nationalgridESO

Thought Piece

User Commitment – Long Lead Time High Value Schemes

Summary

User Commitment defines the amount a User is liable for should they terminate their project or reduce capacity. The requirements for User Commitment are laid out in Section 15 of the Connection and Use of System Code (CUSC). They were last significantly revised in April 2013. Since then there has been concern that some aspects of this revision do not remain appropriate in all reasonable circumstances.

Under current arrangements any difference between costs incurred by Transmission Owners (TOs) and liabilities recovered from a User terminating or reducing capacity by the Electricity System Operator (ESO) are recovered or refunded through Transmission Network Use of System (TNUoS) charges. In effect consumers pick up the risk or benefit of any difference between the costs incurred by a TO and liabilities recovered from Users. This means that in reviewing User Commitment, we are reviewing the balance of risk between consumers and Users applying to connect to or use the National Electricity Transmission System (NETS).

In May 2018, National Grid Electricity Transmission (NGET) sent out an open letter inviting views on whether the User Commitment provisions in the CUSC should be further revised. Two major views came through in responses. Firstly, any work to look at revisions in User Commitment should not overlap with other industry work in progress (e.g. Ofgem's work on charging and access, which is now under a Significant Code Review) and secondly, there was no strong desire to undertake a complete review/revision of the User Commitment provisions in the CUSC. This has led us to focus on specific targeted areas for further work where we believe there may be a consumer interest and which is not within the scope of any other ongoing work programmes.

In October 2018, we indicated that one area we proposed to take forward was User Commitment associated with Long Lead Time High Value Schemes. By Long Lead Time High Value Schemes, we are looking at schemes which require expenditure typically a number of years before a Trigger Date and that have expenditure which is significantly above average for that period of a scheme. For example, the requirement to obtain consents for an overhead line, or the need to largely complete significant assets a number of years early to facilitate backfeed.

We have explored the issues around Long Lead Time High Value Schemes and identified what we believe are the defects associated with this issue. A number of options have been partially developed which we consider can address some of these defects and provide consumers with benefits. It is clear from our work that no one solution can provide a complete solution. In this thought piece we present the emerging options we have developed and provide some narrative on the advantages and disadvantages of each and how they could benefit consumers. It is our intention following the publication of this thought piece to discuss its contents at the Transmission Charging Methodologies Forum (TCMF) in April to gain stakeholder views. Firstly, have we identified all appropriate options and secondly which options should we consider taking forward for a possible CUSC modification.

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Date: April 2019

Background

Background to the current User Commitment methodology

For many years User Commitment was based on Final Sums. Where a User terminated their liability was based on their share of any assets being provided to facilitate their proposed connection. As the assets actually being provided by a TO can vary over time as other Users contract and terminate, Final Sums under this methodology could be volatile. The uncertainty due to volatility and also high costs in many cases were seen by Users as a barrier to entry.

To address these concerns CUSC Modification Proposal 192 (CMP) was developed and introduced the User Commitment methodology we see today in CUSC Section 15. CMP192 represented a move away from Final Sums (and Interim Generic User Commitment Methodology) for Users and also introduced the ability for a User to fix liabilities as a way to manage the volatility seen with Final Sums.

Since the implementation of CMP192, we have continued to monitor the effectiveness of the User Commitment methodology and one issue we have identified is that for Long Lead Time High Value Schemes, there is a real risk of a User's liability not covering significant expenditure should they terminate. The current licence arrangements allow for the ESO to recover these stranded costs from consumers through TNUoS which we explain further below. As ESO we have a duty to consider the impact on consumers of our activities and we believe that there is a clear imbalance of risk between Users and consumers in this case and to remedy the situation could benefit consumers.

In our external engagement to date, there has been no appetite for a return to final sums for Users or to reintroduce volatility. So, any proposed solution should be mindful of this feedback.

Prior to CMP192, final sums (where all the risk associated with a User terminating was placed on that User) resulted in liabilities and securities which were seen as a barrier to entry for smaller market participants. In moving to the methodology introduced by CMP192, it was recognised that some risk would be borne by consumers, but that there were benefits from this in reducing the barriers to entry for smaller Users and increasing competition in generation.

Who holds the risk of a User terminating?

Should a User terminate their connection agreement, or reduce Transmission Entry Capacity (TEC) or Developer Capacity, a TO may be left with stranded or oversized assets. User Commitment defines the amount a User is liable for should they terminate their project or reduce capacity. It also defines how much security they should then provide against this liability. Where a project completes, any expenditure will be recovered through a TO's allowed revenue in accordance with its price control. User Commitment is only applicable where a project terminates or reduces its capacity.

All Users contract with the ESO under CUSC for their connection. In turn the ESO then contracts with each TO (i.e. Scottish Hydro Electricity Transmission, Scottish Power Transmission, NGET and offshore transmission owners) through the System Operator – Transmission Owner Code (STC). The STC permits a TO to invoice the ESO for costs it has incurred (in the event of a User terminating or reducing capacity) based on a Final Sums basis.

Any expenditure by a TO is subject to regulatory oversight through its licence and price control. Amongst other things this includes the requirement for expenditure to be 'economic, efficient and co-ordinated' and also any drivers and sharing factors in the RIIO price control. Any risks associated with these factors fall to a TO and do not directly impact User Commitment and so are not considered in this thought piece as risks which the ESO can directly manage.

Licence condition 3A then permits the ESO to recover or refund any difference between these costs under Final Sums and liabilities recovered. In effect consumers pick up the risk or benefit of any difference between the costs incurred by a TO and liabilities recovered by the ESO. This means that in reviewing User Commitment, we are reviewing the balance of risk between consumers and Users applying to connect to or use the NETS. The ESO manages the financing risk for recovery of the money.

What are the key elements of User Commitment?

Liabilities

Liabilities are based on the expenditure a TO is forecast to make to connect a User. However, these costs are applied and adjusted in a number of ways.

Attributable: Attributable Works are those up to the nearest Main Interconnected Transmission System (MITS) node and are intended to reflect those assets driven by a User, but can be shared.

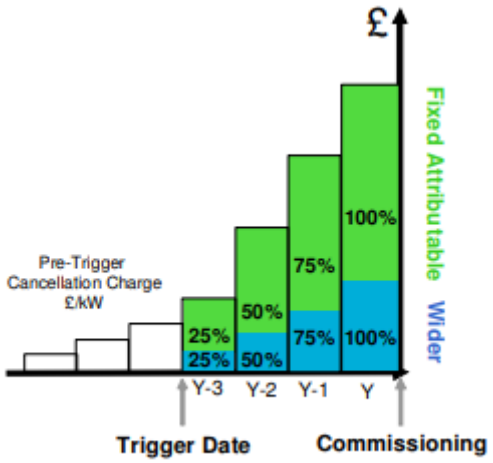
Attributable Works liabilities are scaled by three factors:

- **Strategic Investment Factor (SIF):** This is a factor to represent sharing either with other customers, or for oversized assets with potential to be used by others. The factor is simply the capacity a customer has contracted divided by the secured capability of the attributable assets being provided.
- **Local Asset Reuse Factor (LARF):** This is to allow for the customer to be credited for the reuse of any assets (e.g. if a standard size transformer is ordered and a project cancelled, it can be used on another scheme). It is an average factor for the life of a project, so at any point in a project lifecycle may be higher of lower than actual reuse.
- **Distance Factor:** This is to allow for the situation where we choose not to connect a customer to the nearest MITS node (e.g. its more economic when considered with other customers to connect to a more distant one). It is simply the distance to the nearest MITS node divided by the distance to the connecting MITS node.

Fixed or Actual Attributable Labilities: By default, a customer is liable for the Actual Attributable Liabilities which will be reconciled on cancellation or reduction in capacity. However, a customer may choose to fix the liability associated with their Attributable Works. Where a customer fixes, then pre-trigger this is a fixed £1, £2 or £3/kW depending on the time from the connection date. Following the Trigger Date a customer's liabilities are fixed based on the forecast final sums of the Attributable Works (including a reduction for any of the above factors). They then follow a pre-ordained profile of 25%, 50%, 75% and 100% of the total value for each year until connection. A Trigger Date is 1st April in the fourth financial year prior to connection.

Wider Works: Wider works represent those assets being built for the benefit of all users i.e. the works which are not classified as Attributable Works. Wider Works liabilities are calculated based on forecast expenditure by a TO in any year and then divided by boundary reinforcement requirement to provide a £/MW tariff per zone which is revised annually. Expenditure is split 50/50 with demand and a customer is only liable for Wider Works liability post Trigger Date. Wider Works liabilities then follow the same 25%, 50%, 75% and 100% profile as Attributable Works liabilities.

The diagram below illustrates the profile for liabilities where a customer fixes.



Securities

A customer must place securities with the ESO once contracted and they are then revised every six months. Securities are related to the liabilities of a customer.

Prior to the Trigger Date, the amount a customer is required to secure is the same as their liability. The current CUSC methodology views developments which have planning consents and those closer to commissioning as more certain to complete and hence at lower risk of cancelling. Accordingly, after the Trigger Date and also once key consents are obtained, the amount a customer is required to secure against their liabilities reduces to reflect this risk reduction.

Potential Defects

Case Studies

We have reviewed a number of Long Lead Time High Value Schemes. This analysis shows several factors which are common to at least some of these schemes as follows:

Overhead Line Consents: Where consents for an overhead line are required this often requires significant expenditure well ahead of construction.

MITS: Where a new development is alongside an existing site, the MITS can be very close to the site, but there are often works required substantially for the new project which are classified as wider works under the current methodology, and a customer has no liability for wider works pre-Trigger Date.

Strategic Wider Works (SWW): High value schemes often trigger works which are subject to SWW funding arrangements. The regulatory approval of these works is different to other works and may not align with current liability methodology.

Backfeed Date/Staging: For some very large schemes a site supply (backfeed) can be required 2-3 years before full commissioning of a site is complete. However, economics of construction often mean that the bulk of the expenditure is timed to meet this date rather than full commissioning. This can result in the majority of a spend occurring prior to the Trigger Date.

Potential Defects

The following are areas for potential defects based on the above:

- Where wider works are driven predominantly by one customer in timing or specification, and that customer has no liabilities associated with that work prior to the Trigger Date. This questions whether the MITS node is always the right boundary for Attributable/Wider in relation balance of risk between Users and consumers.
- When fixing, the ‘averaging’ of using £1, £2, £3/kW for the Pre-Trigger Amount results in the liability for high value scheme being significantly under the value of the spend prior to the Trigger Date.
- The £1, £2, £3/kW has not been reviewed for some time and may not remain representative of appropriate values.
- The Trigger Date being based on connection (and so charging date) rather than the construction timetable.

The chart below illustrates where these risks fall for each of the above defects.

Risk Areas

	Pre-Trigger Date	Post-Trigger Date
Wider Works	• **No Liabilities** **RISK: Placed on Consumers for high value long lead time projects who fix**	• Liabilities split 50/50 Generation/Demand • Liabilities socialised across multiple Users **RISK: Where works are enabling and driven by a single User, risk is placed on Consumers**
Attributable Works	• Actual: Liability matches spend adjusted for SIF, LARF & DF factors • **Fixed: Liability £1, £2, £3/kW – results in lower liabilities than costs for high value long lead time schemes** • Securities match Liabilities **RISK: Placed on Consumers for high value long lead time projects who fix**	• Actual: Liability matches spend adjusted for SIF, LARF & DF factors • Fixed: Liability matches forecast spend at time of fixing adjusted for SIF,LARF & DF. Profile straight line and not actual • Securities less than Liabilities by agreed CUSC factors RISK: Acceptably distributed

Options for Change

In reviewing possible options for change a number have been considered. The following are the principle options we looked at with a view of the advantages and disadvantages for each option.

1. Revise the £1, £2, £3/kW

This is perhaps an obvious option as it has not been reviewed or revised for some time. There would be a clear benefit in doing this even if it becomes apparent the values remain appropriate. However, since whatever figure was produced would still be an average of all schemes, it would not resolve the issue for the significantly higher value schemes.

2. Completely Revise the Methodology for Those Customers Who Fix

The £1, £2, £3/kW pre-trigger and 25/50/75/100% profile post trigger currently provides certainty for customers who fix. An alternative would be for customers who fix to do so based on the forecast outturn and profile (adjusted for SIF, LARF and Distance Factor) of the Attributable Works associated with their scheme from the point of fixing through to the connection date. This has the benefit of being more cost reflective to customers wishing to connect whilst maintaining certainty for customers who want it. This results in a more appropriate balance of risk between consumers and customers. We also consider that where a customer fixes that indexing should be introduced to reflect inflation across the life of long lead time schemes.

3. Review the Attributable/Wider Boundary

To remedy the situation where significant expenditure is driven substantially by one party the boundary between Attributable and Wider works could be reviewed. An option would be to revert to using Enabling Works rather than the current definition for Attributable Works although in certain areas this could greatly increase Attributable Works. This has the advantage of being more cost reflective, again resulting in a more appropriate balance of risk between consumers and customers. However, it has the disadvantage of potentially being seen as partly reversing CMP192 (although the adjustment factors could still be applied). So, an alternative and more targeted approach is to look at Enabling Works which are currently treated as wider but are predominantly or solely driven by a single customer. This maintains the benefit of greater cost reflectivity and also has the advantage of only encompassing wider works so far as is required to resolve the perceived defect.

4. Remove the Ability to Fix Pre-Trigger

This would address the defect for High Value Long Lead Time Schemes where spend is attributable. However, it does have the disadvantage of looking very similar to Final Sums and of re-introducing some volatility for customers.

5. Move the Trigger Date Where Appropriate.

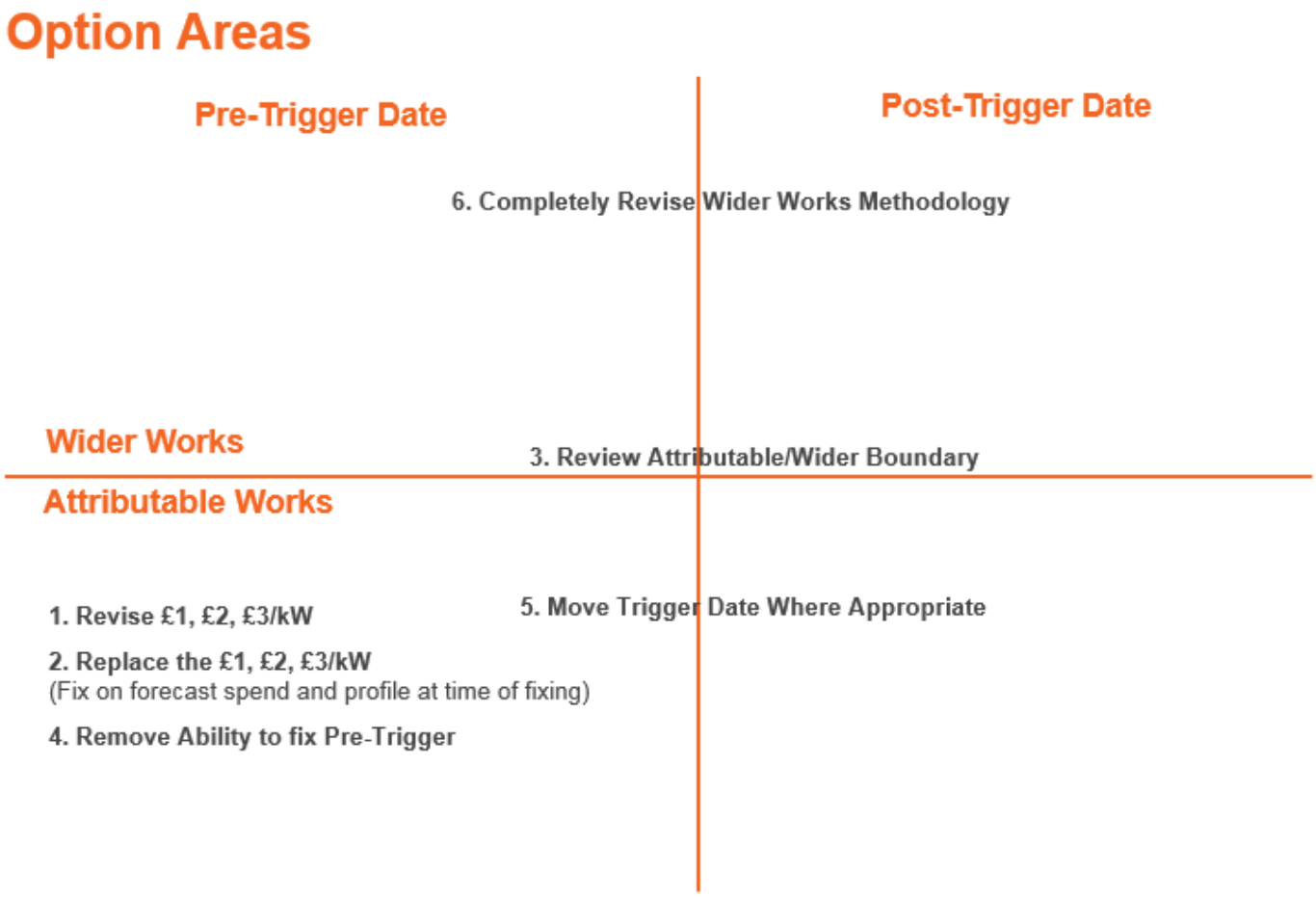
Instead of having a Trigger Date based solely on time, it could be related to either time or spend which ever came earlier. For example, if spend was forecast to exceed either a percentage of the total forecast, or a set level, it would bring the Trigger Date forward. Another variation would be to link the Trigger Date to effective completion of the assets required (for example backfeed date). This option would also result in making a customer liable for Wider Works at an earlier date – which may be appropriate for Long Lead Time High Value Schemes. Once the Trigger Date was passed, then when fixed, the customer would fix on the forecast spend and profile at the time of fixing similar to option 2.

6. Completely Revise the Wider Works Security Methodology.

User have told us that they find the current Wider Works liabilities methodology opaque. We have noted this and plan to discuss this at TCMF to provide customers greater awareness of how they work. However, the current methodology is quite crude in that it only looks at spend in a single year and also only reinforcement requirements across boundaries. A review of the methodology could provide scope for more appropriate and cost reflective wider works liabilities. However, it does have the potential to create volatility in Wider Works liability.

Conclusion and Next Steps

The chart below illustrates the areas where each of the above options addresses perceived defects.



It is clear that no one option provides a clear solution to all the identified defects. This raises the question of which combination of options we should further explore to cover all the defects, or whether we should seek to address all the defects at this time.

Following the publication of this thought piece it is our intention to engage further with our stakeholders. We plan to discuss these options at the April TCMF. Our intention is to determine with stakeholders if we have identified all the options and then determine which options should be taken forward to inform the development of a possible CUSC modification proposal.