ASSO SOLARE

Associazione Nazionale dell'Industria Solare Fotovoltaica

Italian Solar PV Experience

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The Italian Experience

- Changing Italy's power generation system takes more than a few years to achieve:
  - 84% dependence on fossil fuels, impact on Trade Balance: -62 billion Euros/year.
  - When Solar / Wind subsidies ('Conto Energia') started, future impact on energy mix, and especially on power generation, was unimaginable
  - A 17.000 MW (Feb 2013) functioning Solar PV infrastructure has developed over 5-6 years, mainly the past 3
    - ✓ Guinness World Record for the short timing, 2^{nd} largest market after Germany
    - ✓ Major resources came from foreign investors (+/- 50% of 40/42 billion Euros.)

- Our focus is on import-cost reduction for fossil fuels from today until 2020- using National Energetic Strategy's (SEN*) quantitative data:
  - With 2012 av. installed PV capacity of 15 GW, gas import savings are 2 billion Euros
  - In 2020, Renewable Energy penetration will be 38% up from current 24/25% PV share will provide 1,5/2 GW/year and total installed PV power will be double today's
  - As a consequence 2020 gas import savings will reach +/- 4,5 billion Euros/year

Assosolare

In addition to the Power Producers, the Association includes the major Component Producers (Panels and Inverters), EPC Contractors and Service Providers of the Italian market. We support the whole Solar PV value chain

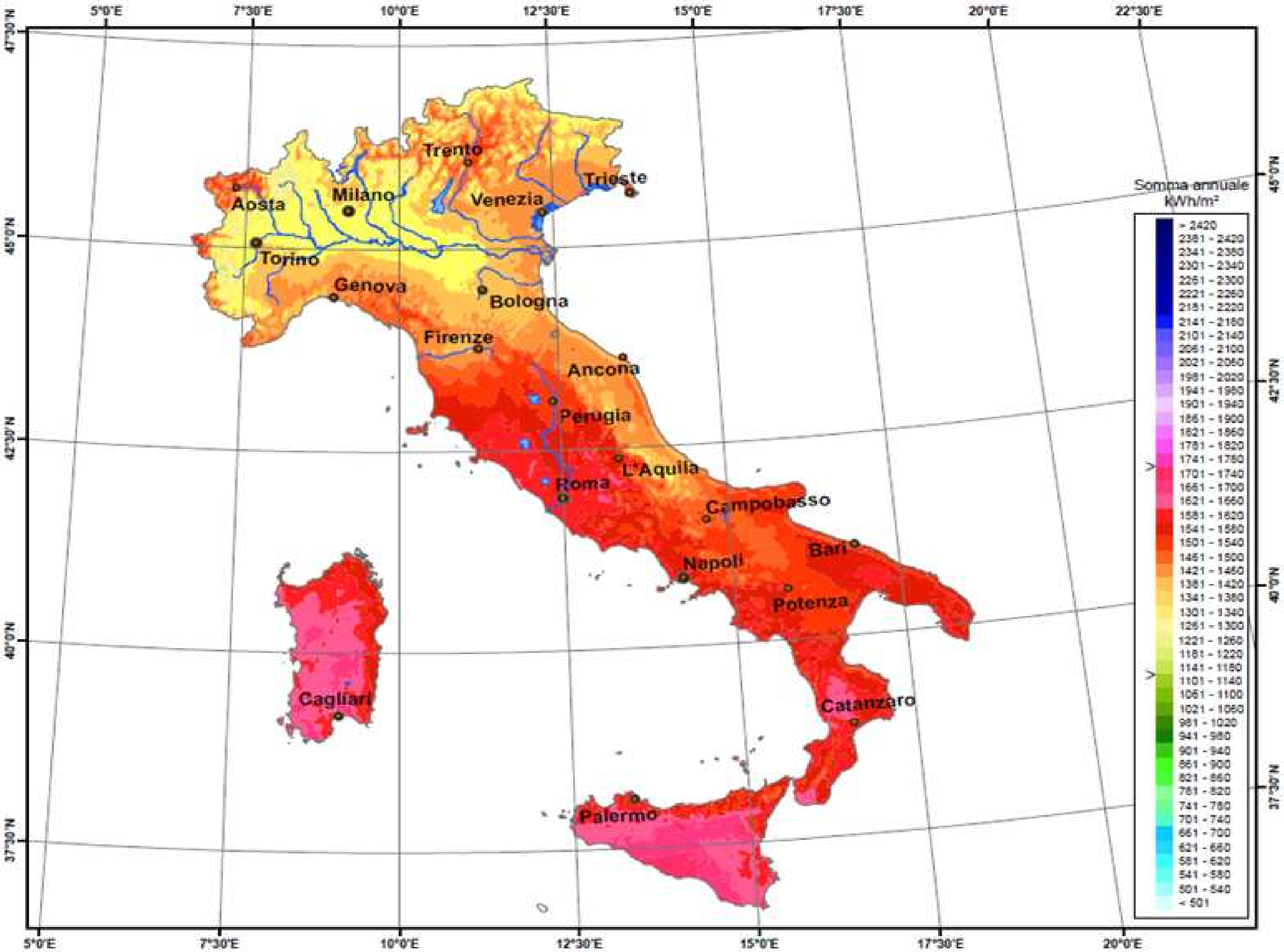
Assosolare also represents interests of over 500.000 owners of the 17GW Italian solar plants vis a vis Italian Institutions, Assosolare Members own almost 3GW of Solar PV plants

We strongly believe that this new asset class will be a key solution to contribute to Economic growth once the new market is in place, together with Qualified Independent Power Producers, EPC's and Service providers.

We also believe that after a first phase of governmental subsidy support, independency from subsidies and Grid Parity can be reached in each market, including Poland.

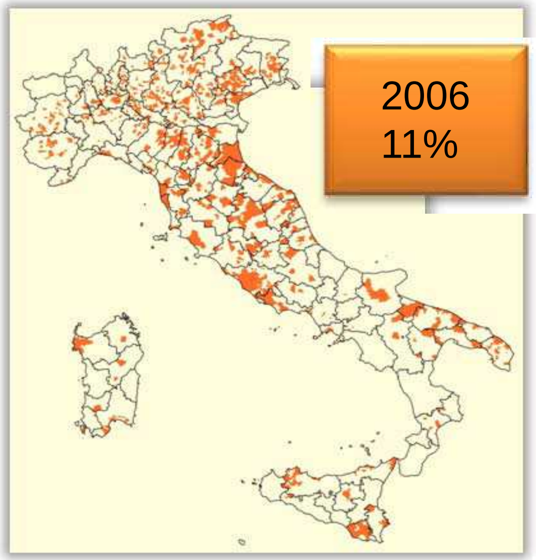
We believe that PV as well as the other renewables will be a fundamental component of future global growth. That is why we have decided to participate in this important event.

Italia : «Paese del Sole»



From 1300 to 1600
Hours of Irradiation

Italy : Solar PV Growth



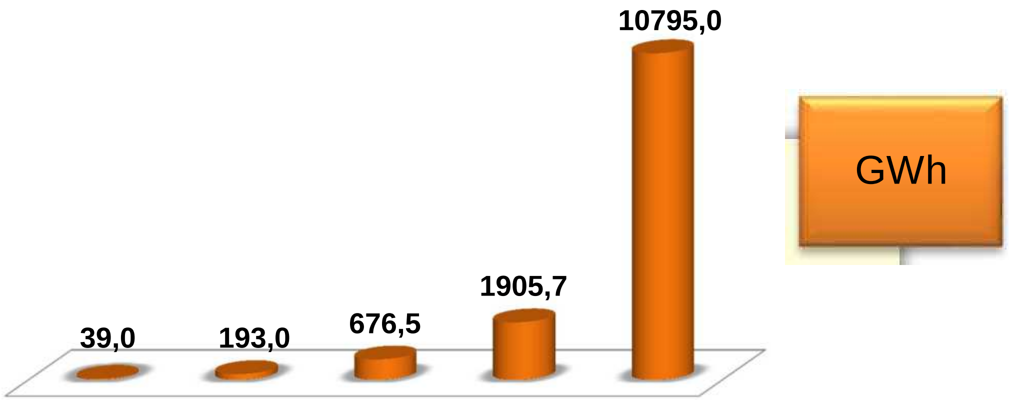
Huge growth:

- **2006: only 11% of the Italian Municipalities had at least 1 Solar PV plant in it's territory.**
- **2011: 95%**

50% of the Italian Plants are Ground Mounted

<u>From 2006 to 2012</u>

- almost **200.000** new direct Employees hired thanks to PV incentives
- almost **+400.000** indirectly



Italian Solar PV plant production,2007-2011 **39GWh to 10.795GWh!!!!**

Costs of the 'Conto Energia' Subsidies

According to the PV meter data on the GSE site, till January 23rd 2013, the following table is obtained:

CE	N° Power Plants	Power (kW)	Annual Cost (€)
1 CE	5.726	163.430	€ 95.158.616
2 CE	203.784	6.801.724	€ 3.275.985.084
3 CE	38.591	1.565.513	€ 648.496.843
4 CE	200.390	7.377.183	€ 2.417.364.194
5 CE	31.456	1.113.768	€ 127.699.784
TOTAL	479.947	17.021.618	€ 6.564.704.521

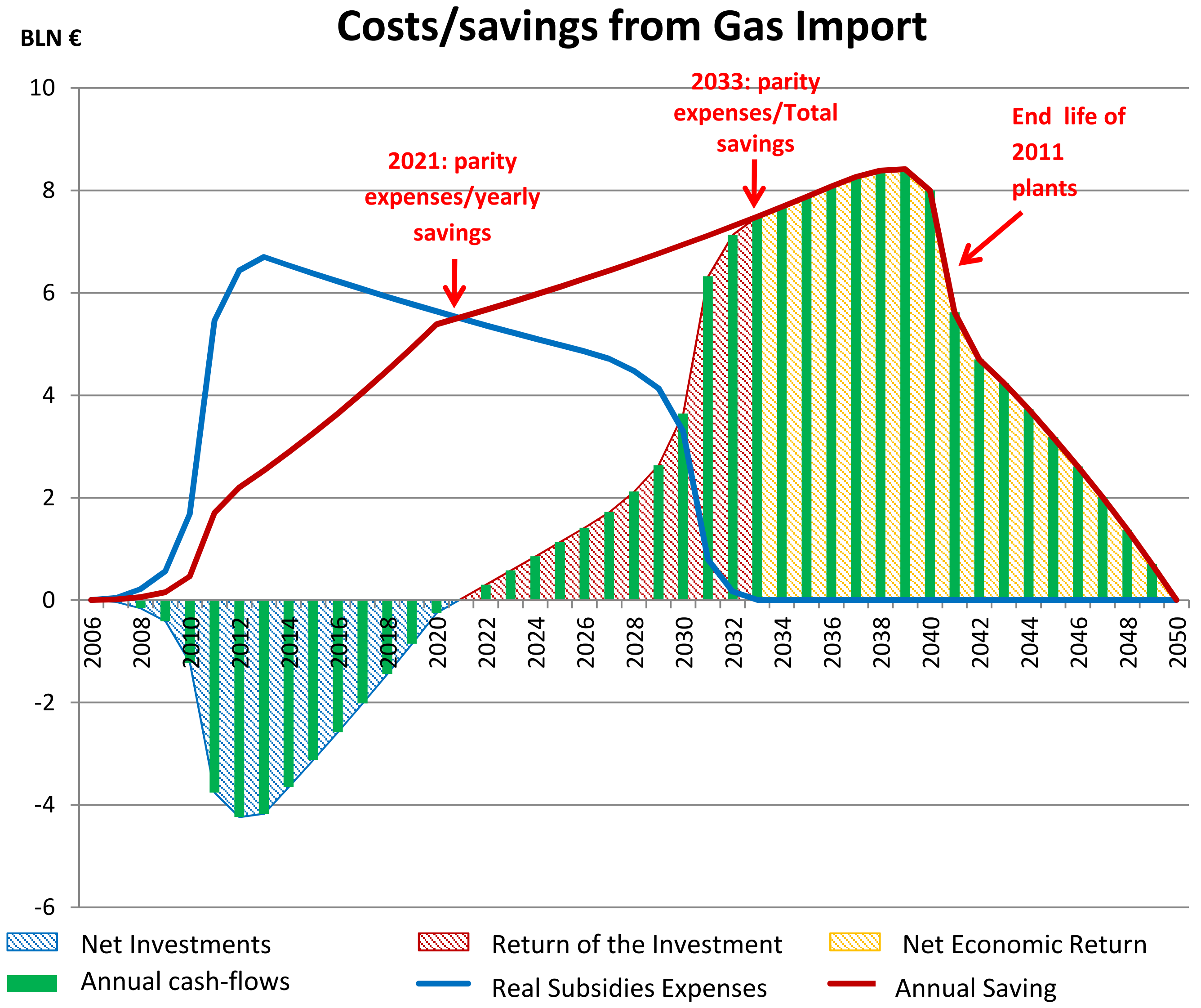
If the 6,7 billion Euro cliff will be reached on June 2013; such an amount corresponds to 18 GW total installed PV power.
In reality, corrected for inflation (of 2.5 to 2.9%), the cost of the incentive on electricity bills, starting exactly this year, starts to steadily decrease.

Savings on the purchase of natural gas

If, as indicated by SEN, the installed photovoltaic power hypothetically reached 30/36 GW in 2020, gas savings would be +/- 4.5 billion Euros, in constant terms.

The total saving on imported gas is greater by large and growing amounts than the residual system cost paid on electricity bills in favor of PV sources.

By 2033 Gas Import Savings cover Solar Pv Subsidies



We do not need incentives forever

Italy has **ideal infrastructural conditions**: the country has the greatest number of remotely readable electronic counters.

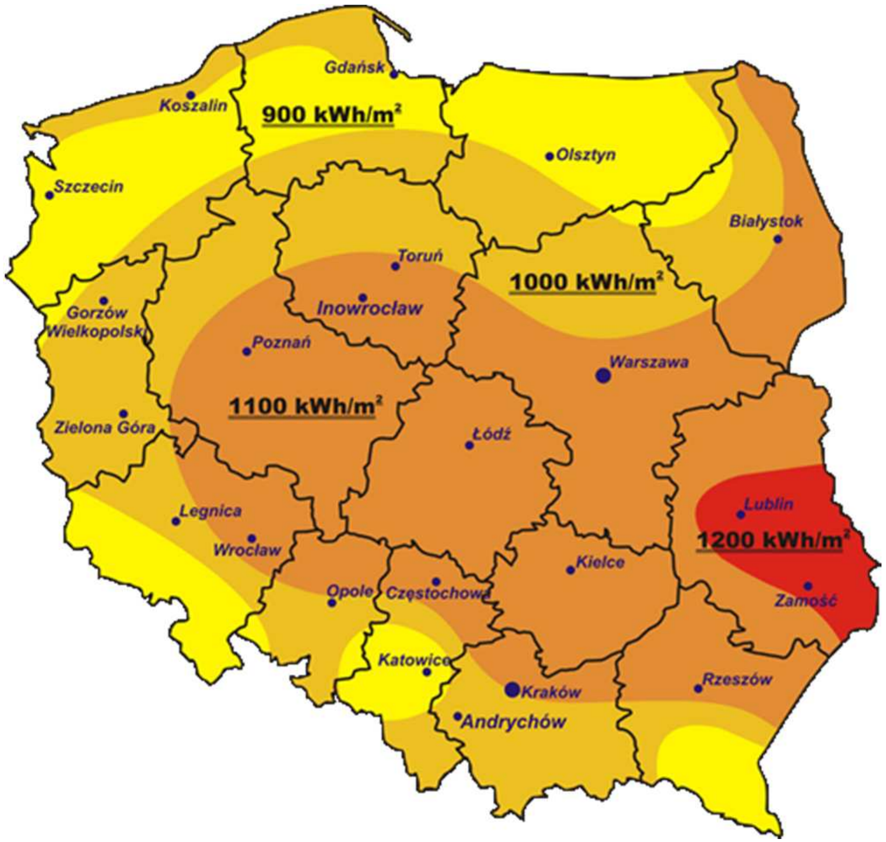
The photovoltaic Kwh produced is 90% Italian whilst the one produced by fossil fuels equals 20%

This allows study of consumption characteristics to better adapt energy production… **a serious path towards Grid Parity**.

The ‘Sunshine Country’ has all the ideal characteristics to be world leader of Grid Parity, thanks to solar energy incentives of the first phase.

Solar PV in Poland

- **Despite climate, Poland is anyhow an interesting Country that has the potential for Solar PV.**
- **Germany has similar conditions and has developed over 24GW!!**



From 900 to 1200 Hours of Irradiation
(almost 30% less than Italy)

Irradiation is an important element, but the cost reduction of components enables Solar PV to be an important source of Renewable Energy also in Poland.

The photovoltaic Kwh produced can be 90% polish whilst the one produced by fossil fuels equals 20%

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Aderente a CONFINDUSTRIA ENERGIA

Aderente a EPIA European Photovoltaic Industry Association

Suggestions for Solar PV development

The draft rules of Development of Energy Concessions are quite standard internationally and Huge investments can arrive in Poland as in Germany and Italy…..

………but before the new Energy law is issued, Authorities should consider:

1. **Clear Rules and timing for the duration of incentives and at least 15-20yrs** (less is not possible also with current technology improvements)
2. **Environmental Assessment and Zoning decisions for Solar PV should be shorter** and less complicated compared to Wind.
    - Local Authorities should understand that the Environmental impact is very limited compared to Wind
    - If the procedures are too complicated and long, few investments will be possible
3. **If different Authorities dont collaborate with a same attitude to** Solar Authorizations, there will be a very negative image due to the local speculation