

The Italian White Certificates Scheme Monitoring, Verification and Evaluation: lessons learnt from the field

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4th European Working Meeting of
the White Certificates Club

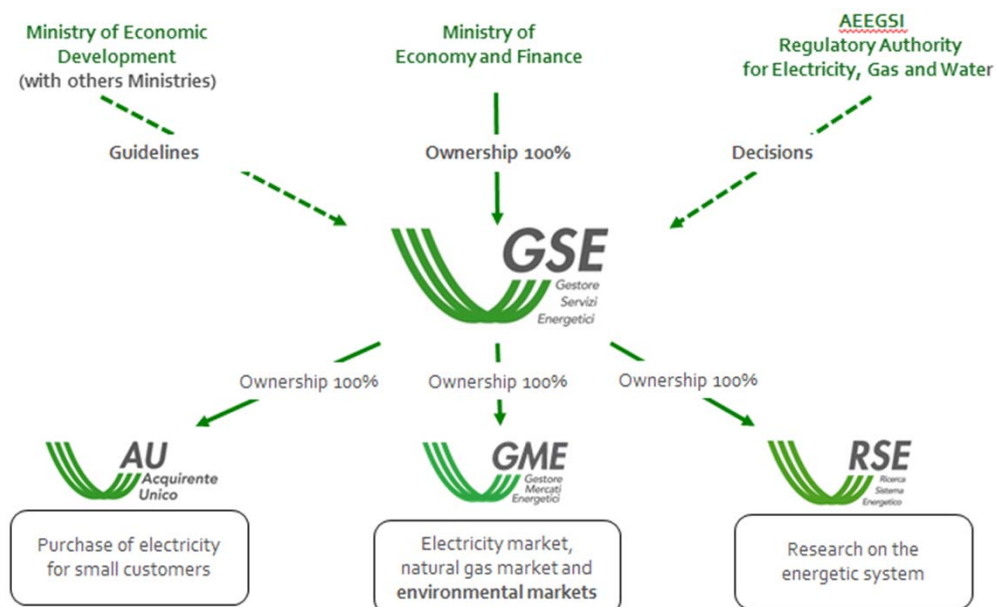
Paris, June 30th 2017



Gestore dei Servizi Energetici GSE SpA

MISSION:

GSE promotes the development of renewable energy sources and energy efficiency in Italy, by granting economic incentives and supporting the policy makers



GSE is in charge for the operative activities of the WhC scheme since 2012, with the support of ENEA and RSE for issues related to the evaluation of proposals (monitoring) & verification activities.

The WhC market is managed by GME in terms of Whc Platform and EET exchange both on the spot market and bilateral agreements.

Italian White Certificates Scheme – Main elements

- **White Certificates Scheme is the most relevant tool for promoting energy efficiency in Italy** (at least 60% of the target at 2020 of EU directive 2012/27/EU). The main objective of the Italian WhC scheme is the **reduction of primary energy consumption through the implementation of energy efficiency projects**.
- The **electricity and natural-gas distributors with more than 50.000 customers are required to achieve yearly quantitative primary-energy saving targets**, expressed in toe saved. **WC title certifies that a certain reduction of energy consumption has been obtained** (1 WhC = 1 saved toe (tonne of oil equivalent); 1 WhC = 100€ (originally, they are tradable)
- More than **1200 subjects** are active in the WhC scheme (both obligated parties and volunteers: 78% E.s.co).
- WhC scheme is a **market-based instrument**, it is not selective about technologies or sectors. (WhC projects can be implemented in: industries, residential & agricultural sector, local & private transports, public lighting etc). Moreover the Market defines the Whc prices.
- **The Italian WhC are only granted in respect of additional savings**, i.e. *the share of savings above that which would have been achieved even without the project as a consequence of technological, regulatory and market developments*.
- **A tariff contribution** is granted to obligated distribution companies to cover part of the costs incurred to achieve the objectives. **Penalties** are imposed on the obligated parties in cases of non-compliance.

Monitoring: Previous WhC evaluation methods (2006-2016)

Until last year the Italian WhC Scheme had 3 evaluation methods that quantified the additional energy savings achieved:

Standard Project (RVC-S)

- Subject matter = defined by decree
- Additionality = defined by decree
- Energy saving = **estimated**
- Minimum Size = 20 WhC/year

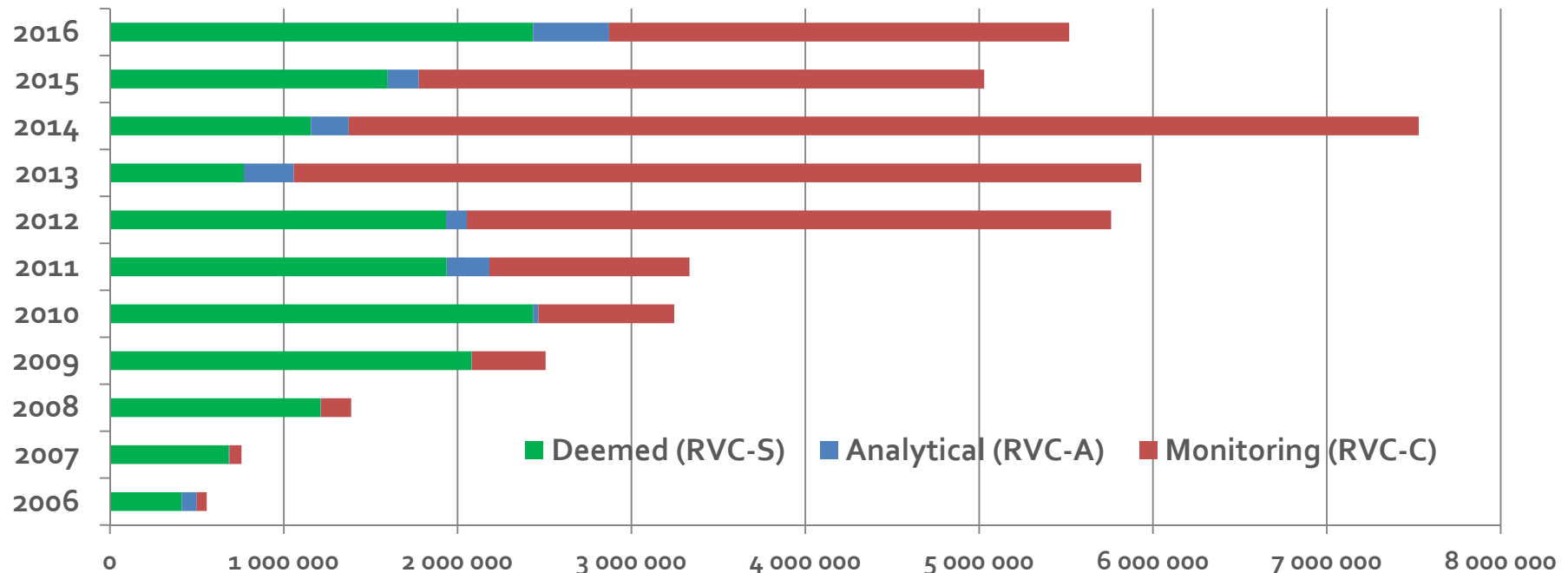
Analytical Project (RVC-A)

- Subject matter = defined by decree
- Additionality = defined by decree
- Energy saving = **measured**
- Minimum Size = 40 WhC/year

Energy Monitoring Plans (PPPM & RVC-C)

- Subject matter = customized by proposal
- Additionality = proposed by subjects and verified by GSE
- Energy saving = **measured**
- Minimum Size = 60 WhC/year

Monitoring: Previous WhC evaluation methods (2006-2016)



- Since the beginning of the WhC Scheme (2006), the **additional energy savings related to EET are measured** thanks to the implementation of Monitoring methods (RVC-A & RVC-C).
- From 2010, the energy efficiency projects related to the **Monitoring Methods increased** (in particular in the Industrial sector, i.e. 2014: 80% RVC-C). **Consequently energy savings are accurately measured, not estimated.**

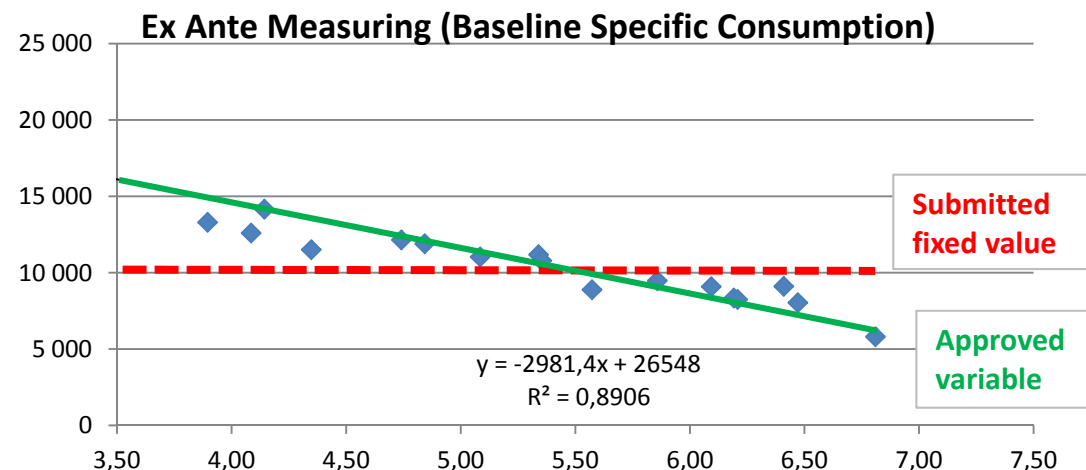
Monitoring- General Rules

In the monitored methods there are **3 steps** to measure the energy savings:

- **Planning:** The proponent must previously present a PPPM (Proposed Project and Program of Measures). After the PPPM is approved by GSE, the project is realized with measured savings and the proponent can ask for WhC with an RVC. In this kind of projects, the number of WhC is proportional to the real reduction of consumption periodically monitored and measured.
- **Measures's Acquisition:** After the EE intervention, the Proponent must send to GSE the real reduction of consumption periodically monitored and measured (at least once per year).
- **Monitoring & Control:** GSE monitors, controls and compares the ex-post energy savings with the ex-ante measures's value (i.e proponent algorithm)

Example:

The value submitted in the PPPM wasn't correct comparing it with the ex-ante energy savings. Consequently GSE has approved a different algorithm with the production rate.



Monitoring: The 2017 WhC Decree

The New WhC Decree - issued in 2017 – have updated also some M&V elements:

- Deemed/Estimated savings method is deleted (RVC-S)
- Tau factor is repealed
- Period of monitoring have been extended from 5 years to 7/10 years. Consequently the Incentive will be granted for a longer period.
- At least 12 months Ex-Ante data & measurements are mandatory

The WhC 2017 Decree sets 2 evaluation methods that quantify the additional energy savings achieved, both measured:

1

Monitored method (Metodo a consuntivo)

- Punctual and specific measurements
- Identifying main parameters
- At least 10 TEP in the first 12 months of the monitoring period (minimum size)

2

Standard savings method (Metodo standardizzato)

- Identify a statistically representative sample in order to measure just the sample.
- Algorithm, Parameters and Default Measurement Modalities
- At least 5 TEP in the first 12 months of the monitoring period (minimum size)

Verification – who & what



The public company in charge of WhC monitoring, verification and control is GSE, which can act with the support of ENEA and RSE.

Each year GSE presents the **Yearly WhC Verification Plans** to the Italian Ministries.

Controls and verifications after the project implementation are conducted **on both levels**: on the **documentation** and **on-site**.

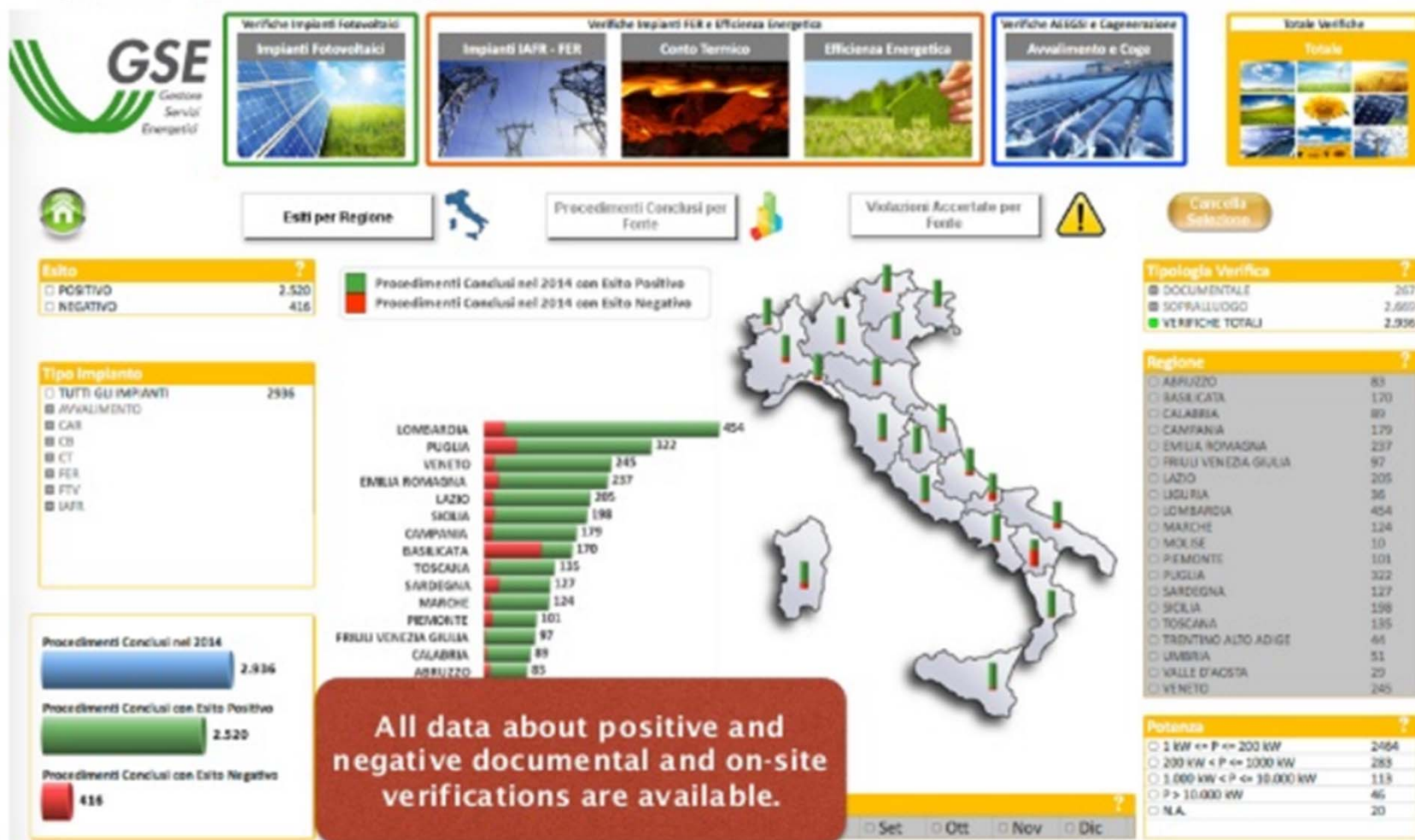
In the last years there has been an increment in the information required by GSE, in order to avoid frauds and double incentive (white certificates, heat account, and tax deductions are alternative support measures).

D.M. 28 Dec 2012 introduced the **obligation of on-site control** on all the projects with an annual saving **higher than 3,000 toe**, whereas smaller projects can be checked on-site on a sample basis.

In case of non conformities penalties are provided, together with the requisition of the undue certificates and, in case of frauds, the possibility to exclude the proponents from all the state incentives for ten years.

From 2016 the GSE hosts in its headquarter a branch office of **Fiscal Police** in order to enforce the collaboration in the WhC verification activities.

Verification – Online database



<http://bancadativerifiche.gse.it>

Verification – Activities

The GSE verification's activities are implemented considering a risk index analysis (anomaly aspects, economic & technical details, size and type of EE project).

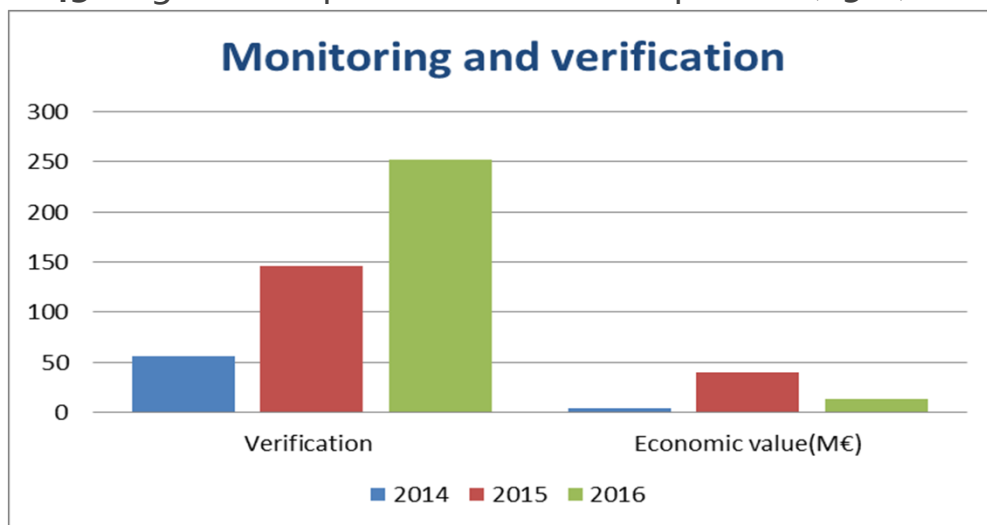
On-Site & On-Desk verifications implemented

2014-2016:

454 Verifications carried out

224 Verification's process closed of which:

145 Negative responses for non-compliance (65%)



FOCUS - 2016:

Verification activities carried out by GSE

255 control interventions

131 verification's process closed of which

89 Total proceeding with non-compliance

Amount induly paid out: 23.397.400 € (*)

Economic amount not paid (long-period):

71.061.000 € (*)

(*) assuming a EET value of 142 Euro/Whc

Controls	N°	EET/ Year	Incentive Value (Mln €/Year)
ON-SITE Control	31	39.700	5,6
ON-DESK & Documental Control	224	115.600	16,4
TOTAL	255	155.300	22,0

Monitoring & Verification - Costs

Starting from January 2015, GSE's management and evaluation and control activities, also carried by ENEA and RSE, are covered by a fee the operators/proponents pay when presenting a project or communicating the measures year by year for simplified monitoring plan and monitoring plan projects.

The fees are: Fixed fee in the range 100-2,500 euro depending on the size and type of project and variable fee of 1.1 euro per issued certificate for projects above 100 certificates per year.

		Corrispettivo fisso PPPM	Corrispettivo fisso RVC	Corrispettivo variabile
		[€]	[€]	[€/TEE riconosciuto]
Titoli di Efficienza Energetica	TEE ≤ 100	200	100	-
	100 < TEE ≤ 1.000	500	200	1,1
	1.000 < TEE ≤ 5.000	750	400	
	5.000 < TEE ≤ 15.000	1500	1000	
	15.000 < TEE ≤ 50.000	2000	1500	
	TEE > 50.000	2500	2000	

Conclusions

M&V are strategic pillars of the WhC Scheme in order to ensure a highly reliable mechanism in terms of additional energy savings achieved and EU 2020 targets.

VERIFICATION: Since 2014 Verification activities and rules are regulated by Ministerial Decree which enforce GSE inspectors role (i.e public official), behavioral negative actions owned by operators during GSE inspections can rapidly bring to the loss of the incentives (i.e. decline site access or voluntary lack of documentation).

MONITORING: Since 2017 the additional energy savings related to new projects are always measured (deemed savings are repealed) .

*Thank you
for your attention*