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COMMISSION DE RÉGULATION DE L'ÉNERGIE

Consultation

A Joint Consultation on AQUIND's Exemption Request

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This document outlines the scope, purpose and questions of the consultation and how you can get involved. Once the consultation is closed, we will consider all responses. We want to be transparent in our consultations. We will publish the non-confidential responses we receive on our websites at **Ofgem.gov.uk/consultations** and **cre.fr**. If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response.

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Executive summary

Article 63 of Regulation (EU) 2019/943 (“Article 63”,”the Regulation”) permits National Regulatory Authorities for Energy (“NRAs”) to, in agreement with any other relevant concerned NRAs, and subject to the approval of the European Commission (“the EC”), exempt new investments in cross border electricity interconnectors from some aspects of the Regulation provided certain conditions are fulfilled.

AQUIND Limited and AQUIND SAS ("AQUIND") propose to build, own and operate a new 2000MW electricity interconnector between Great Britain (GB) and France (“the AQUIND Interconnector”). It is currently seeking a partial exemption for the AQUIND Interconnector from Articles 19(2) and 19(3) of the Regulation regarding Use of Revenues obligations in France.

This joint consultation by Ofgem and the CRE sets out the conditions, defined by Article 63, that AQUIND must satisfy in order for an exemption to be granted. The document also outlines the evidence provided by AQUIND in its application in support of its view that it should be granted a partial exemption for the AQUIND Interconnector. It also seeks views from interested parties as to whether they consider AQUIND has met the exemption conditions. Moreover, additional information on AQUIND’s economic analysis that CRE and Ofgem will take into account in their assessment has been included in the consultation document.

This document marks the start of a six-week consultation. Responses would be particularly welcome to the specific questions that are set out in the appropriate sections of each chapter although we welcome respondents’ views on any aspect of this document and the exemption request.

Responses should be received by 29 January 2021.

The NRAs will base any final decision they make on their analysis of the issues and responses to this joint consultation.

1. Introduction

A joint consultation by Ofgem and CRE

1.1. This is a joint consultation by Ofgem and CRE on a request from AQUIND for an exemption, for the AQUIND Interconnector, from aspects of European legislation under Article 63 of the Regulation (EU) 2019/943.

1.2. AQUIND proposes to build, own and operate a new 2000MW electricity interconnector between GB and France. The AQUIND Interconnector is being promoted by AQUIND SAS (France) and AQUIND Limited (UK).

1.3. Electricity interconnectors are the physical links that allow the transfer of electricity across borders. They allow electricity to be generated in one market and used in another. The proposed 240km interconnector will connect the transmission systems in GB at Lovedean substation, and in France at Barnabos substation.

1.4. AQUIND is seeking a partial exemption for the AQUIND Interconnector in France from Articles 19(2) and 19(3) of Regulation 2019/943 regarding Use of Revenues obligations for a period of 25 years from the start of commercial operations. This partial exemption would apply to a fixed share of the revenues earned by the AQUIND Interconnector that corresponds to the portion of the AQUIND Interconnector's capital and operational costs related to French territory (onshore and French territorial waters).

1.5. The proposed scope, duration and rationale for AQUIND's exemption request is described in more detail in Section 2 of this document.

1.6. Pursuant to Article 63, paragraph 4 of the Regulation, the decision on whether to grant an exemption must be agreed by the NRAs of the Member States concerned.

1.7. The concerned NRA in GB is the Gas and Electricity Markets Authority ("the Authority"), whose administrative functions are carried out by the Office of Gas and Electricity Markets ("Ofgem"). The concerned NRA in France is the Commission de Régulation de l'Énergie ("CRE") (together "the NRAs").

1.8. The NRAs will assess AQUIND's exemption request against the fulfilment of six conditions listed in Article 63. Additional conditions may be imposed on the AQUIND

Interconnector if deemed appropriate by the NRAs to ensure the fulfilment of the exemption conditions throughout the exemption period.

1.9. This joint consultation seeks views from interested parties on AQUIND's request for exemption. Feedback will help to inform the NRAs' decision on whether all the conditions are fulfilled, whether the exemption request should be granted and whether any additional conditions should be imposed.

1.10. The consultation period is six weeks in order to allow enough time for stakeholders to respond to this consultation over the Christmas holiday period.

Procedure for granting an exemption

1.11. Article 63 permits NRAs to exempt new electricity interconnectors connecting their respective electricity markets from some aspects of the Regulation provided certain conditions are fulfilled.

1.12. These conditions are listed in paragraph 1.22 and are broadly aimed at ensuring the exemption is not detrimental to competition, security of supply, efficient functioning of electricity systems and markets and development of the single European electricity market.

1.13. Article 63, paragraph 4 of the Regulation requires the NRAs to reach an agreement on whether the exemption should be granted and, as the case may be, on the extent of such an exemption, within six months from the date on which the last of those regulatory authorities received the exemption request.

1.14. The exemption request was received on 29 May 2020 by Ofgem and on 2 June 2020 by CRE. AQUIND also provided additional elements by email to CRE on 16 June 2020 and on 1 July 2020, and to Ofgem on 24 June 2020 and on 1 July 2020.

1.15. Pursuant to Article 63, paragraph 7 of the Regulation, Ofgem and CRE sent a copy of AQUIND's request to the Agency for the Co-operation of Energy Regulators (ACER) on 2 June 2020 and 3 June 2020, respectively. Ofgem also sent a copy of AQUIND's request to the EC on 2 June 2020, on behalf of both regulators.

1.16. On 31 July 2020, the NRAs formally acknowledged receipt of the exemption request, indicating that additional information was required from AQUIND to ensure that the exemption application included all required information and to assist the NRAs in reaching a

final decision. The NRAs indicated that without the information requested, AQUIND's exemption request could not be considered complete.

1.17. AQUIND provided the additional information required on 28 August 2020 and on 9 September 2020.[1]

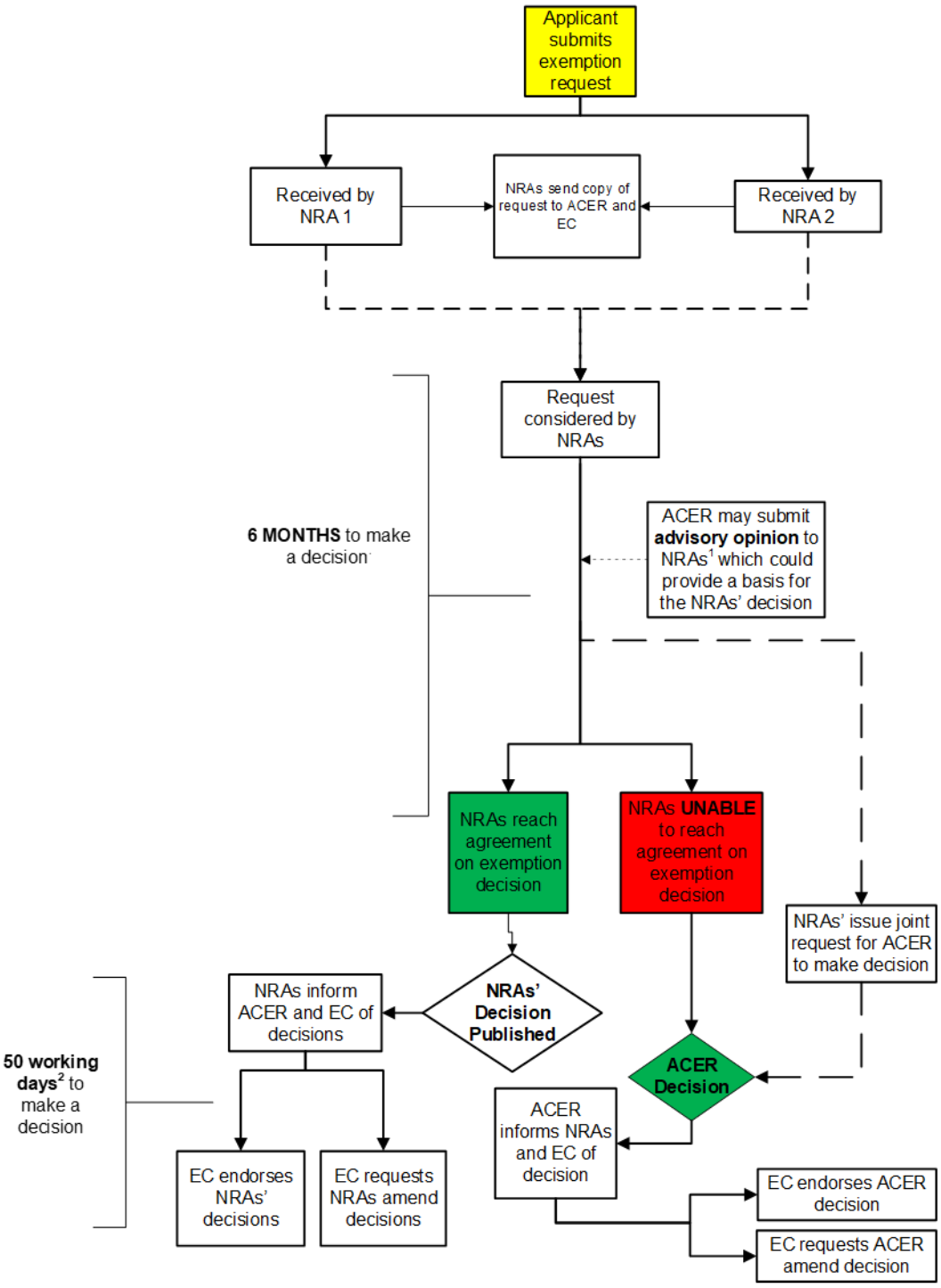
1.18. The decision on the exemption request will be taken by ACER if the NRAs cannot reach an agreement within six months or upon an earlier joint request from the NRAs.

1.19. Following the NRAs' decision,[2] the EC may, within 50 working days of receiving the notification of their decision from the NRAs, require the NRAs to amend or withdraw the decision to grant an exemption.[3] This period may be extended by a further 50 working days if additional information is requested by the EC. The NRAs note that, as described in paragraphs 1.44 to 1.47, the UK exit from the EU could affect the procedures mentioned above.

1.20. This decision-making process is illustrated in Figure 1 below.

[1] For further context, see Article 63, paragraph 5 of the Regulation.
[2] Or a decision taken by ACER where the NRAs are unable to reach a decision or a joint request has been made by the NRAs that ACER make the decision under paragraph 5(a) or 5(b) of Article 63 of the Regulation.
[3] Article 63, paragraph 8 of the Regulation.

Figure 1 - Process for considering exemption requests pursuant to Article 63 of Regulation (EC) 2009/943



1. Within 2 months from date of receipt by the last NRA concerned
2. This 2 month period may be extended by a further 2 months where further information is sought by EC

1.21. Article 63 provides that new interconnectors may, upon request, be exempted for a limited period of time from some or all of the following provisions in European legislation:

- Article 19(2) and (3) of the Regulation, governing how revenue resulting from the allocation of interconnector capacity may be used;
- Articles 6 and Article 43 of Directive (EU) 2019/944 ("the Directive"), concerning, respectively, Third Party Access (TPA) and ownership unbundling requirements; and
- Article 59(7) and Article 60(1) of the Directive, concerning regulatory approval of charging methodologies.

1.22. Paragraphs 1(a) to (f) of Article 63 specify the six conditions below that must be met for an exemption to be granted:

a) the investment must enhance competition in electricity supply;

b) the level of risk attached to the investment is such that the investment would not take place unless an exemption is granted;

c) the interconnector must be owned by a natural or legal person which is separate, at least in terms of its legal form, from the system operators in whose systems that interconnector is to be built;

d) charges will be levied on users of that interconnector;

e) since the partial market opening referred to in Article 19 of Directive 96/92/EC of the European Parliament and of the Council, [4] no part of the capital or operating costs of the interconnector has been recovered from any component of charges made for the use of transmission or distribution systems linked by the interconnector; and

f) the exemption is not to the detriment of competition or the effective functioning of the internal market for electricity, or the efficient functioning of the regulated system to which the interconnector is linked.

[4] Directive 96/92/EC of the European Parliament and of the Council of 19 December 1996 concerning common rules for the internal market in electricity (OJ L 27, 30.1.1997, p. 20)

Legal framework in GB

1.23. There are two routes for electricity interconnector investment in GB. Developers may choose to follow the regulated route and apply for the cap and floor regime[5] or follow the exempt route and request an exemption from certain aspects of the legislation of the European Union (EU).

1.24. Under the cap and floor regime, interconnector developers can submit project proposals to Ofgem during pre-defined periods, or application windows.

1.25. This approach allows for the consideration of interactions between projects and enables Ofgem to make a decision on whether all, some or none of the projects are likely to be in the interests of GB consumers.

1.26. Ofgem opened the first cap and floor application window between August and September 2014,[6] and a second application window between March and October 2016.[7]

1.27. In August 2020, Ofgem launched a review of the cap and floor regime[8] to establish whether there is a need for further GB interconnection capacity beyond those projects currently with regulatory approval. If so, the secondary objective of the review is to consider Ofgem's approach to the regulation of future GB interconnection.

1.28. Depending on the outcomes of this review, Ofgem may decide to open a third application window under the current cap and floor regime arrangements, or develop new arrangements for project developers seeking a regulated regime in GB.

[5] For more information, please visit: https://www.ofgem.gov.uk/ofgem-publications/87848/regulationfutureinterconnectioncapandfloorpdf
[6] Decision to roll out a cap and floor regime to near-term electricity interconnectors: https://www.ofgem.gov.uk/sites/default/files/docs/2014/08/decision_cap_and_floor_near_term_electricity_interconnectors.pdf
[7] Decision to open a second cap and floor application windows for electricity interconnectors in 2016: https://www.ofgem.gov.uk/sites/default/files/docs/decision_to_open_a_second_cap_and_floor_application_window_for_electricity_interconnectors_in_2016.pdf
[8] Open letter: Notification to interested stakeholders of our interconnector policy review: https://www.ofgem.gov.uk/publications-and-updates/open-letter-notification-interested-stakeholders-our-interconnector-policy-review

1.29. The Authority[9] can grant licences to electricity interconnector developers and operators under the Electricity Act 1989 ("the Act"). The Authority granted an interconnector licence to AQUIND Limited on 9 September 2016.[10]

1.30. Under Article 63 of the Regulation, developers of new interconnectors can request to be exempted from some provisions of the Regulation. As described in paragraph 1.7, Ofgem is the relevant NRA for GB. As such, Ofgem is responsible for assessing and deciding on any such exemption request, together with any other concerned NRAs. The NRAs' decision is subject to the approval of the EC.

1.31. In GB, any decision to grant an exemption under Article 63 needs to be given effect in the relevant electricity interconnector licence through an exemption order under standard licence condition (SLC) 12.

1.32. Section 5A of the Utilities Act 2000 requires that before implementing an important proposal, the Authority is required to carry out and publish an assessment of the likely impact of implementing the proposal or publish a statement setting out reasons for thinking that it is unnecessary to carry out such an assessment.

1.33. Ofgem considers that the decision on this exemption meets the technical definition of an important proposal as set out in Section 5A. Therefore, in accordance with the requirements of Section 5A (3) (b) of the Act, Ofgem has carried out an impact assessment (IA) to inform a joint decision on the exemption request. This IA will be published alongside the publication of this document on Ofgem's website.[11]

1.34. Ofgem notes that this exemption, if granted, will determine the regulatory arrangements in France only.

1.35. Therefore, AQUIND will still need to secure a regulatory solution in GB before the project can be built. As such, the impacts of the AQUIND Interconnector considered in this

[9] The terms "the Authority", "Ofgem" and "GEMA" are used interchangeably in this document. The Authority is the Gas and Electricity Markets Authority. Ofgem is the Office of the Gas and Electricity Markets Authority. Ofgem's governing body is the Gas and Electricity Markets Authority and is referred to variously as GEMA or the Authority. The role of the Authority is to oversee Ofgem's work and provide strategic direction.
[10] For more information, please visit: https://www.ofgem.gov.uk/publications-and-updates/aquind-limited-notice-grant-electricity-interconnector-licence
[11] Ofgem website: https://www.ofgem.gov.uk/electricity/transmission-networks/electricity-interconnectors

document and in the IA will not immediately materialise in GB even if both NRAs agree to grant an exemption.

1.36. Ofgem will have the opportunity to assess fully the impacts of AQUIND in GB when the project developers seek regulatory approval in GB. Consequently, the analysis presented in the IA is largely qualitative and based on the work produced by AQUIND to support the exemption request.

Legal Framework: France

1.37. French legislation does not provide a specific regime for the development, construction and operation of interconnectors by private investors. Private investors can construct and operate an interconnector within the context of an exemption, as provided for in Article 63, or under the regulated regime provided for in Article 12 of Regulation (EU) No 347/2013 for interconnectors projects that are granted with the Project of Common Interest (PIC) status.

1.38. In France, CRE is in charge of deciding, in agreement with the relevant concerned NRA, whether to grant an exemption for new interconnectors.

Overview of current and planned GB – France interconnection

1.39. Currently, the only existing interconnector capacity between France and GB is the IFA interconnector, which is a 2000MW high voltage direct current (HVDC) link between the French and GB transmission systems commissioned in 1986. It is owned and operated by National Grid Interconnectors Limited ("NG") and Réseau de Transport d'Electricité ("RTE"), the French Transmission System Operator ("TSO").

1.40. Two interconnector projects between GB and France have received regulatory approval and are currently under construction:

- ElecLink is a 1000MW project that is being developed by GetLink under the exempt route. This project has been granted Project of Common Interest ("PCI") status and was awarded a partial exemption from compliance with certain aspects of European regulation by Ofgem and CRE in 2014.[12] The project is currently planned to be commissioned in 2021.

[12] Final decision on ElecLink Limited's request for an exemption under Article 17 of Regulation (EC) 714/2009**:** https://www.ofgem.gov.uk/publications-and-updates/final-decision-eleclink-limited%E2%80%99s-request-exemption-under-article-17-regulation-ec-7142009-great-britain-france-

- IFA2 is a regulated 1000MW project owned by NG and RTE. IFA2 was approved under the cap and floor regime by Ofgem in July 2015 and through RTE's investment framework by CRE in January 2017. The project is currently undergoing technical testing and is expected to enter commercial operation at the end of 2020.

1.41. In addition to the AQUIND Interconnector, two other interconnector projects are also proposed on the French - GB border:

- FAB Link is a proposed regulated 1400MW project owned by FAB Link Limited and RTE. This project has been granted PCI status and was granted a cap and floor regime in principle, in Window 1 of Ofgem's cap and floor regime in July 2015.

- GridLink is a proposed 1400MW project owned by iCON Infrastructure Partners lll, LLP. It is one of the three projects which were granted a cap and floor regime in principle in Ofgem's second cap and floor application.

1.42. The two projects under construction described in paragraph 1.40 will increase the total interconnection capacity between France and GB to 4GW. If both the proposed projects with GB regulatory approval described in paragraph 1.41 are built, France-GB capacity will increase to 6800MW. If the AQUIND Interconnector is also completed, it will further increase the total capacity to 8800MW.

1.43. NRAs will consider the above projects in their assessment of AQUIND's exemption application.

EU Exit

1.44. On 23 June 2016, the UK held a referendum on the membership of the EU, and the outcome of the vote was for the UK to leave the EU. On 31 January 2020, the UK officially left the EU, starting a transition period which will end on 31 December 2020, after which EU legislation will cease to apply in UK.

1.45. EU Exit has raised questions about some aspects of the regulatory regime that will underpin interconnectors connecting GB to France and continental Europe, in particular the legal basis on which future regulatory and trading arrangements will be based.

electricity-interconnector

1.46. Therefore, the future status of this exemption decision and of the trading arrangements underpinning interconnectors' activity will potentially be subject to future agreements between the UK and EU and/or between the UK and France.

1.47. NRAs will consider AQUIND's analysis including the possible future partnership arrangements between the UK and the EU and/or between the UK and France and assess potential consequences of the UK's departure from the EU, and the end of the transition period, on the exemption decision.

Structure of the document and next steps

1.48. The remainder of this document is structured as follows:

- Chapter 2 provides an overview of the AQUIND Interconnector project, and the proposed scope, duration and rationale for exemption presented by AQUIND.

- Chapter 3 provides an overview of AQUIND's Cost Benefit Analysis (CBA) supporting the exemption request.

- Chapter 4 summarises the other evidence presented by AQUIND in its submission and AQUIND's views on how its exemption request meets criteria (a) to (f). It also provides a preliminary analysis of the request by the NRAs.

1.49. The NRAs invite views from interested parties on AQUIND's request for exemption and the extent to which they consider the exemption conditions have been met. The NRAs would also welcome views on potential options for ensuring that the scope and duration of any exemption is proportionate and, as far as possible, consistent with the aims of the internal electricity market. The deadline for interested stakeholders to provide their views is 29 January 2021.

1.50. Ofgem and CRE will need to approve individually that all the conditions for the exemption are met in GB and France respectively. However, in line with the intention of the Regulation and as demonstrated by this joint consultation, the NRAs will coordinate their assessment of the exemption request.

1.51. Based on the NRAs' analysis of the issues and responses to this joint consultation, they may decide to:

- Grant the partial exemption: the scope and duration of exemption being as requested by AQUIND;

- Grant the partial exemption with extra conditions and/or modifications regarding the scope and duration of the exemption: where AQUIND is granted an exemption for a different scope or a different duration than AQUIND's request;

- Refuse the exemption request; or

- Refer the decision to ACER if the NRAs do not reach agreement on the most appropriate decision to take.

How to respond

1.52. We want to hear from anyone interested in this consultation. Please send your response to the relevant person on this document's front page, or enter it directly in CRE's online platform (consultations.cre.fr).

1.53. We have asked for your feedback in each of the questions throughout. Please respond to each one as fully as you can.

1.54. We will publish non-confidential responses on our website at www.ofgem.gov.uk/consultations and consultations.cre.fr.

Related publications

Regulation (Eu) 2019/943 Of The European Parliament And Of The Council

ACER decision no 05/2018 on the exemption request for the AQUIND interconnector June 2018

Communication of the French Energy Regulatory Commission of 29 March 2012 on the application of Article 17 of Regulation (EC) No 714/2009 of 13 July 2009 July 2009

Commission staff working document on Article 22 of Directive 2003/55/EC concerning common rules for the internal market in natural gas and Article 7 of Regulation (EC) No 1228/2003 on conditions for access to the network for cross-border exchanges in Electricity May 2009

Deliberation of the Energy Regulatory Commission of 16 November 2017 establishing guidelines for new interconnector projects with the United Kingdom and deciding to transfer the exemption request submitted by AQUIND Ltd. to ACER November 2017

Deliberation by the French Energy Regulatory Commission of 11 July 2019 informing on the estimation of the optimal electricity interconnection capacity and the new interconnection projects with the United Kingdom July 2019

2. AQUIND's exemption application

Section summary

This chapter presents an overview of the AQUIND Interconnector project and the information submitted to the NRAs by AQUIND in support of its exemption request. It includes AQUIND's rationale for requesting an exemption, the scope of the exemption request along with proposals for the allocation of the interconnector capacity, unbundling arrangements and a proposed profit-sharing mechanism.

Overview of the AQUIND Interconnector project

2.1. Table 1 below provides an overview of the AQUIND Interconnector.

Table 1 - Overview of the AQUIND Interconnector

Project	Aquind Interconnector
Developer	AQUIND Limited
Capacity	2 GW (2000 MW)
Length	~ 240 km (182 km submarine, ~ 56 km land)
Connection points	Lovedean substation (England) – Barnabos substation (France)
Planned commissioning date	2024

2.2. AQUIND states that, subject to the exemption being granted, it is due to start construction works in 2022 and operations in Q2 2024.

Overview of Aquind's previous applications

2.3. AQUIND submitted its first exemption request in August 2017 under Article 17 of Regulation (EC) No 714/2009.

2.4. AQUIND requested a partial exemption for a period of 25 years from use of revenues, unbundling and third party access requirements under Regulation (EC) No 714/2009 Directive 2009/72/EC.

2.5. Ofgem and CRE began their assessment of AQUIND's exemption request in autumn 2017. However, following the 2016 referendum on the exit of the UK from the EU, CRE issued its Deliberation No 2017-253 in November 2017 establishing guidelines for new interconnector projects with the UK. In light of this deliberation, CRE and Ofgem jointly decided to refer the exemption request to ACER.[13]

2.6. In November and December 2017, ACER received formal notifications by CRE and by Ofgem, respectively, referring the exemption request to ACER for decision, pursuant to Article 17(5) of Regulation (EC) No 714/2009.

2.7. In June 2018, ACER published its decision[14] not to grant to AQUIND a partial exemption. ACER concluded that the condition set out in Article 17(1)(b) of the Electricity Regulation was not met, finding that AQUIND had not sufficiently demonstrated that the level of risk attached to the investment was such that the investment would not take place unless an exemption was granted.

2.8. In particular, ACER indicated that AQUIND, despite having obtained PCI status for the AQUIND Interconnector in April 2018, did not test whether a regulated regime was available to the AQUIND Interconnector under the Cross-Border Cost Allocation process (CBCA) described in Article 12 of Regulation (EU) No 347/2013 (″the TEN-E Regulation″).[15]

2.9. ACER noted that a decision taken under Article 12 of the TEN-E Regulation could have resulted in the allocation of costs for the AQUIND Interconnector and in the recovery of such costs through a regulated regime, addressing some of the key risks AQUIND presented in its 2017 exemption request.

2.10. AQUIND appealed to the Board of Appeal of ACER against ACER's decision to reject the exemption request, but the appeal was rejected in October 2018. An appeal to the Court of Justice of the European Union (CJEU) was submitted in December 2018. The CJEU published

[13] For additional information, please visit: https://www.cre.fr/en/Documents/Deliberations/Orientation/interconnector-projects-with-the-united-kingdom

[14] ACER decision no 05/2018 on the exemption request for the AQUIND interconnector : https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions/ACER%20Decision%2005-2018%20on%20AQUIND.pdf

[15] Projects of common interest (PCIs) are key cross border infrastructure projects that link the energy systems of EU countries and are expected to deliver significant EU-wide benefits. The CBCA process aims, in part, at facilitating the development of these key projects whose costs and benefits are unevenly distributed among affected states. Only projects awarded with the PCI status can access the CBCA process.

its ruling on 18 November 2020 and it can be found on the CJEU website.[16] The effect of the ruling is that the decision of ACER's Board of Appeal has been annulled.

2.11. The NRAs note that AQUIND was not included in the fourth Union list of Projects of Common Interest published on 11 March.[17]

Information provided by AQUIND in its exemption request

2.12. AQUIND's current exemption request consists of the main exemption application and the relevant supporting exhibits. The main document sets out AQUIND's rationale for the exemption request and how it considers the relevant exemption conditions have been met. The exhibits include the necessary supporting analysis and other relevant documents.

2.13. The list of all the exhibits is provided in Table 2 below.

Table 2 - Contents of AQUIND's exemption request

Exhibit No.	Name
Exhibit 1	AQUIND Revenue and social welfare analysis
Exhibit 2	AQUIND Competition analysis
Exhibit 3	AQUIND Financial model and sensitivities data files
Exhibit 4	AQUIND revenues and social welfare analysis data file
Exhibit 5	The connection and use of system code bilateral connection agreement with National Grid Electricity Transmission plc
Exhibit 6	UK Connection & Infrastructure Option Note
Exhibit 7	Proposition Technique et Financière with RTE Réseau de Transport d'Electricité
Exhibit 7A	Proposition Technique et Financière with RTE Réseau de Transport d'Electricité – Conditions Particulières
Exhibit 8	Technical feasibility opinion
Exhibit 9	Summary of project consents and licences
Exhibit 10	Report on the impact of AQUIND on the French transmission system
Exhibit 11	Programme plan and programme risks
Exhibit 12	Summary of connection agreements
Exhibit 13	Summary of local taxation in France
Exhibit 14	Technical report on variation of grid losses and security of supply

[16] CJEU ruling: http://curia.europa.eu/juris/document/document.jsf?text=&docid=233873&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=13720333
[17] Fourth Union List of Projects of Common Interest: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R0389&from=en

2.14. The NRAs have published the non-confidential elements of these exhibits alongside this consultation document to inform responses from interested parties.

2.15. AQUIND also provided additional details on the analytical approach followed to model scarcity rent,[18] as well as additional information on the impacts of the AQUIND Interconnector on network costs and losses in France. AQUIND also submitted an economic study on the role of electricity interconnectors in the economic recovery post-COVID.

2.16. On 31 July 2020, the NRAs requested additional information to assist the NRAs in assessing AQUIND's exemption request.

2.17. More specifically, NRAs requested information in relation to condition (b) of Article 63, paragraph 1, regarding the allocation of the expected costs and benefits of the project between France and GB; and in relations to condition (f) of Article 63, paragraph 1, regarding the financial aspects of the projects.

2.18. These are summarised in Table 3 below.

Table 3 - Additional information requested by the NRAs

Relevant condition	Description
Condition (b)	• Details underlying the allocation retained by AQUIND of the costs categories between France and GB. • Rationale of the choice of a ratio based on the cost repartition of the project. • Analysis of the impact of this allocation on the exemption criteria
Condition (f)	• Justification of the discount rate for the project. • Duration of the exemption, including an analysis of its impact on the project profitability. • Residual value of assets at the end of the exemption period. • Threshold above which profits could be shared or the sharing ratio, including an analysis of its impact on French network users.
Other information	• Foreseen regime after the expiration of the requested exemption period. • Data communication procedures. • Impact of the non-fully firm connection agreement in GB and the potential impact of the capacity calculation methodology in the Channel Region on the project CBA. • Estimated revenues AQUIND could earn from participation in the French Capacity Market. • Detailed summary of the differences in the assumptions between AQUIND's own modelling and ENTSO-E's scenarios.

[18] Scarcity rents represents the uplift in the value of wholesale power relative to the system Short-Run Marginal Cost (SRMC) to reflect the demand and supply fundamentals in the wholesale power market.

	• Rationale and supporting analysis backing the choice of 2 GW as optimal capacity for the project.

2.19. AQUIND satisfied the NRAs' request by providing the information described above on 28 August and 9 September 2020.

Scope and duration of AQUIND's exemption request

2.20. AQUIND requests a partial exemption for the the AQUIND interconnector in France from Article 19(2) and (3) of the Regulation regarding Use of Revenues obligations for a period of 25 years from the start of commercial operations.

2.21. AQUIND does not seek an exemption from Unbundling (Article 43, Directive 2019/944), Third Party Access (Article 6, Directive 2019/944) or the approval of charging and access rules (Article 59(7) and 60(1) of Directive 2019/944).

2.22. The partial exemption would apply only to a fixed share of the project's revenues ("the Exempt Portion"). This share corresponds to the proportion of the AQUIND Interconnector's capital and operational costs incurred on French territory, including both land and French territorial waters.

2.23. AQUIND has estimated the total project costs to be €1537 million, including investment, development, operational and replacement costs. According to AQUIND, the share corresponding to the French territory is €488 million (32%).

2.24. The revenues covered by the scope of the exemption would include the fixed share of the sum of the following components:

- Congestion revenues generated by the AQUIND Interconnector;
- Capacity Mechanism revenues in France and in the UK;
- Ancillary Services revenues;
- Netting-off components, which may include, for example, any costs that may apply to the project, such as trading tariffs, or penalties associated with non-performance of Capacity Mechanism and/or Ancillary Services contracts that the AQUIND Interconnector may enter into;

- Any other revenues arising from the AQUIND Interconnector performing its role.

Rationale for exemption presented by AQUIND

2.25. As mentioned in paragraph 1.37, French legislation does not provide a specific regime for the development, construction and operation of interconnectors by private investors.

2.26. An exemption granted under the Regulation would therefore also have the effect of permitting AQUIND to build and operate the AQUIND Interconnector in France. Ofgem notes that AQUIND will still need to obtain regulatory approval in GB before the project can be built.

2.27. AQUIND indicates that an exemption under Article 63 is the only investment route available to the developers. AQUIND therefore argues that without an exemption the project cannot progress in France.

2.28. AQUIND considers that the scope of the partial exemption is proportionate and limited to only those elements of the legislation that would otherwise prevent the development of the AQUIND Interconnector in France.

2.29. An exemption from Use of Revenue obligations under paragraphs 19(2) and (3) of the Regulation would give AQUIND the opportunity to make a financial return on the initial investment that reflects the risk of the project. This can potentially be higher than otherwise would be the case under a fully regulated regime because of the higher risks attached to AQUIND operating under an exemption without consumer underwriting in France.

2.30. Should the interconnector be more profitable than expected at the time of making the investment decision, AQUIND proposes to share additional returns generated from activities described at paragraph 2.24 with consumers via a profit sharing mechanism. This profit sharing mechanism is further discussed in Section 4 of this document.

3. Project Cost Benefit Analysis (CBA)

Section summary

This section summarises the methodology and results of the CBA submitted by AQUIND to support this exemption request. It also provides the initial review of the NRAs.

Questions

Question 1: Do you have any comments on the methodology adopted by AQUIND to estimate the SEW ?

Question 2: Do you have any comments on the assumptions taken by AQUIND regarding commodity prices, capacity mixes, demand or interconnection capacities?

Question 3: Do you have any comment on AQUIND's estimation of grid losses? Do you have any comments on the differences between AQUIND's and ENTSOE's estimation of these costs?

Question 4: Do you have any comment in regards to AQUIND's estimation of SoS? Do you have any comments on the differences between AQUIND's and ENTSOE's estimation of SoS?

AQUIND's methodology

3.1. AQUIND proceeds in two steps in order to estimate the different benefits that the project can deliver. At first, they replicate the ENTSO-E modelling for the Ten-year Network Development Plan ("TYNDP") 2018, including the three main TYNDP scenarios – Sustainable Transition (ST), Distributed Generation (DG) and EUCO covering spot years 2030 and 2040 (except for EUCO for which is only modelled for 2030).

3.2. While the modelling of the TYNDP scenarios intends to serve as a validation exercise of the CBA modelling for the exemption application, the second step consists in the development of a more detailed set of assumptions (project-specific CBA). These represent AQUIND's

central view of how European power markets are expected to evolve in the future, referred to as the Market Scenario.

3.3. In addition to this scenario, AQUIND's consultants have developed two alternative scenarios, referred to as the High Commodities/Renewables Scenario and the Low Commodities Scenario, which show alternative evolutions of future commodity prices and levels of investment in renewable generation.

Socio-economic welfare (SEW) calculations

3.4. A project-specific CBA methodology is used to calculate the impact of the AQUIND Interconnector on the power system. The CBA considers market price projections "with" and "without" the AQUIND Interconnector. The difference between these modelling outcomes reveals the impact of the Project on wholesale electricity market prices in each country.

3.5. The pan-European economic dispatch model used by AQUIND's consultants to estimate SEW impacts includes all markets to which GB may be connected, as well as countries connected to these markets. Electricity demand is represented as projected hourly profiles (derived from historic calibration). Market dispatch is then simulated with system-level constraints (e.g. cross-border capacities) optimised to deliver the least-cost solution.

3.6. In order to derive wholesale electricity prices from System Short-Run Marginal Costs (SRMC), AQUIND's consultants use an 'uplift' function in the modelling. The wholesale power prices are estimated as the sum of the SRMC and a scarcity uplift representing the capacity margin of the market: if the available generation is close to peak demand, generators are likely to bid above their SRMC, so the uplift is high.

3.7. The opposite applies in periods of high generation availability. For example, the scarcity uplift modelled by AQUIND's consultants for the year 2030 in the GB market reaches 4.2 €/MWh in average going from 800 €/MWh during hours of low capacity margin to -10 €/MWh during the hours of high capacity margin.[19]

3.8. The total net SEW impact of the AQUIND Interconnector is the sum of the change to consumer welfare, producer welfare and interconnector welfare, which are described later in this document and in Table 4.

[19] In the modelling, the scarcity below 0 €/MWh occurs 38% of the time, between 0 and 5 €/MWh 51% of the time, between 5 and 10 €/MWh 5% of the time, above 10 €/MWh 6% of the time.

Grid losses

3.9. In order to quantify the variation of grid losses due to the AQUIND Interconnector, a grid model has been developed by AQUIND's consultants.

3.10. Based on this model, an hourly direct current load flow with and without the new interconnection is run over a year. The difference of total grid losses between the two cases corresponds to the yearly variation of grid losses due to the interconnection considered.

3.11. This model differs from the model used for the SEW calculation. It covers only France, GB, Germany, Belgium and the Netherlands as AQUIND's consultants consider that they are the most likely to influence the internal dispatch of France and GB. Additionally, these countries are modelled as a single equivalent node.

3.12. AQUIND's first analysis uses the ENTSO-E methodology to estimate the variation in grid losses due to the AQUIND Interconnector. Then, AQUIND presents an analysis of the grid losses that avoids double counting with the SEW estimations, in line with the amendments made in the project version of the third ENTSO-E CBA Guideline.

3.13. Finally, a post-processing step is added to better align the estimation of grid losses to the estimation of the SEW. As the annual flow across the GB-France border in the SEW estimation is lower than the annual flow in the losses estimation, AQUIND has lowered the variation of the grid losses by the same ratio.

Security of supply (SoS)

3.14. Following the ENTSO-E methodology, AQUIND's consultants have estimated the decrease of Expected Energy Non Served (EENS) permitted by the AQUIND Interconnector.

3.15. To do so, they have adapted the portfolio of generation so that it meets the generation adequacy standards. This EENS is then monetised using the same Value of Lost Load (VOLL) than ENTSO-E (10 000 €/MWh). This value is a standard value used for calculation at European level, which does not necessarily reflect national VOLL.

3.16. Finally, a sanity check is performed to cap the value computed by EENS savings, by establishing a counterfactual. This cap represents the value of the generation capacity that would have been necessary to reach an equivalent level of adequacy (compared with the addition of the project).

3.17. The model developed by AQUIND's consultants includes the same countries as the grid losses methodology: France, GB, Germany, Belgium and the Netherlands. No exchanges are allowed between the countries included and not included in the model. The same post-processing step mentioned above is performed to align the estimation of security of supply to the estimation of the SEW.

Description of AQUIND's scenarios

3.18. AQUIND's overall assessment of the SEW benefit of the project is based on three scenarios with different assumptions for oil, gas and carbon prices, demand and generation mix. These scenarios are modelled to show a range of market outcomes. The scenarios are "Market scenario", "High commodities/renewables scenario", and "Low commodities scenario".

3.19. The Market scenario is AQUIND's central view on the evolution of the GB, France and other European power markets. Under this scenario, governments' energy policy is driven by the goals of simultaneously reaching security of supply, competitive market structure and environmental sustainability.

3.20. The High commodities/renewables scenario is instead characterised by higher renewable investment, driven by high commodity prices and economic growth across Europe. This trend in turns drives price volatility in GB, France and continental Europe leading to increased levels of interconnector investment compared to the Market Scenario. Finally, the Low commodities scenario models lower economic growth, demand and commodity prices compared to the AQUIND Market Scenario. Here, low commodity prices, based on observed prices over the last 5 years, result in lower renewable investment.

3.21. Low commodity prices also reduce the running cost of thermal generation with higher capacity margins reducing scarcity, inducing downward pressure on wholesale prices across Europe. Low price volatility and cross-border spreads reduce the incomes for interconnectors, therefore reducing interconnector investment

AQUIND's CBA results

3.22. According to AQUIND's modelling, the savings in production costs, which include the benefits of reducing greenhouse gas emissions at CO2 market price and increased integration of cheaper renewable energies, are the main benefits brought about by the project. AQUIND also quantifies an expected reduction of CO2 emissions of 2.78 MtCO2 under its market scenario.

3.23. AQUIND's analysis also indicate that, in GB, the wholesale electricity prices on average decline as a result of the AQUIND Interconnector. In France, a key benefit of AQUIND is the ability to export additional electricity. In addition, both countries could benefit from a stronger security of supply, as their generation resources may contribute to meeting the other country's demand, particularly at times of system stress.

Table 4 - SEW estimation excluding costs (€m NPV)[20]

	Category	SEW
GB	Producer welfare	-2,136
	Consumer welfare	2,275
	Other interconnectors (excluding Aquind)	-1,088
	Social welfare	-949
France	Producer welfare	4,418
	Consumer welfare	-2,092
	Other interconnectors (excluding AQUIND)	-1,392
	Social welfare	934
Rest of Europe	Producer welfare	2,506
	Consumer welfare	-1,040
	Other interconnectors (excluding AQUIND)	-1,064
	Social welfare	403
Total SEW	Social welfare (excluding AQUIND)	387

3.24. AQUIND aggregates the costs and benefits over the 25 years following the commissioning of the project (in 2024). The cost-benefit analysis is carried out at the European level, although it is possible to distinguish the net benefit or cost for each country.

3.25. In the hosting countries, AQUIND's CBA results indicate that the AQUIND Interconnector delivers high benefits in France at €933m, and a cost in GB at -€949m. The interconnector is mainly used for exports from France to GB, leading to a net positive welfare

[20] For all tables in this document, due to rounding the figures in the table may not add up precisely to the totals indicated.

for GB consumers and French producers. In other European countries, the total net social welfare is positive and estimated at €403m.

3.26. A more detailed breakdown of AQUIND's CBA results, including values for security of supply and network losses, can be found in Appendix 1 of this document.

Preliminary analysis of AQUIND's methodology

Analysis of AQUIND's methodology to compute SEW

3.27. Regulation (EU) No 347/2013[21] requires ENTSO-E to establish a methodology to assess the costs and benefits for the European community for all projects included in the TYNDP.

3.28. The methodology now in force was approved in September 2018 by the European Commission (CBA 2.0 methodology).[22] The third version of the ENTSO-E Guideline[23] was submitted to ACER, which issued an opinion on the document on the 6th May 2020.[24] After consideration of ACER opinion, ENTSO-E will submit the draft CBA Guideline 3.0 to the EC for approval.

3.29. The cost-benefit analysis performed by AQUIND considers the three monetised indicators from the CBA 2.0 methodology – SEW, grid losses and adequacy –, as well as capital costs ("CAPEX") and operational costs ("OPEX"). Regarding the SEW specifically, the methodology differs from the TYNDP 2018 on several aspects:

- New scenarios are designed based on contemporary data and real life asset investment decisions simulated by AQUIND.
- Some assumptions are made when data was not publicly available (technology costs, interconnector loss factors, detailed storage parameters).
- The model includes a scarcity uplift.

[21] Regulation (EU) No 347/2013: https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex%3A32013R0347
[22] Second ETNSO-E guideline for CBA: https://eepublicdownloads.azureedge.net/clean-documents/tyndp-documents/Cost%20Benefit%20Analysis/2018-10-11-tyndp-cba-20.pdf
[23] Third ETNSO-E guideline for CBA: https://eepublicdownloads.entsoe.eu/clean-documents/tyndp-documents/Cost%20Benefit%20Analysis/200128_3rd_CBA_Guideline_Draft.pdf
[24] Opinion No 03/2020 from ACER: https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Opinions/Opinions/ACER%20Opinion%2003-2020%20on%20ENTSO-E%20Guideline%20for%20cost%20benefit%20analysis.pdf

- The model includes a breakdown of flexible versus inflexible demand (to meet an annual demand figure specified by ENTSO-E).

- Commodity entry charges and gas and coal transportation charges to power stations are taken into account in commodity prices.

- GB wholesale price projections include current charges, for example BSUoS and losses.

3.30. As a result, even if the methodology is based on the CBA 2.0 methodology established by ENTSO-E overall, the NRAs note that certain aspects of the analysis do not necessarily follow a strict application of this methodology.

3.31. In particular, the scarcity uplift could affect impact on the estimated benefits of the interconnector and their repartition. The validation of the modelling on the TYNDP scenarios highlights some differences further discussed later in this Section.

Preliminary analysis of AQUIND's scenarios

3.32. The following paragraphs describe the different scenarios and studies the NRAs are considering in assessing this exemption request, as well as AQUIND's scenarios.

Overview of existing studies and scenarios

3.33. For the purpose of the TYNDP 2018, ENTSO-E has developed different scenarios depending on the time horizon (2025, 2030 and 2040). Two scenarios covering years 2030 and 2040 have been designed with the EU 2050 targets as an objective. They have been constructed in cooperation with stakeholders representing among others the power industry, Non-Governmental Organisations, Member States and Regulators, and follow these storylines:

- Sustainable Transition (ST) – Targets reached through national regulation, emission trading schemes and subsidies, maximising the use of existing infrastructure.

- Distributed Generation (DG) – Prosumers at the centre, small-scale generation, batteries and fuel switching society engaged and empowered.

3.34. The joint scenario building process has three storylines for the new TYNDP 2020: Distributed Energy, Global Ambition and National Trends. National Trends (NT) is the central

policy scenario of the report, designed to reflect the most recent EU member state National Energy and Climate Plans (NECPs), submitted to the EC in line with the requirement to meet current EU 2030 energy strategy targets. Two other scenarios, Distributed Energy (DE) and Global Ambition (GA), take into account the target of achieving Net Zero by 2050. Finally, a Current Trend scenario, requested by ACER,[25] is based on the current development of the energy system in Europe.[26] It is worth noting that the scenarios of the TYNDP 2020 were recently finalised and published, although they are still undergoing public consultation.

3.35. The NRAs have conducted several studies on the benefits of new interconnectors between France and GB. We have summarised the one considered in the context of this exemption request below.

Cap and floor Window 2 projects assessment by Pöyry

3.36. In 2017, Ofgem consulted on the Initial Project Assessment (IPA) of new interconnectors applying for a cap and floor regime in the second application Window (W2). Ofgem commissioned Pöyry Management Consulting (UK) Ltd (Pöyry, now Afry) to conduct a study assessing the welfare impacts of these projects in GB.[27]

3.37. The aim of the Pöyry study was to analyse the needs case for each individual W2 interconnector, as well as the interactions and dependencies with the AQUIND interconnector, which was being developed under the exempt route at the same time.[28]

3.38. Details of the modelling approach, inputs and capacity market assumptions are available in the report referenced above.

3.39. The Pöyry report did not consider the AQUIND Interconnector as a standalone project.[29] However, where appropriate, aspects of the report relevant to AQUIND will be considered by the NRAs in the assessment of the exemption request.

[25] ACER Opinion No 06/2020: https://acer.europa.eu/Official_documents/Acts_of_the_Agency/Opinions/Opinions/ACER%20Opinion%2006-2020%20on%20ENTSO-E%20and%20ENTSOG%20draft%20TYNDP%202020%20Scenario%20Report.pdf
[26] The Current Trend scenario was not included in the TYNDP 2020 Scenario Report and its dataset was not made publicly available. Hence, this scenario is not included in this document.
[27] Near-Term Interconnector Costbenefit Analysis: Independent Report (Cap & Floor Window 2): https://www.ofgem.gov.uk/system/files/docs/2018/01/near-term_interconnector_cost_and_benefit_analysis_-_independent_report_.pdf
[28] The specific information on AQUIND was not presented in the Pöyry's report because at the time of its publication the assessment of AQUIND initial exemption request was still ongoing.
[29] It is worth noting that whilst AQUIND SEW impacts were assessed alongside Window 2 projects, the

3.40. The NRAs acknowledge that some time has passed since Pöyry's analysis and since the assumptions used in that analysis were compiled, and that the actual development of wholesale markets and of other interconnector projects may have diverged from Pöyry's modelling.

3.41. Nonetheless, Ofgem considers the results of the study to still be relevant in the context of AQUIND's current exemption request in order to compare the analysis and final results of AQUIND's CBA and submission.

Network Options Assessment (NOA) 2020

3.42. The NOA is a study run by National Grid Electricity System Operator (NGESO) every year assessing the future needs of GB's electricity transmission system. It recommends to transmission owners which future investments best meet the future network requirements.

3.43. In its NOA 2020,[30] NGESO estimates that reaching a total interconnection capacity of between 18.1 GW and 23.1 GW by 2032 would provide the maximum benefit for GB consumers, depending on which scenario is considered. This is between three and five times the current level of operational GB interconnection of 5 GW.[31] In the two scenarios achieving the 2050 decarbonisation targets for UK, the NOA indicates optimal interconnection levels between France and GB around 6 GW and 9 GW (5.8 GW in the other scenarios).

Artelys studies

3.44. CRE conducted a study in 2017[32] aiming at estimating the potential consequences of Brexit on the relevance of any new interconnector project between France and the UK.

3.45. Different Brexit scenarios were modelled. The study demonstrated that Brexit may have a significant impact on the benefits of interconnector projects. Thereby, in the most favourable case, in which the UK remains in the internal energy market, but Brexit has an impact on the electricity demand and the development of renewable energy production capacities, the value of a new interconnector could decrease by up to 10%. In the case where

analysis was conducted on the assumption that the project would progress under an exemption without any consumer underwriting, rather than under a cap and floor regime. Any future regulatory decision in GB will require the reassessment of these impacts.

[30] Network Options Assessment 2020: https://www.nationalgrideso.com/document/162356/download

[31] The NRAs note that two additional interconnectors, IFA2 and Eleclink, are currently under construction. These will increase future GB operational interconnection capacity to 7 GW.

[32] Etude de la valeur des interconnexions entre la France et la Grande-Bretagne: https://www.cre.fr/content/download/17041/209395

electricity markets are decoupled, the value of a new interconnector could decrease by more than 30%.

3.46. In July 2019, CRE published a second study[33] estimating the optimal electricity interconnection capacity between France and GB, assuming market functioning and scenario outlook as if the UK to be still a member of the EU. The four scenarios in the study are designed in such a way to cover a wide range of possible futures in terms of generation mix, electricity demand or macroeconomic environment.

3.47. They are based on the scenarios from the TYNDP 2018, as well as the most recent national energy plans in France (with the French PPE) and in GB.[34] In all considered scenarios, the benefits remain lower than the average costs taking into account capital and operational expenditures and additional losses resulting from a new interconnector.

3.48. The average benefits over the four scenarios are only comparable to half of the costs of a new interconnector. CRE notes that the assumptions and results of this study are still relevant with regard to AQUIND's exemption application as they provide a basis of comparison with AQUIND's analysis.

Schéma Décennal de Développement de Réseau (SDDR) 2019

3.49. Every two years, RTE estimates the investment needs of the French electricity network, considering potential interconnection on a case-by-case basis.

3.50. In the last version of its ten-year network development plan, RTE targets a doubling of the interconnection capacity between France and its neighbouring countries by 2035, to reach 25 GW import capacity and 31 GW export capacity. Regarding the border between France and GB, the study concludes that, in addition to the existing interconnector and the two projects under construction, there could be economic value for up to maximum two additional interconnectors, depending on the scenario considered.

3.51. Therefore, RTE recommends that the projects between France and UK should be considered as a third priority ("paquet 2") and that the uncertainties around the economic profitability of the projects should be removed before engaging new projects. In particular, the estimated SEW for the AQUIND interconnector is lower than its annualised costs in all

[33] Détermination d'une capacité cible d'interconnexion électrique entre la France et le Royaume-Uni: https://www.cre.fr/content/download/21153/269950
[34] Updated Energy and emissions projections 2018: https://www.gov.uk/government/publications/updated-energy-and-emissions-projections-2018

scenarios before 2035. At the 2035 horizon, the benefits are lower than the costs in RTE's central scenario (PPE) and higher than the costs in the two other scenarios (*Ampère* and *Volt*).

Public consultation on TYNDP 2020

3.52. On 6 November 2020, ENTSO-E released a draft version of its bi-yearly pan-European plan for electricity infrastructure development for public consultation, which will close on 4 January 2020. This package links and complements national grid development plans by assessing how power links and storage can be used to make the energy transition happen in a cost-effective and secure way.

3.53. The package also presents the provisional CBA results for the projects considered in the plan. The NRAs note that these are more positive than the TYNDP 2018 results for the AQUIND Interconnector. However, the results have yet to be finalised by ENTSO-E following the outcome of the public consultation. Hence, these provisional results are not considered in this document. However, the NRAs will take note of these and the outcome of the consultation process in reaching a decision on this exemption request.

3.54. The study identifies needs for an additional capacity of 1.4 GW based on a forecasted 4 GW reference grid on the border between France and GB in the NT scenario in 2030 (other scenarios were not modelled). The study also acknowledges that other needs exist, such as improved security of supply, that can be delivered by individual projects.[35]

3.55. Whilst the modelling improved since the last version of the TYNDP, ENTSO-E acknowledges in its power system needs study that the analysis conducted it not fully reflective of the costs associated with internal reinforcement and congestion management that would be required to make the proposed increases in cross-border capacity possible. Moreover, ENTSO-E indicates that the identification of system needs methodology does not consider network losses. As a consequence, CRE notes that this could lead to an overestimation of the need for interconnection.[36]

[35] TYNDP 2020 Main Report: https://eepublicdownloads.blob.core.windows.net/public-cdn-container/tyndp-documents/TYNDP2020/Forconsultation/TYNDP2020_Report_forconsultation.pdf
[36] TYNDP 2020 Power System Needs Study: https://eepublicdownloads.blob.core.windows.net/public-cdn-container/tyndp-documents/IoSN2020/200810_IoSN2020mainreport_beforeconsultation.pdf

Review of commodities assumptions

3.56. AQUIND's scenarios are based on its own estimate of the commodity prices. They can be compared to the forecasts of the TYNDPs, based on ENTSO-E simulations, and to the forecasts of the World Energy Outlook (WEO), a worldwide reference regarding commodity prices. The WEO 2019 presents three scenarios that explore different possible futures:

- the Current Policies (CP) Scenario shows what happens if the world continues along its present path, without any additional changes in policy;
- the Stated Policies Scenario (SP), by contrast, incorporates today's policy intentions and targets;
- the Sustainable Development (SD) Scenario maps out a way to meet sustainable energy goals in full, requiring rapid and widespread changes across all parts of the energy system.

Figure 2 - Commodity prices: AQUIND's analysis vs TYNDP and WEO

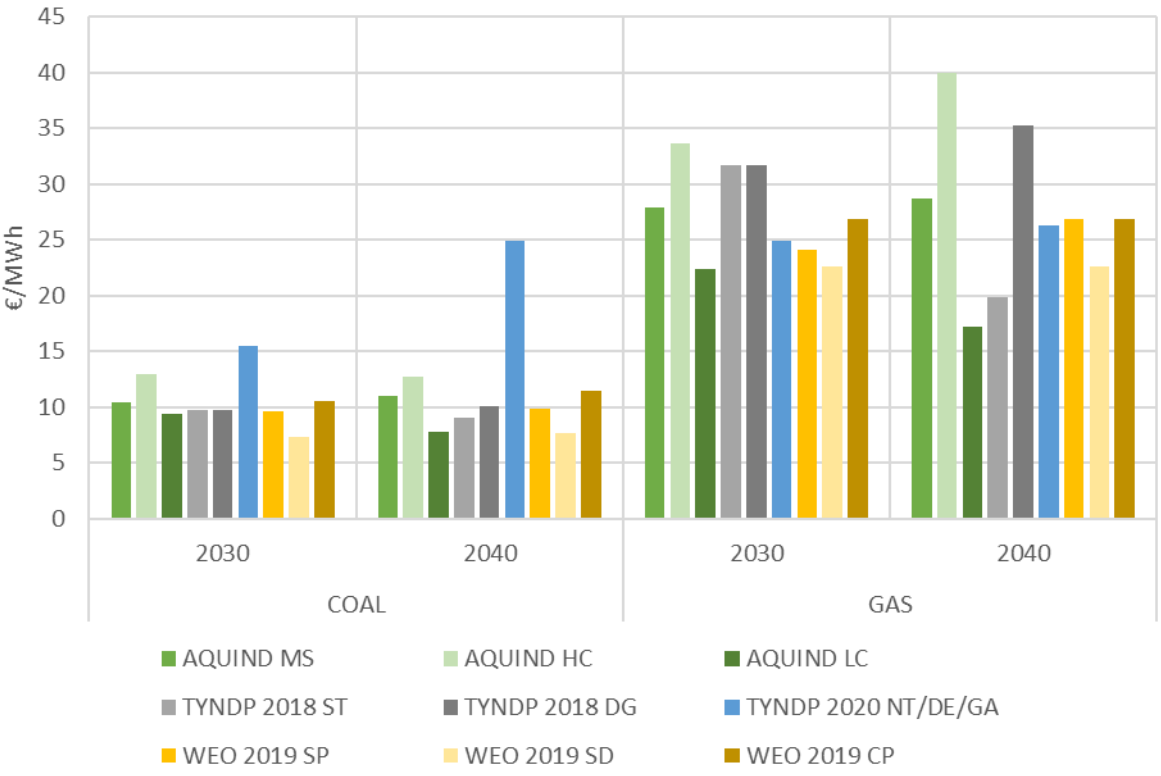
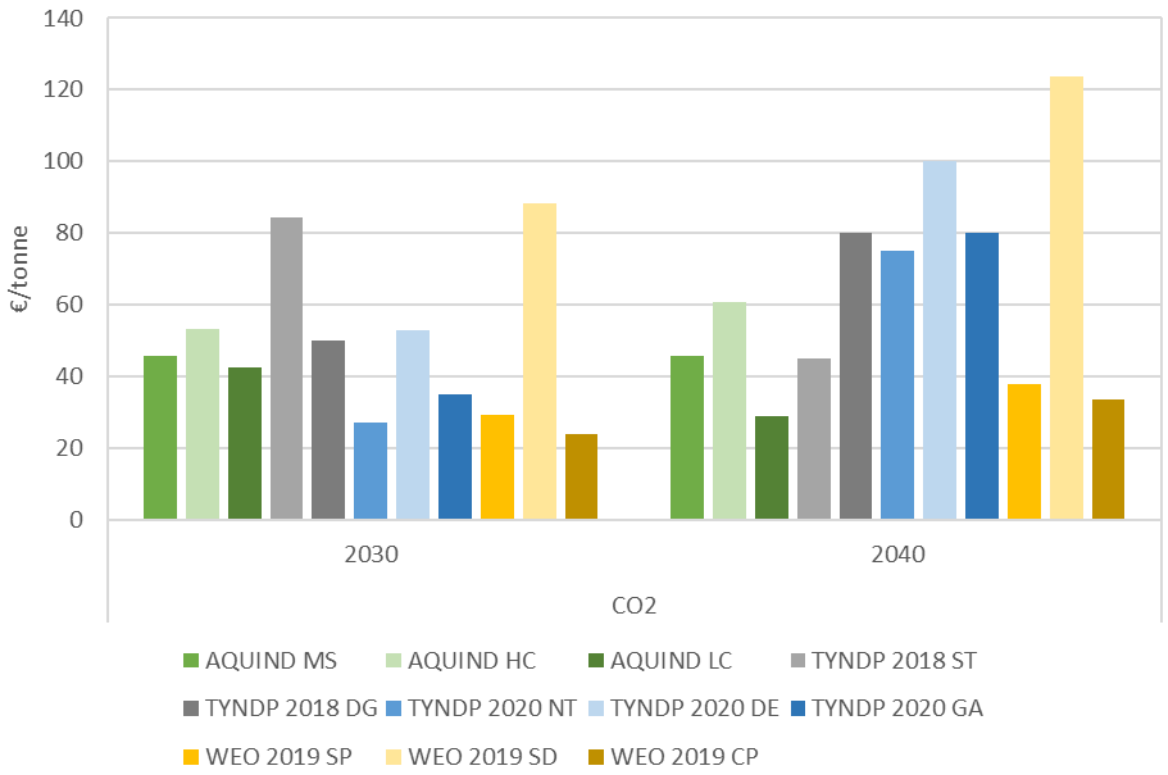


Figure 3 - CO2 prices: Aquind's analysis vs TYNDP and WEO



3.57. With regards to coal and natural gas, AQUIND's assumptions are on the upper end of the forecasts of the other scenarios. This has an impact on the other assumptions and on the profitability of the interconnector. Concerning CO_2 estimates, AQUIND's assumptions cover a relatively conservative range of prices.

3.58. However, this may be explained by the fact that the highest CO_2 price values in TYNDP or in the WEO are not based on market expectations but are set in order to meet a specific objective, independently of market functioning.

3.59. For instance, in the TYNDP 2018, the CO_2 price in the ST scenario was defined in order to ensure electricity generated from gas was cheaper than from coal. In the SD scenario of the WEO, a higher CO_2 price is assumed without considering the market expectations, and it is defined in order to reach the Sustainable Development Goals of the United Nation.

Review of electricity generation assumptions

3.60. The capacity mixes of the different scenarios are built according to the GB and European climate change objectives, which may differ according to the date of construction of the scenarios.

3.61. AQUIND's consultants made capacity changes in the medium-/long-term on the basis of projected profitability: in each scenario, they have determined the rate of return of each asset class and built new projects if they can meet a hurdle rate of return and closed capacity that is unprofitable.

3.62. As a result, some assumptions differ[37] between AQUIND's scenarios and the main scenarios from TYNDP 2018:

- Nuclear capacity in France is higher in AQUIND's Market Scenario than in the TYNDP 2018 by 50% and 20% in 2030 and 2040 respectively. Indeed, since the elaboration of the TYNDP 2018, the energy objectives have changed and the reduction of the share of nuclear generation to 50% has been postponed from 2025 to 2035. Therefore, AQUIND's assumptions are in line with the Government's ambition presented in the last PPE and incorporated in the NT scenario.

- Solar capacity in GB is lower in AQUIND's Market Scenario than in the TYNDP 2018, but slightly higher compared to TYNDP 2020 NT. Solar PV capacity in France is in line with the PPE, which is taken into account in the TYNDP 2020 NT.

- Wind capacity in France is lower in AQUIND's Market Scenario than in both TYNDP 2018 and 2020, thus lower than the last PPE. For what concerns GB, while onshore wind is higher in AQUIND's Scenario than both TYNDPs, offshore wind is significantly lower than the TYNDPs.

- Hydroelectric capacity in France is lower by around 25% in AQUIND's Market Scenario than in the TYNDPs. With respect to Germany, hydroelectric capacity is lower by 70% compared to the TYNDPs.

[37] The comparison focuses on GB, France, Germany and Spain as the core countries in AQUIND's CBA.

Figure 4 - Capacity mix in France: AQUIND's analysis vs TYNDP

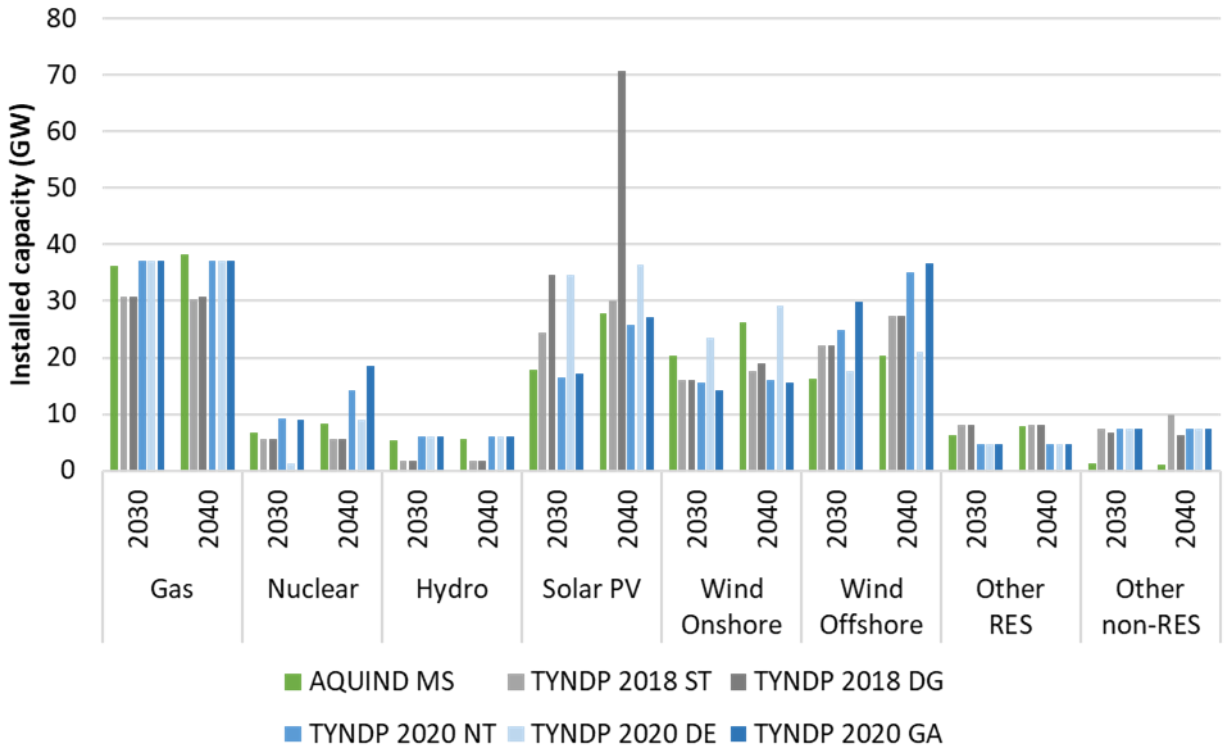
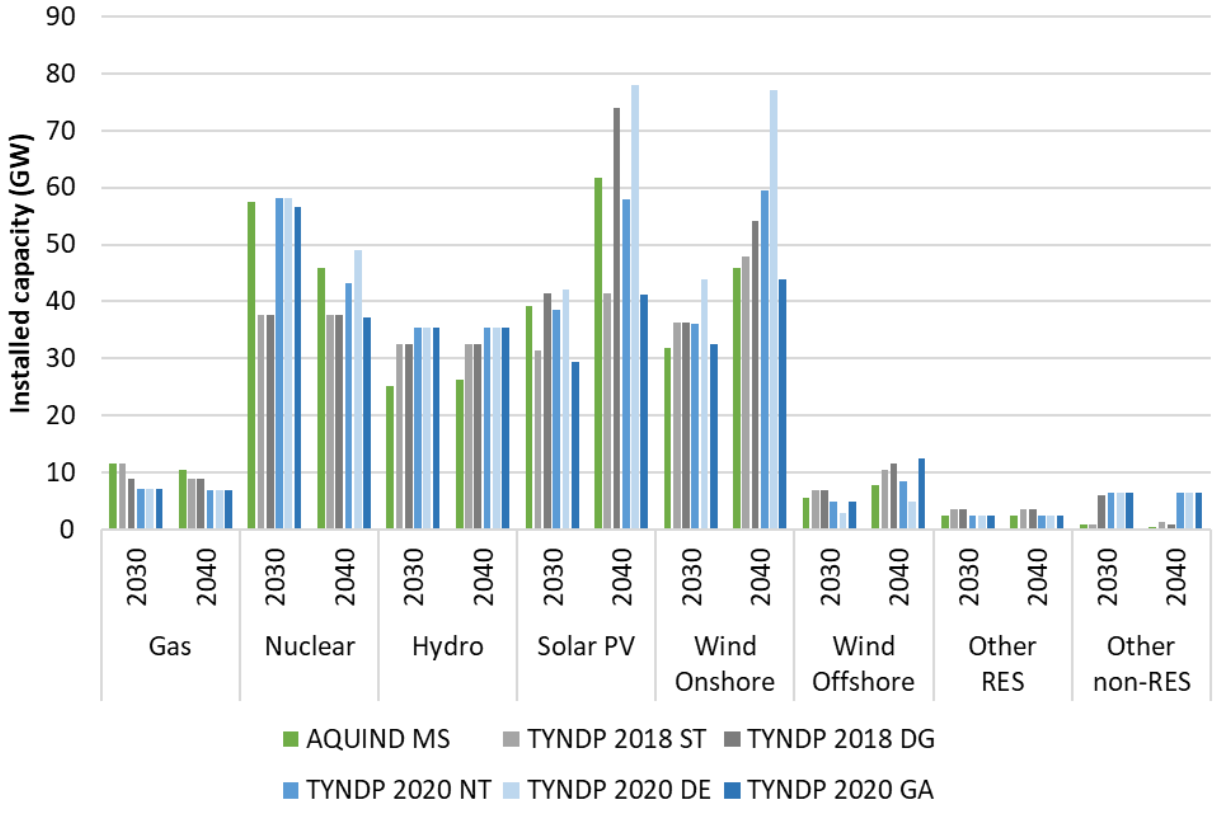


Figure 5 - Capacity mix in GB: AQUIND's analysis vs TYNDP



Review of electricity demand assumptions

3.63. Power demand is forecasted taking into account individual transmission system operator (TSO) expectations for the short- to medium-term and then making projections with respect to the evolution of business as usual, electric vehicle and heat pump demand.

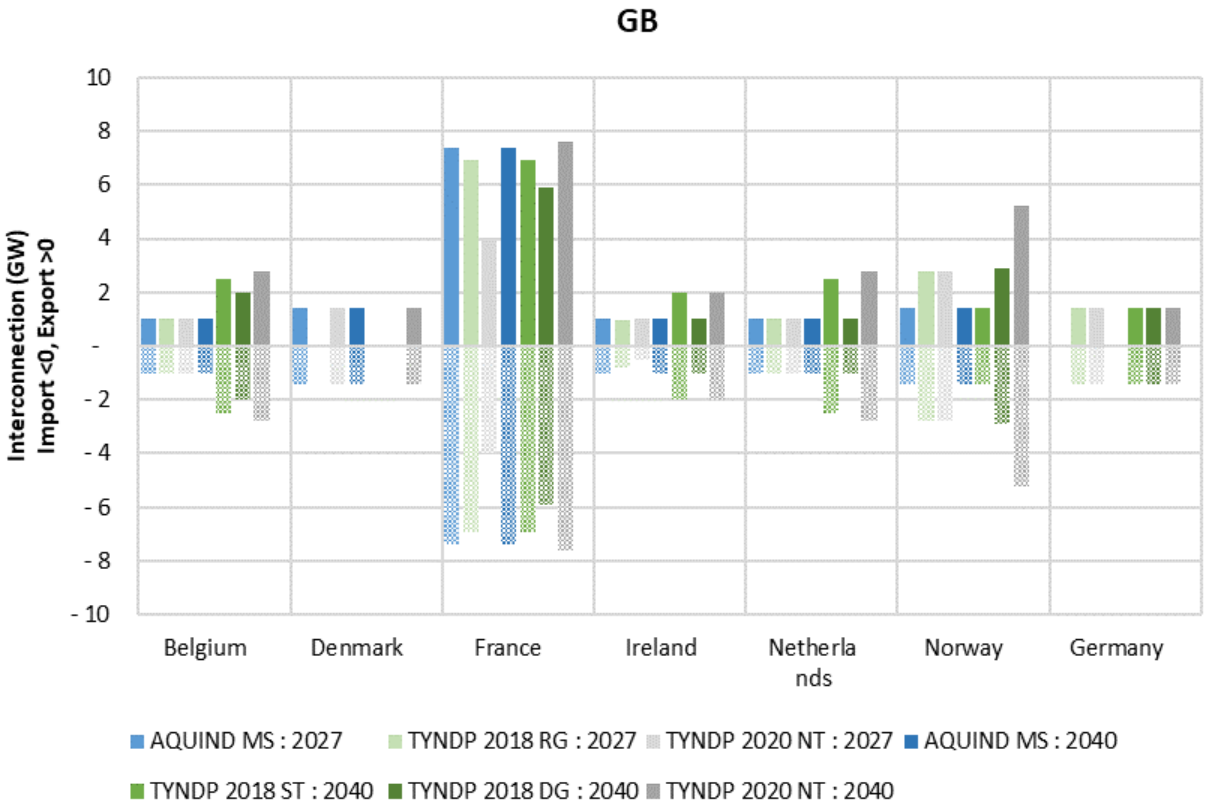
3.64. Generally, the demand modelled by AQUIND's consultants is in the upper range considered in the TYNDP 2018, especially in GB. It is comparable to the latest governmental ambitions in France, but in GB demand is higher by about 11% and 10% in comparison to the NT scenario in 2030 and 2040, respectively.

Review of electricity interconnection assumptions

3.65. AQUIND's consultants have different approaches to model the interconnectors in GB and the interconnectors between other Member States.

3.66. Regarding GB interconnectors, AQUIND's consultants take National Grid's interconnector register as the starting point and apply filters representing AQUIND's expectation of projects' viability. This analysis results in a lower interconnection capacity compared to the TYNDPs, notably on the borders with Belgium, Netherlands, Norway and Germany. In addition, interconnection capacity is kept unchanged in GB between 2027 and 2040. The only projects AQUIND's consultants consider, apart from the existing projects and those under construction, are a new interconnection with France (1.4 GW in 2023), a first interconnection with Denmark (1.4 GW in 2024) and a new interconnection with Ireland (0.5 GW in 2025).

Figure 6 - GB interconnection capacity: AQUIND's analysis vs TYNDP

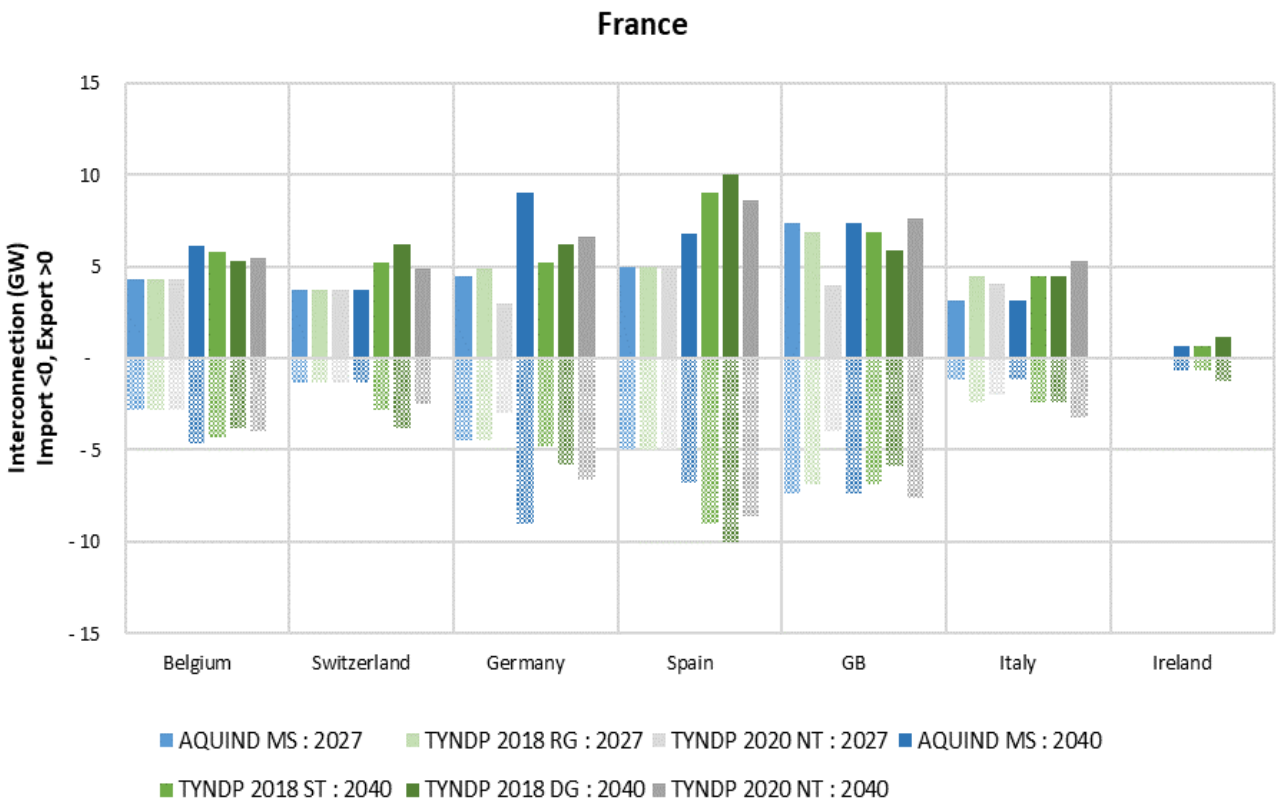


3.67. Regarding the French interconnectors (apart from the ones with GB), AQUIND's consultants use the TYNDP 2018 reference grid (for 2027) as a reference for the short-term and then applies an economic approach based on their estimation of the viability of standard projects.

3.68. This differs from the approach followed to estimate GB interconnection levels as AQUIND's consultants increased capacity on certain borders even though there are no specific project identified in TYNDPs at this stage.

3.69. Additionally, standard costs are considered excluding the need for reinforcement of the national network. As a result, interconnection capacity between France and its neighbours increases significantly between 2027 and 2040. A major discrepancy between AQUIND's assumptions and the TYNDPs is the interconnection capacity with Germany (9 GW in AQUIND's Market scenario, between 5.2 and 6.6 GW in the TYNPDs).

Figure 7 - French interconnector capacity: AQUIND's analysis vs TYNDP

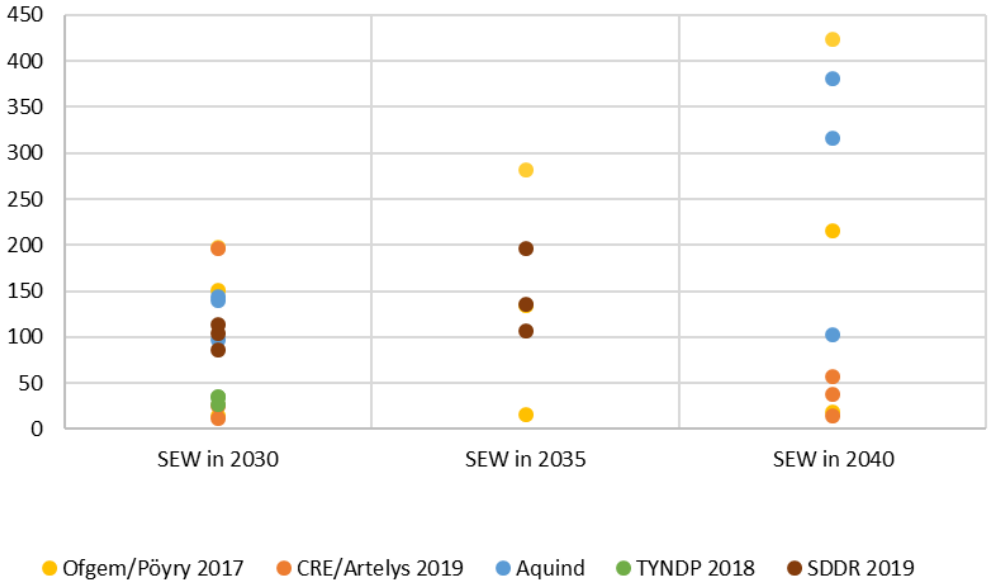


Preliminary analysis of the SEW results

Comparison with other studies

3.70. AQUIND's SEW results for 2030 are on the upper end of the range of benefit of the different studies considered here but are consistent with some scenarios from other studies. Even if there are only few results modelling the year 2040, the results in the Market scenario and the High Commodities/renewables scenario appear much higher than most of the other recent references.

Figure 8 - Range of values of the SEW results across different studies (excluding costs)



Sensitivity analyses

3.71. AQUIND performed several sets of analysis in order to evaluate the extent to which the Net Present Value (NPV) for the project is sensitive to certain assumptions. Given the complexity of the simulations used to estimate the cost of electrical losses and security of supply, these sensitivity analyses focus primarily on the socio-economic welfare.

3.72. The sensitivity analyses carried out by AQUIND's consultants give some indications of the effect of the different assumptions on the final results, summarised in the table below.

Table 5 - SEW (excluding cost) results of AQUIND Interconnector under the different sensitivity analyses (€m)

	Market Scenario	No Scarcity	Low IC	High IC	Brexit
SEW in 2030	140	163 (+16%)	158 (+13%)	112 (-20%)	149 (+6%)
SEW in 2040	316	313 (-1%)	358 (+13%)	201 (-36%)	294 (-7%)

3.73. Without scarcity mark-up, the value of the interconnector remains overall the same, but the repartition of the benefits is more balanced between France and GB.

3.74. By reducing the capacity between France and GB (-1.4 GW), the results are higher than in the Market Scenario. On the other hand, by increasing the capacity between France and GB (+1.4 GW), along with known additional interconnector projects to Norway (+1.4 GW), Germany (+1.4 GW) and Belgium (+1.4 GW), the results are lower than in the Market Scenario.

3.75. The modelling of Brexit by AQUIND's consultants is rather conservative compared to other studies, with a similar estimation of benefits. AQUIND's consultants assume continued reduction in trading efficiency due to the decoupling of British electricity markets from those of its neighbours, modelled by a market inefficiency fee – a cross-border charge that reduces the efficiency of cross-border trading between GB and continental Europe.

3.76. The study that CRE conducted in 2017 suggested that the value of a new interconnector could decrease by 10% to 30%.

3.77. Under a "soft" Brexit, the analysis assumed a lower deployment of renewable energy and a slower economic growth in the UK, leading to a 10% reduction of benefits.

3.78. Under a "hard" Brexit, the previous assumptions were completed by a decoupling of the British electricity markets from those of its neighbours, in parallel to additional investments in the UK to be able to independently guarantee security of supply, leading to a 30% reduction of benefits.

Uncertainties related to COVID

3.79. Following the outbreak of COVID 19, near term commodity prices have fallen to 30-year lows and long term outlook on electricity prices have been revised downwards.

3.80. The pandemic has had major impacts on the energy sector in the short term but also on the medium to long term. It might also have a considerable impact on power demand. Its impact on the total benefits brought by a new interconnector is uncertain. If the commodity prices remain lower than expected in the medium term, it could have an impact on price differentials between France and GB, which in turn would affect the project benefits.

3.81. In addition, the impact of the pandemic could lead to delays in investments in new power plants, so that interconnectors may play a more important role in the security of supply.

Preliminary analysis of the losses assessment

ENTSO-E CBA methodology

3.82. In order to calculate the difference in losses (in units of energy) and the related monetisation attributable to each project, the losses have to be computed in two different simulations with the help of network studies: one with, and one without the project.[38]

3.83. Regarding the geographical area of the model, the minimum requirement should be to use a regional network model. A regional model should include at least the relevant countries/bidding areas for the assessed project, typically the hosting countries, their neighbours, and the countries on which the project has a significant impact in terms of cross border capacity or generation pattern.

3.84. Regarding the relevant period of time, a calculation over the complete year, with sufficiently small time periods (typically one hour), should be aimed at being as closest as possible to reality. The chosen methodology must be representative for the considered period of time (in the TYNDP scenarios this means one complete calendar year).

3.85. Once the losses (i.e. in MWh) are calculated, their costs can be monetised. The approach is based on market prices that are taken from the marginal cost as given by the market simulation. More precisely, for a given project, losses are calculated for each time step of the year, *h*, and each market zone, *i*:

- The amount of losses, $p'_{h,i}$ (with project) and $p_{h,i}$ (without project) in MWh after eventual measures for securing the grid situation; and

- The marginal costs, $s'_{h,i}$ (with project) and $s_{h,i}$ (without project) in €/MWh for a given time step.

3.86. In the CBA 2.0 methodology, the delta cost of losses is calculated as the sum of *h* and *i* of the term $(p'_{h,i} * s'_{h,i}) - (p_{h,i} * s_{h,i})$. In the third version of the ENTSO-E Guideline (CBA 3.0), currently submitted to ACER, the methodology takes into account a double-counting of the

losses with the SEW calculation.[39] Thus, the delta cost of losses[40] is calculated as the sum of *h* and *i* of the term $s'_{h,I} * (p'_{h,i} - p_{h,i})$.

Differences with AQUIND's methodology

3.87. AQUIND has applied the methodology from the third ENTSO-E Guideline but modelled only a restricted group of countries: France, GB, Germany, Belgium and Netherlands.

3.88. AQUIND did a sensitivity analysis, including Spain in the model, and concluded that the variation of the variation of grid losses between the case with and without Spain observed was small (less than 10%) and in the uncertainty range. In comparison, the model used for TYNDP 2018 simulates Europe as a whole.

3.89. Moreover, in AQUIND's approach, an internal grid is only modelled for France and GB, whereas the other countries as considered as a single node. Consequently, AQUIND's model may not be able to capture the impact of the interconnector on the losses in internal networks.

3.90. After applying the ENTSO-E methodology to estimate the variation in grid losses due to the AQUIND Interconnector, a post-processing step was added to better align the estimation of grid losses to the estimation of the SEW by using the flows across AQUIND Interconnector as a proxy for the total system losses generated by AQUIND in GB, France and across Europe.

3.91. As the grid losses and the SEW are the results of two different modelling,[41] the annual flow across the GB-France border in the SEW estimation differ from the annual flow in the losses estimation. AQUIND has lowered the variation of the grid losses by a ratio corresponding to the decrease in annual flow in the SEW estimation (64% for the Market scenario). The NRAs note that although the intent from AQUIND is understandable, this approach may be simplistic.

[39] ENTSO-E acknowledges that the final results for network losses under the TYNDP 2018 were unexpectedly highly impacted for some projects by the difference in granularity of input variables or by projects different sensitivity to climate conditions, and recommends to use the results of losses computation with cautiousness.
[40] Formula for projects using the PINT method (Put IN one at the Time). The formula for TOOT projects (Take Out One at the Time) is $s_{h,I} * (p'_{h,i} - p_{h,i})$.
[41] SEW estimation is based on a market based approach, whereas grid losses estimation is based on a regional network modelling approach.

Comparison of results

3.92. Before taking into account the methodology from third version of the ENTSO-E Guideline (in order to avoid the double-counting effect), the increase of grid losses is estimated at €19 million per year in AQUIND's Market scenario, which is considerably lower than the estimations of TYNDP 2018.

3.93. AQUIND explains this difference by stressing the possible overestimation of the monetisation of the losses of the TYNDP 2018 and the variability of the variation of the grid losses and its monetization regarding different parameters.

3.94. As explained in the previous section, AQUIND's methodology includes important simplifications and differs from the TYNDP's one. Thus, the results are not consistent with the ones from TYNDP 2018 – higher in some scenarios, lower in other, significantly lower on average in 2030.

Table 6 - Increase in grid losses (€m/year)

	TYNDP 2018 scenarios				AQUIND scenarios		
	2025 BE	2030 DG	2030 ST	2030 EUCO	2030 MS	2030 HC	2030 LC
TYNDP 2018 (CBA 2.0)	16	108	22	48			
AQUIND's estimation (CBA 2.0)	60	32	33	3	19	9	42
AQUIND's estimation (project CBA 3.0)	17	25	26	-2	24	22	25
AQUIND's final estimation (post processing)					15	11	17

3.95. The application of the project CBA 3.0 methodology seems relevant to avoid the double-counting effect with the SEW.

3.96. AQUIND's post-processing step highlights the differences between the market-based approach used to compute SEW and the grid model approach used to compute grid losses. Moreover, the use of the flows across AQUIND Interconnector as a proxy for the total system

losses generated by AQUIND in GB, France and across Europe may generate disproportionate results, as the variation in total system losses is not necessarily proportionate to the flows across the AQUIND Interconnector.

Preliminary analysis of the security of supply estimates

3.97. As described in paragraphs 3.14 to 3.17, AQUIND has followed the TYNDP 2018 methodology with regard to the estimation of the adequacy to meet demand.

3.98. CRE notes that this methodology consists mainly of re-adapting the capacity mixes in the different countries in order to comply with the national criteria governing security of supply. Consequently, the savings in fuel costs and the benefits in terms of security of supply are estimated on the basis of different hypotheses, which could lead to consistency issues with national estimates of security of supply. The NRAs also note the limitations of this metholdolgy previously highlighted by ACER.[42]

3.99. The NRAs note that AQUIND's model does not include some of the major neighbours of the two hosting countries (Spain, Italy, Switzerland, Ireland). Interconnectors with these countries contribute significantly to security of supply in France and GB, but no exchanges are taken into account between the countries included and not included in the model. As other countries have a positive effect on the security of supply of the hosting countries, AQUIND's model may not be able to estimate correctly the security of supply provided by the AQUIND Interconnector.

3.100. Due to the methodology differences and the limited geographical scope of the study, the results vary considerably. The NRAs also note that the high value estimated in 2025 has a considerable impact on the CBA, as it is the only value estimated for the year 2025 and as such is used in all other scenarios as a starting point. Indeed, the discounting gives more importance to the short term over the long term.

3.101. In regards to the TYNDP 2018 calculations of SoS, the contribution of the AQUIND Interconnector in reducing energy not served[43] was considered to be zero in all scenarios at

[42] Opinion No 11/2019 Of The Agency For The Cooperation Of Energy Regulators: https://acer.europa.eu/Official_documents/Acts_of_the_Agency/Opinions/Opinions/ACER%20Opinion%2011-2019%20on%20the%20ENTSO-E%20draft%20Ten-Year%20Network%20Development%20Plan%202018.pdf

[43] B6. Security of supply-Adequacy to meet demand indicator.

the 2030 and 2040 timeframes.[44] In AQUIND's modelling, the estimated values appear to be uncertain as they differ significantly compared to the reference TYNDP values.

Table 7 - Estimated security of supply: Aquind's analysis

	2025 BE	2030 DG	2030 ST	2030 EUCO	2030 MS	2030 HC	2030 LC
TYNDP 2018 (MWh/year)	0	0	0	0			
AQUIND's estimation (MWh/year)	6615	501	2539	191	1353	0	5833
AQUIND's estimation (m€/year)	66	5	25	2	14	0	58
AQUIND's final estimation (post processing in m€/year)					9	0	39

3.102. As for the losses calculation, the post-processing step highlights the differences between the market-based approach used to compute SEW and the grid model.

Preliminary analysis of the costs

3.103. With respect to costs, AQUIND included CAPEX, OPEX and development and consenting costs (DEVEX) based on the engagements with potential suppliers. Given that decommissioning is well beyond the time horizon of the regulatory regime and in line with the CBA 2.0 methodology, decommissioning costs are not included in AQUIND's CBA.

3.104. Replacement costs are also not included in AQUIND's CBA. The NRAs note that these are considered to be CAPEX in the CBA 2.0 methodology and should be included in the CBA. However, the NRAs also note that these costs only represent a very small proportion of the total costs of the project.

[44] The NRAs note that in its exemption request, AQUIND's consultants refer to SoS figures taken from a draft version of the TYNDP 2018. These were €15m for BE 2025, €57m ST 2030, €27m DG 2030, and €0m 2030 EUCO.

3.105. The CAPEX and DEVEX costs communicated by AQUIND are estimated at €1426 million. According to AQUIND, the proportion of the project that will be situated in French territory (including onshore and in French territorial waters) is 32%. The rest of the costs are either situated on the British territory (41%), either located in the marine waters between the two territories (27%). The operating and maintenance costs are estimated at €14.2 million per year.

3.106. The congestion costs and network reinforcement have not been monetised by AQUIND although they could be significant. In France, RTE analysis conducted in 2017 shows that the cost of managing constraints caused by AQUIND could be in the region of €20-40m/year. AQUIND considers however that the congestion costs in France may be withdrawn if RTE invests in the network to address the constraints. According to AQUIND, this option would be more cost-effective as it would cost €47 million in network reinforcements (one-off). The NRAs would also consider potential impacts on congestion costs in GB in their final assessment.

Summary of the CBA results

3.107. AQUIND's analysis highlights important benefits in all scenarios in Europe as a whole, and in particular in France. NRAs note that, in comparison, TYNDP 2018 results for SEW and grid losses would result in lower benefit that do not compensate the estimated costs of the project.

3.108. As initial consideration of the project benefits, the NRAs have compared the SEW results from the different studies considered to the costs and other benefits of the project.

Table 8 - Comparison of the different monetised benefits (€m/year)

	AQUIND	TYNDP 2018	CRE/Artelys 2019	SDDR 2019	Ofgem/Pöyry 2017
Annualised costs	-114[45]				
SEW (average of the different scenarios)	175	28	47	118	152
Losses	-14	-59 (average of TYNDP 2018 scenarios)			
Security of supply	16	0 (average of TYNDP 2018 scenarios)			
Total	**62**	**-146**	**-127**	**-55**	**18**
Variation of congestion cost	0	-30 (average of RTE's minimum and maximum)			
Total incl. congestion cost	**62**	**-176**	**-157**	**-85**	**-12**

3.109. These results do not take into account the impact of Brexit, which could reduce the benefits of the project between 5% (AQUIND's estimate) and 30% (CRE's estimate of a "hard Brexit").

[45] The NRAs note that these costs are beared by the developers and by French and GB network users. In GB, if a cap and floor regime is granted to the project, some of the costs indicated could be covered by GB consumers if the project revenues fall below the floor. In France, this risk does not materialise under an exemption. Conversely, part of the SEW results will not benefit the French and GB network users as they will be retained by Aquind to cover the costs and the expected profotability of the project. The total row aggregates the impact of the project on AQUIND and on the European electricity system.

4. Preliminary analysis of the exemption request

Section summary

This section summarises the information presented by AQUIND to demonstrate how its exemption request meets the six exemption conditions laid down in article 63(1) of the Regulation. It also provides the NRAs initial view on it.

4.1. Throughout this section, the NRAs refer to the EC guidance document on new infrastructure exemptions.[46] We recognise this is outdated to some extent but it remains the most recent guidance on the exemption process published by a relevant EU body. As such, the NRAs believe it is still relevant for this of exemption requests and it will be used to inform our analysis as appropriate.

Criterion (a): the investment must enhance competition in electricity supply

4.2. AQUIND considers that the new interconnector will increase (i) traded volumes (liquidity) of electricity (ii) competition in the provision of capacity through the GB and French capacity markets, and (iii) the range of providers of GB-France cross-border capacity.

4.3. AQUIND intends to allocate all capacity on the basis of the prevailing allocation mechanisms and rules. Therefore, AQUIND argues that the increase in cross-border capacity between France and GB will not have any adverse impact on competition in this respect.

4.4. With regards to market concentration, AQUIND has applied two methods of competition analysis to assess the effect of the project on competition: the Herfindahl-Hirschman Index (HHI) and the Residual Supplier Index (RSI).

[46] Commission staff working document on Article 22 of Directive 2003/55/EC concerning common rules for the internal market in natural gas and Article 7 of Regulation (EC) No 1228/2003 on conditions for access to the network for cross-border exchanges in Electricity: https://ec.europa.eu/energy/sites/ener/files/documents/sec_2009-642.pdf

HHI Result

4.5. The HHI measures the concentration of the relevant market at a given point in time by calculating the sum of the squared market shares of all market participants. The HHI analysis can be read as follows:

- an HHI value below 1000 suggests an un-concentrated and highly competitive market;
- an HHI between 1000 and 1800 indicates a moderately concentrated market;
- an HHI above 1800 indicates a highly concentrated market.

4.6. AQUIND estimates average HHI in French generation in 2015 to be 8,131 before export.[47] With the AQUIND interconnector, AQUIND estimates the average HHI to reduce slightly to 8,040. Based on this result, AQUIND concludes that the impact of interconnector flows on total annual French generation is negligible.

4.7. Similarly, AQUIND's analysis concludes that the introduction of an additional interconnector would have a limited impact on GB generation market concentration. The analysis results in a change in the GB HHI from 1,267 to 1,278.

RSI Result

4.8. The RSI analysis focusses on the position of the largest suppliers in both GB and French markets and considers whether AQUIND will increase their influence on market prices.

4.9. AQUIND notes that the allocation of the cross-border capacity of the interconnector could influence the RSI result. Its RSI analysis is therefore conducted under three scenarios, for which varying shares of interconnector capacity are allocated to EDF - the supplier with the highest market share in both markets. Further details are provided in Exhibit 2.

4.10. AQUIND concludes that the impact of the AQUIND Interconnector on market competition in France is minimal for two reasons. Firstly, imports into France do not occur

[47] AQUIND first considers the market concentration in GB and France for 2015 without considering imports and exports. Then, AQUIND introduce a theoretical interconnector, based on the flow profile for 2015 of the IFA interconnector, to evaluate the impact of a new interconnector on market concentration in GB and France.

frequently, as power prices are typically higher in GB. Secondly, EDF's market share is already considerable, hence the impact of the additional interconnector is relatively small.

4.11. The RSI analysis highlights a higher impact of the AQUIND Interconnector on the GB market than in France, given the smaller share of generation capacity currently held by EDF in the UK. The analysis shows that adding 2 GW of interconnection capacity would improve the RSI when EDF is allocated 20% of the interconnector capacity. On the contrary, AQUIND also indicates that if a higher share of the interconnector capacity is allocated to EDF, it would increase EDF's market power in GB.

NRAs' preliminary analysis

4.12. On a general basis, a new interconnection is likely to generate positive effects on competition. In particular, it creates opportunities for economic trade between connected power markets and thus may increase the liquidity of these markets.

4.13. In practice, AQUIND's analyses of the market concentration using HHI and RSI methodologies highlight a marginal effect of additional interconnection capacity on competition. These analyses focus on the markets in GB and France, which the NRAs consider to be the right markets for competition analysis.

4.14. With regard to increased competition in capacity markets, AQUIND only considers the GB Capacity Market, in which the interconnector will broaden the pool of participants. AQUIND does not provide a quantitative analysis to estimate the effect of the interconnector on this market. All this considered, the NRAs initial view is that the AQUIND Interconnector would only have a marginal impact on competition in electricity supply, this impact being likely positive.

Question 5: Do you consider AQUIND's proposed investment enhances competition in electricity supply and therefore meets condition (a)?

Criterion (b): the level of risk attached to the investment is such that the investment would not take place unless an exemption is granted

4.15. The analysis of the satisfaction of this condition is twofold. First, under Article 63, paragraph 1(b) of the Regulation, AQUIND has to demonstrate that the risk attached to the project is such that the investment would not take place unless the exemption is granted.

4.16. The NRAs also note that the scope of the exemption and its duration need to be proportionate to the risk taken by the developers.

4.17. In its exemption request, AQUIND refers to various types of risks which would justify an exemption, namely:

- the revenue uncertainty arising from competing projects, being exposed to market pricing in France and GB, macroeconomic and policy risks (including Brexit) and curtailment risk;
- the construction risk arising from the size and technical complexity of the project;
- the restrictions in French law prohibiting any entity other than RTE from developing, constructing and operating regulated interconnectors.

Level of risk attached to the investment

4.18. AQUIND indicates that the level of risk attached to the AQUIND interconnector is linked to uncertainty around both the costs of the project and the revenues it is expected to generate.

4.19. AQUIND considers the project to be particularly risky due to the offshore construction and operating costs inherent to large infrastructure projects. AQUIND states that the project size and configuration increase its technical complexity, leading to risks of cost overruns.

4.20. With respect to the revenue risk, AQUIND distinguishes different sources of uncertainty:

- AQUIND Interconnector will face direct competition from other projects – on top of the interconnections already commissioned or under construction (IFA, IFA2 and ElecLink), two other projects (FABLink and GridLink) are under consideration, which could reduce

the price differential between GB and France and thus the revenue expectations for AQUIND.

- Market volatility – the three scenarios modelled by AQUIND (Market Scenario, Low Commodities, High Commodities/Renewables) describe different scenarios for the French and GB wholesale electricity markets, indicating uncertainty around arbitrage revenues for AQUIND.

- Macroeconomic and policy risk – government and regulatory decisions (carbon price support, capacity markets, exchanges rates, interest rates, etc.) have a significant impact on the GB, French and wider European wholesale electricity markets, which adds to other unpredictable risks (Covid-19 for example).

- Operation, connection and curtailment risk – between 2024 and 2029, under the terms of its connection offer in GB, the connection will be "non-firm" which means that National Grid may limit AQUIND's available export and import capacity if needed without compensation.

NRA's preliminary analysis

4.21. Usually, new infrastructure investments face two main risks: the risk of non-use of the investment and the risk of a change in costs and/or revenues in the future. Given the liquidity of the power markets in GB and France, the risk of non-use of the investment is relatively marginal. Hence, the NRAs believe the assessment of this exemption request under criterion (b) should focus on the uncertainty regarding costs and revenues.

4.22. In Section 3 of this consultation, a number of studies are considered and show a variety of results, especially in terms of socio-economic welfare. Nonetheless, in all scenarios and sensitivity analyses of AQUIND's CBA, the revenues of the project outweigh the costs.

4.23. Uncertainties related to the consequences of Brexit could be a major factor of risk borne by AQUIND. Indeed, the study that CRE conducted in 2017, as described in paragraphs 3.44 and 3.45, suggested that the value of a new interconnector could decrease by 10% to 30%.

4.24. Nevertheless, even with a 30% decrease of the revenues under AQUIND Market scenario, AQUIND would still be able to cover the costs of the project. The NRAs also note

that in its Brexit sensitivity, AQUIND estimates that the project's revenues would be marginally higher than in the reference "Market Scenario".

4.25. The NRAs note that AQUIND's economic and financial analyses do not demonstrate a considerable risk of a change in costs and/or revenues in the future.

4.26. The NRAs would also note the specific situation of the French-GB border, where other projects are proposed in parallel. This point is also discussed in relation to criterion (f) later in this document.

4.27. The greater risk of the AQUIND Interconnector could be justified by the size and configuration of the project or by the competition of the other projects currently under development, if they go ahead.

4.28. By the time of the decision, the NRAs will also take into account the progress and the maturity of the regulated projects on the border between France and GB in order to assess the risk undertaken by AQUIND and the interactions among them.

4.29. The NRAs note that, as AQUIND acknowledges, some revenue certainty would be achieved on the regulated portion (e.g. through the cap and floor regime in GB)[48] of AQUIND Interconnector under the proposed partial exemption. However, AQUIND may retain some revenue risk as part of its revenues are not regulated.

Question 6: Do you consider that the risk attached to AQUIND's project is such that the investment would not take place unless an exemption is granted and that it therefore meets condition (b) Article 63?

Question 7: In particular, do you consider that the other projects in development on the border between France and GB constitute a significant risk for AQUIND?

Regulatory routes for the project

4.30. AQUIND indicates that an exemption is the only regulatory route currently at its disposal to build and operate the interconnector in France.

[48] Ofgem notes that this is subject to the submission and positive assessment of a valid application under the regime.

4.31. AQUIND was not included in the fourth Union List of Projects of Common Interest (PCIs), published in the Official Journal of the European Union on 11th March 2020.[49] This prevents AQUIND from requesting a regulated regime under the Cross-Border Cost Allocation mechanism described in Article 12 of the TEN-E Regulation, which is reserved exclusively to PCIs.

4.32. Moreover, under French law, no specific regime for the development, construction and operation of interconnectors operated by private investors is provided.

4.33. Therefore, AQUIND considers that there is no alternative route in order for the project to benefit from a regulated regime in France. Consequently, AQUIND states that an exemption is required in order for it to develop and operate the AQUIND Interconnector in France.

4.34. Given the above, AQUIND seeks a partial exemption to allow the project to progress in France. The developers consider the scope of the exemption proportionate in the sense that it covers the French territory only, i.e. onshore and the part of the marine cable route within the French territorial waters, and only in respect of the Use of Revenues.

NRA's preliminary analysis

4.35. Usually, the main risks borne by an interconnection project are the risk of non-use of the investment and the risk of a change in costs and/or revenues in the future. Nevertheless, a risk highlighted by Aquind is the absence of alternative regulatory arrangements provided for under French law given its situation.

4.36. When published, the EC guidance did not anticipate the unavailability of a regulated regime as a risk to be considered in the assessment of criterion (b) of the Regulation. However, in its decision published in June 2018 [50] on the first exemption request for the AQUIND Interconnector, ACER indicates that the assessment of the level of risk borne by AQUIND at that time should have also included an assessment of whether a regulated regime (with financial underpinning) was available.

[49] For further information, please visit : https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ%3AL%3A2020%3A074%3ATOC

[50] Decision Of The Agency For The Cooperation Of Energy Regulators No 05/2018: https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions/ACER%20Decision%2005-2018%20on%20AQUIND.pdf

4.37. That said, the NRAs note that, while the ACER Board of Appeal initially confirmed this decision, that decision by the Board of Appeal was annulled by the CJEU on 18 November 2020. The NRAs acknowledge the potential limitations of the precedent set by ACER's decision of June 2018 and pay due regard to the CJEU's recent judgment. The full text of this judgment can be found on the Court's website.

4.38. In conclusion, the NRAs recognise that AQUIND is not eligible to request a regulated regime under the Article 12 of the TEN-E Regulation as well as the absence of specific regulated market route for private investors in France. The NRAs would have to consider the project's overall risk profile in order to assess the fulfilment of criterion (b).

Question 8: Do you consider that the ineligibility to the Article 12 of the TEN-E Regulation, as well as the absence of a specific regulated market route for private investors under French law, fulfils criterion (b)?

Revenue sharing mechanism

4.39. AQUIND proposes that a profit sharing mechanism is applied in order to ensure that any additional welfare attributable to the exempted part of the project is appropriately distributed between investors and French grid users. AQUIND indicates that the purpose of this mechanism is not to compensate any party for the fact of the existence of AQUIND and should not function as a cap on profits or revenues.

4.40. AQUIND's initial[51] proposal was the following: if the present value of profits related to the Exempt Portion of the Project, discounted at a nominal rate of [confidential], is positive, then 50% of these profits would be transferred from AQUIND to RTE (and hence to French network users).

4.41. In the response to the request for additional information by the NRAs, AQUIND reviewed the different financial parameters of the project and has changed the initial proposition of profit sharing mechanism. AQUIND proposes different variations of profit sharing mechanisms, all based on the assumption that any profit sharing commences only after the initial capital investment of the exempted portion of the project is repaid according

[51] AQUIND's exemption request received on 29 May 2020 by Ofgem and on 2 June 2020 by CRE

to the discounted payback method. However, these mechanisms differ on the basis on which the threshold is calculated based on the following elements:

- total project Internal Rate of Return (IRR) combining the exempted and the regulated portions of the project;
- total project Equity Rate of Return;
- exempted portion IRR; or
- exempted portion Equity Rate of Return.

4.42. AQUIND justifies the parameters of its proposals through comparisons with LNG terminals' regulation and the IFA2 regulatory framework in France. The developers also analyse the expected rate of return in relation to ElecLink and considers that the AQUIND Interconnector is a riskier project for different reasons:

- ElecLink was granted an exemption that provided the right to place long-term capacity contracts in the market, which can provide some financing certainty;
- ElecLink was granted an exemption in a less competitive market.

NRA's preliminary analysis

4.43. In principle, a profit sharing mechanism can be an effective tool to share the risk and the benefits between the project owner and the network users. Such mechanisms were considered in other exemption decisions, in particular for ElecLink. The exemption decision includes a sharing of the revenues on a 50% basis above a threshold based on the project IRR.

4.44. However, according to AQUIND's analysis, the IRR of the exempted portion varies across the different scenarios and sensitivity analyses, but does not reach AQUIND's proposed thresholds. This means that no revenues would be shared with the French grid users in any of the modelled scenarios. AQUIND explains that the range of the scenarios presented to the NRAs as part of the submission represents a credible range of revenue outcomes, all of which are foreseeable and not in any way exceptional.

4.45. Therefore, the NRAs note that the mechanism proposed by AQUIND would share revenues with the French grid users only under particular circumstances, i.e. when revenues are significantly high.

4.46. For what concerns the comparison between AQUIND, with IFA2 and ElecLink, the NRAs note these faced different financing conditions at the time of the regulatory decisions. Regarding the portion of IFA2 owned by RTE, the costs are included in the Regulated Asset Base (RAB) of the operator, the remuneration of which evolves every four years in line with the electricity transmission tariffs. Therefore, the remuneration rate applied to RTE's RAB when RTE decided to invest was 6.125% pre-tax, but this level was not guaranteed for the whole duration of the project. For the next tariff period (TURPE6 – 2021-2024), CRE considers[52] a pre-tax WACC between 4.2% and 4.7%, by taking into account, in particular, the decrease of the interest rates since the IFA2 project was decided.

4.47. ElecLink faces specific uncertainties regarding its costs and permitting process, as it goes through the Channel Tunnel. The risks specific to the Channel Tunnel make the project challenging to develop and operate. These risks are illustrated by the fact that the Intergovernmental Commission (IGC) issued a conditional consent for this project in 2014 and suspended consent in October 2017, in order to properly assess the relevant safety issues. The NRAs note that the consent has been reinstated in December 2020, and the installation of the cable is now permitted.[53]

4.48. On the other hand, the NRAs recognise that Eleclink does not face the risks and uncertainties associated with the development of a submarine cable as envisaged for the AQUIND Interconnector. However, the NRAs also note that other projects between France and GB face the risks and uncertainties associated with the development of submarine cable, while following a regulated route.

4.49. In conclusion, whilst the concept of a revenue sharing mechanism is welcomed, the NRAs note that this has to fairly balance the risk and benefits of the project with the French consumers. CRE's initial view is that it is not the case with the proposed revenue sharing mechanism.

[52] Consultation publique n°2020-015 du 1er octobre 2020 relative au prochain tarif d'utilisation des réseaux publics de transport d'électricité (TURPE 6 HTB) : https://www.cre.fr/Documents/Consultations-publiques/prochain-tarif-d-utilisation-des-reseaux-publics-de-transport-d-electricite-turpe-6-htb

[53] The NRAs also note that this consent is subject to additional conditions being met and a further IGC consent before the project can be commissioned.

Question 9: Are you favourable to the principle of a revenue sharing mechanism? Do you have any views on the parameter of such mechanism, e.g. the IRR threshold?

Criterion (c): the interconnector must be owned by a natural or legal person which is separate at least in terms of its legal form from the system operators in whose systems that interconnector will be built

4.50. In its exemption request, AQUIND confirms that none of its entities (AQUIND SAS and AQUIND Limited) has any affiliation with the national TSOs in either GB or France (National Grid or RTE).

NRA's preliminary analysis

4.51. From the representations made by AQUIND on this matter, it appears clear that AQUIND is a separate legal entity that is independent from the system operators in both GB and France. On the basis of these representations, the NRAs' initial view is that this condition is met.

Question 10: In your opinion, is there any reason to consider that condition (c) is not fulfilled? If so, why?

Criterion (d): charges are levied on users of that interconnector

4.52. All of AQUIND's capacity will be allocated through competitive auctions. Interconnector users will be charged based on the results of the auctions, in line with the prevailing regulations.

NRA's preliminary analysis

4.53. In the guidance on the application of the exemption conditions, the EC outlines this criterion is aimed at ring-fencing non-regulated activities of transmission systems operators if

it is those which operate an exempted infrastructure. Therefore, the NRAs' initial view is that this condition is met.

4.54. NRAs note that other charges may be levied on the network users via the participation to the capacity markets in accordance with the general national regulatory framework. If AQUIND participates to Capacity Markets in GB or France, these charges would be levied on the electricity consumers. However, in this case the project is likely to reduce the cost of capacity contracts to the benefit of the same consumers.

Question 11: In your opinion, is there any reason to consider that condition (d) is not fulfilled? If so, why?

Criterion (e): no part of the capital or operating costs of the interconnector has been recovered from any component of charges made for the use of transmission or distribution systems linked by the interconnector

4.55. According to AQUIND, no part of the capital or operating costs relating to the exempted portion has been recovered from any component of charges made for the use of transmission or distribution systems linked by the interconnector.

NRA's preliminary analysis

4.56. The NRAs note that since this is a new (proposed) investment, no part of the capital costs invested will be recovered from any component of charges made for the use of the transmission or distribution systems linked by the interconnector. Accordingly, the NRAs' initial view is that this condition is met.

Question 12: In your opinion, is there any reason to consider that condition (e) is not fulfilled? If so, why?

Criterion (f): the exemption must not be to the detriment of competition or the effective functioning of the internal market in electricity, or the efficient functioning of the regulated system to which the interconnector is linked

4.57. Criterion (f) consists of a three part tests:

- Test 1: the exemption is not detrimental to competition;
- Test 2: the exemption is not detrimental to the effective functioning of the internal electricity market; and
- Test 3: the exemption is not detrimental to the efficient functioning of the regulated systems to which the interconnector is linked.

Detriment to competition

4.58. As explained under the analysis of criterion (a), AQUIND considers that the project is likely to improve competition in the electricity markets, even though its impact will be rather limited. Moreover, given that AQUIND does not seek an exemption for Third Party Access obligations, they consider that the conditions of the exemption are unlikely to negatively affect competition.

4.59. AQUIND recognises that the investment will reduce the expected revenue for other interconnectors between France and GB, and change revenue expectation of other interconnectors connecting to third countries. They also note that this is an inevitable consequence of price harmonisation across Europe, the latter being one of desired policy goals of the EU.

NRA's preliminary analysis

4.60. Because of the compliance to Third Party Access obligations, the NRAs are minded to believe that the project will probably not be to the detriment of competition in electricity supply. AQUIND would offer all its capacity on a non-discriminatory basis as the other non-exempt interconnectors on the GB-France border.

4.61. In its guidance on the application of the exemption conditions, the EC outlines that condition (f) has similarities with condition (a) regarding competition but that, in this case, the exemption itself should not be to the detriment of the competitive functioning of the

market. In particular, the EC recommends to consider "the repercussions that the exemption may have on other projects, whether regulated, exempted or submitted for exemption".

4.62. The NRAs therefore note that by reducing the price differential between France and GB, a new interconnector will reduce the revenues of the existing interconnectors and those under construction. Moreover, it could also impact the other projects under development which are also at advanced stages of regulatory engagement. The different sensitivity analyses presented by AQUIND highlight that the benefits of some projects connecting GB to continental Europe are competing with the benefits brought by the AQUIND Interconnector.

4.63. The NRAs note that the AQUIND Interconnector is competiting with other projects on the border between France and GB. These projects will be considered together to understand whether or not AQUIND's exemption request is detrimental to competiton.

Question 13: Do you consider that the AQUIND Interconnector is competing with the other projects on the border between France and GB?

Question 14: Do you consider the exemption requested by AQUIND would not be to the detriment of competition and that it therefore meets test 1 of condition (f)?

Effective functioning of the internal market in electricity

4.64. AQUIND considers the project will allow for a more efficient dispatch of generation, thereby contributing to the efficient functioning of the French and GB markets.

NRA's preliminary analysis

4.65. The functioning of the internal market in electricity could be undermined by a new exempted interconnection in case the operator optimises the use only of its own infrastructure, regardless of implications for congestion or production costs in other parts of the network.

4.66. As AQUIND does not seek an exemption from the approval of charging and access rules, the physical use of the interconnector would be integrated with the wider capacity allocation and congestion management methods, which should ensure an effective functioning of the internal market in electricity.

4.67. However, the NRAs note that Brexit may have an impact on the access rules and on the functioning of the electricity market.

4.68. In particular, the EC published a communication[54] in July 2020 on readiness at the end of the transition period between the European Union and the UK, in which it states: "*the United Kingdom will no longer participate in the Union's dedicated platforms. Alternative fall-back solutions will be used instead to trade electricity on interconnectors with Great Britain. These should allow electricity trade to continue, although not with the same level of efficiency as within the Single Market today*".

4.69. Given the above, the NRAs' initial view is that AQUIND would not be detrimental to the functioning of the internal electricity market, although it may be affected by the impact of Brexit on access rules and in terms of coordination.

4.70. Finally, the results of the TYNDP 2018, the SDDR and the study from Artelys of 2019 described in Section 3 suggest that additional interconnection between France and GB may have a negative impact on the overall socio-economic welfare, and therefore the internal electricity market.

Question 15: Do you consider the exemption requested by AQUIND would not be to the detriment of the effective functioning of the internal market in electricity and that it therefore meets test 2 of condition (f)?

Efficient functioning of the regulated systems to which the interconnector is connected

4.71. AQUIND employed an independent technical consultancy to assess the impact of the Interconnector on the continental European transmission system. The study focussed on system stability after an outage in the transmission grid, compliance with network security requirements and voltage levels on the transmission grid as a result of increasing import/export capability between France and GB.

[54] Getting ready for changes - Communication on readiness at the end of the transition period between the European Union and the United Kingdom: https://ec.europa.eu/info/publications/getting-ready-changes-communication-readiness-end-transition-period-between-european-union-and-united-kingdom_en

4.72. The analysis concludes that the introduction of a new interconnector "*between France and Great Britain has no severe negative impact on the continental European transmission system concerning the aspects taken into account in this study. Any problems that might arise could be managed by the design of AQUIND Interconnector and the respective converter stations itself. In particular, the realisation of AQUIND Interconnector would not cause additional investments in the transmission grid (for instance in order to restore the fulfilment of network security requirements)*".

4.73. The cost-benefit analysis provided by AQUIND distinguishes the costs and benefits attributed to AQUIND (CAPEX and OPEX for the costs, congestion rent and capacity mechanism in GB for the revenues) from the other costs and benefits of the project.

Table 9 - Net benefits of the project (AQUIND's analysis)

Aquind	France	GB	Rest of Europe
[confidential]	€ 934 million	-€ 949 million	€ 403 million

4.74. The AQUIND Interconnector could deliver substantially positive total SEW impacts for France, driven by the increase in French wholesale prices benefitting energy generators. On the opposite, French consumers would face a welfare reduction as a result of comparatively higher prices in France and lower prices in GB as a result of AQUIND.

4.75. According to AQUIND's analysis, the project could also deliver significant costs for GB. GB consumers could benefit substantially from overall lower wholesale energy prices. However, this in turn could disadvantage domestic energy generators.

4.76. AQUIND also indicates that the AQUIND Interconnector will allow for a more efficient dispatch of generation, thereby contributing to the efficient functioning of the French and British energy markets. This in turn is expected to help reducing carbon emissions considering the expected increase in renewable generation from both countries. AQUIND also considers that the project could deliver positive impacts on network security and system costs such as reduced need for curtailment of generation and ancillary services.

NRA's preliminary analysis

4.77. The variation of the cost of losses induced by the interconnector is described in Section 3. AQUIND's central view estimates an increase of losses by approximately €14 million/year in France and a decrease of losses by about €10 million/year in GB. As detailed in paragraphs 3.87 to 3.91, AQUIND's estimation of grid losses differs from ENTSOE's results because of the methodology used.

4.78. CRE however notes that, as indicated by previous analysis conducted by RTE, the AQUIND Interconnector could have a negative impact on the regulated systems in France by:

- increasing the costs of redispatching and network reinforcements;
- increasing the cost of grid losses;
- Increasing the cost ancillary services.

4.79. Regarding redispatching costs and network reinforcements, they are reduced by the non-firm connection agreement and the expected reinforcements on the GB side. Nevertheless, as explained in paragraph 3.106, the AQUIND Interconnector could have a significant impact on redispatching costs.

4.80. Regarding ancillary services, CRE notes that, as indicated by previous analysis conducted by RTE, the commissioning of AQUIND would likely require additional reserves in France. Indeed, the need for reserves may be correlated to the exchanges with other countries, as it is notably the case for the automatic Frequency Restoration Reserve (aFRR) in France, according to the current sizing methodology. As the commercial flows may change radically from an hour to the other, the TSOs need reserves to adapt to the demand which evolves more slowly.

4.81. Considering RTE analysis, as well as AQUIND's estimates of network losses in France, the NRAs notes that AQUIND may have a negative impact on French consumers in regards to grid tariffs. This should be compared to the benefits of the project. The NRAs note that the project could deliver substantial benefit to French producers and GB consumers, although that could represent a loss for French consumers and GB producers. Therefore, the NRAs notes the French electricity consumers could face an increase in grid tariffs, as described above, as well as an increase in the power production prices.

4.82. For what concerns the GB regulated systems, Ofgem note that the AQUIND interconnector could also have some impacts. However, further consultation with NGESO will be required to fully understand them.

4.83. The NRAs initial view is that the impact of an interconnector on the regulated systems should be considered as part of the CBA analysis. Excluding AQUIND's costs and revenues, the benefits of the project should be higher than the costs induced on the grid tariffs.

Question 16: Do you consider the exemption requested by AQUIND would not be to the detriment of the efficient functioning of the regulated systems to which the interconnector is connected and that it therefore meets test 3 of condition (f)?

Repartition of AQUIND's revenues

4.84. As AQUIND has not requested an exemption on the GB side, the difference in the regulatory regimes has implications on the risks associated to the project and gives importance to the choice of the ratio according to which revenues are split between France and GB.

4.85. AQUIND justifies the choice of a ratio based on the territorial costs of the project by the economic substance of the project, implying it would be the most efficient way to carry out the investment. AQUIND considers it is within the regulators purview to either agree with that proposal or make a different decision.

4.86. According to AQUIND, the proportion of the project that will be situated in French territory (including onshore and in French territorial waters) is 32%. The rest of the costs are situated on the British territory (41%) and located in the marine waters between the two territories (27%). The costs associated to the French exclusive economic zone – about half of the marine waters between the two territories – are associated to the GB part of the project, in order to limit the exemption to the minimum scope that is necessary to allow the investment to happen.

NRA's preliminary analysis

4.87. AQUIND decided to base this ratio on the territorial costs of the project, instead of more common approaches applied by other interconnectors at the border:

- 50-50 split – French and GB consumers face the same loss in congestion rent; as the repartition of the other costs and benefits that will face the grid users are quite uncertain, it could be a fair repartition of costs and revenues.

- Split based on benefits – The country that would profit the most (and respectively the least) from the interconnection could also have more (and respesctively less) interest in covering the costs of the project.

4.88. Moreover, the French exclusive economic zone falls under French jurisdiction, rather than GB's one. In that respect, the costs associated to the French exclusive economic zone should be considered in the exempted portion of the project. This would lead to a 58-42 split of costs and revenues between GB and France.

4.89. CRE notes that the share of the revenues between GB and France proposed by AQUIND reduces furthermore the risk borne by the developers. The more revenues of the project are covered under the regulatory regime, the higher the minimum level of revenues expected by the interconnector would be. The reduced risk to developers could also result in reducing the threshold of the revenues sharing mechanism.

4.90. Besides, the proposed share of the revenues would have an impact on tax revenues. It could also impact the redistribution of revenues with grid users in France and GB, should they be above the revenue sharing thresholds.

4.91. The basis for taxes calculation is proportionate to the costs and revenues. Considering AQUIND's share of revenues, AQUIND would pay more taxes in GB than in France although the tax rate is lower in GB than in France. CRE notes that this repartition therefore leads to lower benefits in France.

4.92. Given the above, the NRAs note in their initial review that the repartition of costs and revenues between the two hosting countries should be more balanced.

Question 17: Do you consider the scope of the exemption, as requested by AQUIND, to be appropriate and necessary to realise the investment? In particular, do you think the repartition of costs and benefits ensures a fair allocation of the risks and revenues between the users of the French and British networks?

Question 18: In your overall assessment, do you consider AQUIND has met all of the exemption conditions and so should be granted an exemption?

Question 19: Do you have any other remarks on AQUIND's exemption request?

4. Appendices

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Appendix 1 – Summary of the results of AQUIND's cost-benefit analysis

Table 10 - Results of AQUIND's cost-benefit analysis (€m, NPV 2020 @4%)

		Market Scenario	Low Commodities	High Commodities /Renewables
SEW (excluding AQUIND's costs and revenues)	France	934	1,032	72
	GB	-949	-580	-507
	Rest of Europe	403	-635	941
	Total	387	-183	506
Grid Losses	France	-23	-52	-29
	GB	-165	-158	-108
	Total	-188	-210	-137
SoS Adequacy	France	67	163	30
	GB	155	380	70
	Total	222	543	99
Total costs and benefits (excluding AQUIND's costs and revenues)	France	977	1,143	73
	GB	-959	-357	-545
	Rest of Europe	403	-635	941
	Total	421	151	468

Appendix 2 - Range of values of the SEW results across different studies

Table 11 - Range of values of the SEW results across different studies

Study	Scenario	Capacity without AQUIND (GW)	SEW in 2030	SEW in 2035	SEW in 2040	Unit for SEW
AQUIND	Market Scenario	5,4	140		316	€m 2019
AQUIND	High Commodities/ renewables	6,4	144		381	€m 2019
AQUIND	Low Commodities	4	97		103	€m 2019
TYNDP 2018	Sustainable Transition	6,8	35			€m 2017
TYNDP 2018	Distributed Generation	6,8	26			€m 2017
TYNDP 2018	EUCO	6,8	35			€m 2017
CRE/Artelys 2019	Slow Progress	4	11		14	€m 2019
CRE/Artelys 2019	Sustainable Transition	4	25		38	€m 2019
CRE/Artelys 2019	National Plans	4	197		57	€m 2019
SDDR 2019	PPE	5,4	104	106		€m 2019
SDDR 2019	Ampère	5,4	113	196		€m 2019
SDDR 2019	Volt	5,4	86	135		€m 2019
Ofgem/ Pöyry 2017	Base Case (MA)	6,8	151	134	215	€m 2015
Ofgem/ Pöyry 2017	High scenario (MA)	6,8	198	282	423	€m 2015
Ofgem/ Pöyry 2017	Low scenario (MA)	6,8	15	16	18	€m 2015

Appendix 3 – List of consultation questions

Question 1: Do you have any comments on the methodology adopted by AQUIND to estimate the SEW ?

Question 2: Do you have any comments on the assumptions taken by AQUIND regarding commodity prices, capacity mixes, demand or interconnection capacities?

Question 3: Do you have any comment on AQUIND's estimation of grid losses? Do you have any comments on the differences between AQUIND's and ENTSOE's estimation of these costs?

Question 4: Do you have any comment in regards to AQUIND's estimation of SoS? Do you have any comments on the differences between AQUIND's and ENTSOE's estimation of SoS?

Question 5: Do you consider AQUIND's proposed investment enhances competition in electricity supply and therefore meets condition (a)?

Question 6: Do you consider that the risk attached to AQUIND's project is such that the investment would not take place unless an exemption is granted and that it therefore meets condition (b) Article 63?

Question 7: In particular, do you consider that the other projects in development on the border between France and GB constitute a significant risk for AQUIND?

Question 8: Do you consider that the ineligibility to the Article 12 of the TEN-E Regulation, as well as the absence of a specific regulated market route for private investors under French law, satisfies criterion (b)?

Question 9: Are you favourable to the principle of a revenue sharing mechanism? Do you have any views on the parameter of such mechanism, e.g. the IRR threshold?

Question 10: In your opinion, is there any reason to consider that condition (c) is not fulfilled? If so, why?

Question 11: In your opinion, is there any reason to consider that condition (d) is not fulfilled? If so, why?

Question 12: In your opinion, is there any reason to consider that condition (e) is not fulfilled? If so, why?

Question 13: Do you consider that the Aquind Interconnector is competing with the other projects on the border between France and GB?

Question 14: Do you consider the exemption requested by AQUIND would not be to the detriment of competition and that it therefore meets test 1 of condition (f)?

Question 15: Do you consider the exemption requested by AQUIND would not be to the detriment of the effective functioning of the internal market in electricity and that it therefore meets test 2 of condition (f)?

Question 16: Do you consider the exemption requested by AQUIND would not be to the detriment of the efficient functioning of the regulated systems to which the interconnector is connected and that it therefore meets test 3 of condition (f)?

Question 17: Do you consider the scope of the exemption, as requested by AQUIND, to be appropriate and necessary to realise the investment? In particular, do you think the repartition of costs and benefits ensures a fair allocation of the risks and revenues between the users of the French and British networks?

Question 18: In your overall assessment, do you consider AQUIND has met all of the exemption conditions and so should be granted an exemption?

Question 19: Do you have any other remarks on AQUIND's exemption request?

Appendix 4 – List of documents published alongside this consultation

Document	Name of the document
1	Request for Exemption - Executive Summary and Document Summary
2	Section 3 - AQUIND benefits
3	Section 4 - Project description
4	Section 5 - Exemption request and rationale
5	Section 6 - Exemption criteria
6	Exhibit 1 - AQUIND revenue and social welfare analysis
7	Exhibit 2 - AQUIND competition analysis
8	Exhibit 6 - CION and CION information note
9	Exhibit 10 - Consentec report
10	Exhibit 13 - Summary of local taxation in France
11	Exhibit 14 - Tractebel report
12	AQUIND French network cost summary
13	AQUIND French network losses summary
14	AQUIND response to NRA additional information request
15	Commentaires du rapport Artelys - English version