



SEM-23-093 Proposal to Introduce Intermediate Length Contracts

SSE response

Introduction

SSE welcomes the opportunity to provide feedback to SEM-23-093 Proposal to Introduce Intermediate Length Contracts. For the avoidance of doubt, this is a non-confidential response.

Who we are

SSE is the largest renewable energy developer, operator, and owner in Ireland's all-island Integrated Single Electricity Market. Since entering the Irish energy market in 2008, SSE Group has invested significantly to grow its business in Ireland, with a total economic contribution of €3.8bn to the State's economy over the past five years. We have also awarded over €9 million to communities in the past 10 years as part of our community benefit programme.

SSE is building more offshore wind energy than any other company in the world right now. We are currently constructing the world's largest offshore wind energy project, the 3.6 GW Dogger Bank Wind Farm in the North Sea, a joint venture with Equinor and Eni. This is in addition to Scotland's largest and the world's deepest fixed bottom offshore site, the 1.1 GW Seagreen Offshore Wind Farm in the Firth of Forth, a joint venture with TotalEnergies, which reached first power in recent weeks. In the most recent Scotwind process, SSE Renewables was awarded the rights, along with partners Marubeni Corporation (Marubeni) and Copenhagen Infrastructure Partners (CIP), to develop what will become one of the world's largest floating offshore wind farms off the east coast of Scotland.

We plan to bring our world-leading expertise in offshore wind energy to Ireland with plans to deliver over 3 GW of offshore wind energy in Irish waters, starting with our Arklow Bank Wind Park Phase 2 project off the coast of Co. Wicklow.

Through our SSE Thermal business, we continue to provide important flexible power generation. SSE's power station Great Island is Ireland's newest combined cycle gas turbine (CCGT) power station and one of the cleanest and most efficient on the system, generating enough electricity to power half a million homes. The acute need for flexible generation in Ireland has been demonstrated over the last twelve months, with EirGrid's most recent generation capacity statement showing that a shortfall in generation capacity was a significant risk this coming winter and for a number of winters to come, resulting in emergency measures being implemented by the CRU and Government.

While existing power stations continue to play a critical role on the system, SSE view the future of dispatchable thermal generation as being abated thermal, with Carbon Capture and Storage, hydrogen or other low-carbon fuels being the primary options. SSE have over 5 GW of zero and low carbon thermal under active co-development in the UK.

We will continue to evaluate opportunities to bring our expertise and investment in decarbonised flexible generation to Ireland, but it is vital that the state, Regulator and TSO provides an appropriate investment landscape to unlock such developments.

SSE Response

SSE welcomes the opportunity to provide a response to this consultation. We have responded to the individual consultation questions below. Our high-level position is that additional lengths of capacity contracts are welcomed and supported.

We would like to think that this additional frequency will aid the delivery of capacity in the CRM. In that case, the capacity requirement and demand curve calculations will need to be more dynamic and take

account of more immediate changes in capacity need. As per the recent auction volumes paper¹, it was noted that:

1. There was a significant amount of qualified capacity that failed to arrive at auction. The rationale for these projects not offering at a previous auction must be explored since there can be process changes and learnings from this situation. This could be reflected in the approach to intermediate contracts that better ensures robust auction participation for the benefit of customers (in delivery of capacity and positively affecting the clearing price)
2. Risk associated with non-delivery appears to have been apportioned per region. This makes little sense where the risks associated with non-delivery are far wider than simply location. Construction, inflation or planning related risk is not region specific.

With respect to intermediate contracts, it is an opportunity to improve the current CRM process but also to consider what signals this measure will produce, and which technologies it should encourage.

Unfortunately, an intermediate contract, as we explain below, is unlikely to be a solution for a full decarbonisation of a site. More likely it would be suitable for smaller scale repowering and/or hydrogen conversion where a unit is already hydrogen ready.

Lastly, it is important to be clear on how the clearing process and the interactions with other auctions and existing contracts will be mitigated, since all existing units are required to enter into auctions. We would strongly urge that additional contract types are supported by additional TSO resource and robust TSO incentives to ensure process delivery is smooth.

What is the appropriate maximum duration for the intermediate length contract?

Having better choice of contract lengths helps projects to identify the specific contract type that is suitable for the scale of investment they are planning, which is welcome and much needed, especially when considering repowering of existing sites or staged developments in new capacity.

A contract of three years would be quite short and could potentially only be useful for very minimal or small-scale repowering projects.

A contract of 7 – 9 years may be a more realistic timeframe considering that return on investment could still be significant for repowering of a site, for instance if it required a gas connection or where conversion to hydrogen required additional investment.

What is the appropriate Intermediate contract Investment Rate Threshold (ICIRT) in €/MWd for units to be eligible for the intermediate length contract?

Considering the example provided in Table 1, a low ICIRT could produce frequent repeat applications for intermediate length contracts for a site. Inherently repeated application would not be an issue, but frequent applications may be more common because the timeframe is too short for full delivery, which would not be ideal. With an ICIRT at the low end of Table 1, this will unlikely finance anything but the smallest remedial upgrades to a site and is more likely to result in extension of the life of a unit without actual decarbonisation—which then presents the risk of stranded assets that are unabated.

¹ <https://www.semcommittee.com/publications/sem-23-089-capacity-remuneration-mechanism-202627-t-4-auction-volumes-information-note>

It is our view that an ICIRT of around €160,000 or €200,000 would be a reasonable level of investment to assume for an intermediate length contract and intermediate type development. This is on the basis that we assume these intermediate contracts will be specifically useful for the following:

1. Hydrogen conversion in certain cases at hydrogen ready sites (having these contracts in place can encourage new projects with 10-year contracts to consider the conversion in the near to medium term following energisation). However, such projects could be applying in limited numbers for intermediate contracts since the uncertainty around the volumes of hydrogen expected for the electricity sector is still high.
2. Retrofit type projects that can increase the lifetime of a unit. However, we are conscious (like the SEMC) of the strong risk of unabated units being stranded assets—we have covered this in a later question.
3. Small-scale unit repowering, i.e., peaking plants repowering to something that can potentially be cleaner in terms of emissions.

Is gaming a material concern? What approaches should be taken to prevent gaming of the new arrangements?

The frequency of gaming is directly correlated with the specific ICIRT threshold chosen. In our opinion, a lower threshold of around €60,000 would more likely result in multiple bids for the same site. Bidding more than once for an intermediate contract at a site is not inherently a marker of gaming and could in fact support a phased development at a site for instance, from pilot up to a full-scale development of a site, e.g., installing in an electrolyser, followed by hydrogen conversion of a turbine.

It is important to consider that these intermediate contracts could be a significant tool to assist existing units to continue to provide capacity that helps mitigate security of supply as well as a tool towards these units making steps to be greener. It is therefore critical that the value of existing assets and their costs at auction are fully considered (i.e., the ECPC, the USPC process being oversubscribed), and that CRM parameters do not crowd out assets or dump the clearing price or make other assets uneconomic.

Lastly, it would be important to consider, as in GB, whether there should be specific contract terms that help to encourage decarbonisation, e.g., termination of existing contracts to be able to secure another contract that will chiefly decarbonise. This may be of limited utility for an intermediate contract, but the principle holds that the relationship between other contracts a project may hold, needs to be considered as part of a bigger picture towards decarbonisation.

What is your view on the proposed changes to the Existing Capacity Exception Application process and New Capacity Exception Application process?

They appear reasonable but the actual legal drafting for the Code would be important to review to ensure no unintended consequences. In principle, it is reasonable that these are amended to allow for intermediate contracts.

Should Existing Capacity seeking a multi-year contract be required to submit implementation plans for consideration by the TSOs as part of the Qualification process, and are the same milestones employed for New Capacity appropriate?

This appears reasonable, but there needs to be a proportionate approach taken, reflective of the fact that if a site is repowering, there will be other complexities that may be an obstacle to the meeting of milestones, e.g., lack of clear policy on connections at existing sites under repowering. It is reasonable to ask for implementation plans at Qualification stage.

What is the appropriate length of the Long Stop Date for Existing Capacity seeking an intermediate length contract?

A similar treatment for Long Stop Date would appear appropriate. As per the CMC (C.1.1.2(a))², a substantial change at a site where it has yet to be commissioned, can constitute as New Capacity. We would consider this principle could be extended if a substantial change at an existing site towards decarbonisation, can also become eligible as New Capacity within certain conditions. New Capacity has a Long Stop Date of 18 months.

Should Existing Capacity with an intermediate length contract be subject to termination payments and performance security requirements?

Penalties and payments should be proportionate to contract length but also take account of the fact that Existing Capacity carries market risk, where a New Capacity site would not yet face market risk until energisation. Penalties and payments should also be proportionate to the degree of effort and the fact that in principle a repowering of an existing site should have relatively less complexity regarding planning or connection policy, than New Capacity. So excessive penalties would be disproportionate.

How could the design of intermediate length contracts promote investment in low carbon technologies?

Low carbon technology is quite a broad term and we have assumed it does not include renewables (incentivised through RESS) or other technologies like LCIS which are being procured separately. We assume what is being referenced here is the entry to the CRM of hydrogen, CCS, biofuel, biomass, and CHP units as new capacity from an existing site, or some intermediate work at an existing site to facilitate these technologies, where feasible.

We believe the value of intermediate contracts is in encouraging repowering of existing sites along a decarbonisation pathway, e.g., a hydrogen ready unit bidding for an intermediate contract to complete the hydrogen conversion after several years supporting the system with a conventional fuel. This allows the risk of the initial construction of new capacity to be covered, as well as the repowering to a decarbonised fuel source.

One important factor that needs to be considered in facilitating investment in repowering or refurbishment is that connection policy, network policy and Grid Code need to all have provisions to provide clarity as to how a repowering/refurbishment site should be treated. Examples of areas that need clarity are, the treatment of its existing connection and the fees it should bear. We also note that the next ECP is focusing on repowering in accordance with RED II³. However, there has been no mention of repowering policy for existing sites that need to extend life or decarbonise to avoid stranded assets. These areas of policy are critical to ensuring that the provision of intermediate contracts has the desired effect, and that the energy industry can help meet national emissions targets.

The design of intermediate contracts will have limited value for promoting revolutionary investment in low carbon technologies, i.e., significant change in technology which we consider could also mean fundamental change in fuel type. Decarbonisation technologies at scale is still expensive, with likely long lead times, and carries investment risk of a degree that an intermediate contract will not cover the risk or investment required, for instance for a full scale new CCGT with CCS, or a brand-new baseload hydrogen station. It would be important to consider 15-year contract lengths for wholesale decarbonisation projects under the CRM, given the Best New Entrant has been set and is currently unabated OCGT which has set price caps that would result in full decarbonisation projects unlikely to be fully remunerated within a 10-year timeframe.

² *new capacity*, which is the potential increase in capacity of a Generator, Generator Unit or Interconnector (or a Capacity Market Unit that comprises those units) where that capacity is yet to be commissioned;

³ [CRU202326 Enduring Connection Policy ECP 2.4 Decision.PDF \(divio-media.com\)](#)