"Distributed generation: trends and opportunities for consumers"

Alexandre ROESCH, Head of Regulatory Affairs
RES, a major power player today

In 2014 and for the first time, RES produced more power than nuclear in Europe

Power Production in the European Union (excl. Malta) in 2014, TWh
Data: Entso-E

- Fossils
- Nuclear
- RES
- Others

- 1275
- 827.4
- 827.8
- 9.5

2014
RES growth mainly driven by solar and wind

Wind and PV installed capacity EU 28 (1990-2014), GW
Data: EU Energy figures (2014), p. 175, EWEA and EPIA

Wind and Solar
Solar PV: Clean and cheap power at your doorstep

Average price for PV rooftop Systems in Germany (10kWp-100 Kwp)

Source: Fraunhofer Institute for Solar Energy systems ISE, Photovoltaics Report, October 2014
QUESTION:

How to make it easily accessible to consumers?
#1: Make it simple to build and connect

Figure: Overall % share of legal-administrative costs over total project development costs (excluding PV equipment and other materials) – source: PV GRID
#2: An appropriate framework for self-consumption

**WHAT?**

“OUR VISION IS OF AN ENERGY UNION WITH CITIZENS AT ITS CORE,
WHERE CITIZENS TAKE OWNERSHIP OF THE ENERGY TRANSITION
BENEFIT FROM NEW TECHNOLOGIES TO REDUCE THEIR BILLS
PARTICIPATE ACTIVELY IN THE MARKET”

Energy Union strategy, 25 February 2015

**HOW?**

SOLAR POWER SELF-CONSUMPTION

- Power consumption
- Power generation

[Diagram showing solar power self-consumption with times 9am, 12pm, 4pm, and 8pm]
#3: Make the best use of distributed generation capabilities

Cost-effective integration of photovoltaics in existing distribution grids:

*results and recommendations*

**Economic grid support services by wind and solar PV**

*Project Recommendations*  
*September 2014*
#4: Unlock new business models

SolarCity MyPower

SolarCity’s newest product allows customers to own their system from day one and save on their electricity bills. SolarCity MyPower is the first of its kind in the industry: a low-interest loan that you pay off based on your monthly solar production, making it easier and more affordable than ever to go solar.

- **$0 due upfront** - Pay nothing on the loan upon installation and own your system from day one.
- **Save on electricity** - Customers save over the life of the system by paying less for solar energy than they pay the utility.
- **Pay off your loan with the sun** - Unlike other loan products, MyPower lets you pay off your loan with monthly payments based on the electricity your system produces. It’s like paying off a car loan by buying clean, affordable gas for every mile you drive.
- **Unmatched protection** - Our warranty package is the best in the industry with 30 years of repairs and a production guarantee at no additional cost.
The way forward

→ Reduce the cost of project development through fair permitting and grid connection rules
  • Truly streamlined permitting and grid connection procedures
  • Transparency and fairness around the possible connection arrangements
  • RES generators on an equal footing with conventional producers

→ An appropriate framework for self-consumption
  • Right for any consumer to generate and consume
  • Lift regulatory barriers to self-consumption
  • No taxation on self-consumed electricity
  • Grid tariffs fit for the energy transition

→ Make the most out of renewable energies capabilities
  • Think software and not only hardware
  • Ancillary services markets where DSOs can procure services

→ Unlock new business models
  • Encourage community projects through dedicated legal, technical and financial measures
  • Joint purchasing
  • Shift from commodity (electricity) to services