



Mechanism to Enable Short-Notice Adjustments to Planned Outages Joint TSO/TAO Consultation

Introduction

In May 2018 the CRU published its decision paper on “Reporting and Incentives under Price Review 4” (CER/18/087). CER/18/087 set out a set of twenty decisions for improving reporting and incentives arrangements, covering the totality of the activities undertaken by the Transmission System Operator (TSO), the Transmission Asset Owner (TAO) and the Distribution Systems Operator/Distribution Asset Owner (DSO/DAO) on behalf of current and future customers and market participants. EirGrid, as TSO, is required to report to CRU as outlined in CER/18/087.

CRU’s intention is to improve outcomes for electricity customers and market participants during the PR4 period and create a robust platform for the continuing development of reporting and incentives for PR5 and beyond. CRU’s overall objective is to ensure that network companies are focused on:

- Delivering better outcomes for customers;
- Using innovation to deliver services more efficiently; and,
- Meeting key national strategic objectives.

Decision 8 of CER/18/097 sets out the arrangements for the TSO and TAO (collectively the companies) in terms of outage management. It states that the TAO may access a “use-it-or-lose it” allowance to fund, by agreement with the TSO – and following appropriate consultation with potentially affected parties – actions to reduce the duration or timing of planned outages at short-notice. The allowance for the TAO shall equal the reasonable costs incurred by the TAO in meeting each request, plus an uplift of 20%.

There is a requirement for the companies to consult on the mechanism to enable short notice changes to outage plans – including the processes for engaging/informing market participants. This paper is in fulfilment of the requirement to consult on such a mechanism.

Current Outage Planning Process

This section sets out the current outage planning process run by the companies and other affected parties.

The current outage planning process involves a two stage approach – the outage scheduling stage and the outage management stage.

The outage scheduling stage begins a number of years ahead as part of ‘multi-year outage planning’. This involves the compilation of outage requirement for typically larger capital projects. These outages are co-ordinated with a view to ensure that there are no conflicts between these outages which would impact operational security or give rise to exceptional constraint costs. The outage scheduling stage becomes more formalised a year ahead of the outage year in question. At this point the multi-year outage requirements are combined with additional outages required by capital projects as identified closer to the time. This capital–project related outage plan is then overlaid with maintenance related outage requirements, which tend to be of shorter duration.

This overall plan is known as the Transmission Outage Programme. It complements the Generator Outage Programme for the year ahead. The compilation of the first iteration of the Transmission Outage Programme for the year is a significant body of work which involves a iterative process which take inputs for all key stakeholders including the TSO, TAO, DSO, and transmission-connected customers, many of whom are market participants. The first complete Transmission Outage Programme is published early Q1 of each calendar year. From then on the programme is refined and adjusted as assumptions change and new information presents itself. Weekly plans are issued to the TAO every Wednesday covering the period of the Monday 12 days out to the Sunday 18 days out. It is at this point that the programme moves from the Outage Scheduling timeframe to the Outage Management timeframe.

In the outage management timeframe the weekly plans from the Transmission Outage Programme are considered along with short-notice adjustments and additional outage requirements. Short-notice outage variations can arise for various reasons. Equipment which fails in service are considered as ‘forced outages’ and are included. Condition assessments of equipment might need high priority maintenance which therefore might be included. More detailed planning or re-planning of work on the ground may require inclusion too. Short-notice variations are only accommodated by exception.

The process behind the outage management stage involves TSO studying the power system based on the expected configuration. The TAO formally requests outages from the TSO. The TSO then formally issues voluntary outages approval forms. These forms contain the details of the equipment due to be on outage, the times of the outage, the reason for the outage, and details related to safety. Typically the formal outage approval forms are issued three days ahead of an outage. The three days reflects a practical balance between waiting until outage plans and details are relatively firm and giving relevant parties sufficient notice of the details for the outage.

Short-Notice Adjustments

The joint management of outages by the TSO and TAO is an important process that has potentially significant impacts on market participants and consumers. It can help minimise maintenance costs (for network business and generators), constraint costs and supply interruption risks. Hence, in principle it is an appropriate activity to incentivise.

Earlier and better planning for capital project and maintenance outages allows the development of a least cost outage plan for the system as a whole. It facilitates enhanced grid delivery, more customer connections in a given year and better alignment of maintenance works, with subsequent benefits for customers. The annual Transmission Outage Programme is a key deliverable each year. The programme is developed by the TSO with significant input from the TAO. The optimal programme is developed taking the entire programme of works into account and where possible this programme is implemented throughout the year to deliver the required programme of works with the minimum impact on customers and the end consumer. The companies remain committed to planning and making necessary changes further in advance rather than delaying decision into the outage management stage where choices can be limited and tend to be more expensive.

Despite the effort invested in the development of the Transmission Outage Programme a level of change is unavoidable. Scenarios in which the mechanism may be applied are as follows:

- To lessen impact on directly-connected transmission demand customers;
- To accelerate completion of work ahead of a forecasted weather event (excludes return to service of equipment prior to all works being completed);
- To reduce constraints costs which are formally known as Dispatch Balancing Costs;
- To improve transmission system security;
- To facilitate the granting of other interdependent outages. For example, where the window of opportunity is short, by accelerating the work and thus shortening the duration of one outage, a second outage of a parallel circuit could be granted within the window.
- To facilitate generator outages.

Short notice adjustments will be by exception where scenarios such as those outlined above arise that were not anticipated during the outage scheduling stage.

Projects are planned and project solutions are selected to be delivered on a least cost technically acceptable basis. The proposed flexibility will almost certainly introduce new risks and challenges. Short-notice outage adjustments are likely to add to delivery costs. This has the potential for the outturn delivery costs of what had been calculated to be the least cost technically acceptable solution to no longer be lower cost than the budgeted cost of other solutions. The benefit of the short-notice outage adjustment will need to be weighed against the additional delivery costs on a case by case basis.

Proposed Mechanism:

This section sets out the mechanism proposed by the companies to enable short notice changes to outage plans – including the processes for engaging/informing market participants. The mechanism is separate and independent from the mechanism to reward the TAO for meeting the 3-weekly outage plans as published on the TSO website and thus does not cover the timescale of the full outage programme. A key feature of the mechanism must be that it supports the continued efficient decision making throughout the iterations of the TOP rather than push decisions closer to real-time.

The following are the key steps of the proposed mechanism to enable short-notice adjustments to planned outages:

1. TSO issues the weekly update to the Transmission Outage Programme (TOP).
2. TSO reviews the TOP to identify candidate outages which could benefit from a short-notice adjustment to the planned outage. An adjustment could be an earlier start, a later start, a shorter duration, weekend work or a combination of these. The TSO identifies the proposed benefit of the change to show efficient choice. Short notice adjustments will be by exception where scenarios arise that were not anticipated during the outage scheduling stage.
3. The TSO brings candidate outages to the TAO for consideration. If the outage modification is not feasible the TAO provides a brief explanation as to why it is not possible or practical to facilitate the adjustment. Reasons for the schedule inflexibility would include but not be limited to safety, resource availability, material availability, specialist third party availability.
4. If the TAO indicates that modifying the outage is feasible and the outage affects a third-party, the TSO will discuss the proposal with the third-party affected by the outage in advance of bringing the outage to the next step. The process of consultation with stakeholders potentially impacted by changes to outage plans is important in ensuring that all costs, benefits and risks are considered, and not just those of the TSO and TAO.
5. If the TSO wishes to proceed, the TAO costs the proposed adjustment. If the adjustment will incur significant cost increases on the TAO, then the TAO will access the “use-it-or-lose it” allowance to fund the adjustment. The impact of the adjustment would typically be weekend work, overtime, reprioritising crews, additional crews, short notice premium payments to contractors etc.
6. The TSO reviews the proposal and confirms the variation with the TAO. The TSO reflects the variation through the existing outage management process which includes informing affected parties.
7. The TAO records the significant details of each proposed and agreed short-notice adjustment to outages. The significant details would include any work that could not be completed due to the short-notice adjustment. e.g. If the TAO needs to compromise on the scope of work in order to meet the changed timings.

Key Questions and Next Steps

This paper has set out a proposed mechanism and now asks stakeholders a number of key questions to assist in structuring responses. The key questions are set out below:

- Do you agree with the scenarios under which this mechanism can be applied?
- Do you have any comments on the proposed mechanism?
- Are there alternative mechanisms that would be preferable to the proposed mechanism?
- Do you agree with the use of existing outage management process and communication channels?

The companies welcome all responses from interested stakeholders. Responses should be submitted to Conor.Kavanagh@Eirgrid.com and stephen.osullivan@esb.ie by 5pm on 21TH November 2019.