

Flexibility for RES Target Achievement: Cooperation Mechanisms from the Italian Perspective

**The Development of Renewable Energy Joint Projects with Third
Countries**

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Reshaping Project meeting, Milan, October 7th, 2011

Flexible mechanisms: an opportunity?

Member States are allowed to partially fulfil their RES target in other countries with higher RES potential or lower production costs. There are three intra-European cooperation mechanisms:

- statistical transfer,
- joint projects, and
- joint support schemes.

Additionally there is the **option to physically import RES electricity from third countries outside the EU** (“joint projects between member states and third countries”): this is what we see in this talk

IMPORTANT:

RES transferred under the RES directive must originate from newly installed RES plants. The transferred RES amount is thus verifiable and related to respective costs in the selling country.

Italy and RES import

- Only **five** member states expect to have a deficit of in total 2 Mtoe in 2020, less than 1% of the total renewable energy needed in 2020;
- Ten member states expect to have a **surplus** of in total 5.5 Mtoe in 2020, around 2% of the total renewable energy needed in 2020
- Italy aims at importing 1.2 Mtoe on the 5.5 stated by the 27 countries (i.e. 21% of the total)

Target 2020 for Italy: RES and emissions

Mton CO ₂	1990	2005
emissions	519.4	578.5
	Former reduction related to 1990:	Assigned reduction :
	-20%	- 14%
Reduction	104	81
Emissions, target 2020	415	497

Renewables	Mtoe	17%	Mtoe 2005	Target growth
Final consumption estimated	133	22.6	7.30	15.3
	144 formerly			

Italian import and RES-e

- Italy already imports some 35 – 40 TWh from neighbour countries which are internally accounted as RES (they are exempt from TGC obligation), but do not account for the calculation of the RES share on final consumption in EU
- This “leakage” heavily reduces the demand for Green Certificates and is partially the reason of the failure of the mechanism (GC will be no longer given to new schemes in 2013 and will be fully abandoned in 2015)
- With the RES target binding for all EU member states and the change in the rules of the game in Italy, this electricity will not be accounted as renewable any more → Italy subsidised nuclear generation in France, Germany, Swisse, Slovenia for many years!

Italian internal burden sharing

- Italy has not yet established the criteria for the internal sharing of the targets set by EU in January 2008 (Regions are responsible of energy administration according to Italian law)
- A draft of burden sharing has finally been circulated last week and seems to adopt the principle of **statistical transfer** among Italian Regions (art. 37 d.l. 28 3/3/2011), based on agreements between regions

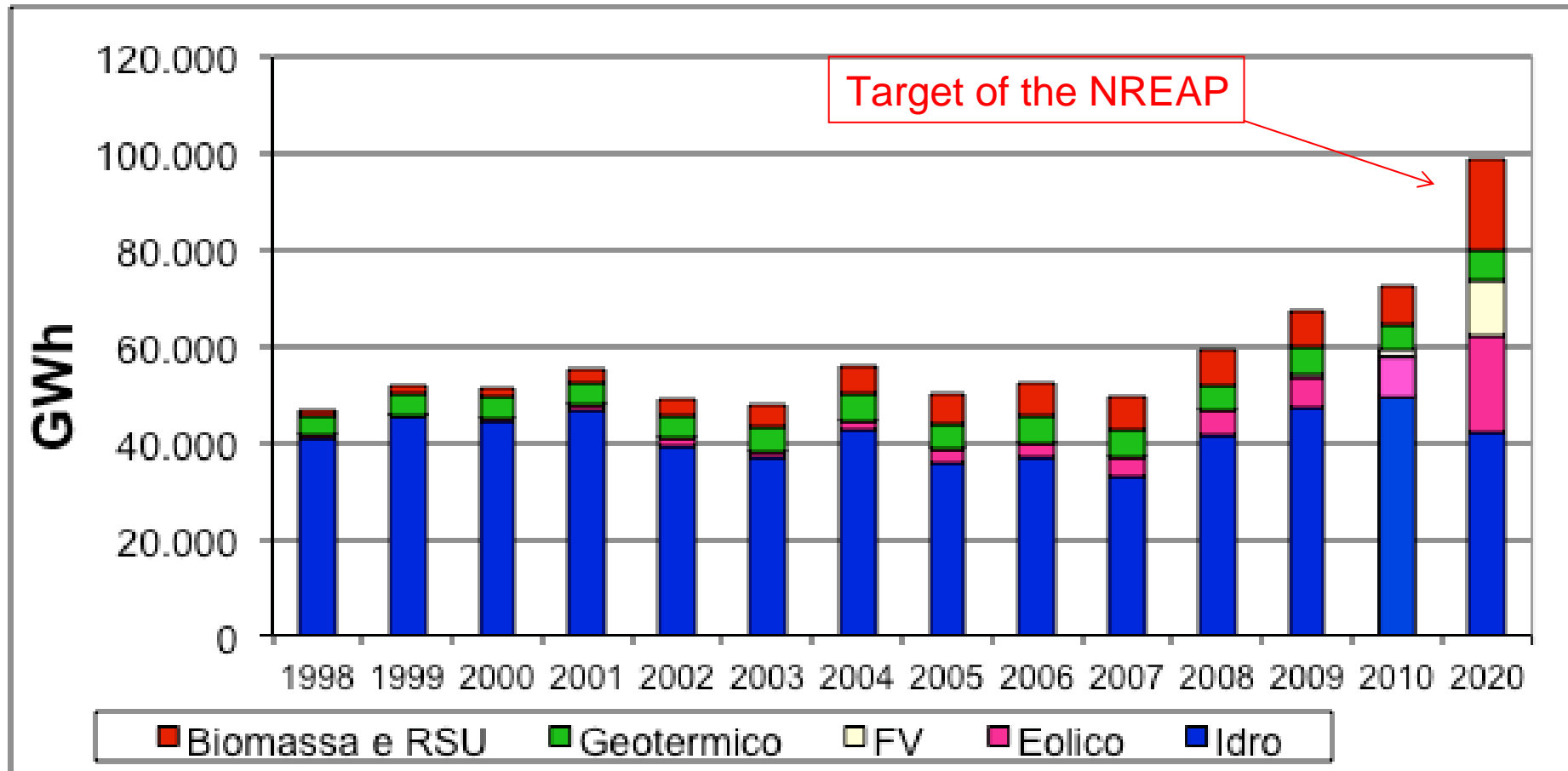
NREAP target 2020

	Installed 2010 (MW)	Target 2020 (MW)	Produced 2010 (TWh)	Produced 2020 (TWh)
Hydro	17,876	17,800	43.4	42
Wind	5,814	12,680	8.8	20
PV	11,080 (oct. 2011)	8,600	14.3 (est.)	13.6
Geothermal	772	920	5.4	6.75
Biomass	2,351	3,820	9.4	18.78
Total	37,893	43,820	68.3	101.13

For sure the target is below the potential.

But it is not yet clear if Italy is committed to the target

RES-e production in Italy



2020 RES target for Italy

	ktoe 2009	ktoe 2020	Share of the target
RES-E National Production	5380	8504	37,6%
RES Import	0	1127	5,0%
RES-H	1916	10456	46,2%
RES-T	--	2530	11,2%
Total	7300	22617	100,0%

Importing RES-e: no alternatives?

- The development of new projects is quite difficult for their scarce social acceptance, even if the potential could be high
- Investments are rarely understood as opportunities for local development
- The choice to include imports of RES-e from third countries was supported by some companies which were developing new projects in the balcan countries, with lower investment costs

Import of RES in Italian NREAP

Third Country	Start of imports	TWh from RES/year	Mtoe from RES/year
Switzerland	existing	4	0.34
Montenegro and Balkan States connected to the Montenegrin network	2016	6	0.51
Albania	2016	3	0.26
Tunisia	2018	0,6	0.05
		13.6	1.16

The link with Montenegro has received its final approval on the 23rd of November 2010 with an agreement between the Governments of the two countries

Projects under development by Italian companies in Albania & Serbia

Type of plant	S/type	Installed Power MW	No of agregates	Annual generation GWh	Status
Hydro	basen	100	2	na	project
Wind farm	off-shore	500	250	na	project
Thermal	biomass	140	9	1093	project
Wind farm	off-shore	234	78	750	project
Wind farm	off-shore	150	75	300	project
Wind farm	off-shore	150	75	330	project
Wind farm	off-shore	225	75	750	project
Wind farm	na	27,6	na	na	project
TOTAL Albania		1526,6		3223	
Hydro Serbia (SECI)		103	10	450	project
Hydro Montenegro (A2A)		900	na	na	project

The agreements signed by the Italian Government

- The Italian government has supported the investments abroad of Italian companies
- A fully reciprocal system has been designed with Albania with a Green Certificate support mechanism (1526 MW, 3220 GWh)
- A further agreement to extend Italian green certificates also to Serbian renewable plants, is under discussion
- Similar agreements were under discussion with Montenegro and Tunisia

A wise choice?

- The investing companies can have very good returns from projects with lower cost and same income
- The Italian consumers pay the incentive without gaining the benefits from local development (the multiple dividend of RES)
- No tax income for the Italian State
- No lower cost for the total support, when the subsidy abroad is the same of domestic projects

The effect on the electricity prices

- The value transferred from the Italian electricity consumers to foreign projects is high; with the present support system:
13.6 TWh @ 90 €/MWh = 1.2 G€/year

The incidence is in the region of 5% of wholesale price!

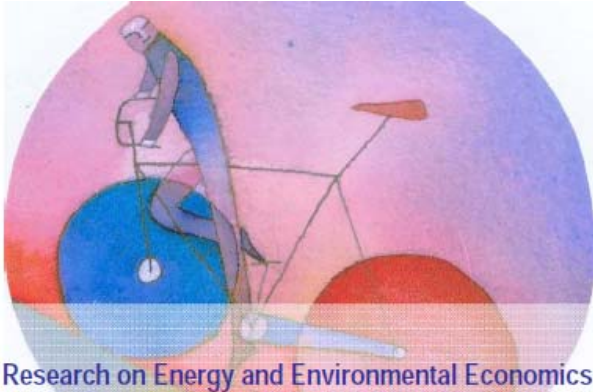
Almost 0.1% of Italian GDP for 15 years!

Italian support to projects abroad

- The Directive prohibits the third country to grant any form of support, other than investment aid
- The support scheme in Italy is under re-design (from 2013) and it is not known how the projects will be supported
- The system based on tenders could reserve the capacity for projects abroad

Open issues

- Long pay back of the RES projects. How can they be sure of the availability of the transmission lines?
- The projects face double country administrative risk
- The recent growth of PV capacity seems to change the perspective of domestic production well beyond the NREAP. Could the appeal of the import vanish?



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