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Developing a demand response market with smart meters - EURELECTRIC Suppliers' views

Roel Kaljee
Manager Retail Affairs at Energie-Nederland
Chairman of EURELECTRIC WG Retail Markets and
TF Retail Target Model

A demand response market ?

- **A paradigm shift is occurring in balancing electricity supply and demand**

- **What does demand response mean?**
  - Customers are encouraged to be (more) flexible in how much electricity they consume and when
  - Given the opportunity to easily manage their electricity use and receive information about its value, customers can be willing to change that use

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What are the benefits of demand response?

Customers

- Lower electricity bills
- Increased awareness and participation
- Economic benefits of flexible load contracts

Suppliers

- New products and services for customers
- Enhanced balancing and hedging opportunities

Network Operators

- Minimised need for investment in new network assets to relieve constraints
- Improved network operation

Generators

- Minimised need for investment in peaking generation plants
- Reduced need of back-up capacity for RES integration

➡ Overall improvement to system efficiency to the ultimate benefit of consumers

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How can a demand response market work for customers?

- **1. Clear roles and responsibilities**

  who does what

- **2. Customer-centric**

  customers chooses among wide range of products and services

- **3. Cost-effectiveness**

  value for money

- **4. Adequate data protection**

  ensure customers' confidence

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1. Clear roles and responsibilities

- **DSOs**
  - better perform their role of **neutral market facilitators** through more accurate and frequent consumption data

- **Suppliers**
  - customise their commercial offers: innovative products and services based on individual consumption profiles and **customer preferences**

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2. A Customer-centric model (1/3)

Demand Response Market should be customer-centric

- **Suppliers** as **main point of contact**: **simplifies** all (major) processes for the customer
- **Customers** able to **choose** from a range of products which suit their preferences
- Successful **retailers 'package'** these **products** in a way that is **easy** to understand for the customer and manage any complexity in costs (e.g. variable grid prices) effectively

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2. A Customer-centric model (2/3)

Examples of offers:

- **Time-of-Use (ToU):**

  higher 'on-peak' price during daytime hours and lower 'off-peak' price during night and weekends

- **Dynamic (incl. real-time) pricing:**

  prices fluctuate to reflect changes in the wholesale prices

- **Critical peak pricing:**

  rate structure of ToU with higher prices when system reliability is compromised or supply prices are high

➡ **powerful messages to consumers about the value of shifting electricity consumption**

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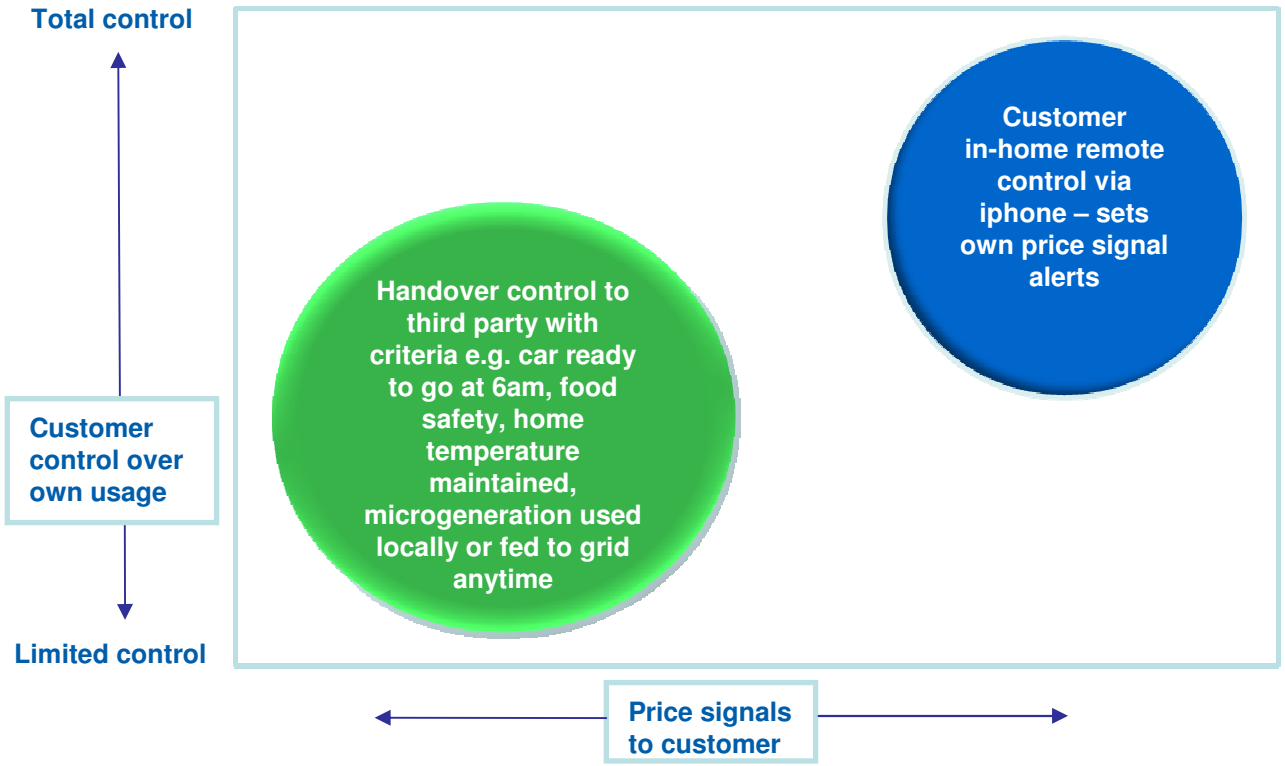
2. A Customer-centric model (3/3)



Different options:

- Direct (**automatic**) **or** indirect (**manual**) load **control**
- **Suppliers** can contract **customers' flexibility** for energy balancing
- **DSOs** can contract **suppliers' flexibility** for local network balancing

<u>But</u> Demand Response means that customers

see price differentials! Inconsistent with price regulation

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3. Cost-effectiveness (value for money)

Demand response offers should be left to market dynamics

- **Customers' flexibility** and consumption profiles **differ** widely (households vs. SMEs)
- **Local conditions** (e.g. wholesale markets, network constraints) that affect offers **vary**
- **Future potential** for demand response is still **largely unknown** (e.g. electric vehicles)

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4. Adequate data protection

Demand response market will work only if customers have confidence in it

- It should always be **clear** to the customer **who** has access to his data and **what** is done with it

But also:

- Need to investigate **cross-sectoral experience** related to personal data (**mobile phones, banking**) to **avoid** the risk that **smart grids** do **not fulfil** their **potential**

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THANK YOU FOR YOUR ATTENTION!

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