TrønderEnergi
Juleseminar 2017

Georg Aasen
Nasdaq Commodities
European Market Trends

<table>
<thead>
<tr>
<th>Market:</th>
<th>TWh YTD</th>
<th>Trend vs 2016</th>
<th>Cleared Market YTD</th>
<th>trend vs 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>German power</td>
<td>5623</td>
<td>-7%</td>
<td>33%</td>
<td>-8% (Oct 70% Bilateral)</td>
</tr>
<tr>
<td>Nordic power</td>
<td>1202</td>
<td>-19%</td>
<td>100%</td>
<td>0% (No values available)</td>
</tr>
<tr>
<td>UK power</td>
<td>984</td>
<td>-22%</td>
<td>17%</td>
<td>+3%</td>
</tr>
<tr>
<td>French power</td>
<td>835</td>
<td>-32%</td>
<td>37%</td>
<td>-3%</td>
</tr>
<tr>
<td>Italian power</td>
<td>417</td>
<td>-36%</td>
<td>71%</td>
<td>+10%</td>
</tr>
<tr>
<td>Dutch power</td>
<td>278</td>
<td>+7%</td>
<td>47%</td>
<td>-4%</td>
</tr>
<tr>
<td>Spanish power</td>
<td>136</td>
<td>-30%</td>
<td>64%</td>
<td>+3%</td>
</tr>
</tbody>
</table>

- Decreasing volumes cross markets
- Flows moving bilateral
- Higher short term focus
- Risk reward

=> Regulatory and political influences
The Nordic Power Market

- Nasdaq is keeping the long-term perspective on the Nordic power market.
- We will continue to provide an already well-functioning marketplace and aim to attract broader participation to the market by focusing on more standardized product offering and increase distribution.
- ISVs, GCMs and Financial players have a clear preference for standardized products.
- Investors seek the opportunity to quickly move capital from one market to another.
- Traders trading multiple markets and market spreads need harmonized products.
- A future structure will in the long run attract more capital and liquidity.
- Financial players state that they will increase capital allocation with futures contracts.
- **The threat:** Market participants with a short-term view, leading to the Nordic power market going back to bilateral transactions without clearing, transparency and liquidity.
- If hedging volumes move bilateral, volumes will continue to drop. Who will be the winners long term?
NORDIC MARKET IN TRANSITION

**TRENDS**
- NEW TECHNOLOGY
- EFFICIENT NORDIC MARKET DISTRIBUTION
- STRONG NORDIC ECOSYSTEM
- GLOBALIZATION
- DIGITALIZATION

**FUTURE**
- NEW IT SERVICES
- NEW EXCHANGE SERVICES
- COOPERATION
- STANDARDIZATION OF PRODUCTS & MARKETS
- STP and LOWER COST
About Nasdaq

At Nasdaq Commodities, our mission is to help our clients plan, optimize and execute business visions with confidence. Our commodities trading and processing services are coordinated globally, opening opportunities across borders with local support. We operate with agility, speed and technological savvy. We are proud of our continued tradition of fintech-first and respectful of the trust more than 90 exchanges put in our platform. Nasdaq Commodities does more than conduct financial transactions. We comply with all relevant regulations to reduce risk while enhancing client experience and gain.

To learn more, visit http://business.nasdaq.com