TRUST EPC SOUTH

D4.7 EXECUTIVE SUMMARY OF NATIONAL ROADMAP ITALY

MAY 2018

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 649772

www.trustepc.eu

DOCUMENT TITLE

Executive Summary of National Roadmap - Italy

DOCUMENT TYPE

Deliverable 4.7 (WP 4)

VERSION

Version 1.0 – 31/05/2018

DATE

31/05/2018

AUTHORS

Chiara Wolter, Rodolfo Pasinetti

Ambiente Italia

EDITORS

PROJECT SUMMARY

Achieving the European Union's 2020 **energy efficiency** targets and at the same time reducing its dependency on energy imports is a huge task that requires **innovative approaches and tools** – such as the ones **Trust EPC South** wants to provide.

The Trust EPC South project aims to **unleash the tertiary sector market potential for energy efficiency investments in Southern Europe** by developing a new investment assessment instrument backed by an established building rating methodology (Green Rating™). Such instrument shall support energy service companies (EPC providers and facilitators), financing institutions and tertiary market actors thanks to the application of a standardised methodology to the investment assessment and decision processes, ultimately allowing to reduce barriers to energy efficiency investments.

Trust EPC South, a project **financed by the European Union's Horizon 2020 programme**, will pursue its ambitious objectives in **Portugal, Spain, France, Italy, Croatia and Greece**. The project consortium, led by the Spanish firm CREARA, is composed by interdisciplinary experts representing the participating countries and by the international non-profit organisation Green Rating Alliance. The partners are united by the common intent to **stimulate investments in the target markets**, which are offering great opportunities for energy efficiency as well as energy performance contracting.

SOMMARIO

STATE OF THE ART

In 2016, total final energy consumption in Italy amounts to 1.346 TWh. Energy consumption amounted to 1.248 TWh in 1990 and during this time frame it reached its maximum in 2005, with 1.563 TWh. This means that from 2005 to 2016, total final consumption decreased about 13,82%. The main decrease occurred in the industrial and transport sectors.

The final energy consumption in the tertiary sector continuously increased from 1990 to 2008, more than doubling its value, from 95 TWh to 198 TWh. Since then it stopped growing and in 2013 it amounted to 184 TWh, representing 13,4% of the total final energy consumption (in 1990 and 2005 these shares amounted to 7,6% and 11,2%, respectively).

The tertiary sector is managing about half a million buildings. The commercial sector shares 45% of the whole tertiary building stock, while education, health and sport sector share amounts to 33%. Both buildings dedicated to hotels and to offices amount to 11% of the total stock.

This stock is represented by buildings that are prevalently used for tertiary activities. Of course, many tertiary activities are developed in buildings that have not a prevalent tertiary use (for example a shop or an office located inside a residential building).

While about half a million commercial sites occupy a surface of more than 63 million square meters, the main commercial sites are organized in about 1.100 centres with a total surface amounting to 16 million square meters.

Regarding offices that occupy buildings prevalently used for tertiary activities, their total surface is nearly 57 million square meters. However, it is estimated that an additional surface amounting to about 100 million square meters is present in buildings that have not a prevalent tertiary use.

In the hospitality sector, there are 25.800 buildings used as hotels. Their total surface amounts to nearly 49 million square meters.

Schools occupy 51.000 buildings with a total surface amounting to 73 million square meters.

In 2016, the total investment in energy efficiency in Italy amounted to approximately 6.13 billion euros. The investment has doubled compared to the 2012 value. The tertiary sector contributed with investments amounting to about 870 million euros.

In 2016, ESCOs invested about 840 million euros (with a market share amounting to 14%). In the tertiary sector, ESCOs provided investments amounting to 23% of the market (about € 200 million).

The ESCO market in Italy is considered to be among the biggest and most developed ones in Europe, although the market has been developing in an uneven pattern.

The national technical standard for ESCOs, the UNI CEI 11352, was introduced in 2010 to overcome this ambiguity about the identity of ESCO. The standard refers to the European standard EN 15900 on energy efficiency services. Among the other requirements (technical, financial, managerial), to be certified an ESCO must demonstrate to have had at least one energy performance contract. As of beginning of 2018, about one thousand companies were certified.

The Strategy for Energy Refurbishment of the National Building Stock (STREPIN, 2015) has estimated the mix of energy efficiency interventions to be applied depending on the climate areas and on their feasibility according to cost/benefit analyses. The result is a 60% average energy saving for public buildings (schools and offices), 45% average energy saving for private buildings used for offices and hotels and 35% average energy saving for commercial buildings.

A total of about 17.200 GWh is estimated to be saved by 2020.

According to the 2017 Energy Efficiency National Plan, by 2020 the overall final energy saving objective is set to 180.233 GWh. Out of this, the tertiary sector objective amounts to 14.302 GWh (6.628 GWh for the public sector and 7.674 GWh for the private sector, respectively). Up to 2016, the energy saving accounted for the tertiary sector amounted to 2.209 GWh.

A total investment of more than 30 billion euros is expected in the period 2017 – 2020, with an yearly average of around 8 billion euros.

Considering the current relationship between investments in the tertiary sector compared to the overall investments for energy efficiency, it is reasonable to estimate a yearly investment in this area of over 1 billion euros in the next few years.

BARRIERS AND SOLUTIONS

Barriers and solutions for the development of energy performance contracts

The activation of energy performance contracts generally derives from the convergence of interests between ESCO (the EPC supplier), the tertiary sector (the demand for energy services) and the financial sector.

The tertiary sector considers the issue of energy efficiency to be very important. The reasons are above all economic (in some cases energy represents the second cost item after the cost of personnel), but environmental motivations are also considered of some importance, as well as the reputation of the brand. In the tertiary sector, most of the interventions are implemented through own funds by the companies.

The awareness of the financial sector towards energy efficiency projects is already quite high and still growing. Banks are ready to develop specific financing programs. The main sectors considered to be high potential are commerce, hospitals and industry. In general, the retail sector is considered to be particularly promising both for the possibility of scaling the interventions and for the stability of the cash flows that often characterize the companies. There is general confidence in the potential of the EPC market. However, investments in the energy sector are considered to be riskier if made with an EPC model. Banks consider the financing of an EPC provider more risky, since ESCOs generally do not have sufficient capital to guarantee the financing and, at the same time, there is no real possibility of recourse on assets to guarantee the contract. For this reason, financial institutions tend to prefer funding to the end user rather than to the EPC provider.

There are several critical points, but also some solutions, related to energy performance contracts that emerge from the debate of the sector operators (end users, ESCOs and financial institutions). In the following, some of these points are summarized.

Table 1: Identified market barriers and potential solution

Barrier	Potential solution
Too much relevance to the creditworthiness of the company that should receive the loan.	The financial institutions must give greater importance to the solidity of the project in itself and not only to the creditworthiness of the ESCo or the end customer. Access to easily available guarantee funds is important to mitigate the risks associated with the performance of the project.
Risk of having customers, or final consumers who do not guarantee stability during the course of financing	Presence of public guarantee funds. Direct sale to banks of the fee due to the executor of the interventions. Possibility of renegotiating the contractual parameters to guarantee cash flows following the change of some operating elements.
Impossibility of applying the sale of loans to banking institutions.	Extend the sale of loans to credit institutions.
Instability of the regulatory framework relating to incentives	Maintain the current mechanism of tax deductions over a multi-year time horizon Stabilizing the market mechanism of white certificates

Barrier	Potential solution
Long contracts can block market transactions concerning the buildings on which we operate	It is appropriate to provide for the withdrawal from the contract, beyond exceptional events, to increase its flexibility.
The standardization of projects and processes is desired and considered as a keystone for the increase of EPC interventions.	It is important the availability of standardized tools that facilitate the univocal assessment of the project so as to identify the technical and economic drivers to increase the bankability of the initiative.
The lack of real knowledge of EPCs from different energy service providers.	ESCOs must be reliable.
The lack of knowledge from the banks of the current results of the interventions.	It can be important for banks to have monitored data on energy efficiency results.

KEY RECOMMENDATIONS

The main recommendations gathered during the project for the enhancing of the Energy Performance Contracts market have a common ground in the need of a stable working framework, to make energy efficiency and energy performance contracting real. This should regard not only the regulative side (laws, authorizations, norms…) but also the supporting and incentive side: such complexes projects need a long horizon form genesis to realization, and are often blocked by several changes of the game rules.

Table 2: Roadblocks and strategy

Measure	Addressed barriers
Improvement of regulatory framework	- longer time horizon for the realization of investments, with no change in the rules - reliable subsidies
Improvement of the subsidies and guarantee fund rules	- banks cannot make use of sale of loans - restriction in the use of sale of loans make them not appealing for enterprises - the funding is not enough to enable the investment foreseen
Information and education	Lack of knowledge Lack of trust Long term contracting
Standardization in contracting and evaluation	Lack of trust Lack of knowledge for the analysis of this type of investment projects.

ACTION PLAN

Measure	Activity	Implementing Organization	Priority level	Financing mechanisms	Timeline					
					S1 2018	S2 2018	S1 2019	S2 2019	S1 2020	S2 2020
Improvement of regulatory framework	**Harmonization of existing regulations (taking into account the new EPBD)**	Ministry of Economy, Finance and Environment	+++	National/European						
	Rules for the calculation of Energy efficiency impact	Ministry of Economy, Finance and Environment, National energy agency	+++	National/European						
Improvement of the subsidies and guarantee fund rules	Creation of insurance schemes, combination of loans and fiscal measures	Ministry of Economy Finance and Environment	+++	National						
	Creation of business schemes for PMIs	Ministry of Economy Finance and Environment	++	National						
	New long term rules for the Guarantee fund	Ministry of Economy Finance and Associations	+++	National						

Measure	Activity	Implementing Organization	Priority level	Financing mechanisms	Timeline					
					S1 2018	S2 2018	S1 2019	S2 2019	S1 2020	S2 2020
Information and education	Technical training actions targeted to clients	Ministry of Economy and Environment, National energy agency	++	National						
	Technical training actions targeted to banks	Ministry of Economy and Environment, National energy agency	+++	National/European						
	Technical training actions targeted to professionals and craftworks	Ministry of Economy and Environment, National energy agency	+	National						
	Studies on the results of already realized EE interventions with both financial and technical figures	National energy agency								
Standardization in contracting and evaluation	Creation of standard contracts by project type	National energy agency	+++	National/European						
	Creation of procedure guidelines	Ministry of Economy, Finance and Environment	+++	National/European						
	Dissemination of flag projects	Ministry of Economy, Finance and Environment, National energy agency	+++	National/European						

Measure	Activity	Implementing Organization	Priority level	Financing mechanisms	Timeline					
					S1 2018	S2 2018	S1 2019	S2 2019	S1 2020	S2 2020
Others	Implementation and training of EU-recognized technical and financial tools	Ministry of the Environment or another assigned entity	++	National/European						
	Realization and Dissemination of flag projects	Ministry of Economy, Finance and Environment, National energy agency	+++	National/European						

TRUST EPC SOUTH

PROJECT COORDINATOR
Creara

CROATIA
Energetski institut Hrvoje Požar

FRANCE
ENERGIES 2050

Green Rating Alliance

GREECE
Technical University of Crete

TECHNICAL UNIVERSITY OF CRETE (TUC)
SCHOOL OF ENVIRONMENTAL ENGINEERING
RENEWABLE AND SUSTAINABLE ENERGY
SYSTEMS LABORATORY

ITALY
AmbienteItalia

RICERCA, CONSULENZA E PROGETTAZIONE PER LA SOSTENIBILITÀ

LifeGate

Officinae Verdi

PORTUGAL
Jesus Ferreira Consultores

SPAIN
Bureau Veritas

Contents of this document reflect only the authors' views.
The Executive Agency for Small and Medium-sized Enterprises (EASME)
is not responsible for any use that may be made of the information it contains.

This project has received funding
from the European Union's Horizon 2020
research and innovation programme
under grant agreement No 649772

Neuza Rosa
+351 215 806 066
neuza.rosa@jesusferreira.pt
portugal@trustepc.eu – www.trustepc.eu