Mali is a vast landlocked country with a population of approximately 13.5 million inhabitants. The country is threatened by drought and desertification. The majority of Malians are directly dependent on their environment for their livelihoods (herding, farming and fishing). Although there is a trend towards a decline in poverty, Mali’s social indicators remain among the lowest in the world. Population growth has remained high about 3 percent and life expectancy is only about 53.1 years. Mali is vulnerable to climatic shocks, exchange rate and commodity price fluctuations. Economic performance has remained however satisfactory and macroeconomic stability was maintained in 2008. The Government is fully aware that to generate fast and broad increase in incomes, the country would need to: (i) increase access its neighbors and to the rest of the world; (ii) develop basic productive services and factors of production (transport, energy); and (iii) develop new sources of growth in addition to cotton and gold. The current business and investment climate, as well as capacity and skills need to be upgraded to enable Mali to fulfill its growth potentials.

In order for Mali to achieve a sustained 7 percent annual growth rate of its economy over the next five years, four main challenges need to be addressed in the energy sector: (i) an adequate supply of electricity to meet a growing demand of about 10 percent per annum over the 2007-2010 period; (ii) a successful restructuring of EDM SA (Energie du Mali, Société Anonyme) to become a financially viable and operationally efficient utility; (iii) a timely implementation of electricity interconnections with neighboring countries; and (iv) a sustained energy access expansion in rural, peri-urban and urban areas to support productive activities and social programs.
2. Objectives

The project development objective is to improve the access and efficiency of electricity services in Bamako and in targeted rural areas. This financing mainly for the extension and reinforcement of EDM SA transmission and distribution networks is crucial to enable Mali to fully capitalize on the additional thermal capacity under construction and expected gas generated power from Côte d’Ivoire. The project will advance the GOM’s agenda of access expansion as electricity services will be provided growth centers that currently receive inadequate or non-existent grid supply. The ultimate objective is to support the country’s shared-growth agenda enabling it to achieve its millennium development goals.

3. Rationale for Bank Involvement

The Bank’s involvement in the proposed Energy Support Project is intended to help the GOM improve the access and efficiency of electricity services to support shared-growth and competitiveness of the economy. Mali’s opportunities to add value to cotton and to export perishable products such as fruit and vegetables, horticultural products and frozen carcasses (rather than livestock on the hoof at present) crucially depend upon a reliable and affordable power supply. The project will contribute to the process of unleashing the industrialization and economic growth of Mali by extending electricity services to areas with agro-business potentials including part of the Niger River Irrigation Office. This financing mainly for the extension and reinforcement of EDM SA transmission and distribution networks is crucial to enable Mali to fully capitalize on the additional thermal capacity under construction and expected gas generated power from Côte d’Ivoire. The project will advance the GOM’s agenda of access expansion as electricity services will be provided to areas that currently receive inadequate or non-existent electricity supply. The project is also fully consistent with the Bank’s parallel efforts to promote greater regional integration in the energy sector. This vision is in line with Mali’s Growth and Poverty Reduction Strategy Framework adopted in 2007 and its two main pillars: (i) developing infrastructure and strengthening productive sectors; and (ii) consolidating the public sector structural reform agenda. Moreover, the project is also in alignment with the 2007-2011 CAS strategic objectives to develop infrastructure, strengthen productive sectors, and consolidate the public sector structural reform agenda. The proposed Energy Support Project is specifically mentioned in the CAS as an instrument to help achieve this objective.

4. Description

The project includes the following three components:

**Component 1: Transmission and distribution reinforcement and extension (US$107.0 million)**. Assessment of the Mali power systems have revealed that the current medium voltage feeders in the Bamako area are inadequate to serve the rapidly growing urban population and distribution networks in many areas are already overloaded. This prevents the country from fully benefiting from the additional power supply expected by 2010 from increased thermal generation capacity and from regional interconnections thereafter. This component is mainly intended to finance (i) the rehabilitation of the 150 kV transmission line between Segou and Bamako to
allow a reliable transit of high voltage power to Bamako; (ii) the construction of a 150 kV loop around Bamako to improve reliability of electricity supply to the Bamako area; (iii) the rehabilitation and extension of the distribution networks in Bamako to provide electricity access to growing quarters of the city; (iv) the expansion of grid access in main secondary towns (Kayes, Sikasso, Koutiala, Kati, and Mopti) and in the Niger River Irrigation Office area particularly in the localities of Siribala, Dougabougou, Sansanding, Molodo and Dioro; (v) the connection to the main grid of the localities of Ouléssébougou and Kangaba currently supplied by isolated diesel units.

**Component 2: Energy efficiency and demand side management (US$ 5.0 million)**: The key objectives of this component is to address the country’s energy security needs through the implementation of energy efficiency measures across various supply and demand side sector, including preparing a demand side management (DSM) program based on large scale deployment of energy efficiency lighting measures in the short-term. The implementation of this initiative is expected to reduce energy consumption and peak load demand thereby bringing direct benefits to households and other consumers (through lowered electricity bills) and the government (through deferred investment in electricity generation for new capacity and enhanced energy security). Furthermore, actions implemented under this initiative will help reduce local pollution and global GHG emissions. The component has four sub-components: (i) Energy Efficiency Residential and Public Buildings Lighting (distribution of about 1,000,000 CFLs); (ii) Efficient Street Lighting Program (installation of about 15,000 efficient lamps); and (iii) Technical Assistance to support the energy efficiency program.

**Component 3: Capacity and institutional strengthening of key sector institutions (US$8.0 million)**. The energy sector reform experience over the last five years indicates that more work is needed to strengthen the institutional, legal and regulatory environment and governance to foster an open business environment attractive to private investors and operators. This component is intended mainly to help GOM in its restructuring efforts of EDM SA by setting a minimum platform of technical and financial performance targets with monitoring indicators. There is also an urgent need to improve on governance-related issues related to EDM SA operations as they bear on consequential amount. Detecting and sanctioning electricity theft, enhancing timely issuance of bills and prompt payment collection, improving metering and meter-reading and monitoring physical leakages will have to be vigorously pursued to reduce the current high levels of technical and non-technical losses. EDM’s Department of Ethics, mandated with the implementation of most of those tasks, constitutes the linchpin of an improved governance system and as such will be supported through this component. In addition key sector institutions (DNE, CREE, MEME) will also be strengthened to improve sector planning, regulation, governance, fiduciary oversight, knowledge dissemination, monitoring and impact assessment.

### 5. Financing

<table>
<thead>
<tr>
<th>Source</th>
<th>($m.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BORROWER/RECIPIENT</td>
<td>0.0</td>
</tr>
<tr>
<td>INTERNATIONAL DEVELOPMENT ASSOCIATION</td>
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</tr>
<tr>
<td>FOREIGN PRIVATE COMMERCIAL SOURCES (UNIDENTIFIED)</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>120.0</strong></td>
</tr>
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</table>
6. Implementation

Project Coordinating Unit: A project coordination unit, *Cellule de Coordination de Projet (CCP)* is created within the Ministry of Energy, Mining, and Water under the General Secretariat of the Ministry. It will be responsible for the overall coordination of the Energy Support Project. By relying on a project unit within the Ministry, a strategic choice is made to strengthen project management capacities of an existing governmental institution. The CCP will mainly draw expertise from the public administration but it will resort to external expertise as needed. The core team of the CCP team will include a coordinator, a procurement specialist, a financial management specialist, an energy specialist, a monitoring and evaluation specialist, and an environment and safeguards specialist. Annual work programs and budget of the CCP will be reviewed and approved by a Steering Committee (*Comité de Pilotage*) including officials of the Ministry of Energy and Water, Ministry of Environment, Ministry of Economy and Finance, EDM SA and CREE.

Implementation agencies: The project will involve three implementing agencies: (i) EDM SA; (ii) the Ministry of Energy and Water; (iii) and the Water and Electricity Regulation Commission (CREE). *EDM SA* will implement Component 1. EDM SA is the national electricity and water utility. It will be responsible for the technical implementation and supervision of Component 1. EDM SA will be supported in the supervision by international engineering services. EDM SA has currently a procurement unit that was assessed as weak and not up to standard with IDA procurement guidelines. It was agreed with the GOM during project preparation that procurement capacity of EDM SA will be strengthened through this project. All procurement related activities related to the project involving EDM SA will be handled with the technical assistance of an international procurement firm and the procurement specialist of the CCP.

7. Sustainability

The Government of Mali and EDM SA are fully committed to the project’s success and sustainability. The Government is currently engaged in the implementation of strong policy measures and investment operations that would: (i) open up the electricity market; and (ii) rationalize energy pricing. Effective implementation of EDM SA’s restructuring plan is the key to sustainability of the project. The weak financial situation of EDM SA is the major issue that needs to be addressed to ensure achievement of project outcomes. The beginning of payments of arrears to SOGEM is a good sign indicating the Government willingness to restore credible sector finances. The application of a cost reflective tariff schedule by the regulatory agency with an aggressive revenue collection by EDM SA will improve financial performance of the utility. It will allow the GOM to gradually remove subsidies to the sector especially with the arrival of the interconnected power.

8. Lessons Learned from Past Operations in the Country/Sector

*Project design should be based on contextual conditions and constraints.* Experiences from similar projects indicate that successful implementation is associated with an account of local
institutional conditions and constraints. This project is designed in close collaboration with key energy sector institutions in the country with primacy given to their business priorities. Levels of capacities are taken into account in assigning roles and responsibilities of to implementing agencies and areas of capacity development are identified for support.

*For power sector reform to succeed it has to set realistic goals taking into account the investment climate, country risks, and ownership of the Government.* The ESP is designed based on the failed experience of privatization of the electricity and water utility. A strong ownership of new reform goals was sought from the GOM. This resulted in an updating of the electricity sector policy letter, the preparation a restructuring plan of the utility, and the preparation of a strategic note of the Government on tariffs and subsidies.

*Complex project elements should be handled by turnkey contracts.* Experience with other transmission and distribution project indicate that turnkey procurement contracts implemented by international firms are helpful to utilities in completing quality level works in a timely manner. The preparation of the procurement plan of Component 1 was based on this consideration.

*Environmental and social safeguards mitigations measures should be budgeted in order for them to be effectively implemented.* In the case of this project resources were specifically budgeted to cover environmental and social mitigation measures susceptible to be implemented. The utility was requested to create a dedicated unit for safeguards by effectiveness of the project.

### 9. Safeguard Policies (including public consultation)

<table>
<thead>
<tr>
<th>Safeguard Policies Triggered by the Project</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Assessment (OP/BP 4.01)</td>
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<td>Natural Habitats (OP/BP 4.04)</td>
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<td>Pest Management (OP 4.09)</td>
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<td>Cultural Property (OPN 11.03, being revised as OP 4.11)</td>
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<td>Involuntary Resettlement (OP/BP 4.12)</td>
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<td>Forests (OP/BP 4.36)</td>
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</tr>
<tr>
<td>Safety of Dams (OP/BP 4.37)</td>
<td>[ ]</td>
<td>[x]</td>
</tr>
<tr>
<td>Projects in Disputed Areas (OP/BP 7.60)*</td>
<td>[ ]</td>
<td>[x]</td>
</tr>
<tr>
<td>Projects on International Waterways (OP/BP 7.50)</td>
<td>[ ]</td>
<td>[x]</td>
</tr>
</tbody>
</table>

*By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas.*
10. List of Factual Technical Documents

- Cadre de gestion environnementale et sociale, 2008.
- Cadre de politique de réinstallation, 2008.
- Dossier AMCI sur les pertes techniques distribution, 2009.

11. Contact point
Contact: Koffi Ekouevi
Title: Senior Economist
Tel: (202) 458-4375
Fax: (202) 473-5123
Email: kekouevi@worldbank.org

12. For more information contact:
The InfoShop
The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 458-4500
Fax: (202) 522-1500
Email: pic@worldbank.org
Web: http://www.worldbank.org/infoshop