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White certificates in Italy

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FEDERAZIONE ITALIANA PER
L'USO RAZIONALE DELL'ENERGIA

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FIRE: the association for energy efficiency

www.fire-italia.org

The **Italian Federation for the Rational use of Energy** is a no-profit association founded in 1987 that promotes energy efficiency, supporting energy manager, ESCOs and other companies dealing with energy.

Besides the activities directed to its **members**, FIRE operates under an implementing agreement with the Ministry of Economic Development to manage the **Italian energy manager network** since 1992.

In order to **promote energy efficiency** FIRE cooperates and deals with public authorities, energy technology and service companies, consultants, medium and large consumers, universities and associations to **promote best practices** and **improve the legislation**.

FIRE manages **SECEM** -**an accredited body** under ISO 17024 - to certify Energy management experts (EGE -UNI CEI 11339).

FIRE: the association for energy efficiency

Besides being involved in many **European projects**, listed next, FIRE implement surveys and market studies on energy related topics, **information and dissemination campaigns**, and **advanced training**.

Some of FIRE clients over the years: *Ministero dell'Ambiente*, *ENEA*, *GSE*, *RSE*, *Regione Piemonte*, *Provincia di Torino*, *Comune di Vignola*, *EASME*, *Ecofys*, *ENEL*, *Engie*, *Estra*, *Ferrovie dello Stato*, *FCA*, *Galbani*, *Lehvoss*, *Hitachi*, *Poste Italiane*, *Schneider Electric*, *TIM*, *Unioncamere*, *Vigili del Fuoco*, *Wind Tre*, universities, associations, energy agencies and exhibition organizers.

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On-going and just completed EU projects:

Management and good practices

Multiple benefits of energy efficiency

EU MERCI

H-REII Heat Recovery in Energy Intensive Industries

SME Energy CheckUp

Financing of projects

esi EUROPE DRIVING INVESTMENT IN ENERGY EFFICIENCY

WHAVES WASTE HEAT VALORISATION FOR MORE SUSTAINABLE ENERGY INTENSIVE INDUSTRIES

Energy Efficiency Financial Institutions Group

EPC and standardization

INVESTOR CONFIDENCE PROJECT

guarantEE Building Energy Services in Europe

Policy

EPATEE

ENSPOL Energy Saving Policies

Cooperates with:

DENEFF DEUTSCHE UNTERNEHMENSINITIATIVE ENERGIEEFFIZIENZ

EREK European Rescue Efficiency Knowledge Centre

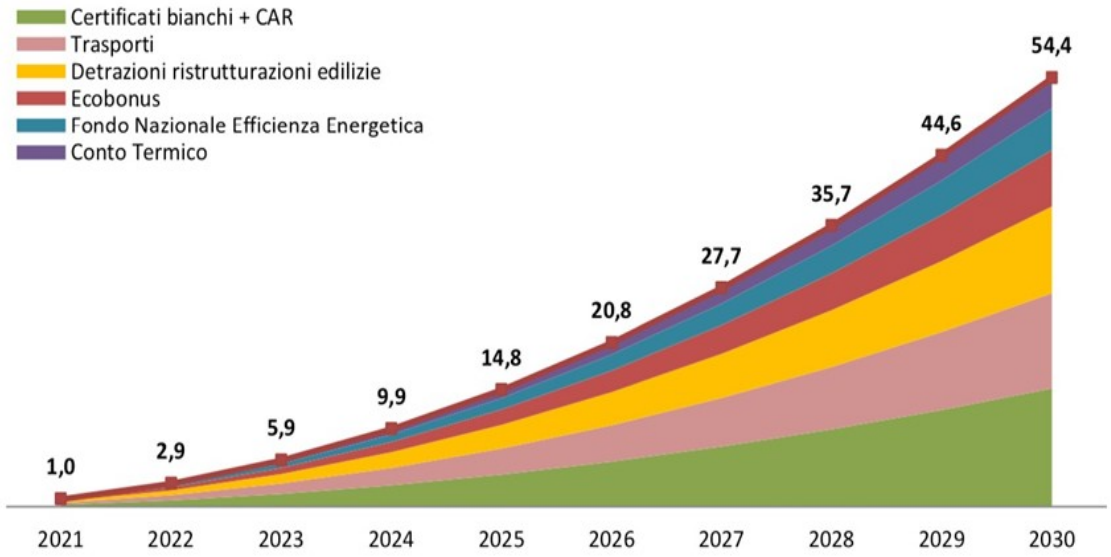
EVO

Challenges and opportunities for energy efficiency

The goals for energy efficiency in end-use aim to a primary energy consumption of 132 Mtoe and a final energy consumption of 104 Mtoe by 2030.

Due to the greater non-ETS contribution to the emissions quota, raised to 33%, buildings and transport become priority. The role of efficiency is crucial for the targets, as it defines the gross final consumption.

Contribution of support schemes to 2030's cumulated final energy targets (Mtoe)



Industry, on energy efficiency side, is asked to make a smaller contribution by 2030; however, the sector will play an important role due to the changes taking place.

Policies that impact the sector include: mandatory energy audits (Legislative Decree 102/2014) for large companies, subsidies for energy consumption, the evolution of demand response, the new directive on emission trading.

Support tools include energy management systems and the IoT.

Comparison beetween measures

Source: GSE presentation for EPATEE project, 2018.

	White Certificates	Fiscal deduction	Thermal Account
Energy savings target obligation	Obligation quota	Voluntary	Voluntary
Remuneration mechanism	Saving payment (Saving Certificate with variable market price)	Tax relief (50% of investment in 10 yars)	Capital subsidies (around 50% of investment)
Incentive lifetime	5-10 years (*)	10 years	1-5 years
Sector involved in EE intervention	Utilities **Industry** Residential Services Transport	**Residential** Services	Residential Services/SME **Public administration**
Energy savings monitoring	Measured & Estimated	Estimated	Estimated
Funding source	Gas & Electricity Bill	National Budget (tax income reduction)	Gas Bill
Total public cost (2017)	**1,8 bn**	**2,4 bn (**)**	**0,1 bn**
Savings generated 2017 (Art.7 EED)	**1,3 Mtoe**	**1,2 Mtoe**	**0,05 Mtep**
Duration of scheme	**2005-..**	**1998-..**	**2014-..**

(*) Until 2017, incentive lifetime is for the most part of interventions 5 years
(**) Considering only 65% deduction, because 50% deduction includes also costs not related to energy efficiency interventions

The scheme basics: EEO + WhC trade

WhC is an EEO → DSOs have to meet energy saving targets → Demand → Certificates can be traded on the market ← Supply

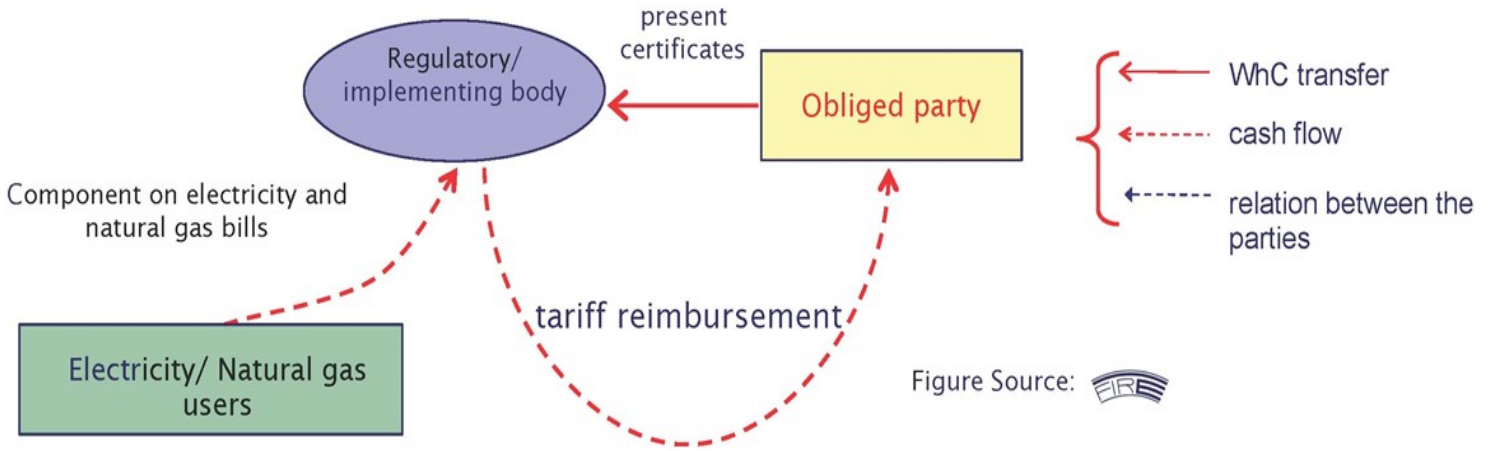
Source: FIRE.

Voluntary parties (small DSOs, ESCOs and companies with energy management expert or EnMS) can also obtain certificates → WhC is partly an incentive

1 WhC = 1 addi*onal toe
All sectors and all energy efficiency projects are allowed.

The Italian scheme is an EEO scheme with many flexibility options (voluntary parties, exchange market, possibility for DSOs to achieve 60% of target to be recovered in the next 2 years, etc.).

Tariff reimbursement



Being the tariff reimbursement component linked to the weighted average price of white certificates, it follows that the total cost of the scheme is directly related to it.

Evaluation of savings and WhC lifetime

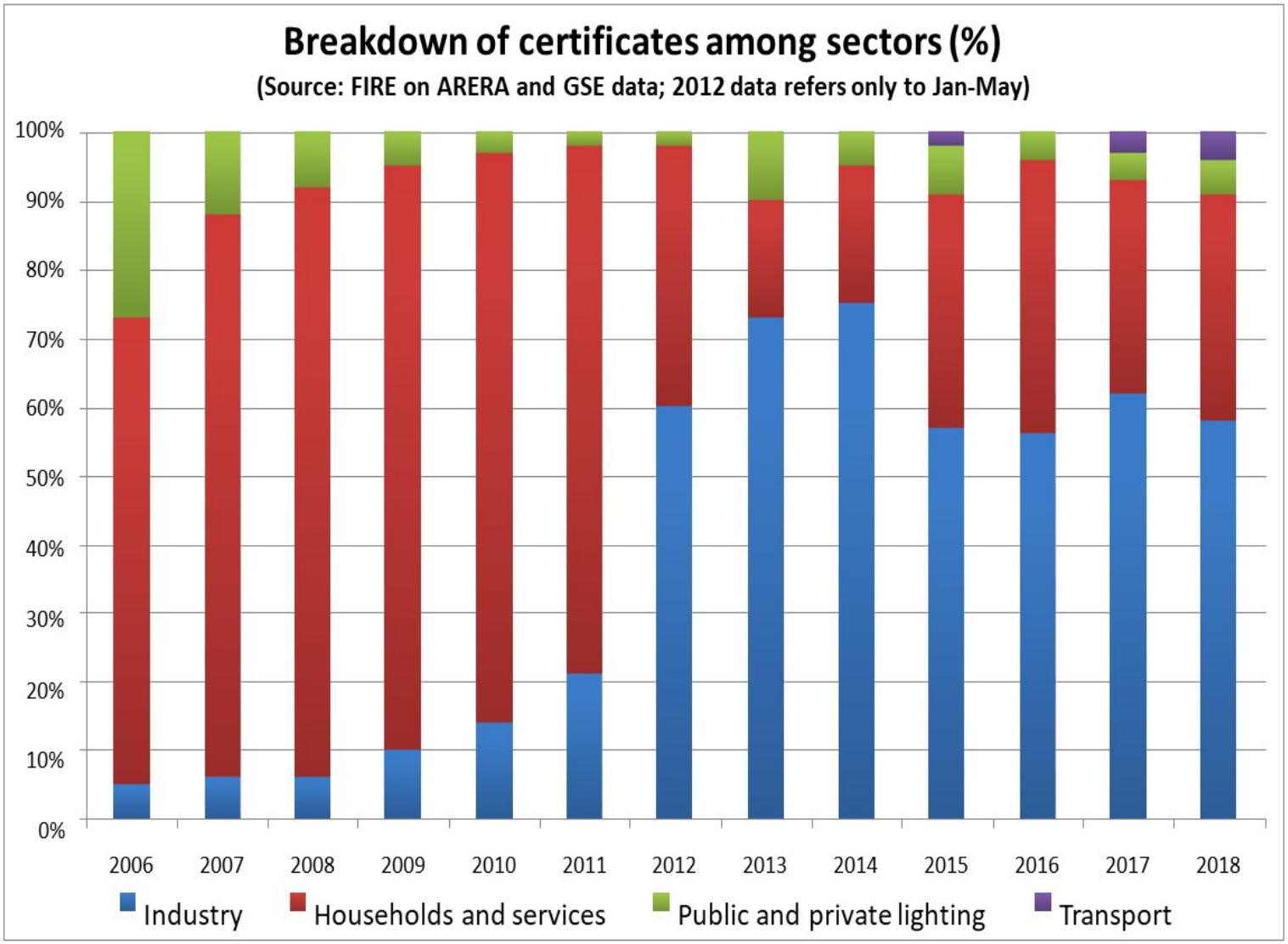
Energy savings evaluation methods starting from May 2017:

- **Standard projects** (**SP** – a mix of deemed savings and metered savings). Savings are calculated based both on the installed units and the measurements done on a statistically representative sample.

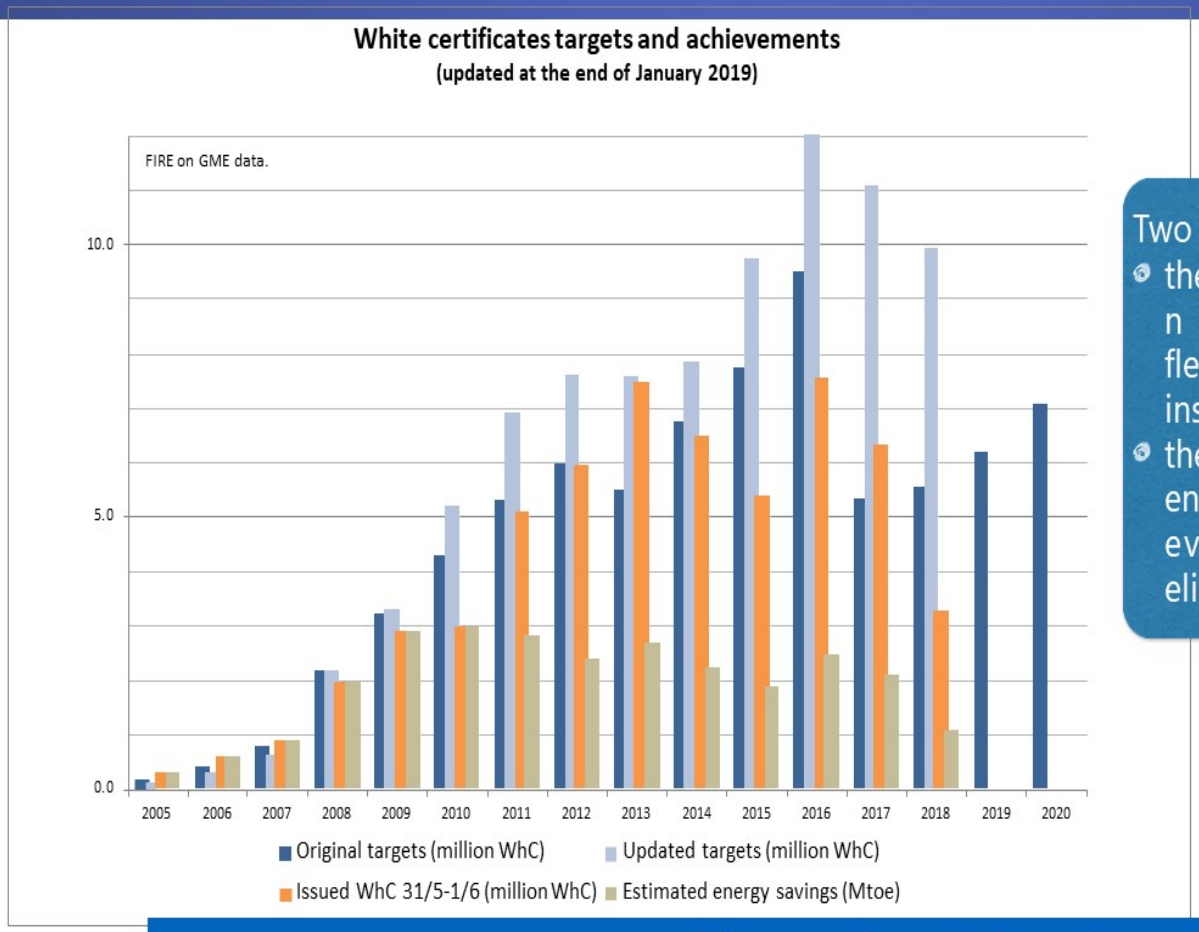
- **Monitoring plans projects** (**MPP** – a type of metered savings). Savings are measured according to an algorithm and a set of meters (both for energy consumption and adjustment factors). WhC lifetime (as changed by D.M. 10 maggio 2018)

WhC Lifetime (years over which certificates are issued for a project) changes according to the technology and in case of new installation or substitution of existing plants/ components. **It goes from 3 to 10 years.**

Sectors covered



WhC targets and results

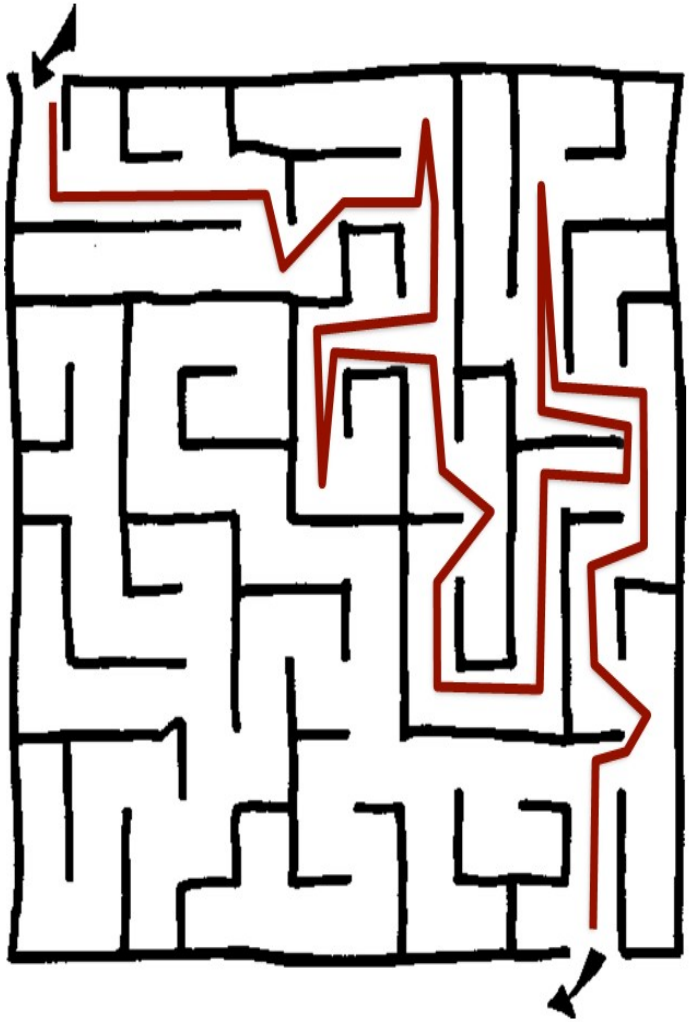


Two points to be noticed:

- the growing residual target, linked to the use of flexibility from DSOs due to insufficient supply;
- the stagnating additional energy savings (mainly due to evolving rules on eligibility and additionality).

	WhC lifetime	Additio-nality	Certificates issued over WhC lifetime per saved toe	Discounted value of certificates at 100 euro/ certificate	Discounted value of certificates at 250 euro/ certificate
2012 guidelines	5	50%	8.4	727	1'818
2017 guidelines	10	50%	5	386	965
2018 guidelines	7	100%	7	579	1'447

Challenges and opportunities for WhC



Presently the scheme faces a strong undersupply of certificates and the decision of excluding standardised procedures (e.g. savings evaluated on installed units, not measured energy consumption) reduced the opportunities to present projects. M& V procedures for MPPs are really tough.

To improve the situation, last decree (D.M. 10 maggio 2018) introduced measures that deal both with demand and supply.

In parallel, regulators started a new approach from end 2018 to reinforce dialog, improve support to stakeholders, and clarify rules, while continuing to ensure a strict evaluation and verification approach.

WhC operators will so face good WhC prices and clearer rules.

It will take time to verify the effects on the supply side and understand if they will be enough, but the new rules should ensure some stability in the meantime.

Thank you!

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