



# Single Electricity Market

## TERMS OF REFERENCE WORKING GROUP

MOD\_13\_19

### PAYMENT FOR ENERGY CONSUMPTION IN SEM FOR NON-ENERGY SERVICES DISPATCH

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**Distribution List**

| Name                            | Organisation            |
|---------------------------------|-------------------------|
| Modifications Committee Members | Modifications Committee |
| Modifications Proposer          | EirGrid                 |
|                                 |                         |

**Reference Documents**

| Document Name                                      |
|--|
| <a href="#">Trading and Settlement Code Part A</a> |
| <a href="#">Trading and Settlement Code Part B</a> |
| <a href="#">Modification Proposal</a>              |
| <a href="#">Modification Proposal v2</a>           |
| <a href="#">Presentation</a>                       |
| <a href="#">Presentation 2</a>                     |
| <a href="#">Presentation 3</a>                     |
| <a href="#">Conference Call minutes</a>            |
| <a href="#">Meeting 93 Minutes</a>                 |
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| <a href="#">Meeting 98 Minutes</a>                 |
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| <a href="#">Conference call Minutes</a>            |
| <a href="#">Meeting 100</a>                        |
| <a href="#">Meeting 101</a>                        |

## 1 INTRODUCTION

Modification Proposal Mod\_13\_19 Payment for Energy Consumption in SEM for non-energy Services Dispatch was presented by EirGrid at Meeting 93 of the Modifications Committee on 22<sup>nd</sup> August 2019 and was then deferred at Meeting 94 on 24<sup>th</sup> October 2019, Meeting 95 on 5<sup>th</sup> December 2019, Meeting 97 on 20<sup>th</sup> February 2020, and Meeting 98 on 23<sup>rd</sup> April 2020. It was then discussed at Meeting 99 on 18<sup>th</sup> June 2020 where it was discussed that a Working Group might be a suitable way to progress the Modification. A subsequent Industry Conference call was held on 21<sup>st</sup> July 2020. The findings from this Industry Call were presented at Meeting 100 on the 20<sup>th</sup> August 2020 and at Meeting 101 on 20<sup>th</sup> October it was agreed that a Working Group should be convened.

### MEETING 93 – 22<sup>ND</sup> AUGUST 2019

The Proposer delivered a [presentation](#) on this Modification highlighting that there was no legal drafting as the Modification Proposal is provisional. The proposal arises from the fact that not all operation modes of units are modelled in the market and units may incur energy costs when running in certain modes. For example units such as synchronous compensators or wind farms at zero MW may provide needed voltage support to the Grid, but in order to operate in this way will consume energy. In the future there may be other technologies that need to be dispatched for non-energy actions and that will consume energy which also needs to be accounted for. Currently the TSO needs to put out-of-market contracts in place to account for these pass-through energy costs, which is not transparent. If units providing non-energy services such as voltage support were not remunerated in this way, the TSO would have to dispatch other units, increasing imperfections costs.

It was noted that the idea of DS3 System Services was to get away from the bilateral contracts structure of the past and to be more transparent. The Proposer noted that the proposal had been discussed with SEMO and that there were various implementation options, such as profiling a “synch comp” instruction or equivalent for other non-energy dispatch actions, in such a way as to account for the energy consumed. The Proposer welcomed ideas on how best to implement the proposal. It was agreed by the RAs that the proposal is merited and units that consume energy for non-energy dispatch actions should be accounted for in the market. Other Members were also supportive of the principle of accounting for energy associated with non-energy dispatch actions in the market. It was noted that there may be other units that need to be considered, such as wind operating at zero MW or new emerging technologies, and more analysis may be needed. A brief discussion took place around the potential system impacts of implementing the proposal and that a solution that limits the impact to settlement system only might be preferable in terms of costs and complexity.

A proposal for a Working Group was raised but the RAs suggested deferral of this Modification Proposal to allow the Proposer to develop its design in more detail, together with SEMO, with a view to returning with detailed legal drafting or at least with a straw man for discussion.

### MEETING 94 – 24<sup>TH</sup> OCTOBER 2019

The Proposer was not in attendance at the meeting. SEMO provided an update confirming that some progress had been made on version 2 of this proposal. SO Member confirmed that some metering issues were identified and a meeting will be set up with Meter Data Providers and SEMO to discuss this. The Committee agreed to defer the proposal pending follow up actions.

### MEETING 95 – 5 DECEMBER 2019

The Proposer provided a background to this Modification Proposal which looks to explore options to provide compensation for energy consumed whilst providing voltage support. It was confirmed that a meeting will be held next week with MDP Participants to discuss some ideas on what can be done with metering to begin with. It is expected a more detailed Modification Proposal will be submitted in due course for future meetings.

An Observer commented on the positive aspects of this Modification Proposal and hoped to get involved in the process. SEMO suggested that a Working Group may be beneficial to look into the options in more detail after exploring the most efficient options of how this could be implemented.

### **MEETING 97 – 20<sup>TH</sup> FEBRUARY 2020**

The TSO Alternate provided a summary on behalf of the Proposer on the background to this Modification Proposal which looks to explore options to provide compensation for energy consumed whilst providing voltage support. The TSO Alternate explained that there have been discussions with the MDP and a solution to getting the data had not been found and the initial high level impact assessment shows that this would take up to 2-3 years to implement. There were various options on how to treat the data once received but an enduring solution had not yet been found and a request was made for more time to seek these solutions. A Generator Member noted that this Modification Proposal had been deferred once again and suggested that this may be the wrong forum for this change and it may be something that needs to be developed in the DS3 space. The TSO Alternate noted that this case had been made when the Modification was initially presented and it was a debatable issue. A SEMO Representative noted that the difficulty was mainly due to the fact that the TSO could not tender for this service as they were not providing a payment but only a cost recovery for the demand consumption and having that within the Balancing Market would make the process more transparent. Also it was noted that due to differences in meter's installations, TSO Meter's channel could be modified to provide adequate data but the difficulties was mostly on the DSO side. Meetings had been arranged with MDPs to discuss some ideas on what can be done to overcome such difficulties. An MDP Member advised that meters need to capture this information and from a system point of view he noted that there could be challenges. Another MDP Member agreed with this point stating that meters would need to be reconfigured as well as settlement systems and this would not be a simple task. The MDPs recommended further engagement with the TSO on this issue over the next few weeks and suggested a call to discuss it further including possible manual solutions. A discussion ensued around timelines for progression. The Secretariat gave an overview of the extension process if more time was required for the above investigation and assurance was given that progression on the resolution of the Settlement can run in parallel with the current discussions on metered data.

### **MEETING 98 – 23<sup>RD</sup> APRIL 2020**

The Proposer provided a background to this Modification summarising that there was an issue around dispatching units for non-energy reasons and the recovery of associated costs. The Proposer provided some examples on where energy should be accounted for in the market and advised that this Modification could be applicable to other services in the future like Wind units on zero MW outputs providing reactive power for example. It was confirmed that a lot of discussion had occurred between System Operators and MDPs on this and ways were being investigated of getting into the market including a possible manual workaround. It was noted that although they were looking to have this implemented as soon as possible, the uncertainty on the final solution and the lead times for any system changes required that an interim solution be put in place. Discussions with the RAs would be necessary and a tender may be proposed for these services with an industry consultation for wind farms especially. The recommendation was that the Modification and the interim process could run in parallel. A Generator Member and Supplier Member queried the tender and the timelines. The Proposer noted that because of having to encompass existing units and units that would provide this mode it was likely that the tender, which will be run by EirGrid, would take 12 months approximately. This would include the discussion with the RAs, consultation and running of the tender. How it progresses would also depend on the outcome of discussions with the RAs. A Generator Member pointed out that this Modification needs to be progressed and a 12 month timeline for a Modification to move forward is a long period of time. The Proposer appreciated the comment but noted that there was a lot of work done already and finding a solution was paramount. The Proposer is of the opinion that it would be beneficial to maintain the Modification active as a solution could be devised once some of the initial obstacles were addressed, leaving then time for impact assessments and implementation. A TSO Member explained they were conscious of other Modifications being impact assessed but noted that finding an interim solution will help with the thoughts of finding the ultimate solution. It was appreciated that the continuous extending of this Modification was not ideal but it was worth giving it some time for analysis and

solutions on the understanding that progress on the design of the change would be shared at subsequent meetings to ensure that the proposal is developed in a timely fashion. The Committee agreed to the Modification Proposal being deferred but under the clear understanding that the Members must see more progress made and the Proposer must provide more clarity and information in advance of and at the next meeting.

### **MEETING 99 – 18<sup>TH</sup> JUNE 2020**

The Proposer delivered a [presentation](#) on this Modification noting that not all generator modes are modelled in SEM and this should be accounted for rather than having out of market contracts. The Proposer advised that it was known the proposed new solution would not be straightforward. The Proposer went through the slides examining the different solutions which had been considered. The Proposer advised that Solution 1 whereby a new Dispatch Instruction type would be created appeared to be the most ideal solution but there would be complexity around this. It was noted that the general feedback from Market Operations would be that the cost would be expected to be high as there was a change to Instruction Profiling and a number of systems were affected. Therefore other alternatives were looked at. Of the other solutions that were presented, Option 4 was the one with most promise and would likely be faster and easier than Option 1. It was proposed by a Participant in the context of windfarms but could also be applied to other units. The Proposer advised that more time would be needed to go through all of the solutions and made a recommendation that a Working Group be convened to discuss the solutions submitted and any other viable ones. There was support from a number of Members for a Working Group to take place with an agreement that this is a complex area and getting wider industry involved is a good idea. The Secretariat advised the Committee that the earliest this Working Group could be convened would be late September / early October due to other conflicting works. It was suggested that a conference call could be organised before the Working Group is formalised to go through the solutions in more detail and have a stronger base for the Working Group. There was an agreement amongst Committee Members that this was a sensible option and would make the Working Group more productive. An RA Member made a point regarding solution 4 noting that there was a requirement for Trading Site Supplier Units (TSSUs) to hold a supply licence and this would need to be explored further in any future discussions. A Generator Member stated that they previously made the point that this was a DS3 issue and they still stand by it. A suggestion was made that a tariff should be developed for people to sign up to and this would also be transparent. A discussion ensued with a point raised by the Proposer that energy consumption needs to be accounted for while the TSO noted that part of the rationale for a market treatment is that this approach could lead to saving in Imperfections as it would lead to less thermal units being re-dispatched. A Representative from Aughinish gave support for the Modification noting they were looking at a new technology that would benefit from this. A request was made to progress Option 1 also in parallel. The Proposer advised it would depend on what the interim solution would be. The interim solution would need to be implemented as quickly as possible while covering as best as it can the aim of the potential enduring solution. No option was off the table but practicalities of implementation and Impact Assessments had to be considered.

### **CONFERENCE CALL – 21<sup>ST</sup> JULY 2020**

- Niamh Delaney (ND) gave a summary of the background of this Modification and the options discussed to date.
- Mark Alexander (MA) – Questioned whether this Modification related to SSRP only or whether there was an impact on the settlement of reserve services in the balancing arrangements. There was a brief discussion of how reserve is settled by DS3 System Services and agreement that further questions should be addressed offline (by sending an email to the DS3 inbox).
- Andrew Burke (AB): Asked whether the intention of the Modification was that thermal units are not dispatched on just for voltage support, increasing imperfections. ND confirmed that yes, if units, such as windfarms, can provide reactive power at 0MW and this removes the need for the TSOs to dispatch more expensive units for voltage support, it reduces dispatch balancing costs. AB noted his support for the intent of the proposal and that it will become increasingly important as a means to reduce Imperfections.

- William Carr (WC): Gave more details on Option 4, explaining that it draws on the experience of other units that are set up in the market like this. Highlighted that anything we do now is a partial solution and further discussions on future arrangements and future market design should take a longer term solution for this into account. Rates in DS3 contracts do not cover the operating cost of a unit to provide the service.
- MA: A unit providing reactive power should not be hit with the energy cost associated with providing it and there is the potential to be exposed to volatile Imbalance prices for this energy consumption. Although Balancing Market prices are volatile and could be unfair for plants, it would probably still be better than the retail price.
- AB: asked whether the market charges CIMB could be set to zero during trading periods when a unit was instructed to operate in this way. Others agreed this option would need to be investigated and assessed further.  
**Action:** Assessment needed of exactly what parameters/charges should be set to zero.
- MA: Noted that a solution must suit all technologies including storage. Paper published by CRU on network charges for storage should be considered as part of this discussion. The paper incentivises low MIC, so any increase in value will be detrimental to storage.
- Sinead O'Hare (SO'H): questioned why energy costs should not be handled through DS3 System Services contracts.
- ND: Clarified that DS3 pays for the service not the energy.
- Marc Senouci (MS): The provision of reactive power by a given unit could cause an energy imbalance and as such settlement of the energy needs to be addressed in the balancing arrangements also.
- Discussion of issues that need to be solved with Option 4: The MIC would be exceeded leading to overrun charges and would need to be renegotiated.  
Would need a means to distinguish on-site load being serviced. It is not clear at the moment how this will be done.
- WC: With regard to the recent RA decision on PSO levy – baseload: final user, there needs to be a consistent view of the application of energy wholesale to non-final user.
- WC: asked whether the scalar for Wattless Vars in the DS3 System Services arrangements should be made more attractive and whether the tolerance on getting the scalar should be adjusted.
- ND: Noted that the tolerance was an area that was being looked at, although not currently the scalar value.
- ND: Regarding exceeding MIC, asked if anyone had a view regarding by how much MIC would be exceeded to provide required import energy?
- WC: Would need to check % increase in import energy when providing reactive power. Need to check what the actual operating/overrun costs are to ensure any charges on the service providing unit are not overly penal.
- **Action:** Participants to check this.
- Bobby Smith (BS): Does this only apply for reactive power or also inertia, for example synch condensers providing inertia which have an associated cost.
- ND: Under current arrangements such a unit would most likely also be providing reactive power at the same time and have a single energy consumption cost for both, although depending on the future arrangements, this may be designed differently.
- MA: Any solution agreed now must also consider a longer term view with proper remuneration of services.
- Discussion in relation to Option 1.
- Katia Compagnoni (KC): Option 1 would be very difficult to implement or even assess due to the number of systems impacted and the complexity of the changes required.
- WC: Noted that significant changes to the market design and balancing arrangements are currently being discussed as part of the implementation of articles 12 and 13 under the EU regulation on priority dispatch. Changes for this issue could be included in those discussions.

- ND: Option 4 could be pursued as an interim solution and a longer term solution could be pursued in parallel which could include an impact assessment of instruction profiler changes. While the issue being discussed now is reactive power, it could be a basis for other products dispatched for non-energy reasons.
- WC: impact assessment should be started as soon as possible hence there should be a push to get the drafting done.
- ND: Can agree to progress option 4 and gather material for an impact assessment of option 1.
- Ian Mullins (IM): Asked whether a Working Group would still be formed. ND confirmed that that was the intention, but would not be until September due to Modifications secretariat commitments.

## **MEETING 100 – 20<sup>TH</sup> AUGUST 2020**

The Proposer provided a brief background on this Modification noting that an Industry Conference Call took place on 21st July 2020 where 4 options were discussed in order to progress this Modification and minutes for this call were published on the SEMO website. It was advised that there were a number of follow up emails after this meeting and it was agreed that option 4 would be progressed as an interim solution and option 1 as a potential long term solution when assessment and interpretation of Article 13 and 14 of CEP are furthered. The Proposer reminded the Committee that a Working Group would be scheduled shortly and it was confirmed by the Secretariat that this would take place once the legal drafting was complete. A discussion ensued on the development of this Modification and if a Working Group could be convened without legal drafting. The Secretariat reminded the Proposer and Committee of an action taken at Meeting 99 for the Proposer to develop the legal drafting prior to a Working Group taking place in order to prepare the Terms of Reference. The Proposer agreed and assured all that this would be done. The Chair suggested that another industry call could be scheduled to progress the legal drafting and once this was complete a new version of the Modification could be submitted. The Proposer agreed with this and assured the Committee that an invite would be extended to all Participants and the Modifications Committee.

## **MEETING 101 – 22<sup>ND</sup> OCTOBER 2020**

The Proposer delivered a [presentation](#) on this Modification noting that it was raised with the main interest to reduce dispatch balancing costs. This was not just for wind farms but for a wider solution as there will be an increased need for such services in the future.

During an industry call which took place on 21<sup>st</sup> July 2020, four possible solutions were considered and following Modifications Committee Meeting 100 an action was taken against the Proposer to produce legal drafting for this Modification. The Proposer advised that two solutions were marked out as being worth further consideration but noted that one of them, which would be a more preferred and complete approach, would be difficult to design and implement therefore this particular change was not something that could be done in the short term.

A Generator Member clarified that the proposed interim approach reflected in the proposal could assign the energy being drawn for the service via a flag sent to settlement to reflect where the service was being provided thus providing for relief from Settlement charges in those periods. It was noted that there were a number of points for discussion around this approach which had been highlighted in the Proposer's presentation.

The Proposer continued through the slides examining all of the issues that were raised for consideration with the remaining possible solutions. It was advised that all relevant charges would need to be considered so as not to expose any service providers. The Proposer relayed that there was a need to confirm how energy would be accounted for and discussions with Market and System Operators are ongoing to determine if this should be a separate line item in dispatch balancing costs report.

Potential Credit cover implications for the configuration proposed in the interim solution were discussed and the Proposer advised that this would be a question put to the Committee. It was also advised that there was a process for Maximum Import Capacity changes that may be necessary to refer to in both jurisdictions. The Proposer advised that the TSO would need to check and complete an impact assessment for system implementation to produce and provide the flag indicating when a unit is in this mode and indicated that

initial investigation showed that it should be possible by potentially further developing some existing functionality such as raising an alarm.

The Proposer confirmed that all of the issues had been given initial consideration and that there were some outstanding questions but the drafting has sought to reflect the current understanding. There was a belief that it would be useful to have a Working Group which would bottom out the final solutions allowing for a pathway to be given and a recommendation report would follow for the Modification.

A Generator Member and a Supplier Member both agreed with the suggested steps forward via a Working Group to progress this Modification. It was suggested that the scope of the Working Group should include not just solution 1 and 4 but rather be open to consideration of other potential solutions. Solution 3 was a possible solution also in their view. The Proposer was in agreement with maintaining the scope open and confirmed that any other suggestions would not be excluded including any new suggestions. A Generator Alternate echoed the notion that Solution 3 should be open to discussion. Although it requires consultation and RA approval the costs are small in comparison to system impact costs of other solutions. It was asked why it was ruled out if the quantum of impact wouldn't have a significant impact. It was noted that it may not be a final solution but it was a good interim one. However the Chair commented that there was a risk of replaying the previous discussions. A lot of work had been going on in the background and going back to solutions that had been excluded would mean taking the focus away from the ones that have been assessed as more achievable.

Secretariat noted that a Working Group could be supported and encouraged Members to contact the Proposer with any comments or queries and this will allow for the Terms of Reference to be drafted and scoped adequately.

A DSU Member voiced an issue with the legal drafting for this Modification advising that the way it had been drafted meant if the flag were applied to Trading Site Supplier Units for DSUs this would have unintended consequences and further work needed to be done to amend this. It was advised that DSU cannot provide reactive power and would not therefore be affected by this and another solution may have to be discussed for any other services in the longer term.

DSU Member stated that there was a process in drafting that the System Operator will create a flag but the actual description of when the flag will have a value of one or zero was not given and although that flag was not applied to DSU Trading Site Supplier Units at the moment, it would make sense to future proof the rule for other services. The Proposer noted that this was an interim suggestion and it will allow capability for reactive power in the first instance. It was advised that it was important to make that distinction between the proposed interim solution and any broader longer term approach which cannot be accounted for at this point in time.

The Chair agreed to keeping the Terms of Reference well defined and to not waste time going back over old options whilst staying on the path to the interim and longer term solutions. It was suggested that in order to keep the scope narrow, questions, issues and comments must be highlighted before the Working Group so that these can be considered by the Proposer and Members in advance.

The SEMO Member suggested that a questionnaire could be circulated to Members before the Working Group which would prompt a response thus ensuring an efficient Working Group process. Secretariat agreed to work with the Proposer to circulate an email where there is a platform for questions and comments to be raised.

## 2 OBJECTIVES

The objectives of the Modification Working Group are to:

- a) to provide a background on the Modification to gain an understanding of the issue in question and to discuss the option available to provide a resolution to this issue;
- b) to deliver a Modification Proposal to the Modifications Committee as a final proposal to be considered and voted on.

### 3 SCOPE

The scope of the Working Group will be limited to:

- a) A discussion on Option 4 as the best solution as per Mod\_13\_19 version 2.0 following industry discussion.
- b) Discussion must be limited to consider the legal drafting proposed in Version 2.0 in seeking an interim solution.
- c) Whilst long term solutions may be mentioned in the course of discussions, these discussions must be limited, acknowledging that Mod\_13\_19 drafting relates specifically to Option 4.

### 4 DELIVERABLES

- a) Working Group report detailing the discussion and outcome of the meeting
- b) Recommendation to the Modifications Committee
- c) Finalised drafting of a Modification Proposal

### 5 STAKEHOLDERS

Market Participants, Market Operator, System Operators, Regulatory Authorities.

### 6 ROLES AND RESPONSIBILITIES

- a) Working Group Chair – to be confirmed in advance of Meeting (as stated in section 7)
- b) Any stakeholders as outlined above to participate to achieve the objectives as per Section 2
- c) Secretariat to draft report and update Modifications Committee.
- d) Proposer to update and submit revised version of modification, if appropriate

### 7 RESOURCES

- Chair to be confirmed in advance of meeting
- Secretariat
- Proposer
- Market Participant representatives
- Modifications Committee Members
- SO representatives
- MO representatives
- RA representatives

### 8 WORK BREAKDOWN STRUCTURE

- a) Review of responses and comments received in advance of the WG;
- b) Discussion on best options for an interim solution.

## 9 SCHEDULE

A half day Working Group meeting is proposed for Thursday 10<sup>th</sup> December 2020 to address the objectives of the meeting. This meeting will be held via conference call. Following this Working Group a final version of this Modification Proposal will be discussed and voted on at Meeting 103, scheduled for February 2021.

A questionnaire will be issued with the Working Group invite seeking proactive engagement with the Proposer to allow for a constructive and focused engagement.

## 10 RISKS AND RESTRAINTS

There is a risk that the Working Group may stray beyond the objectives set out above into wider issues. If such a discussion occurs, the Chairperson will refer parties to the objectives and the scope of the Working Group.