



The World Bank

PRESEM Additional Finance for Energy Efficiency in Public Buildings (P165585)

Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 9-Jan-2018 | Report No: PIDISDSA23768

**BASIC INFORMATION****A. Basic Project Data**

Country Mexico	Project ID P165585	Project Name PRESEM Additional Finance for Energy Efficiency in Public Buildings	Parent Project ID (if any) P149872
Parent Project Name Mexico Municipal Energy Efficiency Project	Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date 18-Dec-2017	Estimated Board Date 28-Feb-2018
Practice Area (Lead) Energy & Extractives	Financing Instrument Investment Project Financing	Borrower(s) United Mexican States	Implementing Agency Secretaría de Energía (SENER)

Proposed Development Objective(s) Parent

The objective of the project is to promote the efficient use of energy in the Borrower's municipalities by carrying out energy efficiency investments in selected municipal sectors and contribute to strengthening the enabling environment.

Proposed Development Objective(s) Additional Financing

The objective is to promote the efficient use of energy in the Borrower's municipalities and other public facilities by carrying out EE investments in selected public sectors and to contribute to strengthening the enabling environment.

Components

Policy development and institutional strengthening
Municipal energy efficiency investments
Energy Efficiency Investments in Schools and Hospitals
Municipal Energy Efficiency Contingency Facility

Financing (in US\$, millions)

SUMMARY

Total Project Cost	50.00
Total Financing	50.00
Financing Gap	0.00

**DETAILS**

Total World Bank Group Financing	50.00
World Bank Lending	50.00
Total Non-World Bank Group and Non-Client Government Financing	0.00
Multilateral and Bilateral Financing (Concessional)	0.00

Environmental Assessment Category

Partial Assessment (B)

Decision

Y

Other Decision (as needed)

B. Introduction and Context

Country Context

Mexico's economy continues to expand at a steady though moderate rate of growth. The increase in Mexico's GDP over 2014-2016, at an annual average of 3.0 percent, was stronger than annual average growth posted during the previous two decades, 1994-2013, of 2.4 percent. Growth is expected to moderate to about 1.9 percent in 2017 and strengthen in the medium term to about 2.5 percent by 2019¹ as uncertainty with respect to NAFTA and the presidential elections (of July 2018) dissipate and gross fixed investment growth resumes. These growth rates are only about half the average growth observed in emerging market economies (5.3 percent) between 1994 and 2016.

Economic performance has been resilient in view of external shocks experienced over the past few years. During this time, Mexico's economy has experienced several external shocks, including a sharp drop in oil prices with average oil prices down by 50-60 percent, an additional reduction in the volume of oil and gas production by 6 percent annually, international financial market volatility related to a normalization of monetary policy in advanced economies, and, more recently, uncertainty over the future of U.S.-Mexico trade relations. Sensible monetary and fiscal policy responses to these shocks, within an overall sound macroeconomic policy framework including a flexible exchange rate, an inflation-targeting monetary policy framework and fiscal oversight ensuring moderate public sector deficits, has maintained

¹ Global Economic Prospects, January 2018



macroeconomic stability in recent years. Heightened fiscal consolidation efforts focus on expenditure cuts as the tool to stabilize public debt.

Climate change mitigation actions continue to be a national priority to President Peña Nieto's administration. In September 2016, Mexico ratified and formally joined the Paris Climate Agreement, under which Mexico's first "Nationally Determined Contribution" commits the country "to reduce unconditionally 25 percent of its Greenhouse Gases (GHG) and Short-Lived Climate Pollutants emissions (below business-as-usual, BAU) for the year 2030."² Its commitment could increase up to a 40 percent on condition of international support. The National Climate Change Strategy (*Estrategia Nacional de Cambio Climático*, ENCC) is the guiding policy instrument that defines a range of actions to achieve these goals, including a renewed focus on efficient energy use and the transition into the development of sustainable cities and their buildings, where many of the energy sector emissions take place.

Sectoral and Institutional Context

In December 2013, the Government of Mexico (GoM) amended the Constitution to introduce an overarching reform of the energy sector. The energy reform provided the foundation for Mexico to tackle the three challenges identified under the National Energy Strategy (ENE 2013-2027): (i) energy security; (ii) sector sustainability; and (iii) energy efficiency (EE). There are several key institutions in Mexico's EE sector, led by the Secretary of Energy (*Secretaría de Energía*, SENER). SENER is the entity responsible for planning and formulating national energy policies, and is supported by regulatory and technical bodies, such as the National Commission for the Efficient Use of Energy (*Comisión Nacional para el Uso Eficiente de la Energía*, CONUEE). CONUEE drafts the National Program for the Sustainable Use of Energy (*Programa Nacional para el Aprovechamiento Sustentable de la Energía*, PRONASE) and is tasked with promoting the sustainable use of energy in all sectors and government levels by issuing guidance and providing technical assistance. The Electricity Energy Savings Trust Fund (*Fideicomiso para el Ahorro de Energía Eléctrica*, FIDE) – a private non-profit trust fund (TF) – provides technical and financial solutions for the deployment of energy efficient solutions. To support the transition to clean and sustainable energy use, SENER set up the Energy Transition and Sustainable Energy Use Fund (*Fondo para la Transición Energética y el Aprovechamiento Sustentable de la Energía*, FOTEASE) that has become a key instrument to promote the use, development and investment of renewable energies and EE.

EE is a cost-effective way for public entities to better manage energy consumption, lessen budgetary and fiscal pressures and free resources for other pressing needs without compromising the quality and affordability of energy-related services, in addition to help limit global GHG emissions. The tightening of government budgets (at the local and federal levels) and the need to adequately serve the country's increasing population were key drivers of the Municipal Energy Efficiency Project (PRESEM), the parent project. These drivers, in addition to the budgetary implications of the ongoing need to increase access to quality health-care and secondary education in quality facilities, also call for the targeting of EE interventions in such sectors. As schools and hospitals are the public buildings with the highest energy consumption in the country³ and Mexican municipalities' highest expenses after salaries are SL, water supply, and wastewater treatment, energy efficiency improvements in these sectors would result in

² Mexico First NDC, September 21, 2016. Available online at: <http://www4.unfccc.int/ndcregistry/pages/Party.aspx?party=MEX>.

³ Centro Mario Molina, Sustainable Buildings Sectoral Study, 2012.



significant budgetary savings for public entities, which could be used to fund other priorities or expand services.

The US\$100 million Mexico Municipal Energy Efficiency Project (PRESEM, P149872)⁴ is putting in place and piloting an innovative operational and financing mechanism for EE in public facilities, which would address key barriers to it, provide a boost to the energy efficiency market, generate needed budgetary relief to public entities, enhance the quality of energy services, and contribute to meeting GHG goals. The PRESEM mechanism, consisting essentially of an EE fund operated by the Electricity Energy Savings Trust Fund, FIDE, (acting as a national Energy Service Company (ESCO) for the PRESEM Project) with Energy Savings Agreements (ESAs),⁵ is designed so the beneficiary has lower transaction costs and does not require high technical and implementation capacity to identify, design, finance and monitor savings from EE investment projects. It also overcomes the lack of capital budget and/or access to financing, including up-front capital investment.

The implementation of the ESAs intrinsically provides an enabling environment for private sector participation during project implementation. The use of ESAs, by which beneficiaries receive the benefit of the EE investment without paying the up-front cost and then pay the energy service with the energy savings through the electricity bill, is helping tackle some of the key barriers affecting the EE market, particularly in public facilities, and promote the private sector. This would help address systemic barriers, including efforts to leverage private sector involvement in the context of public installations, which have faced various hurdles, including the fact that energy savings are not retained in the federal public entities' budget for the subsequent years. The ESAs would also strongly rely on private sector energy auditors, energy services companies (ESCOs), manufacturers, and equipment installers.

As is the case for municipal services, there is a significant EE potential in public health and education facilities that can also generate important co-benefits. Energy savings potential of about 22 to 26 percent could be achieved in schools and of about 29 percent for hospitals.⁶ In addition to generating budgetary benefits, achieving these energy savings would also result in sizeable climate co-benefits in GHG emission reductions, thereby also contributing to achieving Mexico's NDC. Furthermore, improving EE in schools and hospitals can help improve comfort levels for patients, staff and students, expand services provided and create a demonstration effect on the viability of EE investments. Safety benefits (especially relevant for girls and women) can also be linked to improved lighting enabled by energy efficiency investments. In the case of schools, the EE investments can be associated with educational benefits when EE projects are linked to education programs to raise awareness and increase understanding and knowledge of clean energy and EE.

The Government of Mexico (GoM) requested the Bank's support to improve EE in schools and hospitals in March 2017. The Additional Financing would broaden the reach of the PRESEM mechanism to also benefit public schools and hospitals that are facing budgetary constraints and are in need of modernization, while demonstrating that it can effectively work in the broader public sector context and mobilize private sector

⁴ The PRESEM was approved by the World Bank's Executive Board on March 8, 2016 and became effective on September 23, 2016.

⁵ The ESAs are tri-partite and signed by SENER, FIDE and the beneficiary of the EE investment.

⁶ Figures come from energy efficiency studies commissioned by SENER in 2015. Assessments carried out by FIDE, as well as others, have confirmed the existence of this significant EE potential.



engagement. The AF would increase the development impact of the PRESEM approach, by extending it into two important additional public sectors: health and education. The AF also leverages GEF funds to complement the PRESEM mechanism through the capitalization of a contingency facility to mitigate the higher non-payment risk of municipal entities and build confidence, especially by the private sector, in the PRESEM mechanism and EE investments. The contingency facility would help ensure the achievement of the project's expected energy savings and global GHG benefits associated with EE investments in municipal facilities (covered under the parent project, PRESEM).

C. Proposed Development Objective(s)

Original PDO

The objective of the project is to promote the efficient use of energy in the Borrower's municipalities by carrying out energy efficiency investments in selected municipal sectors and contribute to strengthening the enabling environment.

Current PDO

A clarification is proposed to the PDO (by adding "public facilities" and replacing "municipal sectors" with "public sectors") so that it reads as: "to promote the efficient use of energy in the Borrower's municipalities *and other public facilities* by carrying out EE investments in selected *public* sectors and to contribute to strengthening the enabling environment."

Key Results

The proposed AF, GEF contingency facility and restructuring operation would directly benefit PRESEM project beneficiaries including the entities that would be participating in the project and those using the facilities. These would include national institutions (SENER, FIDE, CFE and CONUEE), municipal entities (municipalities and water utilities, including their citizens), education and health sector institutions (SEP, SSA and IMSS), along with the staff, students and patients from the schools and hospitals where subprojects would be implemented.

The benefits associated with the EE investments would include efficient and lower energy use, reduced energy costs, creation of public budget space (to potentially fund other priorities), and improved quality of targeted energy services as well as comfort and safety, along with climate co-benefits (i.e., an estimated 811 thousand tons of CO₂ equivalent).

D. Project Description

The proposed AF would support activities that scale-up the operational and financial mechanism of the parent project by providing: (i) a US\$50 million AF loan to finance EE investments in public schools and hospitals; and (ii) a GEF-grant to capitalize a US\$5.79 million municipal energy efficiency contingency facility to partially cover the non-payment risks associated with Mexican municipalities and municipal water utilities.

The AF loan would increase the Project's scope by financing EE investments in the health and education sectors – two key public sectors, where public expenditures represent 8.6 percent of GDP. New entities



brought under the scope of the AF loan would include the Secretary of Public Education (*Secretaría de Educación Pública*, SEP) in the public education sector; and the Secretary of Health (*Secretaría de Salud*, SSA⁷) and Mexican Social Security Institute (*Instituto Mexicano del Seguro Social*, IMSS⁸) in the public health sector.

The processing would restructure the parent project⁹ as follows:

- a. Addition of a sub-component (d) for policy development for EE in public education and health sectors under the existing Component 1 “Policy development and institutional strengthening” (total of US\$4.5 million, of which US\$3.5 million IBRD and US\$1.0 million SENER). Sub-component 1(d) aims to enhance awareness and capacity of EE, including through education and training activities aimed at staff and students, and contribute to the identification of measures needed to facilitate the realization of EE in the two sectors. The gender-sensitive activities covered under this new sub-component would include capacity building, education, knowledge creation and dissemination, as well as policy support and MRV development;
- b. Creation of “Component 3 – Investments in Schools and Hospitals” (total of US\$66.20 million, of which US\$46.375 million IBRD, US\$2.18 million SENER, and US\$17.65 million from the beneficiaries through energy service payment via the electricity bill). This new component would support cost-effective EE investments in public education and health sectors facilities, and include EE audits, structural assessments, feasibility studies, bidding documentation, and procurement of goods and works. Subprojects’ eligibility and selection criteria, implementation arrangements and overall activities to be financed would follow those under the parent project, including those being restructured;
- c. Creation of “Component 4 – Municipal Energy Efficiency Contingency Facility,” (total of US\$6.08 million, of which US\$5.79 million GEF and US\$0.29 million SENER). The contingency facility would be capitalized with GEF resources and its management costs would be covered by SENER. The contingency facility applies to Component 2 of the PRESEM and would partially cover the risk of default (partial and non-payment) from municipalities and water utilities having signed ESAs for energy efficiency investments in municipal SL, OOAs and MBs. The facility would be managed by FIDE’s Financial Operations Sub-directorate, with support from SENER and CFE;
- d. Modification of subprojects’ eligibility criteria and the amount of direct financial support from parent project, based on the experience and lessons learned from the PRESEM implementation. The minimum investment cost threshold for each subproject would now be

⁷ The SSA is the governing body at the public health policy level and oversees the country’s public health system. It is responsible for the social protection part of the country’s health system and is also the operator, through the Coordinating Commission of National Institutes of Health (CCINS) of 28 mostly specialized (Level 3) hospitals.

⁸ IMSS is a federal entity affiliated to the Ministry of Health, attending to Mexicans in salaried private (formal) employment and their families (about 50 percent of the population). Its budget represents about 45 percent of Mexico’s total annual federal allocation for healthcare expenditures.

⁹ The PRESEM Project currently consists of: Component 1 – “Policy development and institutional strengthening” (aimed at municipal entities); and Component 2 – “Municipal EE investments.”



set at US\$200,000 (compared to the previous limit of US\$1 million) as municipal buildings pilot projects have shown that potential energy savings¹⁰ are less than expected due to lower than originally expected energy consumption. In addition, the maximum direct financial support would be set at up to 70 percent, consistent for all types of subprojects. In its initial phase, the direct support towards the EE investments would help build confidence and secure buy-in from municipal and national authorities who typically lack experience with managing energy consumption and with energy efficiency investments, and who are unfamiliar with the PRESEM mechanism. The level of direct support would be reassessed at Mid-Term Review, with the aim of lowering over time to increase sustainability and replicability; and

- e. Update the results framework based on the proposed changes and the increased scope of the operation, to include “projected lifetime GHG emission reductions” as a PDO indicator, and new intermediate level indicator for EE sub-projects in public buildings (for public schools and hospitals).

E. Implementation

Institutional and Implementation Arrangements

The project would build on the institutional arrangements and within the same timeframe as the PRESEM. SENER as implementing agency will be the responsible for the environmental and social safeguards. Within SENER, all environmental and social responsibility will fall under the General Directorate of Energy Efficiency and Sustainability (*Dirección General de Eficiencia y Sustentabilidad Energética, DGESE*), which would be supported by the Responsible Project Implementing Unit for the PRESEM (*Unidad Responsable Ejecutora del Proyecto PRESEM, UREP-PRESEM*). The new Components 3 (Investments in Schools and Hospitals) and 4 (Municipal EE Contingency Facility) would be under the responsibility of SENER and operated by FIDE. SENER would also lead the implementation of new activities under Component 1 (in collaboration with CONUEE) and would prepare, launch and supervise the selection processes to develop the corresponding tasks. SENER would ensure that appropriate project implementation arrangements are in place and that all activities being developed, including those by FIDE, are done in accordance with project design and Bank procedures.

“Component 3 – Energy Efficiency Investments in Schools and Hospitals” and “Component 4 – Municipal Energy Efficiency Contingency Facility” would be operated by FIDE, in collaboration with CFE and oversight from SENER. The AF would channel the IBRD loan, GEF grant and counterpart funds through the FOTEASE.

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The Project is classified as Category B. The expected negative environmental and social impacts are relatively limited in scope and magnitude, and the mitigation measures are fairly standard.

¹⁰ Due to no cooling or heating involved, and few hours of operation. Going forward, EE investments in MB would seek to focus in areas where there is greater energy consumption.



The Environmental and Social Management Framework (ESMF), prepared by the borrower (SENER / FIDE) for the initial project to meet the OP 4.01 standards, has been updated to reflect the AF. The ESMF includes an overview of norms and legal regulations in Mexico to be complied with for the Project, an evaluation procedure to screen for, identify, evaluate and manage possible impacts and environmental and social risks which might arise during the implementation of the subprojects, identifies requirements to be included in the bidding documents and in the Contract, and regulates the contractors' monitoring and reporting on environmental standards to FIDE/SENER. The ESMF ensures that all interventions are in line with environmental health and safety (EHS) best practices and meet the requirements of environmental and occupational safety regulations established in the applicable national legislation. The updated ESMF also covers the norms and regulations for the two sectors now included in the Project and highlights issues of waste disposal (for lighting fixtures – such as mercury – and buildings – including asbestos); and health, noise and labor standards, in line with the EHS Guidelines. The ESMF would be updated if any additional technologies are considered during implementation.

Potential environmental impacts identified in the ESMF are the following: Impact to the atmosphere due to the generation of dust, gases and noise derived from the movement of materials and the operation of machinery and equipment. Impact on soil and water due to poor management of construction waste and hazardous waste, storage and transportation, and final disposal. Possible soil contamination, derived from leaks or spills of chemical products and fuel in the work area. Poor management of residue recycling (hazardous or special waste).

Safety risks for workers: damage to health and physical integrity due to lack of personal protective equipment and lack of training on the use of tools and equipment.

Consequently, the ESMF establishes mitigation measures mainly related to the control of construction waste, control of hazardous waste, control of gas emissions, dust and noise, safety signals on the site and with supervision and training for the proper use of



		personnel protective equipment, and adequate storage of chemical products. The ESMF also establishes guidelines for the attention and follow-up of complaints and suggestions from users and the overall Mexican population. The updated ESMF was consulted prior to appraisal with different teams of FIDE and SENER as well as with a variety of stakeholders during a consultation meeting at SENER on November 23, 2017. The draft was disclosed on November 17, 2017 on SENER's website, to allow comments from stakeholders outside of Mexico City. Suggestions and comments were integrated in the ESMF where applicable. The update and final version of the ESMF was published at SENER's website and by the World Bank on December 8, 2017.
Natural Habitats OP/BP 4.04	No	The activities financed by this project will not affect natural habitats as defined in Annex A of OP 4.04, as the project will only be implemented in existing infrastructure within city boundaries. It is expected that there will be no natural habitats in its vicinity.
Forests OP/BP 4.36	No	The project has not foreseen activities that will affect forests, as the project will only be implemented in existing infrastructure within city boundaries and no forest areas will be in its vicinity.
Pest Management OP 4.09	No	No activities will include pest management, procurement or application of pesticides.
Physical Cultural Resources OP/BP 4.11	Yes	Some of the buildings where the actions will be implemented (such as schools) could have cultural value (historical or artistic) and even be in a state of protection by federal or local authorities (such as INAH or INBA). Specific authorizations or provisions for infrastructure workings might be necessary. The ESMF therefore includes provisions to screen for, and manage, potential impacts on PCRs, including specific actions to meet the corresponding official dispositions and how to protect known physical cultural resources.
Indigenous Peoples OP/BP 4.10	No	It is not expected that OP 4.10 will be triggered in this Project. The sub-projects will only be implemented in existing municipal buildings, schools, hospitals, and water infrastructure, within urban areas, where there are no indigenous peoples that meet the requirements of OP 4.10 through a collective attachment to a distinct habitat or ancestral territory.
Involuntary Resettlement OP/BP 4.12	No	The Project will not finance any activity that requires the involuntary taking of lands that results in physical displacement, loss of assets, loss of access to assets or economic displacement. The subprojects to be



		supported under the Project will be carried out in existing municipal facilities, schools and hospitals infrastructure.
Safety of Dams OP/BP 4.37	No	This OP is not triggered since the project will not support the construction or rehabilitation of dams, nor will support other investments which rely on the services of existing dams.
Projects on International Waterways OP/BP 7.50	Yes	<p>The Policy regarding Projects on International Waterways has been triggered for the parent Project. Several of the municipal subprojects being considered for funding may use water from international waterways or their tributaries. In particular, eight municipalities (Tijuana, Monclova, Tuxtla Gutierrez, Ciudad Juarez, Monterrey, Hermosillo, Centro, and Reynosa) are located near the borders of Mexico, and/or may extract water from international waterways whether surface or ground water (shared with Guatemala and the United States of America) to meet the water supply needs of the Project. Given the Project's framework approach, some of the Project investments could involve water utilities in these municipalities.</p> <p>However, the operation would not finance any works and/or activities in municipalities or water and wastewater utilities located in any trans-boundary basin which exceed the original scheme, change its nature, or so alter or expand its scope and extent as to make it appear a new or different scheme. As such, the parent Project team assessed and concluded that, while OP 7.50 is triggered, the exception included in Paragraph 7(a) of OP 7.50 to the riparian notification requirements under the policy would apply.</p> <p>The exception to the notification requirement has been cleared with the Legal Department, and the memo to the RVP prepared, sent and approved on September 28, 2015 for the parent project. This was confirmed with the Legal Department in the case of the Additional Finance on November 27, 2017: the additional activities contemplated under the AF will not finance any sub-project that requires the use or contamination of international waters. Therefore, the criteria expressed in the International Waters Policy continue to be met and no new exception to the notification requirement is required.</p>
Projects in Disputed Areas OP/BP 7.60	No	The Project will not finance activities in disputed areas as defined in the policy.

**F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)**

The Project will continue to be implemented in existing municipal infrastructure in cities across the 31 States of Mexico, and thanks to the additional finance, will expand its scope to existing education and health facilities in Mexico City and across the 31 states of Mexico. The Project is expected to benefit approximately 350 schools and 15 hospitals (in addition to the more than 20 municipal sub-projects expected to be implemented with the first financing). No land acquisition will be required for project activities.

The proposed AF does not change the project location or characteristics of the activities to be implemented. So far, project implementation has progressed as planned. All agencies involved in the operation have followed World Bank safeguards and overall requirements, as established in the project's operational manual and ESMF.

The aim of the Project and the AF is to benefit the environment, reduce GHG emissions, energy consumption and benefit the overall Mexican population. Therefore, overall environmental impacts will be positive. No Category A subprojects will be supported by the parent project or the AF. Moreover, to further education, sub-component 1.d would include activities on environmental education in schools. Furthermore, to foster social inclusion, the AF considers culturally appropriate labor rules for the workers in the project sites. Another benefit of this AF will be additional lighting in schools, benefiting girls through increased security. Moreover, a special emphasis is also put on the inclusion of women. As mentioned in this PAD, women will be integrated in capacity-training and the project implementation.

G. Environmental and Social Safeguards Specialists on the Team

Arelia Jacute Lopez Castaneda, Social Safeguards Specialist

Diacono Raul Vera Hernandez, Environmental Safeguards Specialist

SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	
Natural Habitats OP/BP 4.04	No	
Forests OP/BP 4.36	No	
Pest Management OP 4.09	No	
Physical Cultural Resources OP/BP 4.11	Yes	
Indigenous Peoples OP/BP 4.10	No	
Involuntary Resettlement OP/BP 4.12	No	
Safety of Dams OP/BP 4.37	No	
Projects on International Waterways OP/BP 7.50	Yes	
Projects in Disputed Areas OP/BP 7.60	No	



KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

The proposed project has a risk Category B as it is unlikely to result in significant negative environmental and social impacts.

The Environmental and Social Management Framework (ESMF) prepared by the borrower (SENER / FIDE) for the initial project to meet the OP 4.01 standards has been updated to reflect the AF. The ESMF focuses on prevention and contains a detailed mechanism for screening as well as instruments to qualify and manage risks in subprojects, while recommended good practices will help creating awareness among contractors and producers. It includes an evaluation procedure to identify, evaluate and manage possible impacts and environmental and social risks. The ESMF identifies the environmental and social requirements for the contractors that will carry out the works, and states the requirements to be included in the bidding documents and in the Contract. Furthermore, it states the contractors' monitoring and reporting requirements on environmental standards to SENER/FIDE. The ESMF ensures that all interventions are in line with environmental health and safety (EHS) best practices and meet the requirements of environmental and occupational safety regulations established in the applicable national legislation. The updated ESMF also covers the norms and regulations for the two sectors now included in the Project and highlights issues of waste disposal (for lighting fixtures – such as mercury – and buildings – including asbestos); and health, noise and labors standards, in line with the EHS Guidelines. The ESMF establishes mitigation measures mainly related to the control of construction waste, control of hazardous waste, control of gas emissions, dust and noise, safety signals on the site and with supervision and training for the proper use of personnel protective equipment, and adequate storage of chemical products. The ESMF also establishes guidelines for the attention and follow-up of complaints and suggestions from users and the Mexican population in general.

The updated ESMF was consulted prior to appraisal with different teams of FIDE and SENER as well as with a variety of stakeholders during a consultation meeting at SENER on November, 23 2017. The draft was disclosed on November 17, 2017 on SENER's website, to allow comments from stakeholders outside of Mexico City. Suggestions and comments were integrated in the ESMF where applicable. The final version of the ESMF was published in SENER's websidte and by the Bank on December 8, 2017.

The ESMF will be updated if any additional technologies are considered during implementation.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

The project will not result in any negative - indirect or long term - environmental or social impacts in communities, neither resettlement or land acquisition. This is due to the small scale nature of the activities to be financed under this funding and their location in urban vicinities and existing infrastructure.

Rather, positive impacts are expected through capacity-building, interinstitutional strengthening, and the support of the implementation of energy efficient infrastructure. Overall, long term benefits are expected for the environment, thanks to the reduction of GHG emissions and energy consumption, which will benefit the overall Mexican population.



3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

N/A

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

Overall safeguards rating of the main project is rated Satisfactory. The Bank's project team has carried out safeguards trainings for SENER and FIDE, and the latter has appointed an experienced staff member as overall safeguard coordinator for PRESEM's investment activities (Components 2), who will also oversee the safeguards standards for the AF (Component 3).

In Mexico, the Environmental and Natural Resources Secretariat (SEMARNAT for its acronym in Spanish), the National Water Commission (CONAGUA), the National Forest Commission (CONAFOR), the Natural Protected Areas Commission (CONANP) and the Federal Environmental Protection Attorney Office (PROFEPA), amongst others, are all federal level institutions that have the responsibility for guaranteeing the adequate application of Mexican law regarding environmental impact and pollution control.

Concerning environmental legislation, Mexico has accumulated a great number of laws, regulations and statutes that span every single aspect of environmental management. Amongst these, the General Ecological Balance and Environmental Protection Law is the one that will regulate the expected subprojects to be supported by this project.

Since 1986 the General Ecological Equilibrium and Environmental Protection Law has established a mandatory Environmental Impact Assessment for every project, whether privately or publicly financed. The procedure is detailed and explained in the Rulebook for such Law concerning Environmental Impact and its correlation with the wide existing regulations, and the guidelines for the development of environmental impact assessment carried out in Mexico, are consistent with World Bank operational directives for Environmental Assessment (Safeguard 4.01).

The monitoring of the prerequisites on environmental impacts resolutions are guaranteed by the Federal Environmental Protection Agency (PROFEPA) which depends directly upon the SEMARNAT and enforces the environmental legislation for which it has specialized offices in every state. PROFEPA is a 20-year-old organization with a noble and effective entrustment, but with very limited resources for operation. There is however, a risk of non-compliance with local legislation and/or Bank 4.01 safeguard policy, due to lack of knowledge of applicable legislation by the beneficiaries. This risk will be mitigated with the use of the ESMF which includes a clear overview on norms and regulations, as well as a screening process for subprojects.

The implementing agency, SENER, has capacity to manage the Bank's social and environmental safeguards issues, as it is currently implementing a large number of infrastructure- intensive Projects in the energy sector, such as solar farms for remote communities, as well as wind farms. In addition, FIDE (that will execute Components 2, 3 and 4) also has extensive experience with environmental safeguards policies, as it has been developing energy efficiency actions since its creation, including the Bank-financed Efficient Lighting and Appliances Project, (P106424), which included replacing and proper environmental management of more than 2 million refrigerators and air conditioning equipment. In addition, both have dealt satisfactorily with all safeguard-related issues during the implementation of the original PRESEM project.

The Bank will provide continued training to key personnel at SENER and FIDE, in the proper application of the safeguards instruments (several trainings were already held last year). Additional environmental and/or social consultants - whose qualifications should be acceptable to the Bank - will be hired as needed for the Project.



Personnel would be required to fulfill the following tasks:

- screen potential subprojects for environmental and social risks and impacts;
- ensure that subprojects proponents (municipalities, utilities) carry out an environmental and social assessment for their respective subproject; and
- verify that subprojects comply with local laws and are consistent with Bank Safeguards Policies.

The safeguards instrument is an Environmental and Social Management Framework (ESMF). The ESMF has been prepared by SENER, with support from World Bank environmental and social specialists. In practical terms, the ESMF is a screening tool to help key personnel to identify which projects to exclude, and for those to be approved with some perceived environmental and or social risks, the know how to manage them according to national legislation and World Bank Safeguards.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

Key stakeholders for this project are SENER, FIDE, municipalities, water utilities, SEP for schools, and SSA/IMSS for hospitals, electricity providers, private sector, National Water Commission, the Federal Commission of Electricity (CFE), and others.

For this AF and its updated ESMF, consultations were held November 27, 2017 at SENER, with attendance of key stakeholders including SENER, FIDE, representatives from the education and the health sector (SEP, Salud and IMSS), and the National Water Commission. Comments and suggestions, also those received in writing, were integrated in the ESMF where applicable. The document was also published on SENER's website on November 17, 2017, prior to the public consultation, to allow stakeholders outside of Mexico City to provide comments. The final ESMF was published in SENER's website and by the Bank on December 8, 2017.

B. Disclosure Requirements (N.B. The sections below appear only if corresponding safeguard policy is triggered)**Environmental Assessment/Audit/Management Plan/Other**

Date of receipt by the Bank

Date of submission for disclosure

For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors

"In country" Disclosure**C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting) (N.B. The sections below appear only if corresponding safeguard policy is triggered)**

**CONTACT POINT****World Bank**

Janina Andrea Franco Salazar
Senior Energy Specialist

Borrower/Client/Recipient

United Mexican States
Ana Daniela Torres
Directora de Organismos Financieros Internacionales

Implementing Agencies

Secretaría de Energía (SENER)
Santiago Creuheras Díaz
Director General de Eficiencia y Sustentabilidad Energética

**FOR MORE INFORMATION CONTACT**

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: <http://www.worldbank.org/projects>

APPROVAL

Task Team Leader(s):	Janina Andrea Franco Salazar
----------------------	------------------------------

Approved By

Safeguards Advisor:		
Practice Manager/Manager:		
Country Director:		