



Italy

White Certificates Scheme



Responsible authority: Ministry of Economic Development (MiSE)

Managing authority: GSE (Gestore dei servizi energetici)

History, current targets and results

The scheme started in 2005. Annual targets are defined within multi-year period (currently 2017-2020). The targets are expressed in both annual primary energy savings (in Mtoe/a) and in number of certificates (in Mcert/a), distinct unit due to the *tau* coefficient, adopted from 2011 to 2017. The target expressed in certificates is the one defining demand-supply for the market.

Annual targets for 2017-2020 (cumulative primary energy savings):

2017: 7.14 Mtoe/a; 5.34 Mcert/a

2018: 8.32 Mtoe/a; 5.57 Mcert/a

2019: 9.71 Mtoe/a; 6.20 Mcert/a

2020: 11.19 Mtoe/a; 7.09 Mcert/a

For 2005-2018 ≈59 million certificates were issued (against an overall target of ≈63 million certificates).

Scope and focus

A large number of energy efficiency projects in almost all sectors is allowed, with particular emphasis on the industrial sector. A list of non-eligible interventions for lack of additionality has been published. 8 standardized actions with M&V on a sample are available (led for internal and public lighting, electric motors, compressed air generation, smart bill, naval propulsion systems, hybrid and electric vehicles fleets).

GSE monitors the achievement of targets annually. Flexibility is provided to DSOs, which every year have to obtain at least 60% of their target, compensating under-achievements in the next two years, to avoid fines.

Key actors, roles and options

Ministry of Economic Development set the general rules of the scheme and the annual energy savings obligations. GSE (public body in charge of stimulating energy services) manages the scheme, and in particular the monitoring & verification tasks. ARERA (Regulator of the energy markets) sets the penalties and DSO tariff allowance. GME operates the WhC spot and bilateral markets.

The obligated parties are the distributors of electricity (12) and natural gas (44) with more than 50,000 customers. They can directly implement projects or buy certificates. Eligible (non-obligated) parties are non-obliged distributors, ESCOs, organizations with an energy management expert (UNI CEI 11339 certified) or with an ISO 50001 energy management system.

Many associations or federations of stakeholders are also active (e.g., FIRE for promoting the scheme and the development of energy services).

Penalties are provided in case a DSO does not meet its target. The amount depends on the severity of the default and on the effort to recover it.

Monitoring, Reporting and Verification

Obligated or eligible parties can submit **online application proposals**. GSE reviews their documentation and validates within 60 to 90 days, then GME issues the certificates.

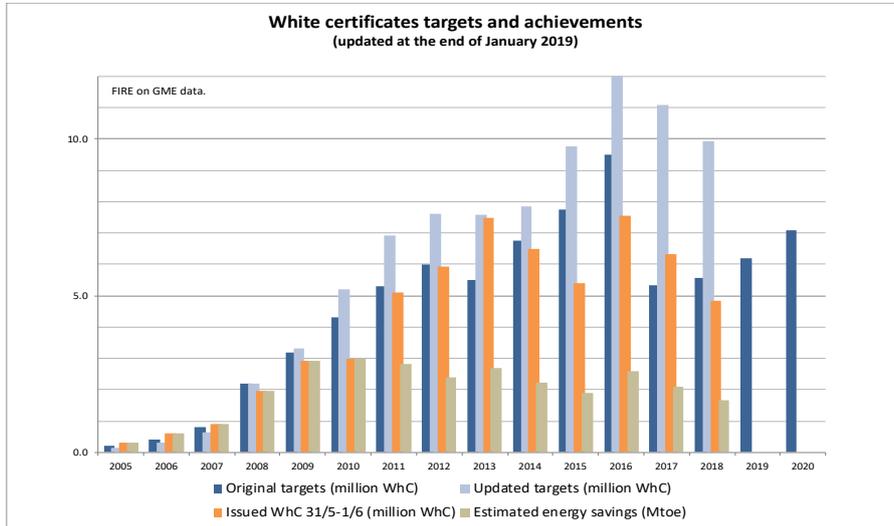
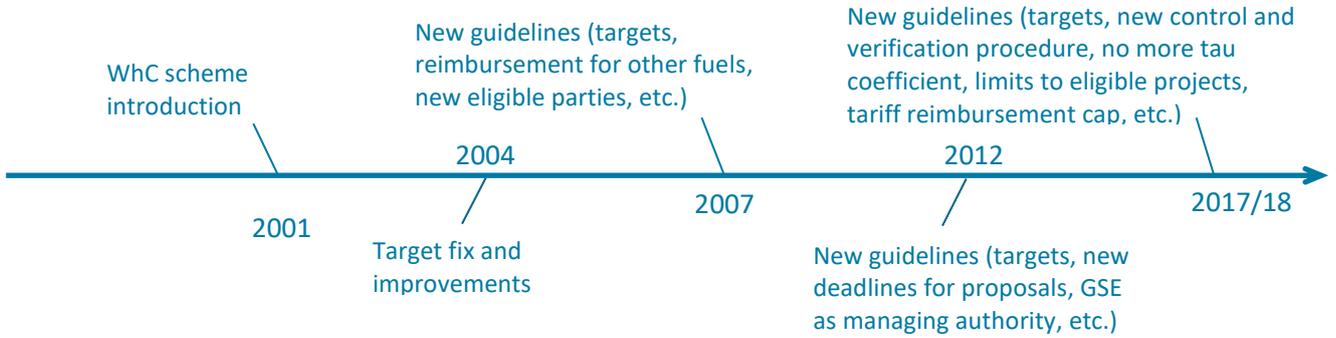
Certificates are usually **credited on an annual basis for 5 years**. The period of time over which certificates are credited can anyway vary from 3 years, for behavioral change projects, to 10 years, for more complex projects.

With the new guidelines, published in 2017 and 2018, calculation of energy savings has to be done either through a **new type of standard projects** (with deemed savings plus mandatory measurement on a sample of similar projects) or through **monitoring plan projects** (subject to pre-validation of proposal by GSE, then certificates issued based on measured data). M&V in both cases is in line with IPMVP option B requirements, even if there is no mandatory use of IPMVP.

GSE randomly checks ex-post whether the implemented projects comply with the approved projects and conducts on-site inspections. Annual program of controls must include on-site inspections for projects with energy savings > 3,000 toe/a.



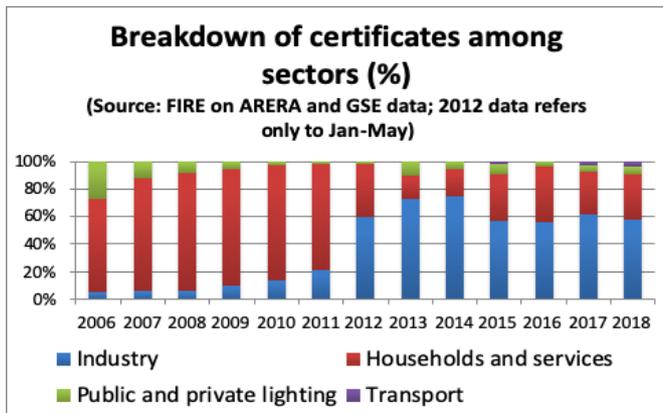
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 840034.



Four phases can be highlighted:

- first phase of oversupply (WhC price ≈30-80 euro);
- 2008-2014 slight undersupply phase (WhC price ≈90-110 euro);
- 2015-2016 insufficient supply due to restrictions of eligible projects and more stringent rules (WhC price ≈110-240 euro);
- 2017-2018 issues with frauds (WhC price ≈260-480 euro).

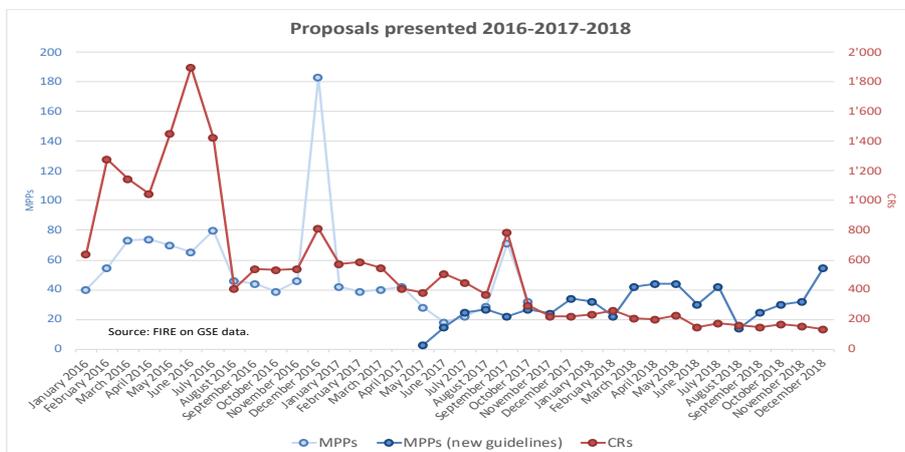
Price trend available on next page.



While some EEO and white certificate schemes deal mainly with the building sector; Italian WhC scheme has taken over time a different road.

The first one (2005-2011) was dominated by projects related to the building and service sectors (easiness to propose projects in those sectors thanks to the larger availability of standard projects files).

In the second phase (2012-2017) the **industrial sector took the leadership**, delivering most of the certificates. In industry, most of the savings comes from improvements in the manufacturing process.



Reduction of requests of certification in the last three years due to the evolution of the additionality requirements, the detection of large frauds and the increasing stringency of M&V rules.

Monitoring plan projects (MPPs) have a more stable trend, apart from the peak at the end of 2017 justified by the last opportunity to use the *tau* coefficient.

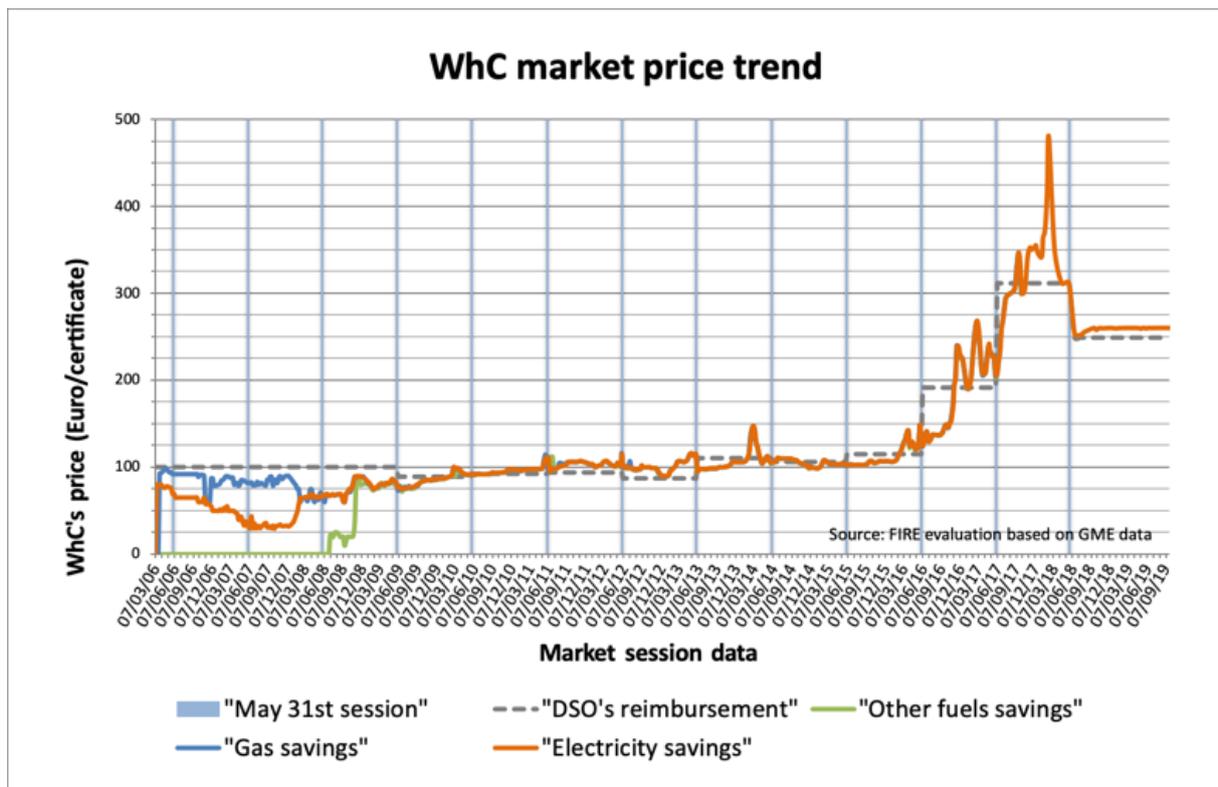
Costs for obligated parties

Most of the costs incurred by the obliged distributors are recovered through a reimbursement covered by tariff components on electricity and natural gas bills. Every end-user thus contributes to the cost-recovery mechanism. Obligated DSOs obtain the reimbursement when they present certificates to GSE according to their specific targets. The reimbursement is set by ARERA and is linked both to the WhC spot market price in the previous year and to the bilateral trading average price. In 2018 a cap has been posed on the value of this tariff reimbursement, equal to 250 euro/cert.

Other information about costs and benefits

The cost of the scheme can be calculated as the product of the cancelled certificates and the tariff reimbursement component. The costs incurred by GSE for information, evaluation, and control has been around 14 million euros in 2016, according to GSE' fiscal documents.

The Italian WhC scheme has a robust evaluation in place. Comprehensive figures are available on the dedicated resources.



Interview with Mauro Mallone

Energy efficiency division manager
Ministry of Economic Development



1) What have been the main changes and lessons learnt since 2017?

In recent years the process of updating and strengthening the scheme has gone forward in order to increase the offer of certificates in the face of increasingly challenging objectives. To this end, for example, additionality topic has been revised, identifying baseline with ex-ante consumption for retrofit intervention.

A number of corrections were then introduced aimed at avoiding over-incentive of the interventions, rewarding projects exclusively based on the energy actually saved. *Tau* multiplier coefficient was abolished, the list of eligible projects revised, also introducing a list of non-eligible interventions.

In 2018 it was necessary to introduce a cap to the reimbursement price of the certificates issued by the obliged parties to safeguard the mechanism from undesirable speculation.

Thanks to the experience gained, the importance of standardizing the procedures for calculating savings for the most common technologies emerged, as well as the definition of criteria reducing uncertainty if the variables that affect consumption cannot be defined ex-ante (as in complex industrial processes). Moreover, the strong variability in terms of toe saved per euro invested in energy efficiency projects in different sectors should be considered, to make the scheme attractive not only to industry but also to non-residential buildings and transport sector.

2) And more specifically about monitoring, verification and controls?

In line with earlier remarks, verification action on the actual savings achieved by the eligible projects was strengthened. Unfortunately, as we feared, the percentage of poor-quality

projects was not negligible. With regard to controls, it emerged that too simplified or too complex procedures can allow unlawful conduct by operators. Therefore, it should be paid more attention to the correct identification of critical aspects of the process and to standardize the documentation required during the project qualification and control phase.

3) What are the main interactions with other policies?

In energy efficiency sector, the White Certificates scheme has given the best results in terms of cost effectiveness, compared with other policy measures. Over time, however, other measures have been introduced with greater appeal (in terms of greater profitability, greater ease of access, or greater certainty of the expected economic benefit) that have moved several operators away from this mechanism.

4) Are there challenges or changes foreseen for the coming years? (especially after 2020)

The main challenge is to revive the mechanism and keep it "in shape" for the next decade. This will require to further simplify access criteria and optimize methods of quantification and recognition of energy savings, also by evaluating the possibility of implementing a radical reform of the scheme. In this context, particular attention will be addressed to the promotion of energy efficiency projects in buildings (non-residential) and transport sectors, also through the promotion of behavioural measures, as well as the widening of the audience of obliged parties.

5) If you could go back in time, what would you do differently?

The goal assigned to the mechanism for reaching the mandatory energy saving target set by article 7 of the EED was too ambitious. In 2014, when the objective was set, the WhCs production trend was in continuous growth, it was thought it could continue without taking sufficient account of the effects determined by the controls on the projects carried out (and the savings actually achieved) and by the displacement caused by other more attractive policies. Furthermore, a strategy that bases the achievement of the target on a more articulated mix of policy measures presents fewer risks of failure than the decision to focus on a few incentive mechanisms (and this is what we are implementing for the next decade).

