



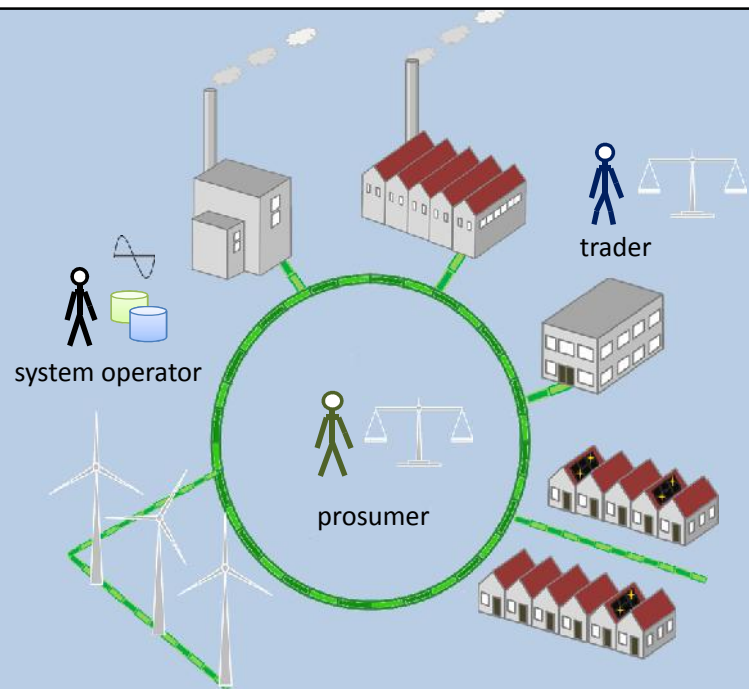
The electricity market design of the future

Contribution by Paul de Wit

The model

In this model there are only 3 market roles:

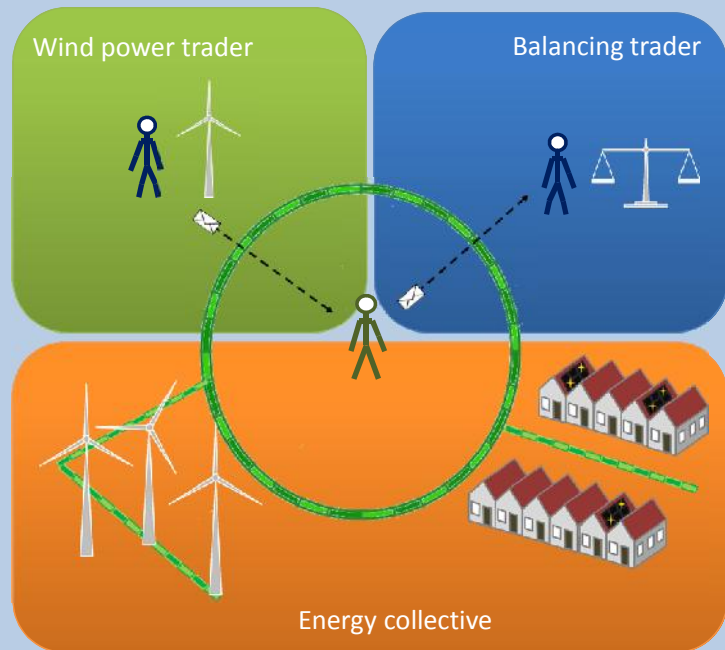
- A prosumer - connected to the grid - is responsible for his own physical balance of production and consumption.
- A trader buys and sells electricity from prosumers.
- A system operator keeps the grid stable and facilitates the market.



How does it work?

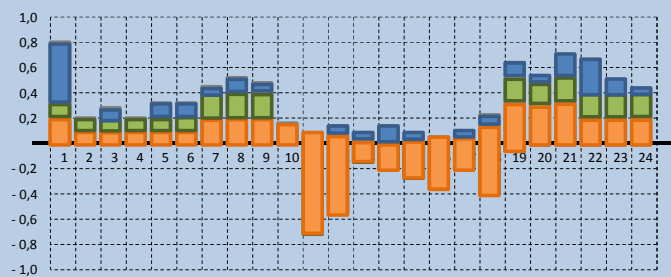
This is an example:

1. The prosumer shares electricity in an energy collective.
2. He buys wind power from a trader.
3. The rest is completed by a balancing trader. Like today as a balance responsible party.



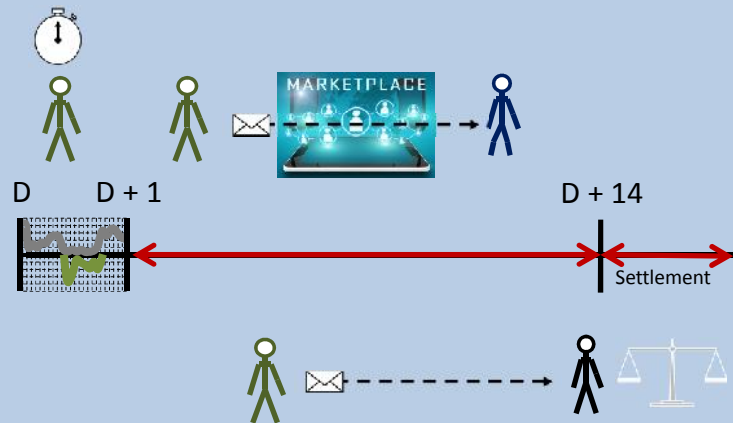
How does it work? An example:

1. Connections are metered with a smart meter.
2. First the collective shares all their produced electricity.
3. Secondly the prosumer buys blocks of wind power for the evening and the night.
4. The rest is completed by a balancing trader. Like today as a balance responsible party.



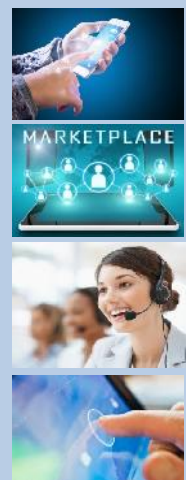
The process

- After each day every prosumer gets 14 days to specify all the buys and sells of a specific day.
- There is one public market place but more (private) market places are also possible.
- After 14 days the SO settles the physical balance of every party.



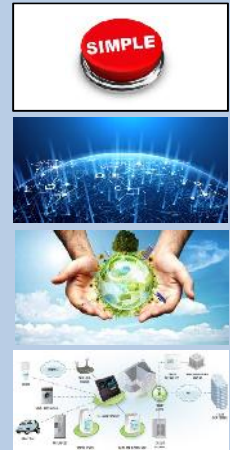
What's the difference with today's market design?

- The customers is in full control.
The allocation of electricity is not determined by the SO or any other market party.
- There is no day-ahead, intra day or balancing market.
There is only one public market but parties are allowed to trade wherever they want.
- Everyone can sell any service to anyone else.
This does not depend on a market role.
- The customer must register himself.



What are the advantages of this model?

- The proposed model is very simple and therefore very easy to automate and implement (block chain?).
- Today's IT capabilities can make this possible.
This was not possible in the past.
- A simple market model still leaves the option open for governments to execute their policies. For example it's still possible to implement a tax on CO2 emissions.
- Unlocks maximum DSR capabilities.
Creates a level playing field for everyone.
Foundation for future innovative developments and solutions.



Thanks for your attention

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See also:



Youtube 🔍

"future market model paul de wit"