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2016

Proposed  
Modifications  
required for  
I-SEM:  
EirGrid Grid  
Code:

(OC8, SDC1, SDC2, Glossary)

## 1 PURPOSE

This consultation paper discusses the proposed Grid Code modifications that are required to support the implementation of I-SEM arrangements. The TSOs seek to ensure that the proposed modification enables Grid Code Users, including the TSOs, to operate within the I-SEM arrangements. The modification proposals will be subject to the relevant governance arrangements for Grid Codes as described in the TSO Licences and the constitutions of the respective Grid Code Review Panels.

The majority of changes are contained in the Scheduling and Dispatch Codes. There are also a small number changes are required to the Operating Codes to facilitate the procedure for dealing with operational testing requested by Grid Code Users. Lastly a number of the defined terms in the Glossary have been added, modified or deleted to align with I-SEM. Sections in the EirGrid Grid Code and the SONI Grid Code that deal with the Scheduling and Dispatch process are similar and come under common governance. Differences relate to references to the relevant power systems and related terms. These differences are shaded in Grey.

## 2 DESCRIPTION OF PROPOSED CHANGES

### Summary of Proposed Changes - Scheduling and Dispatch Code SDC1

SDC1 is the most significantly impacted section of the Grid Code due to the changes required for I-SEM. The existing SEM provisions require the TSO to schedule units based on their Availability, Technical Parameters and Commercial Offer Data submitted by each User. The Commercial Offer Data is sorted in price order so the TSO can schedule units on an economic basis to meet forecasted demand and provide the necessary level of system security, integrity and power quality as outlined in the existing SDC1 objectives.

Within I-SEM, the starting point for the scheduling process is the active power profile that reflects a User's position in the Day Ahead and Intra Day energy markets. This is known as the Physical Notification (PN). The SDC1 objectives have been modified to recognise that PNs will be the reference point for dispatchable units and the TSOs will seek to minimise the cost of deviating from PNs.

The other significant additional objective in SDC1 is the requirement for the TSO to minimise the issuance of Dispatch Instructions before the opening of the balancing market. This Gate Closure, known as Gate Closure 2 occurs one hour before the start of each 30 minute Imbalance Settlement Period. Intra Day energy markets remain open until Gate Closure 2 (GC2) so the TSO should allow the market to address energy shortfalls to the extent possible without compromising the system security objectives. The TSO retains the right to dispatch units prior to Gate Closure 2 if there is a risk to system security.

The User Operational Data requirements have been revised to reflect the opportunities and obligations on Users to amend their data. Under the current SEM arrangements, Operational Data is provided by Users to the TSO day ahead. There is limited scope for Users to amend their

Commercial Offer Data within day. Users are obliged to notify the TSO of real time changes to their Operational Data.

Under the I-SEM arrangements, Availability forecasts/declarations and Technical Offers will continue to be submitted by the day ahead deadline (GC1). However, Users will be able to amend their Commercial Offer Data in the period up to GC2. As stated earlier, Users are obliged to align their PNs at all times after GC1 to reflect the anticipated profile of their dispatchable units. Other Users may submit PNs for non-dispatchable units but these will not be used in the scheduling process. The layout of the User Data submissions within SDC1 has been reformatted as shown below:

EXISTING LAYOUT	PROPOSED LAYOUT
Availability	<b>Availability</b> Obligations to revise/redeclare Default assumptions
Technical Parameters	<b>Technical Parameters</b> Obligations to revise/redeclare Default assumptions
Additional Grid Code Characteristics	<b>Additional Grid Code Characteristics</b> Obligations to revise/redeclare Default assumptions
Other Relevant Data	<b>Other Relevant Data</b> Obligations to revise/redeclare Default assumptions
Commercial Offer Data	<b>Commercial Offer Data</b> Opportunities to revise Default assumptions
Revisions/Redeclarations for all User Data	<b>Physical Notifications</b> Obligations to revise/redeclare Default assumptions
Default data assumptions	

The format of the Merit Order changes within I-SEM. Currently the Merit Order covers an entire Trading Day and is the basis on which the TSO schedules units assuming 0MW as the reference point. Since the PN becomes the reference point in the scheduling process, the TSO may need to

schedule a unit above or below its PN. As a result, the Merit Order must include a price order to increase the output of a unit and a price order to reduce the output of a unit. Additionally, the Merit Order may change for each 30 minute Imbalance Settlement Period in response to updated Commercial Offers from Users.

The list of factors that the TSO must consider when compiling the Indicative Operations Schedule must be updated for I-SEM. Physical Notifications has been added to the top of this list due to its importance within I-SEM. The Target Reservoir Level for Pumped Hydro units has been deleted since this cannot be used as an input variable in I-SEM. Likewise, the Nomination Profile has been deleted since it is effectively replaced by the PN. Two additional factors have been included as follows:

1. Any factors used by the TSO to comply with Statutory Instruments, Statutory Regulations or the TSO Licence that may impact scheduling and dispatch. This covers factors that the TSO may use to facilitate Priority Dispatch as described in SEM Committee Decision SEM-11-062.
2. Factors used by the TSO to minimise the need for issuing Dispatch Instructions prior to GC2.

Currently the TSO aims to issue the Indicative Operations Schedule (IOS) for a particular Trading Day by 16.00 on the day preceding that Trading Day. For I-SEM, the TSO will have a wider range of scheduling applications available. These applications will enable the TSO to assess system scheduling requirements over short, medium and longer term horizons. The long term scheduling application can look ahead up to 48 hours. Since the TSO will only have access to User Operational Data for a Trading Day by 13.30 on the previous Trading Day, the long term schedule will always use a combination of actual User data and TSO assumptions. The Grid Code modification requires the TSO to issue the initial IOS for a Trading Day by 16.00 on the previous Trading Day using the actual User Data received by 13.30. The full range of IOSs will be regularly rerun through each Trading Day to account for updated User Data, demand forecasts and wind forecasts.

The Technical Parameters tabulated in SDC1 Appendix A are subject to minor change and will be aligned to the final set of Technical Parameters required for the scheduling applications.

#### Summary of Proposed Changes - Scheduling and Dispatch Code SDC2

The SDC2 objective has been modified to reference the use of Physical Notifications in combination with the Merit Order within the dispatch process. The information used in the dispatch process has also been expanded to include Final Physical Notifications or the Physical Notifications if a DI has to be issued before GC2.

Currently, SDC2 permits the TSO to issues Dispatch Instructions after the compilation of the Indicative Operations Schedule under normal circumstances. This would be inappropriate for I-SEM since the TSO has an objective in SDC1 to minimise the need for issuing DIs before GC2. The modification includes a proposal to state that the TSO will normally issue DIs after GC2. Since there will be circumstances when the TSO must issues DIs before GC2, this is specifically permitted in the modification proposal.

The scope of DIs has been modified to address the use of Dispatch Instruction Test Flags in I-SEM. This is discussed further in the section outlining changes to OC8.

SDC2 Appendix A provides example DIs for several unit types. This section has been developed to include examples of the proposed additional DI format for I-SEM:

“go to and stay at x MW until at least time t”

We are proposing to place a restriction on the latest time for “time t” for use in everyday operations. The TSO will normally restrict “time t” to the Trading Day for which CG1 has passed. However, the TSO retains the latitude to set “time t” beyond this limit if required.

#### Summary of Proposed Changes – Operational Testing OC8

Operational Code OC8 discusses the procedures for arranging Operational Tests. Tests conducted by Grid Code Users may impact the scheduling and dispatch process, therefore the TSO must be able to assess the impact of User testing proposals. Currently, User Operational Tests are categorised as either Full-Day Tests or Within-Day Tests. Typically, Full-Day Tests have the potential for higher impact on system operation and Within-Day Tests will have lower impact. Currently, proposals for Full-Day Tests are processed via the Market Operator. If approved, the unit will have under test status for an entire Trading Day. The Trading and Settlement Code (TSC) requires Users to provide at least five Working Days’ notice when submitting their test proposals. This requirement provides the TSO with sufficient time to assess the potential impact of the test on system operations. Within-Day Tests are arranged directly with the TSO and the unit is under test for the actual duration of the test. Notice times for Within-Day Tests are covered by OC7 which requires the User to provide as much notice as possible.

Under the proposed I-SEM arrangements, all planned Operational Testing proposed by Users will be processed via the Market Operator. However, it would not be reasonable to expect Users to provide five Working Days’ notice for lower impact tests. We propose to address this with a change to OC8. The proposed Grid Code modification renames the existing Operational Test categories:

Full-Day Test	renamed	Significant Test
Within-Day Test	renamed	Minor Test

The definitions of these terms remain unchanged. To preserve the TSO’s requirement to have sufficient time to assess the potential system impacts of Significant Tests, we are proposing to include specific notice requirements in OC8. These will be the same as the notice requirements currently detailed in the TSC (5 Business Days before the start of the test, but this may be reduced to 2 Business Days with the agreement of the TSO).

Under the current SEM arrangements, when the TSO approves a User’s Operational Test proposal, the User must submit a Nomination Profile. When I-SEM becomes effective, the Nomination Profile will be replaced by Physical Notifications which have been flagged in accordance with the TSC.

There will inevitably be circumstances when unplanned and unforeseen circumstances will occur that require Users to either:

1. Diverge from their approved test profile or
2. Request a test at short notice

The I-SEM market arrangements will not allow Users to modify PNs after Gate Closure 2. This prevents them from amending their test profile. If the TSO was to dispatch the User to their preferred test profile, this may result in sub-optimal balancing actions. To accommodate these circumstances, the TSO will have the option of applying Dispatch Instruction Test Flags. These will ensure that the User can follow their modified test profile (assuming TSO approval) without the TSO initiating out of merit balancing actions. From a settlement perspective, Dispatch Instructions with Test Flags will be ignored.

#### Summary of Proposed Changes – Glossary

A number of definitions in the Grid Code Glossary have been added, deleted, renamed or amended. These proposed changes are detailed in Table 1 of this paper.

Table 1 summarises the proposed changes to each section of the EirGrid Grid Code, and as appropriate, includes an explanation of the change.

The paper is also accompanied by change marked drafts of the impacted sections of the EirGrid Grid Code, specifically OC8, SDC1, SDC2 and the Glossary.

TABLE 1: Modified sections of the EirGrid Grid Code

Grid Code Section	Clause	Commentary of key changes
<b>OC8 OPERATIONAL TESTING</b>		
	OC8.5.1	Housekeeping change: “Operational Procedures” is not a defined term. Therefore, the term should not be in bold font.
	OC8.5.3	<p>Currently, User tests can be Full-Day Tests or Within-Day Tests. The classifications are distinguished by their potential impact on system operations based on the length of the test and the amount of electrical energy involved. Full-Day Test proposals are submitted via the Market Operator (using the Market Participant Interface) and the unit would be assigned Under Test status for an entire Trading Day. Within-Day Test proposals are submitted directly with to TSO and the unit would only be considered as under test for the duration of the test.</p> <p>In I-SEM, all planned User test proposals will be submitted via the Market Operator (using the Market Participant Interface). If the TSO approves a test proposal, the unit would be considered as under test status for the duration of the test.</p> <p>To account for these changes, the existing defined terms “Full-Day Test” and “Within-Day Test” are renamed “significant Test” and “Minor Test” in the Glossary. This change maintains the distinction between the potential impacts of the test on system operations, but removes any other differences.</p>
	OC8.6.1	The TSC currently requires 5 Working Days’ notice for a Full-Day Test. This can be reduced to two Working Days by agreement with the TSO. The defined notice requirement facilitates the TSO’s evaluation of the test proposal. In I-SEM, all planned User tests will be submitted via the Market Operator. Such long notice requirements would not be appropriate for Minor test proposals. Since the notice requirements are specifically required for TSO assessment of the proposals, it is proposed that the existing provisions are defined in Grid Code. Therefore it is proposed that explicit notice requirements for Significant Tests are incorporated into the Grid Code. This effectively maintains the status quo from the perspective of Grid Code Users.
	OC8.9.2	This section outlines the current obligation on Users to submit a Nomination Profile consistent with an approved Full-Day Test. Drafting has been amended to use the I-SEM term “Physical Notifications” in respect of all Operational Tests requested by Users.
	OC8.10.6	Currently this clause refers to the process for cancelling a Full-Day Test. This has been amended to cover all Operational Testing.
	OC8.10.7	This section, relating to Within-Day Testing has been deleted since the provision is covered in OC8.10.6.

Grid Code Section	Clause	Commentary of key changes
<b>SCHEDULING AND DISPATCH CODE SDC1</b>		
	SDC1.1.1(c)	Superfluous explanation of the TSC has been deleted.
	SDC1.1.1(d)	Minor redrafting for clarity.
	SDC1.1.2	<p>The list of operational data required from Users now includes Physical Notifications. There are some minor drafting changes to reflect the latitude to amend certain operational data following initial submission.</p> <p>The description of Indicative Operations Schedule (IOS) reflects that the scheduling process will be more dynamic in I-SEM, and as a result the IOS will rerun and republished throughout the day.</p>
	SDC1.1.3	<p>This is a new provision that places a Grid Code obligation on the TSOs to publish details of the scheduling and dispatch process. This broadly aligns with proposed TSO Licence changes regarding the Balancing Market Principles Statement.</p>
	SDC1.1.5	<p>This clause defines the three existing Gate Windows and Trading Windows under the current SEM arrangements. Since these arrangements will not be relevant in I-SEM, this clause will be deleted.</p>
	SDC1.2	<p>This section lists the objectives of the scheduling procedure described in SDC1. These have been arranged to distinguish between the TSO obligations in respect of secure system operation and its role in facilitating the constructs of the I-SEM arrangements. The TSO's initial objectives are to operate the system securely, ensure sufficient generation is scheduled to meet demand and to develop/publish Indicative Operations Schedules. Then subject to fulfilling these objectives, the TSO will facilitate I-SEM principles (minimise the cost of deviating from PNs and minimise the requirement to issue Dispatch Instructions prior to the hourly Gate Closure (GC2) for the purposes of generation/demand balancing).</p>
	SDC1.3	<p>The scope of SDC1 has been altered to align with data submission obligations in respect of Interconnectors. Availability Forecasts/Declarations and Technical Parameters will be submitted by Interconnector Owners. PNs for Interconnectors will be submitted by a Shipping Agent (appointed to fulfilling this role by the Regulatory Authorities and further described in the CACM Guideline). This ensures that a single party is responsible for calculating the net trading across Interconnectors and submitting the associated PNs to the TSO. There may only be one Shipping Agent per Interconnector.</p>
	SDC1.4.1 to	These clauses cover the obligations on Users to submit

Grid Code Section	Clause	Commentary of key changes
	SDC1.4.7	<p>Operational Data to the TSO. The layout for each data category has been consolidated to reflect the expectation that data submissions and the associated scheduling procedure will be more dynamic within I-SEM. The proposed general template for each category of User data is laid out as follows:</p> <ol style="list-style-type: none"> <li>1. Obligations to submit data in a certain category (i.e. Availability data, Technical Parameters, Physical Notifications, Commercial Offer Data)</li> <li>2. The obligations and opportunities to amend the data in each data category</li> <li>3. Default data for the category. This ensures that the TSO can make reasonable assumptions in the event that a User fails to provide any item of operational data</li> </ol>
	SDC1.4.8.1	<p>Compilation of Indicative Operations Schedules. This has been amended to reflect the continuous updating and recalculation of scheduling in I-SEM. Whilst the initial IOS will continue to be compiled by 16:00, the TSO will rerun the scheduling process to reflect amended Operational Data, updated demand/wind forecasting and other factors that may impact scheduling.</p>
	SDC1.4.8.2	<p>The requirement for the TSO to compile Merit Orders is retained. However, the description has been amended to align with the concept of incrementing and decrementing away from the PN as the reference point. Merit Orders in I-SEM will be compiled to advise TSO decisions with respect to balancing, i.e. to minimise the cost of deviating from the PN to achieve the SDC1 objectives.</p>
	SDC1.4.8.3	<p>The list of factors that the TSO must consider as inputs to the scheduling process has been updated to include:</p> <ol style="list-style-type: none"> <li>1. Physical Notifications – moved to the top of this list to reflect the importance of the PN as a reference point in the scheduling process.</li> <li>2. Factors used by the TSOs to comply with SIs, SRs or the TSO Licence. This covers factors that are used in the scheduling process to account for issues such as Priority Dispatch that may require the TSO to diverge from Merit Order.</li> <li>3. Factors used by the TSO to discourage the issuance of Dispatch Instructions (effectively the TSO placing a contract for balancing actions) before BM Gate Closure.</li> </ol> <p>A number of factors, no longer applicable in I-SEM have been deleted.</p>
	SDC1.4.8.4	<p>Minor drafting changes to account for I-SEM changes. Indicative Operations Schedules is pluralised to reflect the fact that the underlying process is much more repetitive to account for changing input data (such as PNs and COD).</p>

Grid Code Section	Clause	Commentary of key changes
		<p>The undefined term “tranche” has been used in the Grid Code since SEM Go-Live to account the energy blocks attributable to each Interconnector User within an Interconnector schedule. Since a Shipping Agent will provide a PN for their respective Interconnectors, there is no longer a requirement for the term “tranche”. Instead the phrase “Interconnector power transfers” is more suitable within the I-SEM context.</p>
	SDC1.4.8.5	<p>This clause addresses the need to rerun the scheduling process in response to changes in specific input variables such as PNs, Interconnector schedules, Commercial Offer Data, unit Availability, and operational testing. has also been amended to reflect the repetitive nature of the scheduling process to account for data and forecast updates.</p>
	SDC1.4.8.6	<p>This section discusses the conditions under which the TSO was able to deviate from following the Merit Order. A reference to PNs has been included since the optimised unit schedule will be based on both PNs and Merit Orders, not just Merit Orders.</p>
	SDC1.4.8.8	<p>Content of the Indicative Operations Schedules has been redrafted to remove references to the “following Trading Day”. This is necessary since the IOS’s will cover multiple timeframes encompassing portions of the current Trading Day and the following Trading Day as further described in SDC1.4.8.9.</p>
	SDC1.4.8.9	<p>The initial IOS containing scheduling information for the next Trading will normally be issued at 16:00, but the TSO retains the right to extend this deadline if necessary. The IOSs will contain scheduling details for long, medium and short term timeframes. This aligns with the SCUC/SCED schedules discussed in the paper “The Scheduling &amp; Dispatch Process in I-SEM – Plain English” available for download at <a href="http://www.sem-o.com/ISEM/General/I-SEM%20Rules%20Working%20Group%20-%20Scheduling%20and%20Dispatch%20Process%20Initial%20Plain%20English%2020160602%20redline.docx">http://www.sem-o.com/ISEM/General/I-SEM Rules Working Group - Scheduling and Dispatch Process Initial Plain English 20160602 redline.docx</a></p> <p>RTD – Real Time Dispatch (short term)  RTC – Real Time Commitment (medium term)  LTS – Long Term Schedule</p>
	SDC1 – Appendix A Part 1. Technical Parameters	<p>The list of Technical Parameters will be subject to minor changes to align with the final input variables required for the scheduling application. These changes are not considered to be material with regard to this proposed modification for I-SEM.</p>
	SDC1 ANNEX 1	<p>This annex details any differences between SDC1 in the SONI Grid Code and the EirGrid Grid Code. The proposed drafting changes to SDC1 has necessitated a number of changes to clause numbering references. References to Autonomous Generating Units have been removed. There is also an element of housekeeping updates in this section.</p>

Grid Code Section	Clause	Commentary of key changes
<b>SCHEDULING AND DISPATCH CODE SDC2</b>		
	SDC2.1.1	Superfluous explanation of the TSC has been deleted.
	SDC2.2	The objective of the procedure for issuing Dispatch Instructions has been amended to refer to Physical Notifications and Merit Orders derived in SDC1 as the primary inputs. Previously the objective referred to Merit Order only.
	SDC2.4	Information used in the Dispatching of units now includes PNs or FPNs.
	SDC2.4.1.4	This clause has been included to indicate that PNs and COD cannot be changed after Gate Closure 2. However, the TSO will continue to rerun the scheduling process to take account of the most recent availability, demand forecasts and wind forecasts. This continues right up to real time. This clause is included for context only.
	SDC2.4.2.1	Currently Dispatch Instructions (DIs) can normally be issued immediately after the Day Ahead IOS has been issued on the day preceding a Trading Day. In I-SEM this is no longer relevant. Instead, the TSO will normally endeavour to issue DIs after Gate Closure 2. However, since the TSO may need to issue DIs before GC2 in order to maintain system security, this right is reserved.
	SDC2.4.2.4(l)	<p>Under Test Flags have been renamed Dispatch Instruction Test Flags to avoid confusion with test flags that may be applied to PNs.</p> <p>Under Test Flags are applied to DIs for Within Day Tests under the current SEM arrangements. Under the I-SEM arrangements, planned testing will normally be proposed and agreed via the MO arrangements, so Under Test Flags will not be required under such conditions. However, the TSO requires the flexibility to deal with situations which may arise after Gate Closure 3 such as:</p> <ol style="list-style-type: none"> <li>1. A generator is unable comply with an approved test profile and the TSO needs to dispatch the unit above the scheduled MW output. Under these circumstances, the Test Flag would be applied to the part of the DI that was not part of the approved test profile.</li> <li>2. A generator without a PN has been instructed to synchronise, trips, then subsequently requests a test synch so the unit can be made available without undue delay.</li> </ol> <p>The impact of the Dispatch Instruction Test Flag means that the Dispatch Instruction is ignored in settlement.</p>
	SDC2.A.2.2(b)	This clause has been amended to account for the additional DI for

<b>Grid Code Section</b>	<b>Clause</b>	<b>Commentary of key changes</b>
		I-SEM of the form “go to and stay at x MW until at least time t”. This form of DI allows the TSO to accept the commercial offer associated with a balancing action for a set amount of time.
	SDC2.A.2.3	A clause has been included to place a limit on the latest time “t” that should normally be used when a DI is given in the form “go to and stay at x MW until at least time t”.
	SDC2.A.3.1, SDC2.A.3.2 and SDC2.A.3.3	These sections show example DIs to increase or decrease the MW Output of a CDGU has been amended to include examples of the additional DI format.
	SDC2.A.12.2	Example DIs to dispatch a Demand Side Unit has been amended to include examples of the additional DI format.
<b>GLOSSARY</b>		
	<b>Autonomous Generating Units</b>	Definition deleted since is not actually used in the Grid Code. The TSC is likely to delete this unit category. Grid Code obligations on “Generating Units” will continue to apply to units of this type.
	<b>Commercial Offer Data</b>	Currently refers to “Nominated Profile for certain Users”. This is no longer relevant for I-SEM.
	<b>Common Section</b>	Definition deleted since it is not used within the Grid Code.
	<b>Decremental Price</b>	Used in the definition Decremental Price Quantity Pairs.
	<b>Decremental Price Quantity Pairs</b>	Current Grid Code only refers to Price Quantity Pairs with respect to the Merit Order. These are implicitly Incremental in the current SEM arrangements. I-SEM arrangements require both Incremental and Decremental Price Quantity Pairs.
	<b>Dispatch / Dispatch Instruction</b>	Reference to the undefined term “tranche” has been removed as its use is not relevant in I-SEM.
	<b>Dispatch Instruction Test Flag</b>	Replaces the definition “Under Test Flag” and focuses the use of this flag in the I-SEM context. This enables the TSO and other Users to accommodate unplanned and unforeseen circumstances where it is mutually desirable to approve: <ol style="list-style-type: none"> <li>1. Deviations from approved Operational Test profiles Test synchronisation instructions when a unit trips or fails to synchronise.</li> </ol>
	<b>Energy Limit Factor</b>	Definition deleted since no longer relevant in I-SEM.
	<b>Energy Limit Start</b>	Definition deleted. The Energy Limit Start is the start of the Trading Day.
	<b>Energy Limit Stop</b>	Definition deleted. The Energy Limit Stop is the end of the Trading Day.
	<b>Final Physical</b>	This is a new defined term required for I-SEM. The FPN is the last

<b>Grid Code Section</b>	<b>Clause</b>	<b>Commentary of key changes</b>
	<b>Notification</b>	Physical Notification received for an Imbalance Settlement Period (previously termed a Trading Period) before Gate Closure 2.
	<b>Forecast Minimum Generation Profile</b>	The definition currently includes a reference to the Optimisation Time Horizon. This is amended to reference the Trading Day.
	<b>Forecast Minimum Output Profile</b>	The definition currently includes a reference to the Optimisation Time Horizon. This is amended to reference the Trading Day.
	<b>Full-Day Test</b>	This defined term will be renamed “Significant Test” and relocated as per the alphabetic order. The definition is otherwise unchanged.
	<b>Gate Closure</b>	Definition deleted. See new definitions Gate Closure 1 and Gate Closure 2.
	<b>Gate Closure 1</b>	This is the latest time for Users to submit their initial Operational Data in respect of a Trading Day to the TSO. GC1 is 13.30 on the Trading Day before the relevant Trading Day.
	<b>Gate Closure 2</b>	This is one hour before the beginning of the Imbalance Settlement Period under consideration.
	<b>Gate Window</b>	Definition deleted since the concept of Gate Windows does not exist in I-SEM.
	<b>Gate Window Closure</b>	Definition deleted since the concept of Gate Windows does not exist in I-SEM.
	<b>Gate Window Opening</b>	Definition deleted since the concept of Gate Windows does not exist in I-SEM.
	<b>Imbalance Settlement Period</b>	New name for the existing defined term “Trading Period”.
	<b>Incremental Price Quantity Pairs</b>	Current Grid Code only refers to Price Quantity Pairs with respect to the Merit Order. These are implicitly Incremental in the current SEM arrangements. I-SEM arrangements require both Incremental and Decremental Price Quantity Pairs.
	<b>Indicative Market Schedule</b>	No longer applicable in I-SEM. This term is used in the context of establishing the Interconnector tranches. In I-SEM, the Interconnector PN will be provided by the Shipping Agent for that Interconnector.
	<b>Indicative Operations Schedule</b>	To reflect the fact that there will be multiple IOSs in I-SEM, the IOS is “a” schedule prepared by the TSO rather than “the” schedule in the current Grid Code version.

<b>Grid Code Section</b>	<b>Clause</b>	<b>Commentary of key changes</b>
	<b>Interconnector User</b>	Definition deleted since Interconnector PNs will be submitted by the Shipping Agent appointed by the RA. The TSO will no longer have direct interaction with the parties trading energy across Interconnectors.
	<b>Intra-day Trading</b>	Definition deleted since the term was specifically used in the context of the single intra-day gate in SEM.
	<b>Merit Order</b>	Redefined to reflect the context of use in the context of using Merit Order as the basis of scheduling and dispatching units away from their PNs.
	<b>Minor Test</b>	Uses the current definition for "Within Day Test".
	<b>Nomination Profile</b>	Definition deleted since it is effectively replaced by Physical Notifications.
	<b>Notice to Synchronise</b>	Amended to correct minor drafting errors.
	<b>Optimisation Time Horizon</b>	Definition deleted as the term is no longer required since several time horizons are used within the scheduling process. There is no longer a direct static relationship between the scheduling process and individual Trading Days. Instead, the scheduling applications will optimise indicative operations on a rolling basis over fixed short, medium or long term time horizons.
	<b>Physical Notifications</b>	New definition as required for I-SEM. PNs will be submitted by Users to the TSO. The notification will reflect a User's most up to date view of their expected MW profile based on their trading in Day Ahead and Intraday energy markets.
	<b>Price Quantity Pairs</b>	Definition deleted as it is replaced by individual definitions for Incremental PQ Pairs and Decremental PQ Pairs.
	<b>Price Sets</b>	Amended definition to include references to both Incremental PQ Pairs and Decremental PQ Pairs.
	<b>Shipping Agent</b>	The party appointed by the RAs to perform the role discussed in the EU Guideline on Capacity Allocation and Congestion Management (CACM). This party will be responsible for submitting PNs in respect of Interconnectors.
	<b>Short-Term Maximisation Time</b>	Technical Parameter listed in SDC1 APPENDIX A.
	<b>Significant Test</b>	New name for "Full-Day Test". In I-SEM, a Significant Test will not necessarily have full day duration.
	<b>Target</b>	Definition deleted as it is not a relevant input variable in I-SEM.

Grid Code Section	Clause	Commentary of key changes
	<b>Reservoir Level Percentage</b>	
	<b>Target Reservoir Level</b>	Definition deleted as it is not a relevant input variable in I-SEM.
	<b>Trading Day</b>	The start of the Trading Day will change from 06.00 to 23.00.
	<b>Trading Period</b>	Renamed “Imbalance Settlement Period” and repositioned in alphabetic order.
	<b>Trading Window</b>	Definition deleted . No longer required in I-SEM.
	<b>Under Test Flag</b>	Definition deleted as it is replaced by the defined term “Dispatch Instruction Test Flag”.
	<b>Within-Day Test</b>	Renamed “Minor Test” and repositioned in alphabetic order.