Charges for Producers connected to Distribution Systems – State of play and policy recommendation

“South East Europe Workshop on Grid Integration of Variable Renewable Energy Sources”

Sophia Politopoulou: HEDNO
Chair of Project G-Charges eurelectric
Main driving factors that led us to commence this study?

- Increasing numbers of electricity producers connected to the distribution system.
  - **DER in place**: RES, prosumers.
  - **New DER**: charging stations for electric vehicles, storage facilities
- DER will participate in the wholesale market with competitive terms
- Information available at transmission level, but no information / reference study so far at distribution level
INDEX

1. Overview – What are these charges and what do we know about them?
2. Our work – Main findings of the Eurelectric report
3. Issues – Potential problems arising – status in the different Member States
4. Our work – Policy recommendations from the Eurelectric report
5. Next steps & further considerations – Where follow-up work is required
1. Overview – What are these charges and what do we know about them?

Distribution System Charges for Electricity Producers

Producer’s Connection charges

Charges on ancillary services & network losses

Other DUoS system charges(*)

Taxes & Levies

Distribution System Charges for Electricity Prosumers

Charges on ancillary services & network losses

Other DUoS system charges(*)

Taxes & Levies

Consumer’s Network tariffs

Consumer’s Connection charges

However, in a wider sense network charges for producers cover much more - Going beyond this narrow definition

..and for more than the traditional power plant

(*) equivalent to producer charges at TSO-level according to Regulation 838/2010, Part B point 2 (ACER: G-Charge)
1. Overview – What are these charges and what do we know about them?

**eurelectric’s project**

**Project group:** 19 members from 16 countries

**Members from:** DSO, market & retail businesses

**Survey:** 28 responses from 22 countries

**Upcoming report consisting of:**
- Charges for conventional & RES electricity producers connected at distribution level
- Connection charges
- Charges related to prosumers
- Case studies from 5 countries: Slovakia, Sweden, Spain, Portugal, Norway
- Detailed country data
There is a variety of system charging regimes applied across distribution systems in the EU. In many cases these charges are not mirrored at the transmission level within a country.

-> This diversity stems from different local conditions at the distribution level in the various Member States.
In many countries, a variety of “oDUoS charges” are borne by producers in order to cover costs caused by the generation unit, e.g. operation and maintenance costs, metering costs, overhead costs etc. but also, in some countries, to cover costs not caused by generators (e.g. in order to cover a share of DSO costs).
2. Our work – Main findings (Prosumers)

Various types of prosumers & remuneration schemes among Member-States
2. Our work – Main findings Prosumers

Prosumers’ charges and what cost elements they cover –
The case of Prosumers who inject electricity into the network and get remunerated
3. Issues – Potential problems arising from Other Distribution Use-of-System charges – status in the different Member States

Main potential issues:

1. Affecting a business case (unduly)
2. Market distortions & hidden costs at distribution level
3. Are they suitable for new producers categories, such as prosumers?

G-charges set-up at TSO level:

<table>
<thead>
<tr>
<th>Country</th>
<th>energy produced [€/MWh]</th>
<th>power connected [€/MW]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>0.40</td>
<td>-</td>
</tr>
<tr>
<td>Finland</td>
<td>0.50</td>
<td>-</td>
</tr>
<tr>
<td>France</td>
<td>0.19</td>
<td>-</td>
</tr>
<tr>
<td>Great Britain</td>
<td>-</td>
<td>6,994</td>
</tr>
<tr>
<td>Ireland</td>
<td>-</td>
<td>5,590</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>-</td>
<td>5,590</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.50</td>
<td>-</td>
</tr>
<tr>
<td>Romania</td>
<td>1.93</td>
<td>-</td>
</tr>
<tr>
<td>Spain</td>
<td>0.50</td>
<td>-</td>
</tr>
<tr>
<td>Sweden</td>
<td>-</td>
<td>4,090</td>
</tr>
</tbody>
</table>

ACER’s Opinion 12/2015 “that energy-based G-charges should not be used to recover infrastructure costs and should be set to €0/MWh

Amending the relevant legislation in line with Regulation 838/2010
4. Our work – Policy recommendations from the Upcoming Eurelectric report

1. Due to different local conditions at the distribution level in the various Member States a differentiated approach appears to be the most efficient solution to distribution system charges for electricity producers at present. Therefore, a EU-wide harmonisation of these charge types is currently not practicable.

2. However, **some general principles can be identified** and should be followed to avoid unnecessary market distortions and ensure a level playing field for generators:

   • Distribution system charges, if applied, shall be cost reflective and transparent on all voltage levels, meaning that the range of cost elements to be covered by the respective charging regime shall be clear to all generators.
   • Generators coming from one country should not face any additional costs stemming from distribution system charges, when participating in the same regional market with competitors coming from other countries.

3. Although taxation is a matter of individual member states, **general principles of transparency and cost-reflectiveness** should apply when it comes to the **taxes and levies borne by generators at distribution level**.

4. The same is valid for “oDUoS charges” to provide further clarity and predictability for market participants across the EU & should cover other cost-items, which are not related to them.

5. **Connection charges should be adequately applied and reflect the grid reinforcements necessary** to connect any new production facilities, while taking into account the grid topology and robustness of the power system in question.

6. **Prosumers should contribute to the network cost recovery in a proportionate way**, to avoid other network users bearing a share of the Prosumers’ costs and ultimately to ensure a level playing field.
4. Next steps & further considerations – where follow-up work is required

For future consideration:

• **Further analyses are needed on overall charging regimes which include prosumers:** how they should be designed to be ultimately proportionate and cost reflective, compared to other electricity producers.

• **Further analyses on charging policies for storage facilities** are needed in view of the likely increase of these facilities at DSO level - **help avoid unfair treatments** in terms of double charging regimes, such as in cases where storage is charged e.g. for ancillary services, although it provides these services to the network.

• Further analysis, is needed on EV charging points, who apart from consumption points can also function as storage and inject back to the network.