The Finnish Electricity Market: opened also for small-scale consumers

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Facts about Finland 1997

- Area: 338,145 km²
- Population: 5.1 Million
- Inhabitants/km²: 17.0
- GNP: 618 Mrd FIM
- Dwellings: 2.4 Million
- Housebuilding: 17,000 dwellings
- Total energy consumption: 30 Mtoe
- Total consumption of electricity/capita: 14,300 kWh/a

Justifications for Electricity Market Act

- Electricity transmission network makes a marketplace which shall provide equal services to the parties of electricity trading - sellers and buyers.
- Service and pricing principles of network operators shall enable easy and simple trading in electricity networks.

Liberalisation of the electricity market

- 1995-06-01 Electricity Market Act into force, liberalisation of network transmission
- 1995-11-01 Point tariffs, consumers with a power demand of over 500 kW to the sphere of competition
- 1997-01-01 The entire market to the sphere of competition without size limit and even in groups
- 1998-09-01 Small consumers enter the electricity market without hourly metering

Development in the Finnish Electricity Market

Deviation from hourly registering metering

After the change in the Electricity Market Act: The balance settlement shall be based on the metering of electricity or a combination of metering and load curve and on statements on supplies as stipulated by the Act. The Ministry will provide more detailed regulations on the load curves, their application and necessary meterings.
Final opening of Finland’s electricity market

- Even small consumers enter the competitive electricity market
- Definition of a “small” consumer:
  - main fuse size ≤ 3x63 A
  - connection capacity ≤ 45 kW

“Small consumer” or equivalent to the sphere of competition:

- size not exceeding 45 kW and 3x63 A
- has to pay the cost of a possible extra meter reading when changing suppliers
- right to return to the sphere of supply duty
- load curves used for settlement of energy amounts between different sellers
- invoicing as before, metering as before

Small consumers are divided into four groups:

1. Households ≤ 10,000 kWh/year as from 98-09-01
2. Other households > 10,000 kWh/year (Most with electric heating) as from 98-09-01
3. Other, main fuses ≤ 3x35 A as from 98-11-01
4. Other, main fuses > 3x35 A (at least 2-energy metering required) as from 98-11-01

Application of the load curve

<table>
<thead>
<tr>
<th>Households (max 3x63 A)</th>
<th>Other (max 3x63 A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Without electric heating 2,100,000 customers (~72%)</td>
<td></td>
</tr>
<tr>
<td>• Electrically heated 560,000 customers (~19%)</td>
<td></td>
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</tbody>
</table>

<table>
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<th>Other, main fuses ≤ 3x35 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>- some farmers</td>
</tr>
<tr>
<td>- kiosks</td>
</tr>
<tr>
<td>- small-scale entrepreneurs in the service industry</td>
</tr>
<tr>
<td>3x35 A ≤ other ≤ 3x63 A</td>
</tr>
<tr>
<td>- some farmers</td>
</tr>
<tr>
<td>- part of small-scale industry</td>
</tr>
<tr>
<td>- stores</td>
</tr>
<tr>
<td>- some entrepreneurs in the service industry</td>
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<tr>
<td>- some market gardens</td>
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</tbody>
</table>

Duties of the network owner when the electricity supplier is changed

- Customer’s meter is read.
- Network owner places small consumers in groups according to the Ministry of Trade Industry’s decision.
- Annual consumption forecast is made for the customer according to his type group.
- Hourly consumptions are attached daily to the balance statements.
- Network owner arranges an equalisation calculation between various sellers.

Metering

- Hourly-registering metering will become even more common.
- The smallest electricity consumers will not have it yet for quite some time.
- It is possible to externalise metering and invoicing.
- Metering, data communications and house automation will develop together and offer a possibility for value added services.
A good user connection:
• Real-time data connection between the electricity company and the customer
• Two-way data communication enables feedback reporting, demand side management (DSM), time-of-use pricing.
• Supplied information as part of the customer’s data system (“smart house”)
• Saving the costs of the seller and buyer

Marketing for small consumers
• Utilisation of the Internet (customer service, contracts, feedback information, “do-it-yourself” analyses)
• Partnership thinking (“electricity from the supermarket”)
• Customised product development (“home electricity, night-time electricity, summer electricity, eco-electricity, green electricity, waste electricity, etc.”)
• “Back meter services” (behind hourly metering)
• Public price offers (Same tariffs throughout the country)

On the marketing of energy products
• Cost-effective ways of approaching all the customers are a must.
• Efficient handling of large numbers of consumers requires segmenting (electric heating, summer cottages, one-family house owners, members of associations,…).
• Electricity must be customised (wind electricity, home electricity, green electricity, efficient power, nuclear electricity,…).