



# Report and Recommendation of the President to the Board of Directors

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Project Number: 50330-001  
February 2018

## Proposed Loan and Administration of Loan PT Supreme Energy Rantau Dedap Rantau Dedap Geothermal Power Project (Phase 2) (Republic of Indonesia)

This is an abbreviated version of the document approved by ADB's Board of Directors that excludes information that is subject to exceptions to disclosure in accordance with paragraph 97 (v) and (viii) of ADB's Public Communication Policy 2011.

Asian Development Bank



## CURRENCY EQUIVALENTS

(as of 15 February 2018)

Currency unit	–	rupiah (Rp)
Rp1.00	=	\$0.000074
\$1.00	=	Rp13,568.00

## ABBREVIATIONS

ADB	–	Asian Development Bank
BAP	–	biodiversity action plan
CTF	–	Clean Technology Fund
MEMR	–	Ministry of Energy and Mineral Resources
PLN	–	Perusahaan Listrik Negara (national power utility)
PPA	–	power purchase agreement
SERD	–	PT Supreme Energy Rantau Dedap

## WEIGHTS AND MEASURES

GW	–	gigawatt
Ha	–	hectare
Km	–	kilometer
MW	–	megawatt

## NOTE

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

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## PROJECT AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number: 50330-001</b>	
<b>Project Name</b>	Rantau Dedap Geothermal Power Project (Phase 2)	<b>Department /Division</b>	PSOD/PSIF2
<b>Country</b>	Indonesia		
<b>Borrower</b>	PT Supreme Energy Rantau Dedap		
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>ADB Financing (\$ million)</b>	
✓ Energy	Renewable energy generation - geothermal		177.50
		<b>Total</b>	<b>177.50</b>
<b>3. Strategic Agenda</b>	<b>Subcomponents</b>	<b>Climate Change Information</b>	
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Mitigation (\$ million)	177.50
Environmentally sustainable growth (ESG)	Global and regional transboundary environmental concerns	CO <sub>2</sub> reduction (tons per annum)	403,000
		Climate Change impact on the Project	Medium
<b>4. Drivers of Change</b>	<b>Components</b>	<b>Gender Equity and Mainstreaming</b>	
Partnerships (PAR)	Commercial cofinancing	Some gender elements (SGE)	✓
	Official cofinancing		
	Private Sector		
Private sector development (PSD)	Promotion of private sector investment		
<b>5. Poverty and SDG Targeting</b>		<b>Location Impact</b>	
Geographic Targeting	No	Nation-wide	High
Household Targeting	No		
SDG Targeting	Yes		
SDG Goals	SDG7, SDG13		
<b>6. Nonsovereign Operation Risk Rating</b>			
<b>Obligor Name</b>		<b>Final Project Rating</b>	<b>Facility Risk Rating</b>
PT Supreme Energy Rantau Dedap		NSO7	NSO7
<b>7. Safeguard Categorization</b>	<b>Environment: A</b>	<b>Involuntary Resettlement: B</b>	<b>Indigenous Peoples: C</b>
<b>8. Financing</b>			
<b>Modality and Sources</b>		<b>Amount (\$ million)</b>	
<b>ADB</b>		<b>177.50</b>	
Nonsovereign LIBOR Based Loan (Regular Loan): Ordinary capital resources		177.50	
<b>Cofinancing</b>		<b>50.00</b>	
Clean Technology Fund (Full ADB Administration)		50.00	
Others		0.00	
<b>Others<sup>a</sup></b>		<b>482.40</b>	
<b>Total</b>		<b>709.90</b>	

<sup>a</sup> Derived by deducting ADB financing and Cofinancing from Total Project Cost.



## I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed loan of up to \$177,500,000 to PT Supreme Energy Rantau Dedap (SERD) for the Rantau Dedap Geothermal Power Project (Phase 2) in the Republic of Indonesia. The report also describes the proposed administration of a loan of \$50,000,000 to be provided by the Clean Technology Fund (CTF), which will be a rollover from an existing CTF facility supporting phase 1 of the project,<sup>1</sup> for the Rantau Dedap Geothermal Power Project (Phase 2);<sup>2</sup> and if the Board approves the proposed loan, I, acting under the authority delegated to me by the Board, approve the administration of the CTF loan.

## II. THE PROJECT

### A. Project Identification and Description

#### 1. Project Identification

2. Indonesia, the largest economy in Southeast Asia, had an estimated gross domestic product of \$932.3 billion (current United States dollars) in 2016.<sup>3</sup> It experienced consistent growth after the Asian financial crisis, averaging 5.0% per year during 2011–2016, down from 6.4% in 2010. Improved access to affordable and sustainable forms of energy is critical to enhance the competitiveness of Indonesia's power infrastructure, which has been struggling to keep up with the country's strong economic performance. The Ministry of Energy and Mineral Resources (MEMR) anticipates power demand to increase under current forecasts, resulting in a shortage that could undermine the country's sustainable growth potential if not addressed adequately.

3. Indonesia has an estimated potential of 29.5 gigawatts (GW) of geothermal energy resources (the largest in the world), 75.0 GW of hydropower, 532.6 GW of solar power, 32.6 GW of biomass and biogas, and 113.5 GW of wind power.<sup>4</sup> Nearly every renewable subsector remains undeveloped, and the total installed geothermal power capacity in 2017 was only 1.8 GW.<sup>5</sup>

4. To cope with predicted future electricity shortages, the Government of Indonesia introduced fast-track programs to accelerate power generation development. In its national development plans for 2015–2024, it introduced a third fast-track program targeting the addition of 35 GW of power by 2019. In early 2017, pursuant to the National Electricity Business Plan, 2017–2026, it adjusted the target completion dates and capacities under this program to 29 GW by the end of 2019 and 35 GW by the end of 2021.<sup>6</sup> While the largest share of generated energy is still expected to come from fossil fuels, the government is encouraging greater use of renewable energy sources in the generation mix. It has set ambitious targets to increase the share of renewable energy from 12% in 2013 to 23% in 2025 in the primary energy mix.<sup>7</sup>

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<sup>1</sup> Asian Development Bank (ADB). 2014. *Report and Recommendation of the President to the Board of Directors: Proposed Administration of Loan to PT Supreme Energy Rantau Dedap for the Rantau Dedap Geothermal Development Project (Phase 1) in the Republic of Indonesia*. Manila.

<sup>2</sup> The CTF Trust Fund Committee approved the rollover from the Phase I CTF loan on 9 February 2018.

<sup>3</sup> World Bank. 2017. *World Development Indicators 2017*. Washington, DC.

<sup>4</sup> Government of Indonesia, MEMR. 2016. *Mainstreaming Renewable Energy and Energy Conservation*. Paper presented at the SIEP Policy Coordination Team Kick-Off Workshop. Jakarta. 3 August.

<sup>5</sup> *RambuEnergy*. 2017. [Indonesia's Geothermal Installed Capacity Increases to 1808.5 MW](#). 11 October.

<sup>6</sup> Government of Indonesia, MEMR. 2017. *Pengesahan Rencana Usaha Penyediaan Tenaga Listrik: PT Perusahaan Listrik Negara (Persero) Tahun 2017 S.D. 2026*. Decree No. 1415 K/20/MEM/2017. Jakarta (RUPTL, 2017–2026); and Sector Overview (accessible from the list of linked documents in Appendix 2).

<sup>7</sup> ADB. 2016. *Indonesia: Energy Sector Assessment, Strategy, and Road Map*. Manila.

5. Simultaneously, the government aims to reduce electricity generation costs. MEMR issued new regulations in January 2017 to set renewable energy tariffs against local and national grid prices, to regulate the procurement process, and more generally to reallocate some risks under power purchase agreements (PPAs).<sup>8</sup>

## 2. Project Design

6. Asian Development Bank (ADB) and CTF support for phase 1 of the project (footnote 1) via a \$50 million exploration loan financed entirely by CTF in 2014 supported initial drilling and exploration which successfully quantified and characterized the nature of the geothermal resources. This has resulted in Phase 2 which will develop the geothermal steam resources at the site through further drilling and construction of production and injection facilities prior to the operation and maintenance of a power plant.

7. SERD will construct, operate, and maintain the project, with a design gross capacity of 98.4 megawatts (MW) and net capacity of 90.9 MW, in South Sumatra Province. It is located about 225 kilometers (km) southwest of Palembang across the administrative areas of Muara Enim Regency, Lahat Regency, and Pagar Alam City. It is within the 353 square km Rantau Dedap Geothermal Working Area along the Great Sumatran Fault and the Bukit Barisan mountain range at an altitude of 1,500–2,600 meters above sea level.

8. The project will be connected from its switchyard to the Lahat grid owned by Perusahaan Listrik Negara (PLN), Indonesia's state-owned power utility. PLN is responsible for the transmission line that will run from the Rantau Dedap Geothermal Plant to the substation.

## 3. Borrower and Sponsors

9. SERD, a special purpose vehicle incorporated in Indonesia is the borrower. SERD is owned by PT Supreme Energy (Supreme), Engie, Marubeni Corporation (Marubeni), and by Tohoku Electric Power (Tohoku).

### [CONFIDENTIAL INFORMATION DELETED]

10. Based in France, Engie is among the world's leading independent power producers. Its core operations include power, natural gas and energy services. With operations in 70 countries it has 113 GW of installed capacity, of which 21.5 GW is in the renewable energy sector. Marubeni is a Japanese trading house with activities in a variety of sectors such as textiles, chemicals, energy, metals, mineral resources, and power. In the power sector, Marubeni has 41 GW of capacity in 23 countries around the world. Marubeni has previous experience operating in Indonesia as it is a current shareholder in the Cirebon and Paiton 2 coal power projects.

11. Recently established in 2007, Supreme is a small developer focusing on geothermal energy projects in Indonesia. Phase 2 will be the company's second geothermal project under development. The management team have a history of successfully developing and operating geothermal projects in the country with previous organizations. Tohoku is a top-tier Japanese power utility with over 7 million customers in Japan. It has installed capacity of 19 GW across

<sup>8</sup> Government of Indonesia, MEMR. 2017. *MEMR Regulation No. 10 of 2017 Concerning Principles of Power Purchase Agreements*. Jakarta (amended by MEMR Regulation No. 49 of 2017); Government of Indonesia, MEMR. 2017. *MEMR Regulation No. 11 of 2017 Concerning Utilization of Natural Gas by Power Plants*. Jakarta; and Government of Indonesia, MEMR. 2017. *MEMR Regulation No. 12 of 2017 Concerning the Utilization of Renewable Energy Resources for Electricity Supply*. Jakarta (revoked and replaced by MEMR Regulation No. 50 of 2017).



coal, gas, oil, nuclear, and renewable energy and currently operates five geothermal plants with approximately 250 MW of capacity which is half of Japan's total geothermal power generation capacity.

12. Integrity due diligence was conducted.<sup>9</sup> Enhanced tax integrity due diligence was also conducted on the transaction.<sup>10</sup> ADB's review of the entity does not give ADB cause to believe that such entity has been established or is being used for cross-border tax evasion, money laundering, or terrorism financing in the jurisdictions involved in the project.

## B. Development Impacts, Outcome, and Outputs

13. **Impacts.** Indonesia intends to use sustainable electricity to drive economic activity and to enhance quality of life.<sup>11</sup> ADB financing will support MEMR's plan to expand the capacity of geothermal power generation from 1,858.5 MW in 2017 to 7,241.0 MW by 2025, and to raise the share of new and renewable energy in the grid power generation capacity to 33% (45 GW).<sup>12</sup> It will also contribute to Indonesia's target to reduce greenhouse gas emissions by 29% relative to a business-as-usual scenario by 2030.<sup>13</sup>

14. **Outcome.** The outcome will be geothermal power of 702.5 gigawatt-hours generated annually to meet the increasing electricity demand and avoid carbon dioxide emissions equivalent to 403,000 tons per year.

15. **Outputs.** The outputs are (i) 90.9 MW total capacity of geothermal power generation installed and operated by the private sector, (ii) employment generated for the local community, (iii) local and national economy stimulated, and (iv) economic opportunities for women improved.

## C. Alignment with ADB Strategy and Operations

16. **Consistency with ADB strategy and country strategy.** The project supports private sector participation in infrastructure and environment, two of the five core pillars of ADB's long-term strategy as reaffirmed by the Midterm Review of Strategy 2020.<sup>14</sup> The project is consistent with ADB's country partnership strategy for Indonesia, 2016–2019 in supporting the expansion of infrastructure and environment-friendly technologies for clean energy generation.<sup>15</sup> It contributes to the objectives of Indonesia's National Energy Plan (footnote 12) and to the 2015 commitment to the Paris Agreement under the United Nations Framework Convention on Climate Change.

17. **Consistency with sector strategy and relevant ADB operations.** The project is consistent with ADB's Energy Policy,<sup>16</sup> which states that support for renewable energy projects will be prioritized and broadened. The project fully aligns with ADB's energy sector strategy for

<sup>9</sup> ADB. 2003. *Enhancing the Asian Development Bank's Role in Combating Money Laundering and the Financing of Terrorism*. Manila.

<sup>10</sup> ADB. 2016. *Anticorruption Policy: Enhancing the Role of the Asian Development Bank in Relation to Tax Integrity*. Manila. Further information is provided in the Integrity and Tax Due Diligence Disclosure (accessible from the list of linked documents in Appendix 2).

<sup>11</sup> Government of Indonesia, MEMR. 2017. *Pengesahan Rencana Usaha Penyediaan Tenaga Listrik: PT Perusahaan Listrik Negara (Persero) Tahun 2017 S.D. 2026*. Decree No. 1415 K/20/MEM/2017. Jakarta (RUPTL, 2017–2026).

<sup>12</sup> Government of Indonesia. 2017. *National Energy Plan*. Presidential Regulation No. 22/2017. Jakarta.

<sup>13</sup> Government of Indonesia. 2015. [Intended Nationally Determined Contribution](#). Jakarta.

<sup>14</sup> ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific*. Manila.

<sup>15</sup> ADB. 2016. *Country Partnership Strategy: Indonesia, 2016–2019: Towards a Higher, More Inclusive and Sustainable Growth Path*. Manila.

<sup>16</sup> ADB. 2009. *Energy Policy*. Manila.

Indonesia, which has the following main pillars: (i) undertake sector policy reform to make access to energy more sustainable and inclusive; (ii) strengthen the reach, reliability, and efficiency of the nation's electricity grid; and (iii) enable the greater use of clean energy. Further, the project complements recent ADB assistance programs to MEMR and PLN for policy-based lending and direct investments<sup>17</sup> as well as other ADB public sector initiatives to review geothermal tariff incentives. ADB is also supporting the government in strengthening and expanding Sumatra's transmission and distribution network.<sup>18</sup> The project builds on ADB's private sector experience and recent geothermal project financing, such as phase 1 of the project and the Sarulla and Muara Laboh geothermal power projects.<sup>19</sup>

18. **Lessons from previous operations.** The project will benefit from ADB's Private Sector Operations Department's exposure to the Indonesian energy sector and experience gained from structuring and implementing energy projects in Indonesia. ADB has already supported phase 1 of the project and is familiar with the project's history. The Private Sector Operations Department's experience indicates that successful project implementation depends on the sponsors' strength, experience, and ability to understand the regulatory environment, as well as the terms and conditions governing the financing of such projects. ADB is confident that the sponsors can successfully implement the project, given their track record.

#### D. Project Cost and Financing Plan

[CONFIDENTIAL INFORMATION DELETED]

#### E. Implementation Arrangements

19. Table 3 summarizes the implementation arrangements.<sup>20</sup>

**Table 3: Summary of Implementation Arrangements**

Aspects	Arrangements
Regulatory framework	The project is to be developed under Indonesia's Geothermal Law, 2014. PLN awarded the development rights to the sponsors in 2010.
Management	Engie, Marubeni Corporation, Tohoku Electric Power, and Supreme Energy have formed a consortium that brings more than 15 years of experience in Indonesian geothermal power development and generation, and extensive experience in developing and operating more than 150,000 MW in power generation assets globally.
Implementation period	The plant will operate under a 30-year offtake contract. [CONFIDENTIAL INFORMATION DELETED]
Construction arrangements	The construction of the power plant and associated special and field facilities will be managed through a engineering, procurement, and construction arrangement undertaken by a consortium led by ReKayasa Industri, an Indonesia-based construction company, in cooperation with Fuji Electric. [CONFIDENTIAL INFORMATION DELETED]

<sup>17</sup> ADB. 2017. *Report and Recommendation of the President to the Board of Directors: Proposed Policy-Based Loans for Subprogram 2 and Administration of Technical Assistance Grant to the Republic of Indonesia for the Sustainable and Inclusive Energy Program*. Manila. One of the three main thrusts of the policy matrix is private sector mobilization.

<sup>18</sup> ADB. [Indonesia: Electricity Grid Strengthening—Sumatra Program](#).

<sup>19</sup> ADB. 2013. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Administration of Loans to Sarulla Operations Limited, Sarulla Power Asset Limited, Kyuden Sarulla Private Limited, OrSarulla Incorporated, and PT Medco Geopower Sarulla for the Sarulla Geothermal Power Development Project in the Republic of Indonesia*. Manila; and ADB. 2016. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Administration of Loans to PT. Supreme Energy Muara Laboh for the Muara Laboh Geothermal Power Project in Indonesia*. Manila.

<sup>20</sup> Details of Implementation Arrangements (accessible from the list of linked documents in Appendix 2).

Aspects	Arrangements
Operations arrangements	<p>The project is being developed under the terms of a 30-year PPA with PLN (rated BB by Standard &amp; Poor's and Baa3 by Moody's Investors Service. PLN's obligations under the PPA are supported by the Government of Indonesia (rated BBB- by Standard &amp; Poor's and Baa3 by Moody's) through a business viability guarantee letter.</p> <p>Operation and maintenance works will be carried out by the borrower.</p> <p>[CONFIDENTIAL INFORMATION DELETED]</p>
Performance monitoring	<p>The borrower will submit (i) unaudited and annual audited financial statements, (ii) environmental and social monitoring reports, and (iii) development effectiveness reports to the Asian Development Bank.</p>

COD = commercial operation date, MW = megawatt, PLN = Perusahaan Listrik Negara (national power utility), PPA = power purchase agreement, PT PRA = PT Plumpang Raya Anugrah.  
Source: Asian Development Bank.

## F. Projected Financial and Economic Performance

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### III. THE PROPOSED ADB ASSISTANCE

#### A. The Assistance

ADB assistance will have two components: (i) a direct loan of up to \$177.5 million; and (ii) a CTF loan of \$50.0 million, to be administered by ADB. The CTF loan is a rollover from the existing loan provided for phase 1.<sup>21</sup>

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20. **Blended concessional financing.** The Sarulla, Muara Laboh well as phase 1 and 2 of Rantau Dedap will result in four ADB-CTF transactions in the geothermal sector in Indonesia funded ADB-CTF Private Sector Geothermal Energy Program. CTF is funded by the multilateral Climate Investment Funds and promotes financing for demonstrating, deploying, and transferring low-carbon technologies with strong potential for long-term reduction of greenhouse gas emissions. It is one of the largest multilateral funds that help finance climate change mitigation projects in developing countries.<sup>22</sup> A minimum concessional approach was taken with regards to price and structure for the CTF tranche, and the project is consistent with the principles agreed by development finance institutions on the use of blended concessional finance.<sup>23</sup>

21.

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#### B. Value Added by ADB Assistance

22. Indonesia's substantial geothermal resource is not yet transformed into increasing geothermal power plants capacities. The use of blended concessional finance to support early movers in private sector development of geothermal energy in Indonesia will help accelerate

<sup>21</sup> The \$50 million CTF loan provided for phase 1 has already been counted as ADB climate funding. ADB climate funding for phase 2 consists only of the \$177.5 million ADB loan.

progress toward commercial sustainability. ADB's engagement helps make this project viable and will inspire trust in interested investors from the private sector.

23. The project's sustainability depends on its ability to amortize its very high up-front capital costs over a long period to reduce annual debt service. The long tenor of the ADB loan is necessary for the project to achieve sound debt service levels over the life of the project.

24. The project supports the government's objective to accelerate and expand private sector investment in clean energy infrastructure in Indonesia. ADB plays a pivotal role in building a critical mass of renewable energy projects in Indonesia to stimulate investor interest in future renewable energy investments and build on the experience of these first-generation investments.

### C. Risks

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## IV. POLICY COMPLIANCE

### A. Safeguards and Social Dimensions

25. In compliance with ADB's Safeguard Policy Statement (2009) (SPS), the project is classified *category A* for the environment, *category B* for involuntary resettlement, and *category C* for indigenous peoples.

26. SERD has completed the construction of the access roads, well pads, and other facilities; and the exploration drilling program. The potential environmental and social impacts of the project have been identified and effective measures to avoid, minimize, mitigate, and compensate for the adverse impacts are incorporated in the safeguard reports and plans. The institutional capacity and commitment of SERD to manage the project's social and environmental impacts are deemed adequate. SERD has undertaken meaningful consultation with the relevant stakeholders and has established a grievance redress mechanism. A transmission line and a proposed new substation to be constructed by PLN are considered associated facilities.

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27. The transmission line passes mostly through modified habitat, with a small section crossing natural habitat. Although the sponsors are not responsible for the impact of the transmission line, they have included measures to offset the impact on the natural habitat in their biodiversity offset strategy. The sponsors are coordinating closely with PLN, and ADB will work with the sponsors to ensure that SPS requirements for associated facilities are met. SERD carried out an audit of the existing facilities and committed to a corrective action plan following the SPS. The audit found that the project complies with ambient environmental standards. The project is located in a nationally designated protection forest and is consistent with the legal and

management requirements for this type of forest.<sup>24</sup> The designation is not equivalent to protected area Category I or II of the International Union for Conservation of Nature, but the project affects the natural habitat of endangered and endemic species.<sup>25</sup> A critical habitat assessment undertaken by qualified biodiversity experts has resulted in the development of a biodiversity action plan (BAP), which includes both long-term biodiversity conservation actions and on-site mitigation measures linked to the construction and operation activities of the project. The BAP will be supported with a biodiversity offset strategy and a biodiversity offset management plan. The biodiversity offset strategy includes ongoing contingency for management beyond the offset management period. The sponsors have committed to these plans to ensure that the project will not have an adverse impact on critical habitat such that (i) there are no measurable adverse impacts on the critical habitat that could impair its ability to function, and (ii) there is no reduction in the population of any recognized endangered or critically endangered species. ADB will closely monitor the construction and operational activities, focusing on BAP implementation.

28. SERD acquired land for the project through negotiated settlements with project-affected households. The 2018 social safeguards compliance audit confirmed that (i) no households experienced physical displacement; (ii) SERD has compensated all project-affected households following negotiated compensation rates for land, crops, assets, and structures; (iii) affected households are given opportunities for skills development, apart from prioritization for employment created by the project; and (iv) no outstanding grievances or complaints related to land procurement and compensation exists. ADB has discussed and agreed corrective actions with the borrower. These actions, identified in the social safeguards compliance audit, will further improve stakeholder engagement and livelihood improvement activities implemented by SERD. PLN has initiated land acquisition for the transmission line, an associated facility to the proposed project. SERD commits to carry out a compliance audit upon completion of the land acquisition by PLN, and implement any corrective actions identified, coordinating closely with PLN to make sure the approach is consistent with Safeguard Policy Statement requirements. BAP implementation is not expected to have involuntary resettlement impacts.

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29. The proposed project does not trigger indigenous peoples safeguards. The social safeguards compliance audit confirmed that (i) the consultations were conducted in a culturally appropriate manner and with facilitators from the Semendo community; (ii) the Semendo community do not qualify as vulnerable social and cultural groups that experience a higher risk of poverty and social exclusion than the general population; (iii) although the Semendo community show to a certain degree some of the characteristics of “indigenous peoples”, they do not fully meet the definition of indigenous peoples in Appendix 3 of ADB’s Safeguard Policy Statement, and therefore the policy is not triggered; and (iv) the Semendo community fully supports the project and is anticipating benefits from employment creation and integrated social development program implementation.

30. The audit confirmed that national labor laws and regulations and internationally recognized core labor standards are followed, monitored, and reported. SERD will comply with national labor laws and, pursuant to ADB’s Social Protection Strategy (2001), will take measures to comply with

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<sup>24</sup> Indonesia has three categories of forests: conservation, protection, and production. Protection forests provide a basic life support function such as watershed or soil protection or flood control. Certain developments may occur in protection forests in accordance with a license. Conservation forests are those set aside for the conservation of biodiversity and ecosystems.

<sup>25</sup> International Union for Conservation of Nature. [Protected Area Categories](#).

the internationally recognized core labor standards.<sup>26</sup> SERD will report regularly to ADB on (i) its (and its contractors') compliance with such laws and (ii) the measures taken. The project is classified *some gender elements* and, to promote livelihood and employment opportunities, it will (i) include at least 30% women participants in the livelihood training and skills development program, (ii) support at least five women entrepreneurs from the surrounding communities to supply some project requirements, and (iii) provide technical and financial support for livelihood activities to women groups from at least five villages in the project area. Information disclosure and consultation with affected people will be conducted in accordance with ADB requirements.<sup>27</sup>

## **B. Anticorruption Policy**

31. SERD was advised of ADB's policy of implementing best international practice relating to combating corruption, money laundering, and the financing of terrorism. ADB will ensure that the investment documentation includes appropriate provisions prohibiting corruption, money laundering, and the financing of terrorism, and remedies for ADB in the event of noncompliance.

## **C. Investment Limitations**

32. The proposed loan is within the medium-term, country, industry, group, and single-project exposure limits for nonsovereign investments.

## **D. Assurances**

33. Consistent with the Agreement Establishing the Asian Development Bank (the Charter),<sup>28</sup> ADB will proceed with the proposed assistance upon establishing that the Government of Indonesia has no objection to the proposed assistance to SERD. ADB will enter into suitable finance documentation, in form and substance satisfactory to ADB, following approval of the proposed assistance by the Board of Directors.

## **V. RECOMMENDATION**

34. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the loan of up to \$177,500,000 from ADB's ordinary capital resources to PT Supreme Energy Rantau Dedap for the Rantau Dedap Geothermal Power Project (Phase 2) in the Republic of Indonesia, with such terms and conditions as are substantially in accordance with those set forth in this report, and as may be reported to the Board.

Takehiko Nakao  
President

23 February 2018

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<sup>26</sup> ADB. 2003. *Social Protection*. Manila (adopted 2001).

<sup>27</sup> Summary Poverty Reduction and Social Strategy; and Safeguards and Social Dimensions Summary (accessible from the list of linked documents in Appendix 2).

<sup>28</sup> ADB. 1966. *Agreement Establishing the Asian Development Bank*. Manila.

## DESIGN AND MONITORING FRAMEWORK

<b>Impacts the Project is Aligned with</b>			
<p>Quality of life in Indonesia enhanced by using sustainable electricity as a key driver of increased economic activity (PLN's rolling 10-year development plan)<sup>a</sup></p> <p>About 45 GW or 33% of Indonesia's electrical power capacity based on new or renewable energy sources by 2025 (National Energy Plan)<sup>b</sup></p> <p>Greenhouse gas emissions reduced by 29% relative to business-as-usual scenario by 2030 (Indonesia's commitment under the United Nations Framework Convention on Climate Change)<sup>c</sup></p>			
<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and/or Reporting Mechanisms</b>	<b>Risks</b>
<p><b>Outcome</b> Geothermal power generation in South Sumatra expanded</p>	<p>By 2021:</p> <p>a. Electricity generated and delivered to offtaker reached 702.5 gigawatt-hours per year (2018 baseline: 0)</p> <p>b. Annual emission reductions achieved amount to 403.000 metric tons of carbon dioxide equivalent (2018 baseline: 0)</p> <p>c. Number of jobs provided during operation amount to at least 100 (2018 baseline: 0)</p>	<p>a–c. Company's annual financial statement</p> <p>a–c. Company's annual monitoring report</p>	<p>Power production falls short of plans due to operational complications (i.e. steam quality)</p> <p>Demand for power is weak because of adverse macroeconomic developments.</p>
<p><b>Outputs</b></p> <p>1. Geothermal power plant constructed and commissioned</p> <p>2. Local employment generated</p> <p>3. Local and national economy stimulated</p> <p>4. Economic opportunities for women improved</p>	<p>By 2021</p> <p>1. Total installed electricity generation capacity of project reached 90.9 MW (2018 baseline: 0)</p> <p>2. Cumulative number of jobs provided during construction totaled 1,000 (2017 baseline: 0)</p> <p>3a. Total domestic purchases during construction and early operation reached \$200 million (2017 baseline: 0)</p> <p>3b. Total payments to the government provided during construction and early operation totaled at least \$20 million (2017 baseline: 0)</p> <p>4a. Women participating and benefiting from training on livelihood and skills development accounted for at</p>	<p>1–3. Company's annual financial statements</p> <p>1–4. Company's annual monitoring report</p> <p>3. Asian Development Bank's semiannual environmental and social monitoring report</p>	<p>Capacity is lower than planned because of unproductive wells or complications during exploitation.</p> <p>Acquiring land or obtaining necessary permits encounters delays.</p> <p>Trained staff is not available.</p>

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and/or Reporting Mechanisms	Risks
	<p>least 30% of total trainees (2017 baseline: 10)</p> <p>4b. Five women's groups provided technical and financial support on livelihood opportunities and skill development in at least five of the project villages (2017 baseline: 2)</p> <p>4c. At least five women entrepreneurs from the surrounding communities receive support to supply some of the project requirements (2017 baseline: 0)</p>		
<b>Key Activities with Milestones</b> [CONFIDENTIAL INFORMATION DELETED]			
<b>Inputs</b> [CONFIDENTIAL INFORMATION DELETED]			
<b>Assumptions for Partner Financing</b> Not applicable			

GW = gigawatt, MW = megawatt, PLN = Perusahaan Listrik Negara (national power utility), Q = quarter.

<sup>a</sup> Government of Indonesia, Ministry of Energy and Mineral Resources. 2017. *Pengesahan Rencana Usaha Penyediaan Tenaga Listrik: PT Perusahaan Listrik Negara (Persero) Tahun 2017 S.D. 2026*. Decree No. 1415 K/20/MEM/2017. Jakarta (RUPTL, 2017–2026).

<sup>b</sup> Government of Indonesia. 2017. *National Energy Plan*. Presidential Regulation No. 22/2017. Jakarta.

<sup>c</sup> Government of Indonesia. 2015. [Intended Nationally Determined Contribution](#). Jakarta.

Source: Asian Development Bank.



**LIST OF LINKED DOCUMENTS**

<http://www.adb.org/Documents/RFPs/?id=50330-001-4>

1. Sector Overview
2. Client Information
3. Details of Implementation Arrangements
4. Contribution to the ADB Results Framework
5. Financial Analysis
6. Economic Analysis
7. Country Economic Indicators
8. Summary Poverty Reduction and Social Strategy
9. Safeguards and Social Dimensions Summary
10. Environmental and Social Impact Assessment

**Supplementary Document**

11. Integrity and Tax Due Diligence Disclosure