

Process for the Calculation of Outturn Availability

Regulatory Authorities Minded to Decision Paper

23 February 2015

SEM-15-14

The following minded to decision paper has been developed by the Utility Regulator and the Commission for Energy Regulation (the Regulatory Authorities “RAs”), and outlines our minded to decision on the calculation of Outturn Availability in the SEM.

EirGrid, in its Generator Availability and Outturn Availability consultation document, first consulted upon the issue of Outturn Availability in Ireland on 3rd June 2011. Following respondent views that this was an all-island matter the work stream was changed in favour of an all-island approach.

The RAs subsequently requested the TSO’s carry out a joint all island consultation on Outturn Availability. On 1st February 2013 both Transmission System Operators (TSO’s) published a consultation document entitled “Process for the Calculation of Outturn Availability”. Three options were put forward to calculate Outturn Availability as part of the consultation and views were sought from respondents. Eleven responses were received, all in favour of option two. Under option two, Outturn Availability would be set to the technical availability of the generation unit for all outages.

In their draft recommendations paper submitted to the RAs, the TSO’s outlined that in their view that subsets of outages should be categorised differently. The TSO’s stated that there exists a difference between a scheduled outage of a connection asset of a Generator in order to maintain that asset and an unscheduled outage which impacts on a Generator. However the TSO’s also acknowledged that given the fact that market reforms were due to take place in 2016 their view was that at present there is insufficient argument to modify current custom and practice in both jurisdictions and that any decision taken should be reviewed in line with emerging market arrangements.

Following a detailed examination of the consultation, the responses received and the TSO’s’ draft recommendations paper, the RA’s have now arrived at our minded to decision on this matter. In order to broadly align the treatment of generators North and South, but bearing in mind the different contractual and legacy issues which are in place in the two jurisdictions, the RA’s are of the view that the current custom and practice should be maintained in Northern Ireland for generators connected at the “legacy” position. For generators connected at the “new” position the arrangements should mirror those in Ireland. In Ireland, generators should be considered outturn available for all outages of connection assets owned by the TAO with the exception of scheduled annual maintenance outages up to five business days per outage season.¹ This minded to position allows for broad harmonisation of the arrangements North and South.

¹ For the avoidance of doubt where a generator is on outage for their own reasons they will be deemed outturn unavailable. E.g. if maintenance is scheduled for 10 days and the generator outage is on scheduled outage for its own reasons for the same 10 days, the unit will be outturn unavailable for the full 10 day period.

The RA's have also decided that changes are required to the current scheduling process and these are documented in this minded to decision paper.

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2.1 Purpose of this paper

The following paper details the RA's proposed position on the calculation of Outturn Availability. The Transmission System Operators (TSO's) have carried out a full public consultation and have submitted their draft recommendations paper to the RAs for consideration. The RAs have considered in full all comments and submissions received, including responses to the consultation from industry. Further separate meetings have also taken place with both the TSO's and the Energy Association of Ireland (EAI).

Issues raised through the consultation will be addressed in this paper along with a response from the RA's. This is then followed by an overview of the TSO's recommendations and our minded to decision on the matter.

2.2 Background Information

The issue of Outturn Availability and its calculation was initially raised in a consultation carried out by EirGrid on the 3rd June 2011. The paper sought to clarify how EirGrid calculated Outturn Availability and on the appropriateness of the process, in particular with respect to how to a unit's availability is recorded for situations other than when a Generation Unit is unavailable for technical reasons associated with the unit.

The consultation was withdrawn as TSO's and generators were of the view that an all-island approach to the calculation of Outturn Availability would be more beneficial. The RAs subsequently requested the TSO's carry out a joint all island consultation on Outturn Availability.

On 1st February 2013 a joint TSO consultation paper, Process for the Calculation of Outturn Availability, was published. The consultation paper outlined three options that could be pursued to calculate a Generators level of Outturn Availability. The options proposed were as follows:

1. Outturn Availability is set to 0MW for all transmission outages
2. Outturn Availability is set to the technical availability of the generation unit for all transmission outages
3. Outturn Availability is set to 0 for a subset of transmission outages

The TSO's received eleven responses to the consultation paper from the following parties:

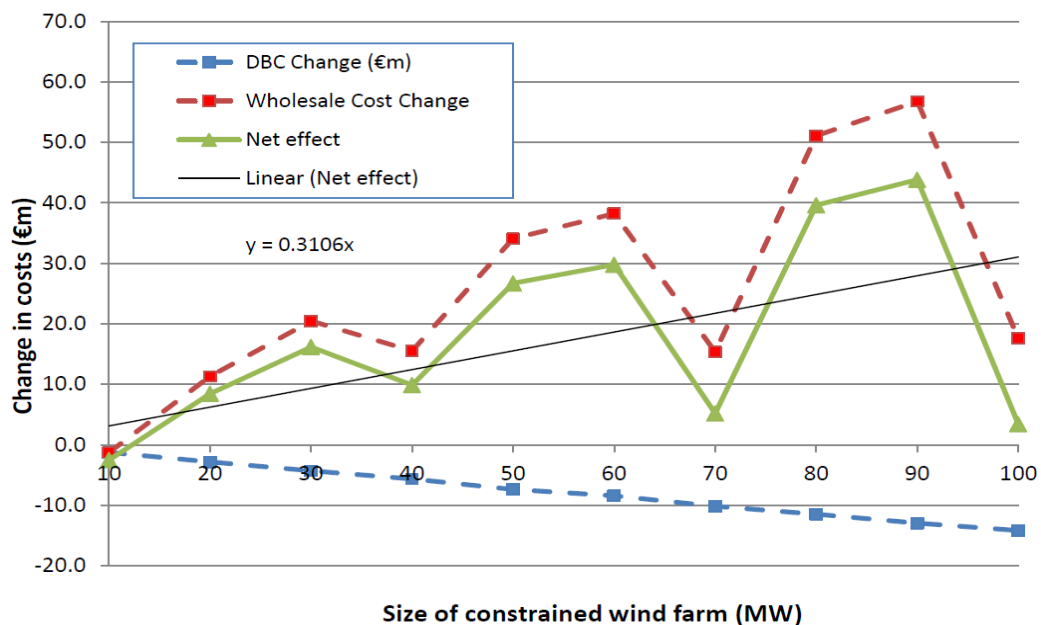
- AES
- Bord Gáis Energy
- Bord na Mona
- Dublin Bay Power/ Synergen

- Electricity Association of Ireland
- Energia
- ESB Energy Ireland
- IWEA
- Power NI Energy (PPB)
- SSE
- Tynagh

All respondents favoured option two, keeping the generators whole during all transmission outage work.

Following a review of the consultation and responses the TSO's submitted a draft recommendations paper to the RAs. Within this paper the TSO's concluded that maintaining current custom and practice would be their preferred option at present given the market reform currently underway. Based on this assumption a suite of recommendations have been proposed and these will be discussed in the following paper.

Following analysis the Regulatory Authorities requested modelling from the TSO's to ascertain the effect on SMP and constraint payments of removing transmission constrained generation from the SEM. This analysis showed the net effect of the increase in wholesale energy costs and savings to dispatch balancing costs ("DBC"). The results from the analysis implied that removing a constrained windfarm from the SEM would cause an increase in costs to the consumer and is shown below.



2.3 Responding to the paper

Responses are requested by 5:00pm on 6th April 2015. Your response to this consultation may be made public. If you do not wish your response or name made public, please state this clearly by marking the response as confidential. Please submit all questions and responses to this paper, preferably by email, to:

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3 CURRENT REGIMES IN PLACE TO CALCULATE OUTTURN AVAILABILITY IN REPUBLIC OF IRELAND AND NORTHERN IRELAND

Currently the arrangements in place in Ireland and Northern Ireland with respect to the calculation of Outturn Availability are different across the two jurisdictions. This has occurred for historical structural reasons but also as a result of different contractual arrangements in place between Generators and the TSO, in the two jurisdictions. This section broadly outlines the arrangements currently in place in the two jurisdictions.

The term “connection assets” in the paper shall refer to all the assets belonging to the Transmission Asset Owner (TAO) that exist between the connection point and the meshed transmission system. The connection point for generators is not harmonised across the island.

In Northern Ireland there exists a “legacy” position and a “new” position, with regard to the connection point. The legacy position places the connection point on the HV bushings of the generator transformer and the new position is at the busbar clamps. The stations assigned to each category can be identified by their respective connection agreements. The point at which the connection asset meets the meshed system is stated to be the busbar clamps at the meshed transmission system (the busbar clamps are included in the definition of connections assets).

In the Ireland, the connection point is at the Generator transformer high voltage bushings. The connection assets refer (for the purposes of this paper) to all equipment between the high voltage bushings of the transformer and the busbar disconnects at the meshed transmission system. Note that in the case of tailed windfarms, there can be a considerable distance between the transformer and the meshed system, and maintenance anywhere along that path can affect the availability of the windfarm.

Current practice adopted in Northern Ireland is that Generators connected at the busbar (the “new” position) are deemed outturn unavailable if there is any outage of the connection asset. Generators connected at the HV transformer bushing (the “legacy” position) are deemed outturn available if there is an outage of the connection asset in all cases (i.e. for fault repair or maintenance).

Current practice for Transmission connected generation in Republic of Ireland is that all generators are compensated for transmission outages arising from forced maintenance and certain types of corrective maintenance. However, for all other works (impacting the availability of connection assets owned by the TAO) they are deemed to be outturn unavailable, with the exception of generators with temporary connection assets².

²it is the RA’s view that for all outages, a generator with a temporary connection asset should have its outturn availability set to zero for all outages.

4 RESPONDENT VIEWS ON THE TSO CONSULTATION RECOMMENDATIONS AND OTHER RELEVANT POLICIES

The TSO's received 11 responses to their consultation, all from Generators currently active in the Single Electricity Market (SEM). In the TSO's consultation, three options were developed that could be applied to the calculation of Outturn Availability. Comment was invited on each of these options.

Section 4.1 to 4.3 outlines these proposals along with respondent views and comment from the Regulatory Authorities.

4.1 Option 1 - Outturn Availability is set to 0MW for all transmission outages

All respondents strongly opposed this option. It was felt that this would simply result in the transfer of risk of transmission outages from the TSO's and TAOs onto generators.

Respondents highlighted that the duration of all planned outages is within the control of TAOs and TSO's and that generators have no ability to manage the risk around such outages.

Generators stressed that acceptance of this option would introduce a significant level of uncertainty with regard to generator capacity revenues. Generators capacity revenue could be significantly impacted depending on when the transmission outage takes place and on the length of the outage, two factors of which it has no control.

The third major theme of responses received was that acceptance of option one would go against the principles of the SEM, that of it being an unconstrained market.

TSO's Response

In their recommendations paper the TSO's noted that option one offers an equal and transparent solution to all connected parties and removes the scheduling complexity of aligning transmission and generator outages. The TSO's further asserted that since the maintenance cycle of transmission plant is known, generators can therefore mitigate against this risk.

The TSO's also addressed the issue of an unconstrained market. It is their view that the definition of an unconstrained market refers to the meshed transmission system and operational security constraints, and does not extend to connection assets.

RA's Response

The RAs are of the view that there may be advantages of having the Outturn Availability set to 0MW for all outages. This option would offer an outcome that is clear and non-discriminatory.

The RAs also accept generator concerns that this option, in its current format, places all the risk at the hands of generators whilst offering no incentives to the TSOs and TAOs to both

plan and carry out maintenance expediently. It is also noted that this approach would have a negative net impact on the consumer (i.e. higher costs). The results of the TSO's modelling show that the effect of increasing the SMP is slightly greater than the reduction in DBC.

4.2 Option 2 - Outturn Availability is set to the technical availability of the generation unit for all outages

All respondents identified option two as their most preferred option. A wide range of benefits to proceeding with using option two were identified by respondents. Option two was seen as being both complimentary to the concept of Firm Access and to the SEM High Level design, with one respondent explicitly stating that option two "reflects SEM policy and principles in relation to an unconstrained market design".

Another benefit of option two that respondents identified was that it offers the least cost solution to the all-island consumer. One respondent stated, "it will result in the least-cost for consumers as generators within merit would continue to be deemed Available during outages of transmission assets, resulting in a lower SMP that is paid by consumers and paid to all generation units in the market schedule". It was also noted by a number of respondents that there would also be no difference to the cost of capacity payments paid by consumers as this is pre-determined at the beginning of the year and is not impacted by plant availability.

The third key issue raised in a number of responses was that this option ensures that there is non-discrimination of plant. One respondent stated that option two "gives clarity and transparency to generators, ensures there is no unintended discrimination between timing and timeframes for maintenance works of different connected parties".

Other advantages identified included the simplicity of the option to implement and the signal it would send to TSO's and TAOs to better manage outage duration timescales and carry out the maintenance in a suitable timeframe. Option two also aligns with generators views that Availability of a generator, as defined in Grid Code, should have the same meaning as Outturn Availability in the Trading and Settlement Code.

TSO's Response

The TSO's believe that by keeping all units whole for all transmission work, there exists no incentive on the generator to align generator outages to scheduled transmission maintenance outages. This could create a situation whereby there is an unnecessary decrease in levels of generator availability.

The TSO's also state that an acceptance of option two would represent a significant change in the treatment of all transmission-connected generators as currently generators are not made financially whole for all transmission work. This could set a new precedent, before any foresight has been given to the new market structure or design.

RA's Response

The RA's are of the view that there is merit in considering this option as it offers advantages in terms of the direct cost today to the all-island consumer. Analysis requested from the TSO's has shown that while Dispatch Balancing Costs (DBC) would increase as a result of accepting option two this would be offset by a decrease in SMP, resulting in a potential net benefit to the consumer. This approach also places a further incentive on the TSO to align transmission outages with generator outages, while like option one it can be considered transparent and non-discriminatory.

However there are also drawbacks to accepting option two. There exists no incentive placed on generation plant to align outages in the most efficient manner and creates a situation whereby generators could be out for more than one period each year, – once for the generators own maintenance work, and a second time for the maintenance of the transmission Connection Asset.

4.3 OPTION 3 - Outturn Availability is set to 0 for a subset of outages

No respondents favoured option 3. The reasons given for the rejection was broadly the same as those given for option one. One respondent took the view that accepting option three would lead to "significant commercial impact upon generators, resulting in higher costs for consumers" and "will provide the TSO with too great an opportunity to act or be perceived to act in a discriminatory manner".

Another respondent pointed out that duration of maintenance outages had not been defined. They further highlighted that when a generator schedules a maintenance outage work is carried out on a 24 hours a day 7 days a week basis. No evidence has been presented that the TSO's operate any similar schedule or indeed how long "a standard outage would take".

TSO's Response

In their response, the TSO's stated their view that there is a cost associated with maintaining connection assets, which should be shared by the generators. The TSO's further assert that the current outage scheduling process is transparent.

Claims that there exists no incentive with regards to outage timescales was refuted with the TSO's stating, "there is a clear incentive for the TSO's to optimise the duration of all outages, as the shorter the duration of each individual outage will facilitate a greater number of outages per annum. This is critical for the TSO's in their plans to expand and upgrade the meshed Transmission System"

However the TSO'S have acknowledged that improvements could be made to communications surrounding the outage process and the TSO's accept that this would bring benefits to all parties involved. As a result, they have since revised their communication process.

RA's Response

The RA's see merit in the principle that there exists a difference between maintaining assets that allows a generator to have a continuous connection with the network and of an outage due to a fault in those assets. The RAs also see the merit in treating each of these outages differently.

A disadvantage of accepting option three is that it brings about an uneven treatment of risk between the parties. This option places no commitment on the TSO or TAO to align the maintenance schedules of the transmission and generation assets and carry out repairs of these assets in appropriate timeframes, even though generator revenues are being directly impacted, when the transmission asset is not available.

The RA's note respondents concerns regarding the perceived potential for the TSO to act in a discriminatory manner, as they have too much influence on market payments to generating units. However, it is noted that the TSO in both jurisdictions has statutory and licence obligations to act in a non-discriminatory manner. While the current custom and practice, necessarily, will impact different generators in different ways that custom and practice has been applied on a consistent basis. Therefore the Regulatory Authorities are not aware of the TSO's applying their current custom and practice in a discriminatory manner. The RA's are of the view that clear definitions of both availability and Outturn Availability along with a formalisation of a TSO policy in relation to Outturn Availability will substantively address industry concerns in this regard.

The RA's also agree that there exists a need to improve communication between all parties. Notwithstanding the efforts made by the TSO's in this regard the RA's are of the view there is scope for the process to involve generators to a greater degree in scheduling transmission outages. Communication is critical to the success of delivering an efficient maintenance schedule, which minimises the outage times of all plant connecting to the network. This point applies to all the options laid out in the consultation.

Other points raised by respondents to the consultation

The TSO's also requested that respondents also consider all other subsections of the paper and provide comment. Sections 4.4 to 4.8 provide a summary of the main issues highlighted by respondents, the TSO's response and the RAs comment on all other issues raised as part of the consultation.

4.4 Legality of a bridging document

The TSOs proposed the use of a “bridging document” to clarify the link between “available” as defined in the Grid Code and “outturn available” in the Trading and Settlement Code. Most of the respondents questioned the TSO’s use of a bridging document and its suitability. A number of respondents commented on the legality of such a document and felt that it would be more appropriate to make changes in the Trading and Settlement Code and Grid Code.

In the TSO’s response they clarified that the use of a “bridging document” was to clarify the gap that existed between the two codes. The TSO’s further stated that if changes to the respective codes would provide further clarity then they would support this.

RA’s Response

It is clear that there exists a gap between the definitions of Availability and Outturn Availability in the Grid code and Trading and Settlement code. The RA’s consider that modifications will be required to both the Trading and Settlement Code and Grid Code and that a bridging document would not be sufficient to provide clarity to the current ambiguity. Therefore the RA’s propose to direct that the TSO’s submit to the relevant Review Panels modifications to ensure there is sufficient clarity in this regard.

4.5 Definition of Availability and Outturn Availability in the Grid Code and in the Trading and Settlement Code

All respondents stated that in their opinion there is no differentiation between Availability and Outturn Availability. The responses assert that the Outturn Availability of a generator should reflect its ability to deliver power to the connection point, or their technical Availability.

The TSO’s maintain that there is “a fundamental difference between Availability of a Generator to produce energy and the Outturn Availability in the market.” They further stress that the availability of a generator as outlined by the Grid Code relates to the technical capability of a unit whereas Outturn Availability, as defined in the Trading and Settlement code, relates to the commercial capability of that unit.

RA’s Response

The RA’s are of the view that there should be a difference between the definitions of technical availability and Outturn Availability. The RA’s agree with the TSO’s assertion that Availability, as defined in the Grid Code, relates to the technical availability of a generating

unit. Outturn Availability should relate to the commercial capability of a unit. However, Outturn Availability is not adequately defined in the Trading and Settlement Code and is not defined in the Grid Code. This has resulted in the commercial capability of a unit to be determined at the discretion of the TSO.

Therefore the RA's are of the view that the status quo is not appropriate and that modifications to the respective codes should be made to clearly define availability and Outturn Availability.

4.6 Generation Outage Planning

In their response, a number of respondents acknowledged the difficulties in coordinating transmission network outages. The increasing complexity brought about with increased wind penetration was also noted. However respondents stated that they are unable to predict when the maintenance of their generation assets will be required, as maintenance is based on operating hours and this is very difficult to predict. Two shifting of CCGTs was also raised as an issue in trying to predict maintenance outage of plant.

One respondent raised further concerns with regard to the Transmission Outage Program (TOP) and Committed Outage Plan (COP). It was stated that they have no input into the TOP in any shape or form. This issue was touched upon by another respondent who stated that "a more flexible approach to facilitating changes to scheduled generator outages within the year as well as more advance notice of scheduled TSO outages" would ensure a more transparent process that would benefit all stakeholders.

In their response the TSO's acknowledged the complexity of outage scheduling. However they state that without an incentive on generators to align with transmission outages increased complexity would be added to the process as generators could re arrange the transmission work multiple times.

RA's Response

The RA's acknowledge the difficulties facing both the TSO's and generators in scheduling and aligning outages. With increasing levels of wind penetration on the system, running schedules for thermal plant have become more unpredictable. Furthermore the design of the network and the increasing number of participants all requiring maintenance to their connection assets, has made the process more complex and difficult for the TSO's to manage and TAOs to carry out. It is further noted that the TSO's have improved their communications process in relation to outage scheduling.

That being said, the RA's are of the view that improvements could be made to the current process. Greater levels of generator involvement with the TSO's in creating an outage timetable at the earliest stage would help to align the outage timetables and requirements of both parties. TAO involvement in this process would also be of benefit as they ultimately

carry out the works and determine how long they will take. The RA's recommend that a forum is created by the TSOs and include the relevant stakeholders that would discuss methods to improve outage communications and the processes involved, with the objective of agreeing an improved process. This will help to align generator and network maintenance schedules in the most efficient manner possible. This will be discussed in greater detail in section 6 of this paper.

4.7 Outage Categorisation

Some respondents have stated that using different classifications of outages is incorrect and that generators have no ability to influence the "standard duration" time of a maintenance outage.

The TSO's have taken the view that outages can be categorised differently. The TSO's assert that there is a difference between an outage of a connection asset in order to maintain that asset and an outage which affects a generator, where the generator is not the driver of that outage.

RA's Response

The RA's believe that there is a clear difference in the classification of an annual outage to maintain an asset and an ad hoc outage due to damage of the asset. The two events are different in nature and the purpose of maintaining an asset is to prevent damage from occurring.

That being said the RA's are concerned that there is no requirement to conduct both annual and ad hoc maintenance outages in a timely and efficient manner. There currently exists no published guidelines that would inform generators of an estimate as to how long the various types of annual maintenance should take to complete in each jurisdiction. We are also concerned that the current planning process does not seem to include the TAOs, whose input would be beneficial.

It is the RA's view that the risks involved in each jurisdiction should be shared between all the parties involved. With this in mind, there is merit in exploring ways to share the risk of outages among all parties involved. There is also an argument for requiring the TSO's and TAOs in each jurisdiction to publish Ex Ante detailed outage schedules along with an Ex Post review of the outage schedule for the year. This would detail the work that was carried out during each outage and the length of time taken against pre-determined targets for each outage. This should also include the number of changes made to the schedule both with and without the generators agreement. This review could be in the form of a public document.

4.8 Temporary Connection Assets

A number of respondents raised the issue of how temporary connections should be treated. One respondent concluded that it may be appropriate to deem a generator unavailable whilst work is being undertaken to complete a permanent connection of that unit. Another respondent took a different view, concluding that temporary connections should be incentivised as they provide additional generation competition and should therefore not have Outturn Availability set to zero if transmission outages are required. This line of thinking was reiterated by another response that stated, “the Outturn Availability of all generators including firm, non-firm, partially firm and temporary connected should reflect their ability to delivery power to the Connection Point.”

The TSO’s have taken the view that early access to the market was provided to generators by temporary connection assets. By allowing these units to be made whole during connection works they would have a material advantage from having been made whole during their own connection works.

RA’s Response

The RA’s agree with the views taken by the TSO’s. Temporary connection assets give a generator the advantage of entering the SEM at an earlier date and also can help to provide further competition in the market. However generators should not expect to be made whole for outages which occur during construction of their own connection assets. The driver of the outage in this case is their own construction works, to facilitate their connection with the system and it is not appropriate to make generators whole under any subset of outage.

TSO's Recommendation

5.1 Summary of TSO's rationale for their recommendations

The TSO's have proposed a suite of recommendations to calculate Outturn Availability. These recommendations are based on differing definitions of connection assets that currently exist.

The TSO's have concluded that, "maintaining current custom and practice" represents the optimal solution for all parties. Given that the market structure will be changing the TSO's state there is "insufficient argument to modify current practice, which could set a precedent or lead to inconsistent treatment of connected parties in future".

Based on this the TSO's have proposed a number of joint recommendations:

1. Definitions – provide clarity and transparency in respect of Connection Assets, Outturn Availability and standard maintenance outage cycle
2. Outage Communications – provide outage information to generators and for all parties in a timeframe that is meaningful and constructive to all parties
3. Other Outturn Availability Scenarios – provide information on all other scenarios raised in the consultation

EirGrid has also made two further recommendations that will apply to generators in the Republic Of Ireland and will further clarify "custom and practice"

1. Outturn Availability rule set for outages of connection assets – provide a defined rule set for Outturn Availability when Transmission outages impact upon Connection Assets
2. Treatment of temporary Connection Connections – provide information on their treatment

SONI have proposed no further clarifications or recommendations.

Further TSO's Joint Recommendations

5.2 Definition of Connection Assets

The TSO's have recommended that Connection Assets be defined in the connection agreement to provide clarity around the separation of a Generator's distinct connection assets from the meshed system. If a scenario occurs where the meshed Transmission system has evolved so that the connection assets have changed, then the connection asset shall be re-defined.

5.3 Standard Maintenance Outage Cycle

The TSO's have stated that the "Standard Maintenance Outage Cycle of the Connection Assets, and standard outage durations, be defined by the parties with the appropriate

responsibilities in Ireland and Northern Ireland”. Maintenance cycle information for Ireland is available on the EirGrid website³. In Northern Ireland, information is provided to the Generators on a case by case basis.

This will result in the standard outage duration for each type of maintenance outage on the maintenance cycle being outlined. Generators will also have clarity as to the length of the outage.

5.4 Outturn Availability Outage Communications and MEC

The TSO’s recommend that Outturn Availability and Availability have separate definitions as they are of the opinion that physical availability of a generator can be different from its market availability.

The TSO’s have also committed to improving communications to provide clarity around the outage scheduling process. It was also recommended that the Outturn Availability of a generation unit should be capped at its MEC.

EirGrid TSO Recommendations for Ireland only

EirGrid also made two further recommendations that would apply to all applicable generators in Ireland. The purpose of these further recommendations are to provide clarity around “custom and practice” as applied at the present time.

5.5 Recommendation: Outturn Availability Rule set for Outages of Connection Assets in Ireland

Maintenance outages: EirGrid has outlined a number of maintenance outage scenarios. In summary, during times of annual maintenance of the transmission assets, Generator Outturn Availability will be set to 0 unless additional maintenance outages, that are not part of the Standard Maintenance Outage Cycle, are required. Where it is not possible for the TSO to align these additional transmission outages with the Generators’ outage(s), the Generator should remain Outturn Available equal to the Availability of the generation unit(s) affected.

For all other outages to upgrade, refurbish or up rate the connection asset or the meshed system, including forced outages, the generator will remain Outturn Available equal to the Availability of the generation unit.

5.6 Recommendation: Temporary Connections

EirGrid has recommended that outages of generation units with temporary connections should have their availability set to zero for all outages.

³ <http://www.eirgrid.com/media/GuidetoEirGridTransmissionEquipmentMaintenanceSept2013.pdf>

Having carefully considered all the information on the matter, the following section details the RA's proposed decision on the process for calculating Generator Outturn Availability.

6.1 Definition of Availability and Outturn Availability

The RA's are of the view that there should be a difference between the definitions of Availability and Outturn Availability. The RA's agree with the TSO's assertion that Availability, as defined in the Grid Code, relates to the technical availability of a generating unit. Outturn Availability should relate to the commercial capability of a unit. However, Outturn Availability is not adequately defined in the Trading and Settlement Code and is not defined in the Grid Code. This has resulted in the commercial capability of a unit to be determined at the discretion of the TSO.

Therefore the RA's are of the view that the status quo is not appropriate and that modifications to the respective codes should be made to clearly define availability and Outturn Availability. The RAs propose to request that the relevant modifications to the Codes in Ireland and Northern Ireland are brought forward by the TSOs to the Grid Code Review Panels and Modifications Committee no later than the next meeting for the relevant forum following three months from the date of a final decision on this matter

6.2 RAs recommended arrangements for the calculation of Outturn Availability

The RAs propose that no changes should be made to the current arrangements for the calculation of Outturn Availability for generators connected at the "legacy" position in Northern Ireland. No issues have been recorded with the operation of these rules and the RAs are not minded to make any changes in relation to these generators. For Northern Ireland generators connected at the "new" position the RAs have concluded that generators will be considered outturn available for all outages with the exception of annual maintenance outages lasting up to and including five business days. The rationale behind this is given below, and mirrors proposed arrangements in the Republic of Ireland.

In Ireland, the RAs propose that the following arrangements shall be implemented from the date of publication of a final decision on this matter (unless a different position is outlined in the final decision paper). Where the connection assets are owned by the TAO, the generator will be considered outturn available for all outages with the exception of scheduled annual maintenance outages lasting up to five business days inclusive or less per outage season⁴. It is considered that this strikes the appropriate balance between incentivising generators to

⁴ For the avoidance of doubt where a generator is on outage for their own reasons they will be deemed outturn unavailable. E.g. if maintenance is scheduled for 10 days and the generator outage is on scheduled outage for its own reasons for the same 10 days, the unit will be outturn unavailable for the full 10 day period.

align with transmission outages and incentivising the TSO to complete maintenance works in a timely manner. It also removes any perceived incentive on the TSO to inappropriately categorise an outage as annual maintenance. The five day period has been chosen as it covers the majority of maintenance outages. In due course this period may be changed and/or refined to differentiate between different types of maintenance outages.

This position is being proposed for the following reasons:

- TSO's modelling outlines consumer savings if generators are considered outturn available
- The incentive on the TSO to manage and control outages is increased
- The 5 day rule provides an incentive for generators to cooperate with TSO
- The mechanism is clear, transparent and non-discriminatory

6.3 Outage Planning

The RAs consider that changes to outage planning are required. Operation, maintenance and development of the network must be undertaken efficiently with the principle of value for money for all users of the network.

As part of the planning process in each jurisdiction, the impact of project delivery timetables, revenue losses incurred by generators and the wider impact upon users and other stakeholders needs to be considered when aligning the outage timescales. Constraint costs may be reduced if the duration of works can be shortened or if the timetabling reflects the energy flows of the market. The TAOs must be aware of these factors when carrying out maintenance works.

Communication is critical in the development of an efficient and effective maintenance outage process, both in the short and long term. Recognising the split responsibility models that are in place within each jurisdiction, the RAs recommend that a forum is established, containing representation from all parties, and regular meetings timetabled to address any issues relating to outage planning. This will serve to increase the transparency of the process and allow all parties to have a greater understanding of any issues and their impact. The working group should be required to look at not just short-term planning and related issues but also the longer term to ensure effective outage planning.

As part of this process the relevant TSO or TAO in each jurisdiction should continue to further develop final outage plans. This should detail all the works that are to be carried out along with the expected timescales for each of the works. A document, detailing the various types of annual maintenance and estimated timescales for each type of maintenance should also be produced by the relevant party in each jurisdiction, and published on their respective webpage's.

An Ex Post summary report of the outage schedule should also be published at the end of each outage season. This will detail all works carried out over the period. The outage time for each of the works will be identified and compared against the pre-determined targets agreed between the parties and communicated in the outage plan. This review should be in the form of a public document.

6.4 Temporary Connection Assets

It is the view of the RA's that for all outages, a generator with a temporary connection asset, should have its Outturn Availability set to zero for all outages. As has previously been stated the driver of the outage in this case is the generators own construction works, to facilitate their connection with the system. It is for this reason that the RA's consider that it is not appropriate to make generators whole.

6.5 Extensions to or changes at existing connections

It is the view of the RA's that where work is being carried out that is related to an existing generator, Outturn Availability will equal zero. However, where work is being carried out to another generator (with a different connection point but a shared asset) then Outturn Availability will equal that of the generator's technical availability.

7. NEXT STEPS

The paper will be open to consultation for a period of four weeks. Following this all responses will be analysed and a final decision on the matter will be made by the SEM Committee.

For confirmation, in the interim, current custom and practice will be maintained in each jurisdiction until the SEM Committee makes its final decision.