1. Auction Background

Generation capacity for October 2022 to September 2023 was procured by the Single Electricity Market Operator (SEMO) through the 2022/2023 T-4 Capacity auction, held over October 2018 to March 2019. While the auction included capacity across the whole island of Ireland, SEMO advised the market that additional capacity was being sought in the Dublin area. To encourage additional projects in the Dublin area into the auction, bidders were advised that successful Dublin projects not in possession of a grid connection offer would be provided with one. Unlike the rest of the island, projects in the Dublin area were not required to have planning permission as a precondition of being bid into the auction. This was in response to a call from EirGrid (the Transmission System Operator) for additional generation in that region.

Market participants, including ESB, entered this auction offering both new and existing generation capacity. The auction process derates the output of different technologies to take account of their expected availability and other characteristics. Competitors offer their derated capacity into the auction. ESB bid a total of 2,747 MW_d of existing generation capacity and 553 MW_d of potential new capacity into this auction.

2. Auction Outcome

In April 2019, the results of the auction were announced. In total, 10,918 MW_d of capacity qualified for this auction and projects with a total of 7,412 MW_d of capacity were awarded contracts. ESB was awarded contracts for 2,880 MW_d of generation capacity in the auction, including contracts for nine new generation units with an aggregate capacity of 490 MW_d .

The terms of the capacity contracts offered by SEMO for new capacity had several specific commercial terms including the following:

- a. Projects were due for delivery by October 2022 but no later than March 2024, the backstop date;
- b. The achievement of critical completion milestones for planning permission and environmental licences was required by specified date – "Substantial Financial Completion date" (SFC); and
- c. The submission of bid bonds which would be relinquished by the bidder if either of the above conditions were not achieved.

In addition to complying with the SEM auction conditions, all projects bid in the auction were required to comply with new EU emissions limits adopted in May 2019, applying under the EU "Clean Energy Package", which came into effect in 2021 and limited the type of generation plant which could receive capacity supports.

3. ESB Auction approach for new assets

To prepare its auction bids, ESB engaged with major equipment manufacturers (OEMs) and other suppliers. At the time of bidding, ESB had budgetary pricing from such suppliers and indicative performance characteristics for their plant (including environmental characteristics). This information

was gathered from a range of potential suppliers for the purpose of forming bids in line with latest market information.

ESB constructed its bids based on the principles and conditions of the auction and the specific characteristics of each project in terms of:

- projected costs of construction and operation based on budgetary pricing from equipment providers, installers, and estimated cost of civil works, gas and grid connection costs etc.;
- Projected revenues from each project in terms of capacity income from the T-4 auction and subsequent auctions, as well as income from electricity generation markets and income from EirGrid's DS3 Programme (*i.e.* grid support services); and
- an acceptable return on investment over the asset life, which includes the periods covered by the initial capacity contract and the years following this.

The specific turbines which ESB proposed in this auction process for Ringsend, Poolbeg and Corduff were suited to flexible operation, allowing for strong projected revenues from the DS3 market, reducing the revenues required to be earned from the capacity contract for a given return on investment. In all cases, ESB submitted auction bids based on costs from OEMs with the intent of building the projects, delivering the capacity and earning an appropriate return over the lifetime of the investments; the claim that ESB submit "commercially unviable" bids with no intention of building the projects is without foundation and is categorically rejected by ESB.

4. ESB New Projects (9)

The nine projects for which ESB was awarded contracts for new capacity fall into three groups, as follows:

- 1. Four Battery Energy Storage Systems (BESS) at Aghada (7 MW_d), Poolbeg (64 MW_d), Ringsend (17 MW_d) and Inchicore (17 MW_d).
- 2. Two open cycle gas turbines in North Wall Station to replace plant being decommissioned totalling 215 ${\sf MW}_{\sf d}.$
- 3. Three 64 MW_d aero derivative gas turbines located at three different Dublin locations (Corduff, Ringsend & Poolbeg), totalling 192 MW_d .

On formal award of the contracts in April 2019, ESB immediately progressed the development of all nine projects. This included deploying significant resources on the following activities:

- Preparation and submission of planning applications including any required environmental impact assessments as required.
- Preparation of environmental licence applications to be submitted following grant of planning
 permission. While environmental licence applications can be submitted prior to planning
 permission being granted, these licences cannot be granted without prior planning permission
 and therefore ESB's standard approach is to apply for planning permission first and to apply
 for environmental licences only when planning permission has been granted. This enables
 licence applications to reflect changes arising from either the planning process or the
 procurement process.
- Initiation / progression of three separate public tendering processes for OEM equipment, including batteries and gas turbines for North Wall and aero derivative turbines for the other three Dublin sites.
- Initiation of a public tendering process for associated construction contracts for delivery of all nine projects.

- Development of electrical and gas grid connection applications as appropriate.
- A range of other development works as required by each site.

This entailed a large work programme undertaken by ESB and supported by a range of specialist third parties.

5. Project Update – Batteries

All four battery projects received planning permission and are now at construction or commissioning stages. At Aghada commissioning is underway. We expect in the project at Inchicore to start commissioning by Q2 2022 and the remaining two projects to complete construction before year end.

6. Project Update – Projects at North Wall

In early 2019, North Wall was an operational ESB generating station. The two new projects were intended to be delivered within the existing planning permission applying to that site, replacing existing equipment with new turbines capable of meeting the emissions standards set out by the EU Industrial Emissions Directive (IED) and Clean Energy Package (CEP). ESB conducted a public tender process to procure replacement turbines for the site but had no option but to terminate the projects in Q4 2020 when the selected equipment manufacturer advised at a late stage in the procurement process that it could not guarantee that its units would comply with the new emissions standards set down by the CEP. ESB declared that the North Wall projects were terminated in Q4 2020.

7. Project Update – Projects in Dublin (Ringsend, Poolbeg, Corduff)

In relation to the three projects, there were a number of key workstreams as follows:

- 1. Planning permissions and environmental licences: All three projects required planning permission. ESB engaged with the relevant local authorities and local stakeholders in developing planning applications and dealing with the various issues involved. The planning process took longer than expected as a result of a number of issues that arose throughout the process, including the impact of Covid-19. Planning permission for the three projects was eventually achieved as follows:
 - a. Corduff Original planning application submitted in July 2019 and planning permission granted in October 2020. The environmental licence application was made in November 2020 and granted in November 2021.
 - b. Ringsend & Poolbeg Original planning application was submitted for the Ringsend project in September 2019 with the intention of lodging a similar application for Poolbeg shortly afterwards. Subsequent engagement with Dublin City Council led to a requirement for a revised environmental impact assessment setting out ESB's plans for all of the Poolbeg peninsula, including all gas and battery projects. These revised applications were lodged in October 2020. Planning permission was received for Poolbeg in May 2021 and for Ringsend in June 2021.

Environmental licence applications for both projects were submitted in February 2021 and resubmitted in April 2021, which was a change from our standard practice, and final consents are expected by Q2 2022.

2. Equipment procurement process – ESB conducted a public procurement process for the selection of a single appropriate turbine technology for all three sites. The process had advanced significantly, and a preferred bidder had been selected.

A key condition of the capacity contracts awarded was that successful projects were required to have secured all necessary planning permission and environmental licences by November 2020 – the SFC date. When it was clear that, despite progressing the projects, the initial SFC date would not be met, ESB sought and was granted a six-month extension of the SFC date - initially to May 2021.

ESB sought a second extension of six months when it became clear that ESB could not secure the necessary planning permission and environmental licences by the revised SFC date. This extension of time was not facilitated and ESB's capacity contract for each of these projects was therefore terminated and the associated bid bonds drawn. While we are disappointed with this outcome, as we believe that all three projects, had they continued, could have been delivered before the long stop delivery date, ESB accepts the termination of the contracts and is now focussed on consenting the sites and developing new projects for bidding into the next capacity auctions.

8. Current status of three projects – Ringsend, Corduff and Poolbeg

While the three projects lost their capacity contracts, ESB has continued to consent these sites and to develop the projects as a priority and good progress has been made in this regard. This has entailed developing revised technology solutions for the sites as the turbines that underpinned the original bids are no longer available. We are committed to providing capacity from these developments and intend to resubmit these projects to compete in upcoming auctions.

9. Conclusion

ESB secured capacity contracts for nine new generation projects in the 2022/2023 T-4 auction. ESB's bids in this auction were based on costs from the OEMs and projections of the revenues for each project based on conditions in the market at that time in order to provide the capacity and deliver an appropriate return on investment. ESB subsequently deployed significant resources and committed investment to deliver all these projects and will deliver four of them in line with the underlying contracts. ESB encountered issues in the development process of the remaining five projects which resulted in their capacity contracts being cancelled.

ESB continues to develop the projects at Corduff, Ringsend and Poolbeg with a view to competing again at capacity auctions in the immediate future. ESB is also exploring the repowering of North Wall station.