

DECISION No 12/2022
OF THE EUROPEAN UNION AGENCY
FOR THE COOPERATION OF ENERGY REGULATORS

of 14 September 2022

concerning risk hedging opportunities
on the bidding zone borders between Finland and Sweden

THE EUROPEAN UNION AGENCY FOR THE COOPERATION OF ENERGY REGULATORS,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) 2019/942 of the European Parliament and of the Council of 5 June 2019 establishing a European Union Agency for the Cooperation of Energy Regulators¹, and, in particular, Article 6(10), second subparagraph, point (b) thereof,

Having regard to Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation², and, in particular, Article 30(5) thereof,

Having regard to the outcome of the consultation with the regulatory authorities and transmission system operators concerned,

Having regard to the outcome of the consultation with ACER's Electricity Working Group ('AEWG'),

Having regard to the favourable opinion of the Board of Regulators of 7 September 2022, delivered pursuant to Article 22(5)(a) of Regulation (EU) 2019/942,

Whereas:

¹ OJ L 158, 14.6.2019, p. 22.

² OJ L 259, 27.9.2016, p. 42.

1. INTRODUCTION

- (1) Commission Regulation (EU) 2016/1719 (the ‘FCA Regulation’) lays down detailed rules on cross-zonal capacity allocation in the forward markets. One of the key objectives of the Regulation, specified in its Article 3, is the promotion of effective long-term cross-zonal trade with long-term cross-zonal hedging opportunities for market participants.
- (2) According to Article 30(1) of the FCA Regulation, the transmission system operators (TSOs) shall issue long-term transmission rights (‘LTTRs’) on a given bidding zone border unless the competent regulatory authorities of the bidding zone border have adopted coordinated decisions not to issue long-term transmission rights on that border. The decisions of the regulatory authorities shall be based on an assessment as to whether the electricity forward market provide sufficient hedging opportunities in the concerned bidding zones. This assessment shall be carried out in a coordinated manner by the competent regulatory authorities of the bidding zone border in accordance with Article 30, paragraphs (3) to (5), of the FCA Regulation.
- (3) According to Article 30(5) of the FCA Regulation, in case insufficient cross-zonal risk hedging opportunities are identified in one or more bidding zones, the competent regulatory authorities of the bidding zone border shall request the relevant transmission system operators (‘TSOs’):
 - (a) to issue LTTRs; or
 - (b) to make sure that other long-term cross-zonal hedging products are made available to support the functioning of wholesale electricity markets.
- (4) By emails of 3 and 11 March 2022, the regulatory authority of Sweden, Energimarknadsinspektionen (Ei) and the regulatory authority of Finland, Energiavirasto (EV) respectively informed ACER that they were not able to adopt coordinated decisions pursuant to Article 30(5) of the FCA Regulation to address insufficient hedging opportunities identified in the Finnish bidding zone. Therefore, the regulatory authorities have jointly requested ACER to adopt a decision either under point (a) or point (b) of Article 30(5) with respect to the relevant bidding zone borders between the two countries (FI-SE1 and FI-SE3).
- (5) This Decision is issued following the above joint request of the regulatory authorities, and is structured as follows:

Section 2	Procedure describes the key steps leading to this Decision, including ACER’s engagement with the concerned regulatory authorities and the TSOs.
Section 3	ACER’s competence to adopt a decision sets out the legal basis for this Decision

Section 4	Summary of the joint request of the regulatory authorities lists the documents submitted to ACER as part of the request
Section 5	Summary of the observations received by ACER outlines the key positions and arguments expressed by the regulatory authorities and the TSOs concerned
Section 6	ACER's assessment sets out ACER's assessment of different options available and provides reasoning for ACER's decision in light of comments from the parties concerned and market participants
Section 7	Conclusion summarises ACER's assessment and decision
Annex I	Evaluation of responses provides a summary of responses to ACER's public consultation and ACER's replies to stakeholders' comments

2. PROCEDURE

2.1. Proceedings before regulatory authorities

- (6) In line with Article 30(8) of the FCA Regulation, the Swedish and Finnish regulatory authorities have conducted assessments on whether the electricity forward market provides sufficient hedging opportunities in the concerned bidding zones.

2.2. Proceedings before ACER

- (7) On 3 March 2022, Ei submitted to ACER its referral letter with supporting documents, requesting (jointly with EV) that ACER takes a decision on the matter.
- (8) On 11 March 2022, EV submitted to ACER its referral letter with supporting documents, requesting (jointly with Ei) that ACER takes a decision on the matter.
- (9) On 14 March 2022, ACER notified the concerned regulatory authorities and TSOs (collectively 'parties' or 'parties concerned') of the initiation of the decision-making procedure.
- (10) On 5 April 2022, ACER launched a public consultation of four weeks to gather stakeholders' views.
- (11) On 11 April 2022, ACER organised a public workshop to address any questions from stakeholders in relation to the public consultation.

- (12) In parallel, ACER held regular meetings with the concerned regulatory authorities and the TSOs to further explore the matter and understand the position of each party. In particular, the following meetings took place:
- 21 March 2022 videoconference with all TSOs and regulatory authorities of Finland and Sweden
 - 28 March 2022 videoconference with all TSOs and regulatory authorities of Finland and Sweden
 - 1 April 2022 videoconference with all TSOs and regulatory authorities of Finland and Sweden
 - 12 May 2022 videoconference with all TSOs and regulatory authorities of Finland and Sweden
- (13) On 27 May 2022, ACER notified the parties of its preliminary position, setting a time limit for providing views in writing. The parties provided their views by 7 June 2022. These views are summarised in section 5.
- (14) On 10 June 2022, ACER held an oral hearing with Fingrid upon their request.
- (15) On 15 June 2022, ACER shared the parties' written views with the other parties, and asked all parties to respond to ACER's additional questions by 26 June 2022, extended to 28 June 2022 upon reasoned request from SvK. The parties responded to ACER's questions within the required time period.
- (16) On 5 July 2022, ACER shared the additional input received with the other parties for their information, allowing to submit any eventual comments by 8 July 2022.
- (17) On 11 July 2022, ACER notified the parties of the closure of the written and oral procedure.
- (18) On 25 July 2022, the draft Decision was submitted to the AEWG for consultation. The consultation period was launched via email on 28 July 2022 and lasted until 3 July 2022. In its advice of 4 July 2022, the AEWG broadly endorsed the draft Decision and invited ACER to take note of the comments raised by the regulatory authorities during the consultation phase, noting, however, that the room for a compromise solution is quite limited. In its advice, the AEWG emphasised the importance of fast implementation which should be further supported, and that discussions on the forward market design should not be anticipated with this Decision. ACER confirms that this Decision aims to find a timely solution to a local hedging problem at the FI-SE bidding zone borders and is without prejudice to the development of policy options considered in discussions about the future EU electricity forward market design. With that in mind, ACER responds to the comments of the regulatory authorities in section 5.3.
- (19) On 7 September 2022, ACER's Board of Regulators issued a favourable opinion pursuant to Article 22(5)(a) of Regulation (EU) 2019/942.

3. ACER'S COMPETENCE TO ADOPT A DECISION

- (20) Pursuant to Article 6(10), first subparagraph, point (b) of Regulation (EU) 2019/942, ACER shall be competent to adopt an individual decision on regulatory issues having effects on cross-border trade or cross-border system security which require a joint decision by at least two regulatory authorities, where such competences have been conferred on the regulatory authorities under network codes and guidelines adopted before 4 July 2019.
- (21) Pursuant to Article 6(10), second subparagraph, point (b), of Regulation (EU) 2019/942, ACER shall be competent to adopt a decision on the basis of a joint request from the competent regulatory authorities.
- (22) Article 30 of the FCA Regulation, which is a guideline adopted before 4 July 2019, requires the competent regulatory authorities of a bidding zone border to carry out regular assessments of risk hedging opportunities in their relevant bidding zones. In case their assessment shows that these opportunities are insufficient in one or more bidding zones, Article 30(5) of the FCA Regulation requires the competent regulatory authorities to request the relevant TSOs either (a) to issue long-term transmission rights, or (b) to make sure that other long-term cross-zonal hedging products are made available to support the functioning of wholesale electricity markets. In case two regulatory authorities are competent with respect to a given bidding zone border, requesting the TSOs under Article 30(5) would require a joint decision by at least two regulatory authorities on a regulatory issue affecting cross-border trade, in the meaning of the first subparagraph of Article 6(10) of Regulation (EU) 2019/942.
- (23) Ei and EV are the competent regulatory authorities of the bidding zone borders between Sweden and Finland (FI-SE1 and FI-SE3). Over the course of 2020 and 2021, each regulatory authority performed an assessment of risk hedging opportunities, including a consultation with market participants, in line with Article 30, paragraphs (3) to (5), of the FCA Regulation. Ei assessed all the Swedish bidding zones (including SE1 and SE3), concluding that the risk hedging opportunities are sufficient in all the assessed zones. EV assessed the Finnish bidding zone and identified insufficient hedging opportunities. In 2021, in view of the results for the Finnish bidding zone, EV and Ei engaged in discussions in order to take coordinated decisions under Article 30(5) of the FCA Regulation.
- (24) On 3 and 11 March 2022, Ei and EV respectively informed ACER that they were not able to adopt coordinated decisions pursuant to Article 30(5) of the FCA Regulation, and, in line with Article 6(10), second subparagraph, point (b), of Regulation (EU) 2019/942, jointly requested ACER to adopt a decision.
- (25) Considering the above, ACER is competent to adopt a decision on this matter based on Article 6(10), second subparagraph, point (b), of Regulation (EU) 2019/942 in joint reading with Article 30(5) of the FCA Regulation.

4. SUMMARY OF THE JOINT REQUEST OF THE REGULATORY AUTHORITIES

- (26) The joint request of the regulatory authorities submitted to ACER includes:
- (27) a referral letter from Ei³ submitted by email on 3 March 2022, with the following supporting documents:
- [Ei's assessment](#)
 - Responses to Ei's consultation
 - [Methodology for assessment of the Nordic forward market](#) (NordREG)
 - [Ei's 2017 decision](#) not to issue LTTRs on the FI-SE1 bidding zone border
 - [Ei's 2017 decision](#) not to issue LTTRs on the FI-SE3 bidding zone border
- (28) a referral letter from EV⁴, submitted by email on 11 March 2022, with the following supporting documents:
- [EV's assessment](#)
 - Responses to EV's consultation
- (29) As stated in Ei's referral letter, Ei concluded that the hedging opportunities for SE1 and SE3 are still sufficient. While, according to the investigation there is room for improvement, market participants in SE1 and SE3 are still able to hedge.
- (30) As reported by Ei, with respect to possible improvement, market participants in the consultation supported strengthening the current hedging system with system price contracts and EPAD. In addition, Ei have procured a consultancy report in December 2021 to further evaluate the pros and cons of introducing new or different hedging instruments in Sweden. This assessment has been shared with ACER on 23 March 2022 and was published on Ei's website⁵.
- (31) As stated in EV's referral letter, both the market data analysed by EV as well as the issues raised by market participants in its consultation led EV to conclude that the markets could no longer be deemed to offer sufficient hedging opportunities for the market participants.

³ https://acer.europa.eu/Official_documents/Public_consultations/PC_2022_E_01/20220303_referral_letter_Ei-FCA%2030.5.pdf

⁴ https://acer.europa.eu/Official_documents/Public_consultations/PC_2022_E_01/20220311_referral_letter_EV-FCA%2030.5.pdf

⁵ <https://ei.se/download/18.1e1327417f44b6fd6c1b4a6/1648030703084/FCA-Konsultrapport-Measures-to-improve-hedging-opportunities-on-the-electricity-market-in-Sweden.pdf>

5. SUMMARY OF THE OBSERVATIONS RECEIVED BY ACER

5.1. Responses to the public consultation

- (32) Responses to ACER's public consultation are summarised in Annex I. All non-confidential responses are published on ACER's consultation page.⁶

5.2. Responses to ACER's preliminary position

- (33) In its preliminary position, ACER set out its concerns that introducing LTTRs on the FI-SE bidding zone borders would involve risks of serious detrimental effects on the existing hedging opportunities in the Finnish bidding zone and the Nordic market. In order to avoid these risks, ACER proposed that the TSOs instead ensure that other long-term cross-zonal hedging opportunities are available to support the functioning of wholesale electricity market. In this respect, ACER evaluated two possible alternative solutions aimed to support the already established hedging products in the Nordic forward market, i.e. the Electricity Price Area Differentials (EPADs): the coupling of EPADs or the TSOs' support of a market maker function. Out of the two possible solutions, ACER proposed to further explore the EPAD coupling which, in ACER's view, would be more effective in improving insufficient hedging opportunities and also in promoting the objectives of the FCA Regulation.
- (34) This section summarises⁷ the views of the concerned TSOs and regulatory authorities consulted on ACER's preliminary position. Where appropriate, references are provided to the relevant sections or recitals where these views are addressed by ACER in its assessment.

5.2.1. Fingrid's views

- (35) Fingrid's preference was to issue LTTRs on the FI-SE bidding zone borders. In this respect, Fingrid did not share ACER's concerns regarding possible negative impacts of LTTRs on EPAD market liquidity (Recital (94) et seq.)
- (36) Fingrid raised the following concerns with respect to the EPAD-related solutions:
- (a) Supporting existing EPADs would reduce incentives for developing innovative solutions such as new system reference prices and/or alternative hedging products in the Nordic forward market (Recitals ((133))-((134))).

⁶https://extranet.acer.europa.eu/Official_documents/Public_consultations/Pages/PC_2022_E_01.aspx

⁷ This section provides only a list of key concerns from the parties and not to be considered a complete representation of the comments received.

- (b) LTTR have an established legal framework which is quick to implement. Implementation of LTTRs is expected to be shorter compared to non-tested measures, such as the EPAD-related solutions (Recitals (203)-(204))
 - (c) EPAD coupling is not supported by the Finnish market participants. In particular, two large associations (Finnish Energy and the Association of Energy Users in Finland) support LTTRs (Recitals (135)-(136))
 - (d) Fingrid raised a number of concerns with respect to potential costs of an EPAD-related solution, their sharing and recovery (Recitals (139)-(145))
- (37) Fingrid referred to its views set out in its response to ACER's public consultation. ACER responds to these views in Annex I.
- (38) Fingrid also strongly supported EV's views listed below.

5.2.2. EV's views

- (39) EV supported issuing LTTRs on the FI-SE bidding zone borders. EV considered that LTTRs would be most effective because they would address the root cause of the problem, are most feasible to implement as they are already legally established and can be introduced with minimum lead time. EV was concerned about the implementation timeline and the feasibility of EPAD-related solutions, both from practical and legal side.
- (40) EV raised the following concerns regarding ACER's preliminary position:

- (a) It was not clear for EV how ACER's reasoning with respect to the Nordic electricity forward market is relevant to the Finnish bidding zone.

ACER clarifies this in Section 6.2 where some elements are equally relevant for the Finnish bidding zone as for the rest of the Nordic electricity forward market, while others are specifically addressing the Finnish bidding zone (e.g. see Recitals (76)).

- (b) EV emphasised the need for an appropriate assessment. According to EV, ACER's preliminary position did not identify the root causes of the problem and justify the choice of intervention by addressing the specific concerns. In EV's view, ACER should specify the expected impacts of the proposed solutions and duly consider their feasibility and expected implementation timeline.

ACER has provided additional explanations and a further assessment of the proposed solutions (see, in particular, section 6.5).

- (c) EV asked ACER to specify if and how FI-SE borders differ, in the legal and practical sense, from the rest of the Europe and to explain what are the obstacles for integrating Nordic markets with the rest of Europe.

ACER has provided additional explanations in Recitals (67)-(72) and (109)-(110).

- (d) EV did not share ACER's concerns regarding possible negative impacts of LTTRs on EPAD market liquidity. EV asked ACER to explain whether and how liquidity of existing products would be reduced by the introduction of LTTRs, and which metrics (e.g. bid-spread) ACER is considering to be affected and why.

While the impact on liquidity refers to all relevant metrics related to it (e.g. see Recital (61)(b)), ACER has provided additional explanations on the risks of negative impacts in Section 6.3.2.3.

- (e) According to EV, LTTRs would increase competition (rather than create parallel markets) and this would decrease spreads which would be a sign of increased liquidity. See section 6.2.3.
- (f) Similarly to Fingrid, EV highlighted that the Finnish stakeholders were in favour of LTTRs. See Recitals (135)-(136) and Annex I.
- (g) EV was concerned that the EPAD-related solutions would leave uncertainty as to how and when the problem is remedied. EV notes that ACER has not provided any framework for these solutions which would allow the TSOs to comply with ACER decision.

ACER responds to these concerns in sections 6.4.2 and 6.4.3 by further describing the expected functioning of the potential solutions and addresses the relevant approval and implementation of these in Recitals (200)-(202).

5.2.3. SvK's views

- (41) SvK supported ACER's preliminary position and provided further clarifications in support of ACER's preliminary position:
 - (a) SvK stated that any supportive measure should support the functioning of the market and provide additional hedging opportunities, and that this could be achieved by auctioning of EPADs (i.e. EPAD coupling). In SvK's view, LTTRs alone cannot be used as a hedge against the day-ahead price volatility and would not be provided continuously (see in this respect ACER's comments in Recital (88) and section 6.5).
 - (c) SvK shared ACER's concerns regarding the risk of splitting liquidity with parallel markets (see section 6.2.3).
 - (d) SvK emphasised the importance of currently existing competition among trading venues but did not see how LTTRs could promote such competition as claimed from some stakeholders.
 - (e) SvK acknowledged that costs for EPAD solutions are uncertain and may be higher or lower than the costs for providing LTTRs (see Recital (141)).

- (f) Regarding concerns shared by some stakeholder as to compliance of EPAD-related solutions with competition law, SvK clarified that already today EPADs are not exclusively traded on NASDAQ. SvK noted that if more efficient products evolve, the TSOs can amend their support. See Recital (73).
 - (g) SvK considered that supporting the existing EPAD market provides an appropriate alternative measure for the TSOs to explore. In SvK's view auctioning of EPADs is the most efficient measure and achieves the objectives of the FCA Regulation in the Swedish/Nordic context. At the same time, SvK acknowledges the market maker function too.
- (42) SvK informed that it is planning to put in place a pilot on selected BZB within Sweden to test the feasibility of a model based on auctioning of EPADs.

5.2.4. Ei's views

- (43) Ei supported ACER's preliminary position and provided further clarifications:
- (a) Ei shared concerns regarding the risk of splitting liquidity with parallel markets. See section 6.2.3.
 - (b) Ei shared considerations regarding different approaches towards hedging, related to possible amendments in the system price calculation. Ei was of the view that FTR options are less useful for fundamental hedging than FTR obligations. See section 6.2.1.
 - (c) Ei shared its understanding about the existing standard products being traded in a competitive setting (i.e. exchanges or OTC). See Recital (73).
 - (d) Ei agreed with ACER that coupling of EPADs would be more effective in promoting the objectives of the FCA regulation than the market maker function in providing hedging opportunities.
 - (e) Ei considered that the EPAD-related solutions could build on the existing methodologies and the FCA Regulation
 - (f) Ei noted that the Swedish market participants prefer strengthening the current hedging system with system price contracts and EPADs, over LTTRs. See Annex I.
 - (g) Ei noted that the EPAD-related solution has never been tested before but Ei's consultancy report shows it is possible for the TSOs to support the market. In Ei's view, it is vital to take the opportunity to develop such solution.
- (44) Ei stated that they support market-base solutions and consider intervention as the last resort in case of market failure.

5.3. Comments of the regulatory authorities submitted to the AEWG

- (45) Three regulatory authorities, namely EV, Ei and the German regulatory authority (BNetzA), submitted comments during the AEWG consultation phase.

5.3.1. BNetzA's views

- (46) BNetzA recommended to issue LTTRs on the FI-SE bidding zone borders at least as a transitional measure. BNetzA noted that the proposed forward coupling with CfDs/EPADs is one of the options considered for further development of the EU Electricity forward market, which will be subject to legislative procedures at EU level. In BNetzA's view, no solutions of this kind should be proposed for the SE-FI bidding zone borders prior to the conclusion of these legislative procedures. ACER notes that this Decision, which is addressed only to the Finnish and Swedish TSOs, has a local impact in that it aims to address insufficient hedging opportunities at the FI-SE bidding zone borders. In line with the AEWG's advice, ACER confirms that this Decision is without prejudice to the discussions on the future development of the EU electricity forward market and the resulting legislative proposals.

5.3.2. EV's views

- (47) EV questioned the relevance of ACER's assessment of LTTRs' expected impacts on liquidity in the Nordic market (Recitals (95)-(96)) as it is based on data and experience from Continental Europe. As noted in Recital (97), there is no empirical evidence demonstrating LTTRs' impacts in the Nordic market. To assess these impacts, ACER therefore referred to the closest comparable market with LTTRs where such evidence is available. While there are differences between the two markets (see Section 6.2), they would not affect the expected impacts related to the shift of liquidity between the bidding zones as described in Recital (96). Based on the evidence from Continental Europe, ACER understands that LTTRs on the SE-FI borders may result in a shift of liquidity away from the Finnish bidding zone. ACER is not aware of any quantitative or qualitative evidence that this risk would not materialise in the Finnish bidding zone. The risk of parallel markets (addressed in Recital (97)) is a different risk impacting liquidity, which is of specific relevance for the Nordic electricity forward market considering potential difficulties of combining the standard Nordic electricity forward products with LTTRs. Due to the different characteristics between standard electricity forward products in the Nordic market compared to Continental Europe and the lack of experience with LTTRs within the Nordic electricity forward market, ACER agrees that there is limited empirical evidence regarding this specific risk.
- (48) EV also questioned the logic behind ACER's concern that LTTRs may cause a shift in liquidity from Finnish to Swedish EPADs beyond addressing the problem of supply/demand asymmetry. In EV's view, a possible shift of demand for EPADs from the Finnish bidding zone to the Swedish bidding zones, as a result of LTTRs, should not be seen as a risk but the purpose of the regulatory intervention to address the asymmetry in supply and demand. ACER notes that the FI-SE3 bidding zone border is an example where LTTRs would not address the issue of demand/supply asymmetry because there is no generation surplus in SE3 (see Recital (92)).
- (49) EV found that the estimated implementation timelines for the EPAD-related solutions (Section 6.5.7) are highly unlikely, since they do not consider the likelihood of TSOs'

failing to submit a proposal under Article 30(6) of the FCA Regulation. For the purpose of its calculation, ACER used the maximum permissible periods specified in the FCA Regulation and Regulation (EU) 2019/942. A failure of the TSOs to submit a proposal within the required period of 6 months would constitute a breach of the FCA Regulation, and therefore cannot be considered by ACER in calculating the expected implementation timeline.

- (50) In EV's view, it is likely and advisable that the necessary arrangements would need to wait for a revision of the FCA Regulation, as otherwise there is a risk of designing something incompatible with the relevant regulatory framework. In line with the AEWG's advice (see Recital (18)), a balance must be struck between finding a solution for the FI-SE bidding zone borders in a timely manner and exploring different options for future development of the EU electricity forward market. The proposed EPAD-related solution for the FI-SE borders can be implemented reasonably quickly and can be tailor-made to the local market setting. At the same time, this solution is still consistent with the broader policy options considered as part of the upcoming EU forward market reforms, which facilitates, rather than hampers, its future alignment with the revised EU regulatory framework.
- (51) EV reiterated its concerns that ACER overlooked the views of the Finnish market participants in its assessment. ACER's response is in Recitals (135)-(136) and Annex I.

5.3.3. Ei's views

- (52) Ei supported ACER's draft Decision and highlighted that the ultimate purpose of this decision is that market participants could access cost-effective long-term cross-zonal hedging products. In Ei's view, market-based solutions through financial markets are flexible in offering suitable products to market participants' hedging needs, and ACER's proposed solution would support the existing financial markets. ACER agrees with Ei's views.

6. ACER'S ASSESSMENT

- (53) This section sets out ACER's assessment of possible regulatory choices within the limits provided by Article 30(5) of the FCA Regulation. Section 6.1 sets out the relevant EU legal framework. Section 6.2 describes the relevant market arrangements for forward hedging applicable to the Finnish-Swedish bidding zone borders. Section 6.3 assesses the option of issuing LTTRs on the FI-SE bidding zone borders, as provided for in point (a) of Article 30(5) of the FCA Regulation. Section 6.4 assesses any alternative options under point (b) of Article 30(5) of the FCA Regulation, as long as these are viable. Section 6.5 provides a comparison of all assessed solutions.

6.1. Legal framework

- (54) One of the key principles regarding the operation of electricity markets listed in **Article 3 of Regulation (EU) 2019/943** is that long-term hedging products are tradable on exchanges in a transparent manner and long-term electricity supply contracts are

negotiable over the counter (subject to compliance with Union competition law) in order to allow market participants to be protected against price volatility risks on a market basis, and mitigate uncertainty on future returns on investment.

- (55) In line with this principle, **Article 9 of Regulation (EU) 2019/943** specifies, in paragraph (1), that the TSOs shall issue long-term transmission rights or have equivalent measures in place to allow for market participants, including owners of power-generating facilities using renewable energy sources, to hedge price risks across bidding zone borders, unless an assessment of the forward market on the bidding zone borders performed by the competent regulatory authorities shows that there are sufficient hedging opportunities in the concerned bidding zones.
- (56) This Article further specifies, in paragraph (3), that, subject to compliance with Union competition law, market operators shall be free to develop forward hedging products, including long-term forward hedging products, to provide market participants, including owners of power-generating facilities using renewable energy sources, with appropriate possibilities for hedging financial risks against price fluctuations. Member States shall not require that such hedging activity be limited to trades within a Member State or bidding zone.
- (57) Article 9 of Regulation (EU) 2019/943 refers to the FCA Regulation, which lays down detailed rules on cross-zonal forward capacity allocation, aiming to promote a number of objectives. These are listed in **Article 3 of the FCA Regulation** and include:
- (a) promoting effective long-term cross-zonal trade with long-term cross-zonal hedging opportunities for market participants;
 - (b) optimising the calculation and allocation of long-term cross-zonal capacity;
 - (c) providing non-discriminatory access to long-term cross-zonal capacity;
 - (d) ensuring fair and non-discriminatory treatment of TSOs, ACER, regulatory authorities and market participants;
 - (e) respecting the need for a fair and orderly forward capacity allocation and orderly price formation;
 - (f) ensuring and enhancing the transparency and reliability of information on forward capacity allocation;
 - (g) contributing to the efficient long-term operation and development of the electricity transmission system and electricity sector in the Union.
- (58) In relation to the first objective, **Article 30 of the FCA Regulation** sets out a process whereby the competent regulatory authorities decide on cross-zonal risk hedging opportunities, as set out below:
- (59) According to paragraph (1) of Article 30 of the FCA Regulation, TSOs on a bidding zone border shall issue LTTRs unless the competent regulatory authorities of the

bidding zone border have adopted coordinated decisions not to issue LTTRs on the bidding zone border. When adopting their decisions, the competent regulatory authorities of the bidding zone border shall consult the regulatory authorities of the relevant capacity calculation region and take due account of their opinions.

- (60) According to paragraph (3) of Article 30 of the FCA Regulation, the decisions of the competent regulatory authorities shall be based on an assessment, which shall identify whether the electricity forward market provides sufficient hedging opportunities in the concerned bidding zones. The assessment shall be carried out in a coordinated manner by the competent regulatory authorities of the bidding zone border and shall include at least:
- (a) a consultation with market participants about their needs for cross-zonal risk hedging opportunities on the concerned bidding zone borders
 - (b) an evaluation.
- (61) According to paragraph (4) of Article 30 of the FCA Regulation, the evaluation shall investigate the functioning of wholesale electricity markets and shall be based on transparent criteria which include at least:
- (a) an analysis of whether the products or combination of products offered on forward markets represent a hedge against the volatility of the day-ahead price of the concerned bidding zone. Such product or combination of products shall be considered as an appropriate hedge against the risk of change of the day-ahead price of the concerned bidding zone where there is a sufficient correlation between the day-ahead price of the concerned bidding zone and the underlying price against which the product or combination of products are settled.
 - (b) an analysis of whether the products or combination of products offered on forward markets are efficient. For this purpose, at least the following indicators shall be assessed:
 - i. trading horizon;
 - ii. bid-ask spread;
 - iii. traded volumes in relation to physical consumption;
 - iv. open interest in relation to physical consumption.
- (62) According to paragraph (5) of Article 30 of the FCA Regulation, in case the assessment shows that there are insufficient hedging opportunities in one or more bidding zones, the competent regulatory authorities shall request the relevant TSOs either (a) to issue LTTRs or (b) to make sure that other long-term cross-zonal hedging products are made available to support the functioning of wholesale electricity markets.
- (63) According to paragraph (6) of Article 30 of the FCA Regulation, in case the competent regulatory authorities choose to issue a request as referred to in point (b) of paragraph

(5), the relevant TSOs shall develop the necessary arrangements and submit them to the competent regulatory authorities' approval no later than six months after the request by the competent regulatory authorities. Those necessary arrangements shall be implemented no later than six months after approval by the competent regulatory authorities. The competent regulatory authorities may extend the implementation time upon request from the relevant TSOs by a period of no more than 6 months.

- (64) According to paragraph (7) of Article 30 of the FCA Regulation, where regulatory authorities decide that long-term transmission rights shall not be issued by the respective TSOs or that other long-term cross-zonal hedging products shall be made available by the respective TSOs, Articles 16, 28, 29, 31 to 57, 59 and 61 of the FCA Regulation shall not apply to the TSOs of the bidding zone borders.
- (65) According to paragraph (8) of Article 30 of the FCA Regulation, upon a joint request of the TSOs on a bidding zone border or at their own initiative, and at least every 4 years, the competent regulatory authorities of the bidding zone border shall perform, in cooperation with ACER, an assessment pursuant to Article 30, paragraphs (3) to (5), of the FCA Regulation.

6.2. Relevance of the Nordic electricity forward market design in the assessment of the hedging opportunities on the FI-SE1 and FI-SE3 bidding zone borders

- (66) Forward electricity markets allow market participants to hedge their risk exposure against possible short-term (e.g. day-ahead) price fluctuations, in order to improve stability of their cash flows. There are various types of financial products traded in the forward electricity markets and their trade takes place on various platforms from several years in the future up to two days ahead of delivery of the relevant electricity forward product.
- (67) Forward electricity products are priced based on the expected average day-ahead electricity price over the delivery time of the relevant electricity forward product. While these general principles are the same for all European electricity forward markets, the specific characteristics of standard products used for hedging the price risk for day-ahead electricity prices in the Nordic electricity forward market differ from most electricity forward markets in Continental Europe. The Nordic electricity forward market covers the Nordic and Baltic bidding zones (FI; SE1-4; DK1-2; LT; LV; EE; NO1-5).
- (68) The two main standard products for hedging of the price risk for day-ahead electricity prices in the Nordic and Baltic bidding zones are:
- (a) financial obligations referring to the Nordic system price, which is an unconstrained market clearing reference price for the entire Nordic region; and
 - (c) contracts for differences (CfDs) referred to as EPADs (Electricity Price Area Differentials), which are financial obligations for the difference between the price of a given bidding zone and the Nordic system price.

- (69) The electricity forward market in Continental Europe, on the other hand, is mainly based on zonal hedging products (forwards and futures) providing a direct hedge against the price of electricity in a bidding zone. In Continental Europe, hedging between bidding zones is therefore usually done with two zonal price futures or one or more LTTRs, while in the Nordic electricity forward market, hedging between bidding zones is usually done with two EPADs from the different zones.
- (70) In Continental Europe, LTTRs can be used by market participants in smaller bidding zones to get access to the most liquid forward market of the region (e.g. forward products for delivery in the German bidding zone). This cannot be achieved with LTTRs in the Nordic region, since the most liquid forward product in the Nordic market (i.e. the Nordic system price products) does not relate to a single bidding zone and hence, no access is possible with a zone-to-zone product.
- (71) The EU electricity forward market design is therefore not harmonised in terms of standard products used. LTTRs may be considered a more obvious choice for providing cross-zonal hedging opportunities in Continental Europe, with a focus on zonal hedging, than in the Nordic market, where the focus is on hedging with a hub. Regulatory measures can have a different impact on the forward market, depending on the characteristics of the market and the standard products used. Therefore, specific characteristics of the Nordic forward electricity market must be appropriately considered when assessing the expected overall impact of any planned regulatory measures on hedging opportunities in the concerned bidding zones.
- (72) To allow the consideration of regional specificities such as the Nordic electricity forward market, which is not well compatible with the zone-to-zone characteristics of LTTRs, the FCA Regulation explicitly allows to consider other solutions to address insufficient hedging opportunities, i.e. such as requesting the TSOs to ‘*make sure that long-term cross zonal hedging products are made available to support the functioning of the wholesale electricity markets*’, pursuant to Article 30(5)(b) of the FCA Regulation.

6.2.1. Nordic system price

- (73) The Nordic system price is calculated in accordance with the methodology developed by Nord Pool European Market Coupling Operator AS (NordPool)⁸. The results of the Nordic system price calculation are published on NordPool’s website⁹. While the system price methodology is currently defined by NordPool, forward obligations for the Nordic system price and EPAD are standard products which rely on published day-ahead prices and could be therefore offered by any European power exchange offering electricity futures. Since the Nordic system price reference is not regulated (i.e. no regulatory approval of the methodology), there is also the possibility for the Nordic

⁸ <https://www.nordpoolgroup.com/49b878/globalassets/download-center/day-ahead/methodology-for-calculating-nordic-system-price---may-2022-.pdf>

⁹ <https://www.nordpoolgroup.com/en/Market-data1/Dayahead/Area-Prices/ALL1/Hourly/?view=table>

electricity forward market to freely establish new reference prices. However, so far no considerable alternatives to the established Nordic system price have emerged in the Nordic electricity forward market.

- (74) The Nordic system price does not take into account congestions but such congestions do occur in the Nordic transmission grid, causing deviations of zonal prices from the Nordic system price. These congestions reduce correlation between the Nordic system price and the zonal prices of the Nordic bidding zones. The decreasing correlation between the Nordic system price and the prices of individual bidding zones, combined with a lack of possibilities to address the basis price risk (i.e. no availability of EPADs) has resulted in diminishing interest of market participants in the Nordic system price products for hedging.
- (75) Subject to the methodology for calculating the system price, some bidding zone prices may correlate more with the Nordic system price than others. However, due to the existing congestions, a system price cannot correlate with all bidding zones sufficiently to serve as a sufficient hedge against the risk exposure to the day-ahead price in a relevant bidding zone. The remaining risk of the price difference between the proxy used as a first hedge (e.g. Nordic system price) and the price of an individual bidding zone is referred to as the basis price risk. In the Nordic electricity forward market, this basis price risk can be addressed with EPAD products. Regardless of possible improvements to the Nordic system price methodology, EPADs would still be needed to hedge the basis price risk in most of the bidding zones under the Nordic system price, because the existing congestions would not allow the Nordic system price to sufficiently correlate with all bidding zones. Therefore, amending the Nordic system price methodology cannot, on its own, improve hedging opportunities in a given bidding zone without increasing the need for EPADs in other bidding zones. Hence, amending the methodology to improve hedging in one bidding zone may cause insufficient hedging opportunities elsewhere.

6.2.2. Limitations of forward liquidity in the Nordic bidding zones

- (76) The region subject to the Nordic system price mostly consists of rather small bidding zones, with limited volumes of generation and/or consumption. In addition to limited volumes, the Nordic bidding zones are also often characterised by an asymmetry between demand and supply. While the local demand and supply in a bidding zone with comparable volumes of generation and consumption can be matched within such bidding zone, in a bidding zone with an asymmetry between demand and supply the local surplus of generation or consumption cannot be matched. In general, the northern bidding zones of the Nordic region have a surplus of generation, while the southern bidding zones have a surplus of consumption. The Finnish bidding zone shows consumption surplus, while the SE1 bidding zone has a clear surplus of generation. Asymmetry in the SE3 bidding zone is less pronounced, with just a slight surplus of consumption.
- (77) Considering their limited volumes of generation and consumption which could match, it can be difficult to reach sufficient market liquidity in the Nordic bidding zones without regulatory intervention. Insufficient market liquidity (caused by

supply/demand asymmetry) is addressed in the single day-ahead coupling (SDAC) and the single intraday coupling (SIDC) with implicit allocation of cross-zonal capacity. In SDAC and SIDC, the generation surplus in the SE1 bidding zone can be matched with the consumption surplus of the Finnish bidding zone by using available cross-zonal capacity on bidding zone borders between Finland and Sweden. An eventual supply/demand asymmetry is therefore addressed for each market time unit in SDAC and SIDC. In the forward timeframe, until now, the two bidding zone borders between Finland and Sweden have operated without allocation of long-term cross-zonal capacity (e.g. LTTRs) or other supportive regulatory measures and the issue of structural supply/demand asymmetry as a cause of limited liquidity therefore remains for the forward market.

6.2.3. Risk of splitting liquidity among parallel forward markets

- (78) Emerging alternative product types (e.g. non-standard products to directly hedge the zonal price) may cause some market participants to move away from the established standard product (e.g. Nordic system price products; EPADs) decreasing its liquidity and creating a parallel forward market. This so-called ‘split liquidity’ would only occur if both the established product and its emerging alternative were to serve the same hedging purpose.
- (79) Especially if the product(s), which serve a specific hedging need, provide a high level of liquidity, emerging alternative products can be a positive development and a sign that the market effectively adapts to a changing environment and establishes the most efficient hedging instruments without any need of intervention. Such liquid parallel markets may also attract speculative market participants, who could promote liquidity by performing arbitrage among the established hedging products and the new, alternative products. However, speculative market participants may not participate in a market without a sufficiently liquid product (e.g. EPADs), since they would not be able to close a risk exposure when needed (i.e. liquidity risk¹⁰). As identified in the Finnish assessment, without regulatory intervention, the Nordic electricity forward market is not functioning well enough for providing sufficient hedging opportunities for the Finnish market participants (i.e. insufficient liquidity of Finnish EPADs). In such market parallel markets alternative products would likely just split the already limited liquidity, possibly without leaving any available liquid product for continuous trading. Therefore, promotion of an alternative product could cause a parallel market with several illiquid hedging products instead of at least one sufficiently liquid product which could be continuously traded. A fragmented market would therefore further increase the liquidity risk in the forward market for the Finnish bidding zone and would provide less (continuously available) hedging opportunities for the Finnish market participants. Any potential risks related to the creation of parallel markets needs to be

¹⁰ Financial risk that, for a certain period of time, a given financial asset, security or commodity, cannot be traded quickly enough in the market without impacting the market price.

duly considered when taking a decision pursuant to Article 30(5) of the FCA Regulation.

6.2.4. Possible impact of financial policy on forward market liquidity

- (80) Fingrid highlighted that the introduction of stricter financial requirements in 2016 (e.g. disallowance of non-fully bank-backed guarantees as collaterals envisaged in Regulation (EU) 648/2012) increased the cost of trading on power exchanges. As a result, as argued by Fingrid, smaller market participants moved to bilateral trading, reducing the liquidity of the standard forward products traded on the Nordic power exchanges. ACER considers that these possible causes of current insufficient hedging opportunities in the Finnish bidding zone relate to EU financial policy and are therefore beyond the scope of ACER's decision. ACER's decision however aims to improve the hedging opportunities in the Finnish bidding zone which, in turn, may enhance the overall transparency and liquidity of the Nordic forward market.

6.3. Expected impact of introducing LTTRs on the SE-FI bidding zone borders

- (81) Any regulatory intervention (e.g. issuing LTTRs) is expected to have an impact on the market. When deciding as to whether LTTRs are an appropriate regulatory intervention, one needs to carefully consider their anticipated impact on the hedging opportunities and hence, their overall impact on the relevant electricity forward market.
- (82) To this aim, section 6.3.1 presents the types of LTTRs which may be issued on the FI-SE bidding zone border. Section 6.3.2 assesses expected impacts of issuing LTTRs on the FI-SE bidding zone borders. Section 6.3.3 explores whether, and to what extent, introducing LTTRs on the FI-SE bidding zone borders meets the objectives of the FCA Regulation.

6.3.1. Types of LTTRs

- (83) The FCA Regulation requires that long-term cross-zonal capacity is allocated to market participants by the single allocation platform in the form of physical transmission rights (PTRs) pursuant to the Use-It-Or-Sell-It (UIOSI) principle or in the form of financial transmission rights – options (FTR-options) or financial transmission rights – obligations (FTR-obligations).¹¹
- (84) Once requested to issue LTTRs as per Article 30(5)(a) of the FCA Regulation, the Finnish and Swedish TSOs would need to submit a proposal to their competent regulatory authorities for the (amendment of) regional design of LTTRs, as required by Article 31 of the FCA Regulation. The regional design of LTTRs would define what type of LTTRs are to be issued on the FI-SE bidding zone borders. The choice of the

¹¹ Article 31(1) of the FCA Regulation.

type of LTTRs is therefore outside the scope of this decision but would be proposed by the TSOs and subject to regulatory approval.

- (85) The single allocation platform (SAP) is currently issuing LTTRs only in the form of options. Therefore, the process of implementing FTR options on the FI-SE bidding zone borders would be more straightforward and could be finalised in a timely manner. Implementing LTTRs in the form of FTR obligations would likely require a longer implementation time because the SAP would need to implement a new functionality for issuing FTR obligations. Except for the expected difference in the implementation time, the following assessment of impacts is equally valid for all types of LTTRs, regardless of the TSOs' eventual choice.

6.3.2. Assessment of the impact of introducing of LTTRs on the FI-SE bidding zone borders

- (86) As explained in Recital (68), market participants in the Finnish and the Swedish bidding zones are currently able to hedge their price risk by using Nordic system price products in combination with EPADs. The introduction of LTTRs on the FI-SE1 and FI-SE3 bidding zone borders would provide an alternative way to hedge price risks in the Finnish and Swedish bidding zones. This may improve existing hedging opportunities (i.e. due to introduction of LTTRs), but could also imply a decrease of existing hedging opportunities (e.g. reduced liquidity of EPADs and futures/forwards linked to the Nordic system price). The following recitals describe these two possible (and opposite) impacts in more details.

6.3.2.1. *LTTRs may increase hedging opportunities as they provide an alternative way of hedging, even though they are not as good as EPADs*

- (87) Market participants are currently facing inadequate hedging opportunities in the Finnish bidding zone due to illiquid market for EPADs. The introduction of LTTRs on the FI-SE1 and FI-SE3 bidding zone borders would provide market participants with new hedging opportunities. Namely, instead of buying (illiquid or non-existent) EPAD contracts in the Finnish bidding zone, market participants could hedge their price risk in the Finnish bidding zone by (i) hedging the price in the Swedish bidding zones and (ii) buying LTTRs that would hedge the price difference between the Swedish bidding zones and the Finnish bidding zone. Assuming that hedging opportunities in the Swedish bidding zones are adequate (as concluded by Ei; see Recital (29)), market participants could hedge the price risk in the Swedish bidding zones by either:

- (a) buying futures/forward contracts linked to the Nordic system price and an EPAD contract in SE1 or SE3, or
- (b) entering into bilateral contracts with market participants in SE1 or SE3 that would provide a complete hedge against the price risk in the respective bidding zone (SE1 or SE3).

LTTRs would also enable market participants with generation in one bidding zone and consumption in an adjacent bidding zone to hedge cross-zonal price risks directly with

LTTRs instead of entering into EPAD contracts and contracts linked to the Nordic system price.

- (88) Nevertheless, hedging price risks with LTTRs in Finland would not be as good as hedging with EPADs. A liquid EPAD market would enable market participants to hedge price risk in Finland on a continuous basis, namely at any time the risk exposure arises. Typically, on the demand side, risk exposure arises whenever a retailer settles a new supply contract with a consumer, which can occur at any point in time. However, LTTRs would not be able to cover such exposure at any point in time as they are only auctioned on a yearly and a monthly basis. There is also no secondary market allowing to resell LTTRs outside these timeframes. EPADs, on the other hand, can be procured exactly at the moment when a new risk exposure arises. Issuing LTTRs may therefore create a non-level playing field for market participants since market participants in Sweden could access hedging opportunities at any time, whereas market participants in Finland would be able to access them only once a year or once a month. In this context, improving liquidity of the EPAD market in the Finnish bidding zone, if possible to achieve, can be considered a superior solution to issuing LTTRs on FI-SE1 and FI-SE3 bidding zone borders.
- (89) Even though LTTRs on the FI-SE1 and FI-SE3 bidding zone borders would not cover risk exposure at any point in time, the Finnish market participants would be able to use them to access the existing (and as assumed, sufficient) hedging opportunities in the Swedish bidding zones. The Finnish market participants would hedge their remaining price risk in this way, i.e. the price difference between the Swedish bidding zones and the Finnish bidding zone. In this respect, the introduction of LTTRs on FI-SE1 and FI-SE3 bidding zone borders could improve hedging opportunities in the Finnish bidding zone.

6.3.2.2. LTTRs may solve the demand/supply asymmetry in the Finnish bidding zone

- (90) The introduction of LTTRs on the FI-SE1 bidding zone borders may be an effective measure to address the specific problem of asymmetry in the Finnish bidding zone. In particular, issuing LTTRs on the FI-SE1 bidding zone border would allow market participants in the Finnish bidding zone (with a consumption surplus) to match their bids for hedging consumption with bids for hedging generation from market participants in the SE1 bidding zone (with a generation surplus). In that respect, allocating cross-zonal capacity in the form of LTTRs can provide additional hedging opportunities for market participants whose demand for hedging cannot be met within the Finnish bidding zone alone.
- (91) LTTRs can also be acquired by market participants for speculative purposes. This is the case where LTTRs are not used for its main purpose, i.e. hedging. LTTRs (e.g. acquired by speculative market participants) can also be used to arbitrage between forward markets on both sides of the bidding zones. A market participant can buy EPADs in SE1 and LTTRs from SE1 to FI and this would enable such participant to submit a sell order for EPADs in Finland. This would further help to eliminate the asymmetry in supply and demand in Sweden and Finland. However, this strategy would be effective only in specific circumstances, e.g. in case LTTRs are FTR obligations or in case a price

in one zone is consistently higher or lower than the price in another.¹² In any case, there is no certainty that LTTRs acquired by speculative market participants would be used for such arbitraging.

6.3.2.3. Introducing LTTRs on the FI-SE bidding zone borders is expected to further decrease liquidity of existing hedging opportunities

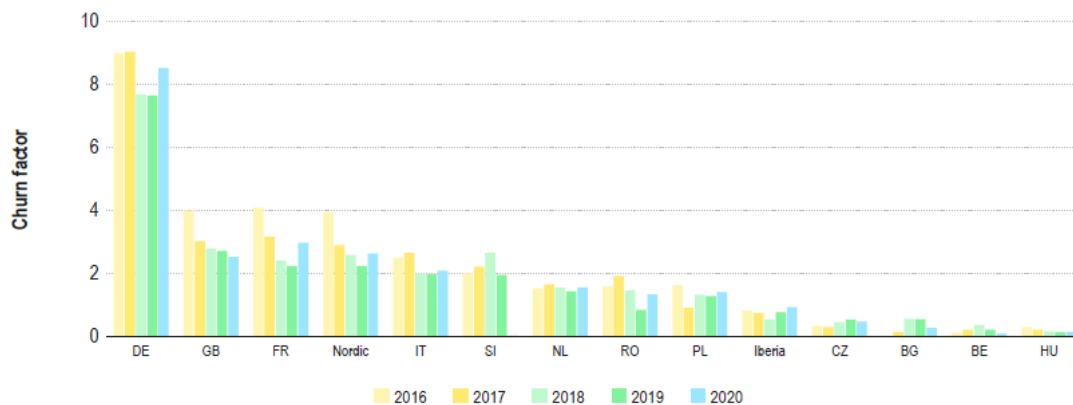
- (92) Introducing LTTRs would likely imply a further decrease of existing hedging opportunities in the Finnish bidding zone, i.e. EPADs, forwards and futures linked to the Nordic System price. Namely, there is a risk that the alternative way of hedging via LTTRs on SE1-FI and SE3-FI bidding zone borders would shift part of the demand for EPADs from the Finnish bidding zone to the Swedish bidding zones. As described in Recital (90) above, this movement towards the Swedish EPADs would have some positive impact, since one Swedish bidding zone (SE1) has an excess supply of EPADs due to generation surplus (see Recital (76)). However, beyond addressing an asymmetry in supply and demand, LTTRs may cause a shift of liquidity from Finnish to Swedish EPADs. Therefore, liquidity of the EPAD market in the Finnish bidding zone (for the remaining supply and demand in FI) would likely further deteriorate. On the other hand, liquidity of EPADs in the Swedish bidding zones is expected to increase due to additional demand from Finland.
- (93) As explained in Recital (87), one way to hedge the price risk in Finland with LTTRs on the SE1-FI and SE3-FI bidding zones would be to use them in combination with bilateral contracts directly linked to the price of these two bidding zones. Some market participants may prefer such non-standard products due to their simplicity and lower cost (when compared to trading on a power exchange). As stated by Fingrid, smaller market participants have already left power exchanges following the changes in financial rules in 2016 and rather hedge with bilateral contracts in the over-the-counter (OCT) market (see Recital (80)). Since LTTRs allow for cross-zonal trade without entering into standard contracts linked to the Nordic system price, they can further exacerbate the trend towards bilateral contracts and the use of non-standard contracts. This could mean a shift of liquidity from the established products of the Nordic electricity forward market towards a parallel market with alternative products (see section 6.2.3).
- (94) In its response to ACER's preliminary position, Fingrid stated that they do not share ACER's concerns regarding the risk of decreasing EPAD liquidity in Finland by shifting the demand towards Swedish EPADs and the risk related to parallel markets are limited since LTTRs would be used to address the asymmetry in supply and demand in Finland. Fingrid further highlighted that allowing parallel markets for market-based product innovations should be considered positive. As described in section 6.3.2.2, ACER agrees that LTTRs would provide new hedging opportunities to Finnish market

¹² This is because FTR options on borders with positive and negative price differences do not enable market participants to employ such arbitraging without taking on additional risk.

participants and would help addressing the asymmetry in supply and demand in Finland. However, this positive effect would likely come at the expense of hampering already existing hedging opportunities. Further, while ACER supports product innovation, LTTRs are not considered as one of innovations coming from the market, but rather targeted regulatory intervention. Such intervention should consider all possible effects having in sight the main objective to improve the overall hedging opportunities and efficient functioning of the Nordic electricity forward market.

- (95) In its response to ACER’s preliminary position, Fingrid stated that there is no empirical evidence that LTTRs would cause a shift towards alternative hedging products. Experience with LTTRs in Continental Europe generally shows that LTTRs have a negative impact on liquidity of smaller bidding zones while having a positive impact on the liquidity of larger bidding zones. This is demonstrated in Figure 1 below which shows the liquidity of forward markets in different bidding zones and hubs in Europe. The figure measures the liquidity in a form of churn rate, which describes how many times the electricity being generated (or consumed) is traded on the market and thereby exchange ownership. The churn factor is therefore already adjusted for the size of bidding zone as larger bidding zones have larger volumes of electricity generated or consumed.

Figure 1: Electricity forward liquidity of different bidding zones and hubs in Europe (Source: ACER Market Monitoring Report, Electricity wholesale volume, 2020)



- (96) Figure 1 clearly shows the trend that smaller bidding zones in Continental Europe have very poor forward market liquidity, which is partly due to the fact that many market participants chose to trade in larger bidding zones (such as Germany) and use LTTRs to cover the remaining risk. While LTTRs are able to provide such participants with alternative hedging possibility, there is, as a consequence, less liquidity in small bidding zones than there would be in the absence of LTTRs. Based on this evidence, ACER understands that LTTRs on SE-FI borders would bring a significant risk of further liquidity reduction in the Finnish bidding zone.

- (97) Regarding a potential shift away from the standard products linked to the Nordic system price towards non-standard products directly linked to the price of the concerned bidding zone, ACER agrees that there is no empirical evidence implying an expected shift towards alternative hedging products with LTTRs on the FI-SE bidding zone

borders. This is because there is no comparable case which could show the impact of LTTRs on these bidding zone borders in this regard. Since such development cannot be proven with empirical evidence, the risks of such development and expected impacts of the different regulatory measures must be assessed in a qualitative manner. Based on ACER's assessment, the introduction of LTTRs comes with a significant risk of reducing the availability of existing hedging opportunities and related detrimental effects on the Nordic electricity forward market.

6.3.2.4. Issuing LTTRs may increase complexity of hedging in the Nordic region

- (98) In the public consultation, ACER asked stakeholders whether in their view, LTTRs on the FI-SE bidding zone borders would increase complexity of hedging in the Nordic region. Out of 43 respondents, 28 of them confirmed that hedging would become more complex following the introduction of LTTRs.
- (99) Some respondents explicitly stated that they would not be able to use LTTRs or listed issues which would hamper their participation in the LTTR auctions, lack of sufficient resources in particular. Based on these responses, there is a potential risk that some small and medium sized market participants with hedging needs may not be able to take advantage of the new hedging opportunities offered by the LTTRs, which may leave a higher share of LTTRs for speculative use.
- (100) There is a difference in bidding behaviour of speculative and non-speculative bidders. Non-speculative bidders (i.e. those with pure hedging interest) would likely add a zero or positive risk premium to the expected day-ahead price differences when placing their bids in the LTTR auction. This risk premium would represent their willingness to pay for hedging their exposure to the price risk. Speculative bidders, on the other hand, would rather bid with a negative risk premium (i.e. bid below the expected day-ahead price difference) as their interest is to acquire LTTRs as long as they can make profit from their purchase. If the risk of mostly speculative use of LTTRs materialises (see Recital (99)), it may result in LTTRs auctioned in the Nordic market being undervalued.
- (101) In its response to ACER's preliminary position, Fingrid pointed out that Finnish market participants have not explicitly indicated that they would not participate in the LTTR auctions. Fingrid also referred to the response of the Association of Energy Users in Finland, which stated that its members are professional buyers and are used to use several hedging products, while small and mid-size companies which have limited resources are using professional service providers to help them in hedging.
- (102) ACER notes that a number of Finnish respondents were of the view that LTTRs would increase complexity of the Nordic electricity forward market, while some respondents listed barriers for participation in the LTTR auctions (e.g. the need for additional resources). The need to pay service providers for participating in LTTR auctions may be considered a barrier for small and medium-size participants.

6.3.2.5. *Summary of LTTRs' market impacts*

- (103) In summary, ACER acknowledges that issuing LTTRs on the FI-SE bidding zone borders would offer an alternative way of hedging, which may provide new hedging opportunities in the Finnish bidding zone. In particular, LTTRs on the FI-SE1 bidding zone border would be able to address the existing demand/supply asymmetry in FI and SE1. In this respect, LTTRs may be considered a suitable means to achieve the objective of improving hedging opportunities in the Finnish bidding zone.
- (104) Nevertheless, ACER sees a significant risk that these potential positive effects of introducing LTTRs would likely be outweighed by possible detrimental effects on already existing hedging opportunities. This further increases the risk of reduction of the overall market liquidity, decreasing market transparency and increasing complexity of hedging. Furthermore, LTTRs are issued on a yearly and monthly basis which makes them a less effective hedging tool in comparison to continuous hedging opportunities that a liquid EPAD market could offer. Therefore, the option of introducing LTTRs needs to be compared with other possible options before making the final conclusion on the suitability of LTTRs.

6.3.3. Assessment of LTTRs against the objectives of the FCA Regulation

- (105) The primary aim of a decision adopted under Article 30(5) of the FCA Regulation is to address insufficient hedging opportunities identified in the Finnish bidding zone. In addition, any measures adopted under the FCA Regulation should be in line with the objectives which the Regulation aims to promote. These are listed in Article 3 of the FCA Regulation. This section explores whether, and to what extent, introducing LTTRs on the FI-SE bidding zone borders would promote these objectives.
- (106) In its response to ACER's public consultation,¹³ Fingrid provided a comprehensive assessment of the measures considered by ACER against the objectives of the FCA Regulation. ACER therefore also provides responses to Fingrid's comments (and also EV's related views) where relevant.

Article 3(a): promoting effective long-term cross-zonal trade with long-term cross-zonal hedging opportunities for market participants

- (107) In its response, Fingrid stated that LTTRs serve Article 3(a) objective as the harmonisation of all the relevant rules through harmonised allocation rules defined for LTTRs would facilitate the creation of a level-playing field across Europe. According to Fingrid, LTTRs are a European solution, based on the same harmonised rules, products and procedures, and allocated through the same platform, which simplifies the trading activities for long-term products across European borders.

¹³ Fingrid's response to ACER's public consultation, available on ACER's website:
https://documents.acer.europa.eu/Official_documents/Public_consultations/Pages/PC_2022_E_01.aspx

- (108) In ACER's view, the impact of LTTRs on Article 3(a) is not straightforward. Issued only once a year or once a month, LTTRs would be less effective in providing hedging opportunities when compared to a liquid EPAD market which provides hedging opportunities on a continuous basis. LTTRs would thus put the Finnish market participants using LTTRs in a less advantageous position vis-à-vis the Swedish market participants who address their hedging needs with EPADs. In addition, there is a risk that LTTRs may have negative effects on the existing hedging opportunities (see Recital (93)). If this risk materialises, market participants in FI, SE1 and SE3 could face increasing difficulties to trade between their bidding zones due to the lack of continuous availability of hedging products at the SE-FI bidding zone borders. This would be detrimental to the operation of the Nordic electricity forward market in the long-term. In view of this risk, ACER considers that issuing LTTRs may not always promote long-term cross-zonal trade with long-term cross-zonal hedging opportunities for market participants.
- (109) In its response to ACER's preliminary position, EV pointed out that the introduction and harmonisation of LTTRs is the basis of the FCA Regulation. In EV's view, by issuing LTTRs on a border, the forward market and the hedging opportunities are harmonised pursuant to the FCA Regulation. In this respect, EV queried ACER's statement that the Nordic market would not be harmonised with large parts of continental Europe and asked what are, in ACER's view, the obstacles preventing such harmonisation.
- (110) ACER agrees with EV that issuing LTTRs constitutes a harmonised approach across the EU for providing a cross-zonal hedging product in accordance with the FCA Regulation. However, the standard products in the European electricity forward markets are not harmonised and the FCA Regulation does not prohibit the existence of alternative hedging products. To the contrary, the EU legislator appears to acknowledge that harmonised application of LTTRs is not a one-size-fits-all solution, and that certain regional markets may warrant taking a different approach to hedging. For this reason, when deciding on the most appropriate measures to improve hedging opportunities, the competent regulatory authorities are not restricted to LTTRs, but are free to choose between LTTRs and other long-term cross-zonal hedging products. In this case, the competent regulatory authorities have asked ACER to choose the most appropriate measures for the FI-SE bidding zone borders. In its decision, ACER has carefully assessed all the possible options, including LTTRs, taking into account the specifics of the Nordic electricity forward market.

Article 3(b): optimising the calculation and allocation of long-term cross-zonal capacity.

- (111) According to Fingrid's response, LTTRs would optimise the calculation and allocation of cross-zonal capacity because of transparent and harmonised allocation rules and the SAP framework.
- (112) ACER considers that the choice of LTTRs would have no impact on the calculation of cross-zonal capacities, since this process would be exactly the same with or without introduction of LTTRs. Regarding the optimal allocation of long-term cross-zonal

capacity, there is a risk that speculative bidders would be a dominant group in the allocation of LTTRs and that, as a result, LTTRs would be undervalued (as explained in Recital (100)). Such undervaluation of LTTRs would be a suboptimal allocation of cross-zonal capacities. Given this risk, one cannot state that LTTRs on the FI-SE bidding zone borders would promote, in all cases, the optimal allocation of long-term cross-zonal capacity.

Article 3(c): providing non-discriminatory access to long-term cross-zonal capacity

- (113) In its response, Fingrid also contends that LTTRs contribute to promoting the objective of Article 3(c), because it would harmonise the process of participating in the long-term auctions (or transferring that right). As argued by Fingrid, harmonised allocation rules for LTTRs detail the necessary participation agreement for access to the SAP, signed by all the parties. The SAP in turn ensures non-discriminatory access to long-term cross-zonal capacity by centralising the process of entitlement to all European borders for all market participants.
- (114) ACER agrees with Fingrid on this point. LTTRs are a cross-zonal hedging product widely applied in Europe. LTTRs are subject to common rules laid down in the FCA Regulation regarding the coordinated calculation of cross-zonal capacity and the allocation of these capacities. Therefore, introducing LTTRs on the FI-SE bidding zone borders would provide a cross-zonal hedging product which is harmonised across most of the European Union, providing non-discriminatory access to long-term cross-zonal capacity.

Article 3(d): ensuring fair and non-discriminatory treatment of TSOs, ACER, regulatory authorities and market participants.

- (115) As outlined in its response, Fingrid considers that LTTRs, being the default solution for cross-zonal hedging products in the current European market design, would ensure fair and non-discriminatory treatment of all affected parties as they set rules to be applied by all parties.
- (116) In this respect, ACER refers to stakeholders' comments in ACER's public consultation, indicating that some market participants may find it difficult to participate in the LTTRs auctions (see Recital (99)). Further, as outlined in Recital (88), LTTRs would not provide such an effective hedge as EPADs. In this respect, introducing LTTRs may not provide a level playing field between market participants in terms of access to equally effective hedging opportunities. Based on the above, ACER considers that issuing LTTRs on the FI-SE1 and FI-SE3 bidding zone borders may not always guarantee a fair and non-discriminatory treatment of all market participants.
- (117) In ACER's view, introducing LTTRs on the FI-SE bidding zone borders would not result in a situation which would imply unfair or discriminatory treatment of the TSOs, ACER and the regulatory authorities.

Article 3(e): respecting the need for a fair and orderly forward capacity allocation and orderly price formation

(118) According to Fingrid, LTTRs promote Article 3(e) objective, since a harmonised set of allocation rules is envisaged with a single capacity allocation algorithm based on merit order priority in the allocation.

(119) ACER agrees with Fingrid on this point. LTTRs would be allocated based on an auction performed by the SAP, where the price would represent demand and supply conditions for LTTRs. Auctions by default ensure orderly price formation, so in this respect, LTTRs respect the need for a fair and orderly forward capacity allocation and orderly price formation.

Article 3(f): ensuring and enhancing the transparency and reliability of information on forward capacity allocation

(120) Fingrid provides in its response that the harmonised allocation rules for LTTRs clarify which information is to be published by the single allocation platform. As stated by Fingrid, the single allocation platform assures a single and centralised source of information related to forward capacity allocation and publishes information about the LTTR auctions, and also notes that information on LTTRs are also published on ENTSO-E's transparency platform.

(121) ACER is also of the view that issuance of LTTRs is a transparent process, whereby all the relevant information on forward capacity allocation are published, ensuring and enhancing transparency and reliability of information on forward capacity allocation.

Article 3(g): contributing to the efficient long-term operation and development of the electricity transmission system and electricity sector in the Union.

(122) In its response to ACER's consultation, Fingrid was of the view that LTTRs contribute to Article 3(g) objective, as they optimise the allocation of long-term capacity, reflecting congestion on all EU borders in an efficient way.

(123) As described in Recital (93), LTTRs are subject to significant risks of detrimental effects on the Nordic electricity forward market, which may undermine the effective functioning of this market. Further, the risk of undervaluation (as described in Recital (100)) would mean a non-optimised allocation of long-term cross-zonal capacity, leading to a reduction of congestion income of the relevant TSOs and consequently the lack of resources for needed investments in the network. Therefore, if the risks materialise, issuing LTTRs on the FI-SE bidding zone borders would not, in ACER's view, contribute to the efficient long-term operation and development of the electricity transmission system and electricity sector in the Union.

Assessment of LTTRs against the FCA objectives – additional remarks

(124) In response to ACER's preliminary position, Fingrid stated that issuing LTTRs on the FI-SE1 and FI-SE3 bidding zone borders fulfil the objectives of the FCA Regulation equally well as issuing LTTRs on other bidding zone borders within the Union.

(125) ACER notes that the Nordic forward market differs from the forward markets established elsewhere in the Union. While some of the anticipated negative impacts of the LTTRs discussed in section 6.3.2 may be also valid for LTTRs on other bidding zone borders within the Union (e.g. undervalued LTTRs), ACER expects that these impacts would be more detrimental for the Nordic electricity forward market due to the different standard hedging products already established and used in the Nordic market (e.g. see Recital (99)).

6.4. Assessment of potential solutions pursuant to Article 30(5)(b) of the FCA Regulation

(126) Article 30(5) of the FCA Regulation leaves the competent regulatory authorities with a choice between requesting the TSOs to issue LTTRs (paragraph 5(a) of Article 30) or to ensure that other long-term cross-zonal hedging products are made available to support the functioning of wholesale electricity market (paragraph 5(b) of Article 30). In case the competent regulatory authorities choose to issue a request under paragraph 5(b), they are not required to define the measures to be taken by the TSOs to ensure the availability of other long-term cross-zonal hedging products. Instead, pursuant to Article 30(6) of the FCA Regulation, the relevant TSOs are required to develop the necessary arrangements and submit them to the competent regulatory authorities for approval within six months following the request by the regulatory authorities.

(127) ACER, substituting in this case the competent regulatory authorities, may not prescribe in its decision any specific solutions or arrangements for the implementation of the request under Article 30(5)(b) of the FCA Regulation. The relevant Finnish and Swedish TSOs are competent to develop such solutions or arrangements, and submit them to EV and Ei for approval.

(128) Having said that, it is impossible for ACER to appropriately assess the request under paragraph 5(b) in terms of its suitability to improve hedging opportunities and its expected market impacts, without exploring potential solutions that the TSOs would consider in response to such request. To this end, ACER has collected and considered a number of proposals for ensuring the availability of long-term cross-zonal hedging products, other than LTTRs. ACER has concluded, in coordination with the concerned TSOs and regulatory authorities, that two solutions directly supporting the existing EPAD market seem viable alternative solutions for providing hedging opportunities on the FI-SE bidding zone borders, namely:

(a) TSOs organising cross-zonal coupling of EPADs; or

(b) TSOs supporting a market maker function in the continuous markets for EPADs.

(129) These two alternative solutions aim to support the existing EPAD market and have been presented in ACER's public consultation and ACER's preliminary position shared for comments with the concerned parties. The following section provides general remarks on supporting the existing EPAD market. The two (alternative) ways to support EPADs are then further explored in separate sections.

- (130) When assessing the two solutions, ACER explores their suitability to improve hedging opportunities in Finland, their expected market impacts, as well as their alignment with the objectives of the FCA Regulation. For the purpose of this assessment, ACER has to make certain assumptions as to how the two solutions could be designed. These potential solutions and their features are without prejudice to the choices made by the Finnish and the Swedish TSOs when developing the necessary arrangements pursuant to Article 30(6) of the FCA Regulation.

6.4.1. General remarks regarding possible solutions pursuant to Article 30(5)(b)

- (131) ACER notes that the FCA Regulation does not define ‘cross-zonal products’ or, more specifically, ‘long-term cross-zonal hedging products’, and only refers to the latter in the context of a request pursuant to Article 30(5)(b) of the FCA Regulation. In ACER’s view, a request to ensure availability of other long-term cross-zonal hedging products cannot exclude those hedging products which, in combination with other hedging products, are able to provide a full hedge against a cross-zonal price risk. In particular, an EPAD contract provides a price hedge across bidding zones, namely between a bidding zone and a hub, and, if combined with another EPAD contract, a price hedge across two bidding zones.
- (132) In its response to ACER’s consultation and ACER’s preliminary position, Fingrid raised a number of concerns regarding the proposed solutions to support the EPAD market, discussed below.
- (133) Fingrid argued that supporting the existing EPAD products could reduce incentives for developing innovative solutions such as new system reference prices and/or alternative hedging products in the Nordic forward market. Fingrid also clarified that they do not claim that the support to EPAD coupling or an EPAD market maker function would leave the market without any opportunity to choose the most appropriate product to meet its hedging need.
- (134) ACER is of the opinion that any regulatory intervention (LTTRs or supporting EPADs) would inevitably impact the market in a way which favours a specific type of hedging (be it zonal futures/forwards combined with LTTRs or system price futures/forwards combined with EPADs). Therefore, any such (needed) market intervention would by default tip the market towards one or the other solution, reducing opportunities to develop alternative solutions. ACER does not agree with Fingrid that supporting EPADs would reduce the possibility to improve system price hedging through alternative solutions. To the contrary, the TSOs and the regulatory authorities, in coordination with market participants and trading venues, may be better placed to drive improvements in the system price calculation method than the market itself. Namely, when the TSOs select the power exchanges and define the supported products, they can redefine the system price to better suit the market needs, thereby supporting the development of most favourable standard products. Further, the TSOs may always propose amendments to the arrangements approved under Article 30(6) of the FCA Regulation to adapt them to the newly emerged needs of the Nordic electricity forward market.

- (135) Fingrid and EV pointed out that the largest Finnish market participants on both the producer as well as the consumer side, in particular two large associations (Finnish Energy, representing approx. 260 companies, and the Association of Energy Users in Finland, representing about 20% of the electricity consumed) prefer LTTRs as the solution for addressing the insufficient hedging opportunities in the Finnish bidding zone. Fingrid and EV were concerned that ACER overlooked the views of the largest affected market participants.
- (136) ACER acknowledges that a significant share of the Finnish market participants (represented by the two associations) shared a preference for LTTRs. In coming to its decision, ACER has carefully analysed the results of the public consultation, including all the comments submitted by the Finnish market participants (see Annex I for a summary of comments and ACER's replies to comments).
- (137) In particular, Finnish Energy described that LTTRs can address a supply/demand asymmetry and increase hedging opportunities. Finnish Energy further stated that LTTRs should not be introduced in case of detrimental effects on the liquidity of EPADs and shared their view that EPAD coupling and a market maker function would also address the insufficient hedging opportunities. Moreover, it was their view that FTR options would mainly attract speculative trading and shared their preference for FTR obligations. As described in Section 6.3.2.2 and Recital (100), ACER broadly agrees with the observations submitted by Finnish Energy, and takes them into account in its assessment. In particular, ACER considers that LTTRs should not be introduced as they involve significant risk of reducing EPAD liquidity (Recital (93)).
- (138) The Association of Energy Users in Finland stated that EPADs alone would not provide sufficient hedging opportunities. They also shared concerns about competition among power exchanges in the Nordic electricity forward market. Namely, they consider that TSOs' support of EPADs, a product owned by NASDAQ, would be against EU/Finnish competition law. For this reason, their preferred option to address insufficient hedging opportunities are LTTRs in the same form as planned for the Finnish-Estonian bidding zone border (i.e. FTR Options). As explained in Recital (73), ACER does not agree that EPADs are owned by NASDAQ and does therefore not see a particular barrier which would prevent the TSOs to implement an EPAD-related solution in compliance with Finnish as well as EU competition rules. In accordance with EV's conclusions on the availability of hedging opportunities in the Finnish bidding zone (see Recital (28)), ACER agrees that EPADs alone would not sufficiently address the need for hedging opportunities in the Finnish bidding zone. However, in ACER's view, EPADs could provide sufficient hedging opportunities if supported by EPAD coupling or a market maker function, as explained in Section 6.5.8.
- (139) Fingrid was also concerned about potential costs resulting from an EPAD-related solution. Namely, Fingrid claimed that it would bear additional costs, having to implement two different hedging regimes and allocation platforms (LTTRs/SAP on the FI-EE bidding zone border and an EPAD-related solution on the FI-SE bidding zone borders). The resulting cost for Fingrid would be higher (per hedged MWh) compared to other European TSOs. This, in Fingrid's view, would discriminate the Finnish market participants (and network users) against the market participants of other EU countries.

- (140) In relation to this, Fingrid noted that there are no specific rules of cost recovery for the proposed EPAD-related solutions, and that it is unclear how the resulting costs should be shared and recovered.
- (141) ACER notes that the higher costs for Fingrid may not necessarily arise. They may be even lower than the costs resulting from the introduction of LTTRs. Costs of establishing and operating the SAP auctioning LTTRs are shared among the relevant TSOs.¹⁴ These costs depend on the number of bidding zone borders with LTTRs administrated by the SAP. Therefore, adding new bidding zone borders with LTTRs to the SAP would result in proportionally higher costs for Fingrid. The costs resulting from the implementation of Article 30(5)(b) of the FCA Regulation is uncertain and subject to a TSO proposal, to be approved by the regulatory authorities, in accordance with Article 30(6) of the FCA Regulation. The eventual cost of the arrangements proposed by the TSO may not be necessarily higher (and may be even lower) than the increasing costs for Fingrid from adding bidding zone borders to the SAP.¹⁵
- (142) As regard the alleged discriminatory effect of the EPAD-solution, ACER does not consider that the EPAD-solution treats the Finnish market participants (and network users) differently than comparable market participants in other EU countries. As far as Finnish market participants would have to bear additional or higher costs, this would be due to the different situation in Finland where LTTRs are offered at the FI-EE bidding zone border. This difference would not imply that the EPAD-solution discriminates, treating comparable situations differently or dissimilar situations equally.
- (143) ACER also notes that the EU regulatory framework does not provide whether and how to share the costs resulting from the implementation of Article 30(5)(b) of the FCA Regulation. Appropriate cost-sharing mechanisms may be proposed by the TSOs as part of the necessary arrangements and subject to the approval by the competent regulatory authorities pursuant to Article 30(6) of the FCA Regulation. For example, cost-sharing may be considered in case of EPADs coupling where implementation costs may be shared among the TSOs of the participating bidding zones. Any such cost-sharing arrangements are outside the scope of ACER's decision.
- (144) Cost-recovery, on the other hand, is governed by Article 58 of the FCA Regulation. Pursuant to this Article, the competent regulatory authorities assess the costs incurred by the TSOs arising from the obligations in the FCA Regulation. Costs assessed as reasonable, efficient and proportionate shall be recovered in a timely manner through network tariffs or other appropriate mechanisms as determined by the competent regulatory authorities. If requested by regulatory authorities, relevant TSOs shall,

¹⁴ Article 59 of the FCA Regulation.

¹⁵ Based on JAO Annual Report from 2020, p. 81, Joint Allocation Office (JAO) charged 9.01 mio € to TSOs for administering 42 bidding zone borders. This amounts to average administration costs of about 215.000 € per border annually. Together, the annual operational costs for issuing LTTRs on two SE-FI border LTTR would expected to be around 430.000 €.

within three months of the request, provide information necessary to facilitate the assessment of the costs incurred.

- (145) In relation to this, Fingrid was concerned that it might not be possible for the regulatory authority to assess the costs of an EPAD-related solution, as the TSO has no legal mandate to ask this kind of information from the service provider delivering EPADs and will not be able to provide the regulatory authority with the information to facilitate the assessment of such costs. In that regard, ACER does not understand why TSOs would be prevented to ask the service provider delivering EPADs about the involved costs and why such service provider should be expected not to provide the requested information. Accordingly, the TSOs could request cost estimates from potential service providers and clarify the expected costs already at the time of developing the proposal under Article 30(6) of the FCA Regulation. Where the TSOs entered into the respective service agreements or actually incurred the EPAD-related costs, they are also in a position to provide the regulatory authorities with the information necessary to facilitate the assessment of the EPAD-related costs.

6.4.2. TSOs supporting a market maker function in the continuous markets for EPADs

- (146) A market maker is a service performed by a market participant that buys and sells hedging products on a power exchange for its own account. Market participants who are performing a market maker service ('market makers') are obliged to post, on a dedicated power exchange, buy and/or sell orders with a predefined maximum bid-ask spread and minimum volume. While market makers are traditionally organised by exchanges to support the liquidity of a product on the continuous market, these exchanges can provide only limited incentives for market participants to perform such a function (e.g. reducing trading or participation fee). If an exchange is unable to organise such a function on its own, this function could also be required by regulation to improve liquidity for a given hedging product on the power exchange, thereby improving hedging opportunities. The power exchange where such market maker services should be established, should be selected in a non-discriminatory manner (in principle any power exchange could be selected, see Recital (73)). A market participant performing a market maker service would need to receive some form of remuneration as an incentive for offering such service. For example, a TSO could organise a tender for a market maker function to facilitate order books for EPADs with a prescribed maximum bid-ask spread and minimum volume of orders. Any costs incurred by the market maker to perform such function could be subject to a tendering process and could subsequently be recovered via TSOs' network tariffs or other regulated mechanisms as appropriate.
- (147) The lower bid-ask spread and increased volumes in order books resulting from a market maker function enables market participants to reduce trading costs and facilitate their exit or entry into positions. Additionally, higher volumes in order books reduce the liquidity risk for speculative traders, which may in turn increase liquidity further. The efficiency of a market making support therefore depends on the requirements imposed on market makers regarding the bid-ask spread and required volumes. The right level could be decided based on a TSO analysis and in consultation with market participants. Potential market makers could be selected based on the price or fee they demand for

fulfilling the market maker function during the requested time period. It can be expected that a narrower bid-ask spread and higher required volume would lead to a higher demanded price/fee. As the demanded price/fee depends on market volatility and the risk assessment of potential market makers, the outcome of the selection process is quite uncertain.

- (148) As market maker function could directly support the liquidity of the hedging opportunities established in the Nordic electricity forward market, by design, this approach would not worsen the existing hedging opportunities (e.g. by splitting liquidity due to parallel markets). Supporting liquidity in the continuous electricity forward market on a power exchange can also contribute to increasing market transparency as it avoids a shift of market participants trading activities to (less transparent) bilateral arrangements.
- (149) Besides the uncertain costs for market making service (see Recital (147) above), a clear drawback of this solution is that it may not be an effective measure in bidding zones with asymmetric production and consumption (see section 6.2.2). A basic strategy for a market maker is to minimise its open position. If a market maker's bid is matched on one side of the order book, the market maker will adjust the order book (to maintain the required bid-ask spread) in a way to make it more likely that next time a bid on the other side of the order book will be matched, thus reducing the open position of the market maker. This strategy is difficult to execute in a bidding zone with a very pronounced demand/supply asymmetry. In such a bidding zone, a market maker has an incentive to bias its bid-ask spread in such a way that minimal trades are made between the market maker and the dominant side in the bidding zone. In such cases, market maker function fails to achieve the very purpose of the intervention.
- (150) On balance, ACER is of the opinion that a market maker function may add some liquidity to the Finnish bidding zone. However, the effect of such market maker function may be limited since it would not effectively address the demand/supply asymmetry in the Finnish bidding zone.

6.4.3. TSOs organising cross-zonal coupling of EPADs

- (151) In this solution, the TSO(s) would organise the coupling of order books for EPADs from different bidding zones by allocating long-term cross-zonal capacities. Such process could function in a similar way as the auction process with implicit cross-zonal capacity allocation in the single day-ahead coupling (SDAC). Since EPAD coupling is another form of allocation of cross-zonal capacity, a TSOs' proposal for EPAD coupling could draw on provisions for cross-zonal capacity calculation as well as some provisions for cross-zonal capacity allocation, which are already established under the framework of the FCA Regulation.
- (152) As explained in Recital (130), ACER assumes certain design features of a given solution for the sake of its assessment. The following recitals only provide for one variant of how EPAD coupling could be implemented in order to evaluate the impact of this solution. If the impact of this variant is considered as positive, this allows to conclude that this solution provides at least one variant with positive impact. This does

not prevent the TSOs to explore other variants of EPAD coupling or other solutions altogether, when developing their proposal pursuant to Article 30(6) of the FCA Regulation.

- (153) The variant of EPAD coupling assumed and evaluated in this Decision consists of the following design elements:
- (i) The TSOs select a market coupling operator that organises the EPAD coupling. EPAD coupling consists of simultaneous matching of EPAD orders from different bidding zones and long-term cross-zonal capacities. The TSOs also select one or more power exchanges that will participate in the EPAD coupling. These exchanges are tasked with collecting EPAD orders from market participants before EPAD coupling, then clear and settle the matched orders after the EPAD coupling results are calculated.
 - (ii) The TSOs calculate cross-zonal capacities for the long-term timeframes in line with the capacity calculation methodology (Article 10 of the FCA Regulation) and methodology for splitting long-term cross-zonal capacity (Article 16 of the FCA Regulation). As an outcome of this process, TSOs define the volume of cross-zonal capacities for yearly and monthly timeframes at least on the SE-FI bidding zone borders. TSOs submit cross-zonal capacities to the market coupling operator.
 - (iii) The selected power exchange (or exchanges) collects EPAD orders from market participants from different bidding zones and submits them to the selected market coupling operator until a predefined gate closure time. For this purpose, the selected power exchange and the TSOs need to define and standardise EPAD products that will be accommodated by EPAD coupling. In this context, the TSOs and the power exchange(s) could mutually agree on the best definition of the Nordic system price.
 - (iv) The market coupling operator performs simultaneous matching of received EPAD orders and long-term cross-zonal capacities (based on maximisation of economic surplus). The result of such matching is that some EPAD orders are matched within the same bidding zones and some orders are matched across different bidding zones by using the available cross-zonal capacity.
 - (v) Based on the results of the EPAD coupling, the selected power exchange(s) informs the market participants on the status of their orders.
 - (vi) As EPADs are settled only at the delivery, the selected power exchange(s) settles the matched EPAD contracts with market participants based on the difference between the (i) initial EPAD price or price at the last trading day and (ii) price difference between Nordic system price and concerned zonal price in the day-ahead market.

(vii) The selected power exchange settles with the TSOs any remaining or missing income from the settlement with market participants. This settled amount with the TSOs represents the difference between the:

- long-term congestion income, represented by the volume of EPADs that were matched across different bidding zones using long term cross-zonal capacity and their corresponding differences in the initial EPAD prices (or prices at their last trading day); and
- day-ahead remuneration costs, represented by the volume of EPADs that were matched across different bidding zones using long term cross-zonal capacity and the corresponding differences in day-ahead prices;

The total amount of this settlement can be positive or negative and is equivalent to the difference between long-term congestion income from LTTRs and their remuneration costs. The only difference is that, in case of EPADs, long-term congestion income and remuneration costs are settled at the same time, at delivery.

(154) Through EPAD coupling, excess supply for EPADs from bidding zones with excess generation would be matched with the excess demand for EPADs from bidding zones with lack of generation. Without EPAD coupling, such excess supply and demand from different bidding zones can only match if the market participants are willing to enter into such arbitrage and accept the cross-zonal price risk in the day-ahead timeframe. However, not many participants are willing to take such a risk. In contrast, the TSOs are considered a natural risk taker for the cross-zonal price risk, since this risk is exactly offset by the day-ahead congestion income¹⁶ that the TSOs receive from capacity allocation in the day-ahead market. This ensures that the TSOs are not exposed to any revenue inadequacy risk and their financial flows remain the same, as if they allocated LTTRs.

(155) Given the above, EPAD coupling may potentially add substantial trading volumes to the EPAD market and could solve a structural problem of asymmetry in supply and demand in different bidding zones in the same or better way than LTTRs.

(156) There are different variants of establishing such EPAD coupling. In particular:

- (a) Regarding the governance, the function of the market coupling operator could be performed by the TSOs, selected power exchange or a third party. There could be a single power exchange or different competing power exchanges.

¹⁶ Except in cases where long-term cross-zonal capacity is higher than the day-ahead cross-zonal capacity.

- (b) Regarding types of EPAD coupling, and to ensure timely implementation, the EPAD coupling could first start with auctions at timeframes equal to the LTTR auctions, namely one yearly and 12 monthly auctions. Later this setup could be improved and complemented with more frequent auctions and possibly also continuous trading.
- (c) Regarding products, such coupling could utilize existing standard baseload yearly, quarterly and monthly EPAD contracts.

6.4.4. Assessment of EPAD coupling and market maker function against the objectives of the FCA Regulation

- (157) This section explores whether, and to what extent, introducing EPAD coupling or a market maker function would promote the objectives listed in Article 3 of the FCA Regulation.
- (158) Where applicable, and similarly to the approach taken in section 6.3.3 (assessment of LTTRs), ACER reacts in this section to Fingrid's assessment of the EPAD-related solutions against Article 3 objectives provided in their response to ACER's public consultation.¹⁷

Article 3(a): Promoting effective long-term cross-zonal trade with long-term cross-zonal hedging opportunities for market participants

- (159) ACER considers that both solutions assessed under Article 30(5)(b) of the FCA Regulation would promote Article 3(a) objective. However, EPAD coupling may be more effective than the market maker function in this regard.
- (160) Coupling of EPADs can effectively address the existing structural asymmetry in the Finnish bidding zone by implicitly allocating cross-zonal capacity. This can add potentially substantial trading volumes to the EPAD auction (see section 6.2.2). The added volume would also stimulate secondary trading in the continuous EPAD market so that long-term cross-zonal capacities would be implicitly traded in the secondary market. With EPAD coupling, there is also no risk of parallel markets, so the overall impact on the existing hedging opportunities would be positive. Therefore, ACER understands that coupling of EPADs on the FI-SE1 and FI-SE3 bidding zone borders would promote effective long-term cross-zonal trade with long-term cross-zonal hedging opportunities, pursuant to Article 3(a) of the FCA Regulation.
- (161) Similarly to the EPAD coupling, also TSOs' support for a market maker function would not lead to parallel markets, i.e. there is no risk that the existing hedging opportunities would deteriorate. By increasing liquidity of EPADs, its overall effect on the existing hedging opportunities would be positive. However, unlike the EPAD coupling, a market

¹⁷ Fingrid's response to ACER's public consultation, available on ACER's website: https://documents.acer.europa.eu/Official_documents/Public_consultations/Pages/PC_2022_E_01.aspx

maker function would not address the existing asymmetry in the Finnish bidding zone. Therefore, it would not be as effective in promoting Article 3(a) objective as the EPAD coupling.

- (162) In their assessment of EPADs against Article 3(a), Fingrid stated that EPADs are not designed to promote effective long-term cross-zonal trade on the European level like LTTRs currently do. In Fingrid's view, EPADs are not a fully effective cross-zonal product because they represent the difference between a specific zonal price and the Nordic system price. There is therefore, as argued by Fingrid, no explicit cross-zonal element and a cross-zonal price (and therefore hedging opportunity) is revealed only indirectly. In relation to this EV was also unclear how cross-zonal coupling can ensure that there are other cross-zonal products available if there is no long-term cross-zonal capacity.¹⁸
- (163) According to ACER, the view that EPADs are not fully effective cross-zonal products cannot be supported. As already noted in Recital (131), an EPAD contract provides a price hedge across bidding zones, namely between a bidding zone and a hub, and, if combined with another EPAD contract, a price hedge across two bidding zones. EPADs are therefore able to provide a full hedge against a cross-zonal price risk. Cross-zonal capacity allocation in EPAD coupling is further explained in section 6.4.3. Similarly, as with an LTTR solution, support of the electricity forward market cannot be provided by EPAD coupling if there is no available long-term cross-zonal capacity¹⁹.

Article 3(b): optimising the calculation and allocation of long-term cross-zonal capacity.

- (164) ACER considers that EPAD coupling would optimise the allocation of long-term cross-zonal capacity, while it would not affect the calculation of cross-zonal capacities. In case of a market maker function, neither calculation nor allocation would be affected.
- (165) In case of EPAD coupling, available cross-zonal capacity would be implicitly allocated with the standard forward products used for hedging against the price risk of the relevant bidding zones. This solution provides for implicit arbitrage between EPAD contracts in two bidding zones in contrast to explicit arbitrage in case of LTTRs, which is by default less efficient (see Recital (100)). When optimising the market outcome in EPAD coupling, the cross-zonal capacity would be allocated by directly considering the market participants bids, which represent their willingness to pay for a hedge. Implicit auctioning of cross-zonal capacity is considered more efficient (in terms of allocative efficiency) than explicit allocation, since there is no risk of inefficient allocation due to wrong forecasting. As such, this solution would reduce the risk of undervaluing cross-zonal capacity or cross-zonal capacity allocated for non-hedging purpose (see Recital ((100))). Therefore the implicit allocation by the coupling of

¹⁸ EV's response to ACER's preliminary position.

¹⁹ E.g. due to extensive planned maintenance on a bidding zone border and/or considering previously allocated long-term cross-zonal capacity, long-term cross-zonal capacity may not be available for allocation.

EPADs would optimise the allocation of long-term cross-zonal capacity pursuant to Article 3(b) of the FCA Regulation.

Article 3(c): Providing non-discriminatory access to long-term cross-zonal capacity.

- (166) ACER considers that EPAD coupling would promote Article 3(c) objective. A TSOs' support for a market maker function can be considered consistent with this objective, in the sense that it would not hamper the achievement of this objective.
- (167) EPAD coupling would ensure that all market participants active in the Nordic electricity forward market and beyond can access the offered hedging opportunities by providing implicitly allocated cross-zonal capacity in a non-discriminatory manner. Therefore the implicit allocation by the coupling of EPADs would promote Article 3(c) objective.
- (168) In their assessment of EPADs against Article 3(c), Fingrid stated that EPADs are not off-the-shelf product, as they are made available by NASDAQ. Fingrid expects that there might be concerns about their exclusivity and suitability for harmonised European framework with harmonised allocation rules and SAP.
- (169) As explained in Recital (73), EPADs can be considered a standard product which may be offered by any European power exchange or traded on the OTC market. Therefore, ACER disagrees.

Article 3(d): ensuring fair and non-discriminatory treatment of TSOs, ACER, regulatory authorities and market participants

- (170) While, in ACER's view, both EPAD coupling and the market maker function would ensure fair and non-discriminatory treatment of TSOs and market participants, as both of them would provide fair and non-discriminatory access to hedging opportunities to all market participants active in the Nordic electricity forward market.
- (171) Both the EPAD coupling and the market maker function would not result in a situation which would imply unfair or discriminatory treatment of the TSOs (see Recital (142)), ACER and the regulatory authorities.

Article 3(e): respecting the need for a fair and orderly forward capacity allocation and orderly price formation

- (172) ACER considers that both solutions promote Article 3(e) objective. An auction with implicit allocation by EPAD coupling would be subject to the existing demand and supply conditions and therefore respect the need for a fair and orderly forward capacity allocation and orderly price formation. Also the market maker function could support an orderly price formation, since it would foster liquidity at a power exchange and hence promote transparency (see Recital (148))
- (173) Regarding consistency of EPADs with this objective, Fingrid noted in their response that it is completely unknown how the border-specific coupling of EPADs could be carried out in compliance with the coordinated Nordic regional flow-based capacity

calculation method, and additionally, the costs of developing the necessary arrangements would be borne by the Swedish and Finnish parties alone.

- (174) EPAD coupling requires long-term cross-zonal capacities as an input. This is also the case with explicit allocation of long-term cross-zonal capacities with LTTRs. Flow-based cross-zonal capacity is also already allocated in SDAC and will be used for issuing LTTRs. A fair and orderly allocation and price formation should be ensured in all these cases. Subject to the TSOs' proposal in accordance with Article 30(6) of the FCA Regulation, EPAD coupling may use the results from the cross-zonal capacity calculation process and should apply similar allocation methods as those used for these other solutions. Therefore, ACER sees no indication why EPAD coupling should not ensure a fair and orderly forward capacity allocation and orderly price formation.

Objective 3(f): ensuring and enhancing the transparency and reliability of information on forward capacity allocation

- (175) In their response, Fingrid argued that EPADs are based on a proprietary product, and this has to be fully recognised and considered if EPADs will be used as long-term cross-zonal hedging product. In Fingrid's view, it is unclear what requirements would apply to publishing information about the coupling of EPADs and how it could be ensured that this information was as easily accessible to the markets as the centrally published information on the SAP and on ENTSO-E's transparency platform.
- (176) ACER disagrees regarding the ownership of EPAD products (see Recital (73)) and notes that EPAD coupling can be established and operated in a transparent manner based on transparent rules (subject to a proposal pursuant to Article 30(6) of the FCA Regulation) and with the publication of the results of EPAD coupling. Therefore, EPAD coupling can be designed in a way consistent with Article 3(f) objective.
- (177) Market maker function would not hamper or otherwise affect Article 3(f) since it would not involve cross-zonal capacity.

Objective 3(g): contributing to the efficient long-term operation and development of the electricity transmission system and electricity sector in the Union

- (178) While both EPAD-related solutions would contribute to the efficient long-term operation and development of the electricity sector, one cannot say this with certainty in relation to the electricity transmission system.
- (179) Coupling of EPADs would strengthen the Nordic electricity forward market with all its benefits²⁰ and could ensure a sustainable provision of hedging opportunities (i.e. no risks of parallel markets). Similarly, a market maker function would directly support the Nordic electricity forward market without the risk of long-term detrimental effects

²⁰ Most importantly, allowing to address congestions efficiently with an efficient bidding zone configuration while pooling liquidity for hedging on the electricity forward markets under the Nordic system price.

caused by parallel markets. Hence both EPAD-related solutions would foster the efficient long term operation and development of the electricity sector in the Union.

- (180) However, the implementation and operational costs of EPAD-related solutions are uncertain at this point. As a result, it is difficult to assess at this stage what kind of impacts they would have on the TSOs' budget for needed investments in the transmission network, and hence how they would impact the broader objective of the electricity transmission system operation and development. In that respect, TSOs' support of a market maker function might be associated with potentially high operational costs depending on the tender results. Since EPAD coupling does not involve this risk, it may be considered a less risky option than the market maker function from the perspective of the TSOs' costs.
- (181) Fingrid in their assessment against Article 3(g) noted that EPADs do not fulfil this Union-wide objective, due to their local existence on two bidding zone borders. ACER notes that the Nordic forward electricity market and the FI-SE bidding zone borders belong to the electricity sector and the electricity transmission system of the Union. Anything that impacts this market and these borders by definition affects the operation and development of the Union's electricity market and its transmission system.

Assessment of EPAD-related solutions against the FCA objectives – comparison

- (182) The above assessment shows that EPAD coupling is more aligned with the FCA objectives than the market maker function. In most cases, EPAD coupling promotes a given objective. In some cases it would have no impact, e.g. it would not affect the calculation of cross-zonal capacity from Article 3(b) or the treatment of TSOs, ACER or the regulatory authorities from Article 3(d). The only case where the impact of EPAD coupling on a given objective is unclear, is the operation and development of the electricity transmission system. While it is difficult to estimate the cost of the EPAD coupling solution at this point in time, the risks related to hampering this objective are lower than in the case of the market maker function.
- (183) A market maker function, on the other hand, promotes only three objectives (Article 3(a), Article 3(d) – regarding market participants, and Article 3(e)). It would have no impacts on four objectives (Article 3(b), Article 3(c), Article 3(d) – in relation to the TSOs, ACER and the regulatory authorities, and Article 3(f)). Its impact on one objective (Article 3(g) – impact on the system operation and development) is uncertain. The risk that it might be negative is higher than in the EPAD coupling solution, and this is because it depends on the tender results.

6.5. Comparison of the different solutions

- (184) Sections 6.3 and 6.4 analysed three different types of market intervention on the FI-SE bidding zone borders: LTTRs, EPAD coupling or TSOs' support of a market maker. All these interventions come with different market impacts and risks. This section aims to compare them in terms of the following categories:

- (a) improving hedging opportunities in the Finnish bidding zone by addressing the asymmetry of supply and demand asymmetry in the Finnish and Swedish bidding zones;
 - (d) impact on existing hedging opportunities in the Finnish bidding zone, i.e. the EPAD products;
 - (e) impact on the liquidity of the Nordic system price products;
 - (f) impact on market transparency;
 - (g) impact on TSO costs and network tariffs;
 - (h) impact on the level-playing field for market participants; and
 - (i) expected implementation timeline.
- (185) As mentioned in Recital (95), such comparison cannot be based on empirical evidence since ACER is not aware of any existing or past situation comparable to the situation on the FI-SE bidding zone borders. Therefore, this comparison is based on ACER's qualitative assessment of the expected impacts and risks related to each market intervention. The following sections 6.5.1 to 6.5.7 set out ACER's assessment of each type of intervention under each category while section 6.5.8 provides an overview of the expected impacts on the FI-SE bidding zone borders for all three types of market interventions.

6.5.1. Addressing the asymmetry in supply and demand

- (186) As described in Section 6.2.2 and Recital (90), the supply/demand asymmetry in the Finnish and Swedish bidding zones can be addressed with the allocation of cross-zonal capacity. Since the TSOs' support of a market maker function would not result in matching of excess supply in Swedish zones with the excess demand in Finnish zone, it is not a suitable solution for addressing the supply/demand asymmetry. The remaining two market interventions, LTTRs and EPAD coupling, could enable such matching, and thus address the asymmetry. However, as also mentioned in Recital (91), addressing the asymmetry with LTTRs is more challenging if they are issued in form of options and if a bidding zone border has no dominant price spread direction. In case of EPAD coupling, on the other hand, cross-zonal capacity would be directly provided to the market via the products which are directly used for hedging the basis price risk in the Nordic electricity forward market. As such, EPAD coupling could address the supply/demand asymmetry more effectively than LTTRs.

6.5.2. Impact on liquidity of EPAD products

- (187) Both the TSOs' support of a market maker function and the EPAD coupling would likely increase the liquidity of EPAD products. Considering the findings of the study on measures to improve risk hedging opportunities (see Recital (30)), ACER expects that this increase in case of EPAD coupling would be higher compared to the expected increase resulting from the TSOs' supporting a market maker function.

(188) The impact of LTTRs on the liquidity of EPAD products is at the very best, uncertain, but most likely negative. While LTTRs could have positive impacts on EPAD liquidity if designed and used in a specific manner (see Recital (91)), ACER is doubtful of such effect and considers that their effect on EPAD liquidity will most likely be significantly negative. Some of these expected negative effects on the liquidity of the existing standard forward products are of general nature and may not be specific to the Nordic electricity forward market (see Recital (95)). However, the reduction of liquidity of existing hedging opportunities (see section 6.2.3) is a significant risk which specifically relates to the Nordic electricity forward market. This is because the characteristics of LTTRs as defined in the FCA Regulation is incompatible with the existing electricity forward market in Nordic region based on forwards and futures linked to system price and complemented with EPADs (see Recital (71)). ACER considers that, on balance, issuing LTTRs on the FI-SE bidding zone borders would rather decrease the liquidity of EPADs.

6.5.3. Liquidity of Nordic system price products

(189) Recital (93) explains that LTTRs may promote a development towards non-standard bilateral contracts with direct delivery in a bidding zone and thus further exacerbate the trend of decreasing liquidity on organised market places in the Nordic market (see Recital (80)). They may therefore further decrease the liquidity of the Nordic system price products. To the contrary, facilitating liquidity of EPADs with EPAD coupling solution or the market maker function would make the Nordic system price more attractive to market participants, as they can be sure that their basis price risk can be addressed (in cases where there is insufficient correlation between the Nordic system price and the day-ahead price in the relevant bidding zones). Therefore, EPAD coupling or a TSOs' support of a market maker function for EPAD products may increase the demand and consequently liquidity for the related Nordic system price products.

6.5.4. Market transparency

(190) While trading bilaterally on the OTC market is generally supportive of market functioning, efficient markets require that a certain amount of trading is executed through organised market places like power exchanges in order to ensure sufficient level of transparency and robustness of price signals that are needed for efficient market functioning, including for supporting bilateral trading on the OTC market. EPAD coupling or a TSOs' support of a market maker function for EPAD products would incentivise market participants to trade with standard products on organised trading platforms (i.e. Nordic system price forwards and futures as well as EPADs). ACER thus expects that any intervention supporting the EPAD market would enhance market transparency. In case of issuing LTTRs on the FI-SE bidding zone borders, ACER sees a significant risk of supporting bilateral trading on the OTC market to the extent that would undermine transparency and efficient price signals and thereby efficient market functioning (also see Recital (93)). Also the risk of market concentration (see Recital (99)) could have a potential negative impact on transparency. Market participants in a dominant position may not have an interest to act on the market in a transparent manner, since they could take more advantage of their dominant role in a non-transparent market

environment. Therefore, ACER expects that issuing LTTRs on the FI-SE bidding zone borders would have a negative impact on market transparency.

6.5.5. TSO costs and network tariffs

- (191) The analysed solutions may have different impacts on the TSOs' costs and revenues. These costs and revenues may translate into higher/lower network tariffs affecting the electricity consumers. These costs and revenues could also impact the TSOs' resources available for performing network investments, which contributes to the efficient long-term operation and development of the electricity transmission system.
- (192) Issuing of LTTRs may cause a significant reduction of TSOs' congestion income. ACER sees a significant risk that the LTTRs on the FI-SE bidding zone border would be undervalued. This effect has been observed and demonstrated on most bidding zone borders in Europe (see for example Section 6.2 of ACER Market Monitoring Report from 2015²¹). ACER is concerned that the scope of this risk may be significantly higher in the case of the FI-SE bidding zone borders compared to bidding zone borders in Continental Europe. This is because, in the present case, LTTRs could not be combined with zonal products (zonal futures and forwards), but rather with system price products (system price futures and forwards and EPADs). This would make LTTRs less useful and hedging more complex than in the Continental Europe. In fact, some respondents to the public consultation stated that they would not be able to participate in LTTR auction due to this complexity (see Recital (99)).
- (193) As explained in Recital (165), coupling of EPADs by implicit allocation of long-term cross-zonal capacity can be considered an optimised form of allocation which can provide hedging opportunities and is not subject to the same risk of undervalued cross-zonal capacity. Therefore, ACER expects an improved price formation for the allocation of cross-zonal capacity in case of EPAD coupling. This may reduce network tariffs or provide additional resources to the TSOs for network development. The market maker function would not have an impact on TSOs' congestion income, since it does not involve any use of cross-zonal capacity.
- (194) The costs for implementation and operation of the market maker function and EPAD coupling are uncertain. While the implementation costs to the market maker function may be limited due to limited technical complexity, the operational costs for such function can be very significant. ACER sees a significant risk related to the uncertain outcome of the tender for a market maker function might which may result in high costs for TSOs for remunerating market participants performing this function (also see Recital (147)).

²¹ https://acer.europa.eu/Official_documents/Acts_of_the_Agency/Publication/ACER%20Market%20Monitoring%20Report%202015%20-%20ELECTRICITY.pdf

6.5.6. Level-playing field for market participants

- (195) As described in Recital (110), issuing LTTRs on the FI-SE bidding zone borders would be a solution harmonised with large parts of Europe, but it is uncertain whether it would actually ensure a level-playing field across the EU. Based on the feedback to ACER's consultation, some (smaller) market participants would find it difficult to participate in LTTR auctions. Lack of resources may be a barrier, limiting their hedging opportunities to the established hedging products, while bigger market participants would have a wider range of hedging products to use. This may also promote market concentration in the Nordic electricity forward market. On the other hand, EPAD coupling or the market maker function would improve transparency and liquidity for all the Nordic market participants and provide them with equal access to one standard hedging product which can directly address their hedging needs.

6.5.7. Implementation timeline

- (196) ACER expects that the three assessed measures would differ in terms of their implementation timeline. In case of LTTRs, this timeline would also differ depending on the type of LTTRs to be issued (see Recitals (83)-(84)).
- (197) Once a request to the TSOs to issue LTTRs pursuant to Article 30(5)(a) is issued, the relevant provisions of the FCA Regulation and the related terms and conditions or methodologies (TCMs) for LTTRs would become applicable to the TSOs of the FI-SE bidding zone borders.²² The applicability of these provisions does not mean that the TCMs adopted earlier for other TSOs are automatically adopted also for the Finnish and Swedish TSOs, but that they would require appropriate regulatory approvals.²³ ACER considers that these approvals can be carried out reasonably quickly, and should not in any case exceed the procedural deadlines set out in Article 4 of the FCA Regulation. Solely for the purpose of estimating the implementation timeline, ACER considers that 12 months (6 months for submitting the relevant TCM proposals by the TSOs and 6 months for their regulatory approvals) would be a reasonable estimate.
- (198) Further, ACER understands that approximately 5 months would be needed to introduce a new TSO and a new bidding zone border on the SAP. Such process could however also be prepared in parallel to the development of the relevant TCM proposals and their approval processes.
- (199) As noted above, the implementation timeline of LTTRs would differ depending on their type. Since the relevant TCM proposals would be less complex in case of FTR options (see Recital (85)), it is reasonable to assume that this type of LTTRs may be implemented on the FI-SE bidding zone borders already by the time of auctioning

²² Article 16, 28, 29, 31 to 57, 59 and 61 of the FCA Regulation.

²³ See ACER Opinion 03/2022 of 8 March 2022 relating to the implementation of long-term transmission rights on the FI-EE bidding zone border.

yearly LTTRs for 2024, which is in November 2023. This implies an implementation timeline of approx. 14 months calculated from the date of the adoption of this Decision. In case of FTR obligations (preferred by a majority of the respondents to ACER's consultation) the implementation time could take significantly longer due to the required adaptations of the SAP requirements, tools and systems (see also Recital (85)).

- (200) Following a request to the TSOs to ensure the availability of other long-term cross-zonal hedging products pursuant to Article 30(5)(b) of the FCA Regulation, the Finnish and the Swedish TSOs would have 6 months to develop the necessary arrangements and submit them to the competent regulatory authorities for approval. In accordance with point (a) of the second subparagraph of Article 6(10) of Regulation (EU) 2019/942, the regulatory authorities have 6 months to reach an agreement on the TSOs' proposal.
- (201) Article 30(6) of the FCA Regulation further specifies that the approval proposal shall be implemented no later than 6 months after its approval with a possible extension of another 6 months.
- (202) Based on the above, and assuming that a 6 month extension for the implementation might be required, ACER estimates that the implementation of the EPAD coupling would likely take approx. 2 years. Since a TSOs' support of a market maker function for EPAD products is technically less challenging compared to EPAD coupling, it is reasonable to assume that such extension of six months is not needed and a shorter implementation time (i.e. 1.5 years) for this solution may be assumed.
- (203) In their responses to ACER's preliminary position, Fingrid and EV highlighted the need of the Finnish market participants for a fast solution to address the insufficient hedging opportunities. Considering the expected implementation times, Fingrid and EV pointed out that LTTRs would be able to meet the need for hedging opportunities much faster than any alternative solution under Article 30(5)(b) of the FCA Regulation, and should therefore be favoured.
- (204) ACER agrees that the implementation of LTTRs would be quicker than any EPAD-related solution. ACER also understands the urgency of the problem and notes the comments of EV, Fingrid and the Finnish market participants who would like to see improved hedging opportunities as soon as possible. However, ACER considers that LTTRs would not serve this purpose as well as other solutions, which – even if they take longer to implement – would be more effective in providing hedging opportunities, and less damaging to the existing forward market in the Nordic region.

6.5.8. Overall expected impact on available hedging opportunities on the FI-SE bidding zone borders

- (205) Considering the above comparison under each category (sections 6.5.1 to 6.5.7), ACER expects that both solutions supporting the EPAD market (EPAD coupling and the market maker function) would have an overall positive impact on the hedging opportunities on the FI-SE bidding zone borders. Having said that, ACER's assessment of the two solutions shows that EPAD coupling appears to be more effective in addressing the problem of insufficient hedging opportunities.

- (206) In contrast, issuing LTTRs on the FI-SE bidding zone border is subject to significant risks. As explained above, LTTRs are not well suited to complement the existing market design in Nordic region and would be likely detrimental to the current arrangements in the Nordic electricity forward market. As such, their overall impact on the availability of hedging opportunities in the Finnish bidding zone is uncertain in ACER’s view. If the risks considered by ACER materialise, LTTRs may actually worsen the hedging opportunities in the Finnish bidding zone, rather than improving them.
- (207) Table 1 below provides an overview on the expected impacts of each market intervention under each category considered above.

Table 1: Comparison of expected impacts

	LTTRs	EPAD coupling	Market maker
Supply/demand asymmetry	+	++	0
Liquidity of EPADs	-/0/+	++	+
Liquidity of system price	-/0	0/+	0/+
Market transparency	-/0	0/+	0/+
TSO costs and network tariffs	-	+	-/0
Level playing field	-	+	+
Overall impact on hedging opportunities	-/0/+	++	+
Estimated implementation time	14 months	2 years	1.5 years

7. CONCLUSION

- (208) Any regulatory intervention in the market must be carefully assessed in terms of its suitability to achieve the objective and its market impacts. Any regulatory intervention must also be proportionate. This means that it must not only be suitable to achieve the objective, but it must also be limited in its content and form to what is necessary to solve the problem it is designed to address. In other words, the intensity of a regulatory intervention must match the identified problem. For this, it is necessary to establish that there are no other, less restrictive, less burdensome or less intrusive measures available that could be equally effective in achieving the objective.

- (209) Article 30(5) of the FCA Regulation allows to choose between two types of regulatory intervention to address insufficient hedging opportunities: issuing LTTRs or requesting the TSOs to ensure the availability of other long-term cross-zonal hedging products. ACER has carefully analysed both types of intervention, considering the specifics of the Finnish and Swedish bidding zones and the particular design of the Nordic electricity forward market. The FCA Regulation does not prescribe how to ensure the availability of other long-term cross-zonal products but leaves it to the TSOs to propose the appropriate solutions.
- (210) ACER's assessment shows that LTTRs would provide additional hedging opportunities, but this would likely come at the expense of worsening the existing hedging opportunities. In particular, introducing LTTRs on the FI-SE bidding zone borders would come with considerable risks for the existing electricity forward market design in the Nordic region. Even if only some of these risks materialise, the overall hedging opportunities in the Finnish bidding zone may in fact diminish. Hence, the overall impact of LTTRs on hedging opportunities is questionable.
- (211) In view of the risks related to the introduction of LTTRs, ACER has explored the other type of regulatory intervention which the TSOs may consider under Article 30(5) of the FCA Regulation. Since it is impossible to assess the expected impacts of a market intervention which is not yet defined, ACER has identified two potential workable solutions to support the existing EPAD market and assessed them in terms of their suitability to improve hedging opportunities and their market impacts. The assessed solutions are EPAD coupling and TSOs' support for a market maker function.
- (212) ACER's assessment shows that both EPADs-related solutions are in principle suitable to address the problem of insufficient hedging opportunities in the Finnish bidding zone, and are also expected to be more effective than LTTRs in addressing this problem. None of them pose the kind of risks for the existing hedging opportunities and the functioning of the Nordic electricity forward market that LTTRs do. Since the EPADs-related solutions aim to support the established hedging products already used by the market participants, they would be less intrusive to the market and less burdensome for the market participants when compared with the LTTRs. At the same time, depending on their eventual design, these potential solutions could be more effective than the LTTRs in addressing insufficient hedging opportunities in the Finnish bidding zone. Therefore, considering the principle of proportionality, these solutions would present a more appropriate market intervention with regard to the FI-SE bidding zone borders.
- (213) ACER notes that the implementation of LTTRs would be quicker than any EPAD-related solution. However, since the EPAD-related solutions are considered more suitable and less intrusive compared to LTTRs, ACER considers the ensuing one year of delay as acceptable.
- (214) For the above reasons, ACER chooses to request the Finnish and the Swedish TSOs to ensure availability of other long-term cross-zonal hedging products in line with Article 30(5)(b) of the FCA Regulation.

(215) Out of the two EPAD-related solutions assessed by ACER, EPAD coupling appears more effective in improving hedging opportunities than the market maker function, as the latter would not be able to address the structural asymmetry problem and would be less aligned with the objectives of the FCA Regulation. For this reason, ACER recommends that the TSOs further explore EPAD coupling when developing their proposal pursuant to Article 30(6) of the FCA Regulation,

HAS ADOPTED THIS DECISION:

Article 1

1. The addresses of this Decision are requested to make sure that other long-term cross-zonal hedging products are made available to support the functioning of wholesale electricity market.
2. To this aim, the addresses of this Decision shall develop the necessary arrangements concerning the SE1-FI and SE3-FI bidding zone borders, and submit them to the competent regulatory authorities for approval within six months of the day of notification of this Decision.

Article 2

This Decision is addressed to Fingrid – Fingrid Oyj; Kraftnät Åland - Kraftnät Åland Ab and Svenska Kraftnät - Affärsverket svenska kraftnät.

Done at Ljubljana, on 14 September 2022.

- SIGNED -

*For the Agency
The Director*

C. ZINGLERSEN

Annex:

Annex I – Evaluation of responses to the public consultation (*for information only*)

In accordance with Article 28 of Regulation (EU) 2019/942, the addressees may appeal against this Decision by filing an appeal, together with the statement of grounds, in writing at the Board of Appeal of ACER within two months of the day of notification of this Decision.

In accordance with Article 29 of Regulation (EU) 2019/942, the addressees may bring an action for the annulment before the Court of Justice only after the exhaustion of the appeal procedure referred to in Article 28 of that Regulation.