

# Italians, Renewable Energy Sources and EU “Climate Vision”

By Paolo Polinori\*

Changes in Italy’s political and institutional set up have brought with them new aims to comply with EU directives regarding energy. In line with the European Union Directive 2001/77/EC on renewable sources, the Italian aim is to achieve a 22% share in renewable energy source (RES) electricity production by 2010; the annual cost necessary to reach this aim is estimated at 2 billion €.

Even in early 2007, new EU goals, i.e., 20-20-20, were aiming for 20% of total energy resources by the year 2020, together with a goal of 20% energy saving; the annual cost necessary to reach this aim is estimated at 5.2 billion €. With this background, it has now become crucial to explore Italian consumers’ willingness to pay (WTP) in order to use “green energy” in electricity production. We did this using various methods.

In order to derive estimates of WTP, three national surveys, with 1600 interviews each, were carried out in July 2007, December 2007 and June 2008. The stratified samples are highly representative of the 46.8 million individuals’ resident in Italy. The surveys were conducted by CATI and CAWI methods, by Istituto Piepoli. These surveys were not performed ad hoc but we were able to interact with survey staff in order to define the language of the questionnaires. The full raw data-sets were given to the authors for processing, so in theory no hidden non-stochastic distortion (such as recording mistakes) should affect results.

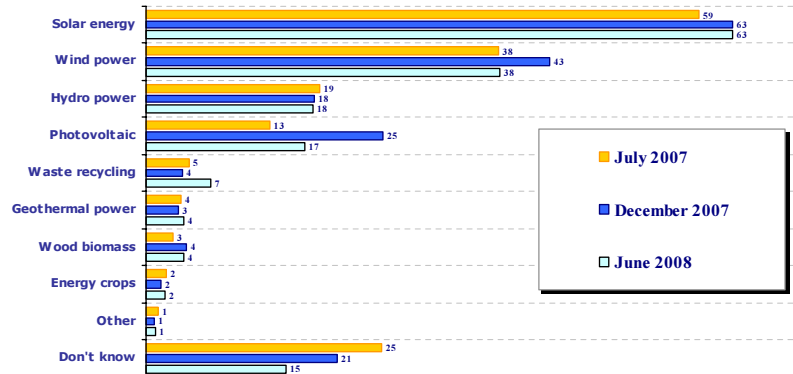


Figure 1. Knowledge of RES (%; 1600 obs. each survey)

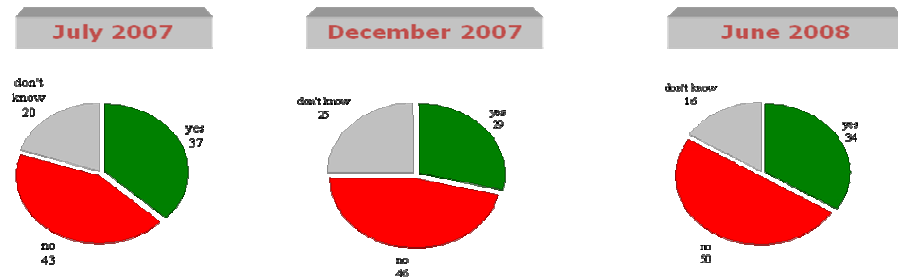


Figure 2. “Are you willing to pay extra for your electricity in order to use green energy in electricity production?” (%; 1600 obs. each survey)

## Do Italians Know About RES?

In the surveys each respondent was questioned on: i) RES and their potential development; ii) the Italian Energy System; iii) amounts of money (bids) in order to support RES development in Italy. Figure 1 shows the statistics of “Knowledge variables”, i.e., whether respondents have or do not have good knowledge of RES.

79% of the total respondents answered that they know about RES. The best known sources are solar power, hydro and wind power, whereas biomass, energy crops and geothermal power are little known. These results show that Italian people have a good knowledge of RES.

## Are Italians Willing to Pay for RES?

One very interesting result concerns the respondents’ favorable attitude to RES (Figure 2): more than 30% of the respondents declared a positive WTP in order to increase RES use in energy production, while 20% were undecided.

In the last section of each survey questionnaire consumers’ WTP was elicited by different formats (payment card, bidding game, contingent evaluation) but here we present aggregate results (Figure 3). Among respondents with a positive WTP, the average amount respondents are willing to pay constantly increases with time. Another important result is that 80% of them, on average, are willing to pay from 0.1€ to 10€ , while only 5%, on average, is willing to pay 20€ or more.

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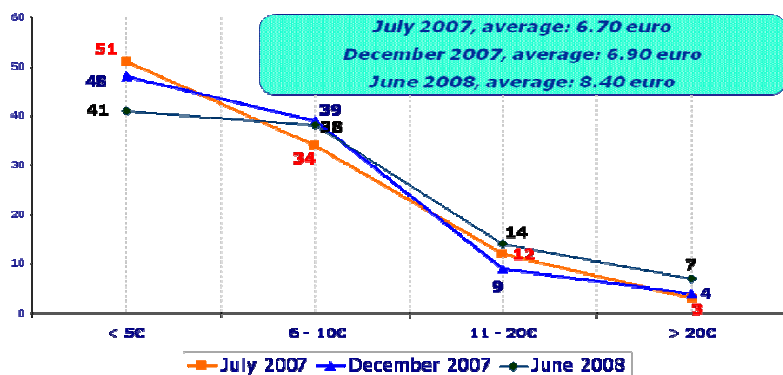


Figure 3

	Mean WTP (€)	Annual electricity bill (No.)	Households (No.)	Total annual WTP (€)	Annual subsidy cost (€)		Market sustainability (%)	
					22%	20-20-20	22%	20-20-20
July 2007	6.70			876,789,175			43.84%	16.75%
December 2007	6.90	6	21,810,676	902,961,986	2,000,000,000	5,234,562,240	45.15%	17.25%
June 2008	8.40			1,099,258,070			54.96%	21.00%

Table 1

The above findings support the view that, in Italy, there is some consensus on the development of RES. In monetary value this consensus to cover the cost is estimated as less than 20% of the total subsidy cost under the new EU “Environmental Regime”, while under the old one it was, on average, 50%. Regrettably, the increasing EU expectations on energy efficiency and CO<sub>2</sub> emission reduction will tend to reduce the market sustainability of the EU’s climate vision.

## Report from the Spanish Affiliate

The Fourth Conference of the Spanish Association for Energy Economics took place in January 22-24, 2009 in Seville, at the IPTS (JRC-European Commission) headquarters, and was considered by all participants a large success. The Conference was able to draw together more than 60 representatives from academia, energy companies, and Spanish and international institutions (including regulators, public bodies, and NGOs), which presented their research on Energy Economics, and which participated actively in the plenary session (given by Dolf Gielen, from the IEA) and the round tables (on biofuels; and on the impact of the economic crisis on the energy sector). The presentations will be available shortly at [www.aeee.es](http://www.aeee.es). The organizers of the Conference (IPTS and U. Pablo de Olavide) were widely praised for their good management of the events, and the significant degree of attendance and participation. The Conference ended with a visit to one of the first solar thermal power plants being built currently in Spain. The Conference was sponsored by the Andalusian Energy Agency, Endesa and IPTS.

Econometric results confirm these WTP amounts, the highest mean WTP amount obtained is 9.39€ with a confidence interval of [9.24€ – 9.50€], while the lowest is 3.74€ with a confidence interval of [3.45€ – 3.91€].

### Is Italian WTP Sufficient to Reach EU Goals?

The main question is whether Italian WTP is sufficient in order to achieve EU goals. We found that consumers were quite willing to cover the cost of the goals partially. Table 1 shows that with the old goal (European Union Directive 2001/77/EC), the capacity to cover costs lies between 44% and 55% and this is an encouragingly high percentage in the context of EU policy; unfortunately with respect to the new goal “20-20-20” the capacity is much lower, between 17% and 21%.