

I-SEM

Energy Trading Arrangements

Trading and Settlement Code

Consultation Paper

SEM-16-075

Aughinish Alumina Ltd

Response

24 Jan 2017

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This response is non-confidential

1. Introduction

Aughinish Alumina Ltd (Aughinish) as a Large Energy User (LEU) and the owner/operator of a High Efficient CHP (CHP) plant welcomes the opportunity to respond to this consultation on the Energy Trading Arrangements Trading and Settlement Code (SEM-16-075). As an existing market participant in the SEM and having been involved in the I-SEM Market Rules Working Group and other groups formed as part of the RA led work-streams. Aughinish would like to congratulate the Regulatory Authorities and the SEM Committee in presenting this consultation on the TSC amendments, which we believe, represents a fair reflection of the decisions agreed for the Energy Trading Arrangements in the balancing market.

We have completed the response template as requested. However, we would like to make a few specific comments for the SEM Committee to consider in the context of the decision of the high-level design to protect the interests of customers in both the short and the long term while also ensuring security of supply and meeting relevant environmental requirements. In presenting these points, it is important to understand the nature of the Aughinish CHP plant configuration operating within a Trading Site in the SEM and the contribution that the CHP operation makes in securing the steam supply to the alumina plant whilst contributing to system security through reliable, efficient generation and the Irish carbon reduction commitments.

Aughinish is a large alumina refinery based in West Limerick since 1983 employing almost 600 people. Aughinish is one of the largest users of energy in Ireland (circa 779MW) and one of the largest users of electricity in the SEM consuming 45MW of power 363 days of the year. Alumina produced in Aughinish is exported into a world market where it must compete against refineries with more favourable input costs. Aughinish is a viable business today because we have year-on-year improved efficiencies to where we are one of the most energy efficient plants in the world.

In 2003 Aughinish invested over US \$130M in a 160MW CHP plant to meet the power and heat needs of the alumina refinery. Since commercial operation in 2006, the CHP plant has played a major role in Ireland reaching its energy efficiency targets and reducing emissions, accounting for an average saving of approx. 330,000 tonnes of CO₂ per annum.

The alumina manufacturing facility has a constant demand for high quality steam produced from the CHP plant. The CHP plant provides that steam and is therefore an integral and indispensable component of the facility and its continued operation. The ability therefore of the CHP to export its power to the grid is critical not only to the uninterrupted operation of the alumina manufacturing facility (meeting its continuous heat demand) but also to Ireland achieving its emission targets.

2. Specific Comments

The amendments proposed to the TSC for the transition from the SEM to the I-SEM were based on the principle that participants should not be disadvantaged unnecessarily because of such changes being implemented. From Aughinish's perspective as a participant operating within a Trading Site configuration this meant specifically the continuation of:

- Settlement of energy and capacity payments on a net basis
- Recognition of priority dispatch status and the need for the CHP plant to continue to be dispatched at a de minimis level to ensure continuity of the heat supply to the alumina plant, and
- Credit arrangements on a net basis.

Settlement

The TSC algebra proposed in this consultation facilitates net settlement of energy, which Aughinish welcomes. However, we are aware that the dispatch process being on a gross basis ultimately results in Aughinish being out-of-balance in the market as a generator and as a supplier. So long as a single Imbalance Price is used in the ISEM settlement, it will result in a net financial position. Our concern is twofold:

- The risk of a future introduction of dual imbalance pricing; and
- The risk that the CHP plant could be in breach of the TSC or licence conditions because it is never in balance on a gross basis i.e. the ex-ante market position for electricity sales will never match the Physical Notifications.

Aughinish ask the RA's to consider these potential exposure and request that some form of wording is incorporated into the TSC

- To reinforce the SEM committee high-level design that there will be a single imbalance price.
- For centrally dispatched Autoproducers operating within a Trading Site to be exempt for the requirement that the PN should match the ex-ante position.

Additionally in relation to the TSC sections affected by the ongoing consultation on 'Energy Trading Arrangements Basis for Supplier Charging SEM-16-051' Aughinish strongly contends that it is important that the algebra does not penalise Autoproducers operating within a Trading Site by imposing supplier charges when they are exporting power. In any instant, a site can only be a generator or a supplier. Supplier charges should naturally apply when a site is consuming power, this would be consistent as treatment in the SEM today.

Priority Dispatch and Continuity of Heat Supply

Aughinish welcome the retention of priority dispatch within the I-SEM but remain concerned that as increased penetration of renewables onto the system. The possibility of the CHP plant being dispatched off remains as a significant threat to the continued operation of the alumina plant. We have approached the RAs and the SO requesting that although the CHP plant is dispatched on a gross basis there should be a requirement that the CHP plant cannot be dispatched below an agreed de minimis level. If the situation occurs that this would happen then sufficient notice would be given to ensure the continuity of the heat supply. This is a requirement under the Energy Efficiency Directive (2012/27/EU) and SI No 426 of 2014.

Credit Arrangements

Aughinish understand that the Required Credit for generators in the ISEM will be more than it is currently if they intend participating in both the Ex-Ante market and the Balancing Market due to the new delivery risk on the BM. Efforts should be made in the TSC and the subsequent parameters setting process to minimise the Participant's Required Credit Cover requirements especially for generators by implementing efficient systems based on a trading day as opposed to a trading week.

Specific to Autoproducers Aughinish ask that Participant's Required Credit Cover needs to reflect the participants net position in the market.

Overleaf please find the completed response template, appendix A.

As always, Aughinish is at your disposal if further clarification is needed.

Best Regards,
Thomas O'Sullivan
Sr Business Analyst | Aughinish Alumina Ltd.

3. APPENDIX A RESPONSE TEMPLATE

SUMMARY INFORMATION

Respondent's Name	Aughinish Alumina Limited
Type of Stakeholder	Large Energy User, Trading Site Supplier Unit, Generator
Contact name (for any queries)	Thomas O'Sullivan
Contact Email Address	thomas.osullivan@augh.com
Contact Telephone Number	+353 61 604473

I-SEM TSC COMMENTS

ID	I-SEM TSC Reference	Short Title	Commentary / Explanation	Suggested Drafting Change to the TSC	Relevant Cross-
1	AP1	Registration	No comment		
2	AP3	Communication Channel Qualification	No comment		
3	AP4	Transaction Submission and Validation	No comment		
4	AP5	Data Storage and IT Security	No comment		
5	AP6	Data Publication and Data Reporting	No comment		
6	AP7	Emergency Communications	No comment		

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7	AP9	Management of Credit Cover and Credit Default	<p>As a general principle, Participant's Required Credit Cover needs to reflect the participants' net position in the market.</p> <p>Aughinish understand that the Participants Required Credit cover for a generator in the ISEM will be more than it is currently if they intend participating in both the Ex-Ante market and the Balancing Market due to the new delivery risk on the BM.</p> <p>Efforts should be made in the TSC and the subsequent parameters setting process to minimise the Participant's Required Credit Cover requirements, especially for generators, by implementing efficient systems based on a trading day as opposed to a trading week.</p>	
8	AP10	Settlement Reallocation	No comment	
9	AP11	Market System Operation, Testing, Upgrading and Support	No comment	
10	AP12	Modifications Committee Operation	No comment	
11	AP13	Settlement Queries	No comment	
12	AP14	Disputes	No comment	
13	AP15	Settlement and Billing	No comment	
14	AP16	Provision of Metered Data	No comment	
15	AP17	Banking and Participant Payments	No comment	
16	AP18	Suspension and Termination	No comment	
17	Draft TSC E1.1	IMBALANCE PRICING	<p>As an Autoproducer, trading as a Trading Unit in the ExAnte market Aughinish will always be out of balance. A single Imbalance Price and a single Imbalance Settlement Price is critical to fair treatment. Aughinish would like to see the TSC stipulate the HLD decision for a single imbalance price, in addition to it being reflected in the algebra.</p> <p>If ever there was not a single imbalance price Aughinish would have to be dispatched on a net basis to remove the risk of dual pricing.</p>	<p>Aughinish suggest the following text is included in the TSC:</p> <p>E.1.1.1 (c) the Imbalance Price (PIMBϕ) for each Imbalance Pricing Period ϕ; will be a single price for buy or sell actions</p> <p>E.1.1.1 (d) the Imbalance Settlement Price (PIMBγ) for each Imbalance Settlement Period γ will be a single price for buy or sell actions</p>

18	Draft TSC F.4.2	F. CALCULATION OF PAYMENTS AND CHARGES F.4.2 Setting of Loss Adjustment Factors	<p>In order to future proof the ISEM TSC, Supplier loss factors should be included in the text and in the algebra. If deemed appropriate this can be set to 1.</p> <p>1) The current TLAFs, which applies only to generators, does little to solve location issues. 2) In the CRM consultation is recognised that loss factors should be reviewed in the future as part of solution to some of our transmission constraints. 3) It would remove a barrier to future decisions on loss factors.</p>		
19	Draft TSC F.12	Imperfection charges	<p>In relation to the TSC sections affected by the ongoing consultation on 'Energy Trading Arrangements Basis for Supplier Charging SEM-16-051' Aughinish want it noted that it is important that the algebra does not penalise Autoproducers operating within a Trading Site by imposing supplier charges when they are exporting power.</p> <p>In any instant, a site can only be a generator or a supplier. Supplier charges should naturally apply when a site is consuming power.</p> <p>This would be consistent as treatment in the SEM today.</p>		
20	Draft TSC F.14	Residual Error Volume Charge			
21	Draft TSC F.15	Currency Adjustment Payment or Charge			
22	Draft TSC F.19	Capacity Charge			
23	Draft TSC F.19.4	Difference Payment Socialisation Charge			
24	Draft TSC G.7.3	Variable Market Operator Charge			
25	Draft TSC F.12.2	Imperfection charges	<p>Also part of our response to ongoing consultation SEM-16-051 Aughinish highlighted our concerns around the application of loss adjustments to non-negative Trading Site Supplier Unit.</p> <p>We also believe losses should be applied to the net position of an Autoproducer. For example, if a site is generating 10MW and the same site is consuming 10MW the resultant volume should be zero. However, under an earlier drafting the site would be liable to pay charges on losses for power never exported to the market, which would not make sense.</p> <p>This approach should apply to all other non-energy supplier related charges applicable to a TSSU.</p>	Suggested algebra has been submitted as part of the Aughinish response to the SEM-16-051 consultation on Energy Trading Arrangements Basis for Supplier Charging	

26	Draft TSC G.7.3	Variable Market Operator Charge	<p>Variable Market Operator Charge for TSSUs not consistent with supplier charges in Chapter F.</p> <p>Aughinish propose that the treatment of TSSUs in chapter G, specifically under VMOC, should be consistent with the calculation used in chapter F i.e. a specific calculation is required for TSSUs and should result in the VMOC being zero when generation exceeds demand at the trading site. VMOC should be charged on any volume when demand is greater than onsite generation.</p>	<p>Variable Market Operator Charge</p> <p>G.7.3.1a The Market Operator shall calculate the Variable Market Operator Charge (CVMOpb) for Participant p in respect of its Supplier Units, which is not a Trading Site Supplier Unit, in Billing Period b as follows:</p> <p><i>Algebra following consultation</i></p> <p>G.7.3.1b The Market Operator shall calculate the Variable Market Operator Charge (CVMOpb) for each Trading Site Supplier Unit, v, in each Imbalance Settlement Period, γ, as follows:</p> <p><i>Algebra following consultation</i></p>
27	APPENDIX A: Standard Letter of Credit		No comment	
28	APPENDIX B: Dispute Resolution Agreement		No comment	
29	APPENDIX C: Form of Authority		No comment	
30	APPENDIX D: List of Agreed Procedures		No comment	
31	APPENDIX E: Data Publication		No comment	
32	APPENDIX F: Other Communications		No comment	
33	APPENDIX G: Settlement Statements, Settlement Reports And Settlement Documents		No comment	
34	APPENDIX H: Data Requirements for Registration		No comment	
35	APPENDIX I: Offer Data		No comment	

36	APPENDIX I: Offer Data, Page A54,	Physical Notification Data for Generator Units and Supplier Units	Is submission of a PN optional for a Supplier unit?Perhaps the word 'shall' should be replaced with 'may'See red text in the Suggest Drafting Change to the TSC section	Physical Notification Data for Generator Units and Supplier Units ¹⁶ . Each Participant shall submit Physical Notification Data to the Market Operator in respect of each of its Generator Units and Supplier Units in accordance with paragraphs 1 to 15 of this Appendix inclusive and paragraph 17 of this Appendix, subject to the following requirements:(a) Data shall be submitted to reflect the Output intended by the Participant for each of its Generator Units, excluding Accepted Offers and Accepted Bids, as set out in paragraph D.7.1.3;(b) Data submitted in respect of a Generator Unit shall be submitted such that it is consistent with the Technical Offer Data for that Generator Unit as set out in paragraph D.7.1.4;(c) A Participant submitting Physical Notification Data for a Generator Unit must do so in the following way, except as allowed under subparagraph (d):(i) Each From MW Level and Time must have the same values as the immediately previous To MW Level and Time, with the exception of the first From MW Level and Time for a Trading Day;(ii) Each From MW Level and To MW Level submitted in respect of a Dispatchable Generator Unit cannot be less than the Minimum Generation for the Unit, and cannot be greater than the Maximum Generation for the Unit, submitted in accordance with Appendix H "Participant and Unit Registration and Deregistration".(d) A Participant submitting Physical Notification Data <u>may</u> submit Physical Notification Data for a Supplier Unit, a Participant submitting Physical Notification Data may submit Physical Notification Data for a Generator Unit which has a Registered Capacity of less than the De Minimis Threshold, or a Generator Unit which is not Dispatchable, and the Aggregator of Last Resort submitting Physical Notification Data may submit Physical Notification Data on behalf of Generator Units, in the following way while being deemed to be compliant with the requirements in paragraphs D.7.1.3 and D.7.1.4:
37	APPENDIX J: Data transactions from Market operator to System Operator		No comment	
38	APPENDIX K: Other Market Data Transactions		No comment	
39	APPENDIX L: METER DATA TRANSACTIONS		No comment	



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40	APPENDIX M: CAPACITY MARKET DATA TRANSACTIONS		No comment		
41	APPENDIX N: FLAGGING & TAGGING		No comment		
42	APPENDIX O: INSTRUCTION PROFILING CALCULATIONS		No comment		