

Avoiding the Utility Death Spiral

Rethinking the Utility Business Model



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“Problems” causing the Utility Death Spiral

- New regulations
- New market needs
- Digitalization

New regulations

- Demand Side Management systems as decided by the EU Commission 5. november 2013
- Unbundling Distribution from Production as decided by the EU Commissions 3. energy package
- Market Solution as decided by the EU Commissions recommendation of 22. january 2014 to the European Parliament.
- Decoupling Infrastructure from Energy Content
- Decoupling Gas Prices from the Oil Link

New market needs

- Balancing Renewables in the Grid having priority when being produced
- Demand from the Developments of the Smart Communities
- Dramatic reduction in Gas prices due to Shale Gas being transported world wide as LNG
- Consumer concern with Climate Change/Environmental Impact
- Angry Consumers due to high prices caused by duties - not having a choice of energy form.
- Proposed Capacity Markets: Sharply increase of consumer prices - backfire on inabel governments.

Complex space matrix

Many activities from

- Many people
- Many institutions
- Many corporations

One fixed point –

Individual customers criteria for purchasing energy

- Solution: Empowering the Consumers with an Automatic Purchasing "Machine"

HOW?

Digitalization

Connecting everything with everything in a complex space matrix focused on the consumer

How?

Datahub – The XTN Hub –

One of only 2 datahubs in the world today

Automatic purchasing "machine"

Empowering the consumers



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Automatic Purchasing Machine at Household Site - XTN

- Ability to choose energy form from an energy mix which fits consumer's individual values and individual price preferences
- Retailers and Producers as co-owners in XTN
- Price premiums from consumer values are transferred to XTNs producing co-owners providing an extra margin

Consumer choice from an Energy mix in the Automatic Purchasing "Machine"

- Energy mix: Electricity – Gas – Distant heating – even out peak loads
- Gas - separate commodity – separate infrastructure – balancing battery in the grid at household site
- Pipe gas – Shale gas/LNG – Hydrogen fuel cell at Household Site
- LNG - moveable source on the world market - highly competitive
- Hydrogen fuel cell: 2016
- Hot Water at Household Site as balancing battery
- **Causing Structural change:** Vertical integration from consumer to producer

The XTN system

”Energy a la Carte at Household Site”

Technology

- Apps
- Top ware
- Middle ware – **datahub – the XTN Hub**
- All protocols
- C2M
- M2M
- M2C

What's in it for the consumers/society

The Renewable low cost/low carbon society





What's in it for the producers being co-owners

Transferring the
Renewable price premium
to
energy producing co-owners



What's in it for the retailers being co-owners

More sales by increased
competitive strength by
meeting consumer values



What's in it for the share holders in XTN

Producers, Retailers and Investors being share holders enjoying X% of throughput of increased sales and price

XTN - Game changer

- Consumers can balance Demand Response with multiple energy forms managed by XTN - given prices per energy form commensurate with consumer values

When ?

XTN Demo project with Retailers and Producers in Germany 2016

THE IMPACT ON THE UTILITY OF THE SMART COMMUNITIES DEVELOPMENTS



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