



## Geothermal Exploratory Drilling Project (P152039)

EUROPE AND CENTRAL ASIA | Armenia | Energy & Extractives Global Practice |  
Recipient Executed Activities | Investment Project Financing | FY 2015 | Seq No: 2 | ARCHIVED on 02-May-2016 | ISR23403 |

Implementing Agencies: Renewable Resources and Energy Efficiency Fund

### Key Dates

#### Key Project Dates

Bank Approval Date:08-Jun-2015

Effectiveness Date:25-Aug-2015

Planned Mid Term Review Date:20-Jan-2017

Actual Mid-Term Review Date:--

Original Closing Date:31-May-2019

Revised Closing Date:31-May-2019

### Project Development Objectives

Project Development Objective (from Project Appraisal Document)

The proposed project development objective is to confirm whether the geothermal resource at the project site is suitable for power generation and, if confirmed, to involve the private sector in the development of a geothermal power plant.

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

No

### Components

Name

Phase I exploratory drilling program:(Cost \$5.37 M)

Phase II exploratory drilling program and transaction advisory:(Cost \$5.31 M)

### Overall Ratings

Name	Previous Rating	Current Rating
Progress towards achievement of PDO	● Satisfactory	● Satisfactory
Overall Implementation Progress (IP)	● Satisfactory	● Satisfactory
Overall Risk Rating	● Substantial	● Substantial

### Implementation Status and Key Decisions



The construction of the access road to the Karkar site and rig pads, required for equipment and facilities for drilling of slim well(s) is 95% completed. Works had to be stopped during the winter season as the site became inaccessible. The contractor will resume its work by mid-May when the site is accessible again. The drilling of slim well(s) is expected to commence in July 2016. The drilling contractor has already been contracted (March 18, 2016) and the Renewable Resources and Energy Efficiency Fund (R2E2 Fund) is currently finalizing the selection of the Technical Supervision and Support Consultant that will supervise the drilling operation on-site. The selection process for the well logging and testing consultant has also been initiated.



## Risks

### Systematic Operations Risk-rating Tool

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

## Results

### Project Development Objective Indicators

► Evidence provided to the Government for its decision on whether or not to construct a geothermal power plant at the Karkar geothermal site (Yes/No, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	N	--	N	Y
Date	14-Jan-2015	--	22-Apr-2016	30-Apr-2018

► If geothermal resource is confirmed, power plant development is competitively awarded to qualified private developer(s) (Yes/No, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	N	N	N	Y
Date	14-Jan-2015	15-Sep-2015	22-Apr-2016	30-May-2019



## Overall Comments

## Intermediate Results Indicators

► One or two slim exploratory wells drilled to a depth of around 1,200 meters (Text, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0	--	0	At least 1
Date	30-Mar-2015	15-Sep-2015	22-Apr-2016	30-Sep-2016

► One production-size well drilled to a depth of around 1,800 meters if the results of the drilling of slim well(s) warrantee such drilling (Number, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	1.00
Date	30-Mar-2015	15-Sep-2015	22-Apr-2016	30-Sep-2017

► Feasibility study for a potential power plant completed (Text, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	--	No	Yes
Date	30-Mar-2015	15-Sep-2015	22-Apr-2016	30-Apr-2018

► Tendering for private sector involvement in construction of a geothermal power plant completed if results from the feasibility study confirm technical and economic/financial viability of such a plant (Text, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	--	No	Yes
Date	30-Mar-2015	15-Sep-2015	22-Apr-2016	15-May-2019




▶ Percent of registered project related grievances responded to within stipulated service standards for response times  
(Percentage, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	--	100.00	100.00
Date	30-Mar-2015	--	22-Apr-2016	30-May-2019

## Overall Comments

### Data on Financial Performance

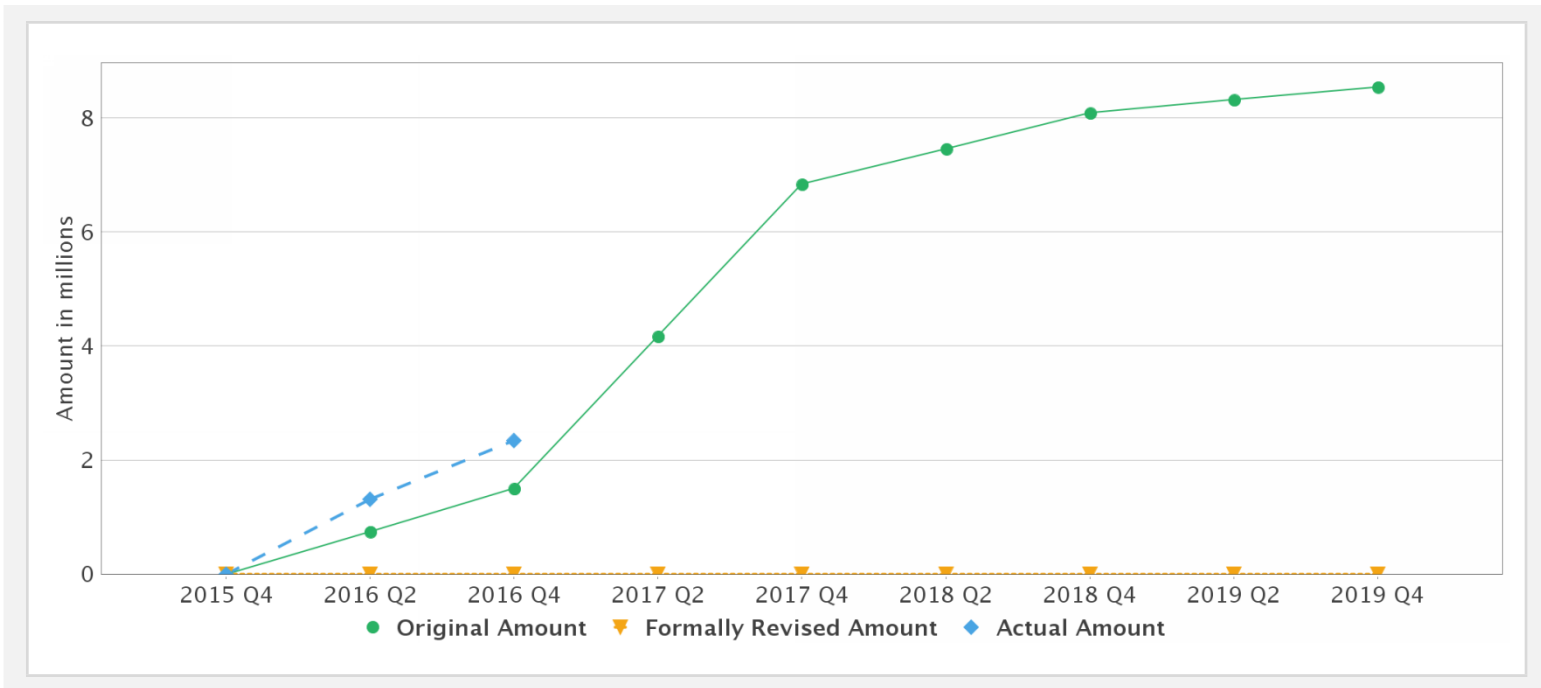
#### Disbursements (by loan)

Project	Loan/Credit/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	Disbursed
P152039	TF-A0544	Effective	USD	8.55	8.55	0.00	2.34	6.21	 27%

#### Key Dates (by loan)

Project	Loan/Credit/TF	Status	Approval Date	Signing Date	Effectiveness Date	Orig. Closing Date	Rev. Closing Date
P152039	TF-A0544	Effective	08-Jun-2015	16-Jun-2015	25-Aug-2015	31-May-2019	31-May-2019

#### Cumulative Disbursements



### Restructuring History

There has been no restructuring to date.

### Related Project(s)

There are no related projects.