

XTN Group

Consumers in the driving seat
Producers in the engine

DISRUPT OR BE DISRUPTED



Bjorn Bekkevold, Founder & CEO, XTN GROUP

bb@xtngroup.com www.xtngroup.com +47 91325804

KODAK

”Driving forces” causing DISRUPTION

- Political agreements / COP21 Paris Summit
- New regulations / EU’s 4 freedoms
- New market needs / *“Declaration of Coordination and Cooperation in the North Sea Energy Challenge - The North Sea in Focus: Hub for Renewable Power and Gas Production”*
- Digitalization from competitors

NEW REGULATIONS

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

NEW MARKET NEEDS

- Balancing Renewables in the Grid having priority when being produced
- Demand from the Developments of 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 on certain energy forms - not having a choice of energy form.
- Proposed Capacity Markets: Sharply increase of consumer prices - backfire on inabel governments.

"Disrupt or Be Disrupted"

European Utility Week Barcelona 15.-17.11.2016

Hence, what is surfacing?

A complex space matrix

Many activities from

- Many people
- Many institutions
- Many corporations

Who is the decision maker? –

Individual consumers: Criteria for buying energy

SOLUTION - HOW?

Digitalization

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

ie. empowering the consumers

ie. ENERGY REVOLUTION EUROPE

How??????

Datahub – The XTN Hub –

One of only 2 datahubs in the world today

Automatic purchasing "machine"

Empowering 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
- Few selected Energy Retailers and Energy 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
- Small Hydrogen fuel cell: 2016
- Hot Water at Household Site as balancing battery in addition to Gas
- **Causing Structural change:** XTN - Vertical integration from consumer to producer

The XTN system

”Energy a la Carte at Household Site”

Technology - IOT

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

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 balancing Demand Response
 - with multiple energy forms
- Managed by XTN given prices per energy form
 - complying with consumer values

When - where?

Full scale commercial pilot 2017

Germany? – UK?- USA?

Dependant on Energy companies
competitiveness

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