Document of
The World Bank

FOR OFFICIAL USE ONLY

Report No: 30244

PROJECT COMPLETION NOTE
(SCL-4198; WBTF28362)

ON

A

LOAN/GEF GRANT

IN THE AMOUNT OF US$66.4 MILLION AND SDR3.0 MILLION, RESPECTIVELY

TO THE

REPUBLIC OF INDONESIA

FOR THE

RENEWABLE ENERGY SMALL POWER PROJECT

October 12, 2004

Energy and Mining Sector Unit
East Asia and Pacific Region

CURRENCY EQUIVALENTS

Currency Unit = Indonesian Rupiah (Rp)
Rp 9,205 = US$ 1
(September 2004)

At Appraisal – September 1996
Rp 2,341 = US$ 1

FISCAL YEAR
January 1st – December 31st

WEIGHTS AND MEASURES

1 metric ton	=	1,000 kilograms (kg)
1 liter (l)	=	0.0063 barrels (bbl)
1 kilometer (km)	=	0.6215 mile (mi)
1 kilovot (kV)	=	1,000 volts (V)
1 megavolt ampere (MVA)	=	1,000 kilo-volt amperes (kVA)
1 megawatt (MW)	=	1,000 kilowatts (kW)

ABBREVIATIONS AND ACRONYMS

BAPPENAS	National Development Planning Agency
BPPT	Agency for the Assessment and Application Technology
CO_2	Carbon Dioxide
DGEED	Directorate-General of Electricity and Energy Development
DRE	Decentralized Rural Electrification
EA	Environmental Assessment
GEF	Global Environment Facility
GOI	Government of Indonesia
MME	Ministry of Mines and Energy
MOC	Ministry of Cooperatives and Small Enterprises Development
PB	Participating Bank
PCF	Prototype Carbon Fund (PCF)
PLN	State Electricity Corporation
PSG	Project Support Group
PV	Photovoltaic
RE	Rural Electrification
REPELITA	Five-Year Development Program
RESP	Renewable Energy Small Power
TA	Technical Assistance

Vice President:	Jemal-ud-din Kassum
Country Director:	Andrew Steer
Sector Director:	Junhui Wu
Task Team Leader:	Arun Sanghvi

PROJECT COMPLETION NOTE

INDONESIA

RENEWABLE ENERGY SMALL POWER PROJECT (LOAN 4198-ID; TF28362)

1. This is the Project Completion Note for the Indonesia Renewable Energy Small Power Project for which the Board approved Loan 4198-ID and GEF grant TF28362, in the amount of US$66.4 million and SDR3.0 million, respectively on June 24, 1997. The loan and grant agreements were signed on August 4, 1997. However, the project did not become effective as the financial and economic crisis that hit the country in 1997 caused the project to be no longer viable. Consequently, the loan and grant agreement were terminated on July 15, 1998, the effectiveness deadline. In accordance with paragraph 4 of OP13.55 which provides for the preparation of a Project Completion Note (PCN) in lieu of an ICR for a loan that fails to become effective, this note summarizes the objectives of the Indonesia Renewable Energy Small Power Project (RESP) and the reasons why this project was not implemented.

2. The RESP had two set of objectives: National and Global. The **national** objectives of the RESP Project were to: (i) facilitate private sector led development of small renewable power projects selling electricity to a PLN grid on a commercially sustainable basis, within the framework of a least cost rural electrification strategy; (ii) promote environmentally sound energy resource development in Indonesia and reduce the energy sector's dependence on fossil fuels; and (iii) strengthen Indonesia's institutional capacity to sustain renewable energy development. The **global** environmental objective was to mitigate emissions of CO_2 in Indonesia through the development of renewable energy sources for power generation. The project was to be funded by a Bank loan of about $66.4 million, combined with a GEF grant of SDR3.0 million (US$4.0 million equivalent) and private funds of about $70.3 million. The total project costs were estimated at $141.0 million.

3. The Project consisted of renewable energy based small power generation projects that were organized into the (i) Investment component; and (ii) Technical Assistance.

4. Under the **investment component**, the projects would be owned and operated by private developers, who would sell their electricity to PLN under the published Small Power Purchase Tariff (PSKSK), and standardized power purchase contract. The private sector developers would finance their investments with a combination of equity and credit from commercial banks of their choosing – the Participating Banks (PBs) – for up to 15 years. The loans from the PBs to the developers would be at the prevailing interest rates for similar transactions, with the PBs taking responsibility for appraising developer requests for credit, and for bearing the commercial risk on the credit extended to a developer. The PBs, in turn, would re-finance 70 percent of the credit extended to the developers from the IBRD credit made available to them at market rates, under onlending arrangements through the Government of Indonesia (GOI).

5. The **technical assistance component** would provide for project implementation support services, and institutional development. A Project Support Group (PSG), reporting to the Director-General, DGEED, would be established to assist the private project developers with, inter alia: (i) environmental review of their project to ensure compliance with World Bank requirements; (ii) implementation support in the form of limited technical advice to the project developers in the Project pipeline to facilitate the timely and proper implementation of the project; and (iii) pre-investment activities, including administering GEF grants of $100,000 per project for 15 projects to potential project developers to assist them with their pre-investment activities, such as pre-feasibility and feasibility studies; and (iv) provide regular progress reports for monitoring this component. The TA for institutional development would

provide for consultants who would assist the Directorate of Electric Power Planning in the preparation of a strategy for renewable energy resource information collection and dissemination, and in implementing this strategy.

6. The project would support development of about 15 to 20 small private power projects utilizing renewable energy resources; primarily biomass residues in sugar and palm oil mills and mini-hydro projects, for an aggregate capacity of about 75 to 100 MW (about 60% of this development outside Java). The RESP was part of a series of linked projects, phased over a period time to promote commercial markets for renewable energy. Among these projects, the Indonesia-Solar Home Systems project (SHS), which was processed in parallel but approved before the RESP on January 1997, supported the development of a large scale market for SHS among rural consumers who could not be economically served in a timely manner by conventional rural electrification. Although the SHS project, unlike the RESP, proceeded to the implementation phase, its implementation was severely affected by the financial crisis of 1997 resulting in that the project fell short of achieving its key development objectives.

7. At the time of project appraisal in 1996, the prospects for a successful operation were very likely as the following conditions were in place: (i) the Indonesian authorities had put in place important policy and regulatory changes, including the introduction of the published small power purchase tariff and simple standard contract mechanism ("PSKSK" regulation); (ii) PLN was supportive of the project and willing to purchase power from all eligible private projects; (iii) four of the strongest commercial banks in Indonesia had expressed interest in participating in the Project; and (iv) there was a firm pipeline of projects ready to use funding provided by the Bank and GEF at a reasonably early date. During negotiations in May 1997, it was agreed that the condition of the loan's effectiveness would be the signing of a subsidiary loan agreement between MOF and BI, and at least two subsidiary agreements between MOF/BI and participating banks.

8. However, soon after board approval in June 1997, the economic and political situation in Indonesia rapidly deteriorated as a result of the East Asia financial crisis. The value of the Rupiah plummeted from Rp. 2,341/US$ in September 1996 to Rp. 17,000/US$ by January 1998. As a consequence, the capital costs in Rupiah terms became too high, and all the investments (bagasse cogen, palm oil cogen, etc) were no longer viable commercially. It became clear that the project would need to be adjusted in light of the changed macroeconomic situation in the country. A Bank mission was sent to the field in February 1998 to evaluate different options for the restructuring of the RESP as well as of other ongoing power projects affected by the financial crisis.

9. During the February 1998 power mission, various GOI officials expressed concern that the Project had lost much of its attractiveness for private developers, given the increase in costs following the depreciation of the Rupiah and increased in the domestic interest rates. Moreover, the banking system became almost paralyzed, and banks were not able to extend new term loans until their recapitalization was completed. At about the same time, the Prototype Carbon Fund (PCF) was being introduced as a global public-private partnership to pioneer the market for project-based greenhouse gas emission reductions in developing countries and economies in transition. Preliminary studies conducted by the Bank indicated that several of the project investments contemplated under the RESP could be viable with carbon finance (i.e. not a loan, but purchase of carbon reduction credits). The Bank proposed that the project be restructured in order to restore its financial viability and recommended the use of the PCF as one option to secure additional revenues not only for the private developers but also for GOI, in the form of "carbon offset sales". However, the Ministry of Mines and Energy (MME) decline to use the PCF alternative as it was perceived of limited relevance to the country.

10. In the meantime, the initial loan effectiveness date of November 2, 1997 was extended several times to allow time for the Borrower to fulfill the conditions of effectiveness. A third extension was

granted until July 15, 1998 to allow for a June 1998 Bank mission to assess the situation first hand and reach a final decision on the project. From June 16-26, 1998, a Bank supervision visited Jakarta to review and assess the desirability and possibilities for restructuring the RESP. The mission found that despite the crisis, there was substantial and continued interest by the private sector in developing small renewable projects that could be financed under the project. In general, the project developers indicated that they remained interest in participating in the project, provided that there was additional grant support. However, none of the pre-identified subprojects were viable without additional grant financing. In addition, the financial sector collapse and liquidity crisis situation had to improve and stabilize before project implementation could start. Therefore, the Bank offered the Borrower two options for this project: (i) terminate the loan; or (ii) if GOI wanted to keep the project, to request the Bank to secure additional grant funds (in the range of US$15 to 20 million) from donors willing to support the production of electricity from clean renewable energy.

11. On July 15, 1998, the Government of Indonesia sent a letter to the Bank (Attachment 1) informing that it would be unable to implement the RESP project because of the lack of response from banks and private developers to participate in the project a result of the macroeconomic crisis. Consequently, both Loan and Grant agreements for the RESP project were terminated on July 15, 1998, prior to each of them becoming effective. Despite its termination, the project showed that there is a potential market for PV in Indonesia. However, a satisfactory business environment is necessary for success in a market development project. Any future initiatives to develop renewable energy technologies should take into account the lessons learned from the RESP project.

MINISTRY OF FINANCE OF THE REPUBLIC OF INDONESIA
DIRECTORATE GENERAL OF BUDGET

Jl. Lapangan Banteng Timur 2 – 4
JAKARTA PUSAT 10002

P.O. Box : 139
Telex :
Facsimile :

No : S–[illegible] /A.86/1998 July 15 , 1998

Attn. : Mr. Yoshihiko Sumi
Sector Manager,
Energy and Mining Sector Unit
East Asia and Pasific Region
World Bank
1818 H. Street N.W.
Washington, D.C 20433 U.S.A
Fax : (202)477–6391

Re : Renewable Energy Small Power Project (Loan IBRD 4198 – IND)

We highly appreciate for The World Bank Loan Agreement and Grant Agreement for Renewable Energy Small Power Project that have been signed on August 4, 1997. However, because of current monetary crisis, until now there is no single response from bank and PSKSK investor to participate in this particular project. Therefore, we regret to inform you that GOI is unable to implement the RESPP Loan.

Nevertheless, we do hope that it will not disturb the existing program loan between Government of Indonesia and The World Bank.

We thank for your cooperation.

Sincerely yours,

DR. Mas Widjaja
Director of External Funds

CC :
1. Director General of Budget ;
2. Deputy, Foreign Cooperation BAPPENAS ;
3. Director PT. PLN (PERSERO) ;

wb76941
L:\INDONESIA\PCN-Indonesia-RESP-v1Nov12.doc
November 18, 2003 7:03 PM