

Burns & McDonnell Ofgem Consultation Response: Electricity Transmission Advanced Procurement Mechanism

Please find below Burns & McDonnell's response to the consultation for the Advanced Procurement Mechanism into the electricity transmission price control which would fund transmission owners to book supply chain capacity in advance of certainty regarding project need.

Burns & McDonnell is an Engineer, Procurement & Construction (EPC) Contractor to transmission owners, namely National Grid Electricity Transmission and SSEN Transmission for substations. Our response to this consultation is reflective of the needs to deliver substation projects only. The ability to procure the critical equipment required to meet our future project programmes is paramount for the successful execution of the major infrastructure programme of works with transmission owners to meet the UK government net zero targets. From our experience as a global company in the delivery of transmission & distribution EPC contracts we are seeing increasing global demand for the supply of key equipment on these infrastructure projects which is increasingly impacting on the ability to deliver to project programmes. We foresee this trend continuing well into the mid-long term future and therefore are keen to engage with Ofgem and the transmission owners in the UK to add increased levels of certainty for the supply of key equipment into the UK market.

Equipment Risks

Burns & McDonnell has reviewed the equipment schedule within the consultation brief and we concur that this is reflective of the key equipment required across the asset types.

One observation is the omission of synchronous condensers which have a significant lead time. These are relatively uncommon to the UK market, require significant manufacturing investment cost and there are a limited of manufacturers globally of the technology. With the increasing number required to fulfil the changing shape of the UK transmission market this is likely to cause constraints that will potentially give rise to delays.

From Burns & McDonnell perspective in delivering future EPC substation projects, the asset categories at future risk are Cable, Circuit Breaker, Instrument Transformers, Switchgear and Wound Part.

In addition to new infrastructure works, there will be an increased demand for upgrade or renewal of existing assets on the network, many of which are approaching or already life expired. For this reason we see a potential significant constraint on the availability of assets to fulfil this additional requirement. Due to the nature of these assets and the potential for the requirement to replace them in urgent circumstances the demand is unpredictably and will impact on projects included within the certain view regulatory submission by the transmission owners.

All infrastructure required to support the targeted upgrade of the UK transmission network are at risk of supply and demand constraints.

Contractual requirements

Burns & McDonnell would expect that advanced procurement would only exist in the context of the delivery of the entire EPC contract i.e. we do not anticipate engagement in procurement only services. The procurement would be undertaken under bespoke NEC 3 contract terms.

Burns & McDonnell would require that full committed EPC contract would be in place in advance of Advance Procurement Activities. These activities would need to be undertaken without additional liabilities being taken by Burns & McDonnell. This would include issues such as cashflow, storage in the event of delays, warranties, early engineering risks, changes in scope/requirements definition for the scheme etc.

Payment requirements may include vesting of raw materials e.g. steel/aluminium for castings, payment milestones flow down to supply chain to guarantee early commitment and up-front payments. Any procurement activities would need to be underwritten by transmission owner, this includes cancellation costs, cost escalation, any committed cost that Burns & McDonnell have made on behalf of the transmission owner.

Benefits of APM

Benefits of advanced procurement being carried out by Burns & McDonnell's include, leveraging the benefits of Burns & McDonnell's global purchasing power, de-risking the programmes by managing, sourcing and supply and enabling better control of our sub-contractors to install OEM equipment.

Challenges in the absence of an APM

By not adopting the APM approach, challenges include delays to major infrastructure programme of work e.g. ASTI and major projects within T3 regulatory programme of reinforcement works, which ultimately would impinge transmission owner Transmission's ability to meet its net zero targets in line with government mandate. Additionally purchasing pressures from other markets outside of the UK e.g. re- build of Ukraine & Syria; UAE and wider Europe impacting to meet their specific renewable targets.

Other information

Understanding the wider purchasing strategy within UK transmission market by the other Transmission Network Operators. Also for consideration/discussion is the transition between contract forms during contract execution. This is particularly with reference to the change from Option E or C, to Option A. This is likely to lead to challenges in the administration between the stages of the contract due to the difficulty in assessing completion of the Part C/E stage and also the challenge of managing the different contract costing principles. Further discussions would be required to understand the impact of the APM on the construction risk and contractors fee that would typically be managed using distinct Option A or Option C/E principles.

Other areas requiring availability in capacity to permit the APM to be effective are outlined as follows:

- Availability of commissioning resources within the supply chain.
- Availability of M&E installation within the supply chain.
- Overhead Line capacity, for Burns & McDonnell this includes the design & installation given often small scopes of works are included within the substation scope, capacity for these works to be undertaken needs to be secured ahead of project commencement.

- Cabling capacity for installation given often small scopes of works are included within the substation scope, capacity for these works to be undertaken needs to be secured ahead of project commencement.
- Advance investment required to advance Part B works e.g. engineering design to inform construction.
- Timeliness for type registrations of equipment e.g. SF6 free.
- Capacity constraints for specialist design services e.g. geotechnical, architectural.
- Advanced investment for the deployment of innovative solutions - e.g. pre-cast concrete, standardised or modular solutions. Acceptance that alternative equipment for APM may be required for projects.