



Report and Recommendation of the President to the Board of Directors

Project Number: 42180
September 2013

Proposed Loans People's Republic of Bangladesh: Second Public– Private Infrastructure Development Facility

CURRENCY EQUIVALENTS

(as of 22 August 2013)

| | | |
|---------------|---|-----------|
| Currency unit | – | taka (Tk) |
| Tk1.00 | = | \$0.013 |
| \$1.00 | = | Tk77.8 |

ABBREVIATIONS

| | | |
|-------|---|--|
| ADB | – | Asian Development Bank |
| GDP | – | gross domestic product |
| IDCOL | – | Infrastructure Development Company Limited |
| PPIDF | – | Public–Private Infrastructure Development Facility |
| PPP | – | public–private partnership |
| SHS | – | solar home system |

NOTES

- (i) The fiscal year (FY) of the Government of Bangladesh and the Infrastructure Development Company Limited ends on 30 June. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2012 ends on 30 June 2012.
- (ii) In this report, "\$" refers to US dollars.

| | |
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PROJECT AT A GLANCE

| | | | |
|---|--|--|---|
| 1. Project Name: Second Public-Private Infrastructure Development Facility | | 2. Project Number: 42180-013 | |
| 3. Country: Bangladesh | | 4. Department/Division: South Asia Department/Public Management, Financial Sector, & Trade Division | |
| 5. Sector Classification: | | | |
| | Sectors | Primary | Subsectors |
| | Energy | √ | Conventional energy |
| | Finance | | Energy sector development Finance sector development |
| 6. Thematic Classification: | | | |
| | Themes | Primary | Subthemes |
| | Economic growth | √ | Promoting economic efficiency and enabling business environment |
| | Environmental sustainability | | Natural resources conservation |
| | Private sector development | | Promotion of private sector investment |
| 6a. Climate Change Impact | | 6b. Gender Mainstreaming | |
| Adaptation | | Gender equity theme (GEN) | |
| Mitigation | Medium | Effective gender mainstreaming (EGM) | |
| | | Some gender elements (SGE) | √ |
| | | No gender elements (NGE) | |
| 7. Targeting Classification: | | 8. Location Impact: | |
| | Targeted Intervention | | |
| General Intervention | Geographic dimensions of inclusive growth | Millennium development goals | Income poverty at household level |
| √ | | | |
| | | | National |
| | | | High |
| 9. Project Risk Categorization: Complex | | | |
| 10. Safeguards Categorization: | | | |
| | Environment | FI | |
| | Involuntary resettlement | FI | |
| | Indigenous peoples | FI | |
| 11. ADB Financing: | | | |
| | Sovereign/Nonsovereign | Modality | Source |
| | Sovereign | Development financing institution (DFI) | Asian Development Fund |
| | Sovereign | Development financing institution (DFI) | Ordinary capital resources |
| | Total | | 110.0 |
| 12. Cofinancing: | | | |
| | Financier | Category | Amount (\$ Million) |
| | Japan International Cooperation Agency | Official-Loan | 96.0 |
| | World Bank | Official-Loan | 99.5 |
| | Total | | 195.5 |
| 13. Counterpart Financing: | | | |
| | Source | Amount (\$ Million) | |
| | Government | 30.0 | |
| | Others | 50.0 | |
| | Total | 80.0 | |
| 14. Aid Effectiveness: | | | |
| | Parallel project implementation unit | No | |
| | Program-based approach | No | |

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on two proposed loans to the People's Republic of Bangladesh for the Second Public–Private Infrastructure Development Facility.¹

II. THE PROJECT

A. Rationale

2. **Impressive economic growth.** Bangladesh has achieved substantial economic growth over the last 15 years. From 1996 to 2009, the gross domestic product (GDP) increased at a compounded annual growth rate of 5.6%. In FY2012, the Bangladesh economy grew at 6.2%, mainly as a result of manufacturing and agricultural sector growth; this was a slight decrease from 2011, when the economy grew at 6.7%.²

3. **Deficient infrastructure.** Underinvestment results in serious constraints in the availability and reliability of Bangladesh's infrastructure—including electrical power, natural gas exploration, ports, railways, and roads—and prevents the country from achieving its full growth potential. Continued underinvestment has resulted in poor access to basic infrastructure for much of Bangladesh's population, particularly the rural population, and those who are economically disadvantaged. Deficient infrastructure and the lack of regional integration restricts investment, including foreign direct investment.³

4. Bangladesh suffers from a chronic shortage of electrical power which, adversely impacts the economy. Gas is the main energy source used for generating electricity, but is insufficient to meet the current demand. The supply of electrical power is 28% short of demand.⁴ Energy shortages are undermining the country's competitiveness causing an annual estimated loss of 2% of GDP; the situation is not expected to improve in the short term, because gas production is projected to decline beginning in 2019.⁵ Securing new sources of energy locally or abroad (e.g., coal or liquid natural gas) will take time because of the need for policy decisions largely related to setting energy tariffs at market levels. Energy efficiency measures can, to some extent, provide a cost-effective response to energy shortages. Poor road conditions and lack of transportation and means of communication (only 1.5% reported to have access to a fixed-line telephone service) add to the costs for Bangladesh's economy and leave the potential for growth in rural areas unfulfilled. Access to hygienic sanitation and safe water is alarmingly inadequate. In addition, Bangladesh cannot reach its full potential to be a transport⁶ and transshipment hub, and this limits the country's opportunities for economic integration with its neighbors.

5. The public sector is the main provider of basic infrastructure in Bangladesh, as is the case in most of South Asia. However, public financing alone cannot generate the investment needed to provide the required level of infrastructure facilities. The financial performance of most public service providers is weak, with inadequate investment. The government has recognized the need to create an enabling environment to attract sustained private investment,

¹ The design and monitoring framework is in Appendix 1.

² ADB. 2013. *Asian Development Outlook 2013*. Manila.

³ ADB. 2011. *Country Partnership Strategy: Bangladesh, 2011–2015*. Manila.

⁴ Bangladesh Power Development Board. 2012. *Annual Report 2010–2011*. Dhaka.

⁵ ADB. 2011. *The Comprehensive Private Sector Assessment of Bangladesh*. Manila.

⁶ As a result of inadequate transport infrastructure, the average cost of exports is estimated to be 80% higher and 35% for imports higher than for most countries in South Asia.

and introduced (i) a public–private partnership (PPP) budget for FY2010, and the Policy and Strategy for Public–Private Partnership (PPP), 2010;⁷ and (ii) enabling arrangements to bridge the deficit in infrastructure financing, especially for long-term funds. These arrangements include establishment of the Bangladesh Infrastructure Finance Fund Limited, a long-term capital funding vehicle that seeks to raise debt capital markets funding from retail and institutional investors to support construction and take-out financing for PPP subprojects.⁸

6. **Underdeveloped capital markets.** Private investors in Bangladesh face challenges in sourcing domestic, long-term financing for infrastructure. Bangladesh’s capital markets, including the long-term corporate debt market, remain underdeveloped.⁹ The volume of funding sourced from the local debt and equity market for private investment expenditure is small, and private sector sponsors rely primarily on banks and internal resources rather than market borrowings, indicating weakness in debt markets. Banks in Bangladesh are facing maturity mismatches in their asset and liability management; they rely on short-term deposits as their financial source, and this prevents them from providing long-term financing for infrastructure subprojects. Currently, the Infrastructure Development Company Limited (IDCOL) is the only financial institution in Bangladesh that has the ability to provide long-tenor dollar financing.

7. ADB’s country partnership strategy, 2011–2015 for Bangladesh emphasizes the need for support of private sector-led infrastructure development. This is in line with Bangladesh’s Sixth Five-Year Plan for 2011–2015, which focuses on increasing the growth rate of the economy and reducing poverty by substantially boosting private sector investment and developing infrastructure. In particular, it emphasizes the need to triple investment in infrastructure development, from 2% to 6% of GDP, with substantial private sector participation through PPPs. The project objectives are also in line with ADB’s Financial Sector Operational Plan,¹⁰ which prioritizes capital market development for infrastructure finance and financial inclusion.

8. The proposed Second Public–Private Infrastructure Development Facility (PPIDF II) will build on the efforts of the Public–Private Infrastructure Development Facility (PPIDF I) by helping to provide long-term debt financing and catalyze private sector participation through IDCOL. This will support poverty reduction through enhanced investment, economic growth, and increased employment opportunities. The design of the project will attract commercial financing for infrastructure subprojects, thereby reducing the pressure on the government budget. An additional objective of the project is to help provide the rural population and small- to medium-sized enterprises in off-grid areas with access to electricity generated using solar and other renewable technologies.

9. **Overview of the Public–Private Infrastructure Development Facility.** PPIDF I was approved on 2 October 2008 and was designed to (i) provide \$82 million financing to the government for relending to IDCOL to finance private sector-sponsored large infrastructure subprojects (component A); (ii) provide \$50 million equivalent in support to the government for relending in local currency to IDCOL to finance small- and medium-sized infrastructure

⁷ A draft PPP law, developed with ADB assistance, is expected to be approved by Parliament prior to the 2013 and/or 2014 elections; it includes rules relating to approval and assessment of all PPP subprojects in Bangladesh.

⁸ ADB. 2010. *Technical Assistance for Development Partnership Program for South Asia*. Manila (RETA 6337, Bangladesh: Fund Management Support for Infrastructure Finance [Subproject 20]).

⁹ ADB is supporting reforms to develop a more enabling public environment for the capital markets in Bangladesh and thereby mobilize private funding. ADB. 2012. *Report and Recommendation of the President to the Board of Directors: Proposed Policy-Based Loans and Administration of Technical Assistance Grant to the People’s Republic of Bangladesh for the Second Capital Market Development Program*. Manila (LN2951/52/53–BAN, approved on 28 November).

¹⁰ Asian Development Bank. 2011. *Financial Sector Operational Plan*. Manila (<http://www.adb.org/sites/default/files/financial-sector-operational-plan.pdf>)

subprojects (component B); and (iii) provide \$33 million in funding to the government for relending in local currency to IDCOL for the purpose of promoting renewable energy systems in Bangladesh (component C). In addition, supplementary grant financing totaling \$3.3 million from the Asian Clean Energy Fund and the Climate Change Fund for component C was approved on 17 May 2011.

10. **Current status of Public–Private Infrastructure Development Facility.** As of August 2013, \$22.2 million has been disbursed under component A of PPIDF for the partial funding of a subloan (\$30 million total) for a 108 megawatt heavy furnace oil-based power project in the Chittagong area sponsored by a local company. It is expected that the total subloan amount will be fully disbursed by IDCOL by September 2013. IDCOL's board has further approved another sub-loan of \$30 million for a gas-fired power plant outside of Dhaka. IDCOL is in final negotiations with the sponsor to provide a senior loan of up to \$30 million for the financing of a 335 megawatt gas-fired power plant.

11. **Full utilization of Public–Private Infrastructure Development Facility.** It is expected that component A of PPIDF I will be fully utilized by the first quarter of 2014. Under component B, ADB has made only one disbursement of \$4.9 million in April 2010 to provide IDCOL with funds to finance two companies involved in the information technology sector. Given the rapid and successful utilization of the funds for IDCOL's renewable energy program, ADB Management reallocated the remaining undisbursed amount (\$45 million) to component C, bringing the total loan amount under component C to \$78 million. This was used by IDCOL to finance 330,362 solar home systems (SHSs). As of June 2013, components B and C had been fully utilized, except for a liquidation of imprest advance of \$3.3 million. IDCOL is implementing two supplementary grants totaling \$3.3 million from the Asian Clean Energy Fund (administered by ADB) and the Climate Change Fund to provide grant subsidies to the SHS program and finance two or three solar mini-grid pilot systems, as well as 100 fiberglass bio-digesters.

12. **Lessons learned.** While PPIDF II represents a continuation of the first facility, it builds on lessons from PPIDF I and includes new features: (i) the total cost of eligible subprojects is reduced from \$30 million to \$10 million to facilitate the financing of a larger number of medium- to large-size infrastructure subprojects; (ii) the component for financing small- and medium-sized infrastructure subprojects (up to \$5 million) is eliminated, because such funding is available locally; (iii) IDCOL intends to increase the participation of women in the training and awareness campaign on renewable energy applications to 20%; (iv) although the introduction of a comprehensive environmental and social management system has worked well and has helped to enhance the capacity of IDCOL to assess environmental and social issues associated with subprojects, training of project sponsors and cofinanciers on such issues will be continued; (v) IDCOL has adopted a policy to ensure women's concerns are considered during the SHS installation process;¹¹ and (vi) an enhanced battery recycling policy is included in the IDCOL SHS program.

13. **Proposed financing modalities.** PPIDF II comprises two outputs: (i) output 1 will use the proceeds from the ordinary capital resources sovereign loan of up to \$100 million to provide IDCOL with long-term additional resources for the financing of medium- to large-sized private sector-led infrastructure subprojects (total subproject cost \$10 million or more); and (ii) output 2 will route the proceeds from the sovereign Asian Development Fund loan of up to \$10 million through IDCOL for the further expansion of the successful SHS program, which has provided financing of more than 2 million SHSs through a microfinance-based, direct sales program in

¹¹ IDCOL has adopted a new policy that requires staff of participating organizations to focus more on consultations with female household members during SHS installations to ensure that the installation of items such as light bulbs and power outlets meet the needs of women.

rural off-grid areas to provide households and small businesses with a renewable source of energy. Output 1 will provide funding directly to subborrowers by providing long-term loans to infrastructure subprojects, while output 2 will channel funding from IDCOL through participating organizations to the end-users, which are typically households in off-grid areas.

B. Impact and Outcome

14. The impact of the project will be enhanced development of infrastructure, including renewable energy facilities. The outcome of the project will be increased private sector participation in infrastructure development, including in renewable energy facilities.

C. Outputs

15. The two outputs aim to address Bangladesh's infrastructure deficiencies by providing infrastructure financing, including for renewable energy, in light of the country's substantial exposure to climate change-induced risks.

16. **Output 1: Financing of medium- to large-sized private sector-led infrastructure subprojects.** The output will be achieved by providing a foreign currency denominated credit line of \$100 million. The eligible subsectors, which meet the government's current priority plan, include: (i) power generation—given the country's acute power shortage this is expected to receive priority in terms of financing; (ii) roads and bridges; (iii) railways; (iv) ports (including seaports and airports); (v) gas and gas-related infrastructure; (vi) water supply, sewage, and solid waste management; (vii) information technology; (viii) renewable energy; and (ix) other infrastructure development subprojects as may be approved by the government, ADB, and IDCOL's board. This output will enable IDCOL to provide dollar or taka funding for up to 40% of the costs of an individual private sector-sponsored subproject that is financially viable and has an economic rate of return of at least 12%; the subproject sponsor will be required to invest a minimum of 20% of the total subproject cost as equity, thereby better balancing the risk factors between the subproject sponsor and the government via IDCOL. The current pipeline includes eight subprojects with a total investment amount of approximately \$235 million, all in the energy sector. IDCOL is presently conducting due diligence, including social and environmental safeguards, on these subprojects. The company is also intensifying its collaboration with the PPP office, which has a list of more than 20 transactions in other (non-power) sectors.¹²

17. **Output 2: Financing of IDCOL's SHS program.** The output will be achieved by providing IDCOL a credit line of \$10 million for its ongoing SHS program, which is a demand-driven model for increasing access to electricity in remote rural areas, where grid connections are economically unfeasible or will not be made in the next 10 years. IDCOL first financed SHSs in collaboration with the World Bank in 2002. The initial target of financing 50,000 SHSs was achieved in August 2005, 3 years ahead of the target date, and \$2 million below estimated costs. The company achieved its target of 2 million installations in April 2013, and has now increased its goal, seeking to finance 4 million SHSs by 2015.

18. The IDCOL SHS program provides refinancing, sets technical specifications for equipment, develops publicity materials, extends loans, oversees system installation and monitors system performance, and provides maintenance support. In particular, IDCOL provides

¹² IDCOL will coordinate with the PPP office as required under the Policy and Strategy for Public–Private Partnership (PPP), 2010.

(i) loans at 6%–8% (per annum) to participating organizations,¹³ which then provide customers in rural areas with financing of up to 80% of the cost of an SHS with a capacity of 10–130 watts;¹⁴ (ii) loans to companies for biomass installations in rural or semi-urban areas, and financing for commercial and semi-commercial biogas plants or biogas-based electricity plants; (iii) loans and grants for solar irrigation pumps; and (iv) loans and grants to companies for the financing of solar mini-grid systems.

19. Households can pay for SHSs with cash or credit. Participating organizations extend loans on various terms and conditions to the households for purchase of SHSs. The loan tenor varies from 1–5 years, and the interest rate varies from 8%–15% per annum on a declining balance method, and 10%–15% per annum on equal principal payment method. In all cases, payments are made monthly.

20. **Use of donor funds.** Funds used by IDCOL for refinancing stem primarily from donor loans channeled through the government. IDCOL's main responsibility is to raise and channel funding in the form of loans to participating organizations and to monitor the overall performance of SHS program.

D. Investment and Financing Plans

21. The project is estimated to cost \$385.5 million (Table 1). The government has requested a loan of \$100 million from ADB's ordinary capital resources to help finance output 1 of the project. The loan will have a 25-year term, including a grace period of 5 years, an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility,¹⁵ a commitment charge of 0.15% per year and such other terms and conditions set forth in the draft loan and project agreement. The loan proceeds will be relent to IDCOL in (i) dollars at LIBOR plus 100 basis points per annum and for a 20-year term with a grace period of 5 years, or (ii) in taka at the Bangladesh bank rate with a 20-year term and a grace period of 5 years pursuant to a subsidiary loan agreement, with the government bearing the foreign exchange risks. Onlending by IDCOL to eligible private sector subprojects will be at interest rates that reflect IDCOL's cost of funds plus a spread to cover transactions costs and risks following full commercial and competitive terms at IDCOL's discretion.

22. The government has also requested a loan in various currencies equivalent to SDR6,599,000 from ADB's Special Funds resources to help finance output 2 of the project. The Asian Development Fund loan will have a 25-year term, a 5-year grace period, and an interest charge of 2.0% per annum throughout the loan tenor, and such other terms and conditions set

¹³ IDCOL's renewable energy program is innovative because it is implemented through participating organizations, which are nongovernment organizations, microfinance institutions, and private entities. These organizations select subproject areas and potential customers, extend loans, install the systems, monitor their performance, and provide maintenance and technical support; this allows IDCOL to benefit from their grassroots networks, which are vital for introducing efficient technology to underdeveloped rural areas and encouraging community participation.

¹⁴ SHSs are small photovoltaic systems with a peak capacity of 10–130 watts; they comprise a solar panel, battery, charge controller, wires, and loads. The estimated lifespan of the SHS outputs is: solar panel, 20 years; battery, 5–7 years; charge controller, 3 years. Maintenance and service are provided at no cost for 3 years (systems are checked by staff of a participating organization while collecting the monthly installment payments). After the 3-year payback period, maintenance is provided by the participating organizations for a minimal monthly fee. Because SHS users own their systems, they will be motivated to keep the system running. Monthly installment payments end after the payback period, and thus payment of a small monthly service fee and replacement of the battery every 5 years will not be a major financial obstacle. SHSs are used mainly by low- and middle-class households, and micro- and small enterprises in off-grid rural locations to operate light bulbs, small electrical appliances such as mobile chargers, and black and white television sets. The price of a typical 50 watt SHS is about \$400.

¹⁵ The interest includes a maturity premium of 10 basis points. This is based on the above loan terms and the government's choice of repayment options and dates.

forth in the draft loan and project agreement. The government will make the loan available to IDCOL at a fixed rate of 3% under a subsidiary loan agreement with a term of 20 years and a grace period of 5 years. The proposed onlending terms reflect current market rates for this type of intervention (the financing of renewable energy installations in rural areas in Bangladesh). The government will bear the foreign exchange risk.

23. ADB has agreed on collaborative cofinancing arrangements for output 2 with the World Bank and Japan International Cooperation Agency.¹⁶

Table 1: Financing Plan

| Source | Amount (\$ million) | Share Total (%) |
|---|-------------------------------|---------------------------|
| ADB | 110.0 | 28 |
| Output 1 (OCR) | 100.0 | 26 |
| Output 2 (ADF) | 10.0 | 2 |
| Cofinanciers | 195.5 | 51 |
| World Bank ^a | 99.5 | 26 |
| JICA ^b | 96.0 | 25 |
| Government | 30.0 | 8 |
| Private sector investors^c | 50.0 | 13 |
| Total | 385.5 | 100 |

ADB = Asian Development Bank, ADF = Asian Development Fund, JICA = Japan International Cooperation Agency, OCR = ordinary capital resources.

^a The Second Rural Electrification and Renewable Energy Development Project of the World Bank consists of a loan of \$99.45 million from the International Development Association to support Infrastructure Development Company Limited's solar home system (SHS) program and a loan of \$16.55 million for the financing of solar mini-grid installations.

^b JICA approved in March 2013 a concessional loan of \$122.48 million for IDCOL's SHS program under the Renewable Energy Development Project of which \$96 million is earmarked for IDCOL's SHS program.

^c This assumes that the sponsor will provide equity financing of 20% of total project cost—private sector banks and financiers will provide debt funding of 40% of total project cost while IDCOL will finance 40% of each project, which is the maximum threshold permitted under its investment guidelines.

Source: Asian Development Bank and Government of Bangladesh estimates.

E. Implementation Arrangements

24. It is proposed that the Ministry of Finance, acting through its Economic Relations Division, will be the executing agency while the Finance Division will be the financial management agency, and IDCOL will be the implementing agency of the project. Policy direction and strategic oversight will be provided by IDCOL's board of directors. IDCOL's project management unit, established under PPIDF I, will (i) monitor the day-to-day implementation of the loans; (ii) build capacity within IDCOL in areas of monitoring exposure limits, process improvements, risk assessment, and analysis; and (iii) ensure compliance with state and national policies and IDCOL's environmental and social safeguard framework, which ensures compliance with ADB safeguard policies and national norms.

25. The implementation arrangements are summarized in Table 2 and described in detail in the project administration manual.¹⁷

Table 2: Implementation Arrangements

| Aspects | Arrangements |
|-----------------------|----------------------------|
| Implementation period | February 2014–January 2019 |

¹⁶ See detailed memorandum of understanding. Memoranda of Understanding between ADB and World Bank, and ADB and JICA (accessible from the list of linked documents in Appendix 2).

¹⁷ Project Administration Manual (accessible from the list of linked documents in Appendix 2).

| Aspects | Arrangements |
|--|--|
| Estimated completion date | 31 January 2019 |
| Management | |
| (i) Oversight body | None ^a |
| (ii) Executing agency | Ministry of Finance, Economic Relations Division |
| (iii) Financial management agency | Ministry of Finance, Finance Division |
| (iv) Key implementing agency | IDCOL |
| (v) Implementation unit | IDCOL PMU |
| Procurement | not applicable |
| Consulting services | not applicable |
| Retroactive financing and/or advance contracting | Advance contracting will take effect only after the loan signing and will be undertaken in accordance with established private sector or commercial practices, which are acceptable to ADB. For funding support under the IDCOL's credit facility, potential subborrower's issuance of invitations to bid under advance contracting will be subject to ADB approval. The executing agency, IDCOL, and identified subborrowers have been (and will be) advised that approval of advance contracting does not commit ADB to finance the Project. There will be no retroactive financing. |
| Disbursement | The loan proceeds will be disbursed in accordance with ADB's <i>Loan Disbursement Handbook</i> (2012, as amended from time to time) and detailed arrangements agreed upon between the government and ADB. The implementing agency, IDCOL, will open and maintain separate sub-accounts for ADF and OCR loans. The advance to the imprest account should not exceed 6 months' estimated cash flow required for payments to be made to subborrowers for eligible subprojects. |

ADB = Asian Development Bank, ADF = Asian Development Fund, IDCOL = Infrastructure Development Company Limited, OCR = ordinary capital resources, PMU = project management unit.

^a An oversight body is considered unnecessary because IDCOL operates on autonomous basis and is governed by its board of directors. The secretary of the Economic Relations Division serves as the IDCOL Board Chairman.

Sources: Asian Development Bank and Infrastructure Development Company Limited.

III. DUE DILIGENCE

A. Technical

26. Because the project comprises financial intermediary loans, the technology used in subsequent subprojects for output 1 is unknown at this stage. For PPIDF II, it is proposed to follow the same implementation arrangements that were used in PPIDF I, which require IDCOL to obtain ADB approval of each subproject in terms of technical efficiency and ADB and national safeguards policies. With regard to the renewable energy technology provided, the technology is well tested and the end beneficiaries expressed satisfaction. ADB encourages IDCOL to continually review and update technology as soon as it becomes available in Bangladesh.

B. Economic and Financial

27. Infrastructure is a major hurdle in Bangladesh's effort to promote sustainable economic growth and achieve its poverty reduction objectives. Energy shortages alone cause substantial losses in economic output and cost approximately 2% of GDP annually. More generally, the overall deficient infrastructure prevents Bangladesh benefitting from its strategic location as a potential transport and transshipment hub, including the opportunity of substantially increasing foreign direct investment inflows. Financing infrastructure through this project will result in higher

industrial output, attract foreign investment, and create employment.

28. IDCOL is fully owned by the government and is one of the highest-rated domestic financial institutions. IDCOL was first rated AA by the Credit Rating Information and Services Limited and AA1 by the Credit Rating Agency of Bangladesh in 2007. IDCOL has an eight-member board of directors—four directors are drawn from the public sector, three from the private sector, and one ex-officio member—and the board is largely independent from IDCOL management. Since 2008, when it received support through PPIDF I, IDCOL has increased its capital base, demonstrated positive cash flows, multiplied profits, and gained experience in project finance, including safeguard policies. IDCOL's credit rating of AA1 was reconfirmed by the Credit Rating Agency of Bangladesh in June 2012.

29. The financial management of the project will be handled by IDCOL, which has the capacity and knowledge to appraise infrastructure and renewable energy subprojects, and has satisfactory financial management abilities. However, based on the financial management assessment, IDCOL needs to further strengthen its risk management and public disclosure requirements, including pricing and monitoring on interest rate risks. As a condition for the first drawdown of any funds under output 1 of PPIDF II, ADB will therefore require that IDCOL hire at least one experienced risk manager who will provide independent assessments of the subprojects that the company intends to finance (e.g., regarding pricing, counterparty risk, exposure limits, and credit analysis).

C. Governance

30. There will be no procurement directly financed under the project. As it was the case in PPIDF I, ADB will encourage IDCOL to require its subborrowers to adopt international competitive bidding procedures in accordance with ADB's Procurement Guidelines and in accordance with established private sector or commercial practices acceptable to ADB. The country's procurement laws and procedures have improved in the recent years due to major procurement reforms implemented by the government and capacity development support from the development partners. The government recently launched electronic government procurement system in four large public sector agencies.

31. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and IDCOL. The specific policy requirements and supplementary measures are described in the project administration manual (footnote 16).

D. Poverty and Social

32. The project will benefit all citizens, including the poor, through the financing of high-quality infrastructure that will create jobs, spur economic growth, and attract foreign investment. In addition, the financing of renewable sources of energy in off-grid areas will improve the well-being of citizens in these areas, including the poor.

33. The SHSs have greatly improved the quality of life of rural households, and the productivity and profitability of local businesses. The current rate of 750,000 SHS installations per year far exceeds the rate of grid connections.¹⁸ The rapid growth of this demand-driven

¹⁸ The number of participating organizations involved in the SHS program has grown from 5 to 42, and they compete vigorously to provide attractive credit packages to consumers. These organizations conduct their own due diligence to extend loans to households. The implementation mechanism of the IDCOL approach has proved sustainable. These organizations have an average loan collection efficiency of about 96%, while fully servicing their debts to IDCOL on time.

program demonstrates the high value that the households place on getting off-grid electricity services. Meanwhile, this off-grid option reduces pressure on the government budget for grid expansion.

34. **Poverty impact.** Under PPIDF I, a total of 330,362 SHS have been funded by IDCOL using the proceeds from ADB's Asian Development Fund loan. Assuming that each SHS saves at least \$61.8 worth of kerosene each year and reduces carbon dioxide emissions by 375 kilograms annually, it is expected that the ADB program will save \$408 million and reduce carbon dioxide emissions by 2,476 tons over the 20-year lifecycle of the SHSs. PPIDF II is expected to fund 42,355 SHS leading to \$52.3 million in savings and a reduction of 317 tons of carbon dioxide emissions over the 20-year lifecycle of the SHSs.

35. **Gender and social dimensions.** The project will support—through the environmental and social safeguards management unit of IDCOL—gender and social dimensions. IDCOL will disseminate information to its subborrowers on (i) the Government's National Policy for Women's Advancement, which has been reflected in the Sixth Five-Year Plan; and (ii) Bangladesh Bank's Department of Financial Institutions and Markets Circular no. 2 on Mainstreaming Corporate Social Responsibility in Financial Institutions, which requires financial institutions to report on gender equality-related performance indicators biannually.

E. Safeguards

36. According to ADB's Safeguard Policy Statement (2009), the project is classified as financial intermediary for the environment, involuntary resettlement, and indigenous peoples. As the proceeds from the proposed ordinary capital resources loan will be used by one or more private sector sponsors to finance subprojects, there is a potential risk that some of those developers may not fully adhere to ADB's safeguard requirements during implementation. The project team will assess project-specific environmental impact assessment and/or resettlement plans as well as each sponsors' environmental management, involuntary resettlement, impacts on indigenous peoples arising from land acquisition, changes in land use, adherence to core labor standards, or restrictions of access to resources and social protection framework and policies, and assess where enhancements may need to be made by the company. IDCOL has adopted the environmental and social safeguard framework and improved its in-house capacity with ADB support.¹⁹ IDCOL will continue to ensure all subproject proposals to be financed under the PPIDF II comply with the requirements of the safeguard framework. IDCOL has hired a qualified environmental and social safeguards specialist to build in-house capacity.

37. Under output 2, IDCOL will only finance subprojects that are classified as category C according to ADB's Safeguard Policy. To monitor compliance, it has developed an environmental and social management framework.²⁰

F. Risks and Mitigating Measures

38. Implementing infrastructure subprojects in Bangladesh is challenging, but sufficient risk mitigations measures have been introduced to the project design to justify ADB financing. Major risks and mitigating measures are summarized in Table 3 and described in detail in the risk assessment and risk management plan.²¹

¹⁹ Infrastructure Development Company Limited. 2011. *Environmental and Social Safeguards Framework (ESSF) Policy and Procedures*. http://www.idcol.org/Download/ESSF_Final.pdf

²⁰ Available at Infrastructure Development Company Limited. http://www.idcol.org/Download/RERED_II_ESMF.pdf.

²¹ Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

Table 3: Summary of Risks and Mitigating Measures

| Risks | Mitigating Measures |
|---|---|
| Bangladesh's economy is widely regarded to suffer from weak governance and corruption. | Public procurement procedures that are associated with high levels of corruption are addressed in a major reform program supported by ADB and other development partners. |
| The ADB funds, in particular from output 1, will be used for purposes other than stated in the legal agreements. | ADB will have the right to review and approve each subloan that will be financed under output 1 with the help of the ADB procurement specialist assigned to ADB's South Asia Department to ensure the appropriateness of the procurement process. |
| Inadequate infrastructure project structuring prevents financial closure of subprojects despite availability of financing. Bangladesh has limited experience in structuring infrastructure subprojects. | The project builds on synergies with the ongoing PPP program of the government, which provides capacity building for enhanced development and structuring of infrastructure subprojects. |

ADB = Asian Development Bank, ESMS = environmental and social management system, IDCOL = Infrastructure Development Company Limited, PPP = public-private partnership.

Source: Asian Development Bank.

IV. ASSURANCES

39. The government and IDCOL have assured ADB that implementation of the project shall conform to all applicable ADB policies including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the project administration manual and loan documents.

40. The government and IDCOL have agreed with ADB on certain covenants for the project, which are set forth in the loan agreements and project agreement.

V. RECOMMENDATION

41. I am satisfied that the proposed loans would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve

- (i) the loan of \$100 million to the People's Republic of Bangladesh for the Second Public-Private Infrastructure Development Facility, from ADB's ordinary capital resources, with interest to be determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; for a term of 25 years, including a grace period of 5 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan and project agreements presented to the Board; and
- (ii) the loan in various currencies equivalent to SDR6,599,000 to the People's Republic of Bangladesh for the Second Public-Private Infrastructure Development Facility, from ADB's Special Funds resources, with an interest charge at the rate of 2.0% per annum throughout the loan tenor; for a term of 25 years, including a grace period of 5 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan and project agreements presented to the Board.

Takehiko Nakao
President

25 September 2013

DESIGN AND MONITORING FRAMEWORK

| Design Summary | Performance Targets and Indicators with Baselines | Data Sources and Reporting Mechanisms | Assumptions and Risks |
|--|---|---|--|
| <p>Impact Enhanced development of infrastructure, including renewable energy facilities</p> | <p>Gross capital formation (% of GDP) increased to 28% by 2022 (Baseline 2012: 26.5%)</p> <p>Contribution of renewable energy to the total electricity production of Bangladesh increased to 10% by 2022 (Baseline 2008: 0.8%)</p> | <p>For all indicators:</p> <p>Annual Development Plan of the government</p> <p>Millenium Development Goals reports on infrastructure development activities</p> <p>Statistics from the Ministry of Finance and the Ministry of Power, Energy and Mineral Resources</p> <p>Bangladesh Bureau of Statistics</p> | <p>Assumption Government is committed to address the concern that Bangladesh's economy is widely regarded to suffer from weak governance and corruption.</p> <p>Risk Misappropriation of ADB funds, in particular from output 1, for purposes other than stated in the legal agreements.</p> |
| <p>Outcome Increased PSP in infrastructure development including in renewable energy facilities</p> | <p>Number of infrastructure subprojects under PPP and PSP modality increased by 4 by 2019 (Baseline in 2013: 1)</p> <p>At least 57,500 tons of GHG emissions reduced by 2019 (Baseline 2009: 55.3 million tons for all of Bangladesh)</p> | <p>For all indicators:</p> <p>Reports from IDCOL</p> <p>Bangladesh Bureau of Statistics</p> <p>Statistics from the Ministry of Finance and the Ministry of Power, Energy and Mineral Resources</p> | <p>Assumption Government will take steps to expediently approve large infrastructure subprojects.</p> <p>Risk Inadequate infrastructure project structuring prevents financial closure of subprojects despite greater available finance.</p> |
| <p>Outputs 1.1 Increased availability of long-term debt financing for innovative infrastructure subprojects</p> | <p>Number of financial closures for large subprojects (total project cost of more than \$10 million) increased by 4 by 2019 (Baseline 2013: 1)</p> <p>Amount of additional private capital mobilized under this</p> | <p>For all indicators:</p> <p>Annual report and MIS of IDCOL</p> <p>Reports from other financial institutions and/or development partners</p> | <p>Assumption Feasible and bankable large infrastructure subprojects are available.</p> <p>Risk Capacity of IDCOL deteriorates through frequent staff turnover.</p> |

| Design Summary | Performance Targets and Indicators with Baselines | Data Sources and Reporting Mechanisms | Assumptions and Risks |
|--|--|--|--|
| | <p>project increased by \$50 million by 2019</p> <p>An independent risk manager recruited or risk management unit has been established by 2019</p> | | |
| 2.1 Increased availability and accessibility of financing for SHS | <p>Number of SHS installations increased by at least 33,333 by 2019 through this project (Baseline February 2013: Total of 2 million SHSs financed)</p> <p>33,333 new households with access to electricity by 2019 (Baseline: 84 million—55.3% of total population of 152 million)</p> <p>33,333 additional microfinance accounts opened and end borrowers reached—at least 30% of whom are women—by 2019 under this project (Baseline 2011: 20.9 million)</p> <p>SHS sale to women increased to 30% by 2019 (Baseline 2013: 20%)</p> | <p>For all indicators:</p> <p>Periodic reports generated by IDCOL</p> <p>Statistics from Ministry of Power, Energy and Mineral Resources</p> | Assumption Stable demand for SHSs |
| Activities with Milestones | | | |
| <p>1. Increased availability of long-term debt financing for innovative infrastructure subprojects (February 2014–January 2019)</p> <p>1.1. IDCOL identifies and finalizes subproject pipeline to be financed by ADB funds (February 2014–June 2014)</p> <p>1.2. IDCOL management presents to its board a revised organogram with a risk management unit (July 2014)</p> <p>1.3. IDCOL initiates recruitment of risk manager (by December 2014)</p> | | | <p>Inputs</p> <p>Loan</p> <p>ADB: \$110.0 million</p> <p>Cofinanciers: \$195.5 million</p> <p>Government of Bangladesh: \$30.0 million</p> <p>PSP and/or PPP: \$50.0 million</p> |

| Activities with Milestones | |
|-----------------------------------|---|
| 1.4. | IDCOL staff performs due diligence of potential subprojects (July 2014–January 2019) |
| 1.5. | IDCOL management obtains board approval for subprojects eligible to be financed with ADB funds (January 2015–January 2019) |
| 2. | Increased availability and accessibility of financing for solar home systems |
| 2.1. | IDCOL develops publicity materials and extend loans (By July 2014) |
| 2.2. | IDCOL provides refinancing facilities for POs to provide micro-credits to end- beneficiaries for SHS installations (February 2014–January 2019) |
| 2.3. | IDCOL provides maintenance support for SHS (February 2014–January 2019) |

ADB = Asian Development Bank, ADF = Asian Development Fund, GDP = gross domestic product, GHG = greenhouse gas, IDCOL = Infrastructure Development Company Limited, MIS = management information system, OCR = ordinary capital resources, PPP = public–private partnership, PSP = private sector participation, SHS= solar home system.

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/RRPs/?id=42180-013-3>

1. Loan Agreement (Ordinary Capital Resources)
2. Loan Agreement (Special Operations)
3. Project Agreement
4. Sector Assessment (Summary): Infrastructure
5. Project Administration Manual
6. Contribution to the ADB Results Framework
7. Development Coordination
8. Economic and Financial Analysis
9. Country Economic Indicators
10. Summary Poverty Reduction and Social Strategy
11. Financial Intermediary: Environmental and Social Management System Arrangement
12. Risk Assessment and Risk Management Plan

Supplementary Documents

13. Gender Action Framework
14. Memoranda of Understanding between ADB and World Bank, and ADB and JICA