



## 1. Project Data

Project ID  
P088996

Project Name  
MX (CRL2) Integrated Energy Services

Country  
Mexico

Practice Area(Lead)  
Energy & Extractives

L/C/TF Number(s)  
IBRD-75010

Closing Date (Original)  
30-Jun-2013

Total Project Cost (USD)  
115,000,000.00

Bank Approval Date  
17-Jan-2008

Closing Date (Actual)  
30-Oct-2015

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	15,000,000.00	0.00
Revised Commitment	11,950,890.02	0.00
Actual	11,950,890.02	0.00

Sector(s)  
Central Government (Central Agencies)(33%):Non-Renewable Energy Generation(14%):Other Industry, Trade and Services(12%):Sub-National Government(9%):Renewable Energy Biomass(8%):Renewable Energy Geothermal(8%):Renewable Energy Solar(8%):Renewable Energy Wind(8%)

Theme(s)  
Rural services and infrastructure(67%):Climate change(33%)

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Project ID  
P095038

Project Name  
MX-GEF Integrated Energy Services ( P095038 )

Country  
Mexico

Practice Area(Lead)  
Energy & Extractives

L/C/TF Number(s)

Closing Date (Original)

Total Project Cost (USD)



TF-91733	30-Jun-2013	30,000,000.00
Bank Approval Date	Closing Date (Actual)	
17-Jan-2008	30-Oct-2015	
	IBRD/IDA (USD)	Grants (USD)
Original Commitment	0.00	15,000,000.00
Revised Commitment	0.00	11,917,055.65
Actual	0.00	11,917,055.65

Sector(s)

Other Agriculture, Fishing and Forestry(4%):Central Government (Central Agencies)(35%):Sub-National Government(17%):Renewable Energy Biomass(10%):Renewable Energy Geothermal(10%):Renewable Energy Solar(10%):Renewable Energy Wind(10%):Other Industry, Trade and Services(4%)

Theme(s)

Rural services and infrastructure(33%):Climate change(67%)

## 2. Project Objectives and Components

a. Objectives

The Project Development Objective (PDO), as specified in the Project Appraisal Document (PAD) was “to increase access to efficient and sustainable integrated energy services in predominantly indigenous rural areas of Mexico”. This differed slightly from the PDO as specified in the Loan Agreement, which was “to increase access to efficient and sustainable energy services in the Borrower’s rural areas in selected States.” However, the legal documents were amended during the restructuring of 2012, to make the PDO consistent with its specification in the PAD.

The global environment objective of the project was “to achieve reduction of greenhouse gas emissions through use of renewable energy in rural areas for the provision of electricity”.

b. Were the project objectives/key associated outcome targets revised during implementation?

No

c. Components

Component 1. **Strengthening of Strategy, Policy and Regulatory Frameworks:** (Estimated cost: US\$4.1 million; actual cost: US\$4.1 million).

This consisted of (a) review and design of strategy, policy and/or regulatory measures for electricity tariff and subsidy schemes, and for ownership and property rights for off-grid electrification projects, (b) design of incentives to foster development of renewable, off-grid electricity services, (c) development of technical specifications, standards and manuals to ensure quality standards in technical installations and service delivery, (d) development of methodological guidelines and tools for public consultation activities, and (e) design of a conflict resolution mechanism to ensure transparency and reduce risks. At restructuring, the Government took on full responsibility for financing this component.



Component 2. **Investment in Rural Electrification and Sub-Projects:** (Estimated cost: US\$68.4 million, increased at restructuring to US\$110.1 million; actual cost: US\$36.7 million).

This consisted of capital cost subsidies for a portion of the investment cost of rural electrification projects, as well targeted output-based subsidies focused on service quality and market development. The main off-grid technological options considered were: Photovoltaic-Solar Home Systems, Wind Home Systems, Micro-Hydro and Hydro-based Mini-grids, Small-scale Biomass Power generation, and Diesel/RET/Battery Hybrids. In addition, the project included installation of a limited number of efficient wood stoves in rural households. This component was re-designed during restructuring, to focus solely on solar projects, and its scale was increased to a total investment of US\$110 million, but subsequently reduced by closure to US\$36.7 million...

Component 3. **Capacity Building to State, Municipal and Community Stakeholders:** (Estimated cost: US\$12.6 million)

This component was intended to assist the various stakeholders, including Federal, State, Municipal and Community stakeholders, who were expected to be ultimately responsible for implementing the project. The object was to help stakeholders identify, plan, implement and monitor sub-projects in cooperation with electricity service providers, private sector and decentralized Government institutions. This component was however dropped at restructuring, since participation of the Federal Electricity Commission (CFE) as operator meant that these capacity building activities were no longer necessary for local governments and institutions originally considered..

Component 4. **Co-Financing and Technical Assistance to increase Productive Uses of Electricity:** (Estimated cost: US\$6.0 million; actual cost: Nil).

This component aimed to promote more intensive use of electricity whilst contributing to enhancement of social and productive activities, and to support community entrepreneurs through technical assistance and capacity building activities. At restructuring, the Government took on full responsibility for financing this component.

Component 5. **Project Management** (Estimated cost: US\$7.5 million, reduced at restructuring to US\$1.64 million; actual cost: US\$0.54 million).

This component was intended to support overall management of the project, including all Federal and State level institutions in charge of its execution. The actual administration of the Bank and GEF resources was however to be carried out by *Nacional Financiera* (NAFIN).

d. Comments on Project Cost, Financing, Borrower Contribution, and Dates

**Project Cost:** The final project cost after restructuring was US\$121.83 million, higher than the original projected cost of US\$98.49 million. The restructuring resulted in a change in costs of all of the project's components, taking into account Component 3, which was dropped and whose costs were reallocated to the other components. The increase in overall projected costs was however mostly on account of a significant increase in projected costs of Component 2 (Subprojects), from US\$68.4 million to US\$110.1 million – reflecting a change in scope of this component. The actual cost of the project at closure was only US\$41.1 million, significantly lower than the cost projected at restructuring – in part due to the fact that a number of communities in Chiapas and Oaxaca states were dropped from funding consideration under the Government's rural electrification program.

**Financing:** The sources of financing for this project consisted of an IBRD loan of US\$15 million and a GEF grant, also of US\$15 million. The actual disbursement was US\$11.95 million for the IBRD loan and US\$11.92 for the GEF grant. The balance in each case (US\$3.05 million for the IBRD loan and US\$3.08 million for the GEF grant) is presumed to by IEG to have been cancelled and returned, but the ICR does not provide any relevant information.

**Borrower contribution.** The Government envisaged a contribution initially of US\$60,00 million, the bulk of which (US\$49.22 million) was to go to Component 2. After restructuring in 2012, the Government's contribution was increased to US\$91.8 million, of which US\$80.7 million was to go to Component 2. Actual contribution was US\$17.2 million at project close (US\$13.1 million to Component 2).

**Dates.** The project was originally envisaged to close on June 30, 2013, but was restructured on October 4, 2012 and extended by 12 months. Two more restructurings followed – in June 2014 and April 2015, first extending the closing date to April 30, 2015 subsequently to October 15, 2015.

### 3. Relevance of Objectives & Design

a. Relevance of Objectives

**Objectives:** The project's objective of increasing access to efficient and sustainable energy services in rural areas of Mexico was substantially relevant at the time of project inception and closure, in the context of the country's National Development Plan, which accorded priority to inclusive growth through better access to basic services (including electricity). This objective, as well as the project's Global Environmental Objective of achieving a reduction of greenhouse gas emissions through use of renewable energy, was similarly consistent with the World Bank's Country Partnership Strategy (CPS) for Mexico, 2014-19, which accorded some priority to promoting Green and Inclusive Growth



(Theme 4 – Reducing the Footprint of Growth). However, the CPS also envisaged that the fostering of energy efficiency would take place through greater private sector participation. While the project did support private participation as an objective in the development of a sustainable market for provision of energy in rural areas in its initial design; this objective was subsequently dropped at restructuring.

Rating  
Substantial

b. Relevance of Design

**Design:** The project’s design was broadly aligned to its development objectives. The design, as originally conceived, was relatively straightforward, placing emphasis on improving the regulatory framework, investments in rural electrification sub-projects, and provision of institutional capacity building and technical assistance to increase productive uses of electricity. This underwent some change during restructuring, with some of the technical assistance activities being dropped and sub-projects receiving greater focus. The results framework captured the project’s underlying logic adequately, linking its inputs and outputs to the project’s outcomes. Restructuring led to a revision in targets and the dropping of some indicators, without fundamentally affecting the causal chain. On the negative side, it is clear that the design seriously underestimated the practical difficulties of implementing a rural electrification program of this nature. Project design did not sufficiently take into account the difficulties in creating a mechanism or fund to facilitate project development within the Ministry of Energy (SENER), the complexities of the Government’s budgetary process, which created delays in establishing a Project Implementation Unit (PIU) and a lack of counterpart funds, all of which contributed to the project making virtually no progress in the initial three years after effectiveness.

Rating  
Substantial

## 4. Achievement of Objectives (Efficacy)

### Objective 1

Objective

“To increase access to efficient and sustainable integrated energy services in predominantly indigenous rural areas of Mexico”.

Rationale

**Outputs:**

As a result of the restructuring, the project was integrated into the Government of Mexico’s wider rural electrification program for providing access to electricity services to rural communities throughout the country, making it somewhat difficult to distinguish accurately between progress of the overall program and of the Bank-financed project. IBRD and GEF funds were however used predominantly to support investments in rural electrification sub-projects located in specific communities. Out of 86 communities that would be served with electricity from renewable sources, the restructured project would finance the costs of systems in some 36 of these communities. The restructured project was intended to serve some 4,432 households with about 1.2 kilowatt-peak (kWp) average per household, compared to only 0.1 kWp envisaged under the original project, and new installed capacity from renewable sources would be of the order of 6,205 kW, compared to 6,289 kW under the original project.

The following outputs resulted from the project:

- SENER/CFE became operational: As a result of the restructuring in 2012, it was decided to simplify the project’s implementing arrangements by incorporating CFE as the executing agency of the main project component (rural sub-projects), with SENER playing a coordinating role. This arrangement, implying a change in the project’s business model, was implemented, and marked a turning point in the project’s track record. CFE undertook responsibility for procurement activities under the main Component 2, under SENER’s coordination. However, procurement continued to be a major constraining factor until project closing, on account of the considerable delays – arising from unfamiliarity with World Bank guidelines and differences in CFE’s own procurement procedures - that arose during the



first bidding process. Because of these delays, two of the last three bidding processes could not be completed on time, which ultimately impacted the number of beneficiary communities.

- Design of bidding documents was completed, enabling seven bidding processes to be launched and completed during project implementation.
- Technical guidelines issues: Technical guidelines were included in each of the bidding processes launched, and completed during project implementation.
- Baseline and Medium-term impact evaluation assessments completed. Based on these, the Bank and Government took stock of the situation in 2011-12, which led to the restructuring of October 2012, including a change in focus to a single photovoltaic (PV) technology in the form of Centralized Solar Farms (CSF).

**Outcomes:**

(a) The objective of achieving an increase in access to efficient and sustainable energy services in predominantly rural areas was partially achieved:

- The project succeeded in increasing access of the indigenous population to renewable energy sources in about half (18) of the targeted 36 communities.
- Some 2,235 households were electrified under the rural electrification program with RET (solar home) systems through Centralized Solar Farms (well short of the target of 4,432 households), while costs of new connections were brought down from US\$2,400 per household to US\$1,535 (though still short of the target of US\$1,097).
- About 2,357 kW of new renewable capacity was actually installed (less than 40 percent of target)
- Total RET energy consumption per household increased by 799 kWh/year, though well short of the target of 2,077 kWh/year.
- Minimal progress was achieved towards achieving an increase in electricity consumption for productive uses by schools, micro-businesses and water pumping for drinking water supply – an activity that was being financed and implemented directly by the Government. Achievement was of the order of just 2.6 percent of target for electricity consumed for productive purposes, and 6.9 percent of target for the number of new social/productive activities and micro-businesses developed.

It is worth mentioning that, given the difficulties in distinguishing between the achievements of the Bank/GEF-financed portion of the program (effectively “the project”) and that of the Government, an attempt was made by the Bank team to develop notional performance targets for the project, as distinct from the program, on the basis of the specific communities being served by the project. These notional targets – which were not however validated through a project restructuring - were incorporated into the results framework for the final three Implementation Status and Results Reports (ISRs). This resulted in somewhat smaller shortfalls in achievement of targets than for the program as a whole (four out of six indicators achieved 75 percent of their respective targets). That said, given the relatively small share of target indigenous population actually benefiting from the project and the failure of the project to encourage productive uses of electricity, achievement of outcomes can only be considered Modest at best.

(b) The Global Environmental Objective of achieving a reduction in greenhouse gas emissions was partially achieved:

The key performance indicator for measuring reduction in greenhouse gas emissions was Avoided Carbon Emissions. Actual reduction of emissions achieved was of the order of 139 thousand tons of CO<sub>2</sub>e per year. This was well short of the target of 241 thousand tons (though it compared well with the notional (reduced) target of 112 thousand tons introduced by the team in the final three ISRs). The achievement of this objective is also rated Modest.

On the basis of the above, overall efficacy is rated **Modest**.

Rating  
Modest

## 5. Efficiency

The project’s achievements came at a higher-than-estimated cost, which had implications on its estimated efficiency.

Economic evaluation of the project at closure revealed an economic internal rate of return (EIRR) on solar farms of only 0.94 percent and an estimated Net Present Value (NPV) of negative US\$6.8 million, even at a discount rate of only 4 percent (at 12 percent, the NPV was negative US\$14.5 million). This compares very unfavorably with the economic return estimated at appraisal. Based on an analysis of the costs and benefits of providing electricity to households using photovoltaic systems (being the main focus of the project), the estimated EIRR for the project worked out to 40 percent, with an NPV of about US\$73 million. These estimates were made without taking into account indirect benefits flowing, including income effects of enhanced lighting by extending potentially productive hours, and environmental effects arising from the displacement of indoor kerosene. EIRR estimates of similar projects at the time in other countries fell in the same range: including 30 percent return as estimated at closure for a similar project component in India, 43 percent for the Sri Lanka Energy Services Delivery project and 30 percent for a similar project in Bolivia. As clarified by the ICR, economic analysis of the project at closure was based on the



same parameters as the original analysis at appraisal, so that outcomes can be considered broadly comparable. Operational and administrative efficiency was impacted negatively by the delay of more than two years (from July 2009 until December 2012, after the restructuring) in commencing implementation of the project - during which period disbursements were negligible. Based on the above, it would appear that the project was seriously inefficient in delivering its outcomes. Efficiency is hence rated as **Modest**.

Efficiency Rating  
 Modest

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal	✓	40.00	0 <input type="checkbox"/> Not Applicable
ICR Estimate	✓	.94	0 <input type="checkbox"/> Not Applicable

\* Refers to percent of total project cost for which ERR/FRR was calculated.

## 6. Outcome

The project's objectives were rated as substantial at inception, and continue to be so. At the same time, its design was found to be substantially relevant. Achievement of the project's objectives is rated Modest, as is that of its Global Environment objectives. Project efficiency was similarly Modest. Overall, based on the data provided, it would appear that neither the project nor the Government's rural electrification program succeeded in making a significant contribution to increasing access to efficient and sustainable energy in rural areas.

a. Outcome Rating  
 Moderately Unsatisfactory

## 7. Rationale for Risk to Development Outcome Rating

At appraisal the risk analysis found that the project faced few critical risks. Such risks as the possibility of conflicts among communities for internal reasons or a lack of commitment by Municipalities resulting from problems in securing co-financing, appeared to be reasonably easy to mitigate. After the project was restructured, it appeared that the Centralized Solar Farms would be operated within a stable institutional framework, with the Federal Electricity Commission (CFE) as owner and operator of all installations. However, some financial uncertainties were identified nevertheless, related to the low level of tariffs for households, and the need to replace costly batteries and inverters in due course, that could have an impact on sub-projects' medium to long-term financial viability. Delays in implementation of the productive uses component could also have a negative impact on CFE's finances, and diminish the benefits to the beneficiary communities. It also remains to be seen whether rural electrification remains a priority for CFE and whether or not it will be dealt with in a centralized manner.

Based on this, the Risk to Developmental Outcome is rated as **Substantial**.

As regards the risk to global environmental outcomes, the project's sustainability relies on the appropriate technical operation of the farms, which is assured by the use of a sound technology, backed by CFE's operational capacity and suppliers' guarantees.

On this basis, the Risk to Global Environmental Outcomes is rated as **Low**



- a. Risk to Development Outcome Rating  
Substantial

## 8. Assessment of Bank Performance

- a. Quality-at-Entry

The design of the project, as originally conceived, was broadly appropriate to the country's needs. Preparatory work was based on sound technical and social/environmental assessments and economic analysis. The five original components included in the original design were adequate to ensure achievement of the project's developmental objectives. Different institutional arrangements for rural electrification already in place in different states and provinces were identified, and alternative arrangements for implementation of the project were considered. However, in its preparation, the Bank seriously underestimated the nature of the institutional constraints that existed at the Federal level, which would need to be surmounted for the project to make any progress. On account of the "non-additionality" rules that were applied by the Government of Mexico to its own agencies, the project needed to create a specific mechanism for transferring loan and grant proceeds to the Ministry of Energy (SENER) and to the overall program. This proved to be more difficult to implement in practice than anticipated. As a result, SENER faced a serious bottleneck in making use of the IBRD and GEF resources allocated, as well as counterpart funds, resulting in – among other things - a lack of financial resources for setting up a Project Planning and Management Unit (which eventually had to be dismantled on account of inability to pay the salaries of its members). In addition, the implementation arrangements envisaged by the project, involving the setting up of working groups at the Federal and State levels, and the involvement of a large number of entities, also proved more complex than anticipated, which further hindered the process. The inability to surmount these obstacles led to the project coming to a virtual standstill for three-and-a-half years after Board approval. This situation was resolved only after the project was completely restructured in 2012.

Quality-at-Entry Rating  
Moderately Unsatisfactory

- b. Quality of supervision

The initial period of implementation, following project effectiveness, was – as mentioned above – less than successful, with a variety of institutional and capacity constraints acting as obstacles to the project's progress. The Bank team saw the rotation of as many as five task team leaders from approval to restructuring in October 2012, some without a background of rural electrification, which may have contributed to the uncertainty. ISRs for this phase and beyond, all the way to mid-2014, rated the project's achievement of development objectives, as well its implementation progress, as either moderately or fully unsatisfactory. Curiously, however, ISRs that were archived during the period between November 2009 and June 2010, at a time when the project was at a near standstill, rated both implementation and development objectives as Moderately Satisfactory - which is somewhat difficult to reconcile. After restructuring, the Bank team was fairly diligent in its supervision of the project, maintaining a continuing, and at times intensive, dialogue with the Government, in an effort to put the project back on track. The restructuring succeeded in establishing a workable delivery model, which eventually provided enhanced access to electricity to a number of fairly remote communities, with consequential impact on quality of life of its inhabitants. The Bank team worked closely with CFE and NAFIN, providing assistance, particularly in procurement-related matters (where the Bank's norms represented a challenge for the concerned agencies). Overall, fiduciary and safeguard aspects were dealt with adequately, notwithstanding some delays in procurement. Financial management challenges were simplified by virtue of the centralization of project administration after restructuring. Staff resources allocated to supervision saw a significant increase, though with some volatility, in the post-restructuring period. Overall, the Bank team showed a capacity to deal with potentially crippling problems and to maintain a constructive engagement with a highly sophisticated client country.

Quality of Supervision Rating  
Moderately Satisfactory

Overall Bank Performance Rating  
Moderately Unsatisfactory

## 9. Assessment of Borrower Performance



a. Government Performance

Although the Government was committed in principle to the goal of expanding rural electrification through renewable energy sources, its focus was initially somewhat diffused. The energy sector reform implemented during the early years of the project, which involved formulation of a new legal and regulatory framework, proved to be a source of distraction affecting its ability to implement the operation. Also, during the initial years of the project, the Government's performance revealed significant shortcomings in dealing with impediments to efficient transfer of Bank and GEF resources and to provision of counterpart funds. As a result, the project suffered from budgetary restrictions (including lack of multiannual availability), affecting the ability to finance program activities. Finally, the roles and responsibilities of institutions involved were not adequately clarified, and with personnel in SENER being constantly rotated, this also undermined the Ministry's focus on the project. Matters improved only after the project was restructured and integrated within the Government's wider rural electrification program. Budget restrictions were resolved at that time through use of a revolving fund, known as FOTEASE (Fund for the Energy Transition and Sustainable Use of Energy). Secondly, CFE was given specific responsibility as operator for executing the rural energy sub-projects. This included responsibility for selection of sites to be electrified, social and environmental assessments to be conducted (with appropriate mitigation measures to be put into place), and procurement and consultation processes to be conducted. With support from the project coordination unit, different consulting services were hired and procurement processes of goods and works for the construction of all scheduled solar farms were finally completed during the period 2014-16. Even here, however (as discussed in Section 10a), the new federal administration that came in during December 2012, did not give immediate priority to the centralized solar farms part of its rural electrification program, focusing initially on conventional electrification projects, under the coordination of the Ministry of Social Development (SEDESOL). As a result, the progress in implementation of sub-projects under the Government's rural electrification program was effectively restricted to communities covered by the World Bank/GEF-supported project, while that of those directly under the Government lagged significantly.

Government Performance Rating  
Moderately Unsatisfactory

b. Implementing Agency Performance

SENER was the implementing agency in charge of the project's overall coordination, monitoring and reporting, with a core team of qualified experts (UREP), which it built up to supervise the project. In addition, *Nacional Financera* (NAFIN) was appointed as the project's financial agent, responsible for administering the IBRD and GEF resources. Originally, the Ministry of Social Development (SEDESOL) was supposed to be responsible for supporting local governments and localities in their liaison with the project, but this proved unnecessary as CFE felt that its own social units were capable of carrying out the required liaison activities. The incorporation of CFE as the principal entity responsible for technical aspects of the restructured project, through a collaboration agreement with SENER, implied a change in the project's business model, in favor of a more traditional arrangement de-emphasizing private sector participation and eliminating a set of implementing bodies (e.g. Federal and State Implementation Committees) that were no longer needed. Notwithstanding a significant delay in completing the first bidding process, CFE discharged its role fairly competently, though its performance was constrained to some extent by late or incomplete reporting on safeguards compliance. CFE also worked closely with the Bank team and helped organize supervision missions to some remote rural locations.

Implementing Agency Performance Rating  
Moderately Satisfactory

Overall Borrower Performance Rating  
Moderately Unsatisfactory

## 10. M&E Design, Implementation, & Utilization

a. M&E Design

The Key Performance Indicators (KPIs) indicators incorporated into the results matrix at appraisal provided an adequate framework for monitoring the project's performance. One problem, however, was that the scope of the results framework, and the targets employed, captured not only the outputs and outcomes of the Bank-supported project itself but also those of the Government's entire rural electrification program.



This created a degree of confusion in measuring the performance, as the targets set for measuring results were to some extent beyond the control of the project and the implementation arrangements established. The restructuring in 2012 brought about substantive changes in project scope and activities, resulting in the revision of seven KPIs and the dropping of seven other indicators that were no longer relevant to the new delivery model. The most noticeable change was in the reduction in number of households to be electrified, accompanied by an improvement in quality of supply (a nearly ten-fold increase in electricity capacity per household). Though the restructuring offered the opportunity for undertaking amendments to the design of the M&E framework, the key confusion between Project and Program, in terms of targets for the indicators, remained unaddressed. The Government's flagship rural electrification program, *Bandera Blanca*, which included both conventional and non-conventional projects, remained in place and the Bank-supported project was expected to contribute to that program. In December 2012, when the federal administration changed, this electrification program was split into two parts, the first, focusing on conventional electrification and coordinated by FAIS (Contributions for the Social Infrastructure Fund), and the second, encompassing the non-conventional (Centralized Solar Farms) projects. However, immediate priority was given to the first part of the program. The second part, involving CSFs, received low priority and was effectively put on hold: something that the Bank was strangely remained unaware of, until it became evident in subsequent years. The result was that achievement of targets for the results indicators was compromised: something that could have been avoided had independent targets for the Bank-supported project been specified at the time of the restructuring.

b. M&E Implementation

Monitoring of the project in the field was undertaken by CFE, which issued Monitoring Reports on the construction progress of solar farms. A system was put in place in each locality to provide for remote supervision of the solar farms' technical operation. SENER and NAFIN also participated in the monitoring of the project's progress. The ICR reports that monitoring information was not provided on a timely basis during the last ten months of the project's implementation period, and these delays continued during preparation of the ICR. These delays were to some extent the result of the fact that staff of the centralized CFE had to coordinate with several local *Divisiones*, which proved to be time-consuming.

c. M&E Utilization

The ICR has provided no specific information on how M&E was utilized.

M&E Quality Rating  
Modest

## 11. Other Issues

a. Safeguards

The project triggered five safeguards: Environmental Assessment (OP, BP 4.01), Natural Habitats (OP, BP4.04), Forests (OP, BP 4.36), Physical Cultural Resources (OP, BP 4.11) and Indigenous Peoples (OP, BP 4.10). The overall safeguards implementation experience was positive, and received Satisfactory/Moderately satisfactory ratings (the project closing with a Moderately Satisfactory rating). One shortcoming noted was the absence of a systematic reporting mechanism on the part of CFE, which was eventually resolved after project closure.

*Environmental:* At appraisal the project was assessed as Environmental Category B - an assessment that remained unchanged after restructuring. The project's environmental impact was considered to be minimal overall, given the type of technologies being supported by it. If at all, it was expected that the project would reduce the negative impact of traditional energy sources, such as diesel or fuelwood, by replacing them with renewable sources. It would also thereby contribute to a reduction in CO2 emissions, which was indeed the case, as confirmed by local CFE *Divisiones* - initially for a sample of 10 communities and later for all beneficiary communities.

*Social:* At appraisal, the project was regarded as an indigenous people development initiative. This remained the case even after restructuring, though become more difficult to achieve once Chiapas and Oaxaca dropped out (on account of social tension in both provinces). A systematic social assessment was conducted at appraisal, together with a comprehensive analysis of the social context, baseline information and an action plan to ensure that the interests of the indigenous peoples were addressed appropriately. No negative social impacts were expected to arise, except for possible conflicts among stakeholders (to mitigate which a conflict resolution mechanism was designed).



Compliance with the Indigenous People safeguard was rated Satisfactory during the implementation period, for the most part. Indigenous people benefited in 18 of the 40 municipalities covered by the project (corresponding to the Bank-supported portion of the overall rural electrification program).

The ICR provides no detail on compliance with the other safeguards that were triggered.

**b. Fiduciary Compliance**

The Bank carried out a Financial Management Assessment (FMA) during preparation of the project, which concluded that NAFIN had the requisite capacity to undertake the project’s activities. Based on this, it was agreed that NAFIN would support SENER and participating States in financial management activities. The financial management challenge became easier after the restructuring, due to the centralization of project administration that took place, in the hands of mostly qualified and experienced staff. Overall, FM performance was rated as either satisfactory or moderately satisfactory during project implementation. The project consistently provided timely and reliable financial information. Audits resulted in submission of unqualified opinions.

As regards procurement, NAFIN was designated as the responsible agency on behalf of SENER. After restructuring in 2012, CFE – under overall coordination of the project coordination unit in SENER - was given responsibility for procurement activities for the sub-projects under Component 2. The only procurement activities undertaken directly by SENER were the relatively small-value technical assistance services. Procurement performance during implementation of the project varied from year to year, its rating swinging from moderately satisfactory to moderately unsatisfactory. Problems with procurement led to the considerable delays that affected the first bidding process –stemming to a large extent (though not entirely) from CFE’s unfamiliarity with the Bank’s guidelines and procurement procedures. Subsequent bidding processes were carried out more efficiently, though not completely free of problems. Two of the last three bidding processes could not be completed in time for the project’s closure, as a result of which US\$6 million of the IBRD loan and GEF Grant remained unused and had to be cancelled.

**c. Unintended impacts (Positive or Negative)**

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**d. Other**

The project’s overarching theme was its impact on indigenous people. Though this emphasis was maintained after restructuring, the fact that Oaxaca and Chiapas dropped out of the project represented a major challenge to reach indigenous communities.

**12. Ratings**

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Moderately Unsatisfactory	Moderately Unsatisfactory	---
Risk to Development Outcome	Substantial	Substantial	---
Bank Performance	Moderately Satisfactory	Moderately Unsatisfactory	Since Quality at Entry is rated Moderately Unsatisfactory, and Outcome was Unsatisfactory, per the Harmonized Criteria, overall Bank Performance has to be rated Moderately Unsatisfactory.
Borrower Performance	Moderately Satisfactory	Moderately Unsatisfactory	Since Government Performance is rated Moderately Unsatisfactory, and Outcome was Unsatisfactory, Overall Borrower Performance has to be rated Moderately



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		Unsatisfactory.
Quality of ICR	Substantial	---

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Note

When insufficient information is provided by the Bank for IEG to arrive at a clear rating, IEG will downgrade the relevant ratings as warranted beginning July 1, 2006.

The "Reason for Disagreement/Comments" column could cross-reference other sections of the ICR Review, as appropriate.

### 13. Lessons

The ICR provides the following key lessons:

- Rural electrification projects usually provide a complex challenge, requiring design of a practical delivery mechanism, whilst ensuring that appropriate legal and institutional frameworks are in place. The lack of a sound implementation mechanism at the outset can result in the project being derailed by unforeseen risks, such as the impact of political cycles at federal and sub-national levels.
- The design of a project's results framework should be fully consistent with the project's scope and objectives. Care should be taken to ensure that targets set should be within the control of the project.

### 14. Assessment Recommended?

No

### 15. Comments on Quality of ICR

The ICR is generally well-presented and concise, providing a reasonably good summary of a fairly complicated storyline. The conclusions appear to be evidence-based. The ICR could however have provided a clearer explanation of the causes of the delays that affected the project's implementation, as well as on implementation arrangements, utilization of M&E and safeguards compliance.

- a. Quality of ICR Rating  
Substantial