



SMART GRID WORKING GROUP FINAL REPORT (24.10.2018)

MAIN PROPOSALS

Market-based demand flexibility is most beneficial for the customer

Load control by distribution system operators will be eliminated in a controlled manner, and market-based, more dynamic load control will be implemented at latest on 30.4.2021. The market roles must be clear when new services are being developed. Demand flexibility is market-based activity.

Enabling energy communities

Promoting energy communities will offer consumers more choices to participate in electricity markets and to self-produce part of their energy. Operation of energy communities within housing companies will be eased so that electricity generated and consumed within a housing company property can be used without distribution fees and taxes. Building a power line which crosses property boundaries directly from production unit to consumption unit will be allowed without a permission from distribution system operator and without a network license. In addition, using self-generated electricity in another location, for example using electricity generated in summer house in own apartment, will be eased.

Next-generation smart meters will enable load control

By having load control capability in smart meters demand flexibility services can be cost-effectively offered to large part of the Finnish electricity users, and thus improve e.g. security of electricity supply. Distribution system operator's role is to create a technical control platform, and service providers will give control commands via DSO's interface. Consumers will get more measurement data directly from the meter.

More opportunities for customers to influence their electricity distribution fee

Replacing the flat-rate of the electricity distribution charge with a power component provides customers better opportunities for influencing their distribution charges. When considering demand flexibility's service providers and customers, it would be clearer if the distribution pricing structures were harmonized to some extent throughout Finland. Electricity network companies are in charge of their pricing, and there can be differences between pricing of different companies.

Enabling combined energy and distribution bill for all customers and retailers

Electricity retail market model plays an important role in providing electricity services for customers. The model must support the current changes in electricity markets. When electricity markets and network pricing are changing it may be difficult for a customer to understand the opportunities which electricity markets can offer. Voluntary combined billing will ease providing services for customers.

Independent flexibility service providers can operate in all electricity market places, when equal treatment of market parties is ensured

An independent flexibility service provider (independent aggregator) means an actor that is not customer's electricity supplier or balancing service provider and that does not need a contract with customer's supplier or balancing service provider while acting on the market. Flexibility service providers

will offer consumers more options. Aggregators, also independent aggregators, must follow the market rules. Different market places can have different operating models.

Owning and operating electricity storages is a competitive business

Electricity storages have several features and they can be used for different purposes. For example, a customer can benefit from price variation with the help of electricity storage. Using an electricity storage for different purposes is possible when a market party owns and operates it, and i.e. network operators, as a local monopolies, can purchase services from the market parties.

Promoting the use of flexibility services in network operation

A customer can provide its flexibility not only for electricity markets, but also for network operation. Using flexibility services can postpone or replace network investments. Regulation must guide network companies to optimal solutions regarding customers and society.

Storing electricity must be tax-free

At the moment, electricity storage is interpreted as electricity consumption, and tax must be paid for the charging. Storing electricity is not electricity consumption; instead, electricity storage can be used for shifting electricity consumption from one point in time to another. As a result, storage of electricity should not be taxed.

Proportional electricity tax should not be implemented

An incentive to participate in demand flexibility must come from the markets. A proportional electricity tax reinforces the price signal artificially, makes customer's electricity purchasing more complicated, increases price risk for retailers and customers and can lock the flexibility into a certain market place.

Energy systems must support each other on a market-based manner

Energy systems, such as electricity, heat and gas systems and traffic systems can provide opportunities to each other to balance variation of availability of different energy sources, if they increase their collaboration. Energy measurement data must be easily and as uniformly as possible available to customers or their service providers in order to enable the development of services.

Building regulations should promote demand response and smart charging of electric cars cost-effectively

In addition to overall electricity consumption in buildings, paying attention to momentary power consumption will be more important in the future. For example, spreading of electric cars' charging points will influence the use of electricity in buildings significantly. It will be increasingly important that the opportunities to control electricity load will be taken into account when designing the building, in addition to energy efficiency.

Cross-sector and cross-organizational collaboration must be extended to identify and prevent cybersecurity threats and to recover from them

It must be ensured that authorities and companies have clear roles, responsibilities and approaches as well as sufficient powers to act in challenging situations. Finnish authorities and parties operating in the sector should deepen the cooperation regarding the cyber security and actively contribute to achieve cyber security legislation on the European level.

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