Burkina Faso Electricity Sector Support Project (P128768)

AFRICA | Burkina Faso | Energy & Extractives Global Practice | IBRD/IDA | Investment Project Financing | FY 2014 | Seq No: 9 | ARCHIVED on 19-Sep-2018 | ISR33737 |

Implementing Agencies: Fonds de Développement de l'Electrification (FDE), Unite de Gestion du projet, Société Nationale d'Electricité du Burkina (SONABEL), Ministry of Finance

Key Dates

Key Project Dates

- Bank Approval Date: 30-Jul-2013
- Effectiveness Date: 27-Feb-2014
- Planned Mid Term Review Date: 03-Dec-2018
- Actual Mid-Term Review Date: --
- Original Closing Date: 30-Sep-2018
- Revised Closing Date: 30-Jun-2021

Project Development Objectives

Project Development Objective (from Project Appraisal Document)

The project development objectives are to: (i) increase access to electricity, (ii) improve the reliability of electricity supply, and (iii) improve the efficient use of energy in targeted areas.

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

No

Components

Name

- Component 1: Improve reliability of energy supply.:(Cost $89.71 M)
- Component 2: Increase electricity access in target areas.:(Cost $49.72 M)
- Component 3: Improve efficient use of energy in target areas.:(Cost $4.60 M)
- Component 4: Institutional Strengthening and Capacity Development.:(Cost $20.97 M)

Physical and price contingencies

Overall Ratings

<table>
<thead>
<tr>
<th>Name</th>
<th>Previous Rating</th>
<th>Current Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progress towards achievement of PDO</td>
<td>Moderately Satisfactory</td>
<td>Moderately Satisfactory</td>
</tr>
<tr>
<td>Overall Implementation Progress (IP)</td>
<td>Moderately Satisfactory</td>
<td>Moderately Satisfactory</td>
</tr>
<tr>
<td>Overall Risk Rating</td>
<td>Substantial</td>
<td>Substantial</td>
</tr>
</tbody>
</table>

Implementation Status and Key Decisions

The project became effective on February 27, 2014. Since then, project implementation has been significantly slower than expected due to a series of political events in 2014 and 2015 which led to continued institutional disruption, turmoil, budget crises and leadership fluctuations. With the stabilization of the country’s political situation in early 2016, and several supportive and corrective measures under the project, implementation progress and disbursements have improved in recent months. A second Additional Financing of US$80 million equivalent was approved on June 8, 2017 and made effective on October 25, 2017. In line with the Project Development Objective, it will scale up and maximize the development impact of the project by supporting: (a) the introduction of low-cost solar resources in Burkina Faso’s energy mix; (b) reinforcement of the network to...
allow for integration of more intermittent solar power; and (c) technical assistance and transaction advisory services to crowd in commercial financing in generation in a cost-effective and transparent manner.

- Under **Component 1 (Improving the reliability of Energy Supply)** The contract for the plant in Fada (7.5MW) has been signed and works are ongoing. The preparation of bidding documents for the PV plants in Koudougou and Kaya and the strengthening of the transmission network (planned under the second additional financing) is ongoing.
- Under **Component 2 (Increasing Electricity Access in Target Areas)**, 40 communities have been electrified with about 9,700 people connected to the grid.
- Under **Component 3 (Improving Efficient Use of Energy in Targeted Areas)**, the supply and installation of efficient street lighting equipment has been completed in Ouagadougou. Lighting Global Solar lanterns libraries have been installed in 286 schools in rural areas.
- Under **Component 4 (Institutional Strengthening and Capacity Development)**, Contracts for (i) SONABEL’s new Customer Management System (information technology infrastructure and software for the utility) and (ii) the supply of smart meters for large customers as part of SONABEL revenue protection program, are under implementation.
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>Substantial</td>
<td>Substantial</td>
</tr>
<tr>
<td>Technical Design of Project or Program</td>
<td>--</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Institutional Capacity for Implementation and Sustainability</td>
<td>--</td>
<td>Substantial</td>
<td>Substantial</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>Substantial</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>--</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Other</td>
<td>--</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Overall</td>
<td>--</td>
<td>Substantial</td>
<td>Substantial</td>
</tr>
</tbody>
</table>

Results

PDO Indicators by Objectives / Outcomes

increase access to electricity

► People provided with new or improved electricity service (Corporate Results Indicator) (Number, 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>27,994.00</td>
<td>27,994.00</td>
<td>789,046.00</td>
</tr>
<tr>
<td>Date</td>
<td>31-Dec-2012</td>
<td>06-Jun-2018</td>
<td>06-Jun-2018</td>
<td>30-Jun-2021</td>
</tr>
<tr>
<td>Comments:</td>
<td></td>
<td>This is the number of people in Burkina Faso who will benefit directly from the investments under the project either by getting connected to a network (either the national grid or isolated network) to enjoy electricity supply or already connected households that will have improved supply reliability and quality. It is estimated that the average occupancy per household is 4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

► Generation capacity of conventional energy constructed or rehabilitated (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>
<td>Value</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>7.50</td>
</tr>
<tr>
<td>Date</td>
<td>31-Dec-2012</td>
<td>06-Jun-2018</td>
<td>06-Jun-2018</td>
<td>30-Jun-2021</td>
</tr>
</tbody>
</table>
| Comments:              |          | This indicator measures the total generation capacity in MW that realized through either the construction of a new or the rehabilitation of an existing conventional power plant, in this instance, thermal under the project.
## Generation capacity of renewable energy constructed (MWp) (Text, 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>30.00</td>
</tr>
</tbody>
</table>

**Date:** 31-Dec-2012 to 30-Jun-2021

**Comments:**
This indicator measures the total generation capacity in MWp that is achieved through the construction of new renewable energy power plants (solar) under the project to improve the reliability of electricity supply.

## Power outage per year in substations concerned by the project (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>129.00</td>
<td>129.00</td>
<td>129.00</td>
<td>2.00</td>
</tr>
</tbody>
</table>

**Date:** 31-Dec-2012 to 30-Jun-2021

**Comments:**
This indicator determines the number of individual power outages at the substations under the project. The outage to be considered should have occurred as a result of direct failure of an equipment at the substation in question and not as a result of outage of a transmission line or other network component outside the substation.

## Cumulative increase transmission transfer capacity in project areas (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>
<td>Value</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>75.20</td>
</tr>
</tbody>
</table>

**Date:** 31-Dec-2012 to 30-Jun-2021

**Comments:**
This indicator is determined by the difference between the transfer capacity of transmission lines at existing 33 kV and proposed 90kV in the project areas.

## Availability of transmission lines in the project area (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>95.10</td>
<td>95.10</td>
<td>95.10</td>
<td>97.55</td>
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</tbody>
</table>

**Date:** 31-Dec-2012 to 30-Jun-2021

**Comments:**
This indicator is determined from the duration of various interruptions occurred at transmission level in project areas. The total annual operational hours of the transmission lines are divided by 8,760 hours to improve the efficient use of energy in targeted areas.

## Total capacity (kW) of installed equipment replaced by more efficient equipment (Kilovolt-Amphere, KVA) (Kilovolt-Amphere(KVA), 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>242.40</td>
<td>242.40</td>
<td>574.40</td>
</tr>
</tbody>
</table>

**Date:** 31-Dec-2012 to 30-Jun-2021

**Comments:**
This indicator measures the total capacity (kW) of installed equipment that is replaced by more efficient equipment.
Comments: This indicator is an aggregate of the capacities of installed equipment replaced by more efficient energy saving equipment under the project

Intermediate Results Indicators by Components

Component 1: Improve reliability of energy supply.

- Transmission lines HV constructed under the project (Kilometers, 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>222.00</td>
</tr>
</tbody>
</table>

- Transformers HV (90/33) installed under the project (Number, 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>6.00</td>
</tr>
<tr>
<td>Date</td>
<td>31-Dec-2016</td>
<td>06-Jun-2018</td>
<td>06-Jun-2018</td>
<td>30-Jun-2021</td>
</tr>
</tbody>
</table>

Component 2: Increase electricity access in target areas.

- Additional generation capacity under the project (off-grid) (Corporate Results Indicator) (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>
<td>Value</td>
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<td>0.00</td>
<td>0.00</td>
<td>690.00</td>
</tr>
<tr>
<td>Date</td>
<td>31-Dec-2012</td>
<td>06-Jun-2018</td>
<td>06-Jun-2018</td>
<td>30-Jun-2021</td>
</tr>
</tbody>
</table>

- Households provided with an electricity connection in rural areas under the project (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>0.00</td>
<td>3,320.00</td>
<td>3,320.00</td>
<td>17,087.00</td>
</tr>
<tr>
<td>Date</td>
<td>31-Dec-2012</td>
<td>06-Jun-2018</td>
<td>06-Jun-2018</td>
<td>30-Jun-2021</td>
</tr>
</tbody>
</table>

- Of which female-headed households (Number, Custom Breakdown)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
<th>End Target</th>
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<tbody>
<tr>
<td>Value</td>
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<td>332.00</td>
<td>332.00</td>
<td>1,709.00</td>
</tr>
<tr>
<td>Date</td>
<td>31-Dec-2012</td>
<td>06-Jun-2018</td>
<td>06-Jun-2018</td>
<td>30-Jun-2021</td>
</tr>
</tbody>
</table>

- New community electricity services under the project (Corporate Results Indicator breakdown) (Number, Custom)
Component 4: Institutional Strengthening and Capacity Development.

<table>
<thead>
<tr>
<th>►Elaboration of fuel audit and action plan (Text, Custom)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baseline</strong></td>
</tr>
<tr>
<td>Value</td>
</tr>
<tr>
<td>Date</td>
</tr>
</tbody>
</table>
### Implementation of the customer management software (Text, 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>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Date</td>
<td>01-May-2014</td>
<td>06-Jun-2018</td>
<td>06-Jun-2018</td>
<td>30-Jun-2021</td>
</tr>
</tbody>
</table>

### Agreement between the Government and SONABEL on selected binding operation performance indicators (Text, 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>No</td>
<td>YES</td>
<td>YES</td>
<td>Yes</td>
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<td>Date</td>
<td>01-May-2014</td>
<td>06-Jun-2018</td>
<td>06-Jun-2018</td>
<td>30-Jun-2021</td>
</tr>
</tbody>
</table>

**Comments:** The agreed indicators should allow tracking improvements in receivable collection periods and the accuracy of billing processes resulting from the successful implementation of SONABEL's customer management system (CMS).

### Number of public sector energy staff and energy service providers trained on key thematic areas (Number, Custom)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Actual (Previous)</th>
<th>Actual (Current)</th>
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<tbody>
<tr>
<td>Value</td>
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<td>265.00</td>
<td>265.00</td>
<td>400.00</td>
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<tr>
<td>Date</td>
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<td>06-Jun-2018</td>
<td>06-Jun-2018</td>
<td>30-Jun-2021</td>
</tr>
</tbody>
</table>

### Recruitment of transaction advisory firm with requisite legal, financial, economic, and technical expertise to support the Government on assessment and negotiation of energy IPPs (Yes/No) (Text, 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>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Date</td>
<td>31-Dec-2016</td>
<td>06-Jun-2018</td>
<td>06-Jun-2018</td>
<td>30-Jun-2021</td>
</tr>
</tbody>
</table>

### Feasibility studies for Bontioli, Folonzon, Gongourou (Number, 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>3.00</td>
</tr>
<tr>
<td>Date</td>
<td>31-Dec-2013</td>
<td>06-Jun-2018</td>
<td>06-Jun-2018</td>
<td>30-Jun-2021</td>
</tr>
</tbody>
</table>

### Beneficiary Satisfaction Survey completed, published (Yes/No) (Text, 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>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Date</td>
<td>31-Dec-2016</td>
<td>06-Jun-2018</td>
<td>06-Jun-2018</td>
<td>30-Jun-2021</td>
</tr>
</tbody>
</table>

**Comments:** Citizen Engagement Indicator. This Indicator establishes if a Beneficiary Satisfaction Survey has been completed and outcomes published.
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>
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<tbody>
<tr>
<td>P128768</td>
<td>IDA-52910</td>
<td>Effective</td>
<td>USD</td>
<td>50.00</td>
<td>50.00</td>
<td>0.00</td>
<td>40.21</td>
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<tr>
<td>P128768</td>
<td>IDA-54910</td>
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<td>USD</td>
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<td>8.00</td>
<td>0.00</td>
<td>0.31</td>
<td>7.05</td>
<td>4.2%</td>
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<td>IDA-60680</td>
<td>Effective</td>
<td>USD</td>
<td>80.00</td>
<td>80.00</td>
<td>0.00</td>
<td>3.61</td>
<td>84.96</td>
<td>4.1%</td>
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<td>P128768</td>
<td>IDA-H9660</td>
<td>Effective</td>
<td>USD</td>
<td>27.00</td>
<td>27.00</td>
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<td>1.59</td>
<td>22.85</td>
<td>6.5%</td>
</tr>
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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
Restructuring History

Level 2 Approved on 11-Nov-2016

Related Project(s)

P149115-Burkina Faso - Additional Financing Electricity Sector Support Project
P160344-Burkina Faso AF to Electricity Sector Support Project