

## Marketing of renewable energy on the exchange: a step towards competition

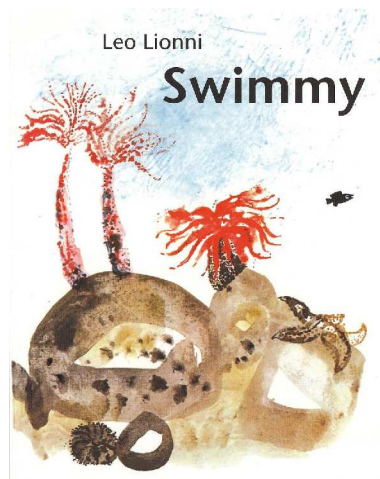
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### Agenda

- Introduction
- Vision
- An new Platform for Marketing of Renewable Energies – the in.power energy network
- Towards the Virtual Power Plant – in.power Core Idea and Core Process
- Trading Process at the EEX
- Dataflow in Direct Marketing at Spot Market
- EEG Outlook
- Advantage for the Power Plant Owner
- Next Steps

## Introduction

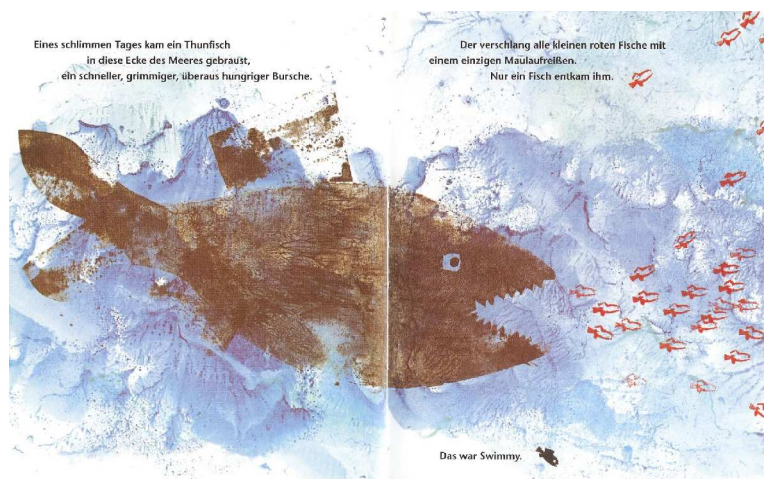
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3

## Introduction

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4

## Introduction

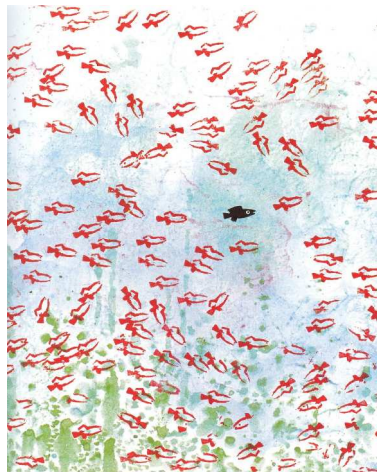
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5

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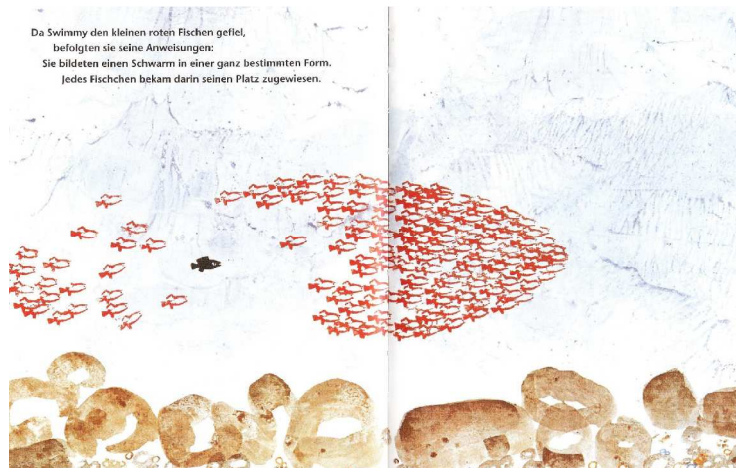
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6

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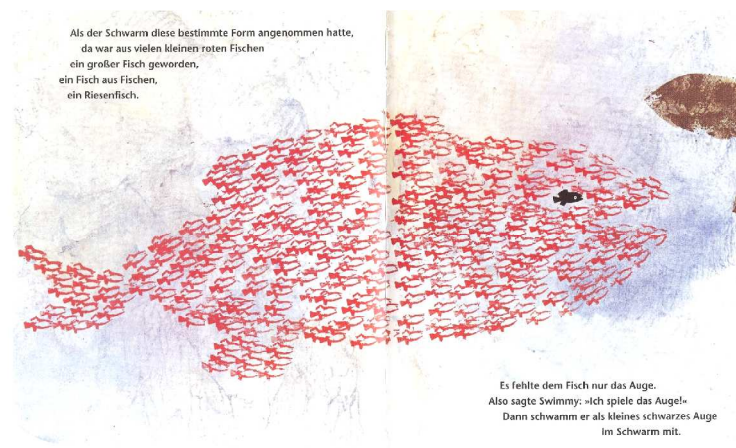
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7

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8

## Introduction



9

## The Vision



- in.power is working towards new ways in the supply of energy and realising it with partners
- The long term goal of in.power is to build a renewable and environmentally friendly energy system in Germany
- In the future new structures are required that can integrate the power of nature by transformation of the existing energy infrastructure. in.power therefore further develops the concept of the Virtual Power Station towards the “real” **in.power energy network** and creates a nationwide platform for coordination of energy supply and demand.

10



## in.power energy network



- The **in.power energy network** joins providers of renewable and environmentally friendly energy and eventually also users of renewable power.
- In a first step, in.power connects decentralised and localised producers of environmentally friendly power to build a network of green power stations.
- By combining many individual and disconnected power producers, the availability of the generated power can be planned more reliably as well as optimally be brought to market.
  - For instance, the error in predicting the wind power production will get smaller the higher and widespread the number of integrated wind power stations are – individual providers of wind parks would have to face a prediction error above average and thus would have to calculate with a high risk in marketing the energy.

11

## in.power Core Idea



- Power from renewable sources will be traded at the European Energy Exchange (EEX) in Leipzig whenever the market clearing price is higher than the specific feed-in price and an additional surcharge to cover the cost of trading:  $EEG + x$

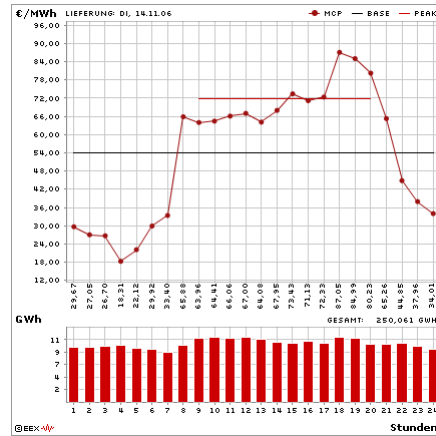
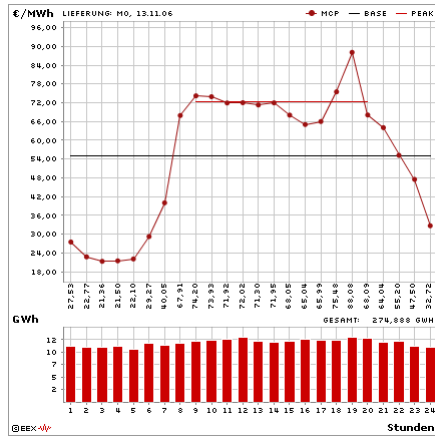
In case the price is not high enough, the produced power will be fed-in and compensated based on the Renewable Energy Law (EEG) as is current practice.

With this approach

- additional value can be created for the owners of renewable power plants
  - the EEG surcharge to the electricity price, paid by the end customer, gets reduced (positive economical impact)
  - Renewable Energy will form its own market power
- A legal survey has been contacted by in.power to ensure that the business model is in compliance with the Renewable Energy Law

12

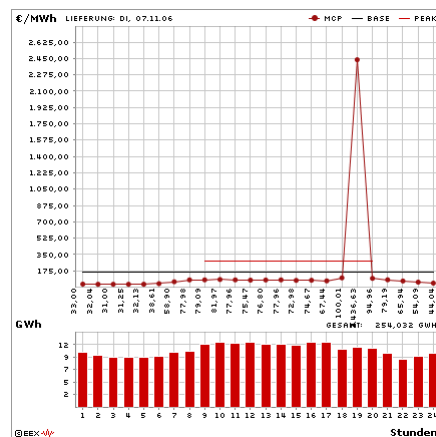
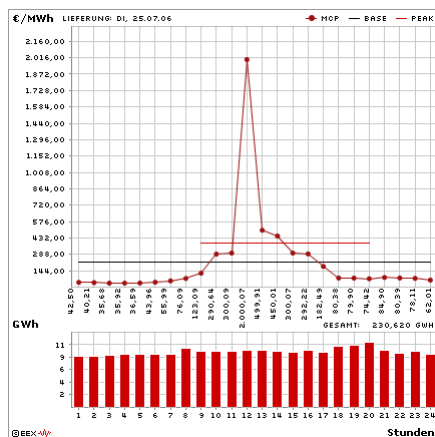
## EEX – Prices above EEG feed-in tariff **in.power**



13

## EEX – Top Prices

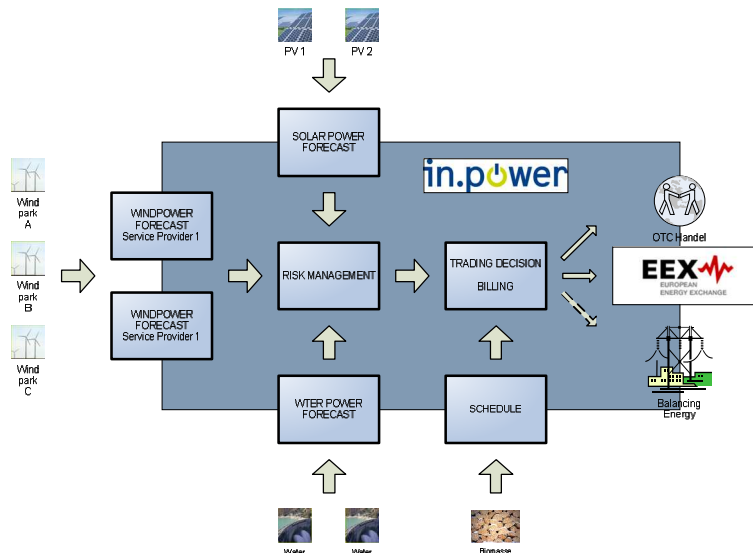
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14

## in.power Core Process

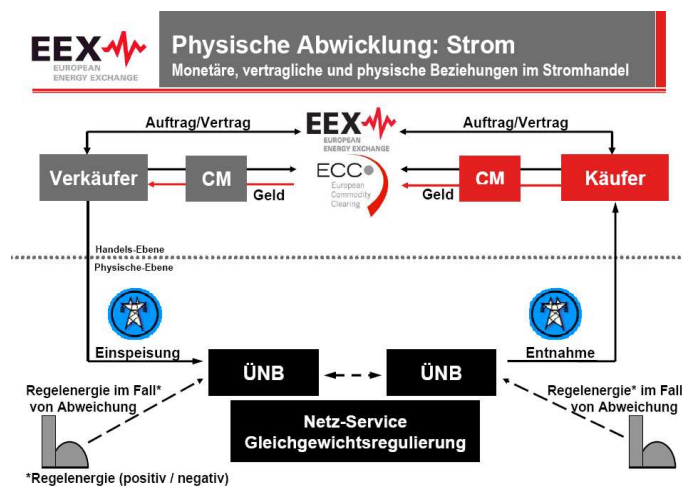
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15

## Trading Process at the EEX

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16



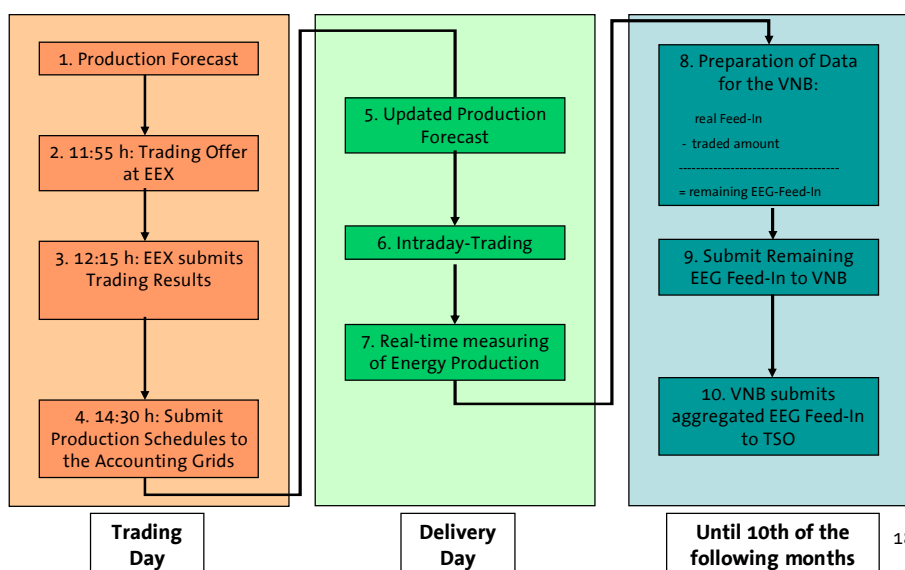
## Federal Network Agency Engaged



- The four German TSOs have turned towards the Federal Network Agency (BNetzA) to protect their influence in the market
- There was a meeting in Bonn on the 4th of July 2007 with all relevant market participants
- Altogether 16 proposals have been presented
- The proposals differ mainly in the following areas:
  - Price and volume risk coverage through the trader
  - Commitment for EEG volumes
  - Period and time of EEG volume commitment
- In autumn the Federal Network Agency is expected to again set rules for direct marketing of EEG power
- The new participants (direct marketing of EEG power) expect a fair possibility of entry into the market without discrimination and new market entry barriers; current legislation (EEG) does not prohibit direct marketing

17

## Workflow: Spot market Trading



18

## Advantages for the owners of renewable power plants :

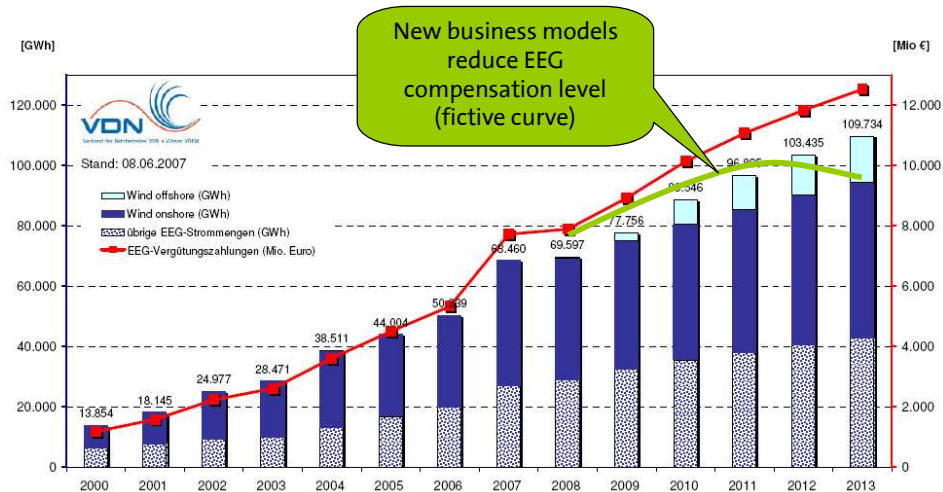
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- Value adding intelligent marketing strategies
- Coordination and energy data management
- Trading risk lies with the in.power energy network and in.power

19

## EEG-Power Volumes and Compensation Values

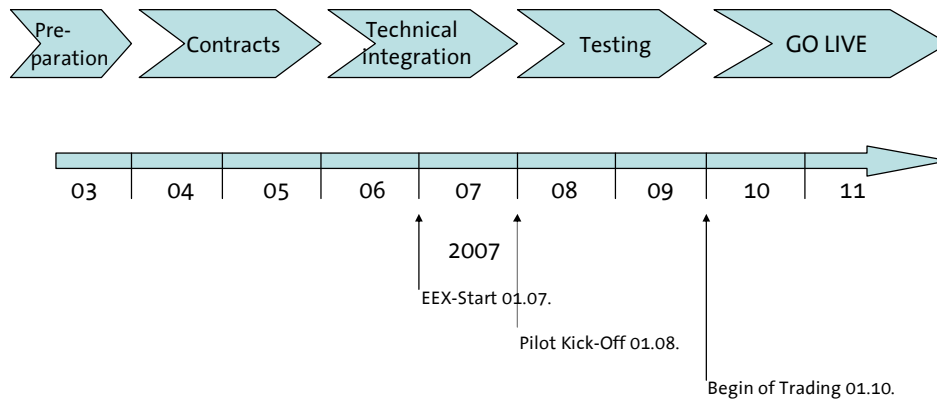
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20

## Next Steps

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21

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Thank you for your attention!



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22