

The Photovoltaic Market: Current Status and Future Growth

**5th South East Europe Energy Dialogue
IENE 1-2 June 2011**

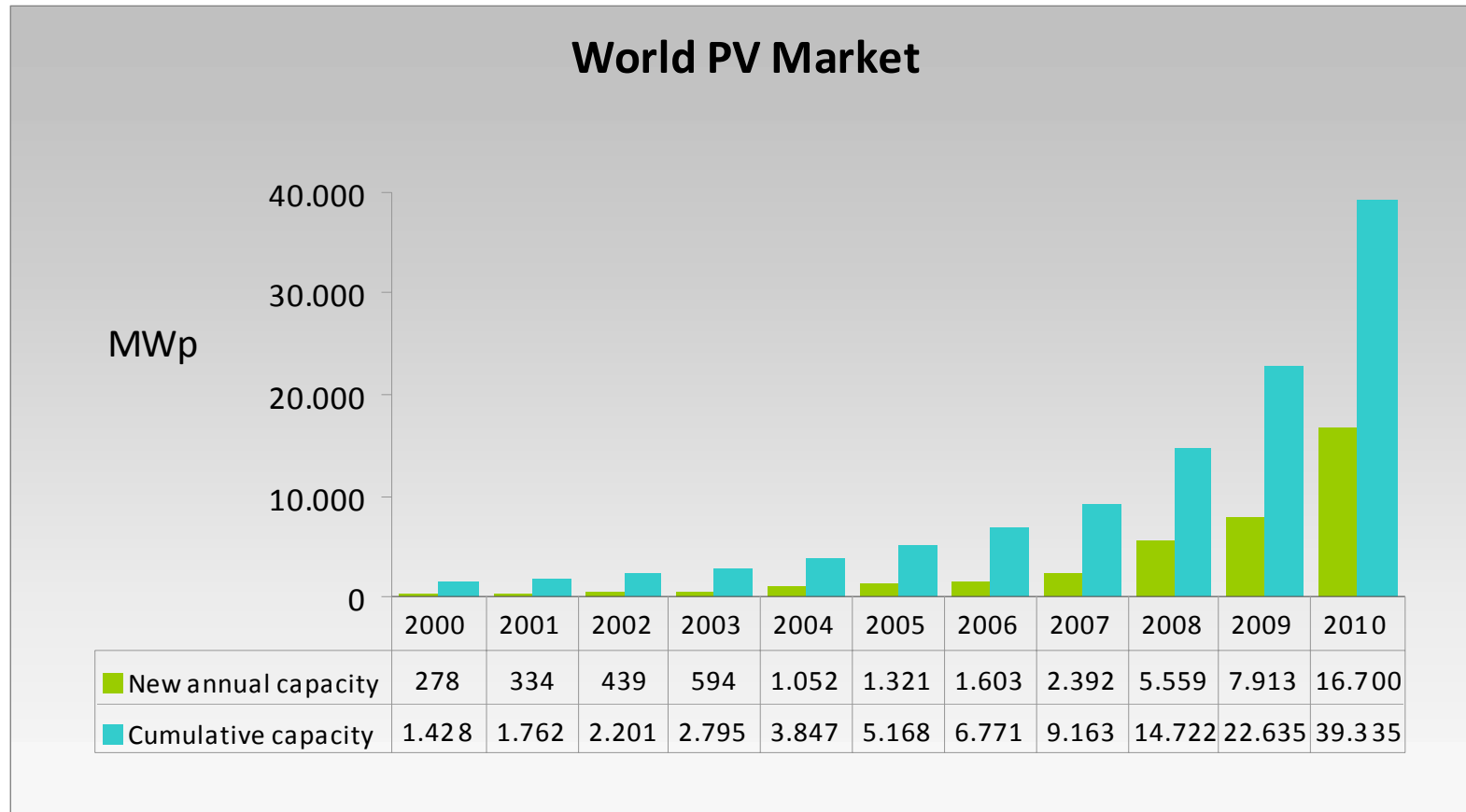
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- The Global PV Market
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World PV Market (2000-2010)

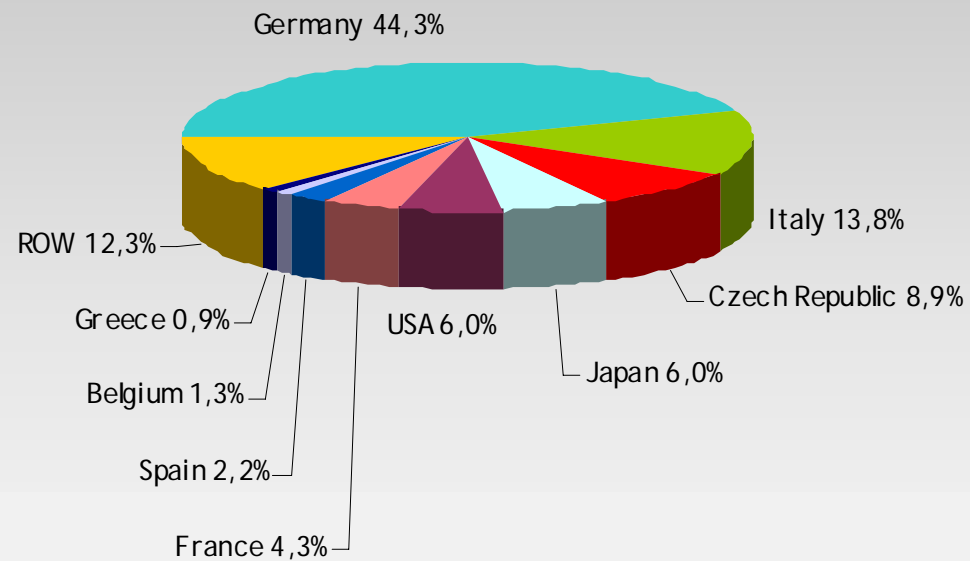


Source: Earth Policy Institute, Navigant Consulting, PHOTON, iSuppli, SolarBuzz, IMS Research

Country Market Share 2010

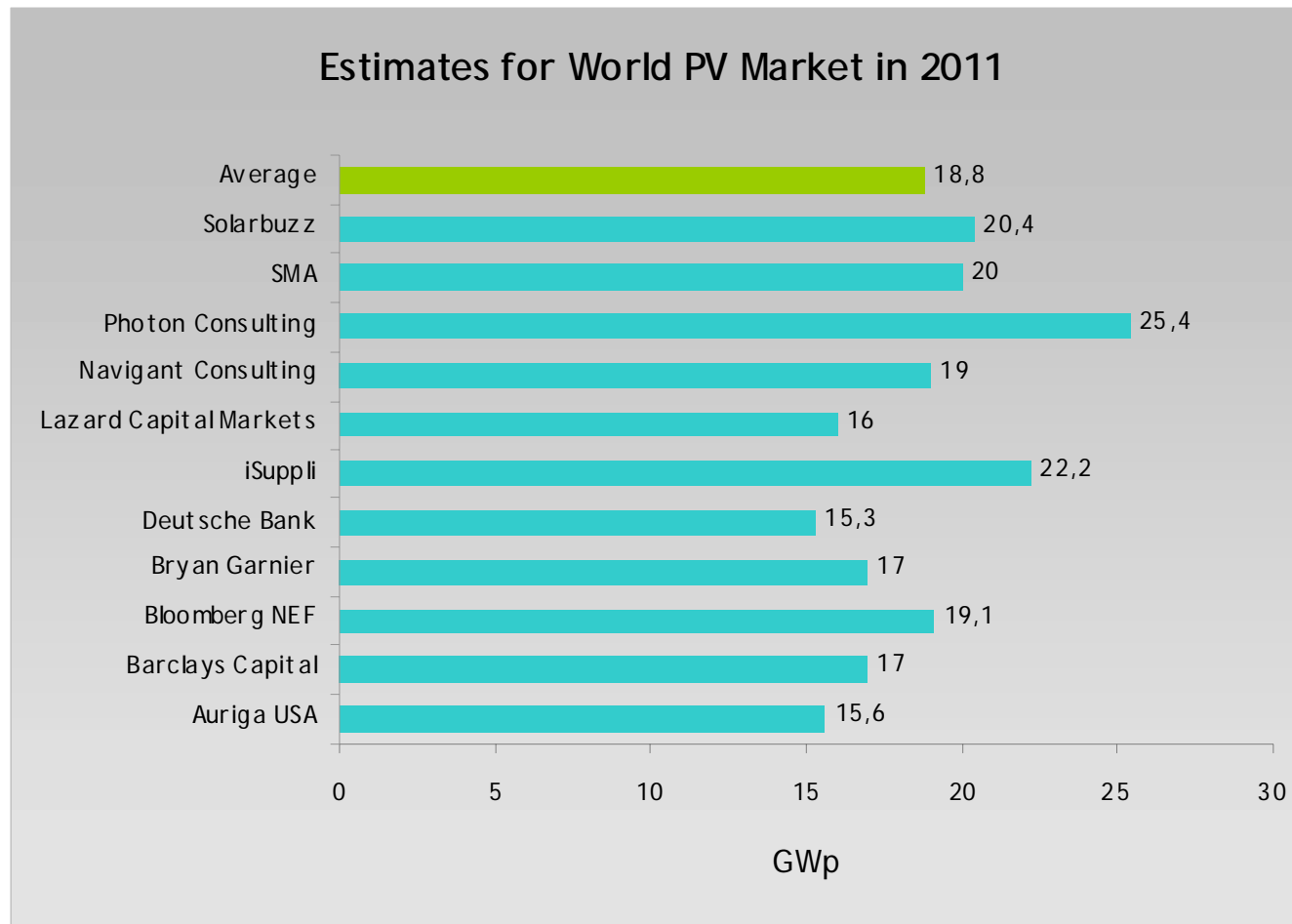


Market share of new installed capacity in 2010



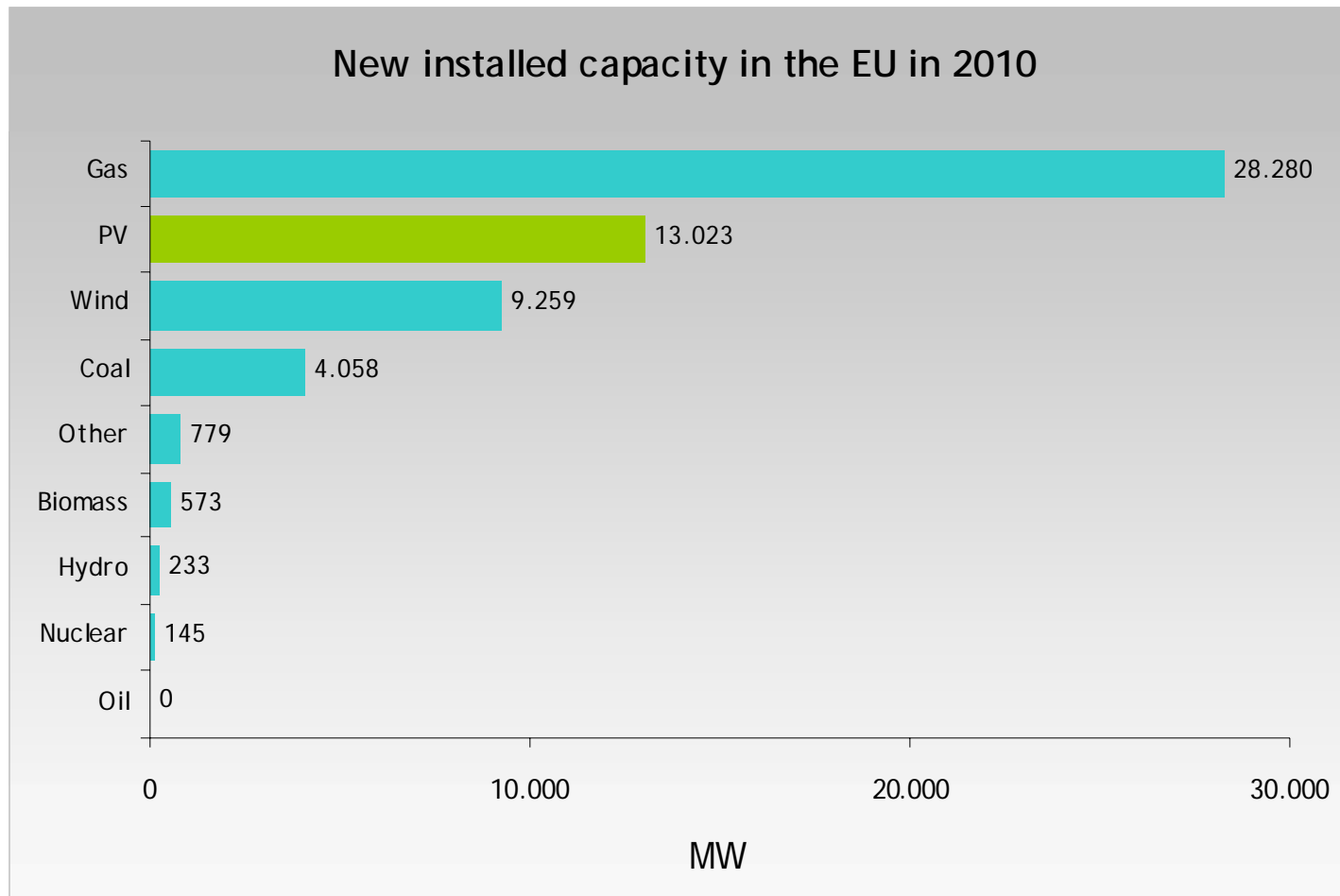
Source: Germany Trade & Invest

World PV Market Forecast 2011



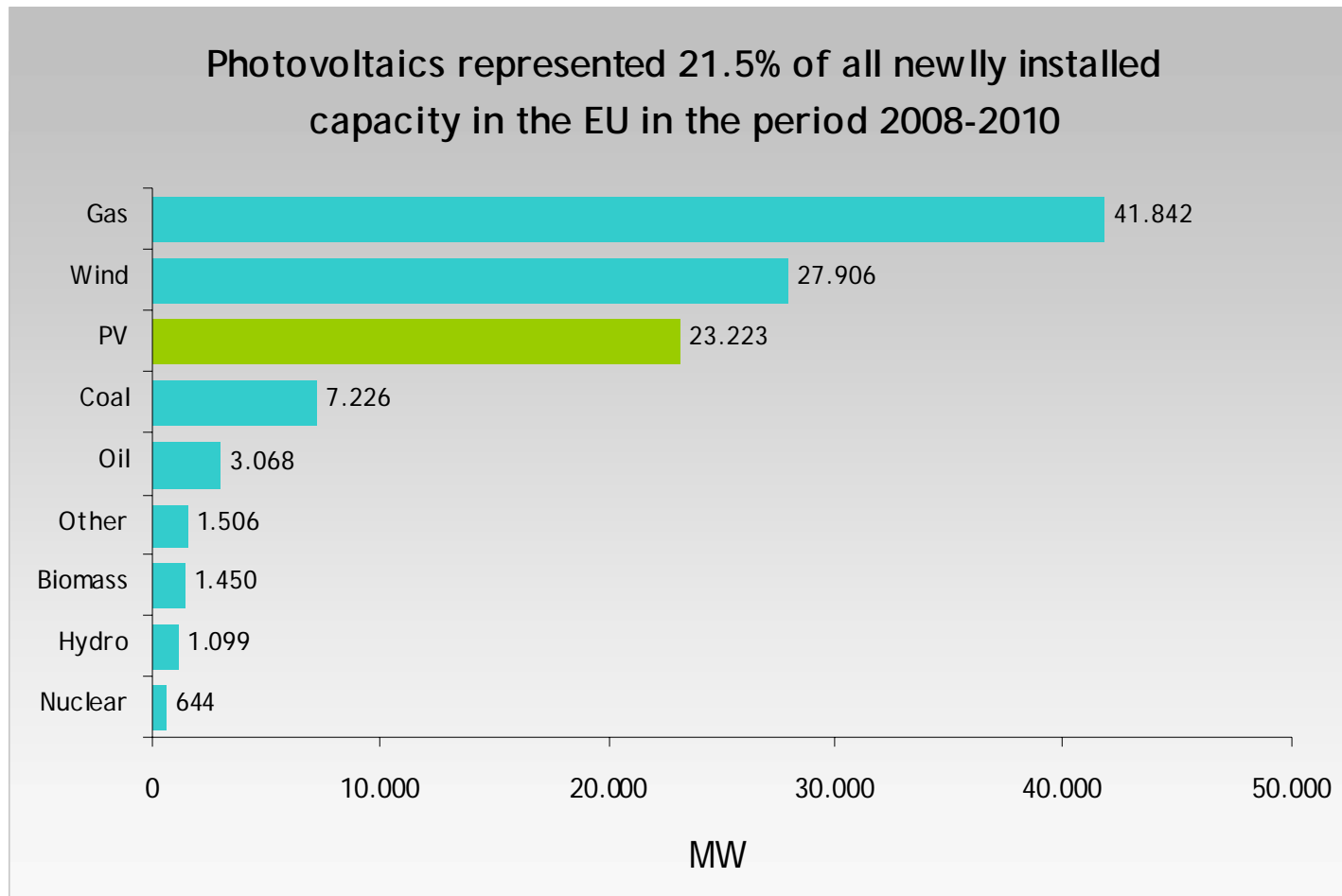
Source: Photon Magazine, Feb. 2011

EU RES Market 2010 (1)



Source: EWEA, EPIA, SolarBuzz

EU RES Market 2010 (2)



Source: EWEA, EPIA, SolarBuzz

Greek Energy Market 2010



Technology	2010 Installed capacity (MW)	Contribution
Lignite	4,826	31.6%
Gas	3,456	22.7%
Oil	2,146	14.1%
Hydro	3,237	21.2%
Wind	1,327	8.7%
PV	205	1.3%
Biomass	60	0.4%
TOTAL	15,257	

Conventional Sources	45.7%
Gas	22.7%
Subtotal	68.3%
RES Sources	31.7%

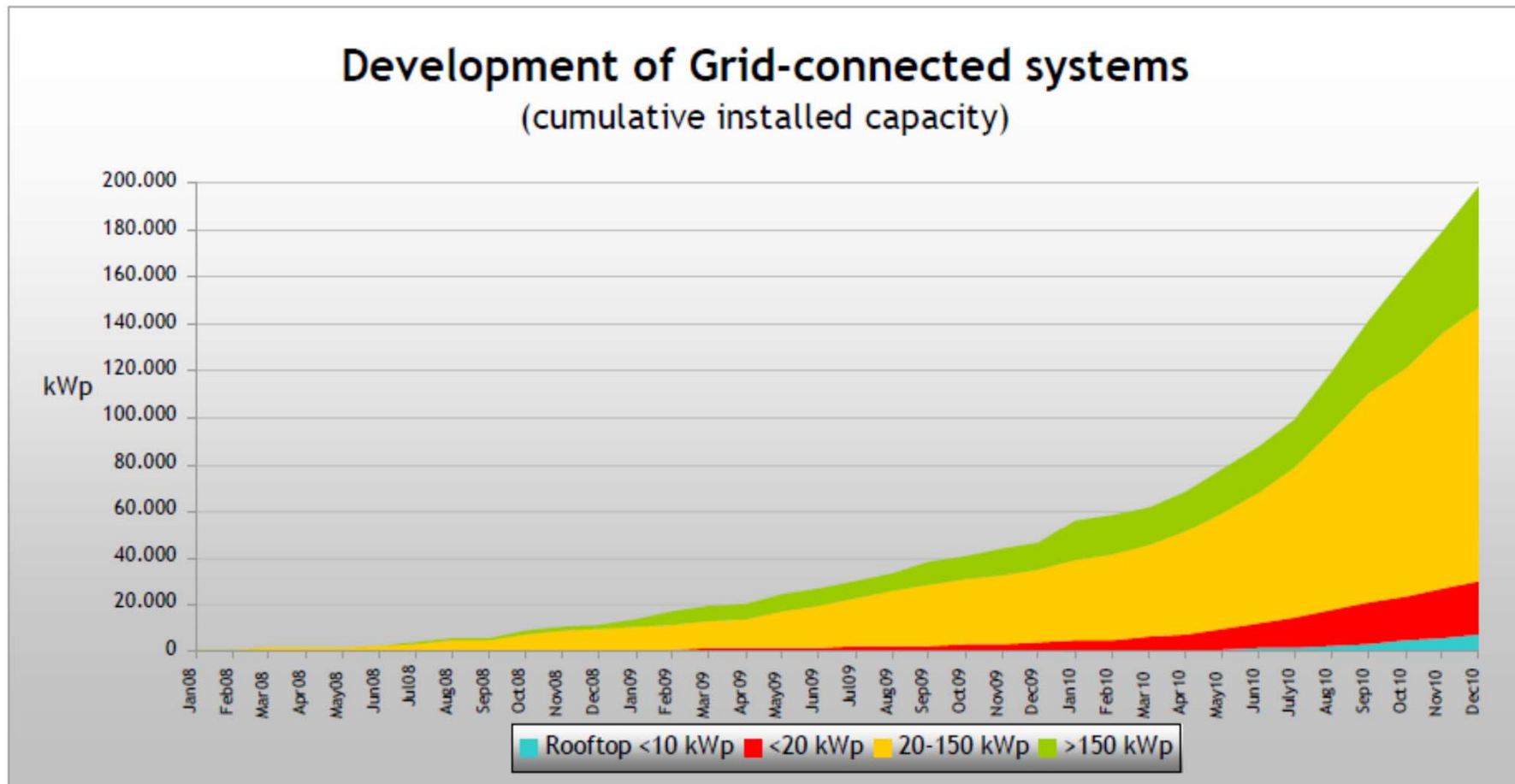
The Greek PV Market

Some Facts



- The Greek PV market has been launched by Renewable Energy Sources Law 3468/2006. This legislation has been reviewed in 3734/2009 and 3852/2010.
- The slow development of the PV in the early years was a result of the complexity of the licensing process and the bureaucratic barriers that have been partially withdrawn in 2010 (Law 3852/2010).
- The Greek PV market in 2010 has reached the 150 MW (a cumulative installed power of 200 MW), quadrupled since previous year (installed 37 MW).
- The forecasted installed power for 2011 is at least 200 MW. Some very optimistic forecasts are giving figures reaching even 300 MW.

The Greek market 2010 data



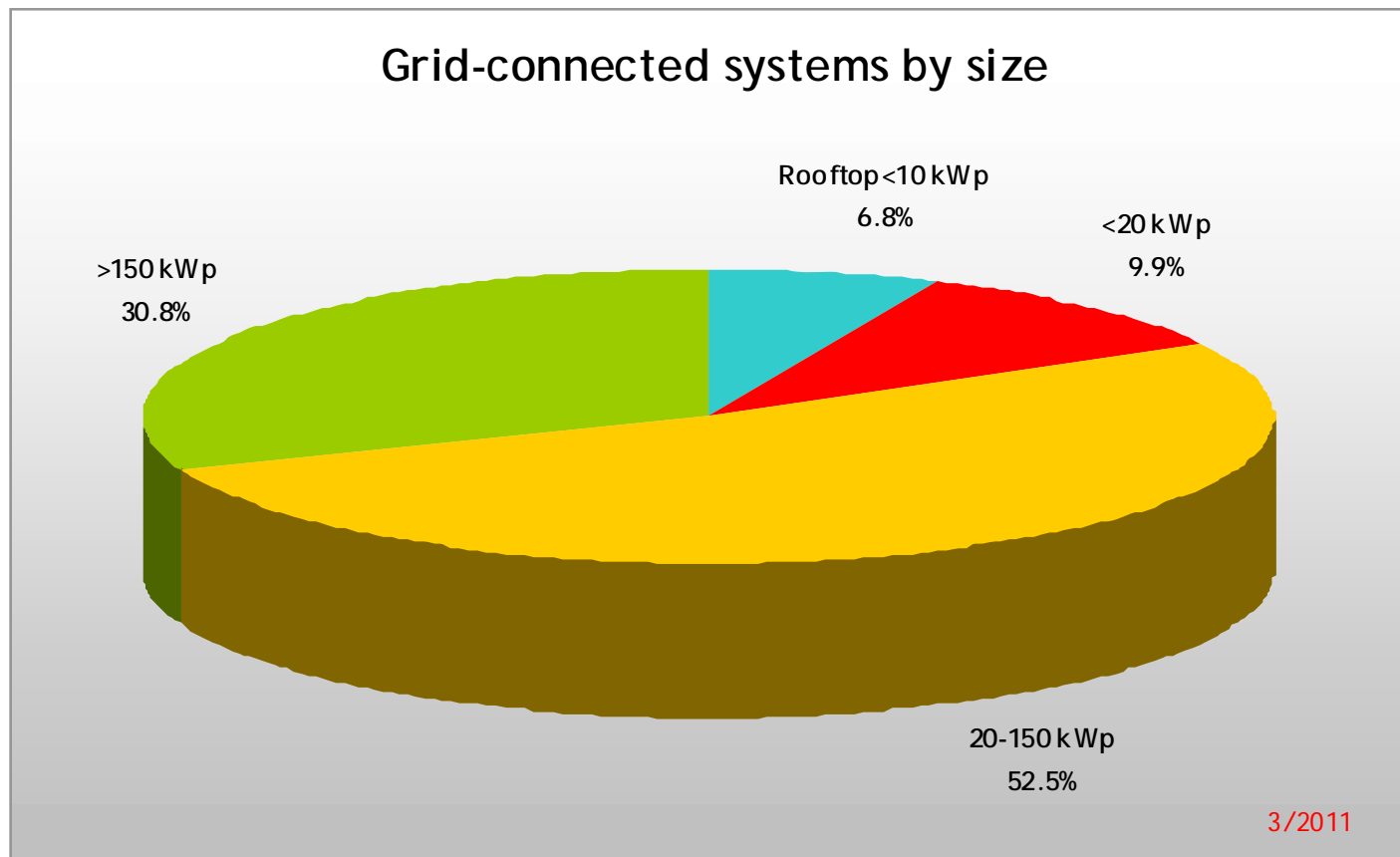
Source: Hellenic Association of PV Companies (www.helapco.gr)

The Greek market 1Q 2011 cumulative



Grid-connected systems until 3/2011	Rooftop <10 kWp	<20 kWp	20-150 kWp	>150 kWp
Cumulative installed capacity (MWp)	18.6	27.1	143.9	84.6

**A Total
274.2 MW**



Source: Hellenic Association of PV Companies (www.helapco.gr)

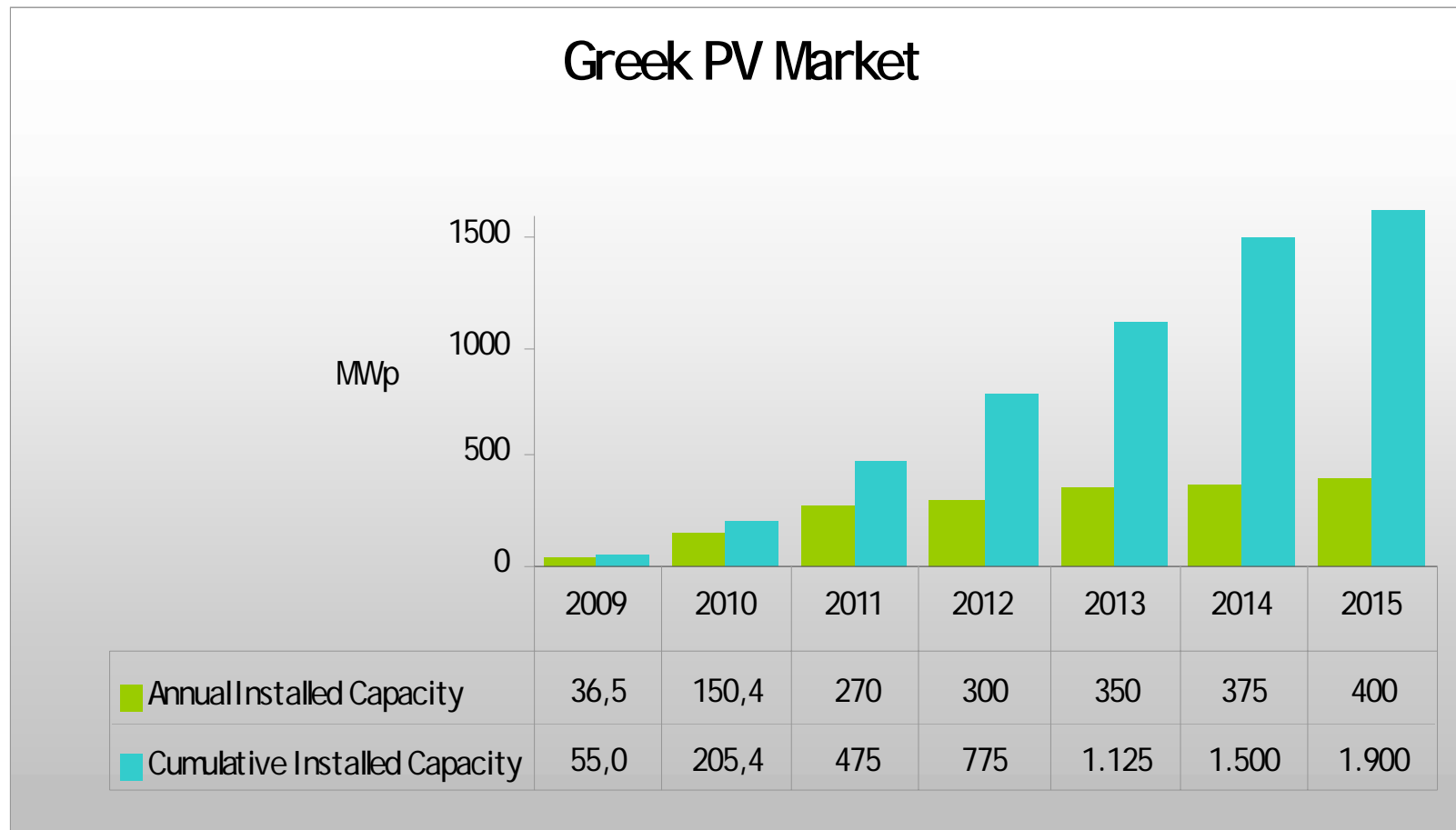
The Greek PV Market

What is next ?



- The future growth of the Greek PV Market is defined by 2 major factors:
 - Bureaucracy of the licensing process
A “generation” of new projects are submitted for production license
 - Funding of projects
The realization of a significant number of mature projects is dependent on potential funding
- The Greek PV market has acquired the momentum to continue at least till 2014 and reach the Greek National plan target of 1500 MW PV (Ministerial Decree 1630/11-10-2010)

The Greek Market Forecast 2011-2015



Source: Hellenic Association of PV Companies (www.helapco.gr)

Hellenic Petroleum (ELPE) Renewable Energy Sources SA



- Hellenic Petroleum Renewable Energy Sources S.A. (ELPE RES) was established in 2006 and is 100% owned by Hellenic Petroleum (ELPE) Group. It is the company that manages the RES portfolio of the group.
- Under the scope of the company is the manufacturing, distribution and reselling of renewable energy sources and relevant equipment and the participation in companies with similar activities.
- ELPE RES has set the target of the development of a portfolio of renewable sources (wind, solar, hydro etc.) in the next years in order to decrease the CO2 footprint of the ELPE Group by 250,000 tons per annum.
- ELPE Group strategy with respect to RES is the development of a portfolio of 100 MW in the next 5 years utilizing Group's real estate properties and through acquisitions of mature or operational projects.
- The current renewable sources ELPE RES portfolio is comprised of 10 MW free field and rooftop photovoltaic projects under construction and in licensing process with the target to reach to at least 20 MW in the next years.
- The development of Wind and Biomass projects is on going