

"Sustainable barriers?" Obstacles for prosumers and micro-generation

Jurek Pyrko

Department of Energy Sciences
Lund University
Sweden



Good news...

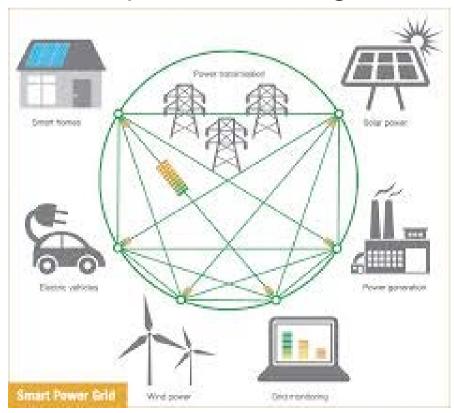
- We can be Prosumers!
- i.e. customers who both **Pro**duce and con**sume** electricity





Why should we?

- To be important components of the (future) energy-efficient society
 - as parts of smart grids.





How?

- Being small-scale elements of a distributed electricity generation system
- Interacting with the energy system
- Adapting the usage of electricity to energy supply and to electricity prices
- Controlling and reducing electricity consumption (using smart services).



Different ways to produce electricity...

- Solar cells
- Wind turbines
- Micro hydroplants
- Small CHP, fuel cells, wave/tidal plants



Micro-producer - Definition

- Facility with a main fuse of a maximum of 100 Amps
- Input power of up to 69 kW
- The electricity consumption is higher than production over a year.

(Energy Agency 2013)

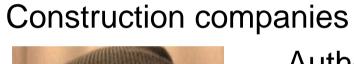


Actors...

Individuals in dwellings / Small industry enterprises



Administrators / Landlords / Managers







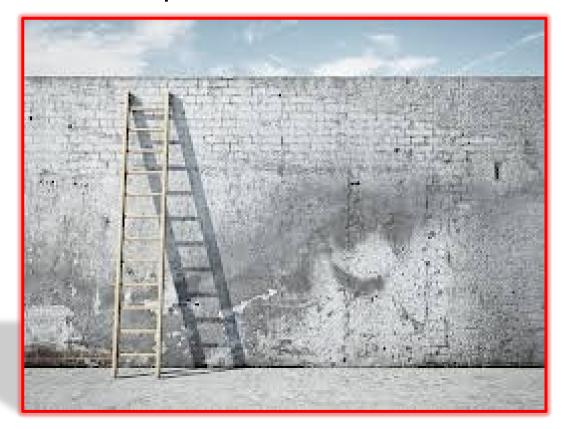
Authorities





Bad news: Barriers...

 What obstacles do various actors experience and what should be done to improve the situation?





Conclusions 1

Economic barriers

- High investment costs (still relevant)
- Inefficient and insecure financial support
- Concession obligation
- Unprofitable Net billing is not allowed



Conclusions 2

Planning on the municipal level

Lack of planning of micro electricity production

Lack of knowledge and uncertainty because of that

 Complicated and complex rules (misconceptions about investment costs, production potential and profit)



Conclusions 3

- Unclear definitions (of energy-efficient electricity-generating building)
 - Different players (national and international) prefer different definitions, which creates barriers for the building companies.



So, what to do?

- Restructure solar energy subsidies; applicants should know much earlier if the financial support is possible.
- Improve solar energy and micro-generation planning in municipalities.
- Review the concession obligation rules; prosumers should benefit from the self-generated electricity.



Thank you...

I hope everything was clear...



