View on the 'smart energy world' from the perspective of a retailer.

Gundula Klesse, February 11th 2011

The 'old' world of utilities: There is no customer engagement.
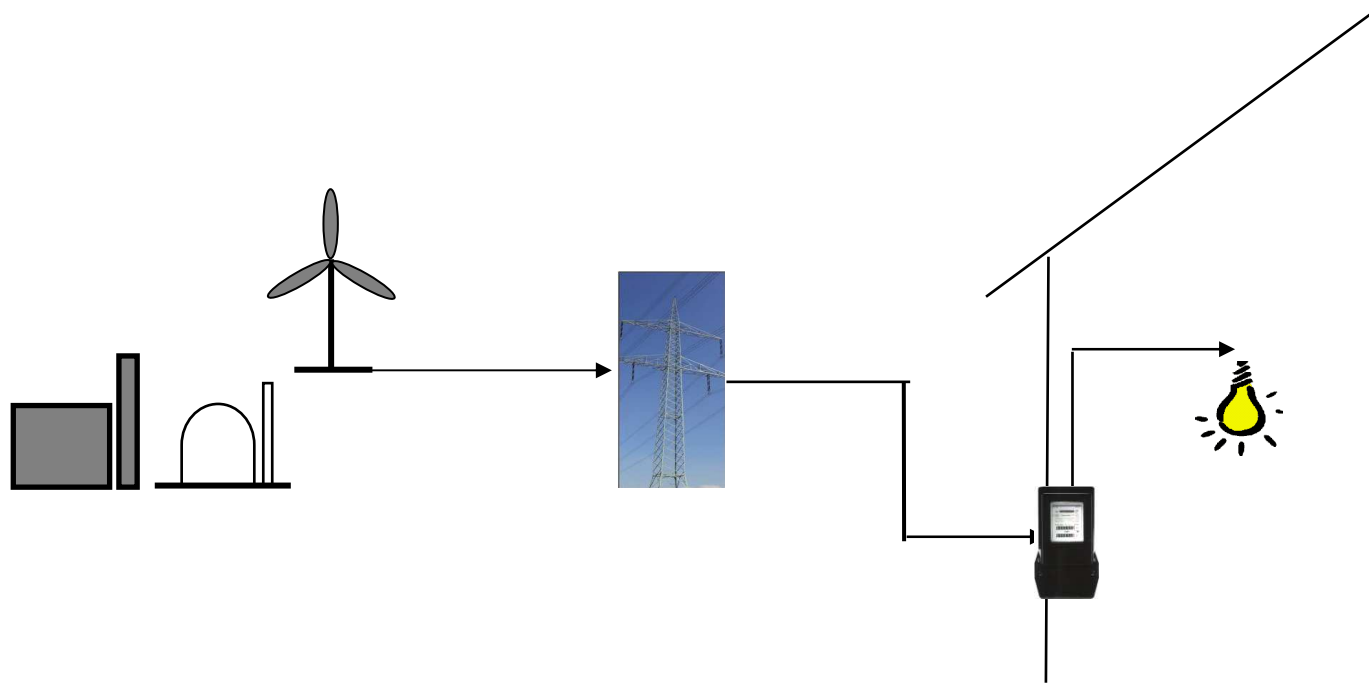
Customers become part of the solution: they have storage capacity, space and capital for own generation & renewables.

System load TSO

System load DSO

EEX

Retailer

➲ Delivery contract   ➲ DSM contract
➲ Input contract   ➲ metering contract
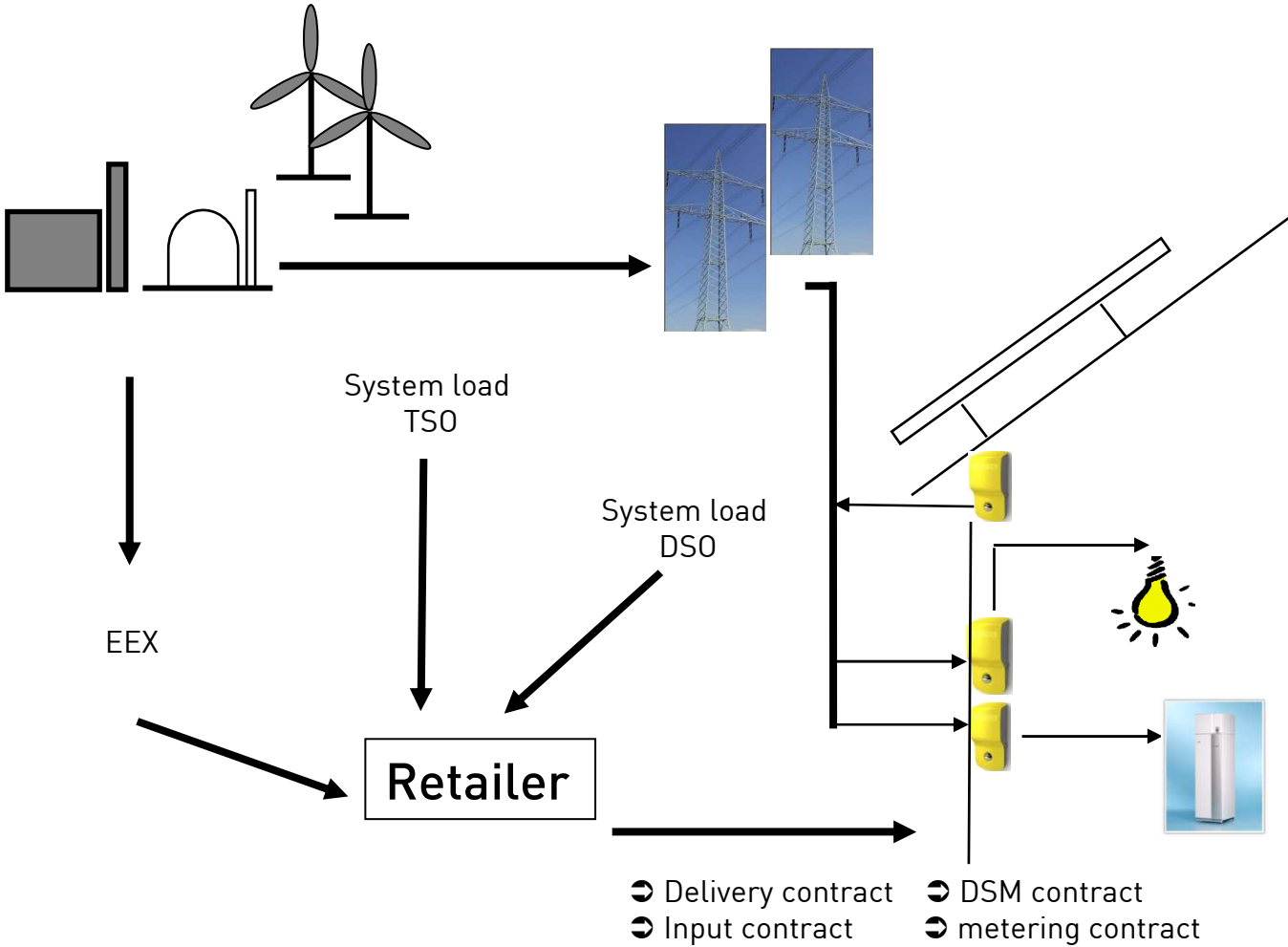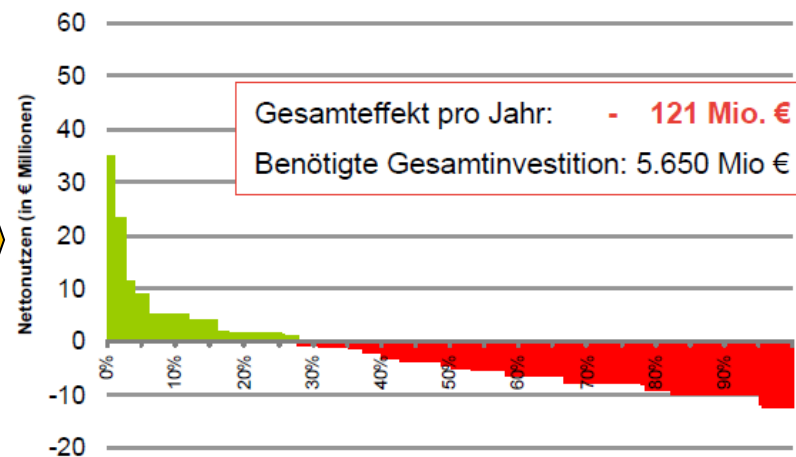
Smart Meter Regulation in Germany

⮊ **Liberalized Smart Meter market** since September 2008

    ⮊ Currently no complete smart meter roll out, no national targets

    ⮊ In new buildings and for reconstruction specific meters (with display on meter) are mandatory since 2010

⮊ Most probably, Germany will execute a cost-benefit analysis

⮊ BNetzA: Too early to take decision on national targets; proposed "**enhanced market-oriented approach**"

⮊ Retailers must offer at least **one flexible tariff** (load-variable or time-variable) after Dec. 30th, 2010

Social benefits of comprehensive nationwide coordinated deployment.

For many households, the payoff is negative

Gesamteffekt pro Jahr: - 121 Mio. €

Benötigte Gesamtinvestition: 5.650 Mio €

Nettonutzen (in € Millionen)

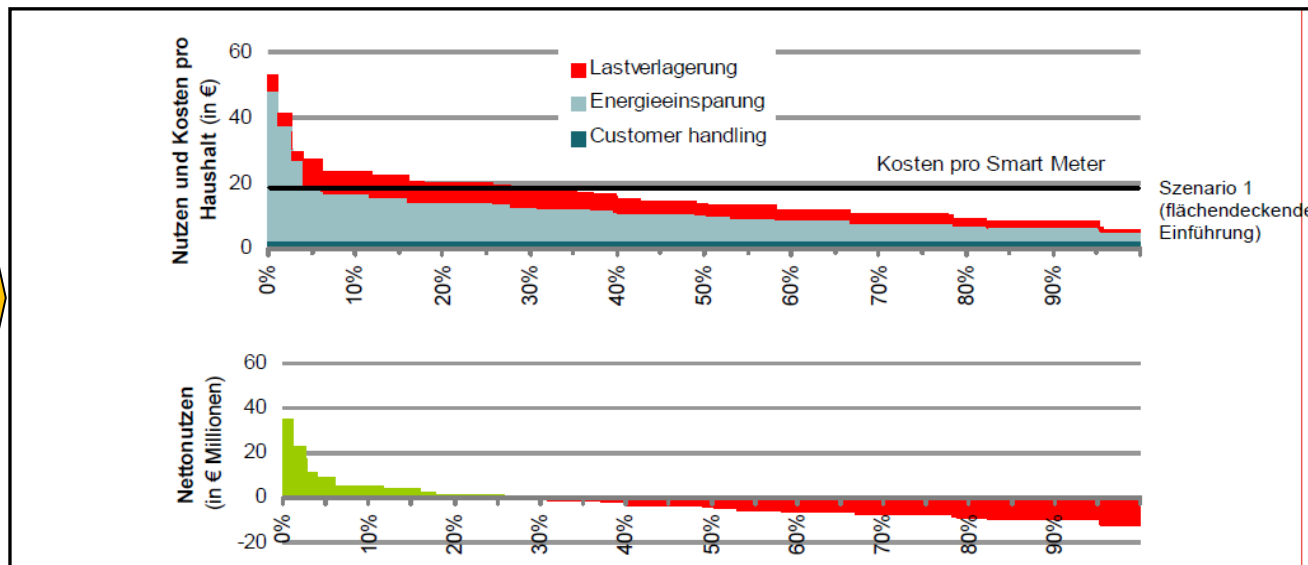Net-benefit = annual savings through load shift and reduced consumption minus annual cost for Smart Metering

Scenario: coordinated comprehensive nationwide roll-out of SM considering best available cost-benefit-ratio and ec. of scale.

source: Frontier Economics

Energy savings ‚make or break' Smart Metering.

Costs vs. benefits

Result

Energy savings are the main legitimation for Smart Metering
Share of energy savings compared to total benefits: 58%

Potentials for energy savings vary significantly across different HH sizes
Very limited potential for small HHs
Threshold value at about 4500 kWh/a; significantly above av. HH-consumption in GER

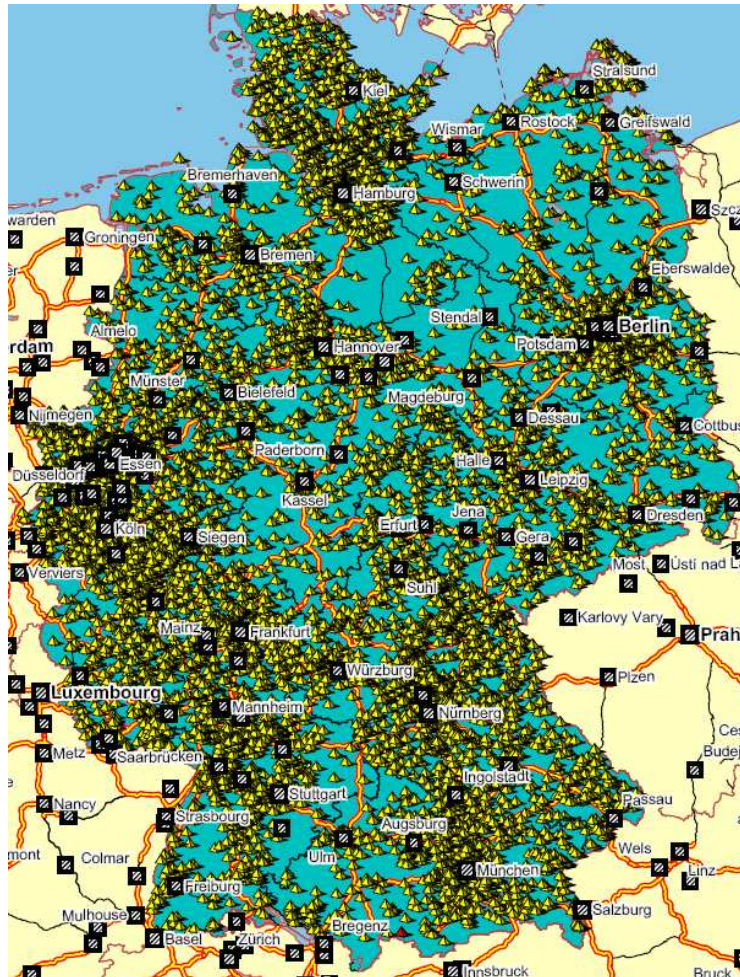source: Frontier Economics

Levels to optimize.

EEX

TSO

DSO

Local grid

Customers´ home

Only the retailer has access to all levels!
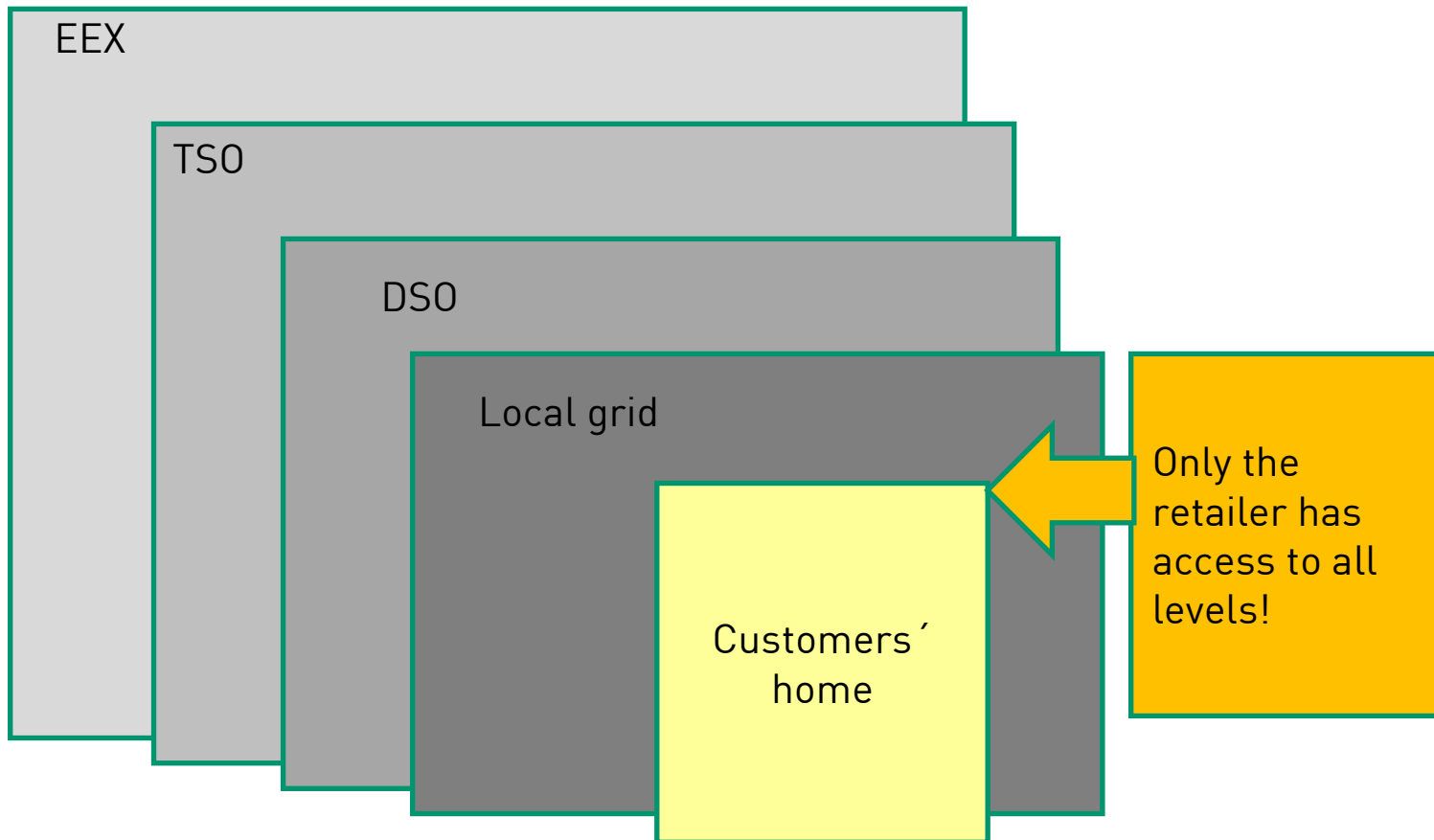
The customer is indispenable for sustainable development in a private household.
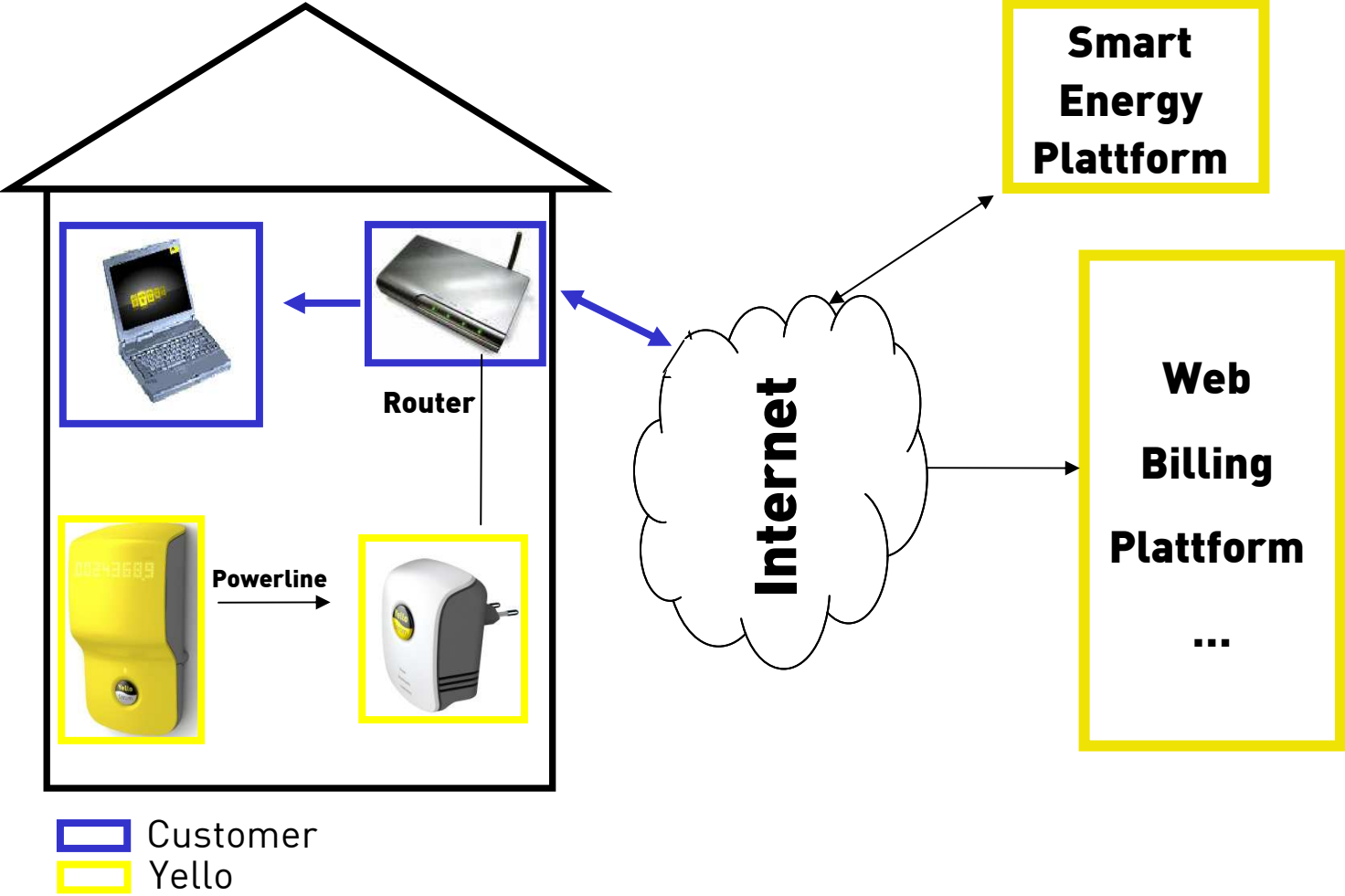
Customer driven smart meter.
Available since 2nd December 2008.

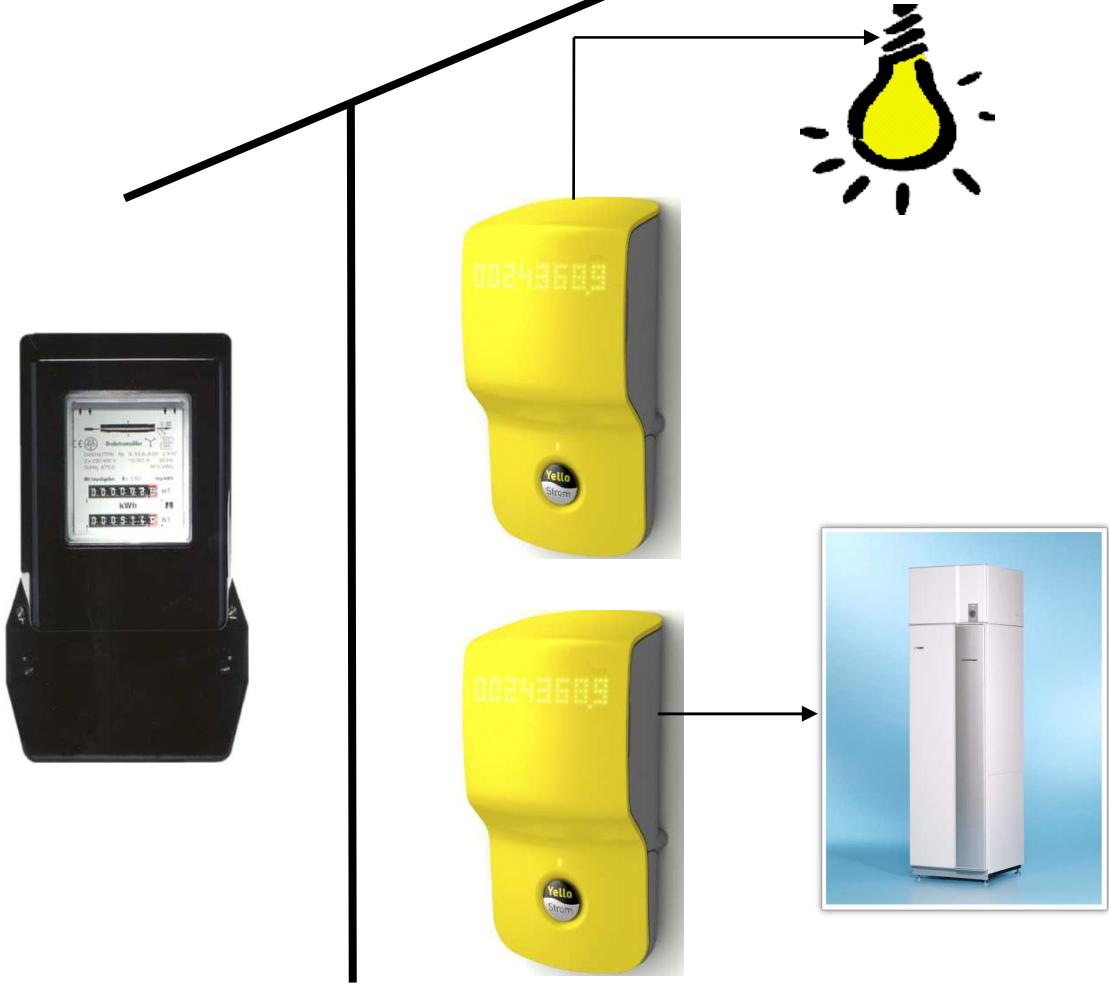# ...all over Germany, bought by those who will work with it.

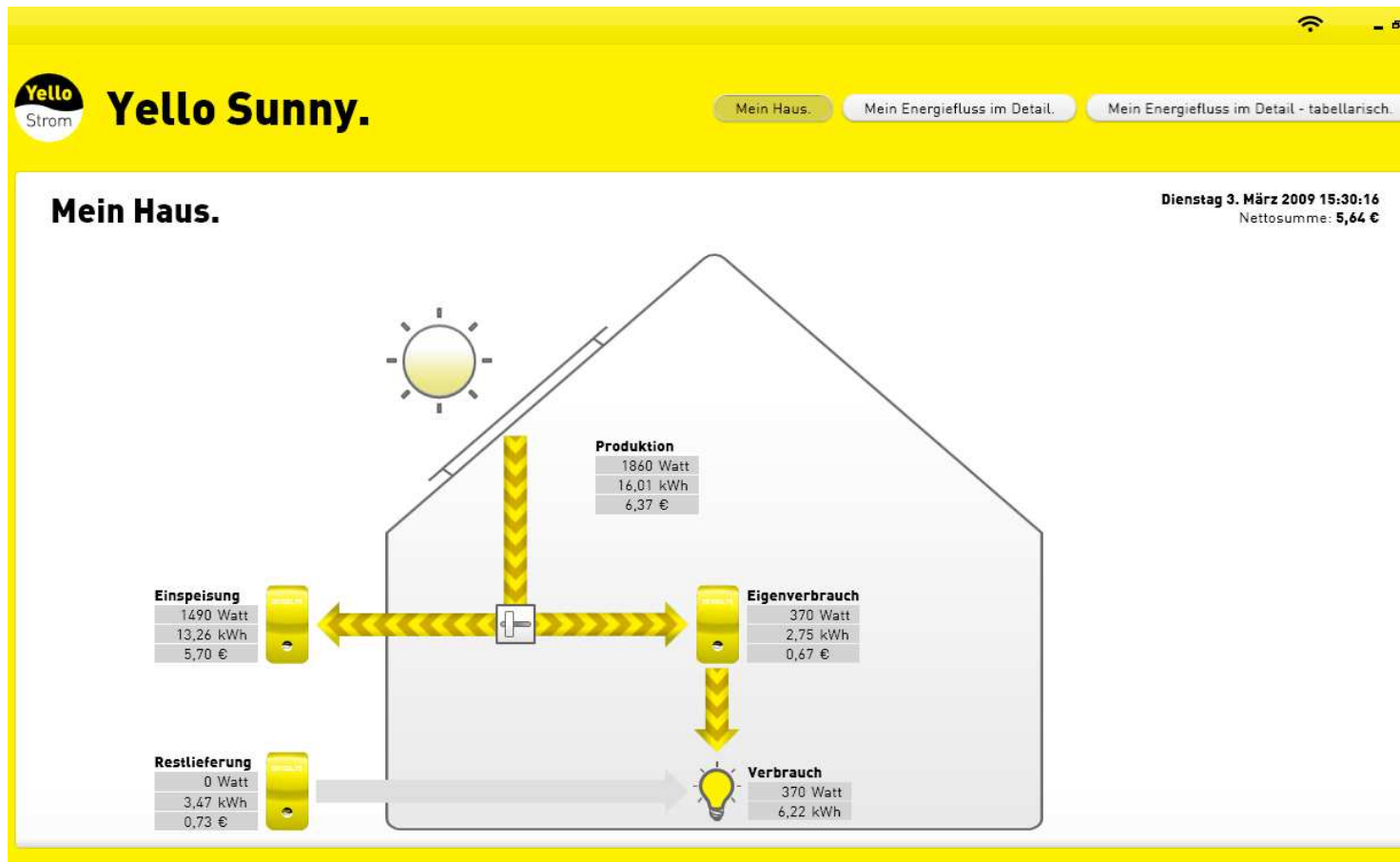# The most standardized meter: Most of the infrastructure is not from Yello. But all IP.

Router

Powerline

Internet

Smart Energy Plattform

Web

Billing

Plattform

...

☐ Customer
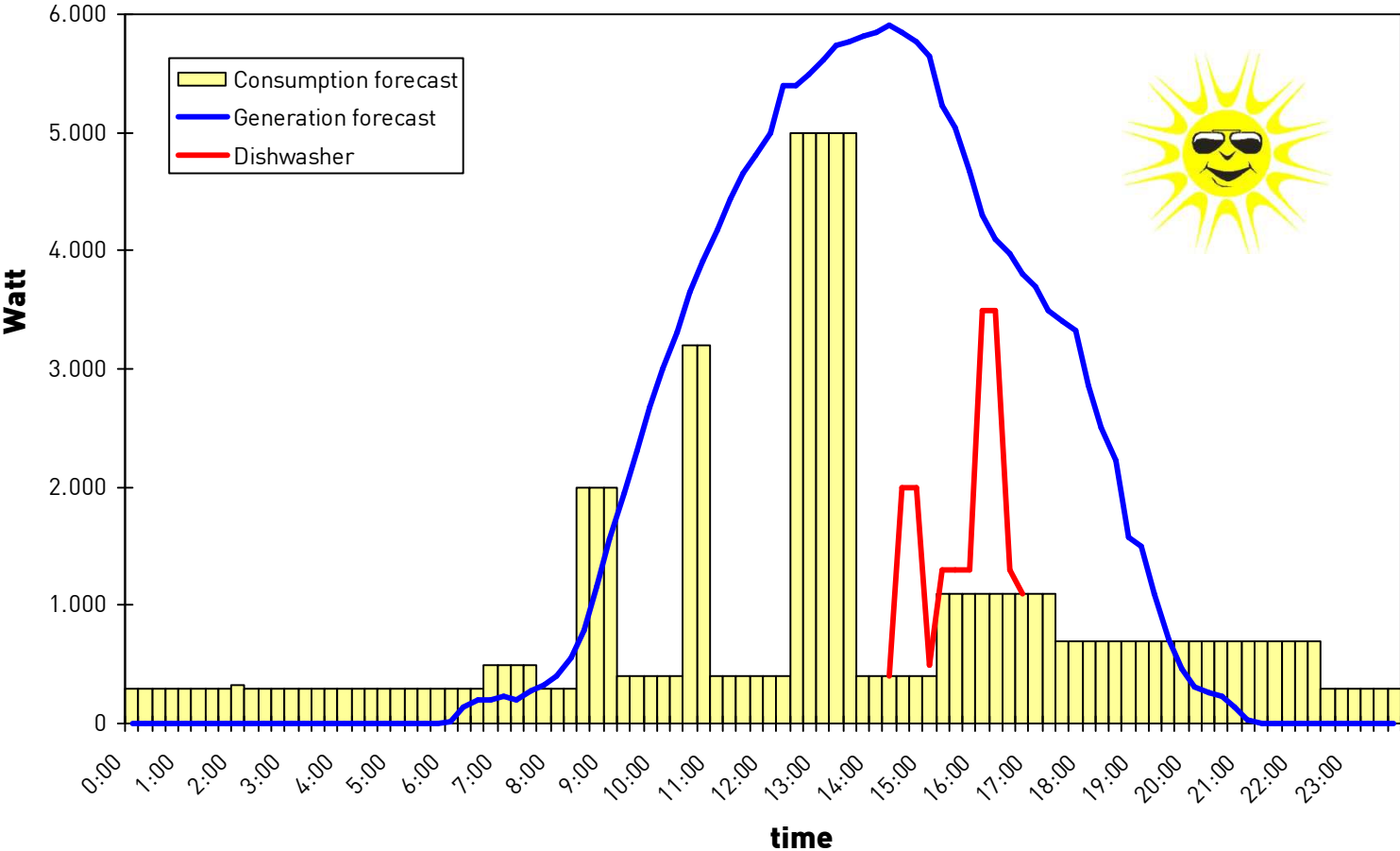☐ Yello

It's all about customer engagement.

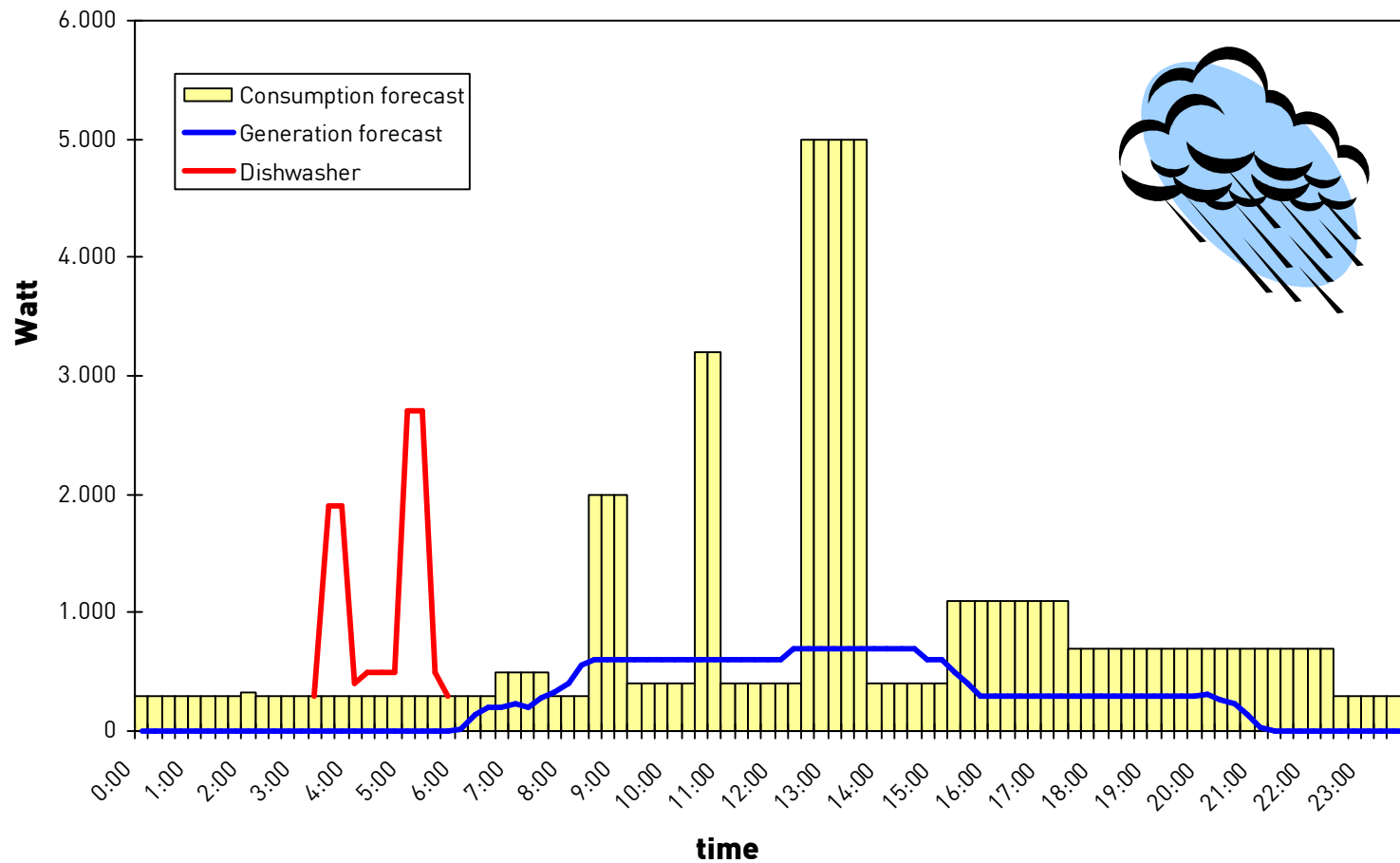# For Energy efficiency: Measure consumption, not supply.
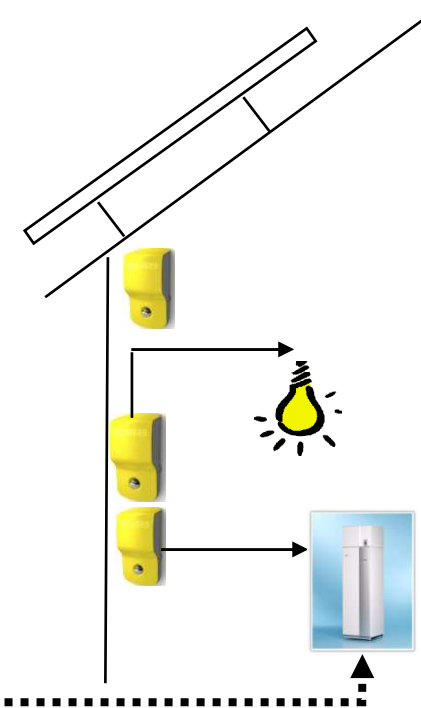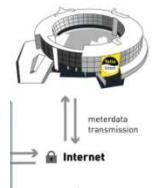
Integration of prosumers.

Things get smart because of improved forcasts ...

...to make demand descisions.

Demand side management is about „talking to machines", not to meters!

Thank you for the attention.