EG-Ain Sokhna Power Project (P100047)

Key Dates

Key Project Dates

Bank Approval Date: 29-Jan-2009  Effectiveness Date: 13-Aug-2009
Planned Mid Term Review Date: 01-Dec-2016  Actual Mid-Term Review Date: 22-Dec-2016
Original Closing Date: 31-Dec-2015  Revised Closing Date: 31-Dec-2018

Project Development Objectives

Project Development Objective (from Project Appraisal Document)
The project development objectives are to (i) assist the Government of Egypt to ensure continuous electricity supply to meet demand in a sustainable manner through investment in new generation capacity; and (ii) improve the sector's financial sustainability by providing assistance to the Egyptian Electricity Holding Company (EEHC) to support sector revenue improvements.

Has the Project Development Objective been changed since Board Approval of the Project Objective?
No

Components

Name
Construction of Ain Sokhna Power Plant: (Cost $1655.33 M)
Technical Assistance: (Cost $1.47 M)
Generation Transmission Connection and Strengthening: (Cost $190.00 M)
Physical Contingencies: (Cost $33.90 M)
Price Contingencies: (Cost $16.30 M)

Overall Ratings

Name  Previous Rating  Current Rating
Progress towards achievement of PDO  ● Satisfactory  ● Satisfactory
Overall Implementation Progress (IP)  ● Moderately Satisfactory  ● Moderately Satisfactory
### Implementation Status and Key Decisions

*The project is on track to reach its objectives.* The first component (power plant) is fully implemented and is now operating with 100 percent natural gas. On the second component (transmission line/substations) the project has experienced some delays, which led to the recent May 2017 project closing date extension. The mission agreed with EETC, responsible for the implementation of the transmission component, to make every effort to implement all activities within the project implementation period and to submit timely Project Progress Reports, including social and environmental information.

### Risks

**Systematic Operations Risk-rating Tool**
<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Rating at Approval</th>
<th>Previous Rating</th>
<th>Current Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political and Governance</td>
<td>--</td>
<td>● Moderate</td>
<td>● Moderate</td>
</tr>
<tr>
<td>Macroeconomic</td>
<td>--</td>
<td>● Moderate</td>
<td>● Moderate</td>
</tr>
<tr>
<td>Sector Strategies and Policies</td>
<td>--</td>
<td>● Moderate</td>
<td>● Moderate</td>
</tr>
<tr>
<td>Technical Design of Project or Program</td>
<td>--</td>
<td>● Low</td>
<td>● Low</td>
</tr>
<tr>
<td>Institutional Capacity for Implementation and</td>
<td>--</td>
<td>● Moderate</td>
<td>● Moderate</td>
</tr>
<tr>
<td>Sustainability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiduciary</td>
<td>--</td>
<td>● Moderate</td>
<td>● Moderate</td>
</tr>
<tr>
<td>Environment and Social</td>
<td>--</td>
<td>● Moderate</td>
<td>● Moderate</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>--</td>
<td>● Low</td>
<td>● Low</td>
</tr>
<tr>
<td>Other</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>--</td>
<td>● Moderate</td>
<td>● Moderate</td>
</tr>
</tbody>
</table>

### Results

**Project Development Objective Indicators**

**Generation Capacity of Conventional Generation constructed under the project (Megawatt, Custom)**

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
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<td>1,300.00</td>
<td>1,300.00</td>
<td>1,300.00</td>
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<tr>
<td>Date</td>
<td>30-Jun-2008</td>
<td>11-May-2017</td>
<td>30-Nov-2017</td>
<td>31-Dec-2018</td>
</tr>
</tbody>
</table>

**Meeting demand: Increase in annual electricity supply (Net) with the construction of the Ain Sokhna Power Plant (Gigawatt-hour (GWh), Custom)**

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
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<td>6,367.00</td>
<td>6,441.00</td>
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<tr>
<td>Date</td>
<td>30-Jun-2008</td>
<td>11-May-2017</td>
<td>30-Nov-2017</td>
<td>31-Dec-2018</td>
</tr>
</tbody>
</table>

**Meeting the demand: Increase in annual electricity supply (Net) with the network upgrade (A1). (Gigawatt-hour (GWh), Custom)**

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>6,723.00</td>
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</tbody>
</table>
### Direct project beneficiaries (Number, Custom)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
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<tr>
<td>Value</td>
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<td>7,196,267.00</td>
<td>7,196,267.00</td>
<td>7,196,267.00</td>
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<td>Date</td>
<td>30-Jun-2008</td>
<td>11-May-2017</td>
<td>30-Nov-2017</td>
<td>31-Dec-2018</td>
</tr>
</tbody>
</table>

**Comments**
The value for this indicator will remain 0 until construction of the substations and transmission lines will be completed. Only then electricity will be supplied in the transmission networks.

### Female beneficiaries (Percentage, Custom Supplement)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>0.00</td>
<td>49.00</td>
<td>49.00</td>
<td>49.00</td>
</tr>
</tbody>
</table>

### Financial Sustainability: Electricity average tariff (Pt/kWh) (Number, Custom)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
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</thead>
<tbody>
<tr>
<td>Value</td>
<td>18.00</td>
<td>45.00</td>
<td>65.00</td>
<td>55.00</td>
</tr>
<tr>
<td>Date</td>
<td>30-Jun-2008</td>
<td>11-May-2017</td>
<td>30-Nov-2017</td>
<td>31-Dec-2018</td>
</tr>
</tbody>
</table>

### In a Sustainable Manner: Maximum Ain Sokhna power plant capacity factor (Percentage, Custom)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>0.00</td>
<td>60.70</td>
<td>73.00</td>
<td>75.00</td>
</tr>
</tbody>
</table>
### In a Sustainable Manner: Minimum thermal energy conversion efficiency (Percentage, Custom)

<table>
<thead>
<tr>
<th>Date</th>
<th>04-Nov-2013</th>
<th>20-Feb-2017</th>
<th>30-Nov-2017</th>
<th>31-Dec-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>0.00</td>
<td>42.00</td>
<td>59.00</td>
<td>40.00</td>
</tr>
<tr>
<td>Date</td>
<td>30-Jun-2008</td>
<td>11-May-2017</td>
<td>30-Nov-2017</td>
<td>31-Dec-2018</td>
</tr>
</tbody>
</table>

### Ratio of average load shedding to peak demand (Percentage, Custom)

<table>
<thead>
<tr>
<th>Date</th>
<th>04-Nov-2013</th>
<th>20-Feb-2017</th>
<th>30-Nov-2017</th>
<th>31-Dec-2018</th>
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<tbody>
<tr>
<td>Value</td>
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</tr>
<tr>
<td>Date</td>
<td>30-Jun-2013</td>
<td>11-May-2017</td>
<td>30-Nov-2017</td>
<td>31-Dec-2018</td>
</tr>
</tbody>
</table>

**Overall Comments**

**Intermediate Results Indicators**

### Progress in construction of Ain Sokhna power plant (Percentage, Custom)

<table>
<thead>
<tr>
<th>Date</th>
<th>04-Nov-2013</th>
<th>20-Feb-2017</th>
<th>30-Nov-2017</th>
<th>31-Dec-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>0.00</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>Date</td>
<td>30-Jun-2008</td>
<td>11-May-2017</td>
<td>30-Nov-2017</td>
<td>31-Dec-2018</td>
</tr>
</tbody>
</table>
### Construction of transmission lines (Percentage, Custom)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>0.00</td>
<td>10.00</td>
<td>10.00</td>
<td>100.00</td>
</tr>
<tr>
<td>Date</td>
<td>19-Nov-2013</td>
<td>11-May-2017</td>
<td>11-May-2017</td>
<td>31-Dec-2018</td>
</tr>
</tbody>
</table>

### Construction of Substations (Percentage, Custom)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
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<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
</tr>
<tr>
<td>Date</td>
<td>19-Nov-2013</td>
<td>11-May-2017</td>
<td>11-May-2017</td>
<td>31-Dec-2018</td>
</tr>
</tbody>
</table>

### EEHC Debt Service Coverage Ratio (for generation only) (Percentage, Custom)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>1.52</td>
<td>2.52</td>
<td>2.52</td>
<td>1.40</td>
</tr>
</tbody>
</table>

### Grievances registered related to delivery of project benefits addressed (%) (Percentage, Custom)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>0.00</td>
<td>0.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
<tr>
<td>Date</td>
<td>24-Feb-2017</td>
<td>11-May-2017</td>
<td>11-May-2017</td>
<td>31-Dec-2018</td>
</tr>
</tbody>
</table>

**Overall Comments**
## Data on Financial Performance

### Disbursements (by loan)

<table>
<thead>
<tr>
<th>Project</th>
<th>Loan/Credit/TF</th>
<th>Status</th>
<th>Currency</th>
<th>Original</th>
<th>Revised</th>
<th>Cancelled</th>
<th>Disbursed</th>
<th>Undisbursed</th>
<th>Disbursed</th>
</tr>
</thead>
<tbody>
<tr>
<td>P100047</td>
<td>IBRD-76330</td>
<td>Effective</td>
<td>USD</td>
<td>600.00</td>
<td>600.00</td>
<td>0.00</td>
<td>442.47</td>
<td>157.53</td>
<td>74%</td>
</tr>
</tbody>
</table>

### Key Dates (by loan)

<table>
<thead>
<tr>
<th>Project</th>
<th>Loan/Credit/TF</th>
<th>Status</th>
<th>Approval Date</th>
<th>Signing Date</th>
<th>Effectiveness Date</th>
<th>Orig. Closing Date</th>
<th>Rev. Closing Date</th>
</tr>
</thead>
</table>

### Cumulative Disbursements

![Cumulative Disbursements Graph](image)

### Restructuring History

Level 2 Approved on 04-Dec-2013, Level 2 Approved on 27-Mar-2017

### Related Project(s)
There are no related projects.