



Consultation publique sur la demande d'investissement de GridLink et sur l'opportunité d'une nouvelle interconnexion électrique entre la France et le Royaume-Uni

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Introduction

To whom it may concern,

In respect of the public consultation N°2021-07 relating to the GridLink Interconnection project, NKT would like to give our view as supplier of equipment and services for HVDC cable systems on the questions asked by CRE. We trust our comments will be appreciated and that they will be considered in the decision of the investment request.
NKT HV Cables AB

Bénéfice d'une interconnexion additionnelle entre la France et le Royaume-Uni

Question 1 : Jugez-vous pertinente l'utilisation du scénario National Trends du TYNDP 2020 comme référence, et des scénarios Global Ambition et Current Trends comme sensibilités à la hausse et à la baisse, pour évaluer l'intérêt économique d'une nouvelle interconnexion à la frontière entre la France et le Royaume-Uni ?

Ne se prononce pas

Commentaire :

Since published by ENTSO-E, the TYNDP 2020 seems a relevant base for evaluation of interconnector projects. The four scenarios give however a very wide range of results, leaving much room for interpretation. This seems also to have been noted by ACER in their opinion 03-2021. Sustainable and reliable energy systems are important within power transmission and the TYNDP needs to be assessed with recent developments in technology as well as current development of the respective PCI projects. It is our perception that the demand for high voltage cable systems will increase with increased global demand for renewable energy projects. We believe therefore that several new interconnectors will be required in Europe in general, and that additional cable transmission systems between France and UK could very well be motivated from a socio-economic welfare (SEW) perspective.

Question 2 : Partagez-vous l'analyse de la CRE concernant les limites de la méthodologie proposée dans le TYNDP 2020 pour évaluer le bénéfice d'une interconnexion en termes de sécurité d'approvisionnement et la valeur des projets en termes de baisse des émissions de gaz à effet de serre ?

Ne se prononce pas

Commentaire :

With increased global demand for renewable energy projects and the drive towards Net Zero obligations, we believe there will be a continued demand for cable transmission systems. We find it however difficult to quantify in economic terms related to only CO2 price, especially in view of recent climate events both in Europe and across the globe. Perhaps the Net Zero obligation itself should be the main driver together with the SoS criteria? Both of which are understandably difficult to assess objectively, and from the material provided we find it difficult to challenge any of the conclusions made by various parties. It is however our general experience from previous interconnector projects of similar nature, that the overall benefits seem well documented and that the contribution to security of supply has been apparent. We would therefore be surprised if it would not be the same for a new interconnector between France and UK.

Question 3 : Partagez-vous l'analyse de la CRE sur l'analyse des bénéfices d'un projet d'interconnexion entre la France et le Royaume-Uni ? Avez-vous des remarques additionnelles ?

Ne se prononce pas

Commentaire :

Brexit has certainly brought uncertainty to the market but in all fairness, there seem to be several other similar uncertainties and political factors affecting the overall energy system in Europe, e.g. the Nord Stream gas pipelines. Brexit has naturally gained much attention recently, but it should be put in longer perspective when assessed in relation to TYNDP. As regards availability of interconnectors we believe it should be viewed as any grid like system, may it be electricity, roads, or telecom. The more connections there are, the higher the overall availability will be.

Coûts du projet GridLink

Question 4 : Avez-vous des remarques quant aux dépenses d'investissement et aux coûts d'exploitation présentés par GridLink ?

It becomes apparent when reading different documents provided or referred to, e.g. TYNDP 2020 and ACER opinions 03-2021 and 04-2021, that the cost of building an interconnector is difficult to evaluate as there seems not to be an agreed standardised way of doing it. In our experience, having participated in many similar projects during the past decades, it is indeed difficult to compare projects with one another. Whereas it is tempting to only look at the bottom-line figures, it is very important to acknowledge the particular requirements and challenges for each individual project. The cost varies significantly between different projects as the cost main drivers all interact in different ways to impact the project. The main cost drivers from a technical perspective are transmission capacity, converter technology, cable technology, cable route and length, and the cable protection scheme. All former drivers are in turn governed by ambient conditions specific to each project, but above all the latter driver related to cable protection is commonly substantially different between projects. A project opting for an ambitious protection scheme to increase availability for contribution to security of supply could therefore easily be negatively evaluated in a too simplistic comparison model.

The figures presented in the material for the three projects compared in Table 1 (section 2.2) could therefore be challenged since they seem not to have been adjusted for project specific differences. Having participated in all three projects, we also do not fully recognize the values presented, however, we do not have the overall view making it difficult to point out specific re-considerations to be made. The OPEX figures stand out with a seemingly too large variation between the projects. In our experience, OPEX is not so much dependent on the actual system installed but again more related to the availability for contribution to security of supply. The large difference in OPEX suggests different approaches in service and maintenance philosophy as well as certain applied connectivity costs that should be more closely evaluated when comparing the projects before determining comparative values. Whereas there are several project specific considerations to be made, in addition to the subjective assessment thereof, we do specifically question the suggested project cost evaluation based on route length. In our experience, this seems not a relevant comparison. Although being a cable supplier, which the suggested comparison definitely would favour, the availability aspect for contribution to security of supply does not seem to be taken into consideration at all in such a comparison. We find this perhaps the most important shortcoming of such a length-based comparison. We would argue that system aspects like stable connection points in the grid, suitable cable routes taking largest possible consideration to environmental impact and above all availability for contribution to security of supply are examples of very important aspects that seem not to be taken into account in the, in our opinion, too simplistic length based comparison. In fact, we question if the "k€/km/MW" comparison is at all valid, as one could argue that GridLink project would then benefit from planning a much longer route.

Question 5 : Avez-vous des remarques quant à l'impact de GridLink sur les coûts de réseau européen (pertes électriques) et français (congestions, réserves) ?

We do not have the experience to evaluate network losses or associated overall network costs. Yet, we have difficulties understanding that there would be significant differences between the projects as suggested from Table 2 (section 2.2). From a technical point of view, electrical losses for these types of comparable interconnectors should basically be very similar for all projects both for converters and cables. It could be argued that a project choosing a smaller cable design giving lower CAPEX would be penalised by larger losses affecting OPEX. Above all, however, losses are mainly related to how the system is utilized and the comparison suggests that the three projects perhaps have different utilization predictions as well. It could perhaps also be that GridLink

Orientations préliminaires de la CRE

Question 6 : Avez-vous des remarques sur la comparaison entre les bénéfices évalués par la CRE et les coûts du projet GridLink ?

In view of above comments, the comparison presented in Figure 3 (section 3.1) is significantly dependent on considerations made in the assessment process. It is our general experience from previous interconnector projects of similar nature, that the overall benefits seem well documented and we would therefore be surprised if a new transmission system between France and UK could not be motivated from an SEW perspective.

Question 7 : Partagez-vous l'analyse de la CRE selon laquelle la levée des incertitudes économiques et politiques est un préalable à l'engagement d'un nouveau projet d'interconnexion entre la France et le Royaume-Uni ?

Ne se prononce pas

Commentaire :

Political aspects definitely have an impact on the development and evaluation of interconnector projects but whereas we are happy to comment on technical aspects, it is very difficult for us to comment this factor. As highlighted above, there are other uncertainties than Brexit that need to be assessed and some of the Brexit uncertainties would be hopefully clarified within short time with the application of the measures defined by the Specialised Committee on Energy (SCE) under the Trade and Cooperation Agreement (TCA). We understand that the first meeting of this committee within EU took place 14th July 2021 and that the intention is to be ready by 1st April 2022. As a final comment under this question we would like to emphasize that structural lack of adequate interconnector projects may potentially pose a threat to the desired renewable transformation process on a larger scale. It could therefore perhaps be argued that whereas a delayed decision could be motivated from one perspective, other consequences of waiting could have negative impact from an overall SEW perspective.

Question 8 : Partagez-vous les réserves de la CRE vis-à-vis de la demande d'investissement de GridLink ?

Ne se prononce pas

Commentaire :

It is our perception that the demand for high voltage cable systems will increase with increased global demand for renewable energy projects. It is also our experience that such systems provide increased security of supply both in terms of availability and with power flow capability in both directions between the connecting grids. The transmission systems also provide benefits in terms of additional electricity system flexibility, wholesale prices and increased use of renewable power to meet common Net Zero targets. We believe therefore that several new interconnectors will be required in Europe in general, and that more than one cable transmission system between France and UK could very well be motivated from a socio-economic welfare perspective.

Liste des pièces jointes à la contribution :

CRE Public Consultation No. 2021-07 GridLink Interconnection Project - NKT Response.pdf