The European Federation of Energy Traders (EFET) promotes and facilitates European energy trading in open, transparent and liquid wholesale markets, unhindered by national borders or other undue obstacles. We build trust in power and gas markets across Europe, so that they may underpin a sustainable and secure energy supply and enable the transition to a carbon neutral economy. EFET currently represents more than 100 energy trading companies, active in over 27 European countries. For more information: www.efet.org

Thema - Nordic Power Price Hedging Questionnaire

EFET response – 19 November 2020

These questions cover the hedging activity of EFET’s members or clients, rather than EFET itself.

- What best describes EFET’s primary role with respect to power price hedging?
  EFET represents trading companies. Some of our members (directly or via group companies) are net generators or net consumers in these bidding zones, but we represent their interests as trading entities only.

- Please summarise where EFET’s members or clients are net consumers of generators of power by selecting the relevant bidding zones below. Where your clients consist of both generators and consumers, you should select both positions for the relevant areas.

<table>
<thead>
<tr>
<th></th>
<th>Net generator (i.e. long)</th>
<th>Net consumer (i.e. short)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DK1</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>DK2</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>SE1</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>SE2</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>SE3</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>SE4</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>NO1</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
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<td>n/a</td>
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<tr>
<td>NO5</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

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• Which of the following instruments does EFET cover? (Please check all that apply)
  o Nordic system price-linked futures
  o Electricity Price Area Differentials (EPADs)
  o Non-Nordic power futures (e.g. German power futures)
  o Long-Term Transmission Rights (e.g. Financial Transmission Rights)
  o Power Purchasing Agreements (PPAs)
  o Coal futures
  o Natural gas futures
  o Carbon futures (i.e. CO2 quotas or EUAs)
  o None of the above

• How has EFET’s members’/clients’ use of Nordic system price-linked futures changed relative to 2016?
  o They hedge a greater share of their exposure using Nordic system price-linked futures
  o They hedge a lesser share of their exposure using Nordic system price-linked futures
  o They hedge a similar share of their exposure using Nordic system price-linked futures
  o Don’t know

• How has EFET’s members’/clients’ use of EPADs changed relative to 2016?
  o They hedge a greater share of their exposure using EPADs
  o They hedge a lesser share of their exposure using EPADs
  o They hedge a similar share of their exposure using EPADs
  o Don’t know

• How has EFET’s members’/clients’ use of non-Nordic power futures changed relative to 2016?
  o They hedge a greater share of their exposure using non-Nordic power futures
  o They hedge a lesser share of their exposure using non-Nordic power futures
  o They hedge a similar share of their exposure using non-Nordic power futures
  o Don’t know

• How has EFET’s members’/clients’ use of Long-Term Transmission Rights changed relative to 2016?
  o They hedge a greater share of their exposure using Long-Term Transmission Rights
  o They hedge a lesser share of their exposure using Long-Term Transmission Rights
  o They hedge a similar share of their exposure using Long-Term Transmission Rights
  o Don’t know

• How has EFET’s members’/clients’ use of PPAs changed relative to 2016?
  o They hedge a greater share of their exposure using PPAs
  o They hedge a lesser share of their exposure using PPAs
  o They hedge a similar share of their exposure using PPAs
• How has EFET’s members’/clients’ use of coal futures changed relative to 2016?
  o They hedge a greater share of their exposure using coal futures
  o They hedge a lesser share of their exposure using coal futures
  o They hedge a similar share of their exposure using coal futures
  o Don’t know

• How has EFET’s members’/clients’ use of natural gas futures changed relative to 2016?
  o They hedge a greater share of their exposure using natural gas futures
  o They hedge a lesser share of their exposure using natural gas futures
  o They hedge a similar share of their exposure using natural gas futures
  o Don’t know

• How has EFET’s members’/clients’ use of carbon futures changed relative to 2016?
  o They hedge a greater share of their exposure using carbon futures
  o They hedge a lesser share of their exposure using carbon futures
  o They hedge a similar share of their exposure using carbon futures
  o Don’t know

Sufficiency of Current Hedging Opportunities – General

• Do you believe that there are sufficient opportunities to hedge power price risk in the Danish, Norwegian and Swedish power bidding zones?
  o There are sufficient opportunities to hedge power price risk in the Danish, Norwegian and Swedish power bidding zones.
  o There are insufficient opportunities to hedge power price risk in some or all Danish, Norwegian and Swedish power bidding zones.
  o I cannot answer.

• Why do you believe that there are insufficient opportunities?
  See answers below.

• How have opportunities to hedge power price risk in the Danish, Norwegian and Swedish power bidding zones changed since 2016?
  o Opportunities to hedge power price risk in the Danish, Norwegian and Swedish power bidding zones are better now than in 2016.
  o Opportunities to hedge power price risk in the Danish, Norwegian and Swedish power bidding zones are worse now than in 2016.
  o Opportunities to hedge power price risk in the Danish, Norwegian and Swedish power bidding zones are similarly good/bad now relative to 2016.
  o I cannot answer.
How could hedging opportunities be improved? If you make proposals, please explain why you think they would be beneficial.

Since the start of the liberalisation of EFET has supported the issuance by TSOs of forward transmission rights at all bidding zone borders in Europe and in all directions, to the full amount that the underlying infrastructure can offer for each timeframe. This activity is an essential part of the TSOs’ “public service” activities, as regulated entities. The issuance of forward transmission rights at all borders in all directions allows to:

- guarantee that a certain minimum volume of products will always be available and offered on a transparent and non-discriminatory manner through organised auctions;
- provide substantial congestion income to TSOs by allowing them to extract the maximum value out of the network infrastructure they manage;
- provide better and more reliable visibility for market participants as to the total volumes of hedging products;
- ensure that the capacity that is offered to the market is maximised at all points in time and that any variations of these volumes is published in a timely and effective manner;
- provide valuable signals as to the structural value of cross border capacity, from a “congestion” point of view. This is useful for all market players and for TSOs and regulators, whereas the daily price signals are much more volatile. For example, forward allocation provides clear market-based price signals as to the need for additional infrastructure investments.

In the specific case of the Nordic market, with an existing – though insufficient – financial market for hedging, EPADs would be worth keeping alongside forward transmission rights, as they can complement each other in a number of ways:

- EPADs can complement forward transmission rights to hedge non-standard volumes (MW).
- EPADs can give market participants flexibility with regard to when and for which period hedging takes place, when forward transmission rights are auctioned at fixed dates for fixed delivery periods. Secondary markets for forward transmission rights however largely mitigate this lack of flexibility.