Empowered customers on an open smart energy markets

How to accelerate the energy transition

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Are you empowered? And your neighbour?
Outline

• Role of consumers in smart energy markets
• The importance of an open standard for a smart energy design
• Next step: implement standardized flexibility market mechanisms
Objectives Dutch Innovation Consortium (TKI) on Urban Energy

1. Accelerating Energy Transition in Built Environment

2. Strengthening economic growth, export and jobs

Empowering the New Economy!
Our Program lines

Programme line 1: Solar power technologies (PV)
Programme line 2: Heating and cooling installations
Programme line 3: Multifunctional components
Programme line 4: Flexible energy infrastructure
Programme line 5: Energy control systems and services
Roles in a smart energy market
Empowering the customer

- Products
- Domains
- Systems
- Users
Enabling a new market

- Work together
- Align tools, rules & solutions
- Standardise information exchange
How to develop a smart energy standard?
USEF
The Universal Smart Energy Framework

Working with one set of open standards to create value for all players in the smart energy chain
Building further on the outcomes of SEC

Basic principles:
- Distributed flexibility is activated on a market based approach
- USEF’s ambition is to facilitate one overall energy system instead of one single party or industry
- USEF describes roles, in which the Aggregator has a central role
- Freedom of choice to participate in flex markets is guaranteed
- USEF aims at interoperability between roles, and across borders
Standards accelerate the transition

Fully implemented, USEF delivers all interaction process models for an integrated flexibility market. As well as communication protocols and even exemplary coding to accelerate software development.

As a result, implementations accelerate, solutions are rapidly scalable and future connectability is ensured.
Criteria for an optimal flexibility market

An open market, accessible to all

Safeguarding the freedom of connection, transaction and dispatch

If we all play by the same set of rules, we all benefit
Can we harmonize existing standards?
A solid foundation for smart energy futures?

Requirements:

• Regulation should be clear and should fit the modern, sustainable and smart energy market

• Social innovation should be an integrated part of technology and techno-economic developments
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