

**PROJECT INFORMATION DOCUMENT (PID)
CONCEPT STAGE**

Report No.: AB1572

Project Name	IQ-EMERGENCY ELECTRICITY
Region	MIDDLE EAST AND NORTH AFRICA
Sector	General energy sector (100%)
Project ID	P087734
Borrower(s)	REPUBLIC OF IRAQ
Implementing Agency	
Environment Category	<input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> FI <input type="checkbox"/> TBD (to be determined)
Date PID Prepared	April 25, 2005
Estimated Date of Appraisal Authorization	June 15, 2005
Estimated Date of Board Approval	September 29, 2005

1. Key development issues and rationale for Bank involvement

Sector Development Issues

The main issues and challenges facing the electricity sector are:

- **Security Situation** – the security situation remains the biggest problem facing this sector in several parts of the country. The prevailing unstable environment characterised by continuous looting and destruction, leads to delays in projects implementation, repairs and maintenance, as well as to shortages in fuel supply, all of which limit the available supply of electricity. This unstable situation is likely to remain in the near future.
- **Unreliable and inadequate fuel supply** – the availability of reliable and sufficient fuel supply continues to be a major impediment to the continuous and efficient operation of the generation plants. Besides the security of pipelines, natural gas and diesel, which are the most efficient fuel types for the generation plants in Iraq, are largely unavailable. The wide spread use of crude oil increases maintenance requirements. Ensuring adequate fuel supplies for the power sector, in terms of quantity, quality and type of fuel remains a major challenge. The two biggest factors in this are the security situation and the apparent lack of a consistent long term overall energy policy. More coordination is required between the oil and electricity sectors.
- **Uncertainty of availability of funds** – Uncertainty about available donor funds and budgetary allocations from the Government have been an important factor to the fact that rehabilitation efforts have not yet led to the desired results. Project coordination on activities financed from donor administrated funds and MoE has not been adequate and has often led to delays. While budgetary allocations were made, in actual fact, using these funds has not been easy. A stronger coordination between MoE and the Ministries of Finance, Planning and Oil, as well as with the donor community is required to mitigate this issue.

- **Limited implementation capacity**– MoE, like many ministries in Iraq, is facing difficulties in the implementation and processing of reconstruction projects; only 27% of the funds allocated to MoE from the national budget were disbursed in 2004. While the prevailing volatile security situation, the unstable political situation and the lack of coordination have largely contributed to this matter, some weaknesses both at the technical and the managerial levels have also been identified.
- **Inadequate tariffs, low cost recovery, increased cost of doing business** – on the other hand, current prices of petroleum products, fuel and electricity are still distorted and do not reflect production costs or international market prices. And, although billing has been partially reinstated, collection remains difficult because of the current security situation. This problem is further exacerbated by the fact that the cost of doing business has been increasing in the last few months, due to an unsafe security environment: security costs often amount to 30% of the total cost of a project. In the long term, adjusting energy prices to improve cost recovery and ensuring that right economic investment choices are made are key elements in improving the financial viability of the electricity sector.
- **Institutional structure** – the currently centralized structure of MoE may not be the best option for the future of the Iraq electricity sector. Possible reforms may start with reverting back to the autonomous arrangements that were in place in 1999, as described above. However, modernization of the current legal and regulatory framework is also required in view of the recent decision to open the electricity sector to private investment. Over time private sector participation in the construction and manufacturing companies will increase if conditions are right and the correct signals are given.

Rationale for Bank Involvement:

In response to a formal request in December 2004 by the Interim Government, the World Bank will extend US\$500million in International Development Association (IDA) credits between FY2005 and FY2007. A follow-up Interim Strategy is being prepared, in consultation with the Iraqi Government, and will be submitted to the World Bank Board of Directors in May/June 2005.

The proposed project is fully consistent with the World Bank's Interim Strategy Note for Iraq which emphasizes the need for rapid rehabilitation of critical infrastructure services and institutional capacity building as pre-requisites for long-term sustainable recovery. There are important reasons for the Bank to be involved at this stage in rehabilitating Iraq's electricity infrastructure:

- Despite relatively large amounts of financing for infrastructure from bilateral donors, there remains a huge financing gap for infrastructure rehabilitation, which remains one of the biggest obstacles to economic recovery. Bank financing can complement the ongoing large-scale infrastructure investments. More importantly, the Bank is capable of attracting resources from other development agencies and/or Governments and can assist in the coordination of investments. Discussions have taken place with JBIC and DFID on several cooperation and/or co-financing avenues.

- The Bank is in a position to share international experiences and best practices based on the Bank's considerable international experience with infrastructure reconstruction projects and institution building in conflict-affected areas (including Bosnia-Herzegovina, Ethiopia, West Bank and Gaza, and Afghanistan). The Bank's reconstruction efforts put a premium on early but selective engagement, flexibility in design and implementation, capacity building, coordination with donors and other partners, and close monitoring and evaluation;
- Bank financing, unlike the financing of many other donors, will be implemented by Iraq through the country's own institutions (ministries and agencies), which will ensure Iraqi ownership and build Iraq's institutional capacity, both crucial for the country's sustainable development;
- The Bank will couple financing for rehabilitation with policy advice, assisting the Government with urgent policy decisions, while laying the ground for sector restructuring that is essential for long-term sustainability of infrastructure investments;
- There has been an expressed demand on behalf of the donor community, namely the US, the EC and Japan, for the Bank to lead the donor coordination efforts in the electricity sector; and,
- On the question of working in insecure environments, Operational Policy (OP) 2.30 recognizes that even in countries in conflict the Bank should "continue efforts at poverty reduction and maintenance of socioeconomic assets" and in developing a program for a country in transition from conflict may become involved incrementally. The Bank's recent experience in Afghanistan provides the clearest precedent where selective assistance was mobilized ahead of, and in support of, a fully developed transitional support strategy.

2. Proposed objective(s)

The objective of this project is to enhance MoE's capacity to manage and prepare rehabilitation and new investment projects, strengthen its operation and maintenance capacities and improve service delivery. This will be done through the provision of technical assistance, capacity building, training, as well as supply of urgently needed equipment, material and spare parts. A secondary objective of this project is to prepare the ground for much needed institutional and regulatory reforms.

3. Preliminary description

The project addresses the urgent reconstruction needs of the power sector and provides support to MoE to better manage projects at the design, supervision, operation and maintenance stages by building the much needed capacity of its staff. It also consists of including improvement of accounting, billing and metering, and institutional development.

Discussion on the proposed project started well over a year ago in the context of a larger multi sector infrastructure project to be financed from the Trust Fund for Iraq. However, no donor funding was available from the Trust Fund and the Government requested that this project be funded from IDA

resources. The project that was initially prepared by the Bank and MoE was for an amount of about US\$110 million. However, in light of the limited IDA funds, the Government of Iraq has recently proposed that a US\$35million project be prepared to meet the above-mentioned objectives.

In light of the uncertainty of funds to be allocated, this section will outline the scope of both possible operations in the amounts of US\$35million and US\$110million. Project costs outlined below include a combined physical and price contingency of 15% to mitigate against increases in the cost of doing business in Iraq and the prevailing security situation. While the technical assistance and the capacity building components will remain the same, investments will differ significantly in both options.

Option 1 – US\$35million

An operation in the amount of US\$35million would include the following components:

Component 1: Technical Assistance and Capacity Building (US\$15million)

In the short term, assistance is required for the design, management and implementation of the rehabilitation/reconstruction program, including supervision of contractors. Equally important are training programs to update skills in planning, modern design, plant operation and maintenance practices, to ensure the proper management of projects, not just those financed by IDA and other donors, but also those financed through budgetary allocations. It will also be essential to train staff in efficient commercial utility practices, such as metering, billing, collection, budgeting and accounting etc.

A number of studies have been recommended:(i) the preparation of a least cost master plan for the sector (ii) an option analysis to review the adequacy of the existing legal, regulatory framework and industry structure, with recommendations for reforms (iii) a comprehensive tariff study which also analyses the impact of tariff revisions on the population as well as other sectors of the economy and the financial viability of the sector entities and (iv) a study to assess human resource development needs. Work in some of these areas has been initiated with other donor financing and the exact scope is still to be discussed. The proposed project component would provide supplemental funding and follow-up.

This component could also cover the supply of office equipment, vehicles, and furniture and operation costs for the Project, as well as consulting services for the following:

- Preparation of final designs and tender documents;
- Construction and implementation supervision;
- Audits by independent international firms;
- Support the Project Management Team (PMT);
- Preparation of feasibility studies and final designs for follow-up projects;
- Contract and construction management, Construction Supervision, etc.; and,
- Support with procurement and financial management.

Component 2: Supply of Equipment for the Distribution Network (US\$10million)

This component will fund urgently needed mobile substations as well as maintenance equipment and material to improve the reliability of the electricity distribution network in Iraq. Details for elements to be funded under this component will be finalized during project appraisal.

Component 3: Supply of Equipment for the Transmission Network (US\$10million)

This component will fund urgently needed transformers as well as maintenance equipment and material to improve the reliability of the electricity transmission network in Iraq. Details for elements to be funded under this component will be finalized during project appraisal.

Option 2 – US\$110million

An operation in the amount of US\$110million would include the following components:

Component 1: Supply of power transformers for 132/33/11kV substations (US\$15million)

In many of the existing 132/33/11kV substations, power transformers were damaged or looted in the recent conflict. This project component will replace twenty 63 MVA power transformers, four of which are 132/33 kV transformers and 16 of which are 132/33/11 kV transformers. The required transformers are planned to be installed in substations in Baghdad, Basra, Anbar, Diala, and Tikrit Governorates. The installation of new transformers will reduce overloading and improve reliability of the system. MoE estimates that one million consumers will benefit from this component.

Component 2: Completion of the Mousil-Mansour substation 132/33/11kV (US\$2million)

This substation is located in Mousil city and is connected to Al- Mansour gas generating plant. Once completed, it will improve the reliability of the transmission and distribution systems in the Mousil area, reduce the bottlenecks in the power system, and maintain stability and reliability of the electrical network. This substation is an air insulated type 132/33/11 kV substation comprising three 63 MVA transformers. It includes 6 X 132 kV feeders, 15 x 33 kV feeders (indoor metal clad switchgear), 18 x 11 kV feeders (indoor metal clad switchgear), complete with all AC/DC auxiliary equipment, protection devices, communication, control and metering equipment. Construction of this substation started in 2000 and was about 70% completed when the recent war commenced. This component will help complete the construction of this substation.

Component 3: Supply of 33/11 kV Mobile Substations for the Distribution Networks (US\$15million)

Mobile substations replace fixed substations when such substations are out of service due to abnormal conditions, or when additional supply capacity is required in the distribution network.

Many of the existing 33/11 kV substations across have been damaged during the Gulf Wars. In addition, loads have increased to levels exceeding substation and feeder capacity. This combined effect requires the use of mobile 33/11 kV substations in the interim period to replace the damaged substations and / or to feed the increased demand for electric power. This component will procure and install twenty one 33/11 kV mobile substations, with a 16 MVA transformer and 4 x 11 kV feeders each, and four 33/11 kV mobile substations with a 10 MVA transformer and 3 x 11 kV feeders each. These mobile substations will be allocated to all governorates of Iraq to replace the damaged ones or to serve on emergency / temporary basis.

Component 4: Supply of Materials for the Rehabilitation and Expansion of Distribution Networks (US\$35million)

There are 527 - 33/11 kV substations and 75,900 - 11/0.4 kV substations, connected with over 12,300 km of 33 kV lines (both underground and overhead) and 71,000 km of 11 kV lines (underground and overhead) in the distribution networks in Iraq. The networks require urgent rehabilitation and replacement and/or additions to improve the reliability of supply. This component will finance equipment and parts needed to ensure the operation and reliability of the system.

Component 5: Rehabilitation of Baghdad and Mousil Training Centers. (US\$8million)

Staffs presently working in the electricity sector require training in order to upgrade their skills, increase their productivity and efficiency, and to acquaint themselves with new equipment being installed in the sector. Moreover, there is a need for professional training in accounting, project management, inventory management, procurement and contract management and sound commercial utility practices. This component covers the rehabilitation and refurbishment of the two existing training centers (in Baghdad and Mousil) and includes: (i) civil engineering works to remodel, partition and develop classrooms, meeting rooms, workshops, offices, laboratories, library (ii) supply of equipment for classrooms, workshops and laboratories; (iii) operation and maintenance of the centers for 12 months.

Component 6: Supply of Maintenance and Testing Equipment. (US\$20million)

This component consists of the supply of maintenance and testing equipment specifically for the generation directorates. In particular, the required goods include 10 mobile cranes, 5 loaders 8 tanker trucks, and various maintenance and testing tools, and safety facilities.

Component 7: Technical Assistance and Capacity Building¹ (US\$15million)

(Same as Component 1 of Option 1 above-mentioned)

¹ / This component needs further discussion with MoE and the scope will be adjusted taking into account available funding and items covered by other donors

4. Safeguard policies that might apply

The Project will be processed as an Emergency Recovery Project. The Project is rated as category “B,” because it will have limited environmental impacts. Each project component will be carried out in accordance with the Environmental and Social Screening Assessment Framework (ESSAF) for Iraq, which should be disclosed by the Borrower before appraisal. This framework entails that: (a) all components be screened by the Borrower through a checklist attached in the ESSAF (b) that a code of practice be included as part of civil work contracts as well as for purchase and installation of equipment contracts (c) and that capacity building is undertaken on the environmental issues and on corrective environmental measures in order to enable the Borrower, and particularly the Ministry of Environment, to address any potential aspects that may arise during screening and implementation.

It is anticipated that land acquisition and resettlement will be kept to a minimum and all land acquisition and resettlement will be carried out in accordance with the guidelines set forth in the ESSAF. Component proposals that would require demolishing houses or acquiring productive land will be carefully reviewed to minimize or avoid their impacts through alternative alignments. Proposals that require more than minor expansion along rights of way will be reviewed carefully. No land or asset acquisition may take place outside of the ESSAF guidelines.

5. Tentative financing

Source:	IDA (\$m.)
BORROWER/RECIPIENT	0
INTERNATIONAL DEVELOPMENT ASSOCIATION	35/110
Total	35/110

6. Contact point

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