

Good practice policies promoting efficient biomass use

Renewable Energy Certificates System in Italy

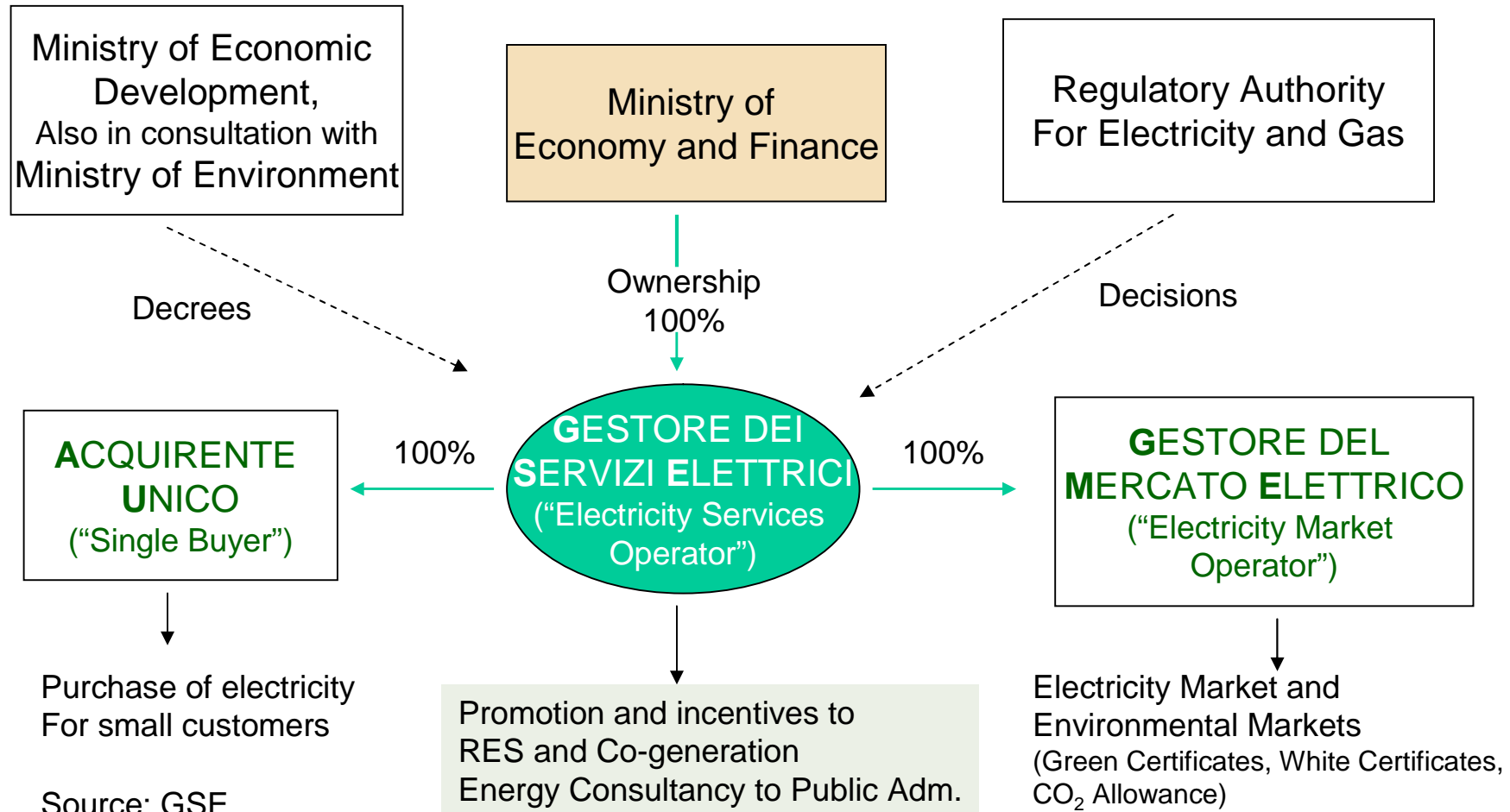
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Berlin 11. 03. 2010

Renewable Energy Certificate Systems

Participating Actors



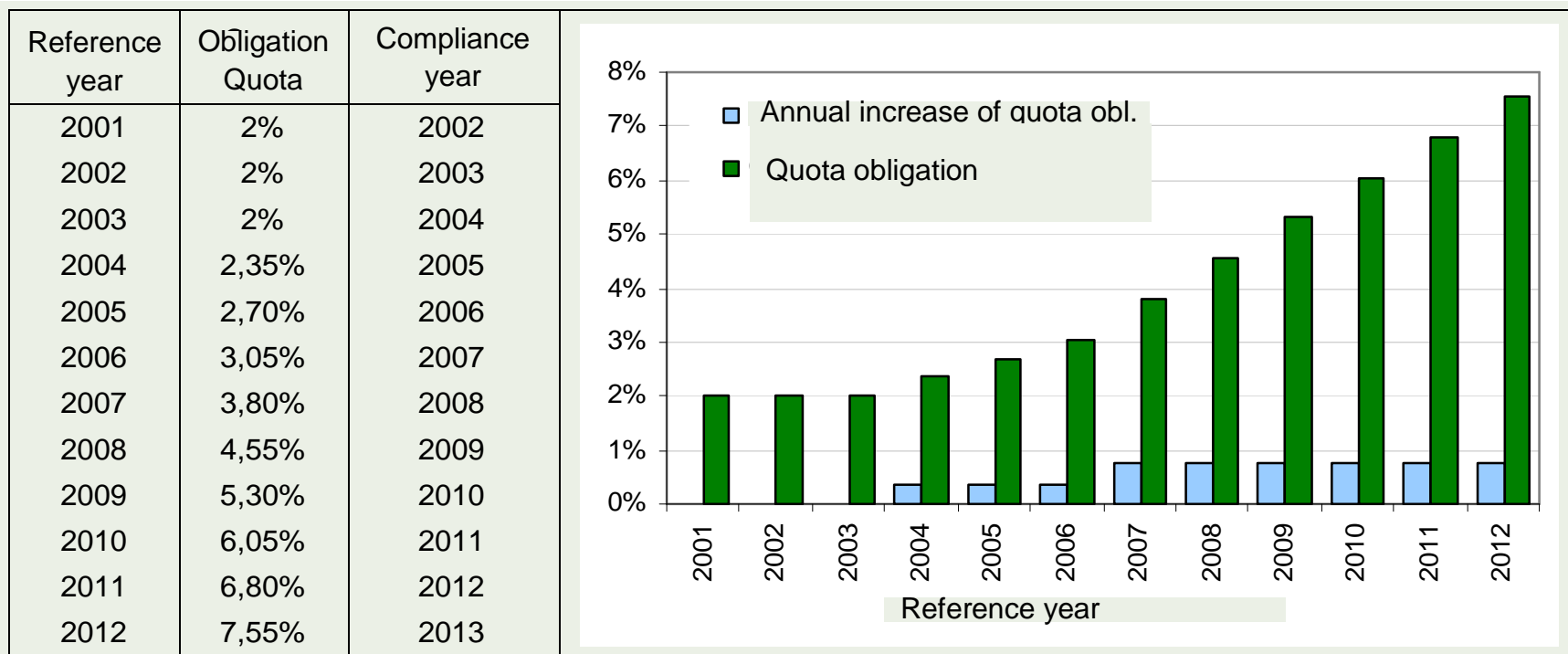
Green Certificate Mechanism

Key Elements of the System

- It is based on a **quota obligation** on electricity from conventional sources **for each producer/importer** (EE produced/imported above 100 GWh of each producer/importer);
- Producers and importers **must feed in the electric grid an amount of renewable source energy** equal to the x % (5,3 % for the 2009) of not renewable energy produced or imported the year before (**obligations for producers from traditional sources are up-graded to 0,75% per year**);
- Producers and importers can fulfill their obligation by means of GC issued in favor of their own renewable electricity production or of other producers;
- The support is granted over **15 years**;
- Green Certificates have a validity of **3 years**;
- 1 GC is issued in front of each **MWh**
- The producers during the support period can only once switch to the **TO mechanism and vice versa**
- Green Certificates can be sold or purchased through:
 - » **Bilateral agreements** or through
 - » **GME trading platform**

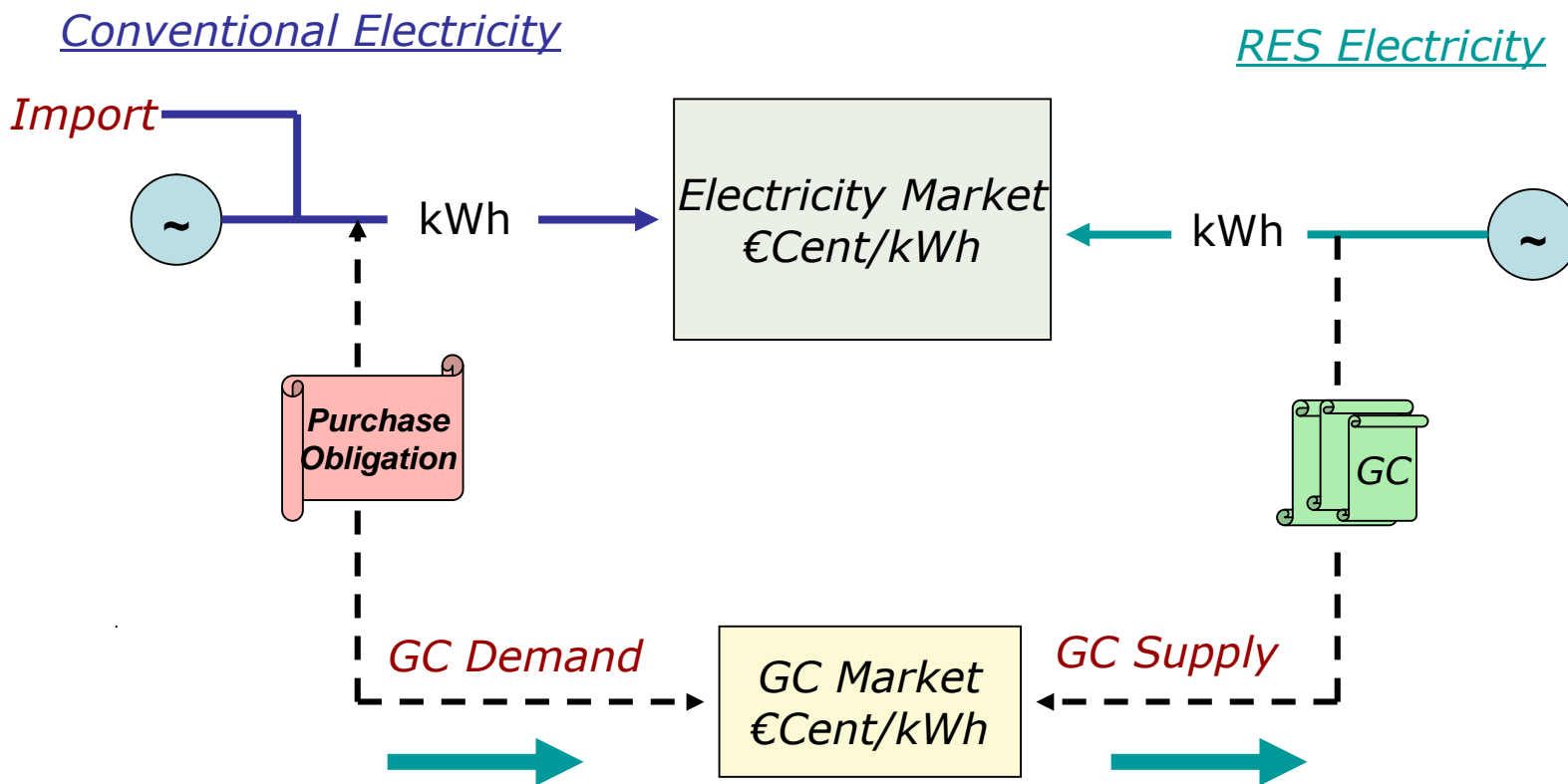
Reference laws: L. 79/99; D. lgs. 387/03; L. 244/07; L. 222/07; D.M. 18/12/2008, L. 99/09

RES Quota Obligation Path



Source: GSE

Electricity and GC Market



Source: GSE

IAFR Qualification (Qualification as RES Plants)

Power Plants qualification as IAFR):

to get GC, RES power plants must request and obtain the qualification (positive assessment concerning the source and the technical characteristic of the p.p.).

The Qualification is awarded by a Technical Commission and the process is ruled by a specific procedure, published on GSE web site, and it is based on silence approval.

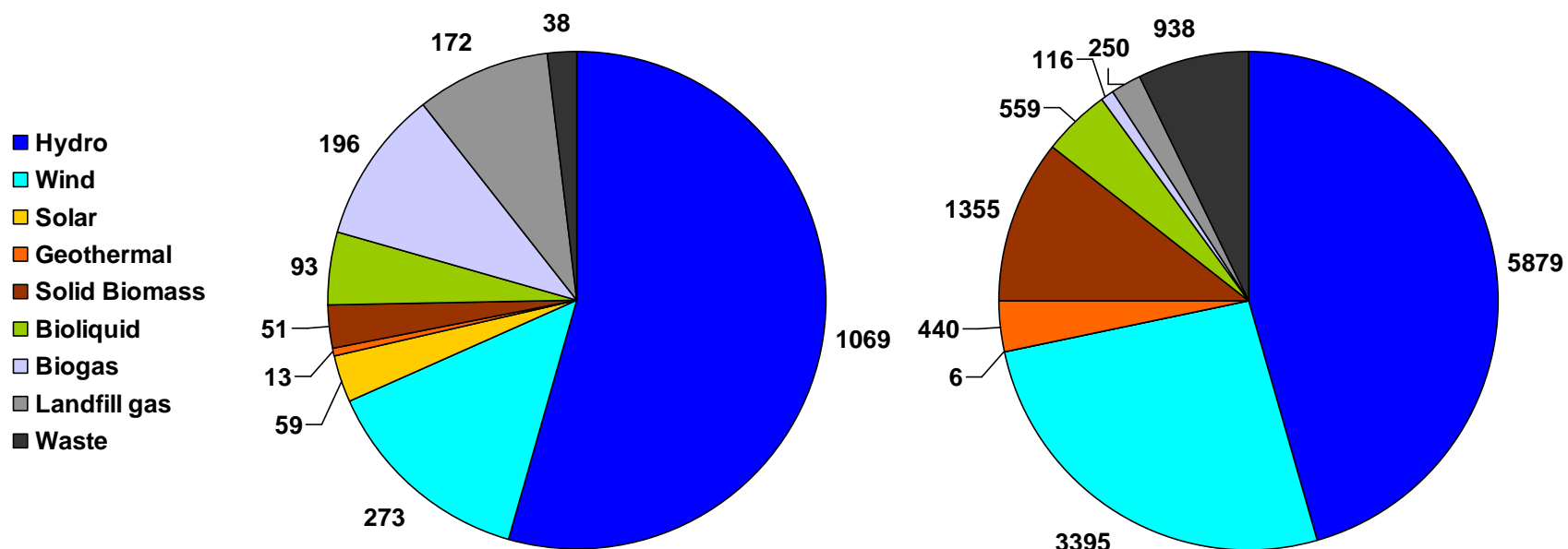
Which plants:

- Plants entered in operation after the 1st of April 1999 as new plants, repowering, total or partial reconstruction, restarting and plants entered in operation before the 1° of April 1999 that worked in co-combustion and that after this date are working as hybrid plants.

Outcomes of Qualification Procedure 30/06/2009

**Number
1.963**

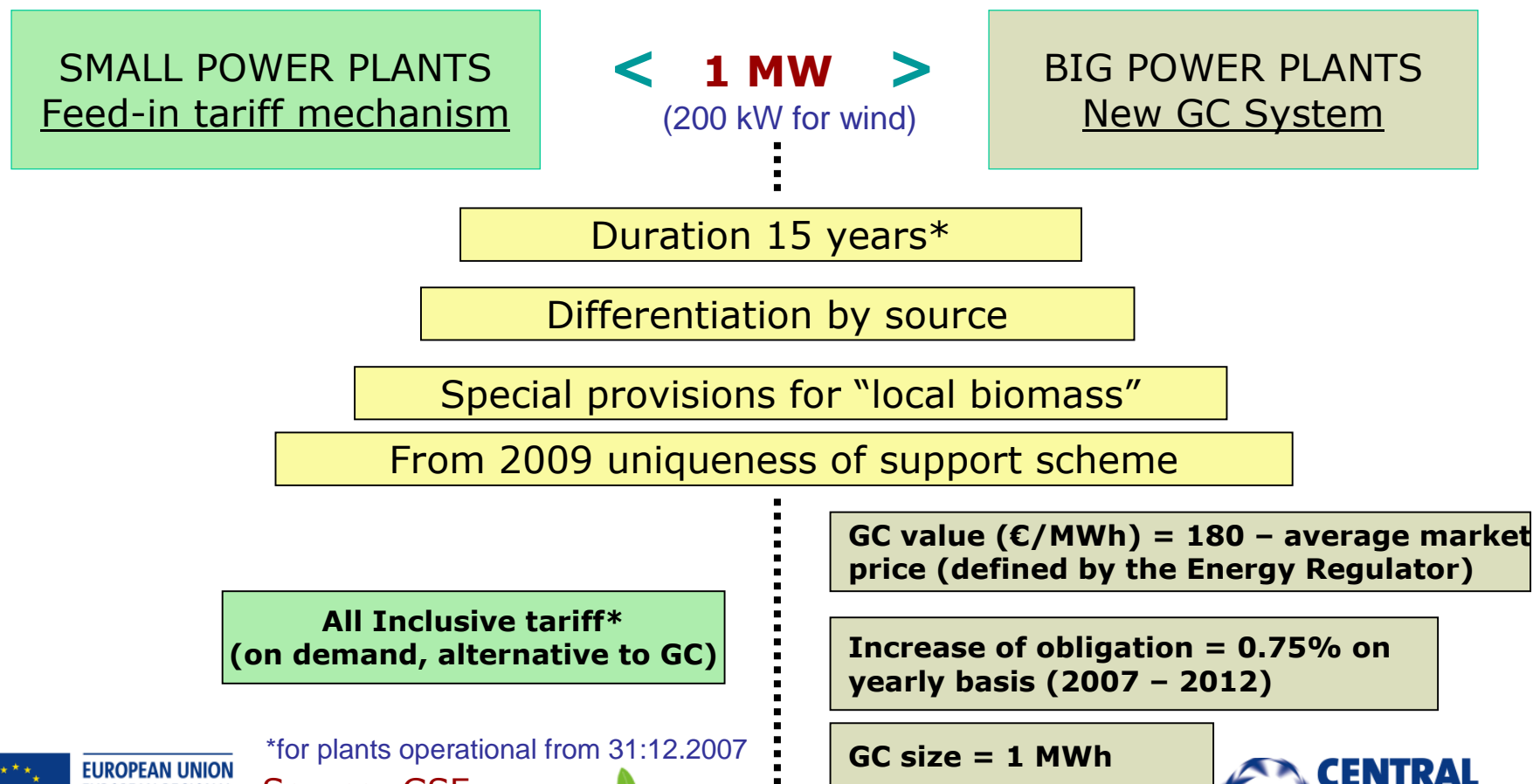
**Power
12.939 MW**



Source: GSE

Financial Law 2008 and Law n. 222/2007

New Feed-in Tariff for small plants and New GC



Incentives to RES Plants (IAFR)

The incentive is acknowledged to the supported Energy “E_i”

System with New Green Certificates

$$N_{CV} = E_i \cdot K$$

N_{CV} (MWh/a)= Annual electricity supported with GC
 E_i (MWh/a)= Electricity with incentive taking into account the **category of the plants** (new, upgraded, refurbished, etc...) and the renewable source
 K = multiplication factor differentiated by **source**

Financial law 2008

Multiplicative coefficients

New Green Certificates System (plants > 1 MW)

	Source	Coefficient
1	Wind plants (> 200 kW)	1.00
1 bis	Wind Offshore	1.50
2	Solar	Feed-in premium
3	Geothermal	0.90
4	Wave	1.80
5	Hydraulic	1.00
6	Biodegradable Waste, biomass different from the next point	1.30
7	Biomass and biogas obtained from agriculture, animal husbandry and forestry on a short supply-line basis	1.80
7 bis	Biomass and Biogas as point 7, feeding cogeneration plants at high efficiency, with thermal energy use in agricultural sphere	1.80
8	Landfill gas and gas coming from purification processes and biogas different from the point 7 bis	0.80

Source: GSE

Modified by Law 23.07.09 n. 99

Financial law 2008



All Inclusive Feed-in Tariff

System for plants < 1 MW

	SOURCE	€cent/kWh
1	Wind plants (< 200 kW)	30
2	Solar	Feed-in premium
3	Geothermal	20
4	Wave	34
5	Hydraulic other than point 4	22
6	Biogas and Biomass, excluding liquid biofuels and except pure vegetal oil traceable through the integrated management system and foreseen by the rule (CE) n. 73/2009 of the Council of 19 January 2009	28
7	Landfill gas, residual gases from purification processes and liquid biofuels except pure vegetal oil as point 6	18

Source: GSE

Modified by **Law 23.07.09 n. 99**



Law 23.07.09 n. 99

On-the-spot trading

Net metering service

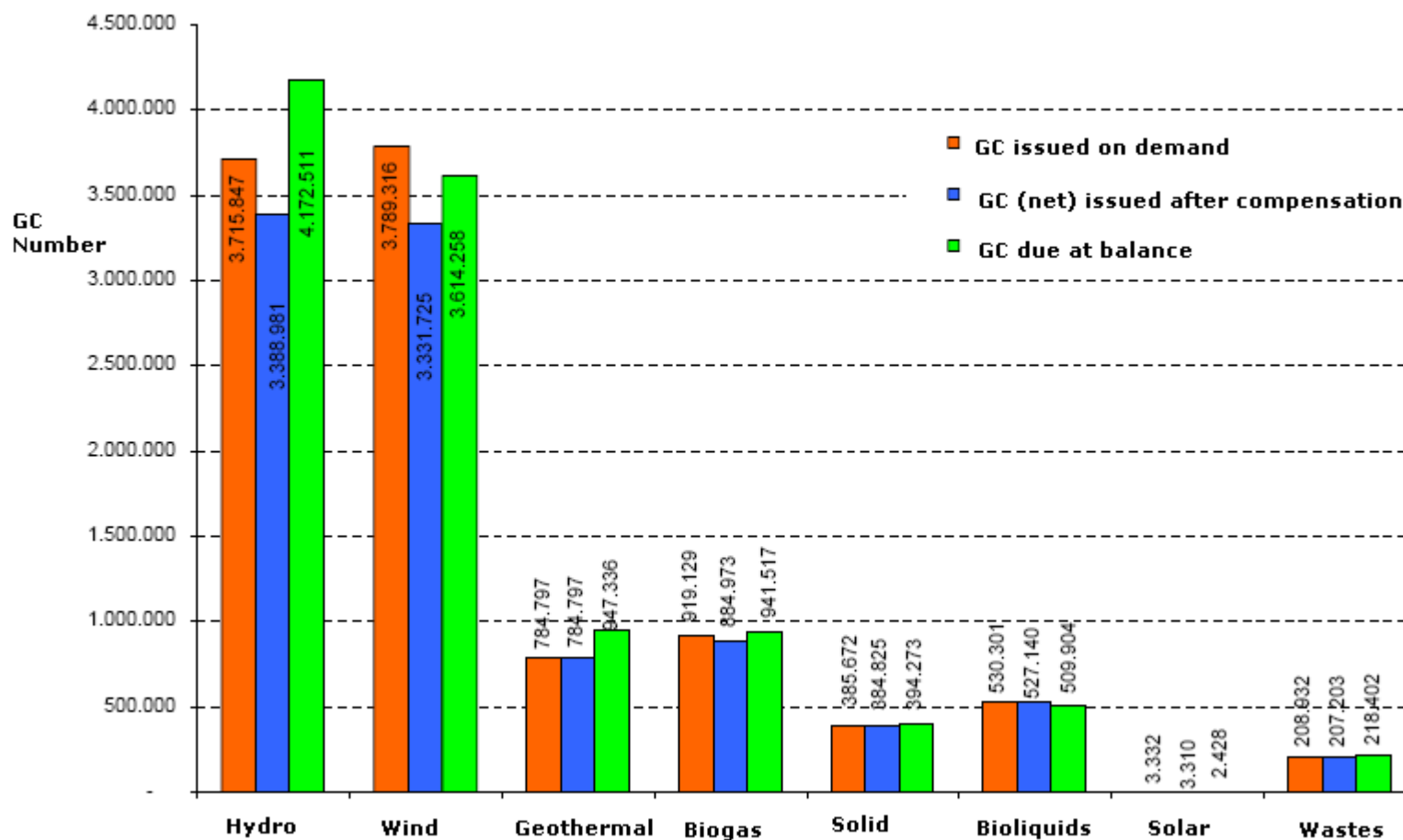
- The mechanism allows to deliver electricity produced by plants* into the grid and to withdraw the same amount of electricity when it is needed and the plants are not working, using the grid as a sort of “electricity tank”.
- The service entitles the applicant to get a yearly net metering contribution that is expressed in Euro. This contribution refunds the producer for part of the costs incurred for withdrawing electricity from the grid.

**Power plants and high efficiency cogeneration plants up to 200 kW exploiting renewable sources commissioned after 31st December 2007*

Micro and Co-generation

The same Law contains measures for the simplification of the installation and operation of cogeneration plants at high efficiency (art. 27, section 20), providing the simple communication to the competent authority for the micro-generation units, up to 50 kWe, and a declaration of the beginning of activities (DIA) for small cogeneration plants, up to 1 MWe.

GC Results in 2008



Source: GSE



New Incentive System

Positive Trend

- a)** Increase of RES plants below 1 MW supported with the feed-in tariff (all comprehensive" connected to the medium voltage grid):
 - the new construction of 300 - 500 plants/year
- b)** Increase of photovoltaic plants connected to the low voltage grid:
 - end of August 2009 went in operation 50.000 for total 500 MW
 - end of 2010 are expected to be in operation about 100,000 plants for total 1500 MW
- c)** Extension of the service of "on-the-spot trading" from 20 to 200 kW.
- d)** Data supplied by GSE on 29th June 2009 are clear:
 - biomass plants with power **< 1 MW**, entered in operation between the 1st January 2008 and the 29th June 2009 are 40, with an installed power of 24 MW and a production of 172 GWh
 - biomass plants with power **> 1 MW**, entered in operation between the same dates, are 27 with an installed power of 493 MW and a production of 3,693 GWh.

Conclusions

- The actual system of incentives seems to be favourable for investments in the field of RES. The last changes occurred to the system (mixed: new GC & new feed in tariff) allow the reduction of financial risks.
- For the stability of the market it is indispensable to keep the GC demand in equilibrium with the offer; on the contrary GC value decreases (new normative will start on 2012).
- In order to contribute to the attainment of the European targets, it would be opportune:
 - get regional guidelines for the allocation of national obligations
 - a further easier authorisation path
 - a significant adaptation of the actual national grid for the development of RES plants in more remote areas.

Renewable energy certificate systems in ITALY

Thank you for the attention

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