

Subject: Inputs to Staff Paper on Power Market Pricing

Purpose

The purpose of this document is to provide written inputs to the Staff Paper on Power Market Pricing. This is done as a follow up to the bi-weekly meeting 10 November 2022, as requested by CERC under the India-Danish Energy Partnership (INDEP).

Inputs

Chapter Inputs General It is always good to review the markets and mechanisms we put in place in society in order to make sure they work as intended. In this case, it is also important to ask ourselves, is it the electricity market that causes an issue, or is it the input to the market which is a problem? In Europe, we believe the market works as intended, but the current outcome effects society on different levels. The current shortage of primary energy in Europe means European countries buy their supplies from the global markets, which pushes prices up. This coupled with significantly reduced investments in the fossil fuel sectors across the world the past 10 years, leads to the fact that the delicate balances of the world energy system is disrupted, which in the end results in electricity wholesale and consumer prices significantly increasing. There is therefore an adequacy issue, not necessarily on the generation asset side of things, but on the fuel supply. This is not something that has been widely addressed, at least in a wider European context. General One thing we would consider that could be beneficial to add to the paper is an assessment of whether the reason for the high prices is legitimate or a result of market parties taking advantage of a dominant position, or even collusion between several market parties. If it is any of the latter, then there is no reason to change the market, then is a question of ensuring everyone complies with regulation and general competition legislation. If the high prices are due to high commodity prices (coal and gas), then changing the market model will also not change anything as you will either push generation out of the market, or will have to accept prices, which are equal to the cost of generation. Lastly, if you find that the market have general inefficiencies or supports undesirable incentives, then there is a reason to change the model. How does the Intraday & Day ahead Contingency contracts differ Figure 4 from the normal DA and RT contracts? How are RE power (bottom 3 contracts) different from Coal and gas power in the power exchange?

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Date

14. november 2022

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	• It is important to remember that the more different contracts there are, the more we split liquidity, which is not a good thing.
Table 1	EPEX is missing in the table for Scandinavia and actually there is a third power exchange "Nasdaq", which is active in the Nordics and Germany too.
	Minor detail, instead of Scandinavia, we suggest to write Nordics, which includes Finland as they are part of the European Single Day-Ahead Coupling.
Section 2.3.2	Market clearing price is set by most expensive unit to be cleared, however, this unit is also the cheapest unit available to supply that last MWh of power.
Section 2.3.5	In the pay as bid Cons we suggest to also add: - Market parties are incentivised to game the market to optimise their revenue
	 Sometimes market parties will get their bidding wrong and increase prices above the level of uniform pricing Low price hours will likely disappear from the market as market parties will never bid at their real MC
Section	In cons for Uniform market clearing price it is written "Market Clearing
2.3.5	Price is Demand sensitive". This could also be added to the Pros list
	as this is essential for demand response.
Section	Does uniform pricing need a change?
3	In our view, uniform pricing allows for effectivity.
	Pay-as bid, will introduce an incentive for market parties to optimise their own revenue, where they do not bid at marginal cost, but just below what the market price will be. Some cases they might be right, and you will get a good price, at other times, you will get a too high price, which will lead to deficiencies at the expense of consumers.
	Further, aspects to consider with the pay-as-bid are the increased transparency and market monitoring need with this market setup, in order to ensure that market participants are able to understand the market, but also to eliminate the likelihood of market manipulation.
Section 3.4.2	The current fuel crisis does show that demand response at least from household/commercial has increased in Denmark. With the significant price increase, metering data shows a decrease of more than 10% in peak hours off the day compared to 2021. For the industry we do not see any significant changes as of now.
	The below figure indicates the changes to electricity market that allowed for demand response.



