



ID-Geothermal Energy Upstream Development (P155047)

EAST ASIA AND PACIFIC | Indonesia | Energy & Extractives Global Practice |
 Recipient Executed Activities | Investment Project Financing | FY 2017 | Seq No: 14 | ARCHIVED on 15-Feb-2023 | ISR54631 |

Implementing Agencies: PT Geo Dipa Energi, PT Sarana Multi Infrastruktur (Persero), PT Sarana Multi Infrastruktur (Persero)

Key Dates

Key Project Dates

Bank Approval Date: 09-Feb-2017

Effectiveness Date: 04-Aug-2017

Planned Mid Term Review Date: 31-Jan-2020

Actual Mid-Term Review Date: 14-Jan-2020

Original Closing Date: 31-Dec-2022

Revised Closing Date: 31-Dec-2025

Project Development Objectives

Project Development Objective (from Project Appraisal Document)

The PDO is to facilitate investment in geothermal power generation and reduce greenhouse gas emissions.

Has the Project Development Objective been changed since Board Approval of the Project Objective?

No

Components Table

Name

Risk Mitigation for Geothermal Exploration Drilling:(Cost \$98.00 M)

Capacity Building on Geothermal Exploration and Environmental and Social Safeguards Management

Overall Ratings

| Name | Previous Rating | Current Rating |
|--------------------------------------|--|--|
| Progress towards achievement of PDO | □ Moderately Unsatisfactory | □ Moderately Unsatisfactory |
| Overall Implementation Progress (IP) | □ Moderately Unsatisfactory | □ Moderately Unsatisfactory |
| Overall Risk Rating | □ Substantial | □ Substantial |

Implementation Status and Key Decisions

The Project was approved in February 2017 and became effective in August 2017. The Project was restructured in May 2021 to include PT Geo Dipa Energi (PT GDE) as the Project Implementing Agency with PT Sarana Multi Infrastruktur (PT SMI) as the Fund Manager. The Project is expected to support four sub-projects: Waesano (Flores Island, East Nusa Tenggara Province), Jailolo (Halmahera, North Maluku), Bittuang (Tana-Toraja, South Sulawesi), and Nage (Flores, East Nusa Tenggara). Bittuang and Nage were recently dropped as candidate of sub-projects and preliminary assessment is being carried out to replace these sites. Most of the progress to date has been on Waesano and Jailolo.



Risks

Systematic Operations Risk-rating Tool

| Risk Category | Rating at Approval | Previous Rating | Current Rating |
|--|--------------------|-----------------|----------------|
| Political and Governance | □ Substantial | □ Moderate | □ Moderate |
| Macroeconomic | □ Moderate | □ Moderate | □ Moderate |
| Sector Strategies and Policies | □ Substantial | □ Substantial | □ Substantial |
| Technical Design of Project or Program | □ Moderate | □ Moderate | □ Moderate |
| Institutional Capacity for Implementation and Sustainability | □ Substantial | □ Substantial | □ Substantial |
| Fiduciary | □ Substantial | □ Moderate | □ Moderate |
| Environment and Social | □ Substantial | □ High | □ High |
| Stakeholders | □ Substantial | □ Substantial | □ Substantial |
| Other | -- | □ Substantial | -- |
| Overall | □ Substantial | □ Substantial | □ Substantial |

Results

PDO Indicators by Objectives / Outcomes

| | | | | |
|---|-------------|-------------------|------------------|-------------|
| To facilitate investment in geothermal power generation | | | | |
| ► Electric power generation capacity enabled through the issuance of geothermal development licenses (Megawatt, Custom) | | | | |
| | Baseline | Actual (Previous) | Actual (Current) | End Target |
| Value | 0.00 | 0.00 | 0.00 | 65.00 |
| Date | 01-May-2017 | 17-Jun-2022 | 31-Dec-2022 | 31-Dec-2025 |
| ► Commercial capital mobilized for investment in geothermal power generation (million) (Amount(USD), Custom) | | | | |
| | Baseline | Actual (Previous) | Actual (Current) | End Target |
| Value | 0.00 | 0.00 | 0.00 | 195.00 |
| Date | 01-May-2017 | 17-Jun-2022 | 31-Dec-2022 | 31-Dec-2025 |
| To reduce greenhouse gas emissions | | | | |
| ► Estimated GHG emission reduction compared to a business-as-usual baseline (Metric ton, Custom) | | | | |
| | Baseline | Actual (Previous) | Actual (Current) | End Target |



| | | | | |
|-------|-------------|-------------|-------------|-------------|
| Value | 0.00 | 0.00 | 0.00 | 330,000.00 |
| Date | 01-May-2017 | 17-Jun-2022 | 31-Dec-2022 | 31-Dec-2025 |

Intermediate Results Indicators by Components

| | | | | |
|--|-------------|-------------------|------------------|-------------|
| Risk Mitigation for Geothermal Exploration Drilling | | | | |
| ► Total generating capacity-equivalent of steam yield from all wells drilled when converted to equivalent standard diameter well production (Megawatt, Custom) | | | | |
| | Baseline | Actual (Previous) | Actual (Current) | End Target |
| Value | 0.00 | 0.00 | 0.00 | 48.00 |
| Date | 01-May-2017 | 17-Jun-2022 | 31-Dec-2022 | 31-Dec-2025 |
| ► Average generating capacity-equivalent of steam yield per well drilled when converted to equivalent standard diameter well production (Megawatt, Custom) | | | | |
| | Baseline | Actual (Previous) | Actual (Current) | End Target |
| Value | 0.00 | 0.00 | 0.00 | 6.00 |
| Date | 01-May-2017 | 17-Jun-2022 | 31-Dec-2022 | 31-Dec-2025 |
| ► Issuance of geothermal development licenses (Number, Custom) | | | | |
| | Baseline | Actual (Previous) | Actual (Current) | End Target |
| Value | 0.00 | 0.00 | 0.00 | 3.00 |
| Date | 01-May-2017 | 17-Jun-2022 | 31-Dec-2022 | 31-Dec-2025 |
| ► Estimated increase in the number of connected households for the associated local electricity networks (Number, Custom) | | | | |
| | Baseline | Actual (Previous) | Actual (Current) | End Target |
| Value | 0.00 | 0.00 | 0.00 | 116,411.00 |
| Date | 01-May-2017 | 17-Jun-2022 | 31-Dec-2022 | 31-Dec-2025 |
| ► Direct project beneficiaries (Number, Custom) | | | | |
| | Baseline | Actual (Previous) | Actual (Current) | End Target |
| Value | 0.00 | 0.00 | 0.00 | 582,055.00 |
| Date | 01-May-2017 | 17-Jun-2022 | 31-Dec-2022 | 31-Dec-2025 |
| □ Female beneficiaries (Percentage, Custom Supplement) | | | | |
| | Baseline | Actual (Previous) | Actual (Current) | End Target |



| | | | | |
|--|-------------|-------------------|------------------|-------------|
| Value | 0.00 | 0.00 | 0.00 | 50.00 |
| ► Delivery of Inferred Resource Capacity Reports by Exploration Management Team (Number, Custom) | | | | |
| | Baseline | Actual (Previous) | Actual (Current) | End Target |
| Value | 0.00 | 0.00 | 0.00 | 4.00 |
| Date | 01-May-2017 | 17-Jun-2022 | 31-Dec-2022 | 31-Dec-2025 |
| ► Villages located next to exploration sites with at least one public consultation held (Percentage, Custom) | | | | |
| | Baseline | Actual (Previous) | Actual (Current) | End Target |
| Value | 0.00 | 100.00 | 100.00 | 100.00 |
| Date | 01-May-2017 | 17-Jun-2022 | 31-Dec-2022 | 31-Dec-2025 |
| ► Share of public consultations segregated by gender (Percentage, Custom) | | | | |
| | Baseline | Actual (Previous) | Actual (Current) | End Target |
| Value | 0.00 | 12.00 | 12.00 | 50.00 |
| Date | 01-May-2017 | 17-Jun-2022 | 31-Dec-2022 | 31-Dec-2025 |

| | | | | |
|--|-------------|-------------------|------------------|-------------|
| Capacity Building on Geothermal Exploration and Environmental and Social Safeguards Management | | | | |
| ► Practice guides for safeguards implementation (Number, Custom) | | | | |
| | Baseline | Actual (Previous) | Actual (Current) | End Target |
| Value | 0.00 | 0.00 | 0.00 | 2.00 |
| Date | 01-May-2017 | 17-Jun-2022 | 31-Dec-2022 | 31-Dec-2025 |

Performance-Based Conditions

Data on Financial Performance

Disbursements (by loan)

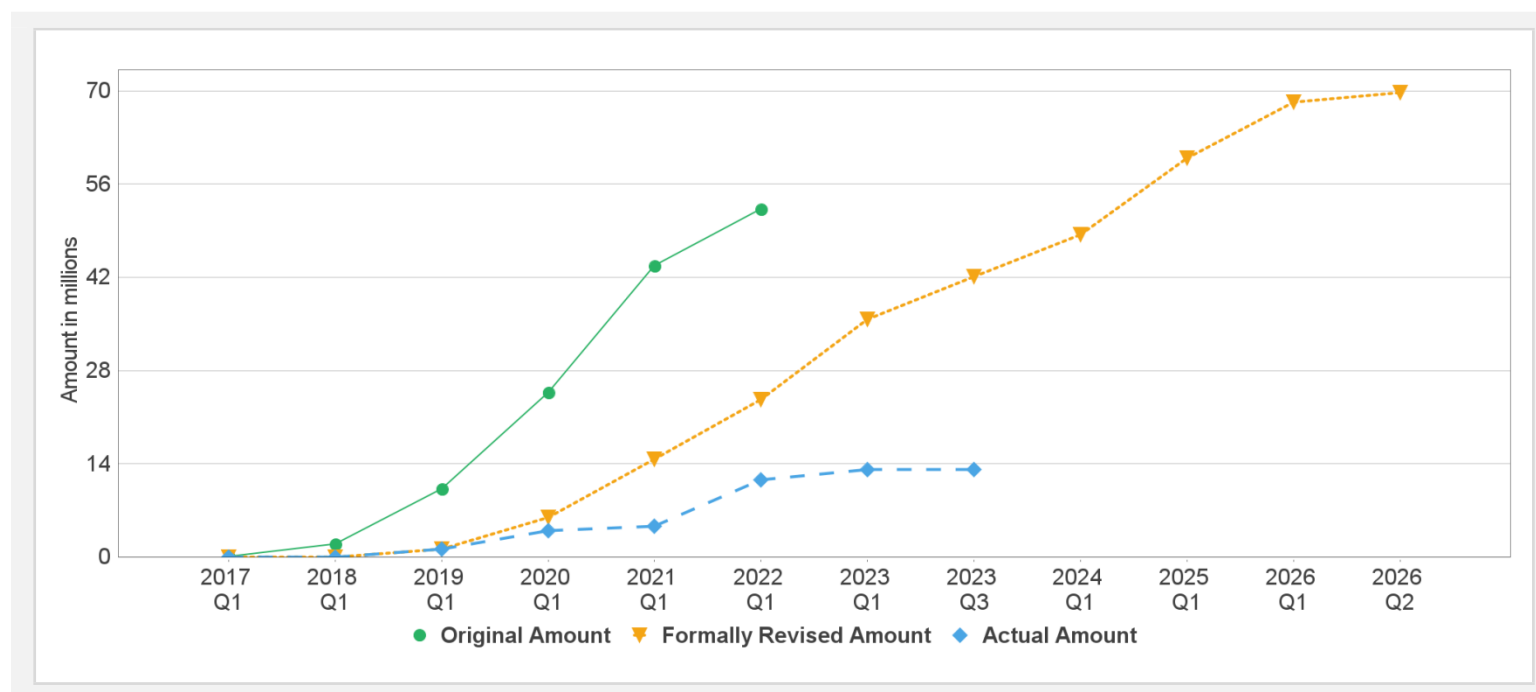
| Project | Loan/Credit/TF | Status | Currency | Original | Revised | Cancelled | Disbursed | Undisbursed | % Disbursed |
|---------|----------------|-----------|----------|----------|---------|-----------|-----------|-------------|-------------|
| P161644 | TF-A4086 | Effective | USD | 6.25 | 6.25 | 0.00 | 4.94 | 1.31 | 79% |
| P155047 | TF-A4089 | Effective | USD | 49.00 | 49.00 | 0.00 | 8.24 | 40.76 | 17% |



Key Dates (by loan)

| Project | Loan/Credit/TF | Status | Approval Date | Signing Date | Effectiveness Date | Orig. Closing Date | Rev. Closing Date |
|---------|----------------|-----------|---------------|--------------|--------------------|--------------------|-------------------|
| P161644 | TF-A4086 | Effective | 09-Feb-2017 | 07-Mar-2017 | 04-Aug-2017 | 31-Dec-2022 | 31-Dec-2025 |
| P155047 | TF-A4089 | Effective | 09-Feb-2017 | 07-Mar-2017 | 04-Aug-2017 | 31-Dec-2022 | 31-Dec-2025 |

Cumulative Disbursements



Restructuring History

Level 2 Approved on 18-Apr-2021 ,Level 2 Approved on 25-May-2021

Related Project(s)

P161644-ID-Geothermal Energy Upstream Development