



1. Project Data

Project ID

P113766

Project Name

CN-Energy Efficiency Financing II

Country

China

Practice Area(Lead)

Energy & Extractives

L/C/TF Number(s)

IBRD-79350

Closing Date (Original)

31-Dec-2014

Total Project Cost (USD)

101,600,000.00

Bank Approval Date

22-Jun-2010

Closing Date (Actual)

31-Dec-2016

IBRD/IDA (USD)
Grants (USD)

Original Commitment

100,000,000.00

0.00

Revised Commitment

45,503,927.69

0.00

Actual

45,503,927.69

0.00

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2. Project Objectives and Components

a. Objectives

The project development objective (PDO) of the China-Energy Efficiency Financing II Project (CHEEF II) is “to improve energy efficiency of selected enterprises, and thereby reduce their adverse environmental impacts through scaling-up commercial lending for energy efficiency investments.” (Loan Agreement dated August 11, 2010, Schedule 1, page 5)

This ICR Review is based on the PDO as stated in the Loan Agreement. It is useful to note that both the Project Appraisal Document (PAD) and the Implementation Completion and Results Report (ICR) provide the same exact statement of the PDO.



For this ICR Review, the final outcome to be assessed is to reduce the adverse environmental impacts of selected enterprises. The project's activities to be implemented, or the intermediate outcomes, consist of improving energy efficiency (EE) within the operations of those enterprises, with funding support through commercial lending instruments that the project intended to scale up.

This project follows on the earlier China-Energy Efficiency Financing Project (CHEEF I), which was approved on May 27, 2008 and closed on December 31, 2016, including a three-year closing date extension. That prior project substantively had the same PDO: "to improve energy efficiency of selected medium and large industrial enterprises in China, and to reduce their adverse environmental impacts on climate." At the approval of Additional Financing on October 27, 2011, the PDO was revised to replace "selected medium and large industrial enterprises" with a broader potential client base, namely, "selected energy end-users in key energy-consuming sectors."

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

No

c. Will a split evaluation be undertaken?

No

d. Components

The project intended to catalyze commercial investments in industrial EE projects and directly support the government's energy conservation priorities. It had the following two components:

Component A: Energy Efficiency Investment (Appraisal estimate, US\$100 million; Actual cost, US\$45.5 million)

This component was intended to provide sub-loans to beneficiaries for implementing EE subprojects. The EE lending portfolio amounted to US\$100 million. Subject to eligibility requirements, the China Minsheng Banking Corporation Ltd. (CMBC)—a highly successful private bank—lent the funds to industrial enterprises and/or energy service companies (ESCOs) for EE investment subprojects. Each sub-loan was set below US\$20 million to diversify risks and broaden the Bank loan's development impacts. Lending rates were based on market conditions, adequate coverage of the financial and operating costs, and reasonable profit margins for CMBC. The Bank loan fully financed the subprojects while in parallel CMBC utilized its own resources to finance similar subprojects. The investment target was US\$1 billion, thus representing an intended Bank loan leverage of 900 percent. (The earlier CHEEF I had a target of US\$1.427 billion, hence the US\$300 million Bank loan for that previous project had a leverage of 376 percent.)

Component B: Technical Assistance and Capacity Building (financed by a GEF grant under the previous CHEEF I project; see Section 2e on "Financing" below for more details)

This component was intended to strengthen CMBC's capacity to: (a) identify and appraise subprojects: (b)



conduct due diligence on the eligibility of sub-loan beneficiaries; (c) develop credit and risk management processes for EE investments; (d) manage the project's social and environmental impacts and CMBC's future EE lending portfolio; (e) develop a low-carbon lending business; and (f) explore the application of the Equator Principles in its lending operations.

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

Project Cost

The project cost was appraised at US\$100 million – the amount of the Bank loan. Actual disbursement was US\$45.5 million. Section 4 below on Efficacy discusses the reasons for this low disbursement level.

Financing

The project was financed with an IBRD loan of US\$100 million. The Borrower committed to parallel financing of similar EE subprojects, financed by the participating financial institutions (PFI) and the beneficiary enterprises with their own resources. CMBC did not co-finance the subprojects that were financed from the IBRD loan. The technical assistance component was not funded under this project. It was jointly financed by CMBC from its own resources (US\$0.8 million) and by the Government using a GEF grant (US\$0.8 million original, US\$0.47 million actual) under the previous CHEEF I.

Borrower Contribution

The Borrower's parallel financing commitments are discussed immediately above.

Dates

The project was approved on June 22, 2010 and made effective about four months later on November 2, 2010. A midterm review was carried out on November 4, 2013. The project's original closing date was December 31, 2014. On December 28, 2014, right before project closing, the Ministry of Finance (MOF) requested a closing date extension to allow the MOF and the implementing agency to develop an action plan for improving project performance. At that time, the project had a Moderately Unsatisfactory rating for both Development Outcome and Implementation Performance. An extension of 24 months was approved and the project closed on December 31, 2016.

3. Relevance of Objectives & Design

a. Relevance of Objectives

At appraisal, the PDO was substantially relevant to the energy conservation priorities of the government during the 11th and 12th Five-Year Plan (FYP) periods, from 2001-2005 and 2006-2010, respectively. Currently, the PDO remains substantially relevant to the government's priorities for the 12th and 13th FYPs, from 2011-2015 and 2016-2020, respectively, which target improvements in EE by sector and region, and emphasize the need to promote EE investments through market mechanisms. The PDOs were also to contribute to China's Intended Nationally Determined Contributions as submitted to the Conference of the



Parties under the Kyoto Protocol in Climate Change, which include the following goals: (a) to lower by 2030 the carbon intensity of GDP by 60 to 65 percent below the 2005 level; and (b) to reduce by 2020 the CO₂ emissions per unit of GDP by 40 percent to 45 percent below the 2005 level.

The PDO was fully consistent with the Bank's Country Partnership Strategy (CPS) for 2006-2010, which included a pillar on managing resource scarcity and environmental challenges. The PDO is also substantially relevant to the Bank's CPS for 2013-2016, which promotes greener growth as one of its strategic themes, with the key outcome of "accelerating energy conservation and investment in energy efficiency." The PDO is also supportive of the World Bank Group's current commitment to continue increasing renewable energy and energy efficiency investments among its country clients.

Rating

High

b. Relevance of Design

Whereas the previous CHEEF I was designed to extend support to a policy bank (EXIM) and a state-directed bank (Huaxia), the follow-on CHEEF II under review was designed to extend the project to a third financial institution with more independence from government policy direction and a stronger focus on profitability (i.e., the privately held CMBC in this project). The two very similar projects were designed to mitigate or remove the key barriers to debt financing of EE projects, in part by rolling-out institutional changes and innovative approaches—with a view to leveraging limited public capital by scaling-up EE financing by commercial banks. Flexibility was introduced into project design by allowing the inclusion of renewable energy (RE) investments among the parallel-financed subprojects, although this partly resulted in the modest performance of the Bank loan, as discussed in Section 4 below on Efficacy.

The project's results framework shows clear causal links and was logically structured. The selected performance indicators were mostly adequate for measuring outputs and outcomes. The results monitoring arrangements were also appropriate. However, there was insufficient attention on the need for, and how to support, behavioral change. The capacity-building indicators focused exclusively on outputs (i.e., number of training courses, a plan, and a study) without little or no attention to activities that would incentivize and mainstream behavioral modifications that are important for achieving the PDO.

There were also some minor to moderate weaknesses in the project's design. First, although the selection of a commercial bank was appropriate, situating the Project Management Office (PMO) in a unit that was not involved in project identification and loan origination was a design flaw. Second, more than one participating financial intermediary (PFI) should have been involved in the project, to enhance competition and thereby promote the most successful operational and business models for EE financing. Third, there was an overly strong focus on EE investments in heavy industry, which proved to be a challenge in project implementation. Finally, the project design also did not take adequately into account the risks presented by the terms of the Bank loan, which proved to be less attractive to end-users than domestic currency financing. CMBC and the participating financial institutions in other Bank projects reported that the weakening exchange rate made Bank financing less attractive than RMB-denominated financing.



On balance, given the project's straightforward approach of scaling-up commercial EE financing in response to limited public resources, the relevance of design is rated substantial.

Rating
Substantial

4. Achievement of Objectives (Efficacy)

Objective 1

Objective

To improve energy efficiency of selected enterprises, and thereby reduce their adverse environmental impacts through scaling-up commercial lending for energy efficiency investments

Rationale

The project's results are assessed below in terms of its outputs and outcomes.

Outputs:

- The overall financing target was exceeded almost three times over. Compared to the EE financing target of US\$1,000 million, the actual achievement was US\$2,920 million, comprised of US\$239 million in Bank-financed subprojects and US\$2,681 of parallel-financed investments.
- CMBC's parallel financing was also nearly matched by equity contributions from the host enterprises of EE subprojects.

Outcomes:

- Overall, the project achieved the intermediate goal of mobilizing commercial financing for EE investments, mainly through parallel financing, in which the structures and procedures for Bank-financed subprojects would be applied equally to CMBC's own loans, with a view to building upon its commercial practices to more quickly scale-up commercial EE financing (see section 2a above).
- The PDO of achieving energy savings and CO2 emission reductions was partially achieved (a Government goal per section 3a seen as consistent with the PDO). Energy savings and associated reductions in CO2 emissions were only 80 percent and 81 percent of targets, respectively, even though the funding target for Bank- and parallel-financed investments was greatly exceeded in terms of on-lending volumes. The reason is that most (86 percent) of CMBC's parallel-financed subprojects were for renewable energy (RE), which produce less energy savings per dollar invested compared to EE subprojects. By contrast, the IBRD-financed EE subprojects had much lower investment costs per unit of



annual energy savings, hence the under-utilization of the Bank loan. (An RE project, e.g., a rooftop photovoltaic system that provides all of its electricity to the host enterprise, does not in and of itself improve end-use EE at that enterprise. It is thus fundamentally different from EE investments that reduce end-use energy consumption.)

- CMBC's understanding of EE markets was strengthened, thus enabling it to pursue EE subprojects using its own resources. However, only about 15 percent of its parallel financing was directed toward EE projects as defined in the project's Operational Manual.
- CMBC gained some capacity-building but the results fell short of original plans. The knowledge created through training regarding EE markets was not fully utilized, since the trained CMBC staff were detached from operations. More specifically, although the identification of new EE subprojects increased later in the project, CMBC's staff did not have direct contacts with the operational departments that actually decided EE loans in local branches. Instead, CMBC's staff worked with the Trade Finance units that in turn coordinated with the units directly responsible for identifying and evaluating loans. The Bank project team raised this issue with successive CMBC project teams and the Government, but the problem was never corrected.
- CMBC's project team developed a promising subproject pipeline but most of the subprojects failed to obtain financing because: (i) CMBC's credit risk department concluded that some host enterprises, despite the merits of their subprojects, were not eligible under their commercial lending criteria; and (ii) the procedures for obtaining project financing were too onerous for the branch banks originating the sub-loans.

Overall, although EE financing levels exceeded targets, at the outcome level the partial achievement of energy savings and reductions in CO2 emissions, as well as the institutional weaknesses up to project closure, lead to a modest rating for project efficacy.

Rating
Modest

5. Efficiency

Economic efficiency

The updated economic analysis at project completion indicates an aggregate economic internal rate of return (EIRR) of at least 35 percent, including the reduction of CO2 emissions that were valued following World Bank guidelines. It could be inferred that the EIRR would be higher if local pollution reduction benefits (which were not factored into the updated economic analysis) were included. The updated financial internal rate of return (FIRR) was 16 percent. This rate is in line with appraisal estimates ranging from 14 percent to 23



percent (PAD, page 13, paragraph 55), which therefore demonstrates the economic and financial viability of the project.

Operational Efficiency

There were significant shortcomings in project implementation, which led to delays. CMBC changed its project team six times, which diluted the effectiveness of the training and advice on financial management and procurement that the Bank team provided repeatedly during project implementation. CMBC's teams did not have adequate time and opportunities to apply the skills they learned, even though the individuals who were trained showed willingness to learn. This contrasts strongly with the PFIs under the previous CHEEF I, in which the teams lasted much longer, with some individuals in place from the start up to the closure of that project, or about eight years.)

Cross-departmental cooperation was also never effectively achieved. CMBC's 2015 restructuring plan intended in part to address this issue, by giving joint responsibility for the project to both the Corporate Banking Department and the Trade Finance Department, which was the original project leader. The plan also established an expanded project management team with oversight from senior management. However, during implementation, the promised senior management attention was not maintained, which made the new structure ineffective. Compared to the previous CHEEF I project, where the Huaxia and EXIM units became more powerful and functional, CHEEF II's project management unit in the Trade Finance Department did not grow effectively into those roles. This may be due to CMBC's singular focus on profitability and the relative independence of its vertically organized departments.

The efficiency of achieving the PDO was modest overall, despite the two-year extension of the closing date for CMBC to correct deficiencies and meet the project's targets. As indicated in the ICR (page 19, paragraph 73): "This delay, without improvement in results to justify it, contributes further to the rating of efficiency 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	✓	23.00	40.00 <input type="checkbox"/> Not Applicable
ICR Estimate	✓	35.00	95.00 <input type="checkbox"/> Not Applicable

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



6. Outcome

The relevance of the project's objectives is high, since investing EE remains a key component of both the Government's FYP goals and the Bank's country strategy. The relevance of its design is substantial, given the project's sound approach of leveraging public resources by scaling-up commercial lending for EE investments.

Efficacy is modest. Most of the investments went to RE rather than EE sub-projects, even though the PDO is keyed to financing EE. RE projects, however, have lower energy savings per unit of investment than EE projects. As the implementation of the project advanced, the amount of investment in parallel-financed RE subprojects was much greater than anticipated, thus offsetting to a very large extent the relatively higher energy savings per unit of EE investment. Although lending targets were exceeded, the PDO indicators related to achieving energy savings and reducing CO2 emissions were only partially achieved, and institutional weaknesses remained evident at project closure.

Efficiency is also modest, given the significant shortcomings in project implementation, which led to delays, as well as the failure to (i) achieve cross-departmental cooperation and (ii) fully utilize the skills and knowledge gained from institutional strengthening activities. Overall outcome is rated moderately unsatisfactory.

a. Outcome Rating

Moderately Unsatisfactory

7. Rationale for Risk to Development Outcome Rating

There are low to negligible technical and environmental risks. The direct outcomes of the EE and RE investment activities were to reduce energy consumption and CO2 emissions, which will continue as long as the facilities that were financed under the project continue operating.

The main risk to development outcome is institutional. The project intended to build the necessary capacity and mainstream EE financing in a commercial bank. While some strengthening of capacity has resulted, it is not clear whether and how this will be sustained. The low disbursement of the loan at less than 50 percent, and the ineligibility of two of the five subprojects, would indicate that the intended full-service capacity was not as a result of this project. Given the centrality of adequate capacity and strong institutions to mainstreaming commercial EE lending, the risk to development outcome is rated substantial.

a. Risk to Development Outcome Rating

Substantial



8. Assessment of Bank Performance

a. Quality-at-Entry

The project's preparation was satisfactory. The period between concept approval to Board approval was under 18 months, which was within the accepted norm for Bank projects. The PAD reflected a good understanding of the evolution of China's banking sector, set against three decades of the country's economic reforms. The choice of the financial intermediary lending instrument was appropriate given the planned on-lending activities that were intended to achieve the PDO. There was a clear effort at appraisal to take into account the lessons from the first CHEEF, which was still ongoing when the CHEEF II was appraised, notably the importance of: (i) capacity-building; (ii) building upon existing operational policies and avoiding the addition of special on-lending arrangements; and (iii) giving the PFI (i.e., CMBC) the full authority for lending decisions in line with the operational manual agreed with the Bank.

However, while the idea of utilizing CMBC's internal systems and procedures sounded reasonable, it translated in practice into a project implementation approach that was too weak to overcome ingrained habits and views. The decision made at the design stage to situate the project management unit in the Trade Finance Department was inappropriate since it was not directly involved in identifying subprojects and originating loans. Designing a more effective organizational structure could have improved the prospects for successful achievement of the PDO's core outcome of reducing adverse environmental impacts.

Quality-at-Entry Rating Moderately Satisfactory

b. Quality of supervision

The project's Development Outcome and Implementation Progress ratings were consistently in the unsatisfactory range from 2012 until project closure in 2016. According to the ICR (pages 21-22, paragraphs 80-84), the Bank allocated significant supervision resources and the Bank team made repeated efforts to provide advice and support—especially in financial management and procurement—but achieved only temporary improvements. The training provided had limited impact because: (i) CMBC's project team changed very frequently, i.e., six times during the project's six-year implementation period; and (ii) in any event, the project's management staff was neither responsible for nor directly involved in loan origination.

By the project's third year of implementation, i.e., on November 2013 or one year before the original closing date of December 2014, the Bank discussed with the Government the project's restructuring using a different PFI. However, the Government decided to continue with CMBC, with no addition of other PFIs, and requested a two-year extension of the closing date. The Bank, given its long-term support for the Government's EE goals, agreed to the extension instead of canceling the project, subject to agreement on an action plan for project completion. The Bank team assisted CMBC in preparing a time-bound plan for implementation and completion within the two-year extension. (The still-ongoing CHEEF I was also extended at that time.)

Although CMBC's on-lending program and GEF-financed technical assistance (under CHEEF I) accelerated after restructuring, the annual audit found one case of ineligible projects having been implemented in 2015,



and another one in 2016, for which the decision was made to return the ineligible expenses and cancel the unused portion of the IBRD loan. According to the ICR (page 82), the Bank team increased its oversight to ensure compliance, but could not obtain requested meetings with CMBC's senior management to address ongoing implementation issues.

Although design weaknesses hobbled project implementation, the Bank did not take the opportunity during the project's December 2014 restructuring (which was carried out right at the project's original closing date) to: (i) either cancel the project or to add more capable PFIs; and (ii) address the mismatch between the PDO as originally stated and what the project was actually implementing, by revising the PDO to reflect accurately the parallel financing of RE projects in addition to the originally stated EE projects. In summary, the Bank went along with not making any changes to a project that had already been rated persistently in the unsatisfactory range since 2012.

Quality of Supervision Rating

Moderately Unsatisfactory

Overall Bank Performance Rating

Moderately Unsatisfactory

9. Assessment of Borrower Performance

a. Government Performance

Improving EE in industry is a top priority of the Government's overall economic strategy. According to the ICR (pages 22-23, paragraphs 86 to 88), the Ministry of Finance and the National Development and Reform Commission were supportive of the PDO and helped to address issues during project implementation. This was clearly evident during the 2012-2014 period before the December 2014 restructuring when project ratings were consistently in the unsatisfactory range. However, there may have been limits to how much influence the Government could exert, since the project intended to equip a commercial bank with the conditions and instruments to implement actions on its own. More generally, Government inducements—such as possible participation in future Government programs to support EE financing—may have been deterred by the softening market environment for large-scale EE investment projects.

Although after the 2014 restructuring, CMBC agreed with a time-bound action plan and initially complied, its implementation performance gradually reverted to the lower level of quality that it had shown earlier. Continuing with CMBC instead of canceling the project or switching to more capable PFIs was a lost opportunity. As project completion approached, the Government met with CMBC many times to encourage project completion, but decided to cancel the remaining Bank loan when it became clear that the situation would not improve.

Government Performance Rating

Moderately Satisfactory



b. Implementing Agency Performance

CMBC's inconsistent performance was evident from its periodically satisfactory implementation progress that shifts into the unsatisfactory range for extended periods. The team turnover rate was high—there were six changes during the project's six-year implementation period. Each new team showed ability and enthusiasm, but the members were not in place long enough to show any meaningful effectiveness. There were significant issues of internal organization and process continuity. For example, one team would implement a set of important market research activities, but were operating in isolation and thus incapable of making any substantial difference. These discontinuities had a negative effect on implementation progress and the achievement of the objectives under both the CHEEF II project and the GEF-financed institutional strengthening and capacity-building activities under CHEEF I. Consequently, Bank loan disbursement was low (45 percent) and the PDO targets for energy savings and reductions in CO₂ emissions were not achieved.

Implementing Agency Performance Rating

Moderately Unsatisfactory

Overall Borrower Performance Rating

Moderately Unsatisfactory

10. M&E Design, Implementation, & Utilization

a. M&E Design

The final and intermediate outcome indicators were selected appropriately and formulated to provide an accurate quantitative picture of project results. CMBC was responsible for regular performance monitoring, annual progress reporting, and a midterm review (MTR) of implementation progress. The PMO of the earlier CHEEF I project advised CMBC on overall M&E implementation. CMBC developed an M&E plan during the first year of implementation and assigned a team member to collect information and maintain databases. The PMO of CHEEF I was responsible for tracking CMBC's progress in implementing the GEF grant-financed technical assistance under Component B of CHEEF I. For both CHEEF I and II projects, only the first two subprojects required prior Bank review, which was considered to be sufficient for ensuring that the systems for due diligence being applied by the PFIs were operating adequately.

b. M&E Implementation

CMBC reported to the Bank team and to the PMO of CHEEF I the performance data on PDO indicators, which were straightforward and easy to monitor. With intensive support from the PMO of CHEEF I, CMBC was eventually able to report reliably on parallel-financed investments, which proved difficult initially. CMBC contracted an independent third party to monitor and validate their subproject-related lending disbursements and associated energy savings. For the activities implemented by CMBC, its project team was responsible for collecting information with the assistance and quality control of the PMO. Semiannually, CMBC tabulated the data on indicators and reported them to the Bank, at the time of each implementation support mission.



c. M&E Utilization

CMBC utilized the M&E results to measure implementation progress and serve as the basis for adjusting its implementation plans for achieving the project's objectives

M&E Quality Rating

Substantial

11. Other Issues

a. Safeguards

In line with OP 4.01, this project was classified as a financial intermediary operation. Since the project would finance EE rehabilitation subprojects within existing industrial facilities, no adverse environmental impacts were expected and minor ones were deemed manageable, while providing significant environmental benefits. Safeguards policies related to natural habitats, cultural resources, pest management, and forest safeguards policies were not triggered given the nature of the subprojects.

CMBC developed an Environmental Assessment Framework, which was incorporated into its Operational Manual (OM). CMBC followed compliance verification procedures for the subprojects in accordance with the OM during the loan appraisal and field supervision stages. As a loan appraisal prerequisite, all subprojects financed under the Bank loan were required to submit the necessary environmental safeguards documents and the official approval from local environmental authorities, in order to achieve full environmental compliance. CMBC established the site supervision practice of including environmental performance as part of inspecting the progress of subprojects during construction and operation. According to the ICR (page 14, paragraph 56): "the overall environmental safeguards implementation was satisfactory for this project."

The project did not involve any resettlement and no social hardships were expected or encountered during its implementation. Thus, the social safeguards policies (OP 4.12 Involuntary Resettlement and OP 4.10 Indigenous Peoples) were not triggered. The project's OM incorporated a framework for resettlement policy and procedures in case any subprojects involved land acquisition, but no such subprojects materialized.

b. Fiduciary Compliance

CMBC did not implement the project well, mainly due to its management's lack of attention and the very frequent changes in its project teams. Project implementation was delayed significantly. At the project's closure, Bank loan funds of US\$45.5 million were disbursed, accounting for 45.5 percent of the original loan.



CMBC did not submit the interim unaudited financial statements by the due dates as required by the Loan Agreement. CMBC had insufficient credit control and was unfamiliar with the Bank's requirements. Two of its five sub-loans were identified by the auditor and the Bank as ineligible expenditures and were refunded to the World Bank. Weaknesses in financial management would have been avoided or minimized had there been adequate attention by CMBC's leadership, placement of the PMO within the organization, and stability in staffing of the project team.

c. Unintended impacts (Positive or Negative)

d. Other

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	Although quality at entry was Moderately Satisfactory, Bank supervision was Moderately Unsatisfactory. At the December 2014 restructuring (the month of the original closing date), despite recognizing the necessity of making significant adjustments, the Bank went along with the Government in not making any changes to a project that had already been rated persistently in the unsatisfactory range since 2012. (When the sub-ratings are split in opposite directions, the final Bank Performance rating is determined by the Outcome rating or Moderately Unsatisfactory for this project.)



Borrower Performance	Moderately Unsatisfactory	Moderately Unsatisfactory	---
Quality of ICR		Substantial	---

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 project yielded a number of valuable lessons, of which the ICR presents the following (with paraphrasing):

The continuing commitment and appropriate internal organization of PFIs are essential factors in the success in EE lending. Commitment needs to be demonstrated in management involvement, formation of and long-term support for dedicated teams, provision of incentives to staff, and flexibility and innovation in developing and adapting financial products.

A model that is successful for one type of PFI may require significant efforts and modification to replicate successfully with another type of PFI. This project was patterned on the successful experience of CHEEF I, with the intent of extending the EE on-lending model to a large commercial bank with nationwide reach. CMBC, however, is more commercially oriented than the PFIs for CHEEF I, which are state-guided banks (and a policy bank, in the case of EXIM) that are more attentive to policy imperatives and subject to the influence of government interlocutors. As a result, CMBC's project team did not enjoy consistent, strong backing from top management throughout the project, as was the case for CHEEF I. The contrast in results between CHEEF I and CHEEF II provides powerful evidence that the design offered for market-driven banks needs to be different than for policy-oriented banks and the value of persuasion is limited for the former group.

Where financing is permitted to be used for both EE and RE projects, it is possible, and probably likely, for the funds to flow mostly toward one or the other instead of being allocated equally between RE and EE. This was demonstrated by the flow of 85 percent of the parallel financing to RE projects as a result of market conditions and government policies. This can be seen as allowing flexibility, depending on the objective of the project. If a project is intended to finance both, it is worthwhile to consider setting boundaries on the amount that can go toward each type of project.

The commitment of a commercial PFI to implement a credit line should be evaluated carefully at the project design stage. Without a clear policy environment to stimulate demand by sub-borrowers for commercial financing of EE investments, commercial lending institutions will have difficulty sustaining a business case for promoting such lending. Where there is a risk that implementation will not be sustained, innovative approaches could be built into the design, for example, dates by which certain shares of disbursement must be reached for the project to continue. A design that introduces competition between two or more lenders could also be considered, under which all PFIs have equal access to a limited pool. This could guard against the inability or unwillingness of a given PFI to implement the project.



14. Assessment Recommended?

No

15. Comments on Quality of ICR

The main text of the ICR was well prepared. It provided sound evidence that adequately supported the project performance ratings. The ICR's logic and lines of argumentation were consistent with the causality chain of project's result's framework. The lessons were derived directly from the project's own implementation experience and have broad applicability to other intermediary lending operations geared toward promoting energy efficiency and renewable energy investments. The ICR complied with the harmonized OPCS and IEG guidelines in its preparation. However, the annexes, while substantively useful, should have been proofread, as "Error! Reference not found" appears several times.

a. Quality of ICR Rating

Substantial