REALISE FORUM

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First Workshop of the REALISE-Forum Project

"Three Years of Green Certificates: Are They out of the Infancy Phase ? "

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Perspectives of Italian Stakeholders on Renewable Energy Support Schemes

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RES-E Support System in Italy

The main support system has been shifting from CIP 6/92 feed-in prices to RES-E Mandatory Quota with Tradable Green Certificates (TGC)

- **CIP 6/92 feed-in tariffs are guaranteed to RES-E plants over the first 8 years. Values depend on source and year (e.g. for wind about 13 c€/kWh in 2005)**

  Lists of entitled CIP 6/92 projects were closed long ago and last CIP 6/92 plants are going in operation in 2005.

  CIP 6/92 capacity should peak in 2006, then go down to zero in 2013

  "RES assimilated" plants have got a large share of CIP 6/92 funding

- **The Quota/TGC system, set up by Legislative Decree 79/1999 and now regulated by Decree of 24.10.2005, is the main support currently available to new RES-E undertakers.**

  In force since 2001 (first RES-E production obligation in 2002)

The Italian Quota/TGC System

- **Producers or importers of non-RES electricity exceeding 100 GWh/yr must feed the Italian grid with a RES-E quota of at least 2% of their non-RES energy the following year (+ 0.35%/year in 2004-06)**
- **Compliance must be shown by submitting TGC to GRTN (Gestore del Sistema Elettrico).**
- **TGC are granted by GRTN to IAFR-qualified RES-E plants in the first 8 years of lifetime. One TGC = 50 MWh (formerly 100 MWh)**
- **Only new or re-powered RES-E plants that have gone in operation after 1st April 1999 are qualified to get TGC (IAFR)**
- **Obliged subjects can either hand in their own TGC or buy TGC from RES-E producers on market run by GME (Electricity Market Operator)**
- **Also feeding certified imported RES-E into the Italian grid is allowed (conditional upon reciprocity)**

The TGC Market in Italy

- The market price of TGC should result from demand by obliged subjects versus supply by IAFR-qualified RES-E producers
- TGC due to IAFR-qualified plants that also get CIP 6/92 feed-in prices are retained by GRTN, which must sell them at a price fixed every year according to Decree of 24.10.2005

  (from 8,418 c€/kWh in 2002 to 10,892 c€/kWh in 2005)
- At present, GRTN's TGC actually set the TGC market price
- Leg. Decree 387/2003 transposing Directive 2001/77/EC defined RES-E in accordance with the Directive, but Art. 17 entitled also some non-biodegradable fraction of waste to get TGC
- Law 239 of 23.08.2004 grants TGC to electricity from H_2 , fuel cells and CHP plants for district heating

Other Features of the RES-E Market

- RES-E plants can take part in the free electricity market if programmable and with capacity of at least 10 MVA (5-6 c€/kWh)
- If not programmable or below 10 MVA, the grid operator must buy their output at a price set by the Regulatory Authority (4-5 c€/kWh)
- Energy from RES-E plants not exceeding 20 kW is paid only on a net-metering basis
- Come-back of feed-in tariffs for solar PV plants.   Decree issued on 28th July 2005 (44,4 to 49 c€/kWh for whole production)
- Capital cost subsidies available from some Regions or state programmes (e.g. PV Rooftops Programme)
- Voluntary-based RES-E labelling systems (RECS, Guarantee of Origin, “100% energia verde” brand)

REALISE-Forum Enquiry among Stakeholders

- For the Italian Desk, a questionnaire was drawn up and sent to about 300 RES-E Stakeholders by CESI with the assistance of APER (Association of RES-E Producers). 82 questionnaires were filled in.
- Question 1: State your main area of activity and owned RES-E capacity

RES-E producers and their associations	42
Other electricity producers and associations	4
Manufacturers of RES-E plant components	2
Public authorities and grid operators	6
Research and certification institutes	5
Banks and other financial institutions	6
Consumer and environment associations	2
Others (multiple roles, including electricity traders)	15

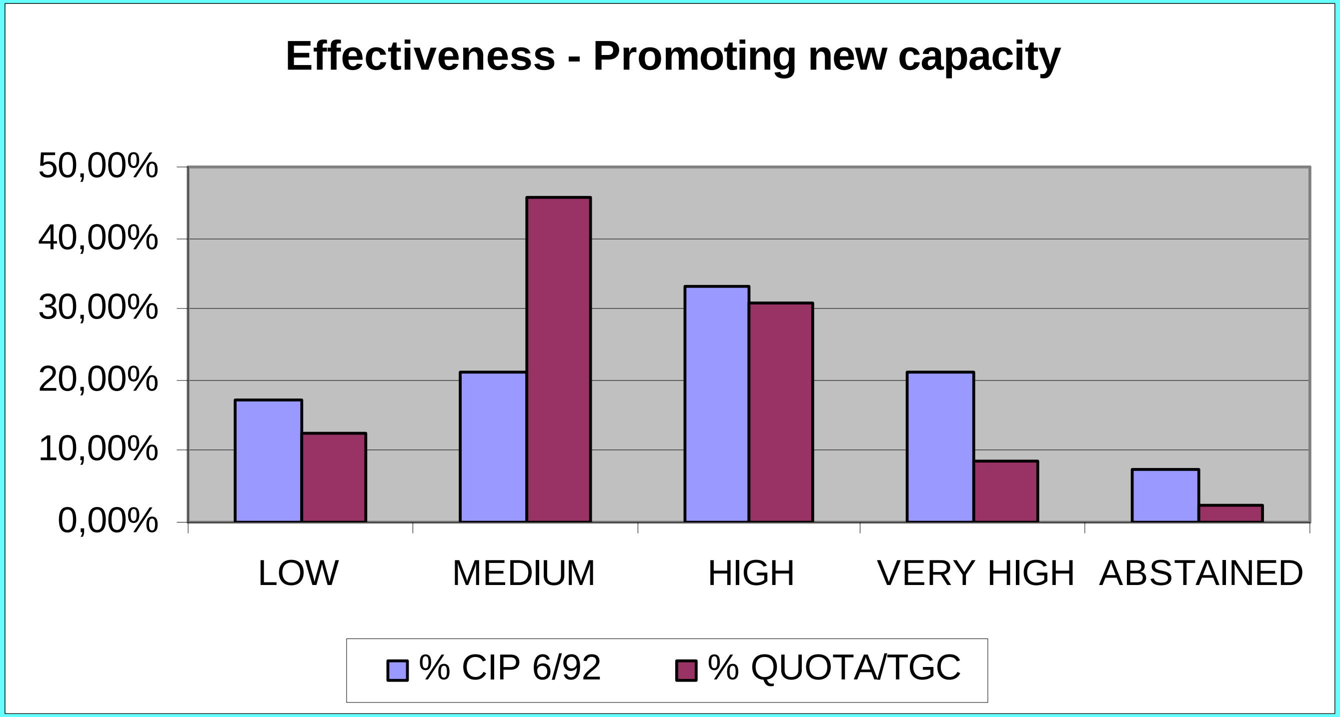
RES-E producers from hydro, geothermal, wind, biomass, solar PV plants

31 respondents have RES-E capacity <10 MW, 8 10-100 MW, 6 >100 MW

Question 2 - a

State the degree of effectiveness you perceive of the CIP 6/92 feed-in and the Quota/TGC system, respectively, as regards

a) promoting the deployment of new RES-E capacity



Even though ranking is rather widely scattered, both systems get fairly good average rating. CIP 6/92 feed-in is however better placed than Quota/TGC

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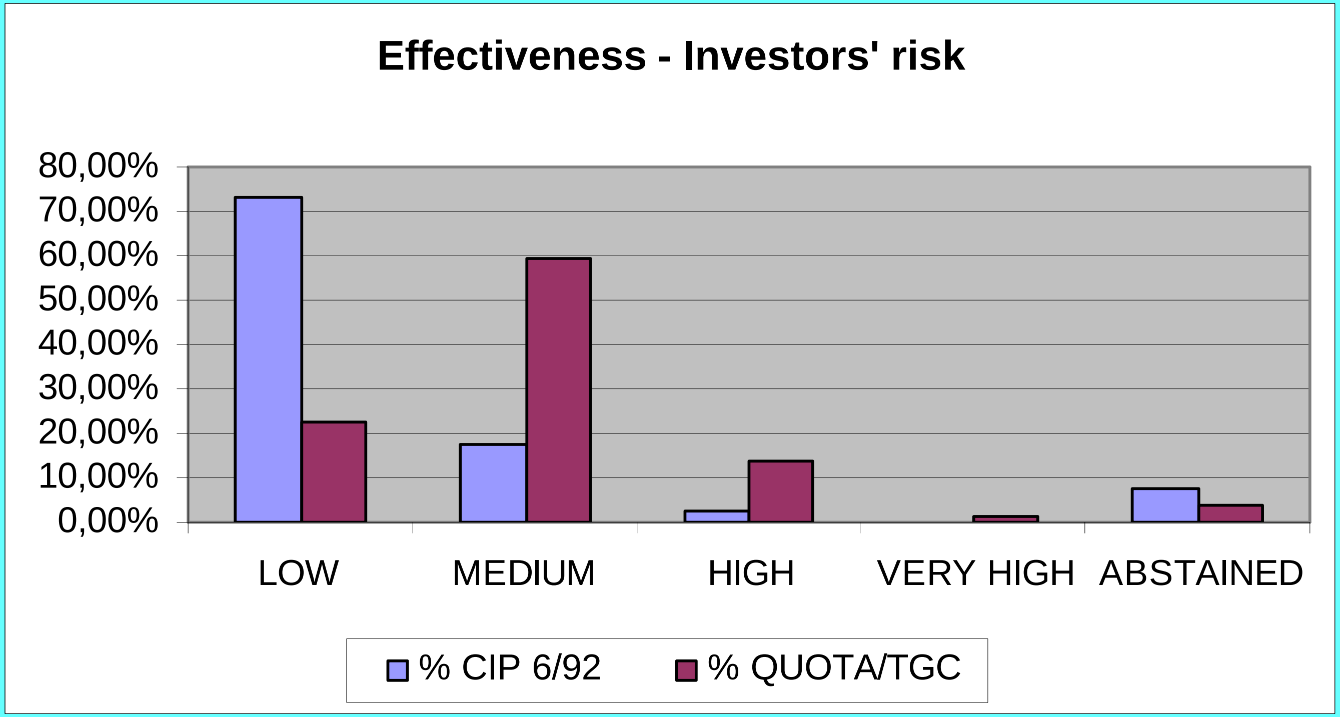
Question 2 - b

State the degree of effectiveness you perceive of the CIP 6/92 feed-in and the Quota/TGC system, respectively, as regards

b) risk incurred by investors

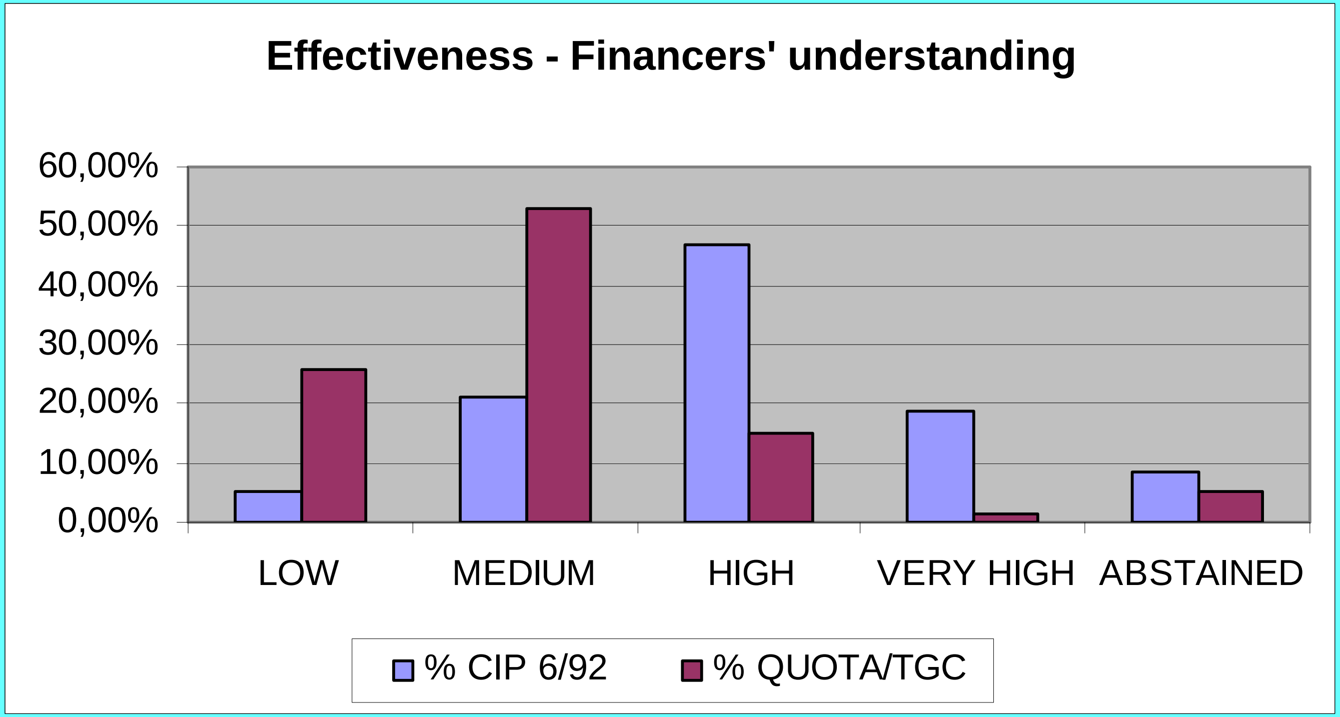


Neither system is felt as very risky. However, the risk of CIP 6/92 feed-in is mostly deemed low, whereas the risk of Quota/TGC is perceived to be higher

Question 2 - c

State the degree of effectiveness you perceive of the CIP 6/92 feed-in and the Quota/TGC system, respectively, as regards

c) degree of understanding and acceptance by financing institutions



On average, the degree of understanding is pretty high for CIP 6/92 feed-in, but lower for Quota/TGC (new scheme)

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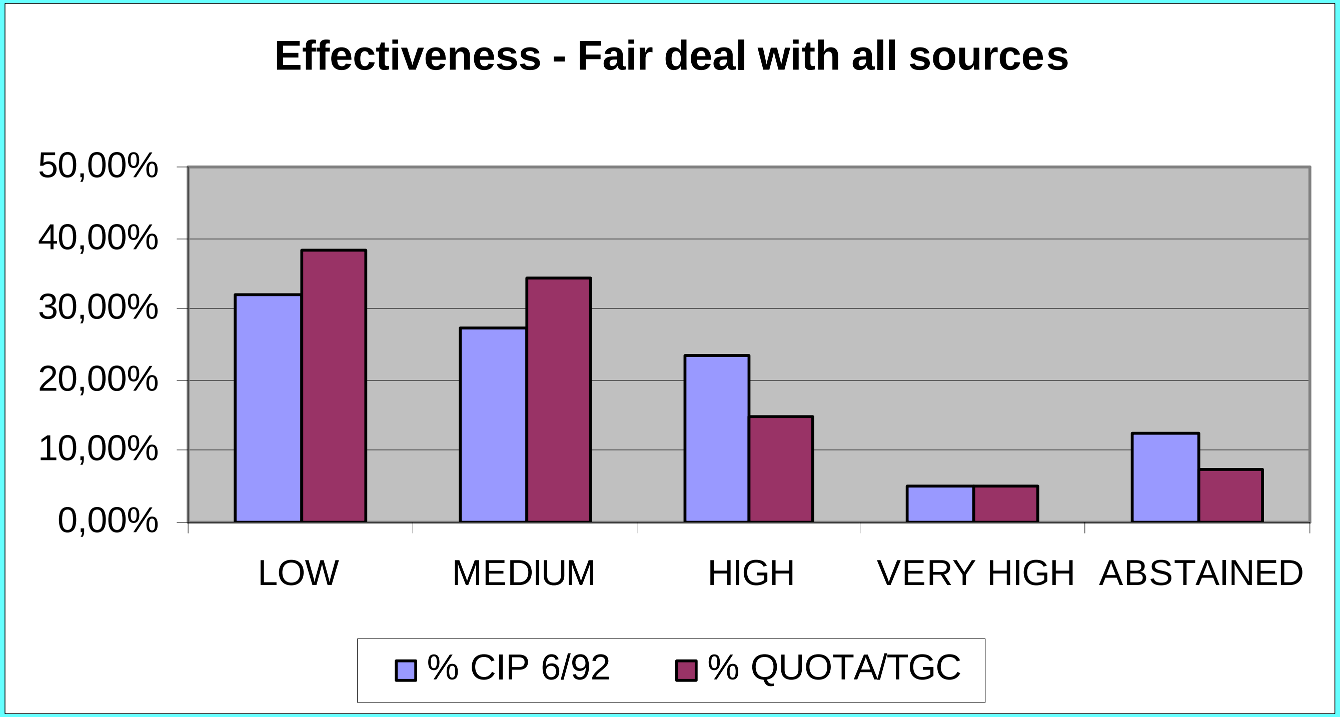
Question 2 - d

State the degree of effectiveness you perceive of the CIP 6/92 feed-in and the Quota/TGC system, respectively, as regards

d) fair dealing with all the various energy sources

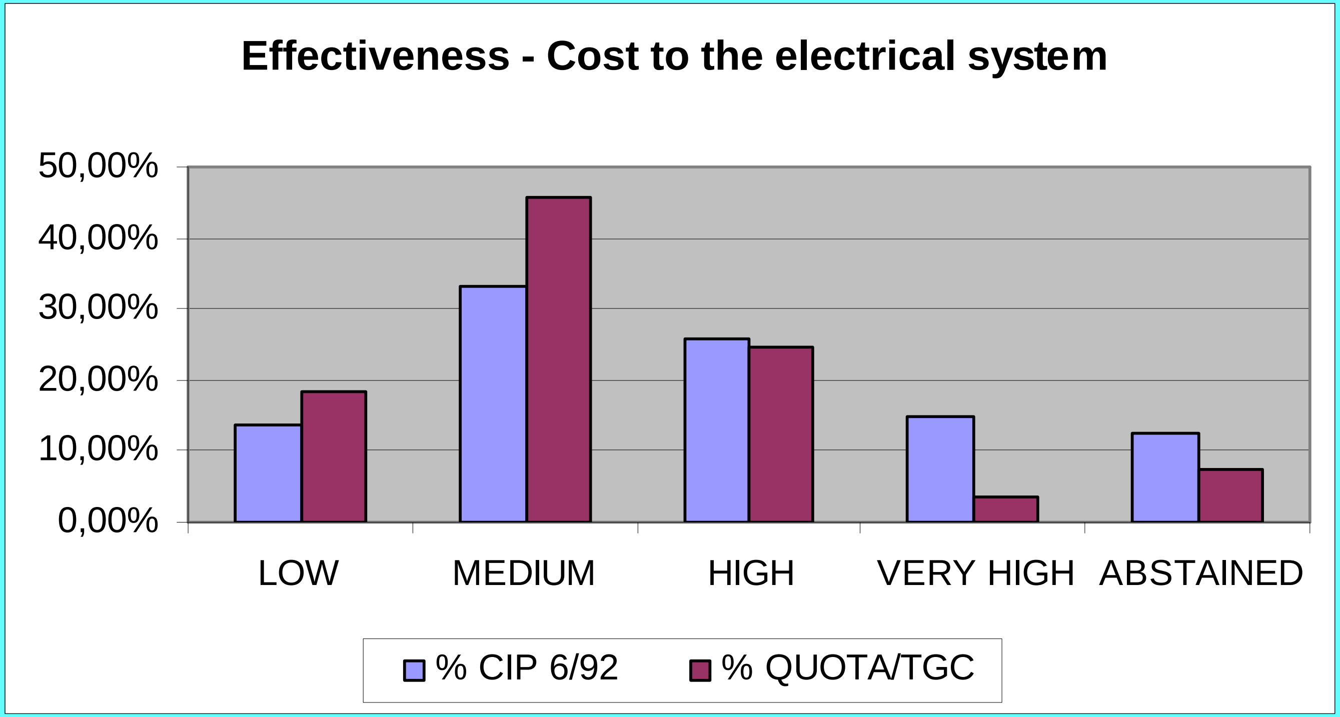


The capability of giving all sources a fair deal has mostly been found medium or low for both CIP 6/92 feed-in and Quota/TGC

Question 2 - e

State the degree of effectiveness you perceive of the CIP 6/92 feed-in and the Quota/TGC system, respectively, as regards

e) cost to be borne by the whole electrical system



On average, cost is deemed medium to high for both systems, but somewhat higher for CIP 6/92 feed-in. Difference between 2 stakeholder groups

Question 2 - e

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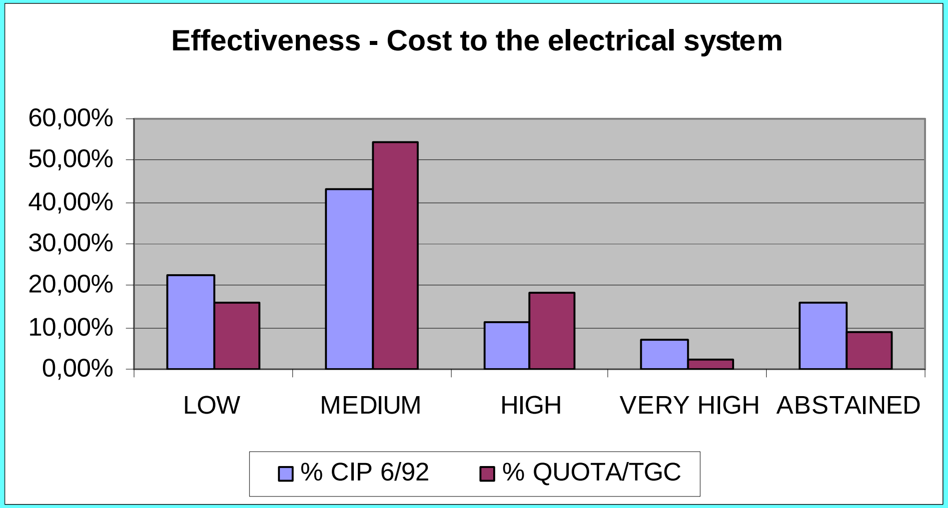
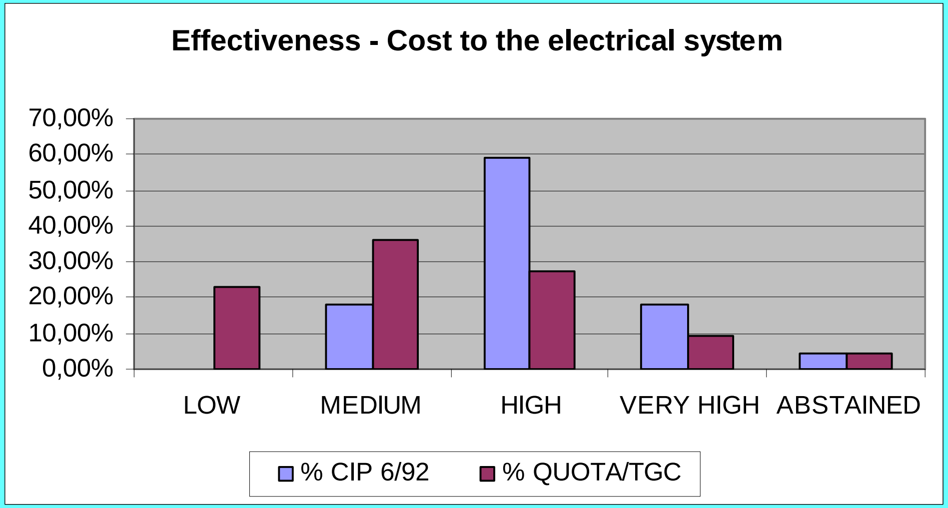
e) cost to be borne by the whole electrical system

RES-E Producers & Manufacturers



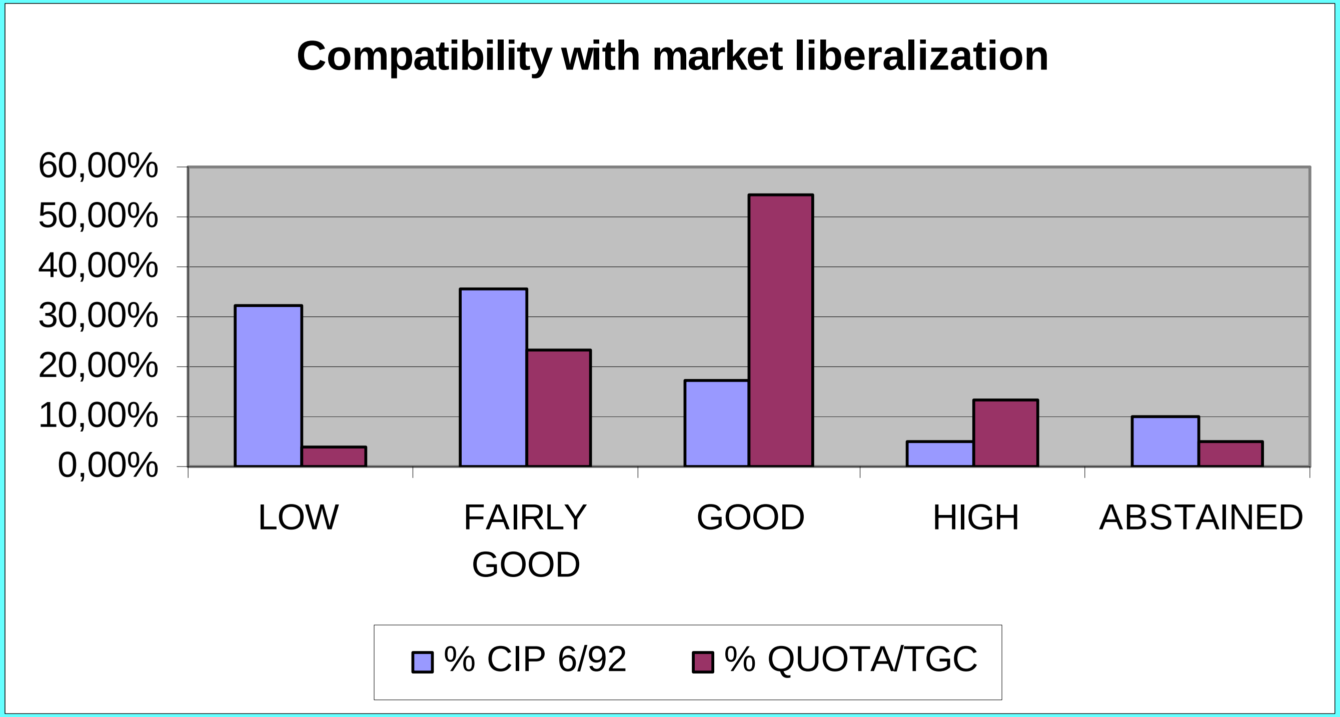
Outside World



Cost of CIP 6/92 feed-in system is judged far more severely by Outside World, i.e. stakeholders who are not in business as RES-E Producers or Manufacturers. The same have more scattered opinions on Quota/TGC

Question 3

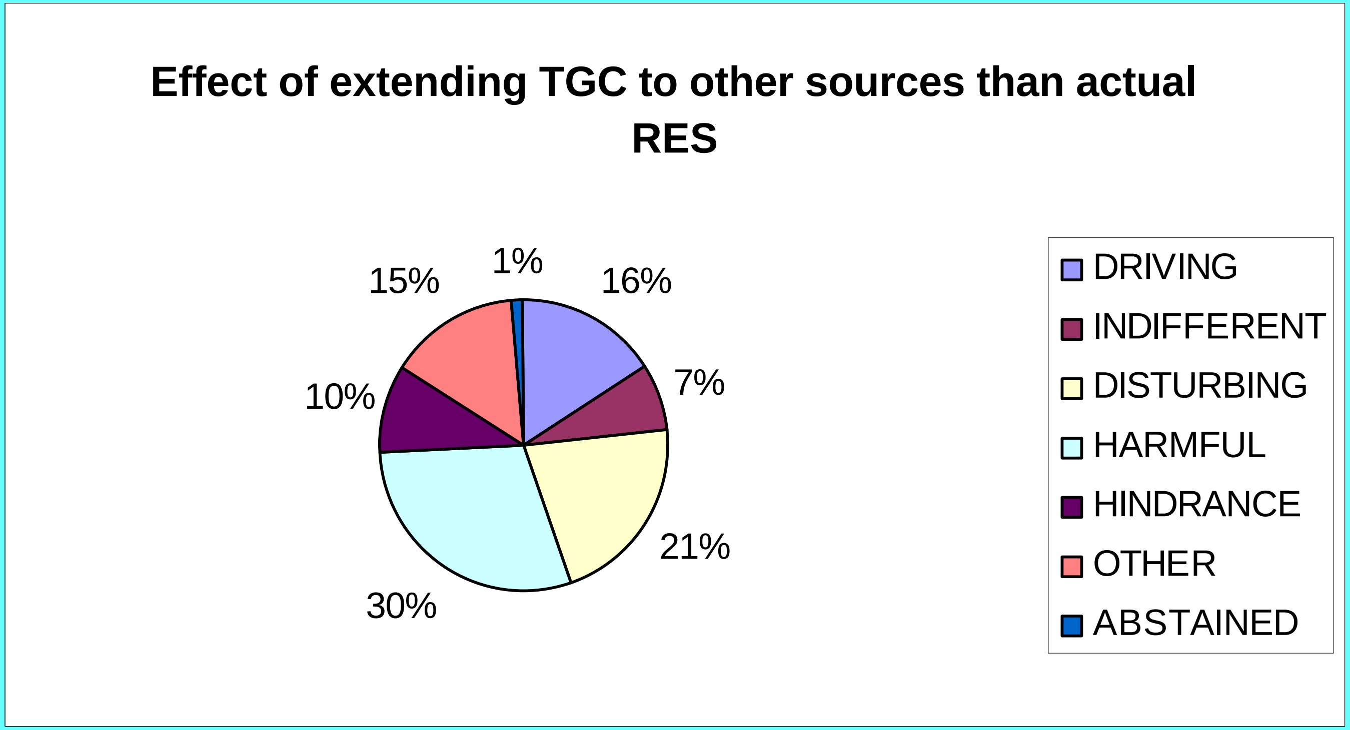
State the degree of compatibility of the CIP 6/92 feed-in and the Quota/TGC system, respectively, with the recent liberalisation of the electricity market



The Quota/TGC system is mostly perceived as well compatible with the liberalised market, definitely better than the CIP 6/92 feed-in system

Question 4

How do you see the effect of the recent extension of TGC to other, non-strictly-renewable sources (non-biodegradable waste, H_2, fuel cells, CHP for district heating) in respect of RES development ?



Over 60% of stakeholders have a clearly negative view of the extension. About the same trend in the group of RES-E Producers & Manufacturers and that of Outside World.

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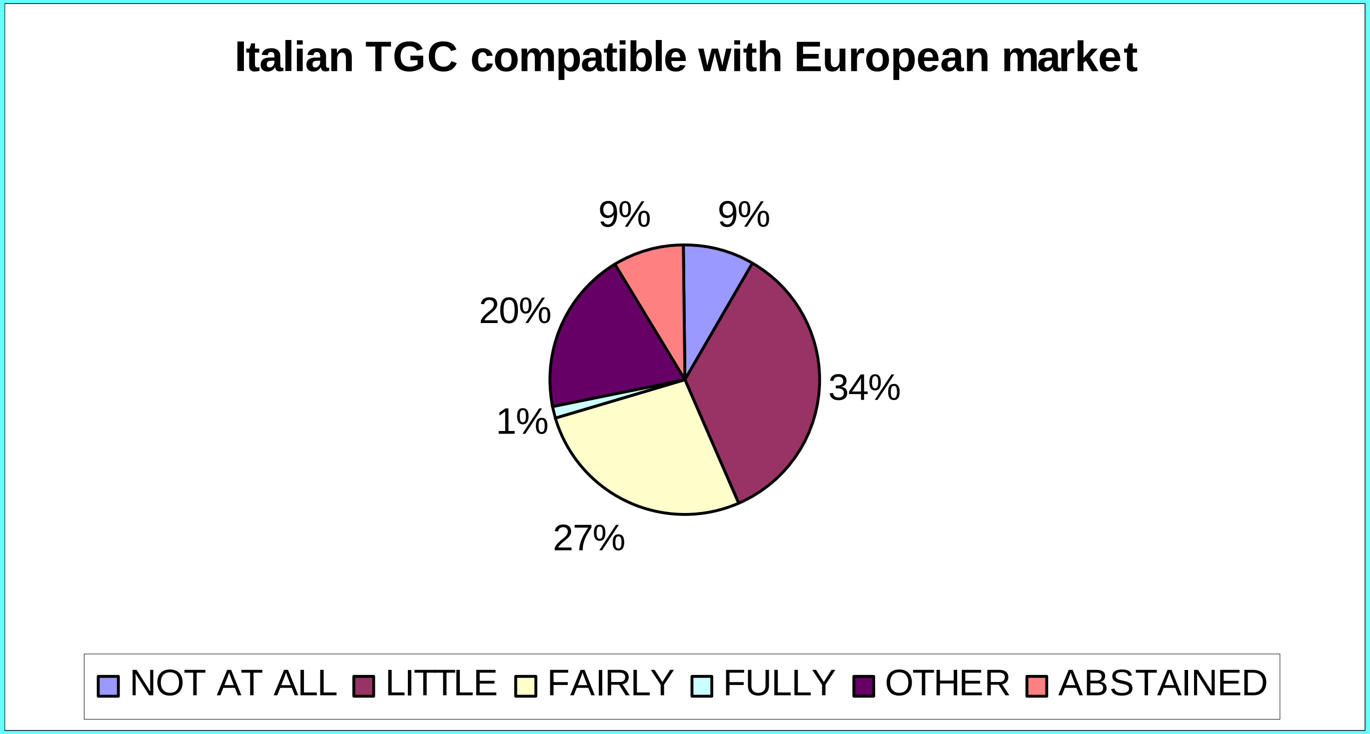
Question 5

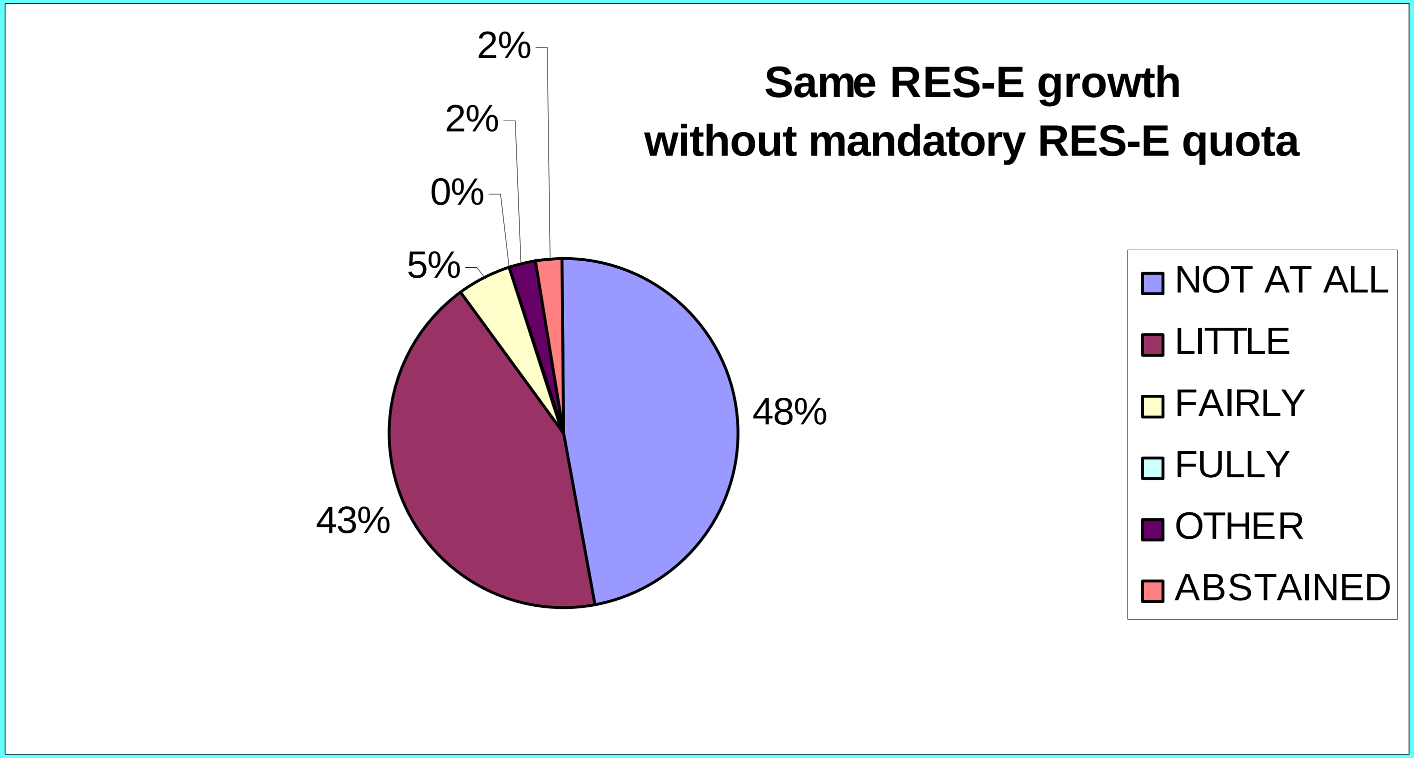
Is the Quota/TGC system currently in force in Italy compatible with the trade of Green Certificates on the European market ?



In the opinion of most stakeholders, the compatibility with the European TGC market is, on the whole, rather poor

Question 6

Without a mandatory RES-E quota, would voluntary-based labelling systems (RECS, Italian Guarantee of Origin, 100% energia verde brand) alone be able to bring about the same RES-E plant deployment in Italy?



There is a widely-shared opinion that a mandatory RES-E quota is quite needed to maintain RES-E plant deployment

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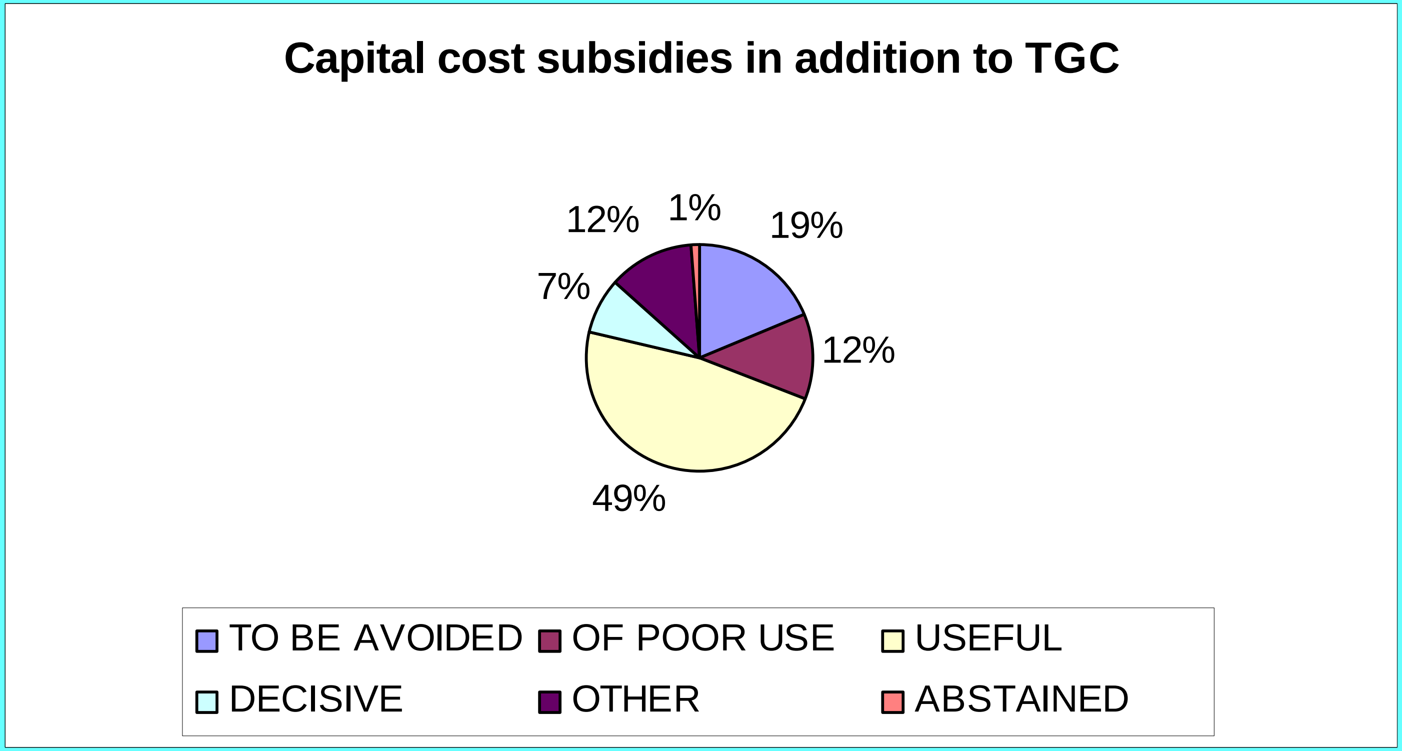
Question 7

How do you see the availability of capital cost subsidies from local governments as a means to promote the setting-up of competitive RES-E plants in addition to the Quota/TGC system ?



Over 50% of stakeholders find capital cost subsidies useful, but another 30% have an opposite mind. Difference of mind between stakeholder groups

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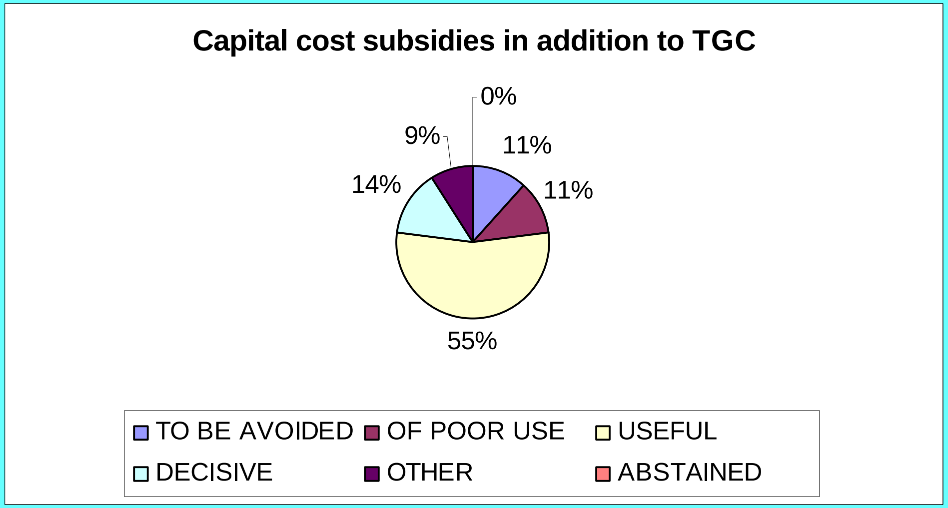
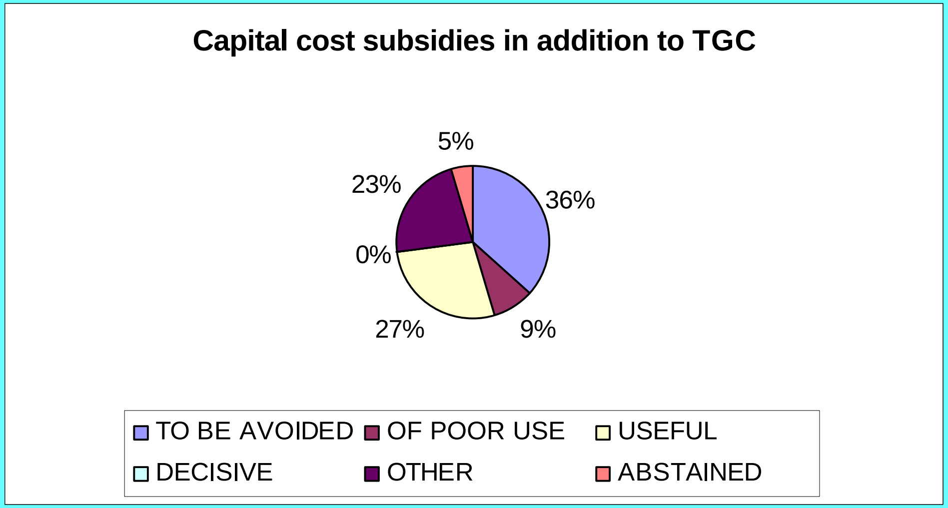
RES-E Producers & Manufacturers



Outside World



RES-E Producers & Manufacturers have a much better opinion (nearly 70% useful, 22% not) than Outside World (27% useful, 45% not, 23% other various views)

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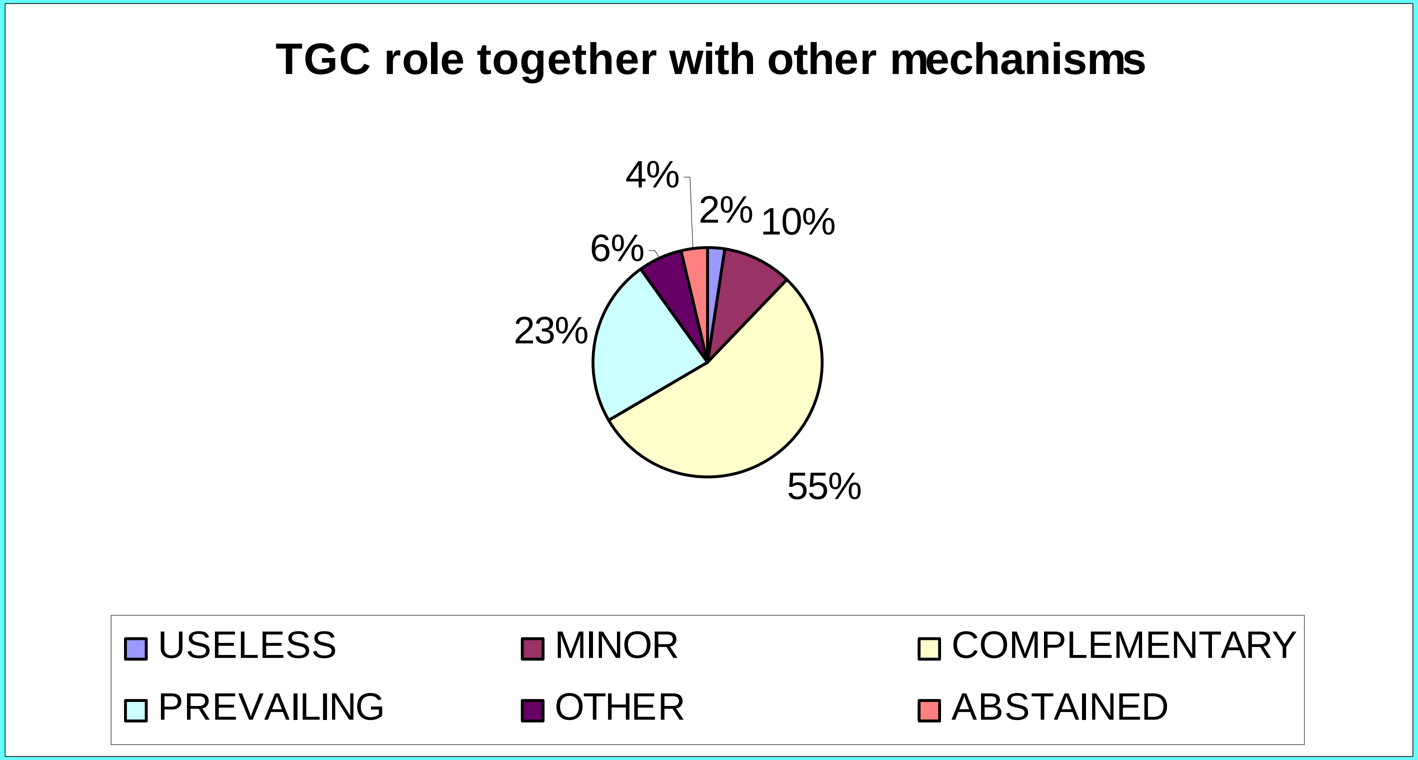
Question 8

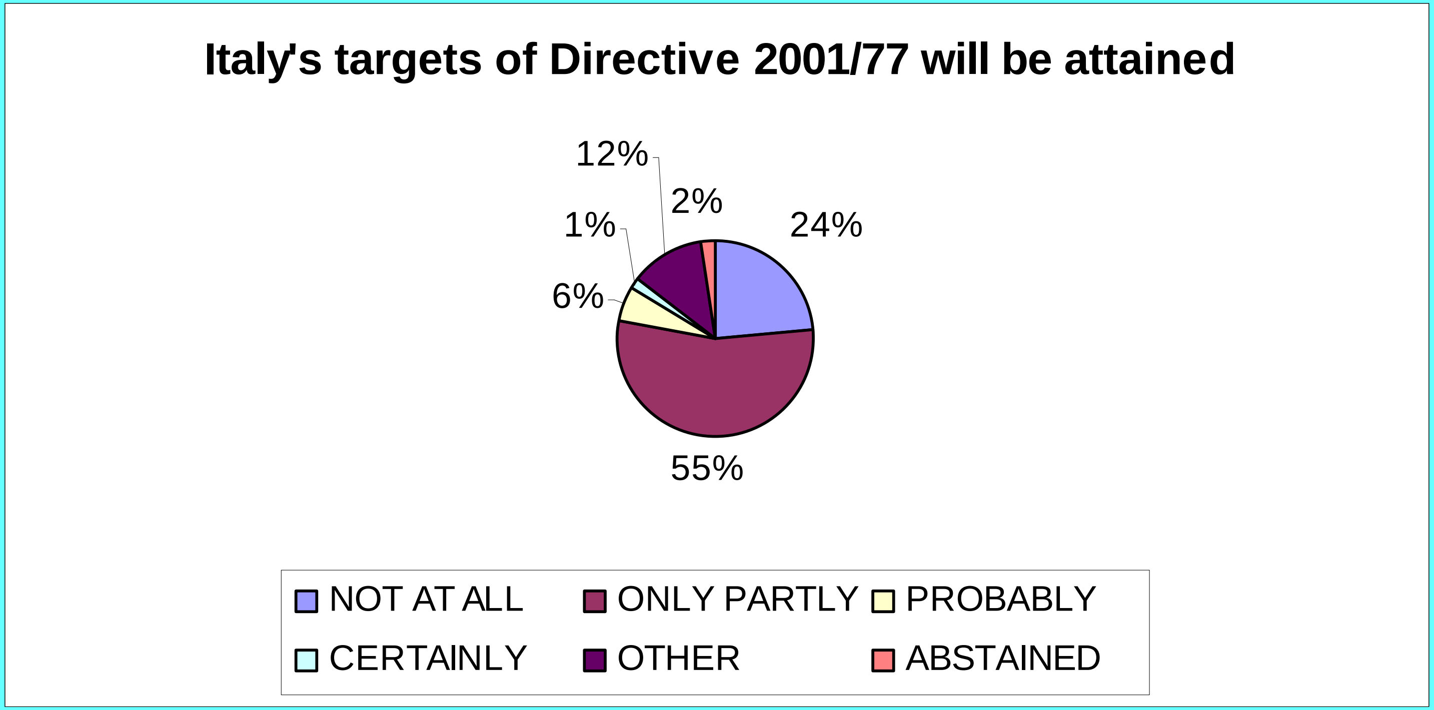
What will be the role of the Quota/TGC system in Italy after the incoming of White Certificates for efficient end-use and the Emission Trading, JI and CDM of the Kyoto Protocol (Directive 2003/87/EC) ?



More than half of answers foresee a complementary role.
23% however think that the role of Quota/TGC will still be prevailing

Question 9

With the current RES-E support system, will Italy be able to achieve the RES-E target set by Directive 2001/77/EC (22-25% of gross domestic electricity consumption by 2010, up from 16% in 1997) ?



There is a widely-shared opinion that the target will be achieved only partly (some sources will do better than others). Nearly 25% say not at all. Some difference between stakeholder groups

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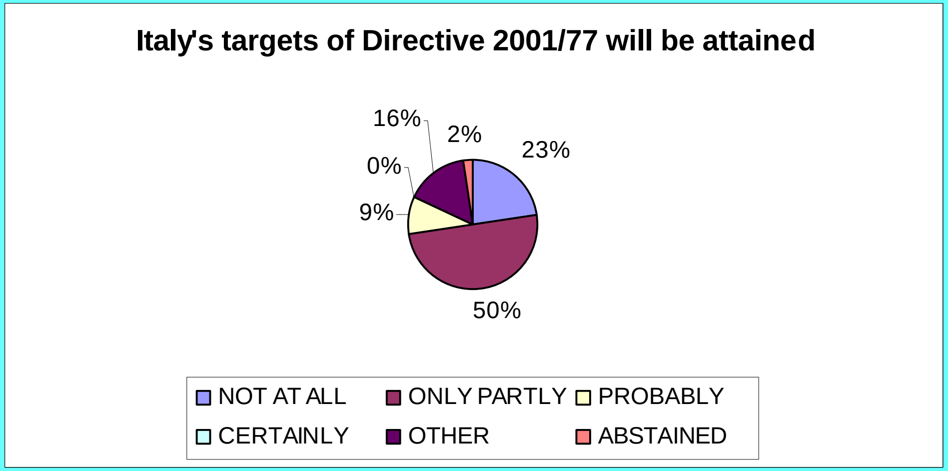
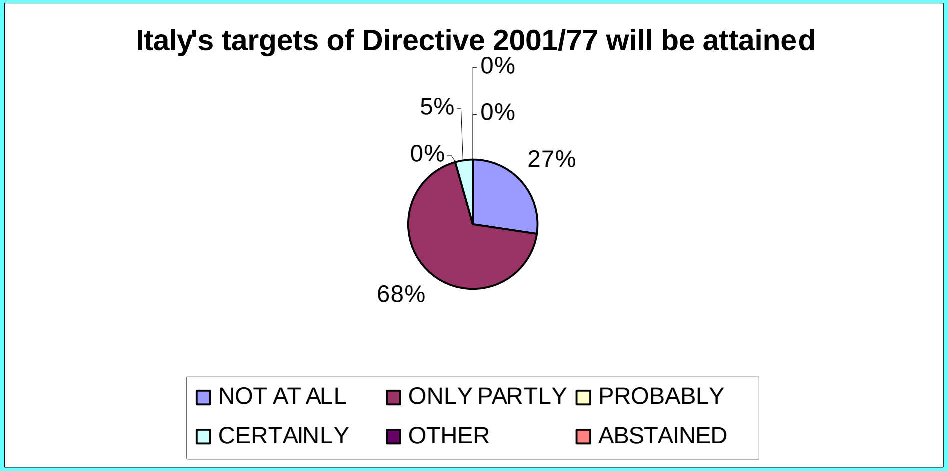
RES-E Producers & Manufacturers



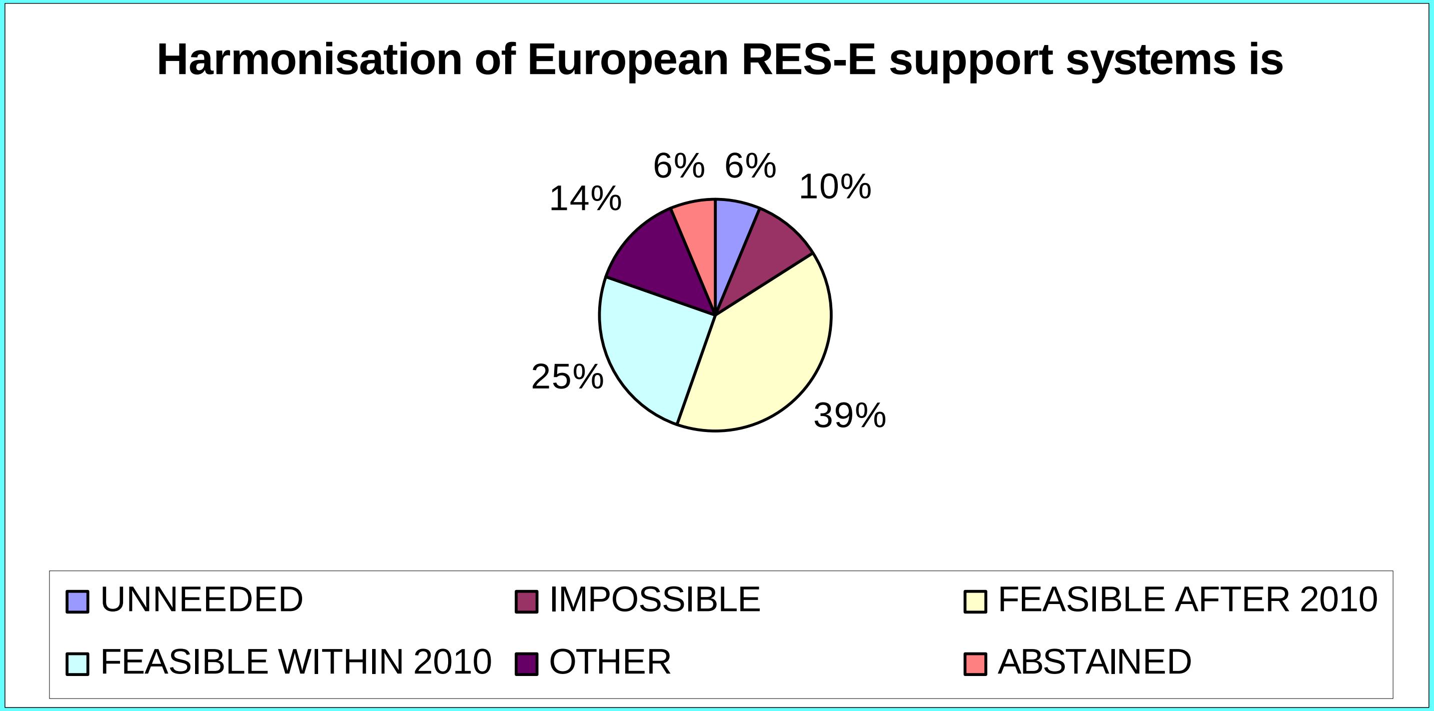
Outside World



Outside World are more pessimist than RES-E Producers & Manufacturers. But several answers of RES-E Producers & Man. classed under "Other" complain of permitting, acceptance and grid-connection as likely obstacles

Question 10

How do you see a possible harmonisation of national RES-E support systems throughout the European Union in accordance with the principles of the EU electricity market (Directive 2001/77/EC) ?



Only 25% of answers say harmonisation is feasible within 2010.
Nearly 40% say feasible after 2010.
Some difference between stakeholder groups

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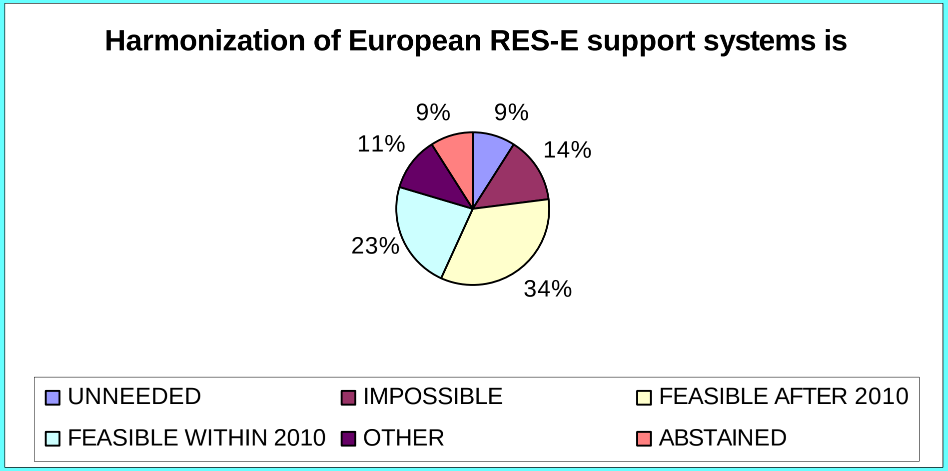
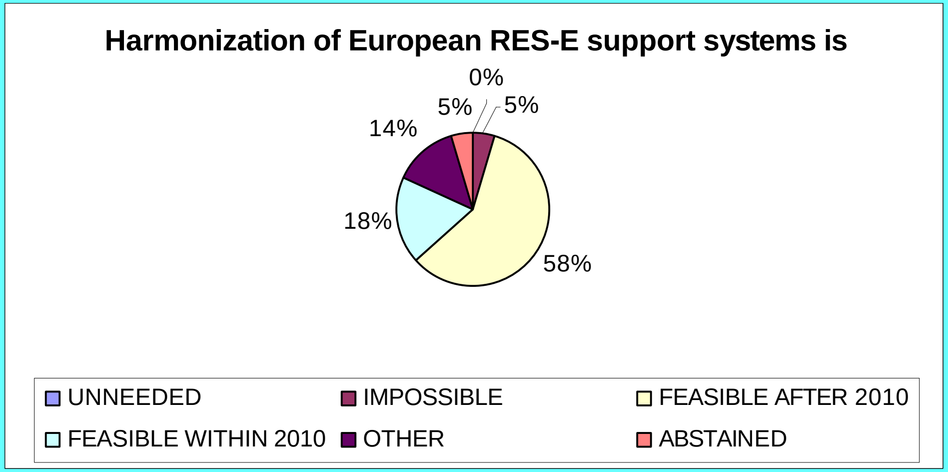
RES-E Producers & Manufacturers



Outside World



Outside World are a little more optimist than RES-E Producers & Manufacturers.
No one from the Outside World says harmonisation is not needed

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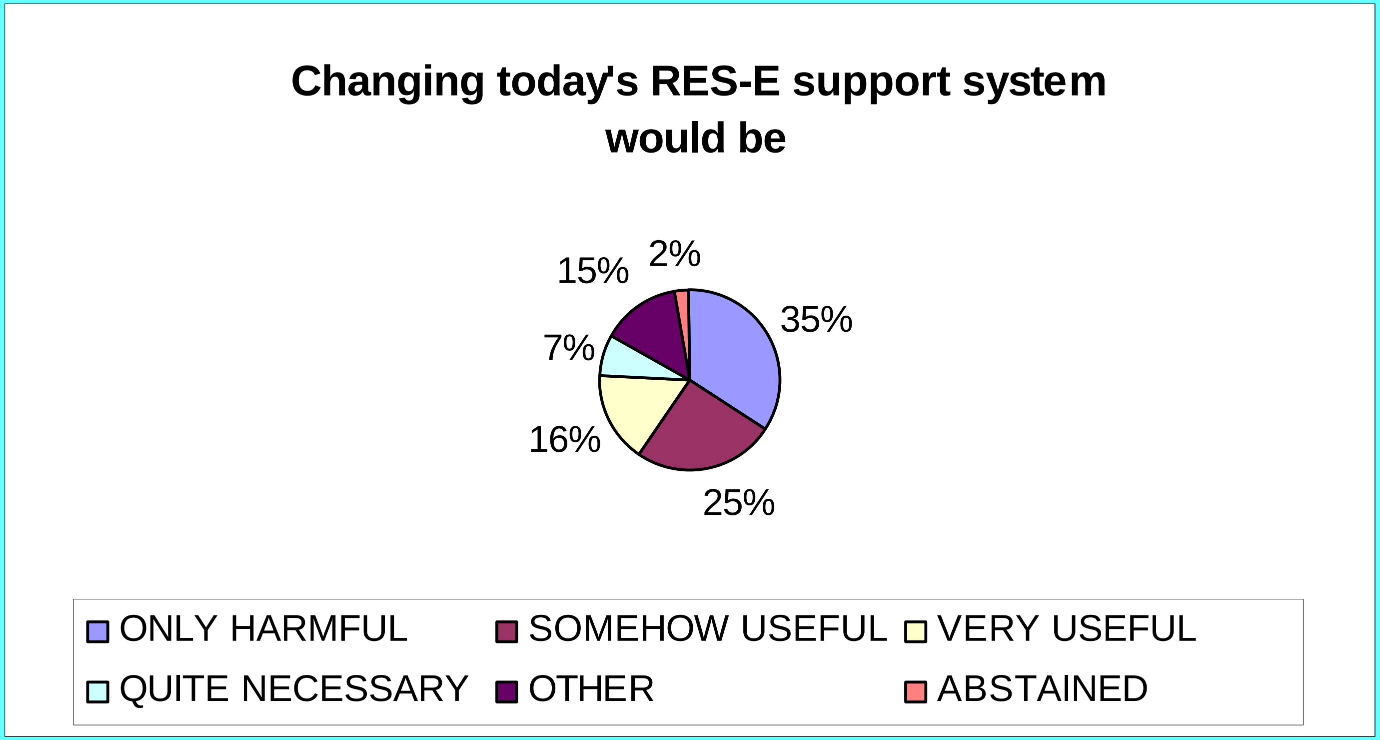
Question 11

What do you think about a possible change in Italy's current Quota/TGC system in the next 5 years ?
How would it affect the deployment of RES-E plants ?

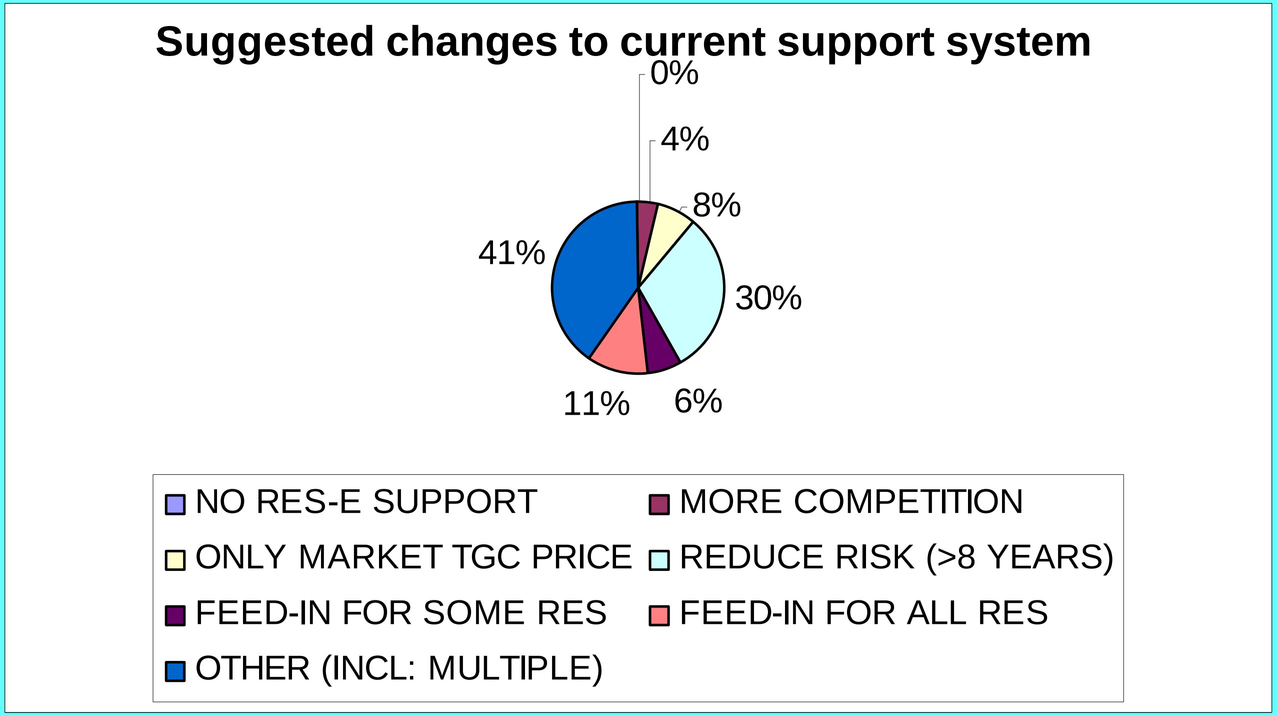


Splitting between those in favour (48%) and those openly against (35%). Similar trends in the group of RES-E Producers & Manufacturers and that of Outside World

Question 12

If you however had to change today's Quota/TGC system in the next 5 years, which of these changes would you suggest ?

- ***Cancel any RES-E support mechanism***
- ***Stir up more competition among all sources and plants***
- ***Let TGC price be set by market only***
- ***Reduce risks to investors e.g. by making TGC available beyond the 8-year term***
- ***Restore feed-in prices only for less competitive RES***
- ***Restore feed-in prices for all RES (different for the various RES)***
- ***Other suggestions (open statement)***



Risk reduction prevails, also among multiple answers (Other)

Nobody wants to cancel RES-E support

Different minds between stakeholder groups

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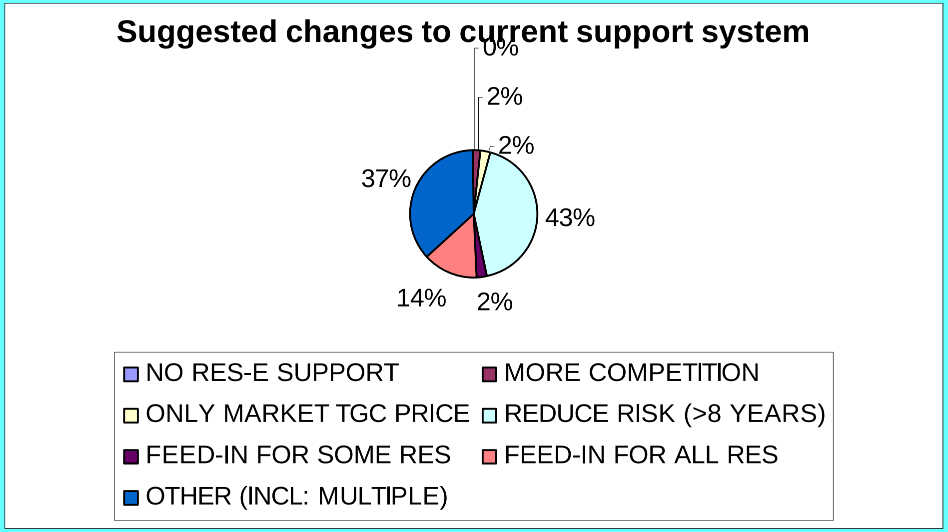
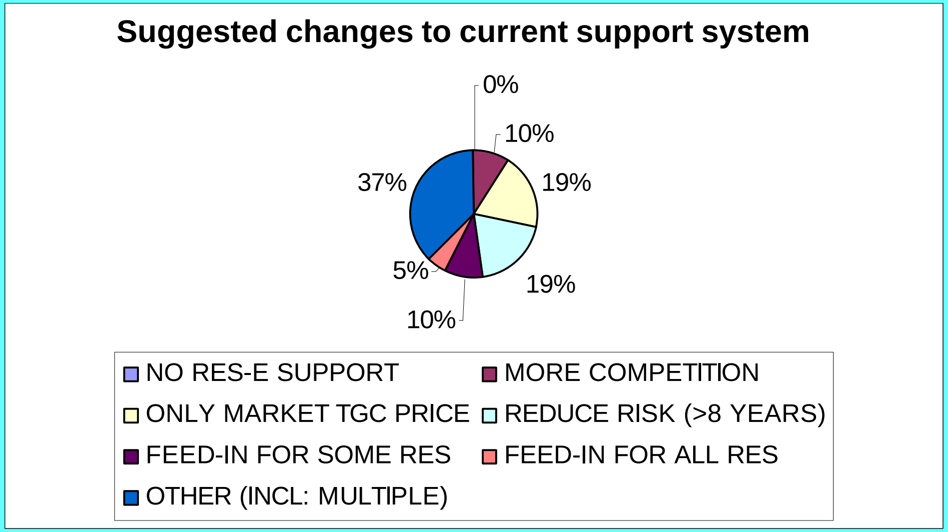
Question 12

If you however had to change today's Quota/TGC system in the next 5 years, which of these changes would you suggest ?

RES-E Producers & Manufacturers



Outside World



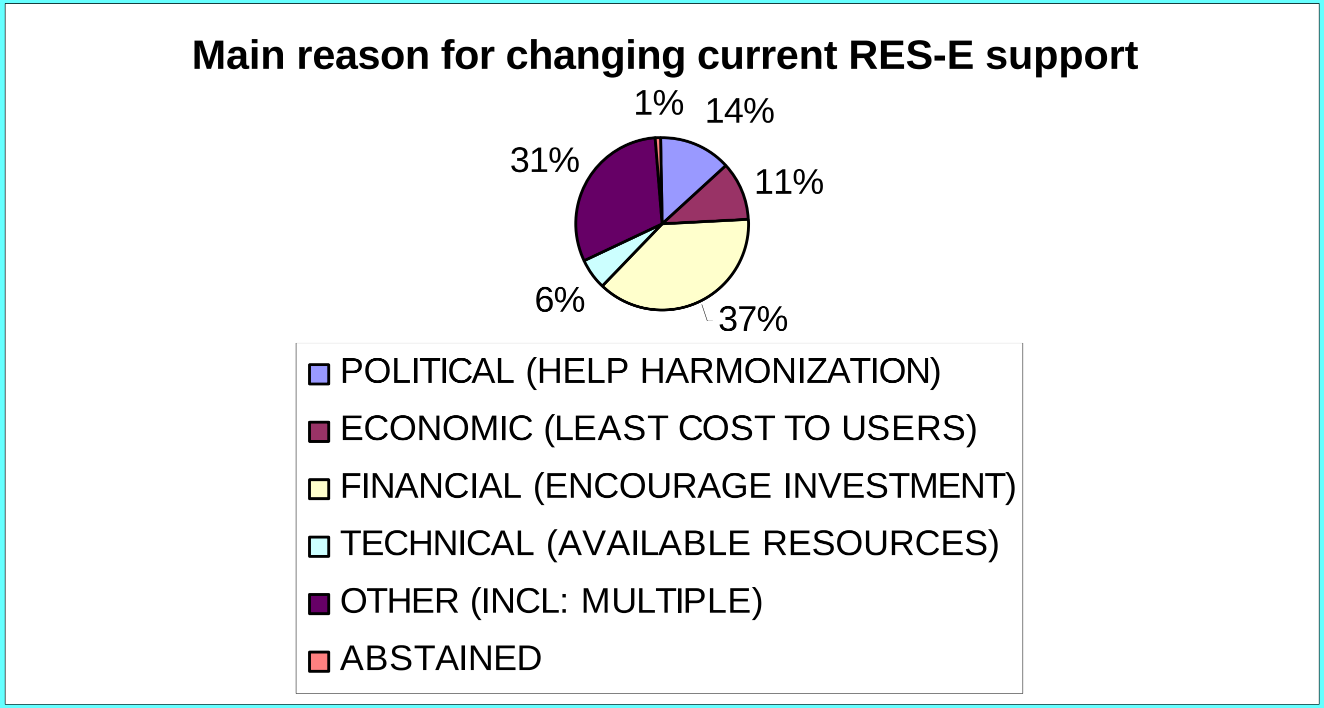
RES-E Producers & Manufacturers aim at getting TGC beyond 8 years and sometimes look back to feed-in prices.

Outside World give more importance to competition and market-based TGC price and would grant feed-in prices to less favoured RES only

Question 13

The main reason for changing today's Quota/TGC system could be defined as

- ***Political: adjust to other countries to facilitate EU-wide harmonisation***
- ***Economic: minimise electricity price to users by avoiding costs of TGC and RES-E***
- ***Financial: encourage undertakers and banks towards RES-E investments***
- ***Technical: bring RES-E quotas and TGC terms in line with exploitable resources***
- ***Other suggestions (open statement)***



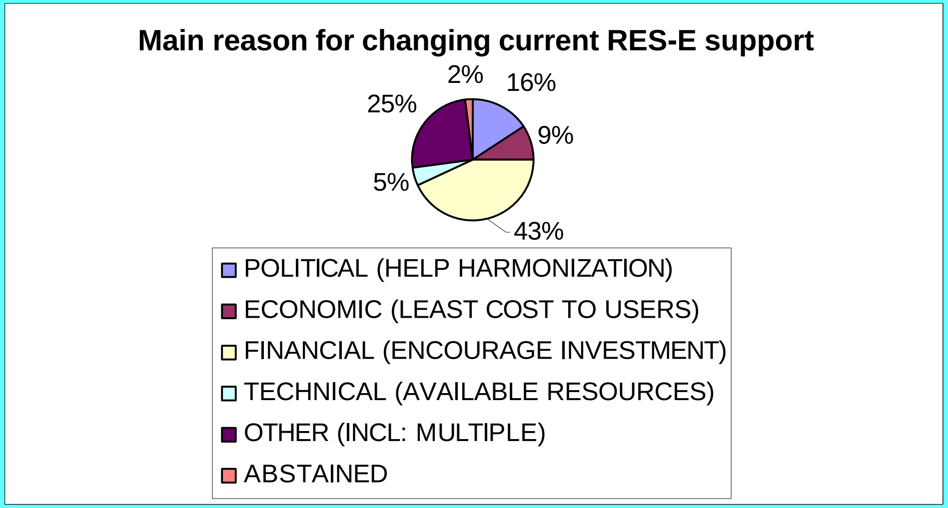
Financial reasons prevail, also among multiple answers (Other).

Different minds between stakeholder groups

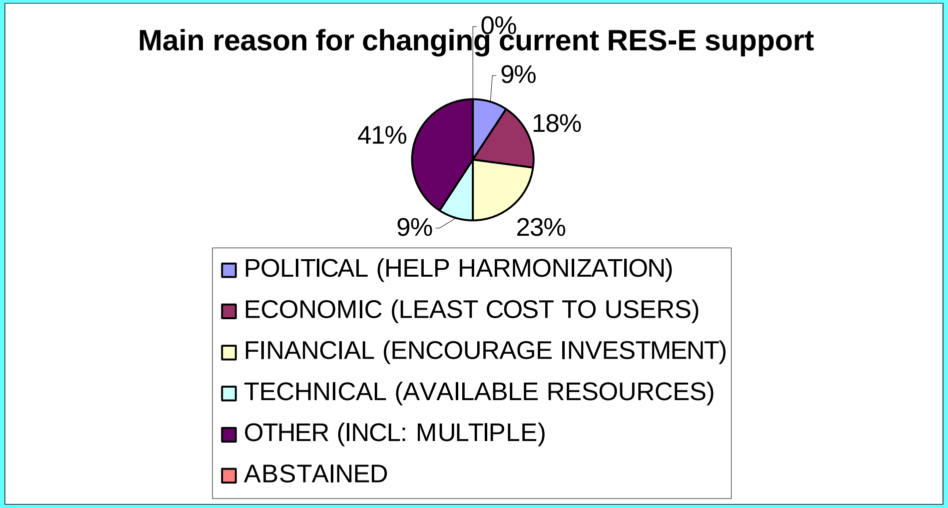
Question 13

The main reason for changing today's Quota/TGC system could be defined as ……...

RES-E Producers & Manufacturers



Outside World



RES-E Producers & Manufacturers stress financial and, to a lesser extent, political and economic reasons
Outside World give less weight to financial and political, and more to economic and technical reasons - Many more multiple answers

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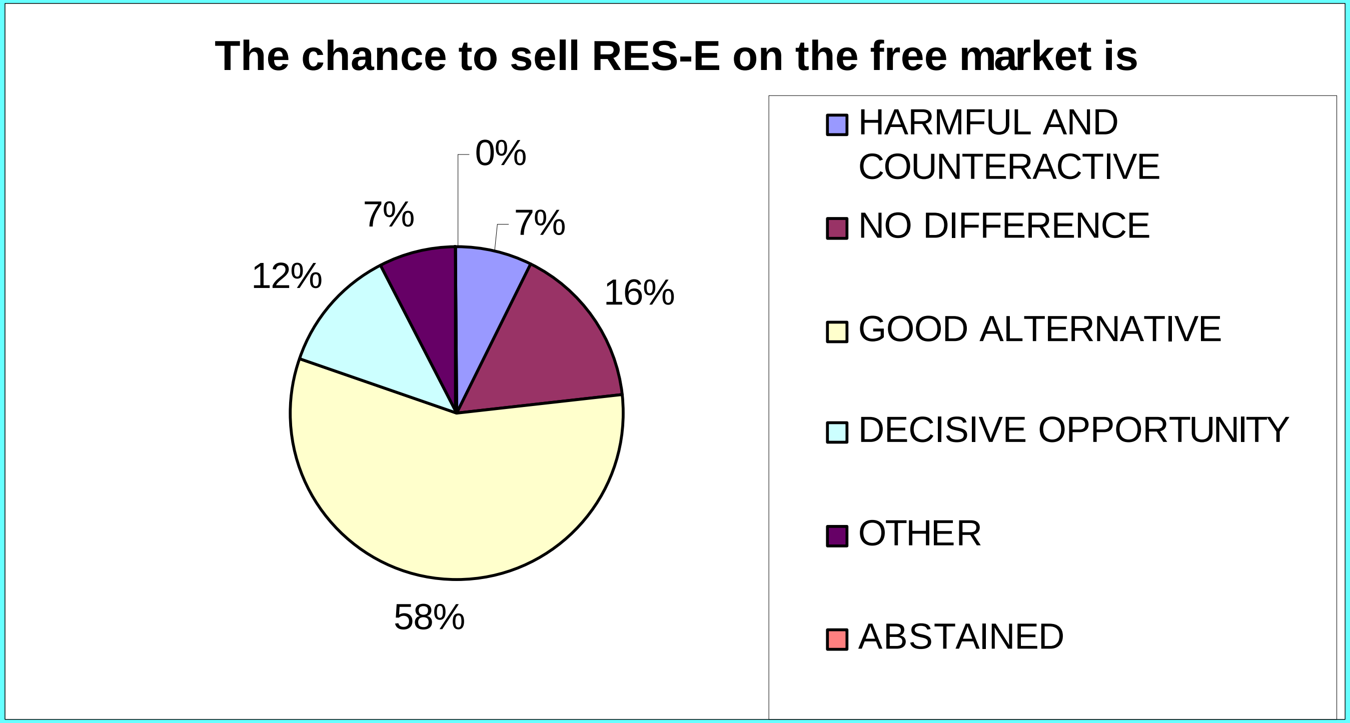
Question 14

Liberalisation of the electricity market has allowed RES-E producers to sell energy to various parties (traders, end-users, exchange etc.). How do you see this chance in respect of RES-E development ?

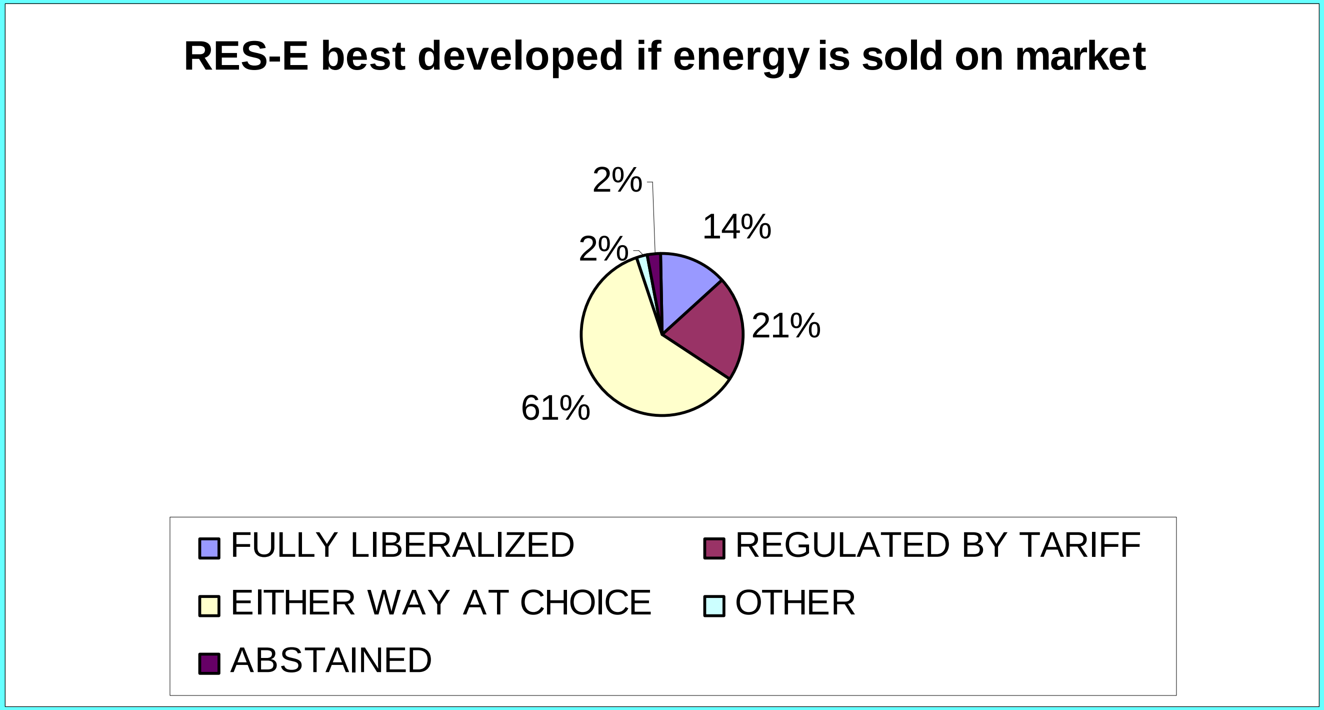


This chance is mostly seen with favour among all stakeholders

Question 15

Regardless of support mechanisms, which of these ways of selling electrical energy is most effective for developing RES-E plants ?

- ***In a fully liberalised framework, with energy prices set only by market***
- ***In a regulated framework, with energy prices set by tariff***
- ***In a mixed framework, where either way can be chosen by producers***
- ***Other (open statement)***



Most stakeholders would prefer a mixed framework.

Same trend in both stakeholder groups

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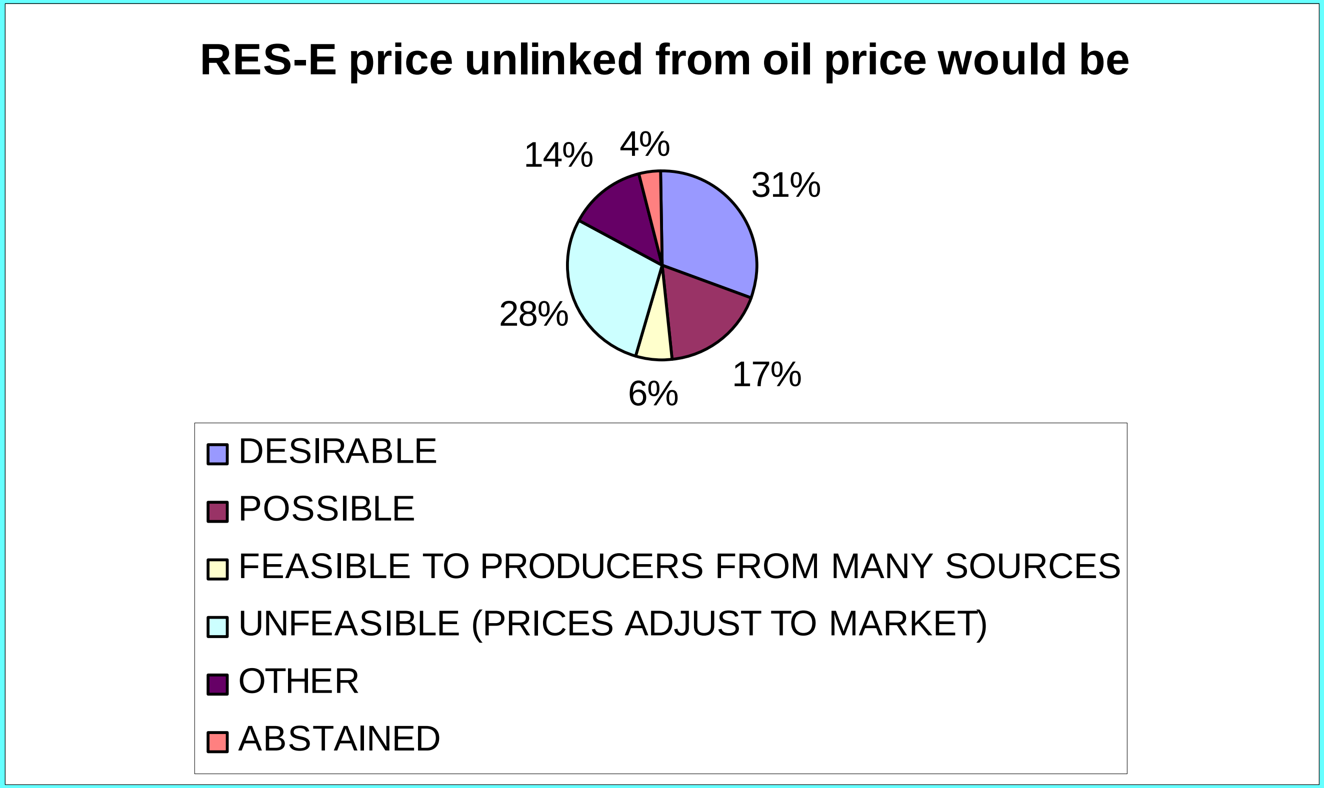
Question 16

In a market framework with offer largely exceeding demand, the offering price of RES-E might be unlinked from oil price and become another reference as opposed to unsteady fossil fuel prices. How do you see that ?



It is difficult to find a prevailing feeling, as answers are rather scattered. Desirable and unfeasible get higher results

Some Closing Remarks - 1

- **Most questions show some prevailing attitude. Fairly good cohesion between stakeholder groups. Some discrepancy in fewer cases**
- **The former CIP 6/92 feed-in system got better ratings than Quota/TGC as to capacity deployment, investors' risk, understanding, fair deal with sources, but its cost to the whole system was deemed higher**
- **Today's Quota/TGC system is deemed more compatible with the liberalised electricity market**
- **Recent extension of TGC to some actually non-RES-E plants, and poor compatibility of Italian TGC with EU TGC market were blamed**
- **A mandatory RES-E quota is felt to be quite needed for maintaining RES-E plant deployment**
- **Differing views between stakeholder groups about capital cost subsidies**
- **Quota/TGC will still play a complementary or even prevailing role in boosting RES-E as other systems (Emission Trading etc.) come in**

Some Closing Remarks - 2

- Many feel Italy is unlikely to achieve its 2010 RES-E target set by EU Directive (complaints of permitting, grid and acceptance issues)
- Some harmonisation of support systems in the EU is deemed necessary, but how and when to do it remains an open question
- Opposite views about changing somehow the current Quota/TGC system in the next 5 years (PV feed-in tariffs were not yet in force)
- The preferred change would be to reduce investors' risk by extending TGC beyond 8 years, rather than go back to feed-in tariffs. More certain long-term prospects of quotas and TGC prices are wanted
- The main reason for changing is financial (encourage investment), then (to a lesser extent) political and economic. Technical reasons come last
- A liberalised market is a good opportunity, but the preferred market should leave choice between free market and market regulated by tariffs
- Possible market developments other than the usual framework are not envisaged