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Subject: APX-ENDEX response to the Ofgem consultation on 'Electricity interconnector policy' (Ref 12/10).

Dear Ms. Angelidaki,

Thank you for providing us with the opportunity to respond to the Ofgem consultation paper on Electricity interconnector policy. As an Anglo-Dutch energy exchange we welcome the opportunity to provide our views on a possible framework for regulated interconnection and the efficient use of cross border capacity.

In the recently published Ofgem consultation on 'Liquidity proposals for the GB wholesale electricity market', Ofgem has concluded that low levels of liquidity are of concern. APX-ENDEX holds the view that for the levels of liquidity to improve rapidly in the Great Britain (GB) market, this would require:

- The implementation of Market Coupling
- The cessation of cross border transmission charges
- Firmness of capacity at least for day ahead and intraday trading
- Impetus towards the development of solutions facilitating the further integration of the GB market with Continental Europe

If the above criteria are met, we are confident that liquidity in the GB market will rise to adequate levels. All four recommendations will be further discussed in the consultation response.

Our response is divided in three different sections. In the first section we provide some general remarks on market coupling and APX-ENDEX' involvement in current initiatives relevant to the GB market. The following section provides our views on the specific questions raised in the consultation document and discusses the issue of cross border charges, firmness and solutions for the GB market. Finally, we end our response with a short conclusion.

Market Coupling and the Great Britain (GB) Market

The European Union (EU) aims to make the market accessible for all suppliers and eliminate barriers to cross-border trade. Therefore the EU is also working to improve the utilization of the infrastructure required to transport energy as efficiently as possible to where it is needed, thereby creating a true European internal market for energy. A GB market that is closely integrated with the Continental European markets and the Irish market will not only help to achieve this goal but will also enhance diversity of supply, competitive dynamics, price resilience, social welfare and security of supply of the GB market.

The further integration of GB with neighbouring electricity markets can be achieved by means of market coupling, recommended by the Electricity Regulatory Forum (or Florence Forum) as the day ahead target model for European integration. APX-ENDEX strongly supports this model which has provided excellent results.

For instance the market coupling between The Netherlands, Belgium and France (the Trilateral Market Coupling[1]), has proven that market coupling brings large improvements regarding optimal transmission capacity utilisation, price convergence(see Appendix A), and the rise of market liquidity, strengthening our belief in market coupling as a key element of the target model for market integration in Europe.

Working closely together with regulators, Transmission System Operators (TSOs) and other exchanges, APX-ENDEX is playing a leading role in several initiatives to extend market coupling, such as the Central West Europe (CWE) Market Coupling project to couple the German, Dutch, French, Luxembourg and Belgian markets, and the integration with the Scandinavian markets through the NorNed cable that is already connecting The Netherlands with Norway.

BritNed cable development

APX-ENDEX has been selected by BritNed to develop a market coupling solution for the BritNed cable, linking APX-ENDEX' spot markets in Great Britain and The Netherlands in the most efficient way**.** Our experience with the creation of the Belgian power exchange Belpex for the coupling of the Dutch, Belgian and French markets in 2006 has shown that market coupling can rapidly lead to the establishment of efficient trading arrangements even when there is not a liquid pre-existing market (see Appendix B), based on the liquidity of neighbouring countries. In the case of the BritNed cable, GB will develop liquidity very fast through coupling with the adjacent Dutch market (close to 100 GWh/day) that is by then fully integrated with Germany, Belgium and France (total about 1000 GWh/day). Additionally, the Dutch market is connected to Norway.

Starting the launch of the BritNed cable in the first quarter of 2011, APX-ENDEX will offer seven days a week implicit day ahead trading. With currently 56 members[2] of our GB power exchange (representing the majority of the GB power market) ready to trade on the GB auction and an average of 623 GWh[3]

[1] Trilateral Market Coupling (TLC) refers to the market coupling between The Netherlands, Belgium and France established in November 2006.
[2] For a full overview of the GB power members please visit our website www.apxendex.com
[3] An average of 623 GWh is traded daily in the CWE area (The Netherlands, Belgium, France, Luxembourg and Germany), totaling to a yearly volume of 227 TWh.

traded daily in the CWE area, the coupling of the GB market to the German, French, Dutch, Belgium and Luxembourg markets will create a new momentum in the GB power market. The GB day ahead market will instantly benefit from what is, in effect, a major market maker (the whole CWE market). This will provide the critical core liquidity and a proven, stable reference price for the electricity market in Britain to develop.

The BritNed cable will also apply principles like the netting and Use-it-or-sell-it (UIOSI) principle, which is required under EU law: capacity is not allowed to be hoarded and therefore always becomes available to the market. This, together with the netting, will significantly increase the capacity available for implicit allocation and the associated benefits for the GB market. For instance, available daily capacity could be 300 MWh in one direction but, based on the netting with already allocated flows, more than 1000 MWh in the other direction.

Cross border charges and market coupling

Certain issues in the GB market as cross border transmission charges described in the following section however threaten to hinder the efficient integration with Continental Europe and Ireland, and dampen the positive effects of market coupling. APX-ENDEX therefore very much welcomes the debate initiated by Ofgem on how to interconnect GB in the most efficient way and what regulatory implications this might have and National Grid's intention to produce a pre-consultation on Triad and Interconnector charges. We will come back to this in our response to question 1.2 of the consultation.

Response to the specific questions raised in the consultation

The below section gives answers to the specific questions raised in the consultation document. APX-ENDEX feels best able to answer questions from the first two sections of the consultation and has therefore not provided answers to the questions posed in the third section.

Question 1.1: *Have we accurately captured the benefits of and demand for new interconnection? Are the projects under consideration all viable? Would they be sufficient? Are there other projects being developed?*

In our view Ofgem has very well described all current and planned initiatives in the field of interconnection of the GB electricity market. With regard to the question whether GB will have sufficient interconnection capacity, we would like to note that it is hard to know how much capacity is actually needed, until the current capacity is used efficiently. Before the market coupling of The Netherlands, Belgium and France in 2006, cross border capacity in this area seemed structurally congested. Currently, after the improvements by the market coupling, capacity is most of the time uncongested. It is therefore important that all current transmission capacity is used efficiently by means of market coupling before one decides on building new capacity.

Question 1.2: *Are there other key aspects of the legal or regulatory framework that we should consider, or should some features be given a different emphasis?*

The current GB use of system charges as the BSUoS[4] and Triad[5] charges represent a barrier to efficient market integration. APX-ENDEX therefore believes that the use of system charges should not apply to

[4] Balancing Service Use of System (BSUoS) charges.

interconnectors as they affectively act as cross border transmission charges, which does not seem consistent with EU legislation and the goal of an integrated single market for electricity[6].

The BSUoS and Triad charges could prevent GB from experiencing the full benefits of market integration. The BSUoS cost allocation mechanism creates a dead band and will therefore reduce price convergence and competition between markets. The optimal usage of transmission capacity is furthermore restricted. Triad charges will also restrict the free cross border flow of electricity. Depending on how much risk a capacity owner is willing to take, the economically rationale response of Triad charges will be the withdrawal of interconnector capacity twenty to forty times a year.

Question 1.3: *How can the Regional Initiative best contribute to development or implementation of policy? Do you agree with the priorities and approach outlined?*

Progress made on market integration has differed between the different stages in trading. The intraday element of the target model is implicit continuous trading, while for the day ahead stage this is implicit auctioning. For implicit intraday trading there is still a need for stronger regional cooperation, while on the day ahead level currently the focus has shifted towards finding interregional solutions.

On the day ahead stage, regional initiatives however have not been sufficient when it comes to wider ranging inter-regional solutions. The France - UK- Ireland (FUI) region currently does not include The Netherlands and there is no coupling solution in place for the Interconnexion France-Angleterre (IFA) cable. Pressure from stakeholders within the FUI region for integration with CWE, did not result in a positive response from the CWE region, which mainly focuses on the Nordic regions for the next steps in market integration. Although replacement of the regional initiatives is not desirable, we wish to see the integration of the FUI with the CWE region as soon as possible.

The BritNed cable is a first step, but the question remains how the full integration will come about and how long this might take. Power exchanges are eager to move towards an enduring solution and have proposed the Price Coupling of Regions (PCR) project (PCR is further explained under question 2.3).

Question 2.1: *Are the target models explained in this chapter appropriate for GB? What are the issues that need to be considered? Are there alternative approaches that would be better? Will the target models effectively accommodate increased intermittency?*

In the Project Coordination Group (PCG) price coupling was adopted as the appropriate target model and we support this conclusion. The question remains how to handle losses and cross border transmission charges as the BSUoS and Triad charges in GB within this framework.

On the issue of the efficient accommodation of intermittency we would like to note that GB has one of the best intraday markets in Europe. Improved access to intraday trading would increase the ability of GB wind generation to be sold in Continental Europe. Cross border intraday trading would ideally be

[5] Triad charges relate to National Grid's transmission charges. They measure maximum demand readings three times a year and use the average of these readings to calculate Transmission Network Use of System (TNUoS) charges.
[6] Article four (paragraph five) of EU Regulation 1228/2003 on conditions for access to the network for cross border exchanges in electricity states that: *"There shall be no specific network charge on individual transactions for declared transits of electricity."*

implicit in order to make trading as simple as possible. The negative effects of the BSUoS and Triad charges would however apply for cross border intraday trading. APX-ENDEX has recently facilitated trading of UK Power up to fifteen minutes before gate closure. Trading so close to physical delivery allows traders to analyse the latest information on weather conditions that influence the production of renewable energy.

Question 2.2: *What should be our approach to firmness of interconnector capacity? Should this vary between new and existing interconnectors, or between regulated and exempt? What are the categories of costs and benefits from changing approach, where should they fall and can they be quantified?*

It is important to note that implicit solutions require firm capacity. TSOs therefore must be given the ability to offer firm capacity on an intraday and day-ahead basis.

Question 2.3: *Should we seek regional solutions rather than individual project solutions for access rules, such as through a broader North West European solution for market coupling? What are the priority areas for greater regional co-ordination?*

As the FUI is not an independent region, in our view the preferred market coupling solution for GB is to fully integrate with the CWE region. APX-ENDEX is looking at solutions to integrate GB and CWE as closely as possible, which are extendible to other interconnectors. As part of this process APX-ENDEX has been procured by BritNed to develop a market coupling solution, linking the spot markets in Great Britain and The Netherlands in the most efficient way. Approval from all CWE parties for the full integration into the CWE region, however, has proven to be a barrier.

APX-ENDEX has therefore planned an interim solution named the 'Embedded solution', which would price couple the GB market to CWE using the BritNed cable by embedding orders from the GB market into the Dutch order book prior to submission to the CWE market coupling system. This solution will lead to the same advantages for the GB market as with full market coupling and does not impede moving to a full integration with CWE as soon as possible.

It is important to note that, as was the case in the development of the Trilateral Market Coupling individual bottom up solutions have spurred progress. Since the announcement of the market coupling solution over the BritNed cable, there have been changing views on the benefits of market coupling (previously there has been rather little interest). The target model should be a comprehensive solution, and it is important that interim solutions do not impede but are consistent to this goal.

A more top down approach would be helpful, but for now we need to recognise the current reality: the pre-existing volume coupling between Denmark and Germany has more or the less pushed the coupling of Denmark to CWE towards becoming a priority in the CWE target model. There is therefore clearly a need to push solutions that facilitate the integration with CWE. In the short term this will be initiated via the BritNed cable. The full integration of the FUI into the CWE region remains the ultimate goal. In order to reach this goal coordination is needed between the different interconnectors (IFA, Moyle, BritNed and the East West Interconnector).

The cooperation between the different regions nonetheless is expanding. Recently, six European power exchanges (APX-ENDEX, Belpex, EPEX Spot, GME, Nord Pool Spot, and OMEL) announced the creation of a project called the Price Coupling of Regions (PCR), aimed at delivering a single price coupling across the Nordic, Central West and Southern European regions, potentially as early as next year. This follows the XVII European Florence Regulatory Forum last December where the PCR approach was initially outlined. PCR is a response to the common wish of regulators, TSOs and market participants for the rapid implementation of a single day-ahead price coupling solution across Europe. This potentially can offer a rapid solution for full GB-CWE integration.

Conclusion

APX-ENDEX fully supports Ofgem's activities in the field of the further integration of the GB market with Continental Europe and Ireland. Market coupling represents one of the most promising means to further interconnect GB in the most efficient way and work towards the completion of the European single market in electricity.

APX-ENDEX is willing to work with regulators, transmission owners, market participants and all other relevant parties in order to develop the right solutions to achieve this. Certain issues in the GB market as the Triad and the BSUoS charges however need to be addressed as they represent a barrier to efficient market integration, and the benefits that this will deliver.

Should you have any queries please do not hesitate to contact Jethro van Hardeveld, Public and Regulatory Affairs, email j.vanhardeveld@apxendex.com or phone +44 (0)7795 801308.

Yours sincerely,
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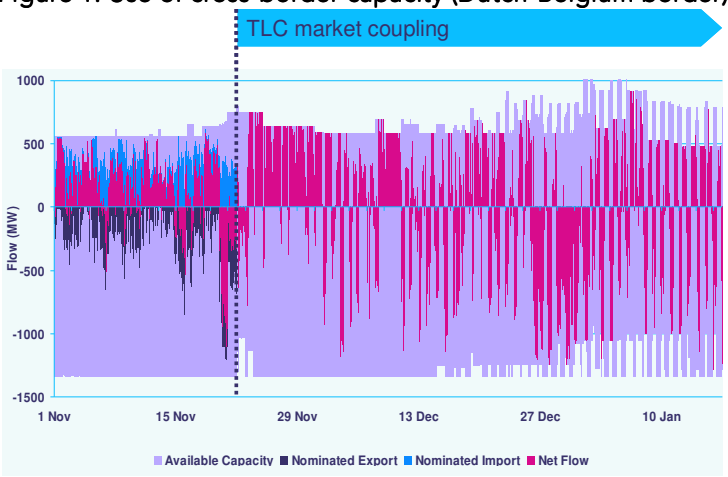
Appendix A Efficient use of cross border capacity and price convergence

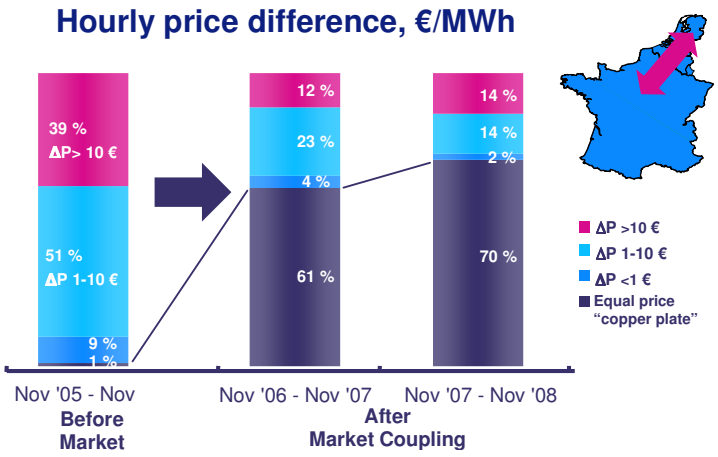
Figure one illustrates the efficient use of cross border capacity on the Dutch Belgium border after the start of the Trilateral Market Coupling (TLC) on the 21st of November 2006. The vertical dotted line marks the start of the Trilateral Market Coupling. The figure illustrates how after the start of market coupling an increase in the utilisation of cross border capacity is visible. Counter flows (simultaneously nominated import and export) on the Dutch-Belgium border no longer take place. Even more important, all flows are now in the right direction being from low-price to high-price region, whereas before it often occurred that flows were scheduled uneconomically.

Figure 1. Use of cross-border capacity (Dutch-Belgium border)



The below figure two illustrates our positive experience with the Trilateral Market Coupling and price convergence: there have been much less hours with a large price difference, while the number of hours with low price differences or even full price equality has increased sharply. At the same time, market coupling does protect countries from extreme situations in each others markets, because their mutual assistance is limited to the size of the interconnection capacity dedicated to market coupling.

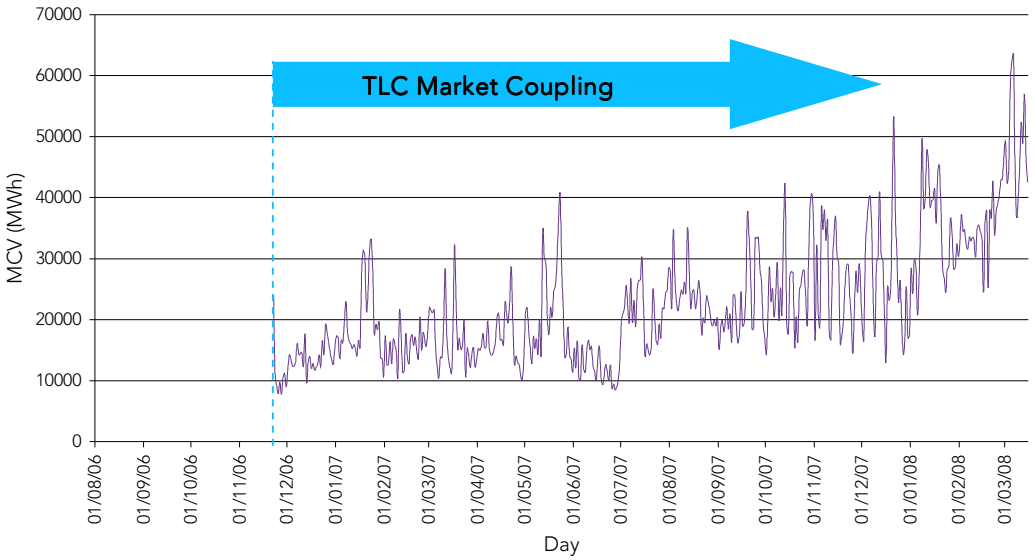
Figure 2. Price convergence Netherlands-France before and after market coupling



Appendix B. Growth of liquidity on the Belgian day-ahead market (Belpex) after Market Coupling

The Trilateral Market Coupling (TLC) required the establishment of Belgium's power exchange Belpex and resulted in the development of the now liquid Belgian spot market. The figure below (Figure three) shows the development of day ahead volumes on the Belgian power auction since the start of TLC on the 22nd of November 2006.

Figure 3. Development of day-ahead volumes on the Belpex exchange



It is important to note that directly after the launch of TLC, the Belgian day ahead auction instantly attracted substantial liquidity. On the first day of trading over 24GWh was traded[7] on the Belpex day ahead auction. In the whole of 2009 the Belpex exchange facilitated the trade in 10.14 TWh in day ahead volumes.

[7] On the 22nd November 2006, 24098,2 MWh was traded on the Belpex day ahead auction.