

## Model 16

# Energy Efficiency Milan Covenant of Mayors

## Province of Milano – Italy

<b>OWNERSHIP</b>	<b>PUBLIC</b>
<b>Program authority</b>	Province of Milano
<b>Program Delivery unit</b>	Dedicated Project Implementation Unit
<b>Implementation Model</b>	Energy Performance Contracting (EPC)
<b>Operating Services</b>	Marketer Assessor Aggregator Facilitator Financial advisor
<b>Projects Financed</b>	Energy Efficiency (building retrofits)
<b>Ambition/targets</b>	Investment of 90M € in energy efficiency measures
<b>Beneficiaries</b>	Municipalities in the province of Milan adhering to the Covenant of Mayors initiative
<b>Funding Vehicle</b>	ESCOs Financial institutions
<b>Financial Instruments</b>	EPC Financing

## Summary

“Energy Efficiency Milan Covenant of Mayors” is a pilot project implemented by the Province of Milan in 2009 in order to improve the energy performance of a group of public buildings in the province and to achieve significant primary energy use reductions based on the principle of Energy Performance Contracting (EPC). The programme is designed to facilitate and finance energy efficiency retrofits for mainly public school buildings located in selected small municipalities (<30.000 inhabitants) in the province of Milan and the Municipality of Milan participating in the Covenant of Mayors initiative.

The programme found its origin in a big scale energy audit programme, funded by Cariplo -a philanthropic banking foundation-, carried out between 2006 and 2008 in the region of Lombardy with the purpose to stimulate the implementation of energy efficiency measures in smaller municipalities. The foundation concluded afterwards that the energy audits programme had not resulted in a significant uptake of investments in energy efficiency, basically due to constrained budgets, reduced or absence of borrowing capacity and the lack of technical capacity to develop projects.

As a Territorial Coordinator of the Covenant of Mayors, representing many small municipalities, the province of Milan’s ambition with this programme is to meet the energy reduction targets set out by

the Covenant, i.e. by 2020 reach 20% reduction in greenhouse gas emissions relative to 1990 levels (reduction of 9.000 tonnes CO<sub>2</sub>), 20% share of renewable energy generation, and 20% reduction in primary energy use relative to projections.

Besides the significant reduction of final energy consumption of the building stock of small municipalities it wants to foster a mature ESCO (Energy Services Company) market able to offer EPC with guaranteed results and increase the know-how of the municipalities in governance matters related to energy efficiencies.

Based on a joint study with the EIB a potential investment of 90M € in energy efficiency measures was identified and could be realised and to that purpose a Project Implementation Unit (PIU) was set-up in 2009. From the 90M€ the EIB was willing to make 65M € available to the ESCOs in the form of loans through an intermediary commercial bank in the region.

The PIU manages the whole implementation process of the programme, from promotion of the programme and analysis and assessment of the projects to public tendering, contract negotiation, works implementation follow up and results reporting. It acts thus as programme marketer, assessor, aggregator, facilitator and financial advisor.

As of today a total amount of 13M € of investments in energy efficiency measures have been awarded covering 98 buildings in 16 municipalities.

Though the initial investment ambition of 90M€ has not been achieved this programme has had the merit of being the first in Italy covering investments in energy efficiency measures solely based on EPC contracting on regional level. The project has upscaled the dissemination and recognition of EPC models in Italy, providing guidance to other public administrations involved in other ESCO projects.

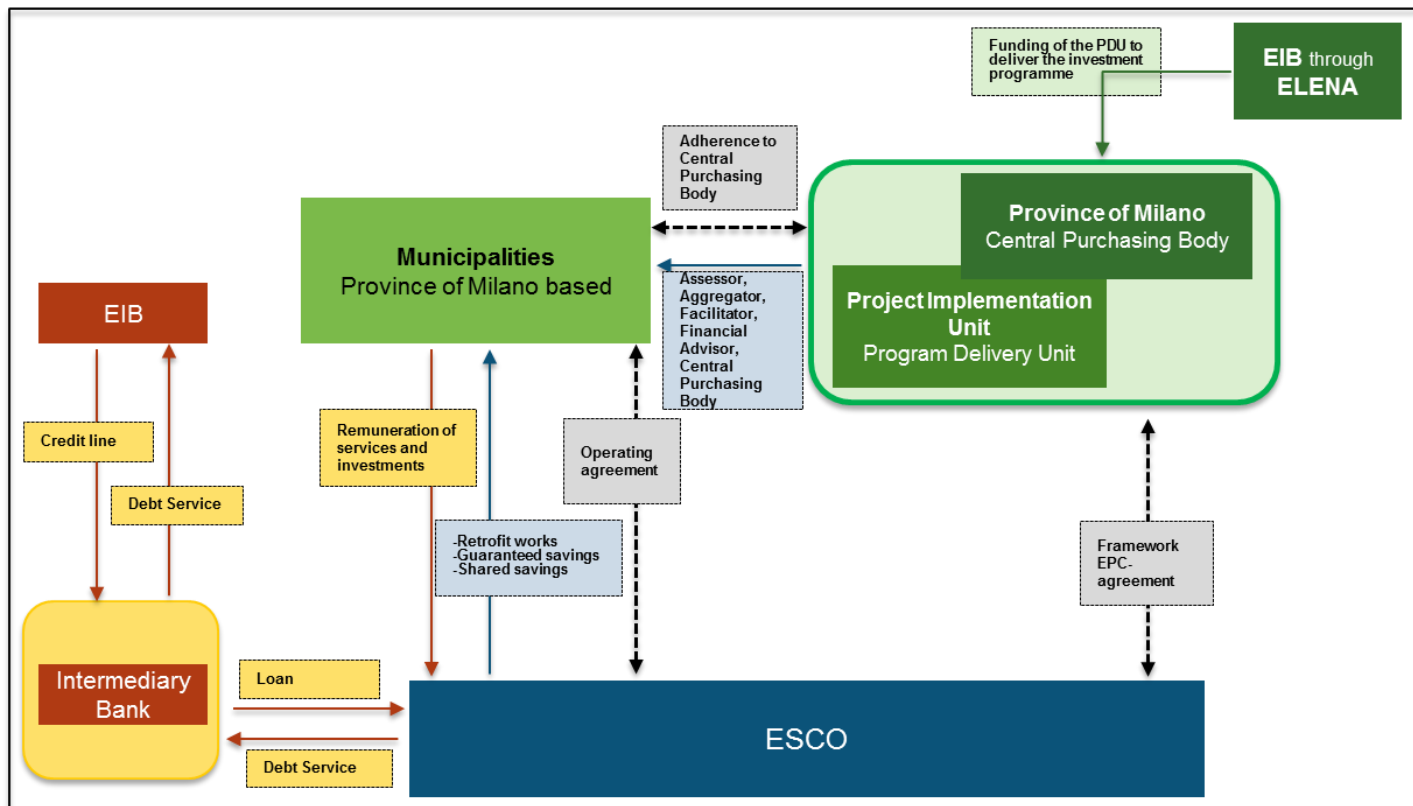
## How does it work?

- The Province of Milan has chosen to implement the retrofitting programme on the principle of aggregation or pooling of the selected buildings.
- The PDU plays an active role in the promotion and development of the programme. It contacts the municipalities adhering to the Covenant of Mayors to assess their disposition to participate to the programme and helps them to identify and prioritise the buildings for which energy audits will be performed.
- Once the buildings have been audited, assessed and have received approval for execution the municipalities must fully mandate the Province of Milan in its capacity as Central Purchasing Body.
- After joining the Central Purchasing Body the pooling of the buildings is being done. The PDU develops a feasibility study to support the municipalities through the whole process in

its role as assessor, aggregator, facilitator and financial advisor. It also performs the procurement process for the selection of one or more ESCOs.

- Standard procurement rules apply in the designation of an ESCO. The Province has chosen for the concession of services-type (also known as restricted procedure) of tender in two steps, pre-qualification and invitation to tender.
- Once the contract is awarded a Framework EPC Agreement is being signed between the ESCO and the Province as Central Purchasing Body and an Operating Agreement is signed between the ESCO and the individual municipalities (after individual negotiations with the support of the PDU)
- The selected ESCO installs the guaranteed energy efficiency measures and delivers the service during the agreed contract period.
- The Province has chosen for a project financing structure based on third party financing and more specifically financing by the ESCO. The idea is that the majority of the guaranteed energy savings is being used for the reimbursement of the investment to the ESCO and that a small portion of the energy savings is being kept by the municipality as immediate savings on its budgets (shared savings).
- The ESCO has the liberty to finance the investments based on its own funds or, at its discretion from a financial institution or from the funding possibilities set-up by the EIB through the local intermediary commercial bank Mediocredito Italiano (Banca Intesa SanPaolo group).
- PDU was provided to the beneficiaries at no cost as a result of its 1,8M € funding by ELENA (European Local Energy Assistance run by the EIB) and the Province of Milan.

Fig 1. Operational and financial model



## The program delivery unit

A dedicated Project Implementation Unit (PIU) is the programme delivery vehicle of the Energy Efficiency Milan Covenant of Mayors energy retrofitting programme. It is basically part of the public service structure of the Province of Milan.

The unit operates as programme marketer or promotor, assessor, aggregator, facilitator and financial advisor.

The role of the PIU is to:

- promote the programme among the municipalities that have adhered to the Covenant of Mayors
- analyse and assess the proposals related to potential investment projects
- coordinate and control of the required energy audits and baseline assessment and standardisation
- provide technical support for the implementation of the projects including follow up and supervision of the works
- Provide legal and administrative support throughout the entire implementation process, including drafting and providing of required documentation related to the tender process, coordination of the tender process, and negotiations with the ESCOs and financial institutions

- provide monitoring and audit related to performance and measurement and verification
- disseminate findings and results and transfer of knowledge to other public authorities

The PIU is structured in different groups. The core of the PIU is its Management Board (basically consisting of the dedicated project members, mostly process managers). It is supported by a Municipalities Committee (representatives from the municipalities) and by the Support Group. The Support Group consist of members of various departments of the Province of Milan. Three other groups, the Technical Group, the Legal-Administrative Group and the Monitoring and Reporting Group are being supervised by the Management Board though most of the tasks have been outsourced to external specialists and consultants.

Since 2010 the PIU operations have been funded for a total amount of 1,8M €. Of this funding amount some 90% or 1,62M € has been provided by ELENA and some 10% or 0,18M € by the Province of Milan.

The PIU aimed at leveraging the ELENA funding amount by 46 times in delivered capital investment or a minimum of 90Mio € by 2014. In the course of the programme the leverage has been downsized to 20.

<b>Legal structure</b>	N/A
<b>Shareholder description</b>	N/A
<b>Equity</b>	N/A
<b>Shareholders</b>	N/A
<b>Program dedicated staff</b>	Moderate
<b>Program operational costs</b>	Moderate

## Organization and partnerships

**Province of Milan:** Programme owner and political initiator, drives the programme delivery unit and supports part of the operating costs of the delivery unit.

**Province of Milan Project Implementation Unit:** Is the project delivery vehicle of the energy efficiency programme. It provides staff, procedures, tools and services for the program. It offers program delivery unit services such as marketing and engagement, project assessment, aggregation services, project facilitation and financial advice.

**Municipalities:** Are the beneficiaries of the programme if adhered to the Covenant of Mayor initiative.

**ELENA (European Local Energy Assistance):** Is a program funded by the European Commission's Intelligent Energy-Europe programme and run by the EIB to support local and regional authorities to

achieve 20-20-20 targets. It scales up projects and reduces transaction costs and supports project development phases and capacity building

**EIB (European Investment Bank):** Secured finance to the programme. Acts both as lender for the financing of investments in energy efficiency and as administrator of the ELENA programme. It committed to provide 75% or 65M € of the 90M € investment objective through local financial intermediary Mediocredito Italiano (Intesa Sanpaolo Group).

**Financial institutions: Mediocredito Italiano (Intesa SanPaolo Group):** Intermediary commercial bank for the EIB.

**Fondazione Cariplo:** Is a philanthropic banking foundation. It funded a big scale energy audit programme between 2006 and 2008 in the region of Lombardy with the purpose to stimulate the implementation of energy efficiency measures in smaller municipalities.

**ESCOs:** Energy Services Companies perform the work planned under the program and guarantee agreed savings to the beneficiaries.

## Beneficiaries

<b>Beneficiaries</b>	Municipalities in the province of Milan adhering to the Covenant of Mayors initiative
<b>Type of projects</b>	Energy Efficiency (building retrofits)
<b>Operational support</b>	Project facilitation through the Programme Delivery Unit
<b>Financial support</b>	Project facilitation costs free of charge

## Funding mechanism

<b>Program delivery unit funding</b>	The dedicated Project Implementation Unit has been funded by ELENA (1,62M €) and by the Province of Milan (0,18M €)
<b>Projects Funding</b>	Projects are being funded by the ESCOs
<b>Funding Vehicle</b>	Public ESCO Financial institutions
<b>Fund size</b>	Not applicable
<b>Fund type</b>	Not applicable
<b>Fund sources</b>	Not applicable
<b>Financial Instruments</b>	EPC Financing

## Achievements

To date the Energy Efficiency Milan Covenant of Mayors programme has put in total three calls for tender in the market, of which two have been awarded: the first one, for an investment amount of 13M €, related to 98 buildings in 16 municipalities, the second one concerns an investment of 5,1M € and it included 38 buildings in the Municipality of Milan. The total amount of the investments are around 18M €.

On the first tender the EIB, through Mediocredito Italiano, provided 5M € funding to some members of the ESCO consortium.

The second tender, though already awarded in August 2014, has been put to hold as it has been assigned through a different procurement process.

Some achievement details:

	<b>Beneficiaries Municipalities</b>	<b>Property</b>	<b>Year of award</b>	<b>Investment Million</b>	<b>Energy savings %</b>	<b>Term</b>	<b>Energy Savings Bonus split</b>	<b>Savings used for debt service</b>
<b>EPC1</b>	16	98 public buildings, mainly schools	aug/12	<b>13,0</b>	35%	15 years	50%	95,0%
<b>EPC3</b>	Municipality of Milan	38 school buildings	aug/14	<b>5,1</b>	35,5	15 years	50%	84,5%
				<b>18,1</b>				

## Contact details

### Province of Milano

Not available

# Factsheet

## General Info

Country	Italy
Model Name	Energy Efficiency Milan Covenant of Mayors
Date of creation	2009

## Model Description

Ownership	Public
Program authority	Province of Milan
Program delivery unit	Dedicated project Implementation Unit
Operating services	Marketer Assessor Aggregator Facilitator Financial Advisor
Implementation model	Energy Performance Contracting (EPC)
Types of projects financed	Energy Efficiency (Buildings retrofit)
Beneficiaries	Municipalities in the province of Milan adhering to the Covenant of Mayors initiative
Geographical coverage	Regional 3,84 Million inhabitants

## Financial Model Description

Project funding	Private
Project funding vehicle	ESCOs
Financial instruments	EPC Financing
Repayment model	Guaranteed savings agreement

## Project risk Profile

Performance risk	ESCOs
Recourse	Unknown
Financial risk	ESCO Financial institutions

## Model Requirements

Staff Requirements	Moderate
Equity Requirements	n/a
Funding Requirements	Moderate Less than 5M €

## Model Key indicators

Investment volume since creation	18,1M €
Size of project (or project portfolio)	5,1M € to 13,0M €
Level of average energy savings	35%



### Development maturity

Development/implementation stage	Mature
Operational development maturity	Mature
Financial development maturity	Mature

### Model Qualification

Level of establishment	Well established
Growth potential	Large
Scalability of the model	High
Replicability of the model	High
Impact on public balance sheet	Low

## Sources

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