

**MEXICO**

**CTF RENEWABLE ENERGY FINANCING FACILITY (CTF-REFF)**

**(ME-L1109)**

**PUBLIC INFORMATION DOCUMENT**

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## Electronic Links

1. National Development Plan. Pillar 4. Environmental Sustainability (Climate Change)  
<http://idbdocs.iadb.org/wsdocs/getDocument.aspx?Docnum=35921659>
2. National Strategy on Climate Change. Mexico. Executive Summary  
<http://idbdocs.iadb.org/wsdocs/getDocument.aspx?Docnum=35921670>
3. Special Program for Climate Change 2009 – 2012. Mexico  
<http://idbdocs.iadb.org/wsdocs/getDocument.aspx?Docnum=35921662>
4. IDB Country Strategy with Mexico. November 2010 – December 2012  
<http://www.iadb.org/en/countries/mexico/country-strategy,1078.html>
5. The Clean Technology Fund (CTF)  
<http://idbdocs.iadb.org/wsdocs/getDocument.aspx?Docnum=35921664>
6. CTF Investment Plan for Mexico  
<http://idbdocs.iadb.org/wsdocs/getDocument.aspx?Docnum=35938545>
7. CTF Financing Products, Terms, and Review Procedures for Public Sector Operations  
<http://idbdocs.iadb.org/wsdocs/getDocument.aspx?Docnum=35921666>
8. Contingent Financing Program for Renewable Energy  
<http://idbdocs.iadb.org/wsdocs/getDocument.aspx?Docnum=35921673>
9. List of Related Operations  
<http://idbdocs.iadb.org/wsdocs/getDocument.aspx?Docnum=36279913>

## ABBREVIATIONS

CCLIP	Conditional Credit Line for Investment Projects
CDM	Clean Development Mechanism
CFC	Chlorofluorocarbons
CFE	Federal Electricity Commission
CIF	Climate Investment Fund
CRE	Energy Regulatory Commission
CTF	Clean Technology Fund
CTFIP	Clean Technology Fund Investment Plan
GCI-9	Ninth General Capital Increase
GHG	Greenhouse Gas
IBRD	International Bank for Reconstruction and Development
IDB	Inter-American Development Bank
IFC	International Finance Corporation
IPP	Independent Power Producers
MDB	Multilateral Development Bank
MUSD	Million US Dollars
MW	Mega Watts
NAFIN	Nacional Financiera
PECC	Special Climate Change Program
RE	Renewable Energy
REFF	Renewable Energy Financing Facility
SCF	Strategic Climate Fund
SECCI	Sustainable Energy and Climate Change Initiative
SENER	Energy Secretariat
SME	Small and Medium Enterprises
TC	Technical Cooperation
TFC	Trust-Fund Committee
UNFCCC	United Nations Framework Convention on Climate Change
USD	US Dollars

**PROJECT SUMMARY**  
**MEXICO**  
**CTF RENEWABLE ENERGY FINANCING FACILITY (CTF/REFF)**  
**(ME-L1109)**

<b>Financial Terms and Conditions</b>			
<b>Borrower:</b> Nacional Financiera S.N.C.			
<b>Executing Agency:</b> Nacional Financiera S.N.C.			
<b>Guarantor :</b> United Mexican States			
<b>Source</b>	<b>Amount (US\$ million)</b>	<b>Disbursement period:</b>	48 months
IDB-Clean Technology Fund Trust-Fund	70	<b>CTF Service Charge:</b>	0.75%
		<b>MDB upfront fee:</b>	0.25%
		<b>Maturity:</b>	20 years
Minimum counter-part funds from NAFIN	70	<b>Grace Period:</b>	10 years
IDB minimum co-financing	70	<b>Currency:</b>	US Dollar
Total (a minimum of)	210		
<b>Project at a Glance</b>			
<p><b>Project objective and description:</b> The program goal is to contribute to Mexico’s drive to increase the share of Renewable Energy (RE) sources in its overall generation and to reduce GHG emissions (see ¶1.20). This would be achieved by filling the existing financing gap for renewable energy projects through the provision to project developers of competitive loans and contingency credit lines to cover cash flow deficits during the life of the project. CTF concessional resources will leverage at least a similar amount from NAFIN’s lending resources and from the existing CCLIP ME-X1010, hence combining for a total minimum amount of US\$210 million. This financing facility is part of a multi pronged approach to help Mexico achieve over the medium to long term a low carbon growth path. The overarching strategy of the CTF for the Mexican energy sector (CTF Investment Plan) seeks to (i) establish a financing facility in a local infrastructure bank to leverage funds and scale up investment in wind and small hydro power plants; (ii) improve the regulatory environment in favor of REs; (iii) undertake a comprehensive assessment of opportunities for attracting carbon finance for the renewable energy and energy efficiency sector; (iv) support local renewable energy research centers for demonstration of technologies and (v) leveraging IDB loan/guarantee support to the private sector to facilitate implementation of RE projects.</p> <p><b>Related operations:</b> This facility is closely related to a number of TCs from the IDB-CTF Trust Fund (see <a href="#">List of related operations</a>).</p>			
<p><b>Special contractual conditions:</b> Prior to the first disbursement of the program, the Executing Agency will provide evidence, to the Bank’s satisfaction, of: (i) the formal designation of a Program Manager; and (ii) the entry into effect of the Operational Regulations agreed with the Bank. Conditions of project execution: (i) disbursement of CTF resources to NAFIN shall be contingent on the availability of IDB/CCLIP resources (see * below); and (ii) conditions for pari passu disbursements (see ¶3.4).</p>			
<b>Special aspects:</b> None.			
<b>Exceptions to Bank policies:</b> None.			
<b>The project is in line with the country strategy:</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
<b>The project qualifies for:</b> SEQ <input type="checkbox"/> PTI <input type="checkbox"/> Sector <input type="checkbox"/> Geographic <input type="checkbox"/> Headcount <input type="checkbox"/>			

\* The share of IDB funds in the facility will consist of resources from the existing CCLIP X-1010. The first loan under it, ME-L1051, already contemplated RE projects as one of its goals, the other being the support of SMEs in the supply chain of PEMEX. NAFIN and SHCP have formally committed to request a second operation from the CCLIP if the funds from the current operation are not available (i.e. having been disbursed in support of the supply chain of PEMEX). The disbursement of CTF resources to NAFIN will be contingent on the availability of IDB/CCLIP resources. Under the envisaged disbursement schedule for ME-L1051 a second operation targeting RE projects is in fact included in the pipeline for approval in the first half of 2012.

## I. DESCRIPTION AND RESULTS MONITORING

### A. Background, problem addressed, and justification

#### 1. The Mexican climate change policy

- 1.1 Increasing the amount of power obtained from renewable energy<sup>1</sup> (RE) sources is one of the priorities established in Mexico's National Development Plan. As RE power generation contributes to both the diversification of the country's energy matrix and the mitigation of climate change, it is included in both its Energy Sector Program and its Special Climate Change Program (PECC).
- 1.2 In terms of the Mexican Climate Change strategy, the PECC set forth the goal of reducing GHG emissions in 2050 to 340 Mt CO<sub>2</sub>e, or 50% of year 2002 level. Wind power represents a major development opportunity in the country, due to its generation potential, estimated at least at 33,000 MW, out of which 6,250MW are from excellent wind quality resources with speeds of more than 8.5m/s. (Tehuantepec Isthmus, State of Oaxaca). Besides wind power, other renewable energy sources have significant untapped potentials: small hydropower potential (less than 10 MW) is estimated at approximately 3,000 MW, unexploited potential of base-load geothermal energy is estimated at over 1,500 MW, and unexploited capacity for biomass is estimated at 9,000 MW. Solar energy potential is substantial, and its technologies (concentrated solar power and photovoltaic) are already competitive in some specific niches.
- 1.3 The current development of wind, small hydropower, and biomass projects in Mexico relies primarily on projects that fall into the self-supply modality, with consumers and generators (in different locations) as shareholders. The Regulatory Commission (CRE) has authorized RE self-supply projects with a combined capacity of 2,521MW (Dec 2010). A breakdown of the most important projects envisaged, by technology, is as follows (source CRE):

RE Source	Number of projects	Authorized Capacity	Estimated Investments
Hydros	9	159MW	US\$ 188 Mio
Minihydros(<10MW)	6	37MW	US\$ approx. 40Mio
Biogas	1	6MW	US\$ 5.7 Mio
Wind	16	1,928MW	US\$ 3.8bn
Bagasse	4	108MW	US\$ 130 Mio

- 1.4 Summing up, Mexico's energy matrix is characterized by a high dependence on fossil fuels, resulting in very high carbon emissions, although the country is

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<sup>1</sup> For the purposes of this document, renewable energy excludes hydropower plants larger than 10MW.

endowed with world-class renewable energy resources, whose utilization offers the prospect of developing a commercially viable renewable energy industry in the medium to longer-term. Despite the high renewable resource potential and the associated co-benefits of increased energy security and economic competitiveness in green technologies, the Mexican renewable energy sector remains relatively untapped. Lack of policy and regulatory incentives, high entry costs for grid access and inappropriate financing options, are considerable barriers to investment.

## **2. The regulatory framework for RE generation**

- 1.5 The current legal framework for the Mexican power sector falls short of providing RE developers with the degree of certainty necessary to adopt long term investment decisions and requires them to assume significant risks. Despite progress over the past years this still amounts to a significant barrier for the development of renewable energy sources by the private sector.
- 1.6 Power generation plants can be owned and operated either by Comisión Federal de Electricidad (CFE, the public monopoly for power distribution) or by the private sector. Private sector projects fall in turn into three modalities: independent power producer (IPP, under a tender-based system), small producers (capacity under 30 MW), and self-suppliers. IPPs and small producers sell all the electricity they generate to CFE.
- 1.7 CFE has been investing in geothermal and wind power projects, either as utility-owner or through IPP contracts. The development of these projects has been slow on account of their capital-intensive nature, the requirement that any public sector investment generates a minimum 12% internal rate of return and the mandate that obliges CFE to minimize the cost of generation, which hampers environmentally sound investments.
- 1.8 The [Renewable Energy Law](#) enacted in 2008 sets favorable conditions for the development of RE small producers. However, the required complementary regulatory and programmatic mechanisms have not yet been fully developed. CFE's slow pace has led private power developers to favor the self-supply market, which allows a technological leader (a generator) and an energy-intensive manufacturing company (a consumer) to pool their capital resources and seek to finance the joint-venture. Self-supply projects take advantage of recent changes to the regulatory framework, which allow for an energy bank, firm capacity contribution recognition, reduced and simplified transmission charges and a transparent pricing system for sales on to the CFE. Developers still face, however, significant risks as they depend on the off-takers' credit qualifications, and as CFE's role as the backstop off-taker in cases of breach of contract by the off-taker lacks clarity. Summing up, despite positive steps, the legal and regulatory framework for private initiatives in the power generation sector still presents barriers for the development of RE generation projects.

- 1.9 The IDB, with its own resources and CTF funding, is helping Mexico to address still pending regulatory issues<sup>2</sup>. The PBL to Support Mexico's Climate Change Agenda was linked to the publication of the secondary regulations of the Renewable Energy Law, a condition that was fulfilled. Moreover, CTF financed the regulatory studies behind some of the aforementioned improvements in the existing RE framework. Additional studies financed in the field of geothermal energy and cogeneration from biomass, should be available by the end of 2011 providing CRE with recommendations and regulatory adjustments needed to scale up these two industries.

### **3. The Clean Technology Fund**

- 1.10 Mexico's CTF Investment Plan was presented by the Government of Mexico to the CTF for approval, and endorsed by the CTF TFC on January 27, 2009. The CTF Investment Plan is a "business plan" agreed among, and owned, by the Government of Mexico for the International Bank for Reconstruction and Development (IBRD), the Inter-American Development Bank (IDB) and the International Finance Corporation (IFC) to provide support for the low-carbon objectives contained in Mexico's 2007-2012 National Development Plan, its National Climate Change Strategy and Special Climate Change Program. The multi-year business plan outlines the strategy, sectors, and objectives to be implemented and co-financed by the IDB and the World Bank Group. The IP includes US\$125 million of concessional CTF resources for IDB RE programs. A first IDB RE program, approved in November 2009, included US\$50 million for financing private sector projects, as well as a number of technical assistance activities. The first private project to be partly financed with a \$30 million contribution from the program was the EURUS wind farm, a 250.5MW capacity installation that still constitutes the largest operating wind farm in Latin America.

### **4. Problem's description and how it will be addressed by the program**

- 1.11 The CTF IP for Mexico correctly identifies access to financing as a significant barrier to renewable energy investments, due to the following sector specific factors: (i) the high initial investment cost; (ii) the banks' apprehension to develop new or unproven business/products lines, linked to the lack of relevant expertise to analyze and structure energy projects with weak credit and/or unfamiliar risk profiles of potential clients (e.g., energy users or generators) and; (iii) the lack of regulatory incentives. All these factors have resulted in the lack of adequate financial instruments to support renewable energy projects, which translates into relatively high transaction costs and high interest rates or excessive requests for collateral.

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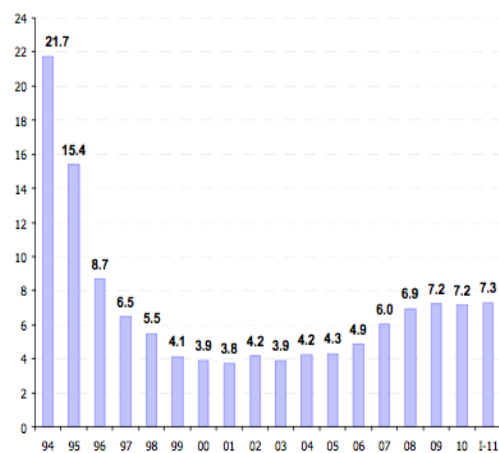
<sup>2</sup> Policy Based Loan (PBL) to Support Mexico's Climate Change Agenda (2186/OC-ME) for US\$400 million; Regulatory Studies for CRE (ATN/OC-11183-RG), Geothermal Potential Evaluation (ATN/TC-12469-ME), Macroeconomic Impacts of the Wind Industry in Mexico (ME-T1164), Feasibility Study of Cogeneration from Sugar Cane Bagasse (ATN/TC-12466-ME), most of them fully disbursed and executed.



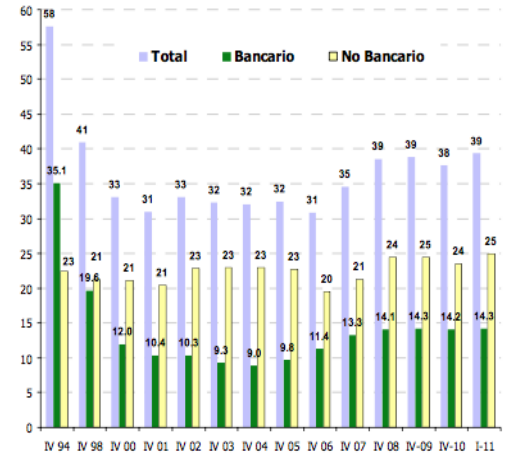
1.12 The difficulties found to finance RE projects in Mexico are sector specific (high investment needs, regulatory uncertainty spreads, lack of experience) but they can also be presented as a special case of a broader problem that has been systematically diagnosed in the Mexican economy for some time: that of access to credit and the relative size of the financial sector. Indeed total credit to the economy stands at 39%, well below that of comparable economies in the region (average around 60%) and significantly behind the average for advanced countries (see chart below, from BBVA Research).

1.13 The ratio falls significantly when one considers only banking credit (see graph below). Micro and SMEs have to resort to traditional sources of credit (family, suppliers, pawn houses) and only large Mexican firms with a long national and/or international credit track record are financed by the commercial banks. The lack of growth in the financial system can be traced back to the 1995 financial crisis and has acted as a major obstacle for growth.

**Crédito a Empresas**  
Proporción de PIB, %



**Financiamiento Total**  
Proporción de PIB, %



1.14 Privately managed RE power plants in the Mexican regulatory framework are authorized under the figure of the independent producer or auto generators. Developments so far have mainly consisted of consumer/producer partnerships under the latter regulatory license. Banks assess the creditworthiness of both the technological partner and the end consumer when analyzing the risk involved in these project finance operations. Some resident foreign banks have been active in financing wind power plants, seemingly on account of their matrix’ business ties with the partners in the development (Bancomer, Santander, Citibank) but, as stated above, the rhythm and scale of RE investments would vastly improve if financial resources at competitive rates were made available to developers.

1.15 The lack of regulatory incentives is being addressed by a number of operations from the IDB and CTF (see ¶1.9). On the other hand, high investment costs can only be reduced through technological progress. Therefore, this program focuses on the financial sector specific factors that restrict investment in RE power plants.

It does so by combining CTF concessional resources (US\$70 million) with IDB and NAFIN loans, leveraging an additional (minimum) US\$140 million to finance RE projects through direct funding to developers or through the provision of contingent lines that would cover cash flow deficits emerged during the life of the project due to lower than expected production, lower than expected official prices (to which energy prices are sometimes linked) and/or lower payments from the off-taker. Through the creation of the REFF, the IDB seeks primarily to leverage the CTF funds and to scale up investments in RE projects. The proliferation of projects will also demonstrate their viability and indirectly contribute to the development of capacity within a financial sector increasingly familiarized with RE projects risks. The scope of the intervention, considering conservative assumptions on the leverage attainable, will allow for a significant boost in RE power capacity investment in Mexico, of the order of 1,000 MW.

## **5. The role of NAFIN, and the IDB.**

- 1.16 NAFIN is a national credit institution established to promote savings and investment and to channel financial and technical support for Mexico's industrial and economic development. IDB has a long history of relations with NAFIN although centered in the more traditional support policy towards SMEs. NAFIN supports projects with private sponsors to reduce GHG emissions through a new Sustainable Projects Directorate. which has received technical assistance from the World Bank and uses its methodology and manuals to manage the risks associated with RE projects.
- 1.17 NAFIN is a solvent institution with adequate risk management practices and the full backing of the Mexican government. In December 2010, its assets stood at Mex\$299 billion, including a credit portfolio of almost Mex\$123 billion. Net worth totaled Mex\$16.3 billion. Over the past two years NAFIN increased its activity and expanded its balance sheet to counter the decline in economic activity due to the financial crisis, and yet managed to generate a net profit of Mex\$1,040 million in 2010. Capital, cash, and reserves amount to a comfortable financial position.
- 1.18 In the context of this particular program, IDB would be playing the critical role of channeling the international funding sources for climate change mitigation to the financial sector in Mexico. Insofar as CTF resources have to be combined with IDB/CCLIP resources, the Bank would also be contributing to scaling up the impact sought by the international donor community. However IDB's involvement with the CTF IP goes beyond this program. It started in the very design of the investment plan and it includes cooperation in various fields, in a multi pronged approach in collaboration with the WB and IFC, including technical assistance and capacity building, as well as assistance to develop regulation and support to local research institutes.

**B. Objective of the program**

1.19 The program goal is to contribute to Mexico’s drive to increase the share of Renewable Energy (RE) sources in its overall generation and to reduce GHG emissions. This would be achieved by pursuing two specific and interconnected objectives: (i) scaling up investment in RE generation projects; and (ii) contributing to familiarize the Mexican banking sector with these investment opportunities (by demonstrating their viability and mobilizing resources from financial institutions). The program activity will be the provision of financial resources to eligible projects in competitive conditions in two different ways: (i) through the provision of direct loans to developers of RE generation projects; and (ii) making contingent credit lines available to projects, to cover for cash flow shortages over the life of the project. The main impact of the program would be the electricity generated from RE sources and the implicit reduction in GHG emissions.

**C. Key results indicators**

1.20 The Results Matrix below outlines the indicators of the program’s targets. While the immediate outputs of the REFF are the number of RE fueled power plants financed and the number of RE mega watts of generation capacity financed, the overall goals ought to be measured in terms of the power to be actually generated at the RE plants and the GHG emissions averted which over the life of the plants may well reach 40 MT of CO<sub>2</sub>e (20 years).

Indicators	Unit	Baseline (End 2010)	End Year 1	End Year 2	End Year 3	End Year 4	Target
1.- RE Power Plants financed	Number		1	3	3	3	10
2.-Installed RE generation capacity (excludes large Hydro)	MW	2.282	2.432	2.682	2.982	3.282	3.282
3.-Annual Electricity Generation from RE sources (excludes large Hydro)	GWH	10.309	10.862	11.784	12.891	13.998	13.998
4.-Annual contribution to the reduction/ stabilization of CO <sub>2</sub> Emissions once the plants are commissioned.	Metric Tons CO <sub>2</sub>		301.686	804.497	1.407.869	2.011.242	2.011.242
5.- Increase in total investment in RE generation capacity	Million US\$		375	625	750	750	2.500
6.- Financing from third parties mobilized in the program	Million US\$	0	231	385	462	462	1.540
7.- Number of financial institutions involved (other than Nafin)	Number		1	3	3	3	
8.- Overall Increase in RE Generation Capacity	MW						3.000

- 1.21 A key desired outcome of deploying REFF resources for RE projects will be the catalytic effect for the projects financial structure. Using conservative estimates for a total of 1.000 MW of generation capacity installed, the US\$210 million of the REFF would have to mobilize at least another US\$1,190 to US\$1,540 million to cover the investment costs of US\$2 to US\$2.5 million per MW with a 30/70 equity to debt ratio.
- 1.22 The REFF will deliver externalities beyond the reduction of GHG emissions. We can group them into two categories:
- a. Social and developmental externalities. The construction of RE generation plants means employment opportunities, especially, but not only, during the construction phase. Another social impact is the income derived from the rental/leasing of the land affected to the power plants, which will accrue to private owners but also to communities and municipalities. Finally, it is not unusual for project developers to complement their lease/rental agreements with compensations other than the mere rent payment, typically in support of municipalities and communities, and normally consisting of goods and infrastructure investments. For the sake of measurement of the social/developmental effects of the REFF, the impact of these contributions is probably a lot smaller than that of employment and rental income. At this stage we estimate in over 10.000 hectares the land occupied by the developments and in some 7.000 the jobs to be created during the construction phase, but we lack information on these compensations due to the stage of development of the projects, and it would be adventurous to produce an estimate. NAFIN will however gather information on such practices as projects progress.
  - b. NAFIN's capacity strengthening would be a byproduct of the fact that the Sustainable Projects Directorate within NAFIN (as well as the Credit Recovery and Monitoring Unit) while executing the program would acquire significant experience on the preparation, risk evaluation, and monitoring phases of this type of project. The same positive externality would of course accrue to banks that take part in projects and, in doing so, become familiarized and proficient in managing this type of projects.

## **II. FINANCING STRUCTURE AND MAIN RISKS**

### **A. Characteristics and eligibility of projects**

- 2.1 Eligible projects need to meet a number of conditions and the overall program also has specific conditions. NAFIN will provide the project team with timely and sufficient information to monitor the performance of the program with regard to these targets. The project team will review the eligibility of projects on their individual merit but also vis-à-vis the overall targets. These goals will be an

integral part of the ROP and might only be revised by mutual agreement between IDB and NAFIN, if demand or structural conditions so advise.

- a. Leverage ratio within the REFF:
    - i. As stated above, the overall leverage ratio of the facility requires that the US\$70 million of CTF resources be matched with at least equal amounts from the IDB CCLIP and from NAFIN's own resources.
    - ii. At the project level there is also a leverage ratio: the leverage on the project level will always be 1/3 CTF resources and at least 2/3 CCLIP/NAFIN's own resources.
  - b. **Size of project level involvement.** A single project will not receive more than US\$10 million of CTF financing. The purpose of this condition is to spread out CTF resources and maximize leverage and demonstration effect. This implies that there will be at least 7 RE projects benefiting from the REFF.
  - c. **Share of REFF in individual project finance.** In at least 6 projects, CTF/CCLIP/NAFIN resources combined will not finance more than 50% of the total financing needs of the project. This condition maximizes leverage and the number of projects, allowing for a majority role of REFF resources only in a limited number of projects, or in a larger number of smaller projects.
  - d. Diversification criteria seek to maximize impact and to avoid excessive technological or geographical concentration of the program, which would limit its impact and contribute to grid imbalances (excessive generation concentration in the southwest). At full disbursement of the REFF (totaling at least US\$210 million) no more than 65% of the overall amount of US\$210 million can be utilized to finance wind projects in Oaxaca; at least 35% of the overall amount of US\$210 million has to be utilized to finance either wind projects in other geographical regions or other eligible renewable energy resources.
- 2.2 Within the conditions set above, a pipeline of projects eligible for REFF financing will be selected by NAFIN. On account of the number and nature of the conditions agreed upon, and also on account of the difficulties developers run into in search of financing sources highlighted above, NAFIN will allocate resources per project following its own standard procedures on a first come first serve basis. Hence, ultimately, it will be the capacity of developers to complete the stages of their projects that will determine the end list of beneficiaries.
- 2.3 The total proceeds of the REFF will be channeled to end users by NAFIN directly, or indirectly, through the intermediation of other financial institutions including Mexican development banks, who would be financed by NAFIN (second tier transactions). Resources will ultimately be used:

- a. To provide direct loans to finance the construction of new renewable energy projects and/or the projects' life financing. In particular, up to 2 projects might be financed by NAFIN and later reimbursed using CTF resources according to IDB's standard practices (as of the date of signature of the program and only up to 10 million USD).
  - b. To provide developers with contingency credit lines. The purpose is to finance transitory cash flow shortages up to the amount needed to service senior debt, due to any of the following reasons: off taker's default, energy price reduction when indexed to CFE tariffs, and/or energy generation below the one projected on base case scenarios.
- 2.4 Although both a. and b. share their final goal, -scaling up investments-, the contingent credit product operates only indirectly, by helping developers complete the financial structure of their projects attracting credit or equity from other sources. There are however no targets for the proportion of the resources that has to be disbursed under each financing alternative. This allows both NAFIN and developers to opt for the alternative best suited to their financing needs.
- 2.5 The other main difference between the two instruments resides in the collateral structure of the projects. In the case of direct loans, REFF debt may become senior or junior debt within the overall financing structure of the project. In the case of the contingent lines, debt payment obligations to NAFIN will be linked and subordinated to the payments of senior debt, with a collateral structure to be agreed upon for each project. Accordingly, the scheduled amortization period for the REFF debt (were the line to be used) will be linked to that of the senior debt; on each senior debt's installment date NAFIN will be paid from the cash available after repaying senior debt. Until the outstanding balance of the REFF is settled, the borrower will not be able to make any cash dividend or payment to equity holders or shareholder loans (NAFIN may introduce covenants with additional conditions to secure repayment). The final maturity date for the contingent line is also linked to that of the senior debt of the project, a maximum term of 18 months after the last senior debt's installment. The pricing structure also differs from that for direct loans.
- 2.6 Terms, rates and costs for the end borrower will depend on the project. Considering wind and hydro projects as the most likely to form the majority of the pipeline, maturities will be in the 10 to 15 year range.
- 2.7 The terms and rates applicable to CTF financing for NAFIN are those established in CTF Financing Products and Terms (the Board of the IDB opted for the 0,25% upfront fee to cover for project preparation and monitoring expenses).

<b>Maturity</b>	<b>Grace Period</b>	<b>Principal Repayments Year 11-20</b>	<b>MDB Fee</b>	<b>Service Charge</b>	<b>Grant Element</b>
20	10	10%	0.25%	0.75%	aprox 45%

- 2.8 It is not possible to pre determine the terms and conditions for the sub loans without previously determining the precise project. NAFIN will determine the terms by applying a spread to its REFF costs, -a blend of those of CTF and IDB resources and its own-. The spread will depend on the characteristics of the project, its internal rate of return and its risk profile.
- 2.9 NAFIN will provide IDB with the necessary pricing information on the pass through of the concessional terms of CTF resources on to the end borrower, as well as the leverage ratio of CTF resources to any other resources. This will allow the Project Team to report back to the CTF Admin Unit, the CTF Trust Fund Committee, and the IDB on the terms of the sub loans.

## **B. Risks to the Program**

- 2.10 In broad terms, the project team has a positive view with regard to the risks linked with public policy and regulation in Mexico in the field of energy and climate change because of the government's international commitments, the wealth of RE resources and its potential, and the importance of a vibrant RE generation sector from an environmental but also from an economic point of view. Regular contacts between the IDB and the regulatory authorities (SENER, SEMARNAT and CRE) also allow the team to play down this risk.
- 2.11 **Environmental and social risks.** With regard to the environmental and social risks, although RE projects are considered as climate friendly due to their contribution to long-term GHG emissions reductions NAFIN will assess the E&S and specific mitigation on a project by project basis, in accordance with IDB policies. Wind, hydroelectric, and biomass projects can result in adverse environmental and social impacts. These impacts will vary in nature, intensity, and duration based on the specific characteristics, location and size of the RE projects. It is envisioned that the majority of the projects to be supported by the proposed operation will be wind farms in the state of Oaxaca. NAFIN has experience in the Bank's approach to wind farms from the Eurus wind farm project. The Bank is building upon this experience and a manual developed by the WB for NAFIN, to define a procedure to ensure that appropriate safeguards are considered and included in RE projects.

## **III. IMPLEMENTATION AND MANAGEMENT PLAN**

### **A. Summary of implementation arrangements**

- 3.1 The borrower and executing agency for the program will be Nacional Financiera, S.N.C. (NAFIN), with the United Mexican States serving as guarantor. NAFIN will execute the program under its current organizational structure. The provisions governing program execution, financial intermediaries' participation, and eligibility of individual loans will be established in the Operating Regulations agreed by the Bank and NAFIN, in accordance with NAFIN and Bank standards and policies, Mexican laws, and practices in Mexico's financial industry.

- 3.2 The facility resources of US\$210 million are to be fully committed within 4 years running from the effective date of the loan agreement. The IDB will disburse CTF resources via reimbursements or advances according to standard practice in the case of direct sub loans, or upon signature of the contingent lines contracts by NAFIN with the developers. For this purpose, eligible contracts with end borrowers constitute eligible expenses. NAFIN commits to re-loan any pre-payment of an outstanding loan within the first seven years in eligible projects. Returns from the sub-loans will only be used by NAFIN to repay the loan or to use them to finance substantially similar projects..
- 3.3 The IDB will disburse CTF resources via a reimbursement mechanism or advancing resources according to standard practice. The volume of the advanced resources will be limited on the contract on account of the concessional element involved and the relatively long disbursement period for the overall facility. Advanced resources may cover all commitments entered into by NAFIN under contracts signed with the end borrowers.
- 3.4 NAFIN will request simultaneous (pari passu) disbursements from both IDB and CTF resources to fund the program. However, circumstances might determine the need to disburse funds in a different schedule. Attending to the need to preserve the leverage ratio at a program level, a mechanism for non-simultaneous disbursements is envisaged, where the source unable to provide its full share of the funding at any given moment on a pari passu basis will commit to a catch-up disbursement for the amount of the imbalance as soon as possible thereafter. **As a condition prior to the first disbursement of the program, the Executing Agency will provide evidence, to the Bank's satisfaction, of: (i) the formal designation of a Program Manager; and (ii) the entry into effect of the Operational Regulations agreed with the Bank.**

**B. Summary of arrangements for monitoring results**

- 3.5 **Reports.** The program will be monitored through semiannual reports prepared by the executing agency and presented to the Bank within 60 days after the close of each six-month period, measuring progress against the indicators in the Results Matrix (and all information on the impacts described in section I.C above) and on the fulfillment of the eligibility criteria at the project and program level.
- 3.6 **Evaluation.** The borrower and the Bank will conduct a midterm evaluation within 24 months from the date of the first disbursement of financing or once 50% of the loan has been committed, whichever occurs first. The evaluation will assess progress in accomplishing program objectives and outcomes based on the Results Matrix in order to identify any corrective action required. The borrower will provide the information necessary for the Bank to conduct a Project Completion Report (PCR), to be carried out six months after the disbursement conditions for the last operation of the facility have been met. Periodical monitoring meetings are also scheduled.



- 3.7 **Information.** NAFIN will compile and maintain all information, indicators and parameters, including all documentation required to prepare the PCR and any ex post assessment the Bank or CTF may wish to conduct.