



**Integrated Single Electricity Market
(I-SEM)**

**Capacity Remuneration Mechanism
Terms of Reference for the Capacity Market Auditor
and Capacity Auction Monitor**

Decision Paper

SEM-17-023

10 April 2017

EXECUTIVE SUMMARY

Introduction

CRM Decision 3 (SEM-16-039) sets out the requirement and roles for an independent auction monitor and auditor to provide assurance on the operation of the Capacity Market as set out in the Capacity Market Code (“the Code”). Settlement of the Capacity Market occurs under the Trading and Settlement Code (TSC) and assurance on these processes is covered by the Market Auditor defined under that code.

The Regulatory Authorities will appoint the monitor and auditor and specify their terms of reference, the System Operators will pay the fees and costs of the monitor and auditor, and the monitor and auditor will report to the Regulatory Authorities. In line with the current contracting for the TSC Market Auditor, the monitor and auditor will be engaged via a tri-partite agreement which includes the System Operators in respect of their obligation to pay for the monitor and auditor.

Consultation

In line with the CRM Decision 3 (SEM-16-039) and the draft Capacity Market Code (SEM-17-004a) the Regulatory Authorities consulted on the Terms of Reference of both the Capacity Market Auditor and Capacity Auction Monitor (SEM-17-007). This consultation closed on 21st February 2017 with 5 responses received. These responses, together with those related responses to the Capacity Market Code consultation (SEM-17-004) have been considered in making this decision.

Decision

The Capacity Market Auditor (“the Auditor”) will provide independent assurance to the market and the Regulatory Authorities on the operation of the I-SEM Capacity Market as set out in the Code.

The Capacity Auction Monitor (“the Monitor”) will be responsible for assuring the processes associated directly with Capacity Auctions, i.e. from the start of qualification through to the determination of the final auction results.

The scope of both the Auditor and Monitor will be limited to those activities set out in the Capacity Market Code. There is no intention for either to directly investigate market manipulation. However, if in performing their duties either come across any incidents of potential market manipulation, they should bring these to the notice of the RAs.

Following concerns raised by respondents about the same person acting as both Monitor and Auditor the SEM Committee has given consideration to international practise both in GB and the US. The SEM Committee is not persuaded that it is necessary to have a different entity carrying out the roles of Monitor and Auditor. However, the SEM Committee will procure these roles separately but may allow procurement synergies to be realised.

The Monitor and Auditor will be independent of the System Operators. The SEM Committee considers it preferable that the Monitor or Auditor does not have a commercial contractual relationship with the System Operators. The Monitor and Auditor will report to the SEM Committee. The System Operators are entitled to attend meetings between the Auditor and the RAs only after the final report has been completed and published.

The scope of both the Monitor and the Auditor will cover compliance by the System Operators with the methodology for determining Local Capacity Constraints, including following of any relevant procedures and provisions of appropriate documentation. Furthermore, the scope of both the Monitor and Auditor will include the capacity auction algorithm. The scope of the Monitor's role will retain the policy decision set out in CRM Decision 3 (SEM-16-039) and will therefore exclude secondary trading arrangements. However, monitoring of the secondary trading arrangements will be carried out by the Auditor and the RAs Market Monitoring Unit.

In terms of materiality the Auditor will report on a volumetric basis with initial fixed levels set at 20MW for the market level and 2MW at the participant level. The Auditor will also report on any "Significant Issues" regardless of materiality in order to capture any regular incidents including those which may have a potential significant financial impact.

The SEM Committee has decided that the Monitor will report on all issues it identifies, regardless of materiality.

The SEM Committee has decided that the Monitor and Auditor will be appointed on a rolling three year basis. For the Monitor, this basis will be defined in terms of specific Capacity Auctions that are expected to fall within the three year period. For the Auditor, those areas of the Capacity Market Code covered by the Monitor (i.e. the process from the start of qualification to the award of capacity following the auction) will also be defined in terms of specific Capacity Auctions that are expected to fall within the three year period. All other activities of the Auditor will be on the basis of the three year audit period.

This decision paper builds upon the relevant policy decisions made in CRM Decision 3 (SEM-16-039). The decisions within this paper will be translated, where relevant, into the finalised Capacity Market Code. The detailed separate Terms of References for the Capacity Market Auditor and the Capacity Auction Monitor are set out in the Appendices.

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1 INTRODUCTION

1.1 BACKGROUND

- 1.1.1 The purpose of the I-SEM CRM Detailed Design is to develop through consultation the specific design features of the new capacity mechanism.
- 1.1.2 While this paper does not form part of the key design consultations it is important to the effective operation of the Capacity Auction and provides an independent check on the role of the System Operators as set out in the Capacity Market Code. The requirements for a Capacity Market Auditor and Capacity Auction Monitor are set out in the Capacity Market Code (“the Code”).

1.2 PURPOSE OF THIS PAPER

- 1.2.1 This paper sets out the Terms of Reference which will form the basis upon which the Regulatory Authorities will procure the Capacity Market Auditor (“the Auditor”) and Capacity Auction Monitor (“the Monitor”).
- 1.2.2 The Auditor role is similar to that of the Market Auditor in the existing Trading and Settlement Code. The role of the Monitor does not have an equivalent function in the current SEM, however in the GB Capacity Auction a monitor is in place.
- 1.2.3 We anticipate this procurement will commence in April 2017 through the OJEU process with appointment by the end of June to enable the Monitor to monitor the pre-qualification process.
- 1.2.4 The contract(s) will be between the Regulatory Authorities and the Monitor or Auditor, but with the System Operators as a party to the contract in respect of their obligation to pay the fees. The scope is wholly governed by the decision on these Terms of Reference, and the Regulatory Authorities (on behalf of the SEM Committee) conduct the procurement and appoint the Monitor and Auditor.

1.3 ASSESSMENT CRITERIA

- 1.3.1 The assessment criteria for the I-SEM CRM are based on the same principles as those applied to the I-SEM High Level Design and as agreed with the Departments in the Next Steps Decision Paper published March 2013. We have developed detailed descriptions of these criteria to

focus on issues that are relevant to procuring capacity and tailored to the detailed design elements of the Capacity Remuneration Mechanism.

1.3.2 These assessment criteria are set out below:

- **The Internal Electricity Market:** the market design should efficiently implement the EU Target Model and ensure efficient cross border trade.
- **Security of supply:** the chosen wholesale market design should facilitate the operation of the system that meets relevant security standards.
- **Competition:** the trading arrangements should promote competition between participants; incentivise appropriate investment and operation within the market; and should not inhibit efficient entry or exit, all in a transparent and objective manner.
- **Equity:** the market design should allocate the costs and benefits associated with the production, transportation and consumption of electricity in a fair and reasonable manner.
- **Environmental:** while a market cannot be designed specifically around renewable generation, the selected wholesale market design should promote renewable energy sources and facilitate government targets for renewables.
- **Adaptive:** The governance arrangements should provide an appropriate basis for the development and modification of the arrangements in a straightforward and cost effective manner.
- **Stability:** the trading arrangements should be stable and predictable throughout the lifetime of the market, for reasons of investor confidence and cost of capital considerations.
- **Efficiency:** market design should, in so far as it is practical to do so, result in the most economic overall operation of the power system.
- **Practicality/Cost:** the cost of implementing and participating in the CRM should be minimised; and the market design should lend itself to an implementation that is well defined, timely and reasonably priced.

1.3.3 Fundamental to the SEM Committee's consideration of the overall CRM design is the European Commission State Aid Guidelines, particularly in light of the EC energy sector inquiry including capacity mechanisms. Furthermore, we are actively engaged with the Departments (DCCA and DfE) and the European Commission as we develop the capacity market design as ultimately EC approval is required for the CRM auctions to commence.

2 SUMMARY OF CONSULTATION PAPER PROPOSALS

2.1 INTRODUCTION

- 2.1.1 CRM Decision 3 (SEM-16-039) sets out the roles of the independent auction monitor and auditor and the role of the Regulatory Authorities with respect to these in sections 5.6 and 5.7.
- 2.1.2 The draft Capacity Market Code set out the detailed role of both the monitor and auditor in sections B.10 and B.11 respectively.

2.2 CONSULTATION SUMMARY

- 2.2.1 The CRM Capacity Market Auditor and Monitor Terms of Reference consultation paper (SEM-17-007) was published on 25th January and the consultation closed on 21st February 2017.
- 2.2.2 The consultation paper outlined the general roles of both the Auditor and Monitor. Consideration and preferences were given to the nature and form of opinion most suitable for each role and the corresponding audit period to be covered. Detailed draft Terms of References were separately presented within the consultation paper. The flexibility was provided for both the Auditor and the Monitor roles to be performed by the same firm, however the Regulatory Authorities reserved the right to appoint a separate Auditor and Monitor as appropriate.
- 2.2.3 It is expected that both the Auditor and Monitor will be appointed for a three year period but with their Terms of Reference consulted on annually, if required. This is consistent with the existing approach used for the Trading and Settlement Code (TSC) Market Auditor.
- 2.2.4 The key principles and key roles set out within the consultation for both the Auditor and the Monitor are summarised below:

Capacity Market Auditor

- 2.2.5 The purpose of the Capacity Market Audit is to provide independent assurance to the market and the Regulatory Authorities on the operation of the I-SEM Capacity Market, excluding settlement which will be audited under the Trading and Settlement Code.
- 2.2.6 This assurance is required by participants and their auditors, the Regulatory Authorities and other stakeholders as the systems and calculations within the Code fall outside their control making them unable to verify for themselves the processing and calculations being undertaken on their collective behalf.

2.2.7 The Capacity Market Audit is also required by the Regulatory Authorities in assuring compliance with the Code.

2.2.8 Key roles of the Auditor proposed were as follows:

- Terms of Reference for the Auditor will be consulted upon and determined by the RAs;
- Terms of Reference to specify which Capacity Auctions are included in the scope, with flexibility to cope with changes to the planned schedule of Capacity Auctions;
- The final Terms of Reference will be published;
- The Auditor shall conduct an audit under the Capacity Market Code at least annually;
- A materiality threshold of 0.25% for market level reporting and one tenth of this at the Participant level will apply;
- The basis of the Audit Opinion is to be consistent with the existing TSC Audit Opinion and therefore to be conducted under International Standards on Related Services (ISRS 4400);
- In addition to the Audit Opinion, the Auditor will provide the RAs with a Report of Significant Issues containing matters identified during the course of the Capacity Market Audit which do not affect the audit but were in themselves significant.

Capacity Auction Monitor

2.2.9 The role of the Capacity Auction Monitor is to provide independent assurance to the market that the System Operators' are correctly carrying out their obligations under the Code in respect of qualification for and running of Capacity Auctions. The monitor also provides earlier warning of any issues relating to qualification or capacity auctions to the Regulatory Authorities than can be offered by the Capacity Market Auditor. This early warning enables any issues to be resolved before they impact either the auction itself, awarding of capacity or settlement of reliability options.

2.2.10 The role of the Monitor is NOT to provide a market monitoring role. This role will be conducted by the RAs, however the Monitor will have an obligation to notify the RAs of any irregularities they may identify as part of their role.

2.2.11 Key roles of the Monitor proposed were as follows:

- Terms of references for the Monitor will be consulted upon and determined by the RAs;
- Terms of Reference to specify which Capacity Auctions are included in the scope, with flexibility to cope with changes to the planned schedule of Capacity Auctions;
- The final Terms of reference will be published;
- The Monitor shall promptly notify the RAs if they become aware of a potential or suspected non-compliance or irregularity with the Code or conduct of a Capacity Auction;
- The System Operators may request the Monitor give its opinion as to the most appropriate course of action regarding any potential or suspected non-compliance or irregularity with the Code or conduct of the Capacity Auction;
- The Monitor shall report to both the RAs and the System Operators on the Qualification Process within two working days after provisional qualification results have been notified to the Parties;
- The Monitor shall report to both the RAs and the System Operators on the Capacity Auction within two working days after provisional results of the Capacity Auction have been notified to the Participants;
- The Monitor will report on all issues, regardless of materiality;
- The proposed basis for the Monitor's Opinion report is International Standard on Assurance Engagements (ISAE 3000), consistent with the GB Monitor Opinion.

3 CONSULTATION RESPONSE; SEM COMMITTEE RESPONSES & DECISION

3.1 RESPONSES TO CONSULTATION

3.1.1 This section includes a summary of the responses made to the CRM Capacity Market Auditor and Monitor Terms of Reference Consultation paper (SEM-17-007) which was published on 25 January 2017.

3.1.2 The consultation closed on 21st February 2017 and a total of 5 responses to the consultation were received representing Generators, Suppliers, the Transmission System Operators, and Network Owners. The response from Energia was received in March limiting the amount of time for review. None of the responses were marked confidential. The respondents are outlined below and copies can be obtained from the SEM Committee website.

- BGE
- Eirgrid/SONI
- Energia
- ESB
- Power NI PPB

3.1.3 Respondents also provided comments on the Auditor and Monitor roles as part of their response to the separate Capacity Market Code consultation which closed the same week at this Terms of Reference consultation. For completeness, where relevant, this decision paper has considered the direct responses to the Terms of Reference consultation (SEM-17-007) and also those responses received relating to section B.10 and B.11 of the Capacity Market Code consultation (SEM-17-004).

3.2 SUMMARY OF RESPONSES

3.2.1 Clarity within the Monitor and Auditor Terms of Reference was requested by some respondents regarding the purpose of these appointments. Particularly that only activities set out within the Capacity Market Code should be considered with their scope. A couple of respondents emphasised that the focus should be on compliance with the Capacity Market Code and not on market participants with care not to stray into the RAs regulatory compliance role of investigating market manipulation. In other words the Auditor and Monitor roles should not be to investigate market manipulation.

3.2.2 The majority of respondents did not support the same firm providing the services of both Monitor and Auditor. The main reason given was concern that the functions would be undermined due to conflicts of interests created by the Auditor being responsible for carrying out an audit on themselves when assessing whether they have conducted their monitoring

activities appropriately. Other reasons included the need to ensure integrity of the auction process thereby providing greater assurance, with one respondent considering it was not standard practice. This then requires both roles within the Terms of Reference and Capacity Market Code to be separate, independent and clearly defined. One respondent, supporting separation of Monitor and Auditor did recognise the need for both the Monitor and Auditor to have the ability to consult one another during the engagement.

- 3.2.3 However, one respondent broadly supporting separate entities performing Monitor and Auditor roles recognised there may be potential for overlap and therefore the two roles may be filled more cost effectively by a single firm, thereby striking a balance between the level of assurance associated costs. They proposed the procurement process should allow for tender submissions for the Monitor, Auditor or both to establish the most economically advantageous solution. Contrary to this some respondents viewed the roles as being very different and did not believe there to be synergies and if there were procurement synergies they would not outweigh the loss on assurances being provided.
- 3.2.4 A couple of respondents emphasised the need for the Monitor and Auditor to be fully independent of the TSOs. In their view the current drafting of the Terms of Reference and the Capacity Market Code raised concerns regarding this independence. These included, the entitlement of the TSOs to attend meeting between the RAs and the Auditor particularly given EirGrid is also a participant with access denied for other market participants; the TSOs should not be responsible for publishing Monitor and Auditor reports; the TSOs should not pay for regulatory Monitor and Auditor costs and therefore the tri-partite contract is inappropriate; and the Monitor should not provide recommendations on potential or suspected non-compliance without the involvement of the RAs.
- 3.2.5 Therefore these respondents proposed separate bi-lateral contracts between the RAs and the Auditor and Monitor. RAs should directly publish reports and be involved when the Auditor or Monitor is advising the TSOs on recommendations or giving opinion. The RAs should pay the Auditor and Monitor fees directly with costs recovered through their own budget or Licence fees in a transparent manner. Should the tri-partite contract remain, one respondent wanted the contract to establish that the TSOs do not have any rights e.g. oversight, approval, termination etc over the contracts or under the Capacity Market Code.
- 3.2.6 In terms of the scope the majority of respondents requested the Auditor and Monitor Terms of References be extended to include the secondary trading market. Also these respondents disagreed with the exclusion of Local Capacity Constraints from the Auditor and Monitor roles. At the very least the Monitor's role should encompass oversight of the ongoing management of the locational issues and correct application by the TSOs of the methodology. The Auditor's role should include the award of locational constraint capacity to ensure agreed methodology and processes have been adhered to. Furthermore, two respondents considered the Auditor's scope should not include System Operator and other charges, invoicing and payments, and credit cover management. To reflect separation of roles, one respondent's view is the Auditor Terms of Reference scope should include an audit of the activities of the Monitor. A specific reference within the Monitor's Terms of Reference was requested to place an obligation on the Monitor to carry out their role in a manner which doesn't unduly interfere with the TSOs delivery of its duties and obligations. One respondent asked for clarity when the Term of Reference refers to "operational management".

- 3.2.7 Those who commented, agreed with the use of the Standard ISRS 4400 for the Auditor's report and Standard ISRE 3000 for the Monitor's report. While agreeing with the use of ISRS 4400 one respondent did flag that this Standard allows for the Auditor to state that they are not independent, if this clause was applied it would have a knock on impact on market participant's confidence and potential to weaken the reports finding.
- 3.2.8 In general, there was support that the Auditor should report based on volumetric materiality i.e. on the volume of capacity affected. However there was uncertainty as to how this would apply in practice e.g. in relation to locational volumes and also the interaction with a sloped demand curve. One respondent requested a volumetric and financial threshold be established for instances when anomalies in price don't materially change volume. To that end three respondents suggested that financial or quasi-financial materiality tests may need developed and applied together with scenario examples being provided and explained.
- 3.2.9 There was general support for the use of 0.25% materiality for market-level reporting. One respondent suggested the use of a MW value to be more appropriate e.g. 20 MW and corresponding 2 MW for participant level reporting. Another respondent wanted the Auditor to be aware of non-material issues (<0.25%) occurring on multiple occasions that when taken in aggregate meet the materiality threshold and therefore should be reported upon. One respondent requested clarity on how the participant-level materiality would apply.
- 3.2.10 All but one respondent agreed the Monitor should report all issues, regardless of materiality.
- 3.2.11 There was broad agreement for the appointments to be on a three year period. At a more detailed level there appears to be confusion as to whether the Auditor conducts its audit at the end of each auction or carries out a single audit at the end of the 12 month review period. There was a preference for the Auditor and Monitor to report on a rolling basis, i.e. after each auction (being qualification to final result) and including publication of reports in advance of the next auction. Greater clarity was also sought as to which Capacity Market Code activities would be evaluated on a 12 month basis and which are to be evaluated in relation to an auction.
- 3.2.12 One respondent requested the RAs give consideration to the audit treatment of the capacity auction algorithm. For example, the MSP software, used daily in the SEM is certified rather than audited and if such an approach should be taken for the Capacity Market audit.
- 3.2.13 Regarding transitional arrangement, there was a request for more reporting and publication of reports. Furthermore, there is a greater risk of error during the transitional period therefore the Monitor Terms of Reference should include a trial role during the Mock Auction. Given this is essentially a new market this together with separate procurement of the Auditor and Monitor would significantly assist in ensuring trust in the processes and market in general.

3.3 SEM COMMITTEE RESPONSE

- 3.3.1 The SEM Committee wishes to clarify that the scope of both the Monitor and Auditor will be limited to those activities set out in the Capacity Market Code. There is no intention for either the Monitor or Auditor to directly investigate market manipulation; this role will continue to be carried out by the Market Monitoring Unit of the RAs. However, if in performing their duties either the Monitor or Auditor comes across any incidents of potential market manipulation, they should bring these to the notice of the RAs.
- 3.3.2 The SEM Committee note the concerns about the same person acting as both Monitor and Auditor. However, as set out in CRM Decision 3 and recognised by some respondents, there are clear synergies between the two roles which would reduce costs to the market. Given the concerns expressed, the SEM Committee have investigated international practise with respect to market monitors and their independence.
- 3.3.3 There is no prohibition on the same person performing the roles equivalent to the Monitor and Auditor in Great Britain.
- 3.3.4 Wider international comparisons are complicated by the different roles the market monitors play in other markets. In the US, monitors report to the market operator (either an Independent System Operator or Regional Transmission Organisation) and may be wholly or partially internal to the market operator. The role of the monitor is also broader than in the I-SEM covering roles which are performed by the RAs, including analysing the functioning of the market rules and investigating market manipulation. As a result, it is problematic applying US practise to the I-SEM. More broadly, in those situations where separate monitor and auditor roles exist, the monitor role usually lies within the market operator.
- 3.3.5 In some markets, there is a requirement that the Monitor and/or Auditor should not have a commercial contractual relationship with the party being monitored or audited. In the US, this covers a commercial relationship with any market participant, in other markets it is limited to the market operator. Given the roles of the Auditor and Monitor in the I-SEM, it does not seem necessary to prohibit any entity with a commercial relationship with a market participant, but an argument could be made to prohibit any entity with a commercial relationship with the System Operators, e.g. it may be inappropriate for the auditor of the Eirgrid Group to act as either Monitor or Auditor. Such an approach would be in line with paragraphs B.10.1.3 and B.11.1.3 of the draft Capacity Market Code (SEM-17-004a) requiring the Monitor and Auditor to be “independent of the System Operators and Participants”. The SEM Committee considers it preferable that the Monitor or Auditor does not have a commercial contractual relationship with the System Operators.
- 3.3.6 The SEM Committee is not persuaded that it is necessary to have a different entity carrying out the roles of Monitor and Auditor at any cost. The independent scrutiny of the auction process by the Monitor and oversight by the RAs’ Market Monitoring Units means that requiring the Auditor to be independent of the Monitor is likely to add little value. As set out in CRM Decision 3 (SEM-16-039), the SEM Committee will procure these roles separately but may allow procurement synergies to be realised. However, it will consider the modest

potential benefits of having separate performers of the two roles in the evaluation of the technical merit of the bids received.

- 3.3.7 The Monitor and Auditor will be independent of the System Operators, though performance of both roles will require extensive interaction with the System Operators, including with their operational management in checking matters of factual accuracy in the preparation of their reports. As set out in SEM-16-007, the Monitor and Auditor will report to the SEM Committee.
- 3.3.8 The SEM Committee note that the right of the System Operators to attend meetings between the Auditor and the RAs, as set out in the draft Capacity Market Code, should only arise after the Auditor's report has been completed and published. Such a meeting is required to ensure any lessons learned from the Auditor's work are applied to subsequent auctions.
- 3.3.9 The SEM Committee does not believe any of the arguments put forward by respondents provide a reason to move away from the existing tri-partite contracting structure used between the TSC Market Auditor, RAs and System Operators. These arrangements have worked successfully throughout the SEM and remain the natural choice for the I-SEM.
- 3.3.10 CRM Decision 3 limited the scope of the Monitor's activities to the auction process: from the start of qualification through to the determination of the final auction results. Extending this scope to cover secondary trading would require a substantial expansion of the Monitor's role and would likely require attendance at the System Operators' offices on at least a weekly basis.
- 3.3.11 The SEM Committee has decided to retain the policy decision set out in CRM Decision 3 (SEM-16-039) and exclude secondary trading from the scope of the Monitor. Monitoring of the secondary trading arrangements will be carried out by the Auditor and the RAs' Market Monitoring Unit.
- 3.3.12 The SEM Committee agrees that the scope of both the Monitor and Auditor should cover compliance by the System Operators with the methodology for determining Local Capacity Constraints, including following of any relevant procedures and provision of appropriate process documentation as set out in the consultation paper.
- 3.3.13 Following positive feedback from respondents, the SEM Committee has decided that the accounting standards for the Monitor and Auditor will be as set out in the consultation.
- 3.3.14 The SEM Committee has decided that the Auditor should report on the basis of volumetric materiality. As set out in the consultation, the proposed level would be based on 0.25% at the market level, based on the Capacity Requirement, and 10% of this at the participant level. However, the SEM Committee recognise that these levels will vary with the Capacity Requirement and as suggested by one participant will initially set fixed levels of materiality of 20MW at the market level and 2MW at the participant level. These values will be reviewed if there is a sustained, material shift in the level of the Capacity Requirement. While there will be exceptional situations where an event with a material financial impact has not been

captured by volumetric reporting, such events should be captured in the reporting of “Significant Issues” as set out in the next paragraph.

3.3.15 In addition to reporting on incidents that reach the materiality threshold, the consultation paper also set out a requirement for the Auditor to report on any “Significant Issues”, regardless of materiality. The SEM Committee believes that this reporting should capture:

- any regular incidents that individually fall below the materiality threshold; and
- any incidents with low (or no) volumetric materiality but with a potentially more significant financial impact.

In such situations, the Auditor would be expected to provide an estimate of the total volumetric or financial impact arising from the reported issue(s). As a result, the SEM Committee does not believe there needs to be specific additional reporting requirements on the Auditor to cover these cases.

3.3.16 The SEM Committee has decided that the Monitor will report on all issues it identifies, regardless of materiality.

3.3.17 The SEM Committee has decided that the Monitor and Auditor will be appointed on a rolling three year basis. For the Monitor, this basis will be defined in terms of specific Capacity Auctions that are expected to fall within the three year period. For the Auditor, those areas of the Capacity Market Code covered by the Monitor (i.e. the process from the start of qualification to the award of capacity following the auction) will also be defined in terms of specific Capacity Auctions that are expected to fall within the three year period. All other activities of the Auditor will be on the basis of the three year audit period.

3.3.18 As set out in the draft Capacity Market Code, the Monitor will be required to report promptly after the publishing of the Provisional Qualification Results and Provisional Auction Results in relation to each Capacity Year within its scope.

3.3.19 The SEM Committee notes that the first T-1 Transitional Auction, the Monitor and Auditor will report on the estimated 16 month period covered by that auction, i.e. the stub-year 2017/18 and the full Capacity Year 2018/19.

3.3.20 The SEM Committee agrees that the Auditor should produce an interim report after the completion of each Capacity Auction within its scope. This report should normally be produced in sufficient time to allow any lessons to be implemented for the next auction, unless the timings of the two auctions render this infeasible.

3.3.21 Given that the I-SEM market is new, it may be necessary to modify the planned timing of Capacity Auctions or to run additional auctions during the transitional period. In contracting

for the Monitor and Auditor, the SEM Committee will ask bidders to offer a cost for covering an additional Capacity Auction within their bid.

3.3.22 The SEM Committee agrees with those respondents who asked that the Monitor should be required to monitor and report upon the mock auction carried out prior to the first transitional T-1 auction.

3.3.23 The SEM Committee believes that the capacity auction algorithm is significantly simpler than the MSP software used for the current TSC. In consequence, it believes that this algorithm should fall within the scope of both the Monitor and Auditor.

3.4 SEM COMMITTEE DECISIONS

3.4.1 The SEM Committee has decided that the role of Auditor and Monitor can be performed by the same entity, but that the Committee will take account of the modest benefit of separate providers when making its technical evaluation of competing bids.

3.4.2 The SEM Committee has decided the Terms of Reference for the Auditor will be as follows:

- The Auditor will be appointed on a rolling three year basis;
- The Terms of Reference will specify which Capacity Auctions are included in the scope, with flexibility to cope with changes to the planned schedule of Capacity Auctions;
- The Auditor shall conduct an audit under the Capacity Market Code at least annually;
- The Auditor will produce an interim audit report covering the Qualification and Auction Process following the completion of each Capacity Auction;
- A materiality threshold based on 0.25% for market level reporting and one tenth of this at the Participant level will apply. To minimise unnecessary variation in the materiality threshold, the levels will initially be fixed on a MW basis at 20MW for market level reporting and 2MW at the Participant level;
- The basis of the Audit Opinion will be conducted under International Standards on Related Services (ISRS 4400);
- In addition to the Audit Opinion, the Auditor will provide the RAs with a Report of Significant Issues containing matters identified during the course of the Capacity Market Audit which do not affect the audit but were in themselves significant;
- The scope of the audit will be as set out in the consultation paper (SEM-17-007).

3.4.3 The final terms of reference for the Auditor are set out in Appendix A.

3.4.4 The SEM Committee has decided the Terms of Reference for the Monitor will be as follows:

- The Monitor will be appointed on a rolling three year basis;
- The Terms of Reference will specify which Capacity Auctions are included in the scope, with flexibility to cope with changes to the planned schedule of Capacity Auctions;
- The Monitor will produce a report following the completion of each Capacity Auction, as set out in the CMC;
- The Monitor will report on all issues identified, regardless of materiality;
- The basis of the Monitor's Opinion will be conducted under the International Standard on Assurance Engagements (ISAE 3000);
- The scope of the Monitor's role will be as set out in the consultation paper (SEM-17-007), including monitoring and reporting on the mock auction carried out prior to the first T-1 Auction.

3.4.5 The final terms of reference for the Monitor are set out in Appendix B.

4 NEXT STEPS

- 4.1.1 Commence procurement of the Capacity Market Auditor and Capacity Auction Monitor as soon as possible following publication of this decision paper.
- 4.1.2 Finalise the Capacity Market Code following the Regulatory Authorities consultation which closed on 24th February 2017 (SEM-17-007). Final version is expected June 2017.
- 4.1.3 All the above papers will be published on the SEM Committee website:
www.semcommittee.com

5 APPENDIX A: TERMS OF REFERENCE FOR CAPACITY MARKET AUDITOR

- 5.1.1 This appendix sets out the terms of reference for the Capacity Market Audit based on the matters discussed above.
- 5.1.2 The purpose of the Capacity Market Audit is to provide independent assurance to the market and the Regulatory Authorities on the operation of the I-SEM Capacity Market as set out in the Capacity Market Code. Settlement of the I-SEM Capacity Market will be audited under the Trading and Settlement Code and is outside of the scope of the Capacity Market Auditor.

5.2 CONTRACTUAL AND GOVERNANCE ARRANGEMENTS

- 5.2.1 In accordance with paragraph B.11.2.4 of the Capacity Market Code (CMC)¹, the RAs hereby specify the terms of reference for the Capacity Market Audit.
- 5.2.2 Based on the terms of reference, the Capacity Market Auditor will prepare an Audit Plan setting out the detailed audit approach which will be presented to and agreed with the RAs. In preparing the Capacity Market Audit Plan, the Capacity Market Auditor may consult with the RAs, System Operators and other participants as required. An opinion is to be provided using the Agreed upon Procedures approach set out in the International Standards on Related Services 4400 (ISRS 4400) – Engagements to Perform Agreed-upon-Procedures Regarding Financial Information.
- 5.2.3 The Capacity Market Auditor will be expected to liaise with the Capacity Auction Monitor. It will also be expected to liaise with the Trading and Settlement Code (TSC) Market Auditor where issues in the TSC impact the CMC or vice versa.
- 5.2.4 The Capacity Market Auditor will have a duty of care to the System Operators and the Parties to the Capacity Market Code who will receive the Market Audit Report and may seek to rely on it.
- 5.2.5 A tri-partite engagement letter is to be in place between the RAs, System Operators and the Capacity Market Auditor acknowledging the terms of engagement of the Capacity Market Auditor and their respective responsibilities. The Capacity Market Auditor will also enter into a letter of release with Parties to the Capacity Market Code who will receive a copy of its report.

¹ Specific references to the Capacity Market Code in this appendix refer to the draft version of the code published as SEM-17-004a. All references should be read as applying to the final version of the Capacity Market Code due to be published in June 2017.

5.3 PERIOD OF AUDIT REPORT

5.3.1 While the Capacity Market Audit will be appointed on a rolling three year basis, part of the scope of its audit will be defined in terms of specific Capacity Auctions expected to fall (wholly or largely) within each of the years being audited. For the first year, its term of reference will cover the following Capacity Auctions:

- 1st CRM Transitional T-1 Auction expected December 2017 which will cover the sub-year 2017/18 and the full Capacity Year 2018/19
- 1st CRM T-4 Auction expected in Q3, 2018 which will cover the Capacity Year 2022/23.

5.3.2 All other activities performed under the Capacity Market Code will be audited on the basis of a twelve month.

5.3.3 In general, it would be expected that two Capacity Auctions will fall within each year for which the Capacity Market Auditor is appointed. However, particularly during the initial period, additional Capacity Auctions may occur in an audit year.

5.3.4 The Capacity Market Auditor shall perform a limited scope review executing audit procedures on a “walkthrough” basis covering the first six months of the audit period. This would involve approximately 50% of the audit work that would be required for a full year. The Capacity Market Auditor will report the results to the RAs together with any issues identified from its audit procedures which it considers may have a material impact on the audit opinion for the year, although a formal Interim Review Report and Report of Significant Issues would not be required.

5.4 MATERIALITY

5.4.1 In accordance with the International Standard on Auditing (UK and Ireland) 320 (ISA 320) titled “Materiality in Planning and Performing an Audit” materiality will be measured on a volumetric basis, i.e. in MW of capacity. The following materiality levels will apply to these terms of reference:

- The materiality for the capacity market audit shall be a fixed level set at 20 MW at the market level.
- A lower threshold, representing participant level materiality, shall be a fixed level set at 2 MW.

5.4.2 This lower threshold will be adopted for the reporting of significant issues identified during the course of the Capacity Market Audit. The Capacity Market Auditor shall report on issues which come to its attention which exceed this significant issues threshold or which it believes

to be significant for other reasons, including frequency of occurrence or potential financial impact.

5.5 REPORTING

- 5.5.1 In the preparation of the Capacity Market Audit Report, the Capacity Market Auditor will discuss individual draft issues with the System Operators and other Parties insofar as they relate to them in order to confirm factual accuracy of the issues and their estimated quantification, and that all pertinent information and clarifications have reasonably been included.
- 5.5.2 The Capacity Market Auditor will subsequently discuss a full draft of the Capacity Market Audit Report with the RAs who may, at their discretion, invite or include named participants in the discussion of the draft report. The RAs believe that it may be necessary for them to discuss with the System Operators and the Capacity Market Auditor any relevant Significant Issues included in the draft report.
- 5.5.3 The Report of Significant Issues will form part of the overall Capacity Market Audit Report and will include details of the cause, circumstances and incidence of the error, and provide an estimate of magnitude. A summary of the action to be taken by the relevant party and any other party to resolve this issue would also be included. An audit opinion will continue to be provided, however there will be no assurance as to the completeness of the significant issue items reported.
- 5.5.4 The final version of the Capacity Market Audit Report will be addressed to the RAs. The final version of the Market Audit Report will be provided to Parties to the Capacity Market Code in line with the provisions of the Capacity Market Code, and subject to any confidentiality provisions required by the Capacity Market Auditor.
- 5.5.5 In addition to the main Audit Report, the Capacity Market Auditor will be expected to produce a brief report covering each Capacity Auction following the completion of the Auction Process. Where possible, this report should be produced before the beginning of the Auction Process for the next Capacity Auction.

5.6 BOUNDARY OF AUDIT

- 5.6.1 The Capacity Market Code paragraph B.11.2.1 sets out that “the Capacity Market Auditor shall conduct an audit of the operation and implementation of the arrangements, procedures and processes under this Code at least once a Year, in accordance with the terms of reference determined by the Regulatory Authorities.” The remit of this scope for the capacity market audit period has been set on the basis of this, and the RAs consider that the systems, activities and processes under the System Operators fulfil the requirements of the Capacity Market Audit provisions in the Code.

5.6.2 The scope of the Capacity Market Audit will focus on the activities of the System Operators under the Capacity Market Code and associated Agreed Procedures and cover the systems and processes within the control of the System Operators.

5.6.3 This contained scope excludes activities undertaken by the TSOs, Market Operator and other participants as set out in the CMC and Agreed Procedures which explicitly excludes Capacity Market Settlement which is captured under the TSC market audit.

Systems/process under the control of the System Operators

5.6.4 The scope of the Capacity Market Auditor's assurance activities shall relate to the System Operators' activities under the Code, to the extent covered by specific requirements in the CMC, Appendices and Agreed Procedures, will include:

- Accession and Registration;
- Default, Suspension and Termination;
- Qualification;
- Operation of the auction and award of capacity;
- Secondary trading;
- Implementation agreements;
- System Operator and other Charges;
- Invoicing and Payment;
- Credit Cover management;
- Disputes;
- Modifications;
- Design Authority / Code development and Systems Upgrade.

5.6.5 The audit focused on the System Operators should address compliance with the System Operators' systems and associated processes with the Code, including its Agreed Procedures. It will cover, *inter alia*, the processes of acquisition of input data, application of algorithms and calculations, provision of output data and maintenance of standing data.

Scope relating to Capacity Auctions

5.6.6 The following sections of the CMC form part of the Capacity Auctions process:

- Chapters C, D, E and F;
- Sections G.1 and G.2 of Chapter G;
- Chapter K, in so far as it relates to the determination of the exchange rates used in the Auction Information Pack and Auction Final Parameters;
- Chapter L, in so far as it relates to communications between Participants and the System Operator required as part of the qualification or auction process;
- Section L.4 of Chapter L, in so far as it relates to any communication and system failure which affects the qualification or auction process being audited;
- Section L.5 of Chapter L, in so far as it relates to publication of data relating to the qualification or auction process being audited;

- Appendices C, D, E and F; and
- Any Agreed Procedures relating to the qualification or auction process being audited, specifically including AP3 “Qualification and Auction Process”.

5.6.7 For the first appointment and throughout the Interim Period, some of the enduring sections of the Code will be replaced as set out in Chapter M (Interim Arrangements) and will be considered to form part of the Capacity Auction process. In particular:

- Section M.2 sets out the period covered by the first Capacity Year;
- Section M.3 sets out the Transitional Period and changes to the timing and conduct of auctions during this period;
- Section M.4 sets out the requirement to determine Local Capacity Constraints;
- Section M.5 sets out the auction process to be followed; and
- Section M.8 covers any parameters etc that are determined before the Code goes live.

Limitations and exclusions from scope

5.6.8 The Capacity Market Auditor will be checking the application of the Code, however validation of the Code itself is a technical area which is outside the Capacity Market Auditor’s area of competence. Although, the Capacity Market Auditor shall report any inconsistency or error coming to their attention during the course of the audit work, they will not be specifically charged with confirming the validity of the Code.

5.6.9 The Market Auditor’s role shall be restricted to confirming that the process for development has operated in accordance with the requirements of the Code.

5.6.10 The determination of the Local Capacity Constraints and their underlying methodology (set out in section F.4 of the Code) is a technical area which will lie outside the Capacity Market Auditor’s area of expertise. As a result, the Auditor’s scope shall be limited to the compliance by the System Operators with the methodology for determining Local Capacity Constraints, including following of any relevant procedures and provisions of appropriate process documentation.

Transitional Arrangements

5.6.11 It should be noted that the first Transitional Auction will cover the partial Capacity Year 2017/18 and the full Capacity Year 2018/19 as set out in section 2 of the CRM Parameters Decision Paper (SEM-17-022).

Other

5.6.12 In relation to the Agreed Upon Procedures, the Capacity Market Auditor will endeavour to minimise the intrusion into activities outside (but feeding into) the Capacity Market Code while achieving the required assurance in line with section 11.2 of the Code.

6 APPENDIX B: TERMS OF REFERENCE FOR CAPACITY AUCTION MONITOR

- 6.1.1 This appendix sets out the terms of reference for the Capacity Auction Monitor based on the matters discussed above.
- 6.1.2 The purpose of the Capacity Auction Monitor is to provide independent assurance to the market and the Regulatory Authorities that the System Operators' are correctly carrying out their obligations under the Capacity Market Code (CMC)² in respect of qualification for and running of Capacity Auctions.

6.2 CONTRACTUAL AND GOVERNANCE ARRANGEMENTS

- 6.2.1 In accordance with paragraph B.10.2.2 of the Capacity Market Code (CMC), the RAs hereby specify the terms of reference for the Capacity Auction Monitor.
- 6.2.2 Based on the terms of reference, the Capacity Auction Monitor will prepare a Plan setting out the detailed approach which will be presented to and agreed with the RAs. In preparing the Plan, the Capacity Auction Monitor may consult with the RAs, System Operators and other participants as required. An opinion is to be provided using the approach set out in the International Standard on Assurance Engagements 3000 (ISAE 3000) – Assurance Engagements Other than Audits or Reviews of Historical Financial Information.
- 6.2.3 The Capacity Auction Monitor will be expected to liaise with the Capacity Market Auditor. It will also be expected to liaise with the Trading and Settlement Code (TSC) Market Auditor where issues in the TSC impact the CMC or vice versa.
- 6.2.4 The Capacity Auction Monitor will require significant interaction with the System Operators including access to their premises to monitor the auction itself. Furthermore the Monitor will require read-only access to the qualification and auction systems and to the Qualification Capacity Register and Capacity and Trade Register.
- 6.2.5 The Capacity Auction Monitor will have a duty of care to the System Operators and the Parties to the Capacity Market Code who will receive the Monitor's Report and may seek to rely on it.
- 6.2.6 A tri-partite engagement letter is to be in place between the RAs, System Operators and the Capacity Auction Monitor acknowledging the terms of engagement of the Capacity Auction Monitor and their respective responsibilities.

² Specific references to the Capacity Market Code in this appendix refer to the draft version of the code published as SEM-17-004a. All references should be read as applying to the final version of the Capacity Market Code due to be published in June 2017.

6.3 PERIOD OF MONITOR'S REPORT

6.3.1 While the Capacity Auction Monitor will be appointed on a rolling three year basis, its reports will be defined in terms of specific Capacity Auctions expected to fall (wholly or largely) within each of the years being monitored. For the first year, its term of reference will cover the following Capacity Auctions:

- 1st Mock Auction expected early December 2017 (required prior to the first Transitional Auction only)
- 1st CRM Transitional Auction expected December 2017
- 1st T-4 Auction expected September 2018

6.3.2 In general, it would be expected that two Capacity Auctions will fall within each year for which the Capacity Auction Monitor is appointed. However, particularly during the initial period, additional Capacity Auctions may occur in a year.

6.4 MATERIALITY

6.4.1 The Monitor shall report on any issues (without limitation) with the operation of the auction process which it identifies. It will be appropriate for the Monitor to indicate which issues would be expected to directly affect the outcome of the qualification, auction or capacity award process and those issues which do not affect the outcomes of the current auction but which still need to be resolved.

6.5 REPORTING

6.5.1 For each Capacity Auction, the Capacity Auction Monitor is required to produce a report at the end of the Qualification as set out in paragraph B.10.3.1 of the CMC and following the Capacity Auction as set out in paragraph B.10.4.1.

6.5.2 In the preparation of its reports, the Capacity Auction Monitor will discuss individual draft issues with the System Operators and other Parties insofar as they relate to them in order to confirm factual accuracy of the issues and their estimated quantification, and that all pertinent information and clarifications have reasonably been included.

6.5.3 The Capacity Auction Monitor's reports will be addressed to the RAs. If required, the RAs may request the Capacity Auction Monitor to prepare a copy of its report with confidential information redacted prior to publishing; this would only be expected to occur on an exceptional basis. The final version of the Monitor's reports will be provided to Parties to the Capacity Market Code in line with the provisions of the Capacity Market Code, and subject to any confidentiality provisions required by the Capacity Auction Monitor.

6.6 BOUNDARY OF AUDIT

Introduction

6.6.1 The Capacity Market Code Section B.10.2.1 sets out that “the Capacity Auction Monitor shall monitor the processes and procedures followed by the System Operators in carrying out the Qualification Process, conducting Capacity Auctions and related activities under this Code, in accordance with the terms of reference determined by the Regulatory Authorities.” The remit of this scope for the capacity auction monitor period has been set on the basis of this, and the RAs consider that the systems, activities and processes under the System Operators fulfill the requirements of the Capacity Auction Monitor provisions in the Code.

6.6.2 The basic tasks set out for the Capacity Auction Monitor are:

- Monitoring the Qualification process to ensure that the System Operators have complied with the Code;
- Being present at the auctions, with full read access to all key software, including access to all bids and all communications between the System Operators and all bidders;
- Monitoring the application of algorithms and calculations;
- Reporting on whether it considers that the System Operators have conducted the Capacity Auction in accordance with the Code;
- Identifying any actual or potential breach of the rules and regulations or other actual or potential irregularities in the conduct of the Capacity Auction by the System Operators and an assessment of the consequences; and
- Making recommendations on the changes to the Capacity Market Code, Auction Guidelines and User Guides.

Systems/process under the control of the System Operators

6.6.3 The scope of the Capacity Auction Monitor’s assurance activities shall relate to the System Operators’ activities relating to qualification through to the determination of the final auction results under the Code. The sections of the Code relating to qualification and the auction which are due to be monitored are as follows:

- Chapters C, D, E and F;
- Sections G.1 and G.2 of Chapter G;
- Chapter K, in so far as it relates to the determination of the exchange rates used in the Auction Information Pack and Auction Final Parameters;
- Chapter L, in so far as it relates to communications between Participants and the System Operator required as part of the qualification or auction process;
- Section L.4 of Chapter L, in so far as it relates to any communication and system failure which affects the qualification or auction process being monitored;

- Section L.5 of Chapter L, in so far as it relates to publication of data relating to the qualification or auction process being monitored;
- Appendices C, D, E and F; and
- Any Agreed Procedures relating to the qualification or auction process being monitored, specifically including AP3 “Qualification and Auction Process”.

6.6.4 The Monitor’s role, focused on the System Operators should address compliance with the System Operators’ systems and associated processes with the Code, including its Agreed Procedures. It will cover, *inter alia*, the processes of acquisition of input data, application of algorithms and calculations, provision of output data and maintenance of standing data.

6.6.5 For the first appointment and throughout the Interim Period, some of the enduring sections of the Code to be monitored will be replaced as set out in Chapter M (Interim Arrangements). In particular:

- Section M.2 sets out the period covered by the first Capacity Year;
- Section M.3 sets out the Transitional Period and changes to the timing and conduct of auctions during this period;
- Section M.4 sets out the requirement to determine Local Capacity Constraints;
- Section M.5 sets out the auction process to be followed; and
- Section M.8 covers any parameters etc that are determined before the Code goes live.

6.6.6 The Monitor should check that the version of software used for the qualification and auction processes was the correct version as implemented in accordance with Agreed Procedure 5.

Limitations and exclusions from scope

6.6.7 The Capacity Auction Monitor scope shall not extend to include the secondary trading market.

6.6.8 The determination of the Local Capacity Constraints and their underlying methodology (set out in section F.4 of the Code) is a technical area which will lie outside the Capacity Auction Monitor’s area of expertise. As a result, the Monitor’s scope shall be limited to including the compliance by the System Operators with the methodology for determining Local Capacity Constraints, including following of any relevant procedures and provisions of appropriate process documentation.

Transitional Arrangements

6.6.9 The Capacity Auction Monitor will be required to analyse the results and report on the results of a “mock” auction expected to be conducted in advance of the first T-1 Transitional Auction.