of the ESMS implementation at the project level. Therefore, the project materially complies with most of the key standards and milestones in the host country laws and regulations and as set by ADB at approval but does not comply with all. For more details on environment and social safeguards performance, refer to Appendixes 6 and 7.

#### **b. Performance under Phase 1 and Phase 2 Gender Action Plans**

25. Phase 1 of the project was categorized as SGE and had identified a comprehensive set of gender measures. Recognizing uncertainties and challenges brought by the pandemic, which not only affected AEPL's operations but also limited field activities with local women, the overall results nonetheless show that the project is contributing significantly to promoting gender equality and empowering women. The company managed to actively recruit women, increased the share of women employed on staff from 14% in 2018 to 53% in 2021, and conducted gender awareness trainings for staff.

26. The project was also supporting gender equality in human development, with the company delivering all its intended corporate social responsibility (CSR) program activities. These included (i) setting up the Nav Kiran Stitching Centre and Nav Kiran Digital Centre for women and adolescent girls; (ii) increasing participation by women and girls in the company's livelihood and skills development programs; (iii) increasing enrollment and retention of girls in schools through three specific CSR programs (Beti Padhao Beti Bachao, Save the Girl Child, and Beti He to Kal He); (iv) constructing community toilet facilities, especially for rural women, under the Swachh Bharat Mission; and (v) implementing various awareness programs and activities on menstrual hygiene management for women and adolescent girls. The project is also contributing to gender equality in decision-making and leadership by engaging women's groups in focused group discussions and addressing women's concerns during the environmental and social assessments.

27. Building on the success of the phase 1 gender elements, phase 2 of the project incorporated a number of additional gender-related design elements, leading to an improved gender policy and an improved gender categorization from SGE to EGM. Overall, the phase 2 project was successful in delivering the intended results for gender equality, based on these achievements: (i) 100% of the quantitative targets achieved or on track to be fully met on the GAP timeline; and (ii) sex-disaggregated data on beneficiaries were provided. The criteria for the project's gender activities are not applicable here, as the GAP has only gender targets.<sup>6</sup>

28. At project approval the GAP timeline ended in 2023. The present evaluation is as of October 2021, because ADB divested its stake in July 2021. In addition, the pandemic and related measures limited women's movement, participation in the workforce, and fieldwork and training opportunities. Thus, the company had limited time to implement its second GAP and as a result, it was able to deliver only some of the gender targets but is on track to achieving the remaining

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<sup>6</sup> In assessing whether a non-sovereign project delivered the intended gender results, the following criteria were used for the gender success rating at completion: (i) reported results using sex-disaggregated data; (ii) reported successful achievements against the project or program GAP, activities (measured as at least 80% of activities being implemented and completed), and quantitative targets (either at least 80% of targets are fully (100%) met, OR at least 80% of the numerical value of each target is achieved); and (iii) justifications as to why the gender equality results are achieved if an overall PCR or XARR rating is *less than successful* or *unsuccessful*. ADB. 2021. [Results Framework Indicator Definitions](#). Manila.

ones. These results already show that the project is contributing significantly to promoting gender equality and women's empowerment by assigning 44 women officers in the company and by conducting training on the policy on prevention of sexual harassment among AEPL staff. For details, refer to Appendix 8.

#### **4. Business Success**

29. Although there have been execution delays in FY2021 because of the pandemic, AEPL can exceed the capacity addition target by March 2022 under both the investment base case for both phase 1 and phase 2. When ADB invested in 2019, the target for capacity addition of 2 gigawatts (GW) in 2 years appeared optimistic; however, AEPL has demonstrated its execution capabilities. There is substantial investor demand for scalable renewable energy platforms like that of AEPL and with interest from new commercial investors, AEPL has been able to provide a profitable exit to ADB and other phase 1 investors. Utility-scale renewable energy has become close to an efficient market in India, and financial returns for new projects are near the cost of capital. The WACC is likely to decrease as AEPL refinances its construction loans at lower costs after the projects become operational.

#### **C. ADB Additionality**

30. The investment had built-in additionality from phase 1 since ADB played the role of an anchor investor and supported the plan to raise \$100 million, as AEPL was planning an aggressive growth path and a smaller amount of funds raised would have derailed the growth. ADB and LEAP together contributed \$50 million, and ADB's investment helped bring in other development finance institutions (DFIs), thus closing the targeted fundraising. Phase 2 of investment was led by ADB and resulted in contributions from all existing investors despite the delays brought about by the disruptions caused by the pandemic. During the phase 2 ADB also worked with the company and advisor in identifying potential new investors. This was supplemented by the discussions that the ADB nominee director had with the promoters in bringing in new investors. The successive rounds of investment helped the company to maintain the growth path, demonstrate execution ability and boost investor confidence resulting in the company attracting other investors and providing a profitable exit to ADB which was one of the value additions expected from the investment.

31. ADB also worked with the promoters, the management team and other investors in identifying and screening potential projects, including providing feedback on the potential offtakers.

32. The first phase of investment included some gender elements, but the commitments increased with the second phase resulting in the project being classified as effective gender mainstreaming. The achievements have been limited due to limited period of implementation and monitoring; however at least some of the improvements are likely to stay even after the exit.

#### **D. ADB Investment Profitability**

33. The investment was profitable.

#### **E. ADB's Work Quality**

34. **Screening, appraisal, and structuring.** The project provided ADB an opportunity to scale up its commitment to renewable energy financing in India through multiple subprojects of the group. ADB had experience working with the AEPL leader as a part of its engagement with

Welspun. AEPL had plans to aggressively expand its portfolio, which created risks since the investment valuation was based on execution of the business plan. The project also included gender mainstreaming, and the commitment was raised in the second phase.

35. **Monitoring and supervision.** ADB teams monitored the achievement of business plan objectives and noted delays caused by the pandemic disruptions. The phase 1 investment led to the phase 2 investment round, which supported execution of the company's business plan during the pandemic. A profitable exit was led, negotiated and executed by the ADB team (in close cooperation with other investors).

## F. Overall Evaluation

### III. ISSUES, LESSONS, AND RECOMMENDED FOLLOW-UP ACTIONS

#### A. Issues and Lessons

36. **Successful model for future investments.** The strategy of enabling a scalable renewable energy platform through portfolio-level equity investment is a successful model that can be used for future investments. It allows ADB's capital to enable multiple projects and improve group-level governance standards. Also, the strategy of having a conversion multiple that is linked to actual performance can be used to mitigate the risk of underachievement of projections.

37. **Challenges in safeguards monitoring for portfolio investments.** When ADB supports a single renewable energy project or a small set of identified projects under a project finance model, the investment is linked with binding project-level covenants that are monitored before and after disbursement. The scope of differentiated actions to be taken by the investee is specifically identified and often limited to such projects. But the scope of work involved in improving portfolio-level safeguards practices is significantly more both for ADB and for the investee and requires a greater degree of handholding and effective monitoring, especially in earlier phases when the standards are being upgraded to meet ADB's requirements. Also, complete compliance of the entire portfolio is not feasible in the short term in most cases. Identifying a smaller set of projects for targeting ADB's funds and applying ADB's safeguards standards has been used as a workaround, but it is not ideal.

#### B. Recommended Follow-Up Actions

38. Combining portfolio-level investments with risk mitigation strategies and conditions for improvement in governance and compliance can be an effective tool to achieve significant development results from invested capital through multiple subprojects of the portfolio.

39. Portfolio-level investments come with the challenges of implementing the safeguards and governance standards across the portfolio. To resolve these issues in some projects, ADB teams have stipulated earmarking of the investment for specific projects. This situation requires designing an appropriate safeguards standard and evaluation approach for portfolio investments, since upgrading the entire portfolio to ADB's standards may not be immediately feasible and identifying a smaller subset of projects for notional allocation of ADB's funds is also not ideal.

40. Thus it is also recommended to design an appropriate safeguards evaluation and monitoring approach for portfolio-level investments, which can involve (i) identifying specific projects for end use of ADB's funds and applying ADB's safeguards standards to those projects;



(ii) recognizing the limitations associated with bringing the entire portfolio to ADB's standards and identifying a subset of projects or rather adopting a hybrid approach; and (iii) taking a pure-play portfolio-level safeguards approach that attempts to achieve meaningful improvements in safeguards practices over time without immediately bringing the entire portfolio to ADB's standards, though this can be a long-term goal depending upon the number of years of investment. A solution may require policy-level changes after in-depth discussions with the safeguards team and could open new avenues and streamline processes for multiple platform- or portfolio-level investments for ADB.

**PROJECT-RELATED DATA****Table A1.1: Investment Identification**

1.	Country	India
2.	Project Number	52126-001 (Phase 1) and 52126-002 (Phase 2)
3.	Investment Number	7587 and JL05 (Phase 1) and 7643 and JL09 (Phase 2)
4.	Type of Business	Solar power generation
5.	Project Title	Avaada Solar Project and Avaada Solar Phase 2 Project
6.	Investee Company and/or Borrower	Avaada Energy Private Limited
7.	Amount of Approved ADB Assistance	\$25 million equity in first phase and \$7.5 million in second phase (equal amount also administered by ADB from Leading Asia's Private Infrastructure Fund)

**Table A1.2: Investment Data**

1.	Investment Committee Approval	18 Jan 2019 and 10 Aug 2020
2.	Date of Board Approval	22 Feb 2019 and 1 Sep 2020
3.	Signing Date of Investment Agreement	22 Mar 2019 and 24 Sep 2020
4.	Date of First Disbursement	8 Apr 2019

**RESULTS AND RATINGS FOR PROJECT CONTRIBUTIONS TO PRIVATE SECTOR DEVELOPMENT AND ADB STRATEGIC DEVELOPMENT OBJECTIVES—INFRASTRUCTURE**

Results area	Actual achievements	Justification	Potential future achievements	Risk
<b>1. Within-company PSD effects</b>				
1.1 <b>Improved skills.</b> New or strengthened strategic, managerial, operational, technical or financial skills.	The company has gained or improved upon skills to expand its solar energy portfolio at a considerable pace among consumer and industrial, state government and central government offtakers.	Fast-paced portfolio expansion	Further portfolio expansion	Slowdown in expansion
1.2 <b>Improved business operations.</b> Improved ways to operate the business and compete, as seen in investee operational performance against relevant best industry benchmarks or standards.	The company has been operating the portfolio at competitive costs because of its in-house EPC capability and knowledge of the technicalities gained during the construction phase.	Cost-competitive operations, in-house EPC capability	Further cost reduction in operations phase	Increased costs with project age
1.3 <b>Improved governance.</b> As evident in set standards related to corporate governance, stakeholder relations, ESHS fields, and/or energy conservation, and their implementation.	Gender mainstreaming has been partially achieved through the GAPs; environment and social aspects of operations are compliant with local laws and regulations, though not meeting ADB's standards.	Improved gender mainstreaming, compliant with local laws in other aspects	Meeting ADB's standards on E&S side	Lower standards after on-boarding commercial investors
1.4 <b>Innovation.</b> New or improved infrastructure design, technology, and service delivery; ways to cover or contain costs, manage demand or optimize utilization; improved risk allocation between private companies and government; financial structure, etc.	The company has been scaling up the consumer and industrial segment, where industries buy renewable energy directly from utility-scale projects.	Scaling up consumer and industrial segment	Mainstreaming of consumer and industrial model, combined with storage	Downscaling of consumer and industrial model
1.5 <b>Catalytic element.</b> Mobilizing or inducing more local or foreign market financing or foreign direct investment in the company	The company has successfully attracted commercial equity investment after demonstrating the ability to expand its portfolio at a considerable pace.	Attracted commercial equity investment	Successful and profitable exit for equity investors	Problems for new investors in exit
<b>2. Beyond-company PSD effects</b>				
2.1 <b>Private sector expansion.</b> Contribution by a pioneering or	The investment enabled AEPL to grow to scale as a new renewable energy platform within a short			

Results area	Actual achievements	Justification	Potential future achievements	Risk
low-profile project that facilitates in its own right, or paves the way for, more private participation in the sector and economy at large.	time, which can lead to more such platforms coming up at a fast pace.			
<b>2.2 Competition.</b> Contribution of new competition pressure on public and/or other sector players to raise efficiency and improve access and service levels in the industry.	The company's expansion has increased competition in the utility-scale solar energy sector, bringing down capital and operations costs	Lower costs due to increased competition	Returns near cost of capital with efficient operations	Lower returns, reducing new investment and competition
<b>2.3 Demonstration effects.</b> Adoption of new skills, improved infrastructure assets and services, more efficient processes, maintenance regimes, improved standards, risk allocation, and mitigation beyond the project company.	The company is working on a utility-scale business model for commercial and industrial renewable energy supply that has demonstrated fast-paced growth in solar energy enabled by multiple rounds of investment.	Successfully demonstrated a viable model	Further increased scale of the model	Fast growth, affecting returns
<b>2.4 Linkages.</b> Relative to investments, the project contributes notable upstream or downstream linkage effects to business clients, consumers, suppliers, key industries, etc. in support of growth.	Renewable energy projects inherently have upstream and downstream linkages (no special differentiating achievements).			
<b>2.5 Catalytic element.</b> Mobilizing or inducing more local or foreign market financing or foreign direct investment in the sector (beyond the company) through pioneering or catalytic finance.	The company has grown with the help of multiple rounds of investments from ADB and other DFIs; it now attracts investment from multiple commercial investors as a scalable renewable energy platform, which will attract more financing in the sector.	Likely to induce more equity financing in the sector	Further rounds of equity financing	Delayed exit affecting further financing
<b>2.6. Affected laws, frameworks, regulation.</b> Contributes to improved laws and sector regulation for PPPs, concessions, joint ventures, and build-operate-transfer projects; and liberalizing markets as applicable for improved sector efficiency.	No significant effect was noted.			

Results area	Actual achievements	Justification	Potential future achievements	Risk
<b>3. Contribution to other ADB strategic objectives</b>				
<b>3.1 Sector development (outputs).</b> Contribution to other sector development outputs and outcomes not captured under point 2, such as capacity or network expansion.	Gender mainstreaming in the renewable sector was strengthened.	Gender results are other outputs	Further achievements in gender mainstreaming	Achievements not sustained after ADB's exit
<b>3.2 Sector development (outcomes).</b> Contribution to other sector development outputs and outcomes not captured under point 2, such as increased infrastructure utilization or consumption, improved in-country connectivity, improved energy security.	Gender mainstreaming in the renewable sector was strengthened.	Gender results are other outputs	Further achievements in gender mainstreaming	Achievements not sustained after ADB's exit
<b>3.3 Inclusion.</b> Improved access to, availability of, or affordability of infrastructure services for the poor and other disadvantaged groups.	No significant link was noted.			
<b>3.4 Job creation.</b> Creation of additional sustainable jobs or self-employment. Distinguish between jobs created within and beyond the company.	Jobs have been created from increased solar energy capacity construction and operations.	Likely to follow higher capacities	Further job creation with capacity expansion	
<b>3.5 Environmental sustainability.</b> Project net impact on GHG emissions. Any other contributions to environmental improvements.	GHG emissions have been reduced through clean energy generation and consumption.	Likely to follow higher capacities	Further reduced emissions with capacity expansion	
<b>3.6 Regional integration.</b> Project contributions to regional cooperation and integration by facilitating trade, cross-border mobility, cross-border power supplies, etc.	Renewable energy projects inherently support regional integration because of their distributed supply chains; solar modules are usually imported.	Import of solar modules	Further trade from increased capacities	Domestic manufacturing, reducing trade
<b>4. Overall Rating</b>				

EPC = engineering, procurement and construction; ESHS = environment, social, health, and safety; GAP = gender action plan; GHG = greenhouse gas.

<sup>a</sup>The rating scale for each results area is Unsatisfactory, Less than Satisfactory, Satisfactory, Excellent, Not applicable. "Satisfactory" denotes a good level achievement in line with expectations and set targets. "Less than satisfactory" reflects a low level of achievement below expectations. "Unsatisfactory" reflects no achievement or significant negative effects.

Source: Asian Development Bank.

## SECTOR REVIEW

1. Growth in developing Asia moderated in 2019, with weaker domestic investment in response to external challenges, including slowing global trade and economic activity (e.g., a downturn in electronics), and protracted trade tensions between the United States and the People's Republic of China. India's economic growth slowed from 6.1% in 2018 to 5.1% in 2019. In 2020, the impact of the coronavirus disease (COVID-19) pandemic led to a significant downward revision of the economic outlook, with negative growth expected in most economies. In FY2021, the Indian economy contracted by 7.3%, as was expected with the impact of the pandemic, however, the quarter ending March 2021 registered growth of 1.6%. Despite the second wave of infections slowing economic activity in India in April and May 2021, a sharp recovery is expected in FY2022, in part due to base effect, with 8%–10% growth forecast in India by various agencies.

**Table A3: Key Economic Indicators**

Year	GDP Growth (%)	CPI Inflation (%)	Trade Deficit (\$ billion)	External Debt (\$ billion)	Foreign Exchange Reserves (\$ billion)	Exchange Rate at End of Period (₹ = \$)
FY2021	(7.3%)	5.5%	102	570	579	73.5
FY2020	4.2%	4.8%	161	559	478	75.4
FY2019	6.1%	3.4%	184	543	412	69.4
FY2018	7.0%	3.6%	162	529	425	65.1

CPI = consumer price index, FY = fiscal year, GDP = gross domestic product.

Source: Reserve Bank of India. 2020. *Handbook of Statistics on Indian Economy*. Mumbai.

2. As of 31 December 2020, India's total installed power generation capacity was 375 gigawatts (GW), with renewable energy contributing 91 GW (23%), 39 GW of which was from wind energy.<sup>1</sup> India had ambitiously targeted the installation of 175 GW of renewable energy capacity by 2022. Although states are the largest players in the generation of energy from conventional sources, accounting for 68% of installed capacity, private sector producers operating under the public–private partnership model are driving renewable energy generation, accounting for 96% of capacity. Most utility-scale renewable energy projects operate with long-term (25-year), fixed-price power purchase agreements with government-owned distribution companies and are protected by the “must run” status accorded to them under government policies. Renewable energy technologies have also been improving, resulting in improved load factors and declining per unit costs, and wind and solar energy prices have achieved grid parity with conventional sources. Nevertheless, since the entire required investment is upfront, the project tariff for past projects cannot be modified with declines in the energy prices of new projects.

3. The most significant risk faced by renewable energy projects has been counterparty risk. State distribution companies across India have weak financial health because of structural problems such as the average revenue realized per unit being lower than the average cost of procurement, as well as high transmission and distribution losses (estimated at 19% in FY2020), exacerbated by being a vehicle for various power subsidy schemes coupled with the delayed release of subsidy payments by state governments. Except in the states of Gujarat, Maharashtra, and Chattisgarh, all distribution companies have cost–revenue gaps of about ₹0–₹2 per unit, with the largest gaps in Himachal Pradesh, Rajasthan, Tamilnadu, Andhra Pradesh, and Bihar. India Ratings analysis of 41 distribution companies calculated the national average gap at ₹0.41 per

<sup>1</sup> Central Electricity Authority. 2020. *Monthly Generation and Installed Capacity Reports*. December.

unit. These factors have led to debt accumulation and delayed payments by the distribution companies, severely affecting the private capital-driven renewable energy sector, with high project leverage ratios and required upfront investment leading to substantial debt-service obligations.

4. The power sector faced further challenges in FY2021 from the reduced demand resulting from the pandemic. In India, ICRA Limited estimated that the demand for power declined by 5%–6% in July 2020, and average plant load factors for thermal plants were likely to decline from 55% in FY2020 to about 50% in FY2021.<sup>2</sup> Recovery has been observed in FY2022 on the low base of FY2021. The all-India electricity demand during the period from April 2021 to September 2021 increased by 12.7% to 707 billion units on a year-on-year basis, supported by a lower base, improvement in economic activity, and lower than normal monsoons, all leading to higher demand from agriculture during July and August 2021. Energy demand in H1 FY2022 remained high, by 2.9% against H1 FY2020 (pre-COVID), led by relatively sharper recovery in energy demand as reflected from 8.4% growth in Q2 FY2022 against Q2 FY2020.<sup>3</sup>

5. According to the industry portal called Payment Ratification and Analysis in Power Procurement for Bringing Transparency in Invoicing of Generators, distribution companies' total outstanding dues as of September 2021 stood at ₹969 billion (equivalent to about 5 months of billing, down 30% from last year). Further deterioration of the situation was prevented by a liquidity relief scheme of ₹1.350 billion, in the form of loans by the state power sector lenders, the Power Finance Corporation and the Rural Electrification Corporation, to the distribution companies to enable them to make their overdue payments. The Government of India announced this measure under an economic relief package in May 2020. As reported by the government, the Power Finance Corporation and Rural Electrification Corporation have approved ₹1.350 billion until August 2021, and have disbursed ₹797 billion under the liquidity relief package.<sup>4</sup>

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<sup>2</sup> T. Thomas. 2020. [Power Demand to Shrink 3–4% this Fiscal as States Return to Lockdown](#). *Livemint*.

<sup>3</sup> ICRA Limited. 2021. [Energy demand growth outlook for FY2022 revised upwards; to grow by 8.0–8.5%](#).

<sup>4</sup> Ministry of Power, Government of India. New Delhi. 2021. [Statement in response to question no. 2544 in Rajya Sabha](#).



## FINANCIAL ANALYSIS

1. Avaada Energy Private Limited (AEPL) is a private company incorporated in India operating in utility-scale solar energy generation. In April 2019, ADB led an equity raising of \$100 million by AEPL in which ADB invested \$25 million from ordinary capital resources and administered \$25 million from Leading Asia's Infrastructure Fund (LEAP). The investments were to support the business plan of AEPL to grow its solar energy portfolio.
2. Returns from the current projects are lower due to the impact of customs duty on project costs. Nevertheless, given the achievement of portfolio expansion targets and investment demand for scalable renewable energy platforms, the valuations are attractive and AEPL was able to provide a profitable exit to ADB and other investors with better-than-expected returns. When ADB invested in AEPL, the targeted capacity increase of about 2 gigawatts in 2 years appeared optimistic and ADB had toned down the base case projections. According to the project status, the original base case plan under the phase 1 investment will be overachieved by March 2022, and the company may even exceed the phase 2 base case, although there have been execution delays of 1–3 months due to the pandemic in FY2021.
3. Since AEPL has now demonstrated its ability to execute projects and expand capacity at a significant pace, the new investors now plan to allow more time for execution, include overseas projects, and take the company public a few years after the original plan of 2023. Thus, although ADB has exited the investment earlier than planned, the investment has enabled the company's transition into the next phase of growth.

## REEVALUATION OF ECONOMIC INTERNAL RATE OF RETURN

### A. Overview

1. In April 2019, the Asian Development Bank (ADB) invested equity of \$50 million (\$25 million from ordinary capital resources (OCR) and \$25 million from the Leading Asia's Private Infrastructure Fund [LEAP]) in Avaada Energy Private Limited (AEPL) for the Avaada Solar Project.<sup>1</sup>
2. After the previous investment, AEPL won more projects and approached existing investors to exercise their options in supporting the growth of the company. In October 2020, ADB made a follow-on equity investment of \$15 million (\$7.5 million from OCR and \$7.5 million from LEAP) in AEPL.<sup>2</sup>
3. The project needed to mobilize financing to expand renewable energy capacity. This provided ADB with an avenue to scale up its clean energy financing and helped India achieve its targets for clean energy use, climate change mitigation, and energy mix diversification.
4. India is committed to increasing the share of installed renewable energy capacity to 40% of energy resources and to reduce the emission intensity of gross domestic product by 2030 by 33%–35% from the 2005 level.<sup>3</sup> The country's energy mix has started shifting away from thermal sources and toward renewable energy sources.<sup>4</sup> In 2021, installed power generation capacity was reported at 382.73 GW, an increase of approximately 11% from 344 GW in 2018. Although coal remains the leading power source (53%),<sup>5</sup> its share has decreased from 64.3% in 2018. The share of renewable sources in total electricity generation has increased steadily from 20.5% in 2018 to 24.8% in 2021. Solar power accounted for 39.8% of installed renewable energy capacity in 2020 (second only to wind with 43.3%), but it has become the fastest growing among renewable energy sources.<sup>6</sup>

### B. Key Assumptions and Methodology

5. The economic reevaluation for the investment was conducted over 27 years starting with construction in 2018 and operations until 2044, following ADB's Guidelines for the Economic Analysis of Projects.<sup>7</sup> The set of projects in the sample represent approximately 86% of the projects identified at RRP. The economic analysis maintained the calculation method and the basic assumptions of the ex ante analysis. The calculation used a domestic price numéraire and is expressed in constant 2018 prices.

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<sup>1</sup> ADB. 2019. *Report and Recommendation of the President to the Board of Directors on Proposed Equity Investment in Avaada Energy Private Limited. Avaada Solar Project (India)*. Manila.

<sup>2</sup> ADB. 2019. *Report and Recommendation of the President to the Board of Directors on Proposed Equity Investment and Administration of Equity Investment, Avaada Energy Private Limited, Avaada Solar Phase 2 Project (India)*. Manila.

<sup>3</sup> [Government of India. 2016. \*Intended Nationally Determined Contribution\*](#).

<sup>4</sup> Renewable Energy Sources include small hydropower, biomass gasifier, biomass power, urban and industrial waste power, and wind and solar energy.

<sup>5</sup> Ministry of Power, Government of India. 2021. *Power Sector at a Glance: ALL INDIA*.

<https://powermin.gov.in/en/content/power-sector-glance-all-india>.

<sup>6</sup> Ministry of Statistics and Programme Implementation. 2021. *Energy Statistics 2021*. <http://mospi.nic.in/publication/energy-statistics-india-2021>.

<sup>7</sup> ADB. 2017. *Guidelines for the Economic Analysis of Projects*. Manila.

**C. Valuation of Economic Benefits**

6. The economic benefits were derived from two sources: (i) resource cost savings from reduced importation of coal, and (ii) avoided greenhouse gas emissions. A degradation rate of 0.5% per year was applied to the plant load factor of all subprojects. The emission factor of coal was 878 tCO<sub>2</sub> per GWh, and each avoided tCO<sub>2</sub> was priced at \$40 in 2018 prices and escalated in real terms by 2% each year to reflect the increasing marginal damage of global warming over time.<sup>8</sup>

**D. Valuation of Economic Costs**

7. Economic costs of the project include solar module, inverter and other controlling technology; installation; transmission lines; switch yards; land and development costs; operation and maintenance, and administration. Depreciation, taxes, and interest costs were not considered.

**E. Recalculation of Economic Internal Rate of Return and Net Present Value**

8. The EIRR is driven by climate benefits, mainly because of how zero-emission renewable energy sources are replacing high-emission coal power generation. The project is still economically viable as it exceeds ADB's standard threshold.

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<sup>8</sup> ADB. 2017. [Guidelines for the Economic Analysis of Projects](#). Manila.

## ENVIRONMENTAL IMPACT

### A. Introduction

1. Avaada Energy Private Limited (AEPL) focuses on developing solar photovoltaic generation projects. It is sponsored by Avaada Ventures Private Limited (AVPL). In February 2019, the Asian Development Bank (ADB) approved a direct equity investment of \$50 million to finance the company's plan to achieve 1.9 GW by March 2022—\$25 million from ordinary capital resources and \$25 million from Leading Asia's Private Infrastructure Fund (LEAP), to be administered by ADB. The proceeds of ADB's investments are being used to fund development and operation of AEPL's projects in India. During the first year, AEPL won new capacity, and it expected to achieve 2.4 GW by 2022. This required additional funding, for which the company approached ADB and existing investors, and as part of which ADB further invested \$15 million (\$7.5 million from ordinary capital resources and \$7.5 million from LEAP). The second investment helped the company to manage liquidity, which has been adversely affected by the pandemic and to timely execute the committed projects.

2. The investment is a general corporate finance transaction. The first investment was classified category B for environment, involuntary resettlement, and indigenous peoples, based on the potential impacts of AEPL's existing and likely future portfolio that would be supported by ADB. During due diligence for the first investment, the company confirmed that all its future pipeline projects will be renewable energy projects and will mainly include solar projects like the existing solar plants. As the company progressed with its expansion program and more details about the location and environmental risks became available, it became likely that some projects and associated facilities, especially the large projects in its portfolio (300 MW or more) could be located near sensitive receptors or could result in impacts on environmentally sensitive areas or protected species. Hence, ADB took a more conservative and precautionary approach and re-categorized the initial and second investments as category A for environment.

3. A corporate audit of AEPL's current environmental and social policies and procedures, and an assessment of the company's past and current performance against the objectives, principles, and requirements of ADB's Safeguard Policy Statement (2009) (SPS), was conducted by a qualified and experienced third party in 2018. The findings were summarized in a corrective action plan which was agreed with the company. As a condition precedent to ADB's initial investment, the company improved and upgraded its existing environmental and social management system (ESMS) to comply with national laws and regulations, ADB's SPS, and other applicable requirements. The ESMS also addresses potential category A projects, and includes terms of reference for the preparation of an environmental and social impact assessment (ESIA) to meet national and ADB requirements. Potential project impacts are addressed through the project environmental management plan (EMP).

4. ADB performed a desktop review of AEPL's environmental and social (E&S) performance against the E&S project commitments after the sale of ADB's shares. The company has submitted annual environmental and social monitoring reports in 2020 and 2021 in compliance with the safeguard requirements.

## B. Review Findings

5. The corrective actions agreed with AEPL and other investors for the initial investment<sup>1</sup> were documented in an environmental and social action plan (ESAP) included in the shareholders agreement. The recommendations to update the ESMS were fulfilled by the company, as it was a condition precedent to ADB's disbursement. After the initial investment, AEPL (i) strengthened the E&S team by hiring two qualified staff; (ii) undertook biannual training on ESMS for all project teams and facilities and provided E&S training (including on ESMPs) to the site team at the start of construction and operations, and retained training records and submitted them as part of the annual E&S monitoring reports; (iii) strengthened and provided to ADB screening and categorization forms for upcoming projects, and projects' ESAs and EMPs; (iv) engaged a qualified E&S consultant to undertake an E&S audit of projects undergoing construction to ensure compliance with ESMS and ADB SPS requirements; (v) developed a waste management procedure to be implemented at each project, which is also included in the site-specific ESMPs; and (vi) received expert guidance through a capacity development program from the other investors under which the ESMS was further reviewed in 2020, the groundwater study for the Pavagada site was finalized, and AVPL received assistance for project E&S due diligence.

6. The ESAP required the group to prepare a buyback agreement or recycling agreement for end-of-life or redundant solar panel modules, which has not been developed. In India, there are no government guidelines for disposal or for full or partial recovery of solar panels. AEPL kept damaged solar panels (a total of 2,221 modules from all sites) in an isolated, closed, and covered area at each project site until such guidance becomes available.

7. ADB and the other investors agreed an additional ESAP for the second investment<sup>2</sup> that was included in the updated shareholders agreement (2020). During the first year of the initial investment, ADB actively monitors AEPL's current portfolio and its implementation of the ESMS and corrective action plan. ADB acknowledged that AEPL achieved good progress over 2019–2020, and AEPL's E&S performance was considered satisfactory. However, ADB and the other shareholders identified areas that required improvements to ensure that satisfactory progress would be maintained. The ESAP actions agreed on were these:

- (i) Investors required an independent portfolio audit of a sample of projects (from AEPL's portfolio as well as pipeline projects) to be conducted by an independent third party based on terms of reference provided by ADB. The audit intended to assess the E&S documentation and the effectiveness of implementation of the ESMS during the project life cycle. ADB review of several of the ESDD documents had indicated several deficiencies which the audit was expected to address. AEPL has not yet performed this action; despite the impact of the pandemic, the audit could have already been undertaken, but there is no firm commitment on the timeline for completion.
- (ii) AEPL agreed to finalize the groundwater study for the Pavagada project site required under the previous investment. The groundwater study was completed, but AEPL had yet to integrate the recommendations of the groundwater study into a revised version of the ESMS to ensure its implementation at project level.
- (iii) AEPL agreed to hire a qualified social specialist with knowledge of the International Finance Corporation's Performance Standards and the social requirements of ADB's SPS. This action has not been completed.
- (iv) AEPL's E&S team continued to involve shareholders in (a) screening and categorization of selected sites; (b) the environmental and social impact assessment process and

<sup>1</sup> ADB. 2019. [India: Avaada Solar Project](#).

<sup>2</sup> ADB. 2020. [Avaada Solar Phase 2 Project: Report and Recommendation of the President](#).

construction audits; (c) consultant selection; and (d) revision of ESIA studies prior to implementation. The engagement with shareholders was satisfactory; however, ADB provided comments on ESIAAs that have not been adequately addressed or disclosed in the current draft before the start of project construction. These will be disclosed as draft and incomplete.

- (v) AEPL agreed to submit the annual E&S performance monitoring reports to shareholders. This action has been completed satisfactorily. Due to the pandemic and lockdowns in India, the first monitoring report (2019–2020) covered the period between April 2019 and March 2020. AEPL also submitted a report for the period 2020–2021.

8. As of July 2021, AEPL had commissioned two projects, initiated construction of five projects, and initiated preparation of four projects since the signing of the shareholders agreement in 2019. The company categorized all projects as category B for environment. AEPL provided ESIAAs, EMPs and construction audit reports for all projects under construction, and screening checklists for the three Bikaner projects in the pipeline. Key environmental impacts and risks associated with AEPL's solar projects include water use, soil erosion, health and safety risks, and pollution risks. There have been no reported major operational health and safety or environmental accidents or fatalities. AEPL has prepared an operating procedure to prevent and respond to the pandemic for project sites and office operations.

9. Investors were particularly concerned about the Surendranagar (300 MW) and Bhadla II Bikaner (350 MW) projects, for which investors' early screening suggested that potential sensitive species may be affected. In the case of the Surendranagar project, no evidence is available to suggest that it is likely to trigger critical habitat impact, but the ESIA does not provide sufficient information to reach that conclusion, and ADB's comments on potential impacts of the transmission line and proposed mitigation measures were not addressed. AEPL engaged a different external consultant to prepare the Bhadla II Bikaner ESIA, and a biodiversity expert to perform field surveys on the Great Indian bustard and prepare an impact assessment to determine the potential for critical habitat. The monsoon season surveys did not detect the presence of the bird, but the breeding season surveys were pending at the time of writing this report. The quality of the ESIA has improved; however, the final ESIA version did not address all comments or integrate the survey results, and project construction began before the GIB breeding season survey results were available. It is also uncertain whether the project contemplates building power lines underground, as per the supreme court order (2021),<sup>3</sup> even if the project is located in the broader area with potential for bustard habitat. The ESAP agreed for the second investment required that ESIA reports be disclosed on ADB's website prior to construction, as per the requirements of the ADB SPS and the ADB Access to Information Policy (2018). ADB has not yet disclosed the ESIAAs for Surendranagar and Bhadla II as they are not considered complete. The current ESMS and procedures do not cover issues related to floating solar projects, although the screening phase for the Bihar project did not begin during ADB's involvement. The portfolio audit was intended to investigate all of these issues and propose adequate corrective actions.

10. **Stakeholder engagement and grievances.** AEPL has developed and implemented a grievance redress mechanism as part of the ESMS for implementation at the project level. No significant complaints from workers or communities have been recorded at the project level. There have been a total of 36 internal and 29 external grievances across all sites. Recorded pending grievances at the project level relate to the CSR program activities at Bikaner and Surendranagar sites. Consultations have been limited during the pandemic.

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<sup>3</sup> *The Economic Times* (2021). [Solar power majors get \\$3-billion shock from Supreme Court order.](#)

## SOCIAL IMPACT

### A. Introduction

1. Avaada Energy Private Limited (AEPL) is a company focused on developing solar photovoltaic generation projects. It is sponsored by Avaada Ventures Private Limited (AVPL). In February 2019, the Asian Development Bank (ADB) approved a direct equity investment of \$50 million to finance the company's plan to achieve 1.9 GW by March 2022—\$25 million from ordinary capital resources and \$25 million from Leading Asia's Private Infrastructure Fund (LEAP, to be administered by ADB). The proceeds of ADB's investments are being used to fund development and operation of AEPL's projects in India. During the first year, AEPL won new capacity, and it expected to achieve 2.4 GW by 2022. This required additional funding for which the company approached ADB and existing investors, as part of which ADB invested another \$15 million (\$7.5 million from ordinary capital resources and \$7.5 million from LEAP). The second investment helped the company to manage liquidity, which had been adversely impacted by the pandemic, and to execute the committed projects in a timely fashion.

2. The investment is a general corporate finance transaction, and the first investment was classified category B for environment, involuntary resettlement, and indigenous peoples, based on the potential impacts of AEPL's existing and likely future portfolio that would be supported by ADB. During due diligence for the first investment, the company confirmed that all its future pipeline projects will be renewable energy projects and will mainly include solar projects. As the company progressed with its expansion program and more details about the location and environmental risks became available, it became likely that some projects and associated facilities in its portfolio, especially the large projects (300 MW or more) could be located near sensitive receptors or could potentially result in impact on environmentally sensitive areas or protected species. Hence, ADB took a more conservative and precautionary approach and recategorized the first and second investments as category A for environment. Categorizations for involuntary resettlement and indigenous peoples remained at category B for both, as no additional risk was identified to warrant adjustment.

3. In 2018 a third party conducted a corporate audit of AEPL's current environmental and social policies and procedures, and an assessment of the company's past and current performance against the objectives, principles, and requirements of ADB's SPS. The findings were summarized in a corrective action plan that was agreed with the company. As a condition precedent to ADB's initial investment in 2019, the company improved and upgraded its existing environmental and social management system (ESMS) to comply with national laws and regulations, ADB's SPS, and other applicable requirements. The ESMS also addresses projects that are potentially category A for environment and includes terms of reference for the preparation of an environmental and social impact assessment (ESIA), and, for involuntary resettlement and indigenous peoples subprojects that are category B, both a resettlement plan and an indigenous peoples plan (to meet national and ADB requirements). Potential environmental and social project impacts are addressed through a project environmental and social management plan (ESMP) developed as a result of the ESIA's, initial environmental examinations, and other reviews, and in line with the requirements of the ESMS.

4. ADB performed a desktop review of AEPL's environmental and social (E&S) performance against the E&S project commitments after the sale of ADB's shares in July 2021. The company has submitted annual environmental and social (E&S) monitoring reports in 2020 and 2021 in compliance with the safeguards requirements, and those have been disclosed on ADB's website. ESIA's which were completed before the sale of ADB equity will also be disclosed, though some



of these have not fully addressed ADB review comments and will be disclosed in draft form. No resettlement plans or indigenous peoples plans were required during the investment.

## B. Review Findings

5. The corrective actions agreed with AEPL and the other investors for the initial investment<sup>4</sup> were documented in an environmental and social action plan (ESAP) included in Schedule 6 of the shareholders agreement (2019). The recommendations to update the ESMS were fulfilled by the company as it was a condition precedent to ADB's disbursement. After the initial investment, AEPL (i) strengthened the E&S team by hiring two qualified staff; (ii) undertook biannual training on ESMS for all project teams and facilities and provided E&S training (including on ESMPs) to the site team at the start of construction and operations, and the company retained training records and submitted them as part of the annual E&S monitoring reports; (iii) strengthened and provided to ADB screening and categorization forms for new upcoming projects, and project ESIA's and ESMPs; (iv) engaged E&S consultants to undertake an E&S audit of projects undergoing construction to evaluate compliance with ESMS and ADB SPS requirements; (v) developed a waste management procedure to be implemented at each project, which is also included in the site-specific ESMPs; and (vi) AVPL received expert guidance through a capacity development program from the other investors under which the ESMS was further reviewed in 2020, the groundwater study for the Pavagada site was finalized, and AVPL received assistance for project E&S due diligence.

6. ADB and the other investors agreed an additional ESAP for the second investment<sup>5</sup> that was included in the updated shareholders agreement (2020). During the first year of the initial investment, ADB actively monitored AEPL's current portfolio and the implementation of the ESMS and corrective action plan. ADB acknowledged that AEPL achieved good progress over 2019–2020, and AEPL's E&S performance was considered satisfactory at this point. However, ADB and the other shareholders identified areas that required important compliance-related improvements as part of the ESAP review and following submission of unsatisfactory E&S audits and ESIA's by the previous consultants. In Q3 2020 AEPL agreed to the following updated ESAP actions:

- (i) Investors required an independent portfolio audit of a sample of projects (from AEPL's portfolio as well as pipeline projects) to be conducted by an independent third-party E&S consultant experienced in international lender standards based on terms of reference provided by ADB and endorsed by the co-financiers. The audit intended to assess the effective implementation of the ESMS during the project life cycle. This action has not yet been performed by AEPL; despite the impact of the pandemic, the audit could have been undertaken, but there is no firm commitment on the timeline for completion and therefore evaluation of the preceding ESAP actions and performance remain uncertain.
- (ii) AEPL agreed to finalize the groundwater study for the Pavagada project site required under the previous investment. The groundwater study was completed, but AEPL had yet to integrate the recommendations of the groundwater study into a revised version of the ESMS to ensure its implementation at project level.
- (iii) AEPL agreed to hire a qualified social specialist with knowledge of the International Finance Corporation's Performance Standards and the social requirements of ADB's SPS.

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<sup>4</sup> ADB. 2019. [India: Avaada Solar Project](#).

<sup>5</sup> ADB. 2020. [Avaada Solar Phase 2 Project: Report and Recommendation of the President](#).



Despite numerous attempts to resolve this action and support to review candidate profiles, this action has not been completed.

- (iv) AEPL's E&S team continued to involve shareholders in (a) screening and categorization of selected sites; (b) the environmental and social impact assessment process and construction audits; (c) consultant selection; and (d) revision of environmental and social impact assessment studies prior to implementation. The engagement with shareholders was satisfactory; however, ADB provided comments on ESIA's that have not been adequately addressed or disclosed prior to the start of construction of projects, for example, for the 320 MW Bhadla II Bikaner project in Rajasthan (para. 13).
- (v) AEPL agreed to submit the annual E&S performance monitoring reports to shareholders. This action has been completed satisfactorily. Because of the pandemic and lockdowns in India, the first monitoring report (2019–2020) covered the period between April 2019 and March 2020. AEPL also submitted a report for the period 2020–2021.

7. As of July 2021, AEPL had commissioned two projects, initiated construction of five projects, and initiated preparation of four projects since the signing of the shareholders agreement in 2019. The company categorized all projects as category B for environment and category C for both involuntary resettlement and indigenous peoples, and therefore no plans were required. AEPL provided ESIA's, ESMP's, and construction audit reports for all projects under construction, and screening checklists for the three Bikaner projects in the pipeline. Key social impacts often identified in the ESIA's related to land acquisition and livelihoods, rights-of-way and community access points, local labor (local labor demands, migrant labor influx), and community health and safety issues related to traffic and construction activities.

8. AEPL's ESMS was enhanced to include specific language in its land policy to minimize impacts on both formal and informal landowners and users, and statements regarding the avoidance of scheduled lands, potentially owned or claimed by scheduled tribes or indigenous peoples. The policy also includes a commitment to ensure that there is no involuntary displacement or forcible eviction, and that those affected by land loss would only move willingly, with the right to refuse. Through screening and subsequent development of the ESIA's, the process for negotiated land access and acquisition was often summarized in line with the policy commitments and categorized each subproject as category C for involuntary resettlement and indigenous peoples as no land was acquired involuntarily and no indigenous people were identified. In addition, AEPL has a dedicated department responsible for managing land screening and acquisition, which has oversight of site-based project implementers and EHS site coordinators. AEPL also operates through land aggregators to acquire land on their behalf.

9. The ESIA's generally addressed issues not related to land through various ESMP-related points. However, despite review comments from ADB requesting additional information, these issues have not been properly addressed. Issues regarding land acquisition and how the land acquisition was undertaken without use of coercion and did not lead to affected people being worse off (e.g. increased landlessness) were often inadequately analyzed in the ESIA's and not confirmed with substantive detail through the audits. The later subprojects and ESIA's undertaken by international consultants were markedly better and more detailed in response to the requirement to provide evidence that the willing buyer-seller arrangements of the ESMS was adhered to. The portfolio audit intended to investigate and substantiate that willing buyers and sellers had been secured, in line with the ESMS, was not undertaken as agreed in the additional ESAP (2020).

10. **Stakeholder engagement and grievances.** AEPL's ESMS provides robust guidance on corporate and subproject stakeholder engagement and internal and external grievance

management. No significant complaints from workers or communities have been recorded at the project level. There have been 36 internal and 29 external grievances reported across all sites, as reported by AEPL in its latest E&S report to ADB. Recorded pending grievances at the project level relate to the CSR program activities at the Bikaner and Surendranagar sites. Consultations have been limited during the pandemic. The portfolio E&S audit required by the ESAP was also intended to review the grievance mechanism in operation to assess its effectiveness, with review and engagement at the site level. Because the portfolio audit was not undertaken, this verification and review has not been produced.

### **C. Conclusions and Recommendations**

11. Based on the results of the desktop review, the project materially complies with most of the key standards and milestones in the host country laws and regulations and as set by ADB at approval, but does not comply with all and has major shortcomings with regard to current ADB standards.

## PROJECT ACHIEVEMENTS UNDER GENDER ACTION PLAN

### A. Introduction

1. The Avaada Solar Project Phase 2 was categorized as “effective gender mainstreaming” (EGM). The project added significant value to AEPL by providing it with access to capital to increase the delivery of renewable power to the domestic grid despite the disruptions of the coronavirus disease (COVID-19) pandemic. Phase 1 of the project generated local employment, supported the growth of the local economy, and enhanced gender equality in AEPL advertisement for local women. phase 2 further strengthened the company’s safeguards standards by upgrading its environmental categorization, ensuring that its operations adopt high and internationally recognized E&S standards, and incorporated a number of additional gender-related design elements, leading to an improved gender policy and an enhanced gender categorization from “some gender elements” to EGM. AEPL committed to implement a comprehensive gender action plan (GAP) with the following measures: (i) the company board has at least one female member; (ii) at least four women are interns in technical roles; (iii) the number of women officers increases to at least six; (iv) at least 80% of staff receive training on the company’s prevention of sexual harassment policy; and (v) at least 1,500 women participate in livelihood development training or opportunities. The project was aligned with two pillars of ADB’s Strategy 2030 Operational Plan for Priority 2—Accelerating Progress in Gender Equality: gender equality in decision-making, and leadership enhanced, and gender equality in human development enhanced.<sup>1</sup>

### B. Key Gender Issues

2. Before the pandemic, India had made progress toward development goals despite persisting gender disparities, especially in labor force participation, by closing 62.5% of its gender gap.<sup>2</sup> In the Global Gender Gap Index 2020, India ranks 112th out of the 153 countries. In terms of the pandemic’s effects on widened gender-based disparities, India has experienced similar impacts as in Asia Pacific, where it is reported that a larger share of women (50%) than men (35%) in formal employment saw their paid work hours reduced. In addition, women shouldered most of the burden as the lockdowns made unpaid domestic work an essential service. The pandemic is also hitting women’s income from savings, investments and properties the hardest.<sup>3</sup>

3. As a nontraditional area for women, the power sector in South Asia also reflects patterns of gender inequality owing to the stereotypical view of energy technological development as a domain of men. The sector also generally lacks recognition of the distinct energy needs and potential contribution of women.<sup>4</sup> In an online global survey conducted by the International Renewable Energy Agency (IRENA) among 1,500 men, women and organizations working in the renewable energy sector<sup>5</sup>, from highly specialized technical roles to policy, legal and commercial functions, women represented 32% of the conventional energy sector workforce, on average.

<sup>1</sup> ADB. 2019. *Strategy 2030 Operational Plan for Priority 2 Accelerating Progress in Gender Equality, 2019–2024*. Manila.

<sup>2</sup> World Economic Forum. 2020. *Insight Report: Global Gender Gap Report 2020*. Geneva.

<sup>3</sup> UN Women. 2020. *Unlocking the Lockdown: The Gendered Effects of COVID-19 on Achieving the SDGs in Asia and the Pacific*. New York.

<sup>4</sup> ADB. 2018. [India Gender Equality Results Case Study: Enhancing Energy-Based Livelihoods for Women Micro-Entrepreneurs](#). Manila.

<sup>5</sup> International Renewable Energy Agency (IRENA). 2019. *Renewable Energy: A Gender Perspective*. IRENA, Abu Dhabi.

4. In 2019, all five of AEPL's board directors were men. Women made up 12% of staff overall, and 13% of senior managers, 15% of middle managers, 13% of junior managers, and 6% of officers. This pattern characterizes the private sector in India, where women are underrepresented both in the formal private sector as a whole and in senior management positions in most companies. In efforts to enhance gender equality, AEPL has an internship program that encompasses both management and technical fields. From 2018 to 2019, the company had already improved the male-female ratio as one of the five interns was a woman, as compared with only one of the eight interns the previous year. In addition, by June 2020, women represented 17% of participants in AEPL's technical skills and non-technical skills professional development training for staff, an increase from 14% in 2018. Moreover, the company formed an internal complaints committee that implements the policy on prevention of sexual harassment and undertakes capacity building on policy implementation. AEPL also encouraged women's empowerment through its corporate social responsibility activities, supporting skills development programs relevant for local employment opportunities, including stitching and embroidery, beauty services, and data entry.<sup>6</sup>

### **C. Gender Action Plan Achievements**

5. The Gender Action Plan Implementation and Achievement Matrix for phase 2 (Table A8) shows that overall (i) 100% of the quantitative targets were on track to be fully met; and (ii) sex-disaggregated data on beneficiaries were provided. The criteria on the project's gender activities are not applicable here as the GAP has only gender targets.

6. At project approval the GAP timeline extended to 2023. The XARR reporting is as of October 2021 because ADB exited the investment in July 2021. In addition, pandemic-related challenges limited field activities with local women.

### **D. Practical and Strategic Gender Benefits**

7. The project delivered practical and strategic benefits for women in line with ADB's Strategy 2030 Operational Plan for Priority 2 (OP2)—Accelerating Progress in Gender Equality.<sup>7</sup> The practical benefits consist of access to jobs for women at AEPL, promotion opportunities for female employees, access to skills development trainings and income-generating opportunities for local women, and a safer workplace environment because of trainings on preventing sexual exploitation, abuse and sexual harassment. By sustaining the implementation of its ongoing solar projects despite the pandemic, the project also delivered strategic gender benefits, which include progress toward women's economic empowerment, improved access to better jobs and higher incomes for both female staff and local women trained in skills, and progress toward human development with the trainings in skills and in prevention of sexual exploitation, abuse and sexual harassment.

### **E. Lessons Learned and Recommendations**

8. The project's successful implementation of its GAP illustrates that, even under a shortened timeline to deliver on gender targets, ADB lending and the addition of gender-related design elements can still lead to an improved gender policy. Furthermore, it accelerated gender equality

<sup>6</sup> ADB. 2020. *Report and Recommendation of the President to the Board of Directors: Proposed Equity Investment and Administration of Equity Investment to Avaada Energy Private Limited for Avaada Solar Project in India*. Summary Poverty Reduction and Social Strategy (Appendix 2). Manila.

<sup>7</sup> ADB. 2019. *Strategy 2030 Operational Plan for Priority 2 Accelerating Progress in Gender Equality, 2019–2024*. Manila.

outcomes in India in women's economic empowerment and decision-making and women's leadership—two of the pillars of OP2. These achievements promoted generation of local employment and enhanced gender equality in the company, thus improving the representation of women in corporate India. To further build on these achievements, it is recommended that AEPL continue implementing its GAP and (i) appoint a new female member to the company board, in replacement of the outgoing one; (ii) continue to hire more female interns in technical roles; and (iii) encourage the participation of more women in livelihood development training or opportunities so that the company may continue to develop gender equality and women's economic empowerment in its activities.

**Table A8: Gender Action Plan Implementation and Achievement Matrix**

Results Chain	Results and Status upon XARR (October 2021)
By FY2023	
<b>Output 1: Gender equality in AEPL enhanced</b>	
<b>T1:</b> 4a. Company board has at least one female member (FY2019 baseline: 0 of 5)	<b>Achieved.</b> The company has two women on the board. The target date is 2023. In 2020, AEPL appointed a woman to serve as vice chairperson responsible for AEPL's strategy and leadership development and in 2021 appointed another woman in 2021.
<b>T2:</b> At least 4 female interns in technical roles (FY2019 baseline: 1 of 5)	<b>Achieved.</b> The target date is 2023 and as of October 2021, AEPL already had two female interns in technical roles, on track to meet the 2023 target.
<b>T3:</b> Number of women officers <sup>a</sup> increased to at least 6 (FY2019 baseline: 3 of 53)	<b>Achieved.</b> As of October 2021, AEPL had 44 women officers.
<b>T4:</b> At least 80% of staff received training on the company's prevention of sexual harassment policy (FY2019 baseline: 0%)	<b>Achieved.</b> The target date is 2023 and as of October 2021, the company has already reported 100% of new hires receive one training on the prevention of sexual harassment policy as part of the induction program and that 53% of staff members had attend the training, on track to meet the 2023 target.
<b>Output 2: Gender equality in implementing corporate social responsibility enhanced</b>	
<b>T5:</b> At least 1,500 women participated in livelihood development training or opportunities (FY2019 baseline: 259)	<b>Achieved.</b> The target date is 2023, and as of 2020 AEPL had provided livelihood development training or opportunities to 250 women. The training program has been suspended because of national and state-specific lockdown measures. AEPL has five operational centers at different project locations and is also planning to set up five new digital and skill development centers for women's empowerment in FY2022–2023. AEPL is targeting to provide training to 600–650 women in FY2022 and the same number by FY2022–23. AEPL is confident that it will achieve the target.

AEPL = Avaada Energy Private Limited, FY = financial year, XARR = extended annual review report.

<sup>a</sup> Officers are staff roles in engineering, designing, operations and maintenance of project sites, administration, accounts and corporate affairs.

Source: AEPL. 2020. *Development Effectiveness Monitoring Report*. New Delhi.