

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PERU

**PROGRAM FOR SUSTAINABLE AND EFFICIENT MANAGEMENT
OF ENERGY RESOURCES IN PERU
(PROSEMER)**

(PE-X1007)

NONREIMBURSABLE FINANCING PROPOSAL

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ELECTRONIC LINKS	
1.	Annual work plan (AWP) http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36657480
2.	Complete procurement plan http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36657966
3.	Results monitoring and evaluation arrangements http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36657246

OTHER REFERENCES	
1.	Economic assessment http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36657484
2.	“Elaboración de la nueva matriz energética sostenible y evaluación ambiental estratégica, como instrumentos de planificación” [Preparation of the new sustainable energy matrix and strategic environmental assessment as planning tools] http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36661149
3.	Código Marco de Buen Gobierno Corporativo de Empresas del Estado [Framework Code of Good Corporate Governance for Public Enterprises] of the Corporación Fondo Nacional de Financiamiento de la Actividad Empresarial del Estado [Corporation of the National Finance Fund for Public Entrepreneurship] (FONAFE) http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36690782
4.	Programmatic operation, “Development of a New Sustainable Energy Matrix Program III (NSEM III)” (loan PE-L1054) http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36321083
5.	Request for technical cooperation, PROSEMER (MEM) http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36704208
6.	Request for technical cooperation, PROSEMER (MEF) http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=36704270

ABBREVIATIONS

AWP	Annual work plan
CIDA	Canadian International Development Agency
COES	Comité de Operación Económica del Sistema [System Economic Operations Committee]
CSP	Comité de Seguimiento del Programa [Program monitoring committee]
DGEE	Dirección General de Eficiencia Energética [Energy Efficiency Division]
FONAFE	Corporación Fondo Nacional de Financiamiento de la Actividad Empresarial del Estado [Corporation of the National Finance Fund for Public Entrepreneurship]
MBTU	Million British thermal units
MEF	Ministry of the Economy and Finance
MEM	Ministry of Energy and Mines
NSEM	Nueva Matriz Energética Sostenible [New Sustainable Energy Matrix]
OSINERGMIN	Organismo Supervisor de la Inversión en Energía y Minería [Investment Supervision Agency for Energy and Mines]
PROSEMER	Program for Sustainable and Efficient Management of Energy Resources in Peru
SEIN	Sistema Eléctrico Interconectado Nacional [National Interconnected Electricity System]
SEPA	Procurement Plan Execution System
TC	Technical cooperation
UCPS	Unidad de Coordinación de Préstamos Sectoriales [Sector Loan Coordination Unit]

PROJECT SUMMARY

PERU

PROGRAM FOR SUSTAINABLE AND EFFICIENT MANAGEMENT OF ENERGY RESOURCES IN PERU (PROSEMER) (PE-X1007)

Financial terms and conditions		
Beneficiary: Republic of Peru		
Executing agency: Ministry of the Economy and Finance (MEF), acting through the Sector Loan Coordination Unit (UCPS).		
Disbursement period:	5 years and 6 months	
Execution period:	5 years	
Currency:	Canadian dollars (C\$)	
Source¹	Amount (C\$)	Percentage
IDB. Nonreimbursable resources from the Canadian International Development Agency (CIDA) ²	19 million	100 %
Total	19 million	100%
Project at a Glance		
Project objectives/ description: The general objective of the Program for Sustainable and Efficient Management of Energy Resources in Peru (PROSEMER) is to contribute to sound and sustainable management of Peru's energy resources by the various Peruvian government entities involved in this sector, as well as by other key stakeholders, strengthening the interaction and coordination among them with the ultimate goal of promoting sustainable economic growth. The specific objectives are to: (i) strengthen the capacity of institutions to engage in a regular and inclusive exercise of systematic and integrated long-term energy planning; (ii) improve efficiency and transparency in the management of the principal public enterprises in the energy sector; and (iii) strengthen the institutional capacity and regulatory framework for the promotion of energy projects, particularly those involving renewable energy and energy saving and efficiency.		
Conditions precedent to the first disbursement: (i) the program Operating Manual has entered into effect on terms agreed upon with the Bank (see paragraph 3.3); (ii) the program technical coordinator has been selected (see paragraph 3.2).		
Exceptions to Bank policies: None		
Project consistent with country strategy: <div style="float: right; text-align: right;"> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> </div>		
Project qualifies as: <div style="display: flex; justify-content: space-between; padding: 0 10px;"> SEQ <input type="checkbox"/> PTI <input type="checkbox"/> Sector <input type="checkbox"/> Geographic Headcount <input type="checkbox"/> </div>		
Procurements: See procurement plan.		

¹ These resources are made available contingent upon approval of the operation by the Board of Executive Directors of the Bank, and signature of the corresponding Administrative Agreement with the Canadian International Development Agency (CIDA).

² Under the Project Specific Grant (PSG) modality.

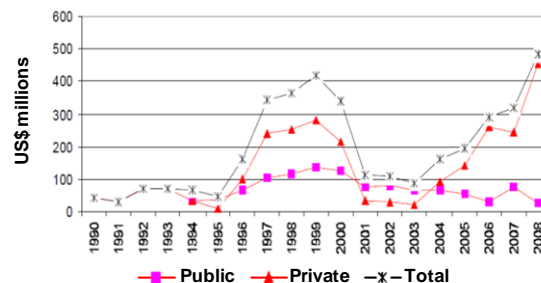
I. GENERAL RATIONALE AND OBJECTIVES

A. Background and general context of the energy sector

1.1 Peru's energy sector has passed through several stages of development. In the 1970s and 1980s, it had a high level of government intervention. The debt crisis that began in 1982 made it difficult to finance energy projects, which created a lag in the investments required for sector sustainability. In the electric power subsector, the pricing system largely reflected circumstantial criteria, without providing for adequate recovery of investments. When the situation became critical in the 1990s, the government embarked upon a process of structural reforms centered mainly on promoting private participation in the energy sector.

1.2 The development model that emerged from the reforms promoted private investment in infrastructure (see Figure 1),³ and the government's role in the energy sector was limited to regulation and promotion of the necessary private investment. The reform process sought to introduce competitive

Evolution of Investments in Generation (1990 - 2008)



mechanisms to improve efficiency, create incentives to attract investment to the sector within a stable environment, and adapt the pricing structure to guarantee sustainable service delivery and expansion, overcoming the problems arising from the previous model.

1.3 The reform divided the electricity subsector into separate generation, transmission, and distribution activities, and launched a process to privatize the public enterprises operating in the sector. This has met with varying degrees of success, because some of the privatized companies subsequently had to be returned to the government. Since 2000, natural gas has gradually been incorporated as a primary resource for electricity generation.

1.4 The gas pipeline linking the Camisea field to the central coast began operating in 2004. The prices of natural gas from this field (US\$1.00 per million British Thermal Units (MBTU) for electric power generators and US\$1.80 per MBTU for other customers), combined with smaller capital requirements, meant that investments in new generating capacity were aimed almost exclusively at building simple-cycle gas-fired thermal power plants around Lima. Since the mid-1990s, alongside measures to promote the use of natural gas, the government has gradually abandoned its efforts to develop the country's water resources for electric power generation, putting their operation into private hands.

³ Source: Caldero and Servén (2008).

B. Rationale of the intervention

- 1.5 **Problem to be addressed.** Over the years, this sector model has demonstrated the need for an institutionalized practice of integrated, long-term planning⁴ that limits the use of isolated public-policy measures to remedy and address the problems and dysfunctions arising in sector development. Instead of energy sector development in an environment of planning for the long haul, a short-term view has led to suboptimal sector growth whose long-term sustainability is at risk (see Section VIII, Economic Assessment).
- 1.6 During that time period, sector analysis and planning were incorporated into the budget area of the Ministry of Energy and Mines (MEM),⁵ suggesting a more administrative than strategic approach. With the creation of the Energy Efficiency Division (DGEE)⁶ within the MEM in 2010, the government sought to favor its planning role, which was seen as essential to the work of the different agencies and levels of government, in order to facilitate investment decision-making by private and public enterprises and energy policy-making.
- 1.7 Performing this function has been an enormous challenge for the DGEE, because it has no dedicated team of professionals properly trained for energy planning in support of policy decisions.⁷ The government faces constraints in performing its functions, related to its relatively sparse financial and human resources. These constraints have been identified by the Bank,⁸ as well as in comparative evaluations by international forums.⁹ The MEM also faces this problem, serving the mining and energy sectors with a headcount of just 630.

⁴ For several years Peru's Ministry of Energy and Mines (MEM) used to produce independent electricity and hydrocarbon benchmark plans. These suffered from the lack of a systemic vision, inadequate coordination among subsectors and government agencies with jurisdiction in this area, and scant participation by the various government levels. The only part of the system governed by binding plans is the expansion of the electricity transmission system, which is the responsibility of the System Economic Operations Committee (COES).

⁵ General Office of Planning and Budget (OGPP), responsible for conducting, coordinating, supervising, and evaluating the processes of planning, budgeting, investment programming, rationalization, regional coordination, and international cooperation at the MEM.

⁶ The DGEE's functions include energy planning; coordination, supervision, and development of the compilation of energy sector statistics; and preparing and maintaining the corresponding database in coordination with other MEM line departments.

⁷ The DGEE has a small number of specialists mostly originating from the former General Office of Budget and Planning, where the planning function took a very different approach in supporting the preparation of the ministry budget. Additionally, the DGEE faces a number of limitations for the effective coordination of this function, both within the MEM and with other institutions and levels of government with responsibilities in this area (Ministry of the Environment, Ministry of Agriculture, and subnational governments).

⁸ IDB: Country strategy with Peru 2007-2011.

⁹ "For Peru to continue to grow in a sustained fashion and fulfill its competitive potential going forward, a number of weaknesses will need to be tackled. This will include improving the quality of the institutional environment (90th), upgrading the country's poor infrastructure (97th) and educational standards and access...." (*Global Competitiveness Report 2009-2010*, World Economic Forum).

- 1.8 The problems arising from the lack of comprehensive planning in the sector, identified in several studies by the Government of Peru¹⁰ and the Bank,¹¹ include the following:¹² (i) a reduction in the share of hydropower in the energy generation matrix;¹³ (ii) the development of less efficient simple-cycle gas-fired thermal power plants;¹⁴ (iii) a reduction in the margin of capacity reserve to levels well below those recommended for hydro-thermal systems such as Peru's; (iv) geographic concentration of new thermal power generation capacity in the center of the country, with consequent congestion of the transmission network and early saturation of the capacity of Peru's main gas pipeline; (v) limited addition of renewable sources in the renewable energy resource matrix; (vi) little consideration of energy efficiency issues; and (vii) limited capacity to pursue large energy projects as a result of weaknesses in planning, institutional coordination, and coordination among the numerous public and private participants; and the moderate level of expertise available for project formulation, management, monitoring, and evaluation.
- 1.9 Despite the process of liberalization and promotion of private participation embarked upon after the 1990s reform, public enterprises continue to make a significant contribution in the sector.¹⁵
- 1.10 The current regulatory framework governing public enterprises in Peru's energy sector suffers from a number of limitations and shortcomings that are impairing their performance and operation, and undermining their competitiveness and

¹⁰ Oversight Agency for Energy and Mining Investment (OSINERGMIN) (2008), "Apuntes para el plan energético nacional: electricidad e hidrocarburos" [Notes for the National Energy Plan: electricity and hydrocarbons].

¹¹ Eleodoro Mayorga (2010), "Diagnóstico y evaluación sobre los desafíos y propuestas estratégicas para el desarrollo del sector energético del Perú" [Diagnostic assessment and evaluation of strategic challenges and proposals for development of Peru's energy sector]. Consultant study under the Bank's NSEM project.

¹² Other problems identified in sector studies are: (i) Peru's lag with respect to its neighbors, in terms of its electrification index and the uneven development of electric power infrastructure from region to region of the country; and (ii) the proliferation of socioenvironmental conflicts with communities and regions affected by the implementation of energy projects (difficulties in obtaining the social permit).

¹³ In 2010, hydropower accounted for 56% of total electric power generation, versus 81% in 2000. In contrast, thermal generation represented 44% of the total in 2010, versus just 19% in 2000.

¹⁴ In 2009, just four of Peru's 31 gas-fired power plants were combined cycle.

¹⁵ In the electricity subsector, public enterprises own about 30% of installed capacity connected to the National Interconnected Electricity System (SEIN) and serve about 50% of users of the public electricity service.¹⁵ In the hydrocarbon subsector, the public oil company Petroperú has a market share of around 50% of the refining and sale of petroleum products.

development.¹⁶ Despite government efforts to develop and implement a Framework Code of Good Corporate Governance for public enterprises, the results have been uneven, and this has stood in the way of the government's desire to facilitate the entry of private investors as shareholders of the sector's public enterprises.

- 1.11 This makes it necessary to support government efforts to improve the regulatory framework under which the sector's public enterprises operate, and to strengthen their corporate governance. This will help to ensure their competitiveness and long-term sustainability, and create an environment that builds confidence among potential investors, encouraging them to participate in privatization processes launched by the government.
- 1.12 **Proposed solution.** This project will support specific actions to solve the problems identified and enable the measures proposed in the programmatic operation to support the development of a New Sustainable Energy Matrix (NSEM) in Peru. It will also address the weaknesses identified at sector agencies for the sound, sustainable management of energy resources, as a key factor in optimizing the country's energy potential consistent with the sector policy,¹⁷ which calls for "a diversified energy matrix, with emphasis on renewable sources and energy efficiency;" "greater efficiency in the production chain and energy use"; and "strengthening of energy sector institutions."
- 1.13 The design of the intervention will draw on experiences and know-how acquired in successful processes to strengthen institutional structures in the energy sector, both in Peru and elsewhere in the region,¹⁸ in response to crises or for crisis prevention. In the Bank's work with the government in the energy sector since 2008 to prepare and implement the NSEM programmatic operation, the need has been identified for institutions with the training and coordination to manage the sector and set long-term objectives and targets. The Government of Peru, and specifically the MEM, has gained experience from implementing the Project to Reform Peru's Mining Sector (PERCAN II), which with the objective "to improve the contribution of the

¹⁶ For example, current regulations require companies to finance their investments through access to budget resources and/or long-term financing with a government guarantee. The restrictions on access to resources of this kind are forcing the energy sector's public enterprises often to finance their investments using more costly short-term commercial credit, which curtails the development of investment projects enormously, adversely affects the average cost of borrowed resources, and undermines the financial return on their investments.

¹⁷ In 2010, Supreme Decree 064-2010 EM established the 2010-2040 National Energy Policy, which sets nine policy objectives and provides various strategic guidelines for achieving each one.

¹⁸ In 2001, Brazil suffered a major energy crisis that culminated in an electricity rationing plan and gave rise to debate on the course being followed by the electric power sector. In institutional terms, the management model was adapted by creating an institution responsible for long-term electric power sector planning, the Empresa de Investigação Energética [Energy Research Enterprise] (EPE), and another to evaluate the security of the electricity supply on an ongoing basis, the Comitê de Monitoramento do Setor Elétrico [Electricity Sector Monitoring Committee] (CMSE). Source: Câmara de Comercialização de Energia Elétrica [Electricity Marketing Board] (CCEE).

mining sector to the sustainable development of the Peruvian mining regions”¹⁹ supported capacity-building for the MEM, regional governments and other key sector stakeholders, with the aim of making Peruvian mining activities more efficient at the national, regional, and local levels. The support for PERCAN included access to administrative know-how and capabilities, technical assistance and consulting services, and strengthening of management processes in four strategic areas: social management, environmental issues, information technology, and regionalization.

- 1.14 The IDB’s relationship with Peru’s electric power sector has also been strengthened through its support for: (i) the Camisea project (loan 1472/OC-PE); (ii) financing for the Peru LNG project (1946B/OC-PE); and (iii) the Program for Institutional Strengthening and Environmental and Social Management Support for the Camisea Gas Project (1441/OC-PE). The IDB has also been supporting activities to promote rational energy use and energy efficiency under technical cooperation (TC) operation ATN/JF-7040-PE and the MIF TC operation ATN/ME-10711-PE.
- 1.15 This program has been designed under the programmatic operation to support development of the NSEM,²⁰ initially agreed upon between the Government of Peru and the Bank in 2009, building on the knowledge and experience gained in its design and execution,²¹ as well as the experience of the Canadian International Development Agency (CIDA) in supporting the MEM (see paragraph 1.13). The IDB has also marshaled US\$1.78 million in TC resources²² to support development of the NSEM.
- 1.16 The Program for Sustainable and Efficient Management of Energy Resources in Peru (PROSEMER) will support the objectives of the NSEM program and contribute to its expected outcomes. PROSEMER will address the problems described through an institutional training and strengthening program in the energy sector, which will help generate and consolidate institutional expertise and know-how in long-term energy planning, mechanisms to promote renewable energies and energy efficiency, and in relation to the formulation, management,

¹⁹ The PERCAN project (www.percan.ca) began on 19 February 2003, and received C\$9.2 million in financing through a bilateral funding arrangement with CIDA.

²⁰ Thus far, three loan operations have been implemented under the NSEM framework for a total of US\$200 million, and a fourth loan for US\$30 million is expected to be processed and approved in 2012.

²¹ The lessons learned from the NMES program reflect the need for coordination among agencies and institutions to align objectives, avoid overlap, weigh sector interests, and anticipate and resolve conflicts. The need was identified to devote human and physical resources to long-term issues, independent of the requirements of short-term crises. From the operational standpoint, developments in electric power auctions conducted by the MEM demonstrated the importance of the gradual capitalization of experience in the implementation of policies and strategies to mitigate risks and optimize outcomes.

²² These TC operations include the Support for Peru’s Energy Strategy (ATN/OC-11010-PE), financed by the Infrastructure Fund (InfraFund), and the Strategic Plan for Sustainable Energy and Bioenergy (PEESB) (ATN/OC-10984-PE), financed with resources of the Sustainable Energy and Climate Change Initiative (SECCI). Annex IV shows the progress of work at the sector level in Peru.

monitoring, and evaluation of energy projects. In doing this it will support the efforts of the Government of Peru to institute good corporate governance practices²³ at public enterprises in the energy sector. The program's costs (see paragraph 2.1) were estimated on the basis of the PERCAN program, considering the large number of institutions involved, the scopes identified in preparation of the PROSEMER program, and the contribution of the NSEM sector dialogue.

- 1.17 The intended benefits from PROSEMER implementation include: (i) strengthening of the contribution of Peru's energy sector to the country's sustainable economic growth; (ii) public-sector capacity-building and enhanced coordination and interaction of the various government entities among themselves and with other key stakeholders, engage in a regular and systematic exercise of integrated energy planning, creating an institutional structure with responsibility in this area; (iii) improve efficiency and transparency in the management of the principal public enterprises in the energy sector; and (iv) enhance skills and knowledge at the various levels of government to formulate, manage, monitor, and evaluate the impacts of energy projects, mainly in renewable energy and energy efficiency, strengthening the regulatory and institutional framework.
- 1.18 **The Bank's country strategy.** PROSEMER is aligned with the Bank's country strategy with Peru, which seeks to foster competitiveness and "deepen reform of the State and improve public governance," contributing to "higher quality in public expenditure" and the development of "infrastructure (transportation, energy)."²⁴ PROSEMER is consistent with the Bank's institutional priorities as described in the report on the Ninth General Capital Increase (GCI-9, document AB-2764) in assisting borrowers in the areas of climate change mitigation and adaptation, sustainable energy (including renewable energy and energy efficiency), and environmental sustainability. In addition, the design of PROSEMER has adhered closely to the Bank's gender equity policy, including specific indicators in the project's Results Matrix for the diagnostic assessment, monitoring, and evaluation of the state of the sector in terms of gender equity.

C. Objectives and expected outcomes

- 1.19 The **general objective** of the Program for Sustainable and Efficient Management of Energy Resources in Peru (PROSEMER) is to contribute to sound and sustainable management of Peru's energy resources by the various Peruvian government entities involved in this sector, as well as by other key stakeholders, strengthening the interaction and coordination among them with the ultimate goal of promoting sustainable economic growth. The **specific objectives** are to: (i) strengthen the capacity of institutions to engage in a regular and inclusive exercise of systematic and integrated long-term energy planning; (ii) improve efficiency and transparency

²³ Definition of corporate governance: The system by which companies are directed and controlled; the framework that specifies the distribution of rights and responsibilities of the various participants and stakeholder groups, so as to foster performance in efficient pursuit of their objectives.

²⁴ IDB: Country strategy with Peru 2007-2011.

in the management of public enterprises in the energy sector;²⁵ and (iii) strengthen the institutional capacity and regulatory framework for the promotion of energy projects,²⁶ particularly those involving renewable energy and energy efficiency.

1.20 The operation includes the following components:

1.21 **Component I. Energy planning.** This component seeks to: (i) improve skills and knowledge among personnel at the various government agencies with responsibilities in the sector planning process in the methodological, technical, economic, and socioenvironmental aspects of energy planning; (ii) enhance coordination of the various government entities affected by sector planning among themselves and with other key stakeholders of the private sector and civil society; and (iii) increase capacity to administer and manage the flow of sector information by the various institutions and agents involved in planning. The activities under this component include: (i) diagnostic assessment of capacity shortfalls at the various national and subnational government bodies and agencies in the methodological, technical, economic, and socioenvironmental aspects of planning; (ii) design and implementation of a training plan to reduce the shortfalls identified; (iii) development of knowledge-management tools for planning; (iv) support for the development of postgraduate courses²⁷ specifically targeted to planning, and the promotion of internships and scholarships, interaction and cooperation with universities and research centers to promote training and practical experience in this area for professional staff at the national and subnational levels.

1.22 **Component II. Public entrepreneurship in the energy sector.** This component seeks to: (i) strengthen the corporate governance of public enterprises; (ii) improve the corporate governance knowledge and skills of technical staff at Corporación Fondo Nacional de Financiamiento de la Actividad Empresarial del Estado [Corporation of the National Finance Fund for Public Entrepreneurship] (FONAFE) and at public enterprises in the energy sector. The key activities will be: (i) evaluation of the corporate governance structure of the public enterprises in the energy sector, focusing on processes and mechanisms for internal control, both operational and financial; (ii) analysis of the accessibility and quality of the information provided to stakeholder groups regarding policies, management systems, outcomes of activities in economic, environmental and social terms, and gender policies and their application in those areas; (iii) technical assistance to

²⁵ See electronic link, “Código Marco de Buen Gobierno Corporativo de Empresas del Estado [Framework Code of Good Corporate Governance for Public Enterprises, FONAFE.” There are 18 public enterprises in the power sector, 17 of which are FONAFE members; only Petroperú is outside FONAFE’s orbit.

²⁶ The PROSAMER program calls for capacity-building to promote the development of a portfolio of energy projects that can be pursued by the private sector or, as the case may be, the public sector (for example, rural electrification projects for which private investors have shown little interest thus far).

²⁷ The terms and conditions for the support to be provided for master’s and postgraduate courses depend on the outcomes of the consulting engagement to assess capacity shortfalls and prepare the training plan to address them.

deepen the development and implementation of the Framework Code of Good Corporate Governance for Public Enterprises,²⁸ commissioned by FONAFE, and to design and execute courses and training events on good corporate governance, including the preparation of manuals and handbooks; and (iv) development of tools to facilitate the institutionalization of capabilities,²⁹ supporting the ongoing training of staff at the PROSAMER beneficiary public enterprises.

- 1.23 **Component III. Promotion of renewable energies and energy efficiency.** This component seeks to: (i) improve the regulatory and institutional framework for promoting renewable energies and energy efficiency; (ii) strengthen the skills and knowledge of specialists at the different levels of the Peruvian government to participate in the development of renewable energy and energy efficiency projects and programs. The activities under this component include: (i) an evaluation of the impact of the current regulatory and institutional framework for promoting renewable energies and energy efficiency, identifying constraints and enhancements to the model that could encourage the penetration of renewable sources in the matrix and the implementation of energy efficiency measures; (ii) support to the government in disseminating information and raising awareness of renewable technologies and energy conservation; (iii) improvements to the institutional and regulatory framework;³⁰ and (iv) identification of capacity shortfalls at the various levels of government in the formulation, management, monitoring, and evaluation of projects, as well as the design and development of training tools to reduce the shortfalls identified and institutionalize capabilities.

II. COST AND FINANCING

- 2.1 The estimated total cost of the project is C\$19 million, to be financed through a nonreimbursable contribution from the Canadian International Development Agency (CIDA).³¹ Table 1 shows the indicative budget with a breakdown by component.

²⁸ See electronic link, “Código Marco de Buen Gobierno Corporativo de Empresas del Estado [Framework Code of Good Corporate Governance for Public Enterprises], FONAFE.”

²⁹ Institutionalization of capabilities means the development of tools and mechanisms (to be determined in the training plan to be developed under this component) so that any staff turnover at the PROSAMER beneficiary public enterprises (particularly specialists who participated in the corporate governance training activities) will have less of an impact on achieving the program outcomes.

³⁰ The technical cooperation operation “Support for the New Sustainable Energy Matrix, NSEM III” (PE-T1105), approved on 11 November 2011, includes a consulting engagement to evaluate the procedures instituted by the Government of Peru for promoting the penetration of hydropower generation and renewable energies. The findings of the consulting engagement, now under way, will provide the basis for initial identification of potential improvements to the institutional and regulatory framework.

³¹ The project resources will be supplied by CIDA under an Administration Agreement entered into with the IDB. The current framework cooperation agreement with the donor will apply, as will the “Operational Procedures for Grant Cofinancing Contributions Administered by the Bank (COFAB)” (document CC-5732). Consequently, the Bank will manage the CIDA resources for this project and charge the administration fees established in the respective framework cooperation agreement.

Table 1. PROSEMER Cost Table

Components	C\$000s	US\$000s³²
Component I. Energy planning	9,770.00	9,403.73
Improve skills and knowledge among government personnel in energy planning	5,700.00	5,486.31
Enhance coordination of government agencies with planning responsibilities among themselves and with other key stakeholders of the private sector and civil society	2,070.00	1,992.40
Increase capacity to administer and manage the flow of sector information	2,000.00	1,925.02
Component II. Public entrepreneurship in the energy sector	3,000.00	2,887.53
Strengthen the corporate governance capacities of public enterprises.	2,000.00	1,925.02
Improve the corporate governance knowledge and skills of workers at public enterprises	1,000.00	962.51
Component III. Renewable energies and energy efficiency	4,130.00	3,975.17
Improve the regulatory and institutional framework for promoting renewable energies and energy efficiency	2,200.00	2,117.52
Strengthen the skills and knowledge of government workers to participate in the development of renewable energy and energy efficiency projects and programs	1,930.00	1,857.65
Recruitment costs of staff to support PROSEMER management and administration	900.00	866.26
External audit, evaluation, and monitoring	250.00	240.63
Administration fee (5% of contribution)³³	950.00	914.38
Project total	19,000.00	18,287.70

³² Amount calculated by conversion of the CIDA contribution of C\$19 million at the C\$/US\$ exchange rate of 1.03895 prevailing on 6 October 2011, obtained from the Bank's Finance Department (http://finance/Exchange_Rates_Results.asp?FK_CURR_CD=CAD+%28CANADIAN+DOLLAR+%29&BEGINDT=&ENDDT=&PageSize=All&B1=Search+for+Exchange+Rates&Sort=).

³³ This fee will be deducted from the first disbursement of the project contribution by CIDA. The fee will be charged in U.S. dollars, applying the exchange rate prevailing on the disbursement date.

III. BENEFICIARY, EXECUTING AGENCY, AND IMPLEMENTATION ARRANGEMENTS

A. Beneficiary and executing agency³⁴

- 3.1 The beneficiary of the Program for Sustainable and Efficient Management of Energy Resources in Peru (PROSEMER) will be the Republic of Peru. The executing agency will be the Ministry of the Economy and Finance (MEF), acting through the Sector Loan Coordination Unit (UCPS). The Bank will monitor project development and implementation. Technical assistance for the program will be provided mainly by the Ministry of Energy and Mines (MEM), the Investment Supervision Agency for Energy and Mines (OSINERGMIN), and Corporación Fondo Nacional de Financiamiento de la Actividad Empresarial del Estado [Corporation of the National Finance Fund for Public Entrepreneurship] (FONAFE). The PROSEMER program's beneficiaries will be national and subnational public institutions with responsibilities in the energy sector, as well as public enterprises in that sector.

B. Implementation arrangements

- 3.2 To support the sector technical aspects of the work of the fiduciary and procurement specialists to be employed by the executing agency for the PROSEMER program, the executing agency will recruit a backup technical team, chargeable against the program resources. This will consist of the following at least: (i) a coordinator responsible for technical implementation of the PROSEMER program, who will directly oversee and coordinate the activities to be conducted under its three components, as well as the performance of the team; and (ii) a specialist technical manager in energy planning. Both will devote their full time to the PROSEMER program. The team will be supplemented with occasional or half-time support from individual consultants, when the specific nature of the matter so requires. The program technical coordinator will be selected as a condition precedent to the first disbursement.
- 3.3 **Program Operating Manual.** PROSEMER will be governed by a program Operating Manual, establishing principally the organizational structure, operating procedures, and responsibilities of the executing agency, as well as those of the Program Monitoring Committee (CSP) consisting of the Bank, the Canadian

³⁴ Ministerial Resolution 478-2011-MEM/DM, published in the newspaper *El Peruano* on 3 November 2011, provides for establishment of the Ad Hoc Commission on Energy and Mining Planning. This commission will conduct analyses, studies, coordination, and other activities necessary to submit a comprehensive proposal to the Office of the Minister for the creation of a high-level body within the MEM organizational structure, tasked with medium- and long-term strategic planning activities for mining and energy development. The commission will have a duration of six months. If a high-level body is ultimately implemented with the capabilities and expertise for long-term energy planning, there will be an option to evaluate the execution capacity of that institutional structure. If found to be satisfactory, and no significant risks are foreseen, formalities can be completed to transfer full or partial responsibility for execution of the PROSEMER program to that body.

International Development Agency (CIDA), MEM, FONAFE, and the technical working committees.³⁵ The Operating Manual includes the following sections: (i) description of the PROSEMER program, its purpose, objectives, components, and eligibility criteria; (ii) structure and organization of the executing agency, CSP, and technical working committees, including their organization chart, duties, responsibilities, and procedures; (iii) description of the stages of the PROSEMER implementation cycle, with flowcharts; (iv) terms and conditions of the financing, rules for competitive bidding, procurement, and financial management; (v) definition of program monitoring and evaluation arrangements; and (vi) procedures for the selection and contracting of the audit of the PROSEMER program. The annexes to the program Operating Manual will include, among other things, the qualifications and terms of reference for recruitment of professionals for project execution. The program Operating Manual will have entered into effect on terms previously agreed upon with the Bank as a condition precedent to the first disbursement.

- 3.4 PROSEMER activities will be conducted on the basis of annual work plans (AWPs) that identify the specific tasks to be financed in pursuit of the program objectives and outcomes, along with an itemized budget and timetable for each one. The executive agency's technical team will prepare the AWP with assistance mainly from the MEM, OSINERGMIN, and FONAFE as members of the technical committees providing support and backup for PROSEMER implementation.

C. Execution period and disbursement schedule

- 3.5 The PROSEMER program will have an execution period of five years, and a disbursement period of five and a half years.
- 3.6 The contribution will be disbursed through periodic advances of funds, based on the program's six-month cash flow projections, broken down by investment categories, outputs, and/or activities to be executed during that period. For new disbursements, the executing agency must account for at least 80% of the funds already advanced. Disbursements will be subject to ex post review, except as otherwise indicated on the basis of the risk analysis conducted by the audit firm and/or the IDB. The executing agency will hold the PROSEMER program funds in a special account, and store project documentation in a secure location.

D. Procurement

- 3.7 Procurements financed in whole or part with PROSEMER funds will adhere to the Bank's procurement policies (documents GN-2349-9 and GN-2350-9). The procurement plan contains an itemized breakdown of project procurements and the

³⁵ Two technical working groups or committees will be formed, comprising the technical team of the executing agency and MEM specialists in the one case (to provide context and monitor the activities under PROSEMER program components I and III), and FONAFE specialists in the other case (to conduct the activities under component II). The executing agency will have to enter into participation agreements for the PROSEMER program with the MEM, OSINERGMIN, and FONAFE governing the manner in which these entities will work together in program execution.

review modality applicable to each contract, given their technical complexity and the capacity of the executing agency. The procurement plan will be updated annually, or as necessary or requested by the Bank. The executing agency will publish the procurement plan in the Procurement Plan Execution System (SEPA).

IV. MONITORING AND EVALUATION

- 4.1 **PROSEMER monitoring.** The Program Monitoring Committee (CSP) will be responsible for monitoring and supervision of PROSEMER program implementation progress. The CSP will comprise representatives of the IDB, CIDA, MEM, and FONAFE, and will meet at least once every six months to evaluate the program's progress, both in operational terms and in terms of budget execution and management. The CSP may invite representatives of PROSEMER beneficiary institutions to attend its meetings, to hear and discuss their views on the program's progress and performance. As the executing agency will serve as technical secretariat of the CSP, the PROSEMER coordinator hired with program funds will serve as CSP secretary.
- 4.2 The executing agency will deliver regular reports (quarterly and annual) and evidence of fulfillment of the PROSEMER conditions, describing progress made as established in the AWP's and the outcomes of the planned activities, as well as other reports as requested by the IDB. The executing agency will also gather all information necessary to support the monitoring function. The PROSEMER budget provides for the use of program resources to support implementation of the monitoring plan and evaluation mechanism (see electronic link, "Results monitoring and evaluation arrangements").
- 4.3 **Evaluation.** Within two months after 50% of the PROSEMER resources have been committed, an independent midterm evaluation will be commissioned to verify compliance in general program execution and progress toward the targets set in the program Results Matrix. Within two months after 95% of the PROSEMER resources have been disbursed, a final evaluation will be conducted by an independent consultant. The consultant will report on the outcomes of program execution and the degree to which the PROSEMER program targets have been met, and will compile and analyze the lessons learned from the program. In addition, the executing agency will be responsible for gathering all information necessary to support the program evaluation process. The PROSEMER program budget has resources earmarked for an independent consulting engagement to conduct the evaluations (see electronic link, "Results monitoring and evaluation arrangements").
- 4.4 **Audit.** The executing agency will deliver the PROSEMER program's audited financial statements annually during the execution period. The program's external audit will be performed by an independent audit firm acceptable to the Bank. The contracting and scope of these audits will adhere to Bank policies and will be chargeable against the PROSEMER program resources.

V. PROJECT RISKS

- 5.1 **Operational risks: pace of execution of the PROSEMER program.** The sector technical capacity of the executing agency needs strengthening, in order to ensure that it does not affect the pace of execution of activities and accomplishment of the program's objectives. To mitigate this risk, program resources will be used to engage technical specialists who will support the fiduciary and procurement staff recruited by the UCPS, with qualifications that meet the project's requirements and needs. Determination of qualifications and selection of the technical specialists will be closely supervised by the project team. These professionals may also receive temporary support from individual consultants, when the matters are specific to areas of technical knowledge outside the professional qualifications of the members of the technical team.
- 5.2 **Fiduciary risks.** As a consequence of the risk evaluation performed during the design stage, the program's fiduciary risk was rated as low, given the operational capacity and experience of the UCPS (see electronic link, "Risk matrix").
- 5.3 **Development risks: The importance given to the scope and objectives of the PROSEMER program by the Government of Peru.** Failure by the executing agency and the institutions most closely involved and providing technical support for program execution (MEM, OSINERGMIN, and FONAFE) to marshal the required support and resources would adversely affect implementation of the PROSEMER program. The Bank has been in ongoing contact with the MEM, OSINERGMIN, and FONAFE authorities, and more recently with those of the MEF, with a view to identifying priorities and areas of opportunity for targeting by the program. It has been evident that the MEF, MEM, and the OSINERGMIN and FONAFE authorities place great importance on long-term energy planning; diversification of the energy matrix and promotion of renewable energies and a culture of energy efficiency as a mechanism of social, economic, and environmental improvement; and the strengthening of public enterprises in the energy sector. These are the central pillars of the PROSEMER program.
- 5.4 **Engagement and coordination of the various PROSEMER beneficiaries (central government agencies, subnational governments, and public enterprises) in the conduct of the program.** The experience gained by the Bank since 2009 in implementing the NSEM programmatic operation has revealed the need for strengthened interagency coordination among the government agencies involved in execution of the PROSEMER program. PROSEMER will marshal resources to create avenues for cooperation and coordination among the institutions with responsibilities in the energy sector (MEM, MINAM, MEF, MINAG, subnational governments, etc.), supporting their involvement in program execution. The engagement and coordination of beneficiaries will be strengthened through participation agreements reflecting the terms and conditions for their involvement.
- 5.5 **Sustainability of PROSEMER objectives after the program has ended.** The high turnover among specialists, and the limited ability to recruit qualified

professionals of government agencies with responsibilities in the energy sector could undermine training and/or technical assistance efforts aimed strengthening a medium- and long-term perspective. The PROSEMER beneficiary central government agencies, subnational governments and public enterprises in the energy sector must be provided with the human and physical resources necessary to fully ensure the development and continuity of the lines of action supported by the program. The design and planning of the training activities, as well as the training tools instituted, must work to institutionalize knowledge within the various organizations.

- 5.6 **Expectations of counterparties, private sector actors, and civil society with regard to outcomes and impacts.** Given the heavy involvement of stakeholders and interested parties in PROSEMER program execution, there is a risk that the project may create expectations among them beyond the objectives and outcomes established for the program. To mitigate this risk, a fluid dialogue and sound communication strategy should be maintained with the representatives of key stakeholders, to properly manage the expectations and aspirations of the participants.
- 5.7 The overall risk of the PROSEMER program has been rated as medium.

VI. ENVIRONMENTAL AND SOCIAL SAFEGUARDS

- 6.1 **Environmental and social considerations.** Given its nature, the PROSEMER program will generate no adverse direct or indirect socioenvironmental impacts. On the contrary, the activities financed under the program should enable the Government of Peru and subnational governments to improve their strategic planning systems in the energy sector in methodological, technical, economic, social and environmental terms, and to enhance the regulatory and institutional framework for promoting renewable energies and energy efficiency. In view of this, the PROSEMER program has been classified as category “C” under the Bank’s Environment and Safeguards Compliance Policy (Operational Policy OP-703).

VII. ECONOMIC ASSESSMENT

- 7.1 The PROSEMER program will contribute to optimization of the economic outcome of energy sector management in Peru through institutional capacity-building and strengthened coordination among agents and stakeholders (see paragraph 1.5). Thus, as part of the program to support the National Sustainable Energy Matrix, the government is working through the MEM and its sector agencies to weigh sustainable energy matrix options that maximize the economic benefit for Peru. The analysis of completed studies identified the potential benefits scenarios other than the base case (i.e. “business as usual”), which represents a continuation of the trend and actions that certainly would have occurred without the government’s active intervention to change the course of events. Bringing about those better scenarios in line with the PROSEMER program objective will require complex interaction

among subsectors, as well as diversified contributions by agencies responsible for policy-making, regulation, enforcement, and other functions. Thus, the Government of Peru needs the capabilities and tools to meet this challenge, in order to make the desired energy matrix viable. The economic boon of the outcomes that could be achieved is analyzed in the “Economic assessment” (see electronic link), which, in particular, shows that two of the proposed scenarios would achieve a highly positive economic outcome for the country with internal rates of return of 15.2% and 13.8%, reflected in highly positive present values in relation to the base scenario.

Development Effectiveness Matrix				
Summary				
I. Strategic Alignment				
1. IDB Strategic Development Objectives		Aligned		
Lending Program	(i) Lending to support climate chance initiatives, renewable energy and environmental sustainability.			
Regional Development Goals	(i) Percent of households with electricity, and (ii) Stabilization of CO2 equivalent emissions (metric tons per habitant).			
Bank Output Contribution (as defined in Results Framework of IDB-9)	Percentage of power generation capacity from low-carbon sources over total generation capacity funded by IDB.			
2. Country Strategy Development Objectives		Aligned		
Country Strategy Results Matrix	GN-2472-2	Improve the quality, quantity and reliability of the supply of energy to make it efficient, sustainable, and compatible with the promotion of private sector investment.		
Country Program Results Matrix				
Relevance of this project to country development challenges (If not aligned to country strategy or country program)				
II. Development Outcomes - Evaluability		Highly Evaluable	Weight	Maximum Score
		8.2		10
3. Evidence-based Assessment & Solution		9.2	25%	10
4. Ex ante Economic Analysis		8.5	25%	10
5. Monitoring and Evaluation		5.1	25%	10
6. Risks & Mitigation Monitoring Matrix		10.0	25%	10
Overall risks rate = magnitude of risks*likelihood		Low		
Environmental & social risk classification		C		
III. IDB's Role - Additionality				
The project relies on the use of country systems (VPC/PDP criteria)				
The project uses another country system different from the ones above for implementing the program				
The IDB's involvement promotes improvements of the intended beneficiaries and/or public sector entity in the following dimensions:				
Gender Equality				
Labor				
Environment	Yes	The measures taken to promote EE and RE through the project will affect the environment in the medium term.		
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project	Yes	Support has been given to the government through various TC to promote the rational use of energy. These TC's include ATN/JF-7040-PE y ATN/ME-10711-PE. In addition, the operation ATN/OC-12989-PE is being utilized.		
The ex-post impact evaluation of the project will produce evidence to close knowledge gaps in the sector that were identified in the project document and/or in the evaluation plan.				

The objective of this operation is to improve the use of Peru's energy resources by helping to increase the coordination, strategic planning and focus on sustainability of the entities involved in the energy sector with the final objective of fostering sustainable energy growth.

The POD presents the problems to be addressed by the project as well as the factors causing them, all of which is based on empirical evidence. The magnitudes of the problems are provided and the proposed interventions are clearly linked to the problems identified in the diagnosis. The results matrix has vertical logic and the impacts, outcomes and outputs are clearly presented. It is not clear how the outcome indicators included in the matrix will be able to measure if the expected results have been achieved. For example, the indicator "advisor/director of the public enterprises assigned based on the improved CMBGC" does not measure if the management of the public firms have increased their efficiency and transparency." All the output indicators are SMART. However, not all the impact and outcome indicators are SMART since they are not specific. For example, for the indicator "office of energy planning with qualified staff, " how will it be known if the staff is qualified given that "qualified" is not specifically defined? The output indicators have baselines and targets. All outcome indicators have baselines and some have targets. On the impact side not all indicators have baselines and no targets are presented. All indicators have sources of information. With regards to the data for the PMR, the outputs have annual targets but the project costs are not broken down by outputs as are presented in the results matrix.

The project was analyzed using a cost-benefit analysis. The analysis compared the net benefits to be generated by two sustainable energy matrixes versus an energy matrix without the project. The economic benefits are clearly spelled out. On the cost side, the analysis does not show that the costs used are economic costs and it is not clear if they included the operation and maintenance costs of the system. The assumptions are spelled out and a sensitivity analysis was undertaken.

The project has a monitoring and evaluation plan. The operation will be evaluated using a reflexive methodology. It will also be evaluated using an ex-post cost-benefit analysis, however, the plan does not indicate how this analysis will be undertaken.

Finally, the risk matrix presents the projects risks which are rated for magnitude and probability. Mitigation measures are presented for each risk as well as indicators to monitor its implementation.

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RESULTS MATRIX

IMPACT/OUTCOME INDICATORS MATRIX			
<p>Program objective: The general objective of the PROSEMER program is to contribute to sound and sustainable management of Peru's energy resources by the various Peruvian government entities involved in this sector, as well as by other key stakeholders, strengthening the interaction and coordination among them with the ultimate goal of promoting sustainable economic growth. The specific objectives are to: (i) strengthen the capacity of institutions to engage in a regular and inclusive exercise of systematic and integrated long-term energy planning; (ii) improve efficiency and transparency in the management of the principal public enterprises in the energy sector; and (iii) strengthen the institutional capacity and regulatory framework for the promotion of energy projects, particularly those involving renewable energy and energy saving and efficiency.</p>			
IMPACT INDICATORS			
Indicators	Base level	Source/Entity responsible for the data	Entity responsible for the indicator
Congestion level on transmission lines of the National Interconnected Electricity System (SEIN)	PD	Transmission plan and updates. System Economic Operations Committee (COES).	Executing agency
Generation reserve margin	19%	Expansion Plan for Generation. Ministry of Energy and Mines (MEM).	Executing agency
Share of hydroelectric, thermal, and renewables in the SEIN (installed effective power by energy source)	2010: Hydro (47.93%); thermal (41.09%); residual (8.47%); coal (2.20%); other (0.31%)	SEIN operational statistics. COES.	Executing agency
Installed generation capacity using renewable energy sources under the improved institutional and regulatory framework (MW)	0	Expansion Plan for Generation. MEM.	Executing agency
Spread between the average cost of private financing secured by PROSEMER beneficiary public enterprises and the monetary policy benchmarks rate set by the Central Reserve Bank of Peru (BCRP)	PD	Financial statements of enterprises and BCRP website (http://www.bcrp.gob.pe/). Public enterprises in the energy sector.	Executing agency

OUTCOME INDICATORS					
Indicators by component	Base level	Target	Frequency of measurement	Source/Entity responsible for the data	Entity responsible for the indicator
Component I. Energy planning Strengthen the capacity of institutions to engage in a regular and inclusive exercise of systematic and integrated long-term energy planning.					
Energy planning unit established and staffed with qualified personnel	0	1	Midterm and final evaluation	Ministerial or similar resolution. MEM	Executing agency
Number of specialists trained and distributed among national, regional, and local agencies and relevant stakeholders (with a gender breakdown)	0	300	Midterm and final evaluation	List of participants. Executing agency.	
Influence on policy decision-making in the sector of formal coordination mechanisms (processes and bodies) for sector planning among central government agencies, subnational governments, private sector actors, and civil society	0	PD	Midterm and final evaluation	Resolutions, decrees. MEM/OSINERGMIN/MINAN/MINAG	
Component II. Public entrepreneurship in the energy sector Strengthen the corporate governance of public enterprises to make them more efficient and transparent.					
Number of public enterprises in the energy sector listed on the stock market, or in which private investors have an equity stake, following approval of the enhanced Framework Code of Good Corporate Governance for Public Enterprises in the energy sector	2	5	Midterm and final evaluation	Resolutions, memorandums, board minutes. Public enterprises in the energy sector/FONAFE.	Executing agency
Board members, senior executive of public enterprises appointed according to the enhanced Framework Code of Good Corporate Governance for Public Enterprises in the energy sector	0	PD	Midterm and final evaluation	Resolutions, memorandums, board minutes. Public enterprises in the energy sector/FONAFE.	
Component III. Promotion of renewable energies and energy efficiency Strengthen the institutional capacity and regulatory framework for the promotion of energy projects, particularly those involving renewable energies and energy efficiency.					
Regulatory instruments approved based on the diagnostic-proposal to improve the regulatory and institutional framework for promoting renewable energies and energy efficiency.	0	PD	Midterm and final evaluation	Resolutions, decrees. MEM/OSINERGMIN/MINAN /MINAG	Executing agency
Number of staff trained and distributed among national, regional, and local agencies (with a gender breakdown).	0	110	Midterm and final evaluation	List of participants. Executing agency.	

OUTPUT INDICATORS		
Indicators by component	Frequency of measurement	Source/Entity responsible for the data
Component I. Energy planning Strengthen the capacity of institutions to engage in a regular and inclusive exercise of systematic and integrated long-term energy planning		
Diagnostic assessment of shortfalls in energy planning capacity.	Annual	Final report of consulting engagement. Executing agency.
Number of dissemination workshops held to reach consensus on the findings of the assessment	Annual	List of participants. Executing agency.
Training and institutional strengthening plan prepared to reduce the capacity shortfalls identified	Annual	Final report of consulting engagement. Executing agency.
Number of training courses and seminars held	Annual	List of participants. Executing agency.
Methodologies, handbooks, and manuals produced	Annual	Outputs of consulting engagement. Executing agency.
Number of coordination mechanisms between agencies and government levels established	Annual	Minutes of meetings. Executing agency.
Network of experts in energy planning in operation	Annual	Final output of consulting engagement to design and implement the experts network. Executing agency
Planning skills matrix prepared	Annual	Final report of consulting engagement. Executing agency.
Information platform prepared and in operation	Annual	Final output of consulting engagement to design and implement the information system. Executing agency.
Component II. Public entrepreneurship in the energy sector Strengthen the corporate governance of public enterprises to make them more efficient and transparent.		
Assessment of corporate governance at public enterprises in the energy sector	Annual	Final report of consulting engagement. Executing agency.
Study to enhance the Framework Code of Good Corporate Governance for Public Enterprises	Annual	Final report of consulting engagement. Executing agency.
Number of public enterprises in the energy sector that have approved implementation of the enhanced Framework Code of Good Corporate Governance for Public Enterprises	Annual	Final report of consulting engagement. FONAFE.
Number of training courses and seminars held	Annual	List of participants. Executing agency.
Number of handbooks and manuals produced	Annual	List of participants. Executing agency.

OUTPUT INDICATORS		
Indicators by component	Frequency of measurement	Source/Entity responsible for the data
Component III. Promotion of renewable energies and energy efficiency Strengthen the institutional capacity and regulatory framework for the promotion of energy projects, particularly those involving renewable energies and energy efficiency.		
Assessment of the institutional and regulatory framework to improve instruments for the promotion of renewable energies and energy efficiency	Annual	Final report of consulting engagement. Executing agency.
Number of dissemination and awareness workshops held for the authorities and stakeholders to reach agreement on the findings of the assessment	Annual	List of participants.. Executing agency.
Number of technical studies to support implementation of improvements identified in the diagnostic assessment	Annual	Consulting engagements final report. Executing agency.
Diagnostic assessment of capacity shortfalls in the formulation, management, monitoring, and evaluation of energy projects, particularly those involving renewable energies and energy efficiency	Annual	Final report of consulting engagement. Executing agency.
Number of training courses and seminars held	Annual	List of participants. Executing agency.
Methodologies, handbooks, and manuals produced	Annual	Outputs of consulting engagements. Executing agency.
Network of experts in the formulation, management, monitoring, and evaluation of projects in operation. Annual	Annual	Final output of the consulting engagement for the design and implementation of the network of experts. Executing agency.

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FIDUCIARY ARRANGEMENTS

I. Executive Summary

Fiduciary management was evaluated through an institutional analysis of the Sector Loan Coordination Unit (UCPS), meetings with UCPS staff, risk analysis based on the Bank's experience working with the UCPS, and ongoing meetings with the project team. In addition, the current UCPS operating manual for operations management was reviewed.

Based on the evaluation of the UCPS, fiduciary agreements have been prepared for both procurement and financial management that will be applied for program execution.

The fiduciary agreements have also reflected the fiduciary context of the country; the key points are summarized in the following paragraphs.

II. Fiduciary context of the UCPS

The executing agency for fiduciary activities will be the UCPS, which has a division with experienced staff responsible for project execution and fiduciary management. The Bank's current supervision shows that the UCPS possesses much experience in managing projects financed by multilateral agencies and has received ongoing support from the Bank in recent years. It is currently executing five loans and several technical cooperation programs.

III. Fiduciary risk evaluation and mitigation measures

The risk evaluation performed during the design stage rated the overall risk of the program as medium. Fiduciary risk is considered low, given the UCPS's operational capacity and experience. See annex, "Risk matrix."

IV. Considerations for the technical cooperation agreement

1. Conditions precedent to the first disbursement: Operating manual approved by the Bank.
2. Exchange rate for accounting: Conversion rate.
3. Annual audited financial statements with specific terms of reference.
4. Clear definition of key posts.
5. The two-envelope procedure will not be permitted for the procurement of goods, works, or nonconsulting services.
6. As a condition for the submission of offers or proposals and/or for contract award, offerors or consultants will not be required: (i) to be registered in Peru;

- (ii) to have a representative in Peru; and (iii) to be associated, or have subcontracts, with Peruvian suppliers, contractors, or consultants.
7. Requests for bids, bidding documents, minutes of bid openings, requests for expression of interest, and summaries of key information of bid and proposal evaluation reports for all goods, nonconsulting services, and consulting services, as applicable, will be published on the website of the State Procurement Supervisory Agency (OSCE), in a manner acceptable to the Bank.
 8. A substantial difference between the value of qualifying offers and the reference value will not be grounds for invalidation of the bidding process, unless an investigation of the causes of the excess cost shows, to the Bank's satisfaction, that the reference value is correct and realistic.
 9. The borrower will publish the procurement plan in the Procurement Plan Execution System (SEPA) and update it at least every six months, or as requested by the Bank, to reflect the actual requirements of program execution and the progress achieved.

V. Agreements and Requirements for Procurement Execution

1. Procurement execution

Procurement processes will be conducted in accordance with documents GN-2349-9 and GN-2350-9.

- a. **Procurement of works, goods, and nonconsulting services:** Contracts for works, goods, and nonconsulting services³⁶ generated under the program and subject to international competitive bidding (ICB) will be procured using the standard bidding documents (SBDs) issued by the Bank. Bidding processes subject to national competitive bidding (NCB) will be conducted using the national bidding documents agreed upon with the Bank (or satisfactory to the Bank if not yet agreed upon). Review of technical specifications during the preparation of procurement processes will be the responsibility of the program's sector specialist.
- b. **Selection and contracting of consultants:** Consulting service contracts generated under the program will be executed using the standard request for proposals (SRP) issued by, or agreed upon with, the Bank, regardless of the contract amount (or satisfactory to the Bank if not yet agreed upon). Review of the terms of reference for consulting service contracts will be the responsibility of the program's sector specialist.
 - b1 Selection of individual consultants: The selection will compare the qualifications of at least three candidates for the job. If circumstances so require, notices may be placed in the local or international press inviting qualified consultants to submit their résumés.

³⁶ According to the Bank's procurement policies, nonconsulting services are treated as goods.

2. Table of Threshold Amounts (US\$000s)

Works			Goods ³⁷			Consulting services	
International competitive bidding	National competitive bidding	Shopping	International competitive bidding	National competitive bidding	Shopping	International publicity – consulting services	100% national shortlist
≥ 3,000,000	< 3,000,000 and ≥ 250,000	< 250,000	≥ 250,000	< 250,000 and ≥ 50,000	< 50,000	≥ 200,000	< 350,000

The prior review thresholds are based the type of procurement risk associated with the program, which is rated as low. The prior review thresholds for procurement processes conducted by the UCPS are listed below.

Prior Review Threshold ³⁸		
Works	Goods ³⁹	Consulting services
Processes for more than US\$1 million, the first process of each method regardless of amount, and all direct contracting.	Processes for more than US\$150,000, the first process in each procurement method regardless of amount, and all direct contracting.	Processes for more than US\$100,000, the first process of each selection method regardless of amount, and all direct contracting.

c. **Domestic preference:** No margins of domestic preference will be applicable.

3. Initial Procurement Plan

Activity	Procurement method	Estimated date	Estimated amount (C\$000s)
GOODS			
Procurement of information technology hardware (computers, printers, etc.)	Shopping	2nd sem. 2012	50
Software licenses and information technology platforms	Shopping/NCB	1st sem. 2013	300

³⁷ Includes nonconsulting services.

³⁸ The Bank may alter the prior review thresholds unilaterally during program execution, if it deems that the fiduciary context of the UCPS and/or the country has changed. The Bank will notify the UCPS of any such decision, and the UCPS will adjust the procurement plan to reflect the new execution conditions.

³⁹ Includes nonconsulting services.

Activity	Procurement method	Estimated date	Estimated amount (C\$000s)
CONSULTING SERVICES			
Recruitment of staff for program administration and management			
Program coordinator	NICQ	I Sem 2012	320
Energy planning specialist	NICQ	I Sem 2012	140
Fiduciary and procurement specialists for program administration and execution	NICQ	I Sem 2012	440
Component I. Energy planning			
Consulting engagement to establish an energy planning skills matrix, defining responsibilities and lines of authority for the creation of mechanisms for coordination among government institutions and levels	QCBS	I Sem 2013	1,200
Consulting engagement to conduct a diagnostic assessment of the training needs of sector specialists	QCBS	I Sem 2013	850
Consulting engagement to design the training plan	QCBS	II Sem 2013	800
Consulting engagement to create training tools for planning, design of specific courses, support for internships/scholarships, and others	QCBS	II Sem 2014	2,450
Consulting engagement for the design and implementation of a sector information platform to support planning	QCBS	I Sem 2013	1,700
Implementation of the training plan, support for interagency coordination mechanisms. Workshops and training	QCS	I Sem 2014	2,470
Component II. Public entrepreneurship in the energy sector			
Consulting engagement to conduct a diagnostic assessment of corporate governance at public enterprises in the energy sector, identifying shortfalls and opportunities for improvement	QCBS	II Sem 2012	900
Consulting engagement to deepen the design and implementation of the Framework Code of Good Corporate Governance for Public Enterprises	QCBS	I Sem 2013	1,100
Consulting engagement to prepare manuals and handbooks for continuous learning	QCBS	II Sem 2014	200
Workshops and training on corporate governance for staff of FONAFE and public enterprises in the energy sector	QCS	II Sem 2013	800
Component III. Promotion of renewable energies and energy efficiency			
Consulting engagement to evaluate the impact of the regulatory and institutional context, identifying opportunities for improvement	QCBS	II Sem 2012	400
Technical consulting engagement to support implementation of regulatory and institutional	QCBS	II Sem 2013	600

Activity	Procurement method	Estimated date	Estimated amount (C\$000s)
improvements detected			
Consulting engagement to analyze capacity shortfalls at the various levels of government in the formulation, management, monitoring, and evaluation of renewable energies and energy efficiency programs/projects	QCBS	I Sem 2013	750
Design of the training plan	QCBS	II Sem 2013	700
Consulting engagement to prepare training tools, manuals, and handbooks for continuous learning	QCBS	I Sem 2015	650
Implementation of the procurement plan. Workshops and training	QCS	II Sem 2013	980
NONCONSULTING SERVICES			
Audits	QCBS	I Sem 2013	250

To view the procurement plan [click here](#).

4. Procurement supervision

In view of the project's low level of fiduciary risk, one inspection visit will be scheduled per year. The UCPS's capacity and knowledge of Bank procurement procedures was also taken into account in establishing the supervision arrangements. The frequency of ex post reviews will be annual. Ex post reviews by the Bank will cover at least one in every 10 contracts signed, and at least two physical inspections of goods procured.

5. Records and files

The records will be kept at the UCPS offices and under appropriate security.

VI. Financial management agreements and requirements

1. Programming and budget

The preparation of annual programming and budget will be based on instructions issued by the National Public Budget Directorate (DNPP) of the Ministry of the Economy and Finance (MEF).

The Investment Policy Division (DGPI), in coordination with the Planning and Budget Division (DGPP), will formulate the annual budget for the program, based on its disbursement schedule, and will identify and agree upon priorities for external financing under the program in question. The budget will operate under the SIAF integrated financial management system. The budget allocated to the program will be approved by the MEF and reflected in the SIAF system,

conducting the activities committed under the program. The Bank will reimburse eligible program expenditures in accordance with the budget line items established and executed by the program. The UCPS will have budgetary autonomy for program execution.

2. Accounting and information systems

The project will use the SIAF's integrated project execution module, which offers transparency and specific controls in budget execution. This module makes it possible to keep program accounts and issue financial statements, including disbursement requests, exchange rate control, program financial statements, and other reports required by the Bank. Accounting will be on a cash basis, in accordance with international accounting standards and following the directives issued by the National Public Accounts Directorate (DNCP).

Financial statements will be required for project supervision and will include the statement of cash received and disbursements made, statement of cumulative investments, with the corresponding notes to these financial statements, a report on the reasonableness of procurement processes, supporting documentation for expenditures, and evaluation of the internal control system. These reports will be delivered on an annual basis.

3. Disbursements and cash flow

The project will use the country's cash management system following the directives issued by the National Borrowing and Treasury Directorate (DNET). Expenditures will be subject to the budget and financial execution process, with data recorded in the SIAF project execution module at each stage of the expenditure formalization process (commitment, liquidation, authorization and payment), pursuant to the applicable laws. The country's cash management system does not yet fully employ the single treasury account system, so separate accounts are being used.

Disbursements will be made according to the project's actual liquidity needs (financial planning). The executing agency will submit the disbursement request to the Bank with a schedule of expenditures for annual work plan (AWP) activities over the next 180 days. At least 80% of the disbursements must be justified in the following request, using the expenditure statement and investment statement.

The executing agency will deliver the project's initial financial plan to the Bank. The initial financial plan will reflect the disbursements scheduled for the entire program and can be updated periodically. The executing agency will open a bank account exclusively to manage the IDB resources.

Supporting documentation for expenditures will be subject to ex post review by Bank staff and/or consultants and by the external auditors. Reports will be issued for each ex post review visit.

The exchange rate used will be the conversion rate, i.e., the exchange rate prevailing on the date on which U.S. dollars are converted into Peruvian soles.

Expenditures deemed ineligible by the Bank will be reimbursed with the local contribution or other resources, depending on the nature of the ineligibility.

4. Internal control and internal audit

The control environment, control activities, communication and reporting, and monitoring of UCPS activities will be governed by national laws and regulations, based on the Act Establishing the National Control System.

The MEF's internal audit function consists of the Internal Audit Office (OCI), staffed by employees of the Office of the Comptroller General of the Republic (CGR). The OCI's scope of work encompasses projects generally, and it will receive a copy of external audit reports through the Government Audit System (SAGU), designed by the CGR, on which basis inspection actions can be undertaken depending on time and resource availability.

5. External control and reports

As apex agency of the National Control System, the CGR will outsource the external audit of the projects to independent audit firms acceptable to the Bank. Eligible independent audit firms are evaluated periodically by the Bank to ensure that they are of high quality.

The CGR authorizes the UCPS to select and contract the independent audit firm each year, in accordance with country procurement policies, for all projects in the UCPS portfolio.

Given the size of the technical cooperation operation, the following will be required:

1. Selection of a Tier I or II independent audit firm;
2. Presentation of audited financial statements on an annual basis.

The cost of the external audits will be covered with MEF resources.

6. Financial supervision plan

Supervision activity	Supervision Plan			
	Nature and scope	Frequency	Entity in charge	
			Bank	Third party
OPERATIONAL	Review of progress of AWP activities vs. disbursement level	Annual	Fiduciary and technical team	
FINANCIAL	Ex post review of disbursements	Annual	Fiduciary team	External auditor
	Financial audit	Annual		External auditor
	Review of disbursement requests and attached reports	Periodic	Fiduciary team	
	Analysis of internal controls and control environment	Annual	Fiduciary team	
COMPLIANCE	Delivery of financial statements	Annual	Fiduciary and technical team	External auditor
	Conditions precedent to the first disbursement	Once	Fiduciary and technical team	

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/12

Perú. ATN/CF-_____-PE. Nonreimbursable Financing for the Republic of Perú
Program for Efficient and Sustainable Management of Peru's
Energy Resources (PROSEMER)

The Board of Executive Directors

RESOLVES:

1. That the President of the Bank, or such representative as he shall designate, is authorized in the name and on behalf of the Bank, to enter into such agreement or agreements as may be necessary with the Republic of Perú, and to adopt such other measures as may be pertinent for the execution of a program for efficient and sustainable management of Peru's energy resources (PROSEMER), referred to in document AT-_____.
2. That up to the sum of CAD\$19,000,000 is authorized for the purposes of this resolution chargeable to the resources granted by the Canadian International Development Agency (CIDA), in accordance with the Administrative Agreement to be entered into between the CIDA and the Bank.
3. That the above-mentioned sum is to be provided on a nonreimbursable basis.
4. That the authorization granted in paragraph 1 above will be effective only once the Bank and CIDA have entered into the Administrative Agreement referred to in paragraph 2 of this resolution.

(Adopted on __ _____ 2012)