



# THE ITALIAN NET METERING SCHEME SCAMBIO SUL POSTO

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**IRENA**

Self-consumption of renewables

The Role of Storage in Revolutionizing the Grid Infrastructure

7 November 2014 - Tokyo

# SCAMBIO SUL POSTO: A VIRTUAL ENERGY STORAGE MECHANISM

**UNTIL 2008** → Italian net metering scheme based on **physical compensation**



**FROM 2009** → **SCAMBIO SUL POSTO**



**FROM PHYSICAL TO ECONOMIC COMPENSATION**

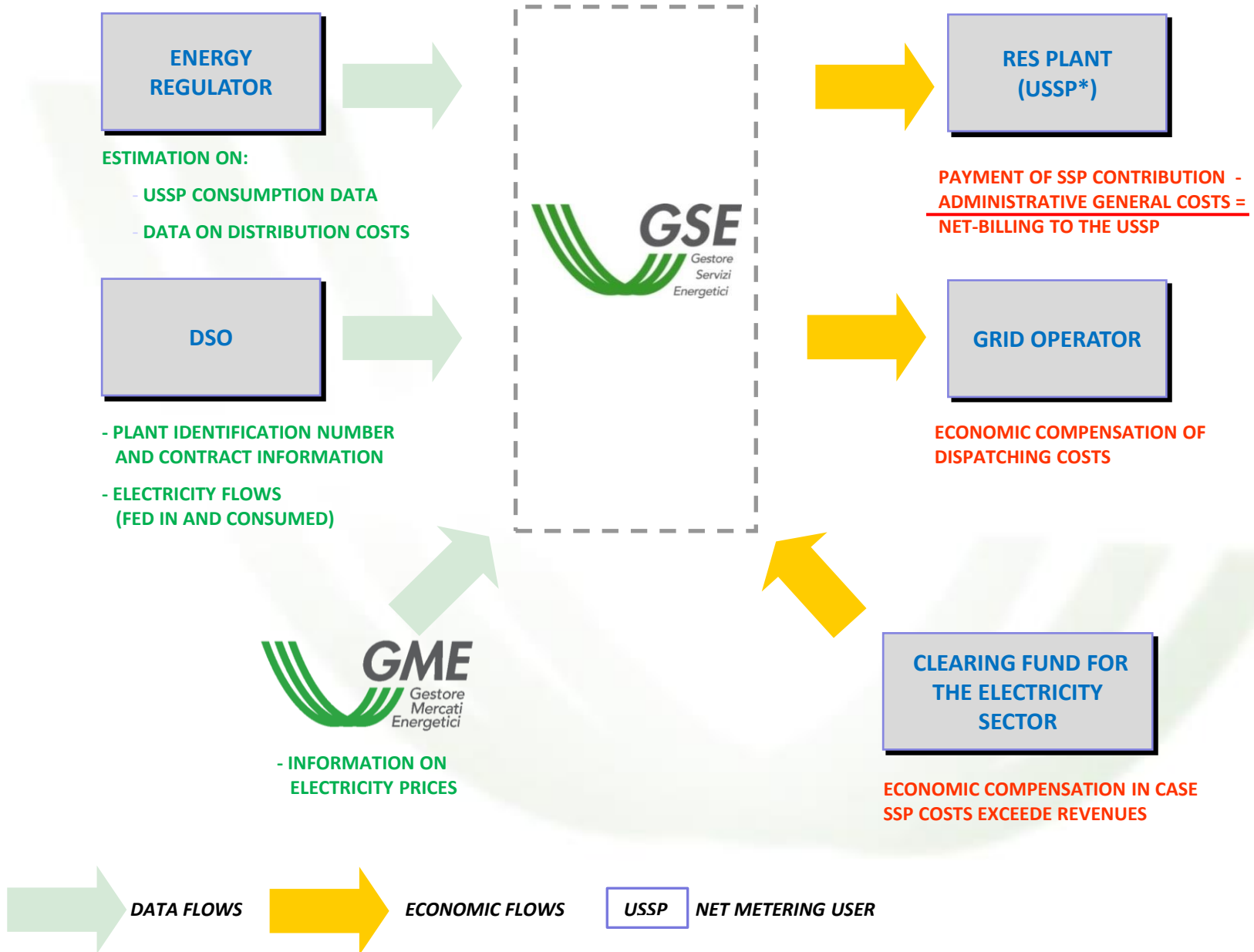
THE **ELECTRIC SYSTEM** OPERATES AS **VIRTUAL ENERGY STORAGE**  
FOR ELECTRICITY PRODUCED BUT NOT CONSUMED IN THE SAME PERIOD



The SSP scheme seeks to ensure:

- ✓ **Transparency** due to the fact that the electricity balances in the power grids can take into account the electricity fed in and withdrawn
- ✓ **Correct economic value** of the electricity fed in and withdrawn with Scambio sul Posto
- ✓ **Increase of self consumption**

# SCAMBIO SUL POSTO: ACTORS INVOLVED IN THE SCHEME





- obtain **information** by distributors and grid operator on **energy** fed in and withdrawn **in terms of kWh**
- calculate the **cost of electricity** (COE) paid to the distributor minus costs related to grid services
- calculate the **value of electricity fed in** (VOE) with hourly zonal prices mechanism

1) **GRANTS OPERATOR WITH THE LESSER VALUE BETWEEN THE COE AND VOE (EXCHANGED ELECTRICITY)**

2) **REIMBURSES COSTS RELATED TO THE USE OF THE NETWORK WITH REGARD TO THE ELECTRICITY FED IN**

**IF VOE > COE**



3) **RECOGNIZES AN ECONOMIC CREDIT THAT CAN BE:**

- ✓ **USED TO BUY ELECTRICITY IN AN UNLIMITED PERIOD OF TIME**
- OR**
- ✓ **PAID YEARLY TO THE USER OF SSP**



## THE SSP IS NOT AN INCENTIVE BUT A SERVICE FOR VIRTUAL ENERGY STORAGE

Regardless the technology used, are **eligible** for the SSP all RES-E plant with:

- installed capacity of up to **20 kW** (when commissioned before 31 Dec. 2007)
- installed capacity of up to **200 kW** (when commissioned after 31 Dec. 2007)
- Installed capacity of up to **500 kW** (when entered into force from 1<sup>st</sup> of January 2015)

Are eligible also:

- **high-efficiency CHP** plants with an installed capacity of up to **200 kW**
- **hybrid plants** in case their **non-renewable generation** is **below 5%**

Year	Plants	Installed capacity GW
2011	224.376	1,9
2012	373.470	3,5
2013	389.320	3,7

Compared to 2011:

- ✓ **+74% of SSP agreements**
- ✓ **+95% of installed capacity**

## SSP USERS

**ELECTRICITY  
COMPENSATION**

**1**

**NETWORK  
COMPENSATION**

**2**

**ECONOMIC  
CREDIT**

**3**

**4**

**ADMINISTRATIVE  
BURDEN**

## GOVERNMENTS

**FOSTER  
DISTRIBUTED ENERGY**

**REPLACE  
INCENTIVE SCHEME**

**CLEAR VIEW OF  
ENERGY PRICES**



# Thank you for your attention!

Should you have any enquires,  
please do not hesitate contacting us:

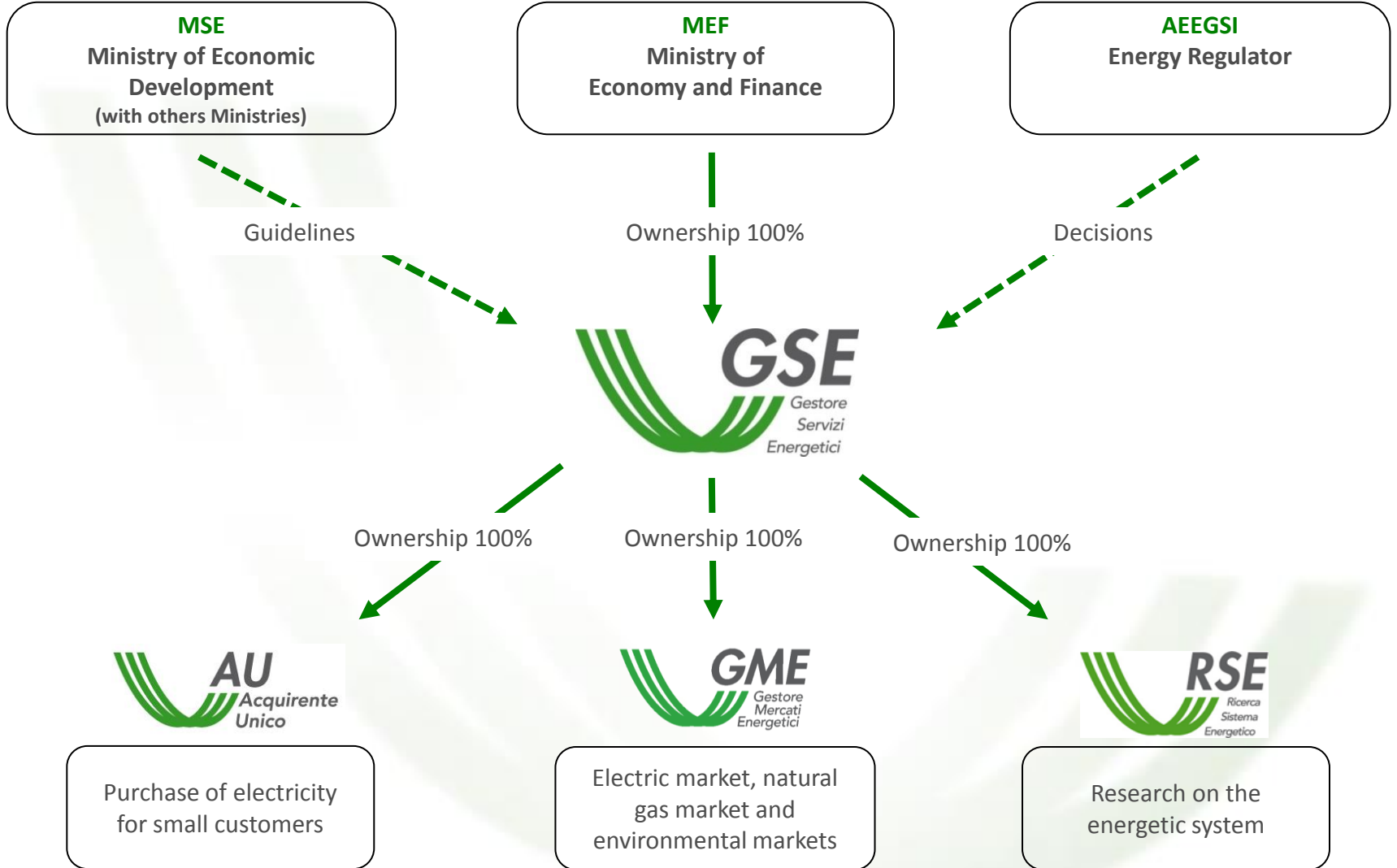
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# Background information on GSE



# GSE : Italian Energy Services Operator



**MISSION:** *GSE promotes the development of renewable energy sources and energy efficiency in Italy, granting economic incentives, managing energetic services and supporting the policy makers*

In Italy are in place different systems to promote RES, CHP and Energy Efficiency, managed by GSE

- **Support schemes for RES electricity**
  - **CIP 6/92 \*** (a kind of feed-in tariff)
  - **Green Certificates** for plants that began operating until 2012 (and an additional transition period); in 2016, for plants that have had access to, the GC will be replaced by sliding feed premium
  - **Feed-in Tariff \*** for small plants (up to 1 MW);
  - **Fixed Feed-in-premium** for PV (finished) and thermodynamic solar plants;
  - **Sliding Feed-in premium** for PV (finished) and all RES plants.
- **Energy Services for RES and CHP electricity**
  - **Net-metering \*** system for electricity generated by RES (and even by CHP plants up to 500 kW);
  - **Dedicated Electricity Intake \*** : purchase at average market price of electricity from RES and other plants (producers opting for electricity sale through GSE).
- **Support schemes for thermal RES and Energy Efficiency**
  - **Renewable Heat Incentive**
  - **White Certificates**
- **Biofuels support schemes (based on a blending obligation)**
  - **Biofuels Certificates**, blending obligation system (biofuels compliant with sustainability criteria)

\* GSE purchases the electricity from producers and resells it in the market

- Support to **institutional policy makers**
- **Studies** on energy topics (costs and incentives at international level, supply chains and jobs creation, environmental impacts, forecasts and predictions, certification schemes for biofuels, etc.)
- **Statistical monitoring** of RES in the electric, thermal and transport fields, at national and regional level, to follow the approach to the Italian national and regional energy targets
- Support to the **Public Administration**: we assist institutions in implementing their energy policies, by providing studies, data and consulting services, as well the Public Administration, by supplying specialist services in the energy sector
- **International activities**: international relations; participation in the energy projects funded by EU (Concerted Action on RED, PV Parity, Intelligent Energy Europe) as well as in the main international associations of the sector (IEA, IRENA, RES4MED, OME, etc.)
- **Information and training**: promotion of RES and EE (workshops, reports and guides, training, dedicated web-page on incentives, authorization procedures and best practices, etc.)

The Italian legislation includes a number of **monitoring and studies tasks** assigned to GSE, both at national and international level

- ❑ **RES STATISTICAL MONITORING** to verify compliance with national and regional RES targets
- ❑ Reports on **RES SUPPORT RESULTS** in Italy (GC, FIT, FIP)
- ❑ Report on **ECONOMIC AND EMPLOYMENT IMPACTS** of RES and EE
- ❑ Assessment of the **ENVIRONMENTAL EFFECTS** of RES and EE development
- ❑ Report on the **AUTHORIZATION PROCEDURES** of RES plants in Italian Regions
- ❑ Biannual **RES PROGRESS REPORT FOR THE EUROPEAN COMMISSION**
- ❑ Report on **GENERATION COSTS** in Italy and at international level
- ❑ Reports and papers on **ANALYSIS AND COMPARISON OF INTERNATIONAL RES POLICIES**