

**REALISE-Forum Conference on "Renewable Energy and Liberalisation in Electricity Markets:
Lessons and Recommendations for Policy"**

Session 3: Round Table "Attaining of the RES-E target - Are we on the right track?"

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Historically, renewable energy sources, particularly hydropower and, albeit to a lesser extent, geothermal power, have long made a substantial contribution to Italy's electricity needs. In the last few decades, however, ever growing electricity consumption has caused Italian producers to have recourse to more and more fossil fuels, thus making the share of renewable energy contribution smaller and smaller in percentage.

It is well-known that Italy is not rich in domestic resources of coal, oil and natural gas, and depends heavily on imported fossil fuels. This trend has therefore been increasing also Italy's foreign energy bill, drawing attention to the need to save energy and exploit all domestic sources, particularly the renewable ones.

The current structure of the electricity market in Italy has been shaped by Legislative Decree No. 79 of 16th March 1999, which was issued to transpose the European Union's Directive 96/92/EC, but actually brought about a thorough restructuring of the domestic electricity sector.

This sector had, since 1963, been controlled by the state board Enel, a so-called "vertically integrated undertaking" which was concerned with production, import, transmission, distribution and sale of electrical power. The first signal of the Government's willingness to liberalise the electricity market was the establishment of the Regulatory Authority for Electricity and Gas in 1995, but it was not until 1999

that the aforementioned Decree 79/99 (also known as Bersani Decree) actually changed the situation on both the offer and the demand side.

Enel was turned into a holding company controlling several subsidiaries. Its stock was mostly sold out to the public (now about 70% of the shares are held by a large number of private people and bodies). No Italian company was allowed to hold more than 50% of produced or imported electrical energy and Enel was therefore obliged to hand over 15000 MW of its generating capacity to newly-established companies. Production was fully liberalised and an independent Transmission System Operator was set up (at present the TERNA company plays this role), along with the Electricity Market Operator (GME).

The same Decree 79/99 (Bersani Decree) that restructured the electricity market also set up a new RES-E support system. Unlike the former CIP 6/92 scheme based on feed-in tariffs, the new system was intended to be more market-oriented and consisted of a RES-E Quota obligation upon non-RES electricity producers and importers, and tradable green certificates (TGC) to be issued to RES-E producers.

Italy's RES-E support system as it is at present, with the Quota/TGC scheme as major instrument but with the recent complement of some feed-in tariffs available for photovoltaic (PV) installations, seems to be able to keep up the confidence of investors and financial institutions. This has been demonstrated by the brisk deployment of some new RES-E technologies (especially wind farms and small hydro) in the last few years, and by the very recent surge of new PV plant projects following the Decree on feed-in tariffs.

It has to be borne in mind, however, that the Italian Quota/TGC scheme has features that make it somewhat different from those running in other countries. It could be defined as a "mixed type" scheme, which is placed in between the two main concepts of feed-in tariffs, on the one side, and TGC, on the other. In fact, the TGC market price is not set by the free play of offer and demand only, but it is controlled in a way that gives investors some more guarantees of profitable income, at least in the short term.

The Annex to RES-E Directive 2001/77/EC set, as indicative target for Italy, an increase of RES-E contribution to gross domestic electricity consumption from 16% in 1997 to 25% in 2010. Nevertheless, in a footnote to the same table, Italy stated that *"....22% would be a realistic figure, on the assumption that in 2010 gross national electricity consumption will be 340 TWh. When taking into account the reference value set in this Annex, Italy has assumed that gross national electricity production from renewable energy sources will attain up to 76 TWh in 2010....."*.

The Directive has been transposed into Italy's legislation by Decree 387 of 29th December 2003 and the 22% target has, for the moment, been taken as the reference for Italy's RES-E development. Raising the RES-E percentage from 16% to 22% could seem rather easy, but this job is actually tougher than it would seem.

Since Italy's domestic RES-E production has been, in the last few years, steadily in the range of 48-55 TWh/year, reaching a top of 55,7 TWh in 2004, and considering that the hydropower potential has almost been wholly exploited with regard to large plant sites, and geothermal resources are confined to certain areas, a considerable effort should be made to develop the other new renewable sources in the next few years if the target of 76 TWh/year is to be reached by 2010 through domestically-produced RES-E only.

Furthermore, it should be remembered that 76 TWh/year is a 22% contribution only under the assumption that the 2010 gross electricity consumption will be about 340 TWh, as stated by Italy in the Annex to the Directive. In fact, this quantity was exceeded already in 2004, when Italy's gross consumption was nearly 349 TWh (it became 353 TWh in 2005). It could therefore be inferred that it would not be so easy for Italy to achieve a 22% contribution through domestic RES-E production only.

This feeling was also shared by many of the RES-E stakeholders who answered the questionnaire sent out within the framework of the REALISE-Forum project, as part of the Italian consultation desk. Only few stakeholders felt Italy is likely to achieve its 2010 RES-E target set by Directive 2001/77/EC. The discussion at a subsequent hearing pointed out that some sources, such as small hydropower and wind, had been going ahead at a brisk pace thanks to support schemes, whilst others, such as biomass and solar energy, had long been behind schedule for the lack of a more suitable policy. The former CIP 6/92 feed-in tariff scheme was also blamed for diverting plenty of subsidies from real RES-E plants to other, so-called assimilated ones (e.g. CHP plants, even if fired by fossil fuels).

It should also be added that RES-E production has not been growing at a steady rate even in the last few years. In 2005, for instance, total gross RES-E production dropped by 10,4% in respect of 2004. This can be explained considering that most (over 70%) of Italy's RES-E capacity still consists of hydropower plants, which depend upon yearly rainfalls.

Referring to 2005 data taken from a recent report [1] by GSE (formerly GRTN, the body in charge of running RES-E support schemes), total gross RES-E production corresponded to 16,4% of total gross domestic production, and only 14,1% of gross domestic electricity consumption (Italy imports about 15% of its electricity from neighbouring states every year). The same percentages for 2004 were, respectively, 18,3% and 16,0%. Hence one could remark that even 2005 saw the continuing up-and-down trend of RES-E percentages over time, as shown by Figure 1.

Even though more plentiful rainfalls can well occur in next years, along with the continuing build-up of new RES-E capacity from technologies other than large hydropower thanks to support policies, there seems to be some ground for the pessimistic outlooks many Italian RES-E stakeholders set out about the chances of attaining the Directive's target by 2010.

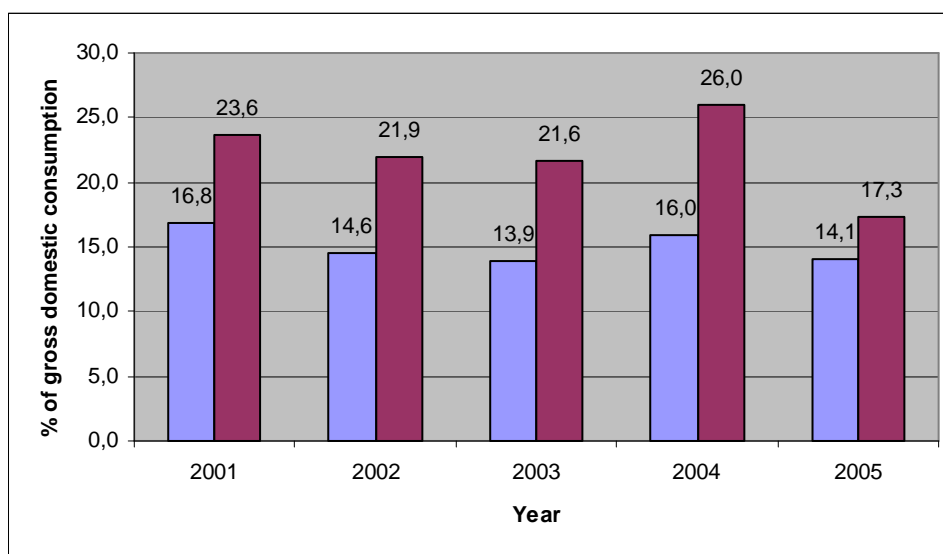


Figure 1 - Percentages of gross domestic RES-E production (blue) and overall RES-E input inclusive of certified RES-E imports (red) from 2001 to 2005.

The situation however looks better if imported RES-E (provided it is certified by a Guarantee of Origin like that each EU country should set up according to the Directive) is also taken into account in calculating the national percentage. In fact the Directive seems to leave this way-out open, as it does not state explicitly that the contribution to gross domestic electricity consumption must come from domestically produced RES-E only. If certified imports were included, according to data available from the recent GSE report mentioned above (see Figure 1), Italy's overall RES-E percentage would get close to, or even exceed, 22% in some of the past years. Particularly, it would rise from 16% to 26% in 2004, and from 14,1% to 17,3% in 2005.

In this connection it has also to be recalled that, in the nation-wide REALISE-Forum enquiry, many a complaint came up from RES-E stakeholders as an alert that the whole process of promoting RES-E in Italy is not yet fully satisfactory and still needs some further measures to be taken without delay.

Complaints did not concern so much the current support mechanisms, which generally seemed to be pretty well accepted. This was shown, for instance, by the fact that a significant share of respondents to the questionnaire were against any change to the current system in the next 5 years. Many chose "only harmful" as their judgement on any possible change, others said a change would be only "somehow useful". Only a minority were convinced that some change would be quite useful.

Complaints rather referred to some practical ways Italy's RES-E support policy had been implemented so far. Actually, RES-E stakeholders, especially investors, often complained of delays in issuing long-awaited implementing measures regarding e.g. new grid-connection rules, a single streamlined

procedure for plant permitting, RES-E Quotas for the years from 2007 onwards, regional RES-E targets and several other implementing measures required by Decree No. 387 of 29th December 2003 (transposing Directive 2001/77/EC). Some of these measures are still lacking at the present time.

It is felt that some of the above-mentioned matters could also have a bearing upon the envisaged EU-wide co-ordination process of national RES-E support systems. When asked, in recent interviews, what should be done in practice to favour co-ordination of support schemes at the EU level, some major stakeholders said that it would, first of all, be helpful to undertake actions aimed at setting up more similar rules on key issues such as plant permitting procedures, market access, grid-connection codes, RES-E priority in dispatching etc. in the various EU Member States. Without previously bringing these aspects to more uniform conditions, efforts for co-ordinating national RES-E support systems might be thwarted.

Reference

- [1] Annual Report "Statistiche sulle fonti rinnovabili in Italia - Anno 2005", published by GSE S.p.A. (formerly GRTN) in October 2006 and available from the web site www.gsel.it.