Bord Gáis Energy Response

to SEM Committee Capacity Remuneration Mechanism (CRM)

Proposal to Introduce Intermediate Length Contracts

Consultation SEM-23-093

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1. Introduction and summary BGE position

Bord Gáis Energy (**BGE**) welcomes that the Regulatory Authorities (**RAs**) in this Consultation have recognised one of the key problems that needs to be addressed quickly to help facilitate the decarbonisation transition while maintaining security of supply. However, the problem or challenge in the transition to decarbonisation while simultaneously managing security of supply is three-fold and separate solutions are required for each problem. This Consultation only addresses one of these problems – that of providing revenue to units close to their end of life today but needed for security of supply short term- and in so doing it will create an asymmetry in the market and potentially undermine the scope for a level competitive playing field between new assets and existing efficient assets, that could fully refurbish in future, to run on low to net-zero fuel. This consultation is attempting to solve the Security of Supply issues and carbon emission reduction objectives simultaneously in one solution. This is simply not possible although any new investment occurring in SEM does need to ensure that the carbon efficiency of units invested in going forward are improved. In Section 2 below we outline the three-fold problem in more detail, in particular the issue of existing efficient units and how the current USPC process is not working and will not be addressed by the existing consultation proposal. In Section 3 we suggest how the three-fold issues should in our view be addressed, in parallel, to maintain security of supply at optimum cost to the consumer during the decarbonisation transition- ultimately a separate workstream is needed imminently to determine the market pathway to a decarbonised system that aligns with the timing of the arrival of decarbonised fuels Section 4 provides further rationale for our proposals and Section 5 contains our answers to the consultation questions.

2. The Problem Statement: a three-fold problem

The three-fold problem of maintaining security of supply during the decarbonisation transition in SEM, which need to be resolved in parallel, is:

A. **Existing already efficient generators needed for security of supply until at least 2030**, cannot maintain financial viability under the current Existing Capacity Price Cap (**ECPC**) in the capacity market as the ECPC is based off a unit that is too far from the reality of the type of unit we need in a decarbonised system. The Unit Specific Price Cap (**USPC**) process must necessarily be improved for all such gas-fired units if security of supply is to be maintained this decade in a carbon efficient manner while the transition to decarbonisation progresses. This Consultation's proposal does not address this challenge.

B. **For other existing generators that are very close to end-of-life already, many of these units are also needed to maintain security of supply this decade** as demonstrated by the most recent T-4 capacity auction result. Targeted extension of these units' lifetimes can help security of supply. To us this is the focus of this Consultation's proposal. These units also need a change in USPC processes to enable them to maintain financial viability in as carbon efficient a manner while we decarbonise the system. It is not appropriate however to rely on investments in these unit types to be "net zero" ready by 2028 under an ILC approach. A huge amount of capex investment is needed above the thresholds outlined in the consultation to make units sufficiently decarbonised. A solution therefore is needed that requires the minimum amount of investment necessary, to improve the carbon efficiency and secure economic reliability of these units, for a limited extended lifetime that expires once units fully capable of running on decarbonised fuels do become widely available and security of supply is less reliant on these current older units. As outlined in more detail in 3.B. below the RAs also need to be careful that decisions made under this Consultation do not lead to undermining the playing field for future new and refurbishing units that will compete for enduring decarbonised capacity contracts.

C. **A signal for decarbonised dispatchable units needs to be developed and incorporated into an enduring market design.** The current Best New Entrant (BNE) unit off which auction price caps and ECPC are calculated is not fit for purpose to incentivise the extent of investment needed to signal the extent of refurbishment of existing plant or investment in new plant needed to see net-zero fuel compatible units materialise in SEM. The applicable technology and volumes of decarbonised fuel are not yet sufficiently there to implement this signal in the near term (before 2028). Now is the time to start designing this signal.

3. Proposed solutions to the three-fold problem

The primary purpose of the intermediate length contracts (**ILCs**) needs to be security of supply in the short term, albeit any investments this decade do need to improve the carbon efficiency of units. This should not be conflated with carbon emission reductions as this would be an inefficient way of attempting to achieve carbon emissions objectives. Rather ILCs should provide increased reliability for the system to enable a planned decarbonisation of the current fleet in stages to ultimately have new or currently efficient existing units that are low/net-zero ready become operational at the point in time when the low/net-zero fuels become widely available.

Our proposed solutions to the problems defined in section 2 above are:

A. **Currently efficient existing units not already near their end of life should be granted USPCs, as a rule, at a USPC level approved by the RAs**. Industry modelling overwhelmingly points to the need for USPCs for all CCGTs which was evidenced in the volume of USPC applications in the last T-4 auction. The duration of the USPCs approved should equal the duration of any ILCs granted to units needed for security of supply today but near end of life (see 'B' above and below) at the discretion of the market participant. This will help maintain a level playing field between all existing units today and provide the signal to these plants to stay online and allow them to continue investing to maintain their reliability and contribute to security of supply. Equally the USPC should be paid as bid out of market i.e. not auction price impacting. It is also necessary in our view that a consultation occurs on the current USPC process and the modelling behind it as for example the PLEXOS model on which the USPC is currently based needs to be updated. Please see our answer to question 4 on this matter.

B. **ILCs should be provided for qualifying units for a limited duration using the USPC process also and in a way that it does not impact T-4 auction clearing prices**. We believe 3-year contracts for qualifying older plants would suffice to bridge the gap in security of supply needs between 2028 and 2031. By that time newer efficient technology more compatible with net-zero fuels should be near or already operational and the offshore wind expected should come online to also help with security of supply.[1] We need to limit these units' contract durations and minimise their costs incurred to the minimum needed to maintain financial viability and improve carbon efficiency. Otherwise we are at risk of unnecessary overpayment with resulting unnecessarily early increased costs to consumers. Should it become evident that longer durations are required in 2031 scope for extending these contracts could be considered. We also need intermediate length contracts to run outside of the standard T-4 auction process to ensure it doesn't impact the T-4 auction price with a view to managing gaming risks and retaining some scope for T-4 auction outcomes to signal continued or new investments by technologies capable of investing at lower costs than CCGTs. Please see an example based on the outcome of the T-4 2027/28 in section 4(i) below that shows that keeping the USPC from affecting auction prices would result in a saving of approx. €150m with the exact same capacity delivered. A balance must also be struck between: i) facilitating these older existing units to invest to remain economically viable in as carbon efficient a manner as possible for a set limited period of time while we decarbonise the system in parallel and ii) extending their lifetime such that consumers do not overpay for investment in existing units before such time as decarbonised fuels are widely available and iii) extending their lifetime such that it avoids asymmetry in the market whereby these units could unfairly gain an advantage simply by virtue of being closer to end of life than more efficient existing units, with the risk of distorting the playing field for both new and existing units in future seeking to compete for the provision of decarbonised capacity on an enduring basis.

C. **Establishment of Low to Zero Carbon Refurbished/ New Unit Auctions via a redesigned enduring capacity market:** With the lifespan of the older plants extended and a process to enable efficient existing units to maintain financial viability for a reasonable predictable period, this would alleviate some of the security of supply issues that SEM faces. Addressing the security of supply challenge in this way would

[1] ~3 years would help facilitate the separate investment needed by other units to achieve 2030 decarbonisation targets as soon as possible.

allow bandwidth for a fully considered new (capacity) market design that incentivises both new and refurbishing plant to compete in auctions for low/ zero carbon contracts. BGE's expectation is that auctions for low to zero carbon fully refurbished and new unit auctions would come into existence by 2030 such that the delivery of these units would coincide with the timeline by which the wide availability of decarbonised fuels materialises. These auctions should be competitive and include an eligibility criterion of a minimum gCO2/KWh threshold to help achieve carbon emission reduction objectives. It will be expensive to refurbish plants to run on net zero or very low carbon (e.g., sub 100 gCO2/KWh) so consideration is needed in our view to whether a specific process different to the traditional auction process is needed to ensure a price reflective of the cost of investing and running on low/zero carbon fuels can materialise. In any event the capacity market must account for flexibility needs and the carbon intensity of units receiving capacity payments. We urge the RAs to consider the pathway, commencing in 2024, to determining this market design with a view to commencing procurement from 2030.

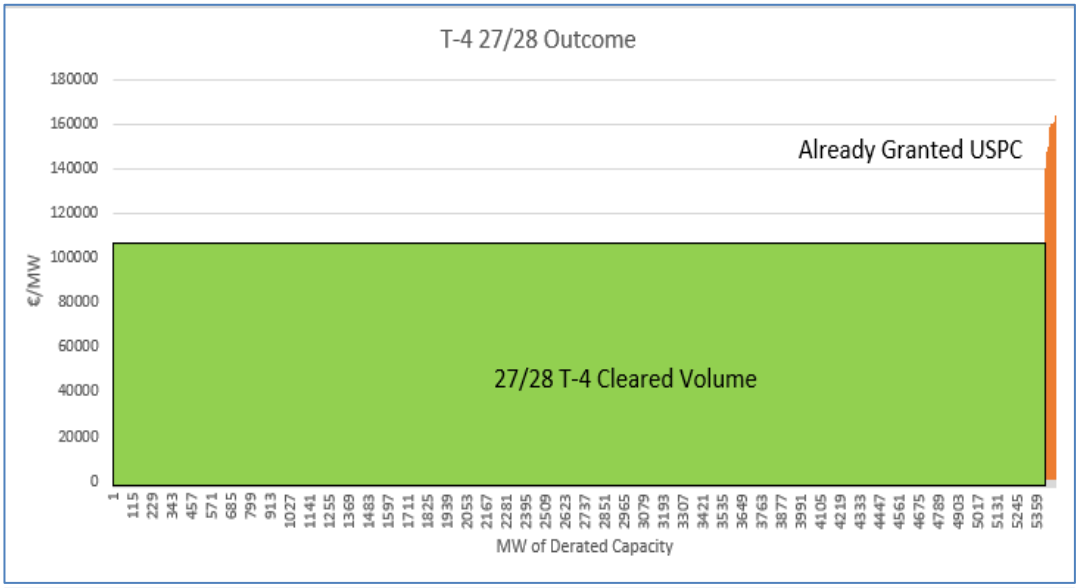
4. Key shortcomings of proposals in this consultation

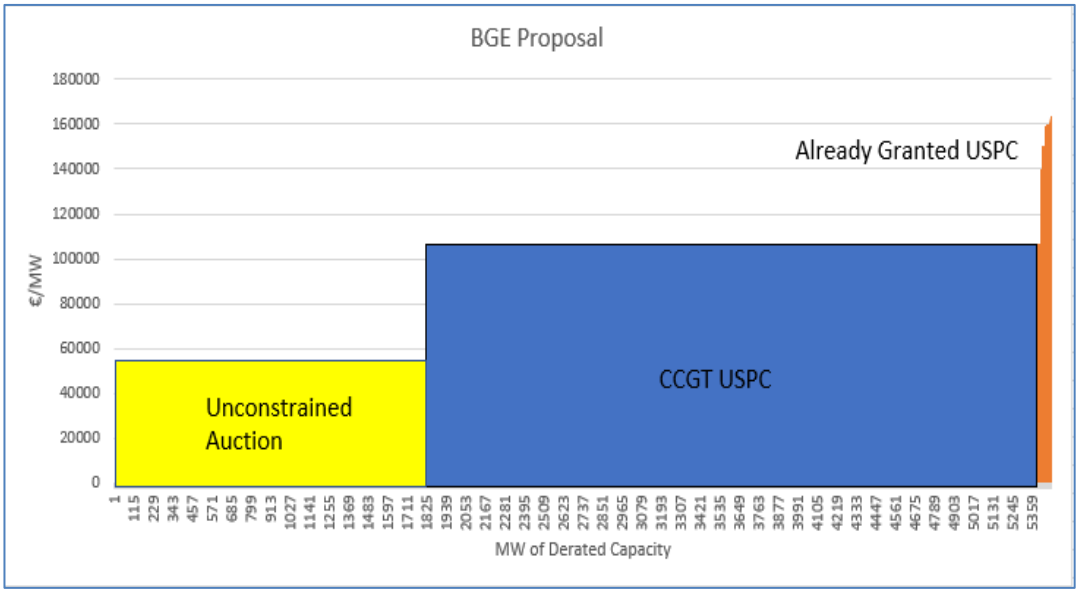
To expand further on our proposals and rationale in section 3 above, and in support of our view that RA-approved USPCs should be granted to all CCGTs that apply and the USPCs should not affect capacity market prices, we urge the RAs to consider the below effects and concerns of the current proposal before making a decision:

i. **Cost to the Consumer:** Incorporating the Consultation's proposal as drafted into the current auction process will massively distort the proper functioning of the capacity market. It will most likely result in a higher cost in the Capacity Market for the upcoming T-4 2028/29. While USPC is not guaranteed to impact on the Auction Clearing Price (**ACP**), given the extremely tight system we have, and based on the evidence of the most recent auction it's highly likely a USPC will set the price. Even with the costs of a refurbishment apportioned across multiple years, the standard Net Going Forward Costs (**NGFC**) must also be included along with a 10% tolerance. The volume of USPC applications is proof that for most CCGTs the NGFC far exceeds ECPC. Therefore, it's likely that a USPC could be even higher than last year's ACP and will set the price. The knock-on impact of the introduction of intermediate length contracts and the impact on ACP will result in supernormal revenue in the Capacity Market for a large proportion of generators. See below a comparison of the T-4 27/28 Auction Outturn vs a Theoretical Auction with the same volumes and Pay as Bid USPCs granted for a CCGT fleet at a level of €106k/mw. Keeping USPCs out of market would result in a saving of approx. €150m with the exact same capacity delivered.

	MW	Price	Cost
Unconstrained Auction	5152	€ 106,667	€ 660,315,861
USPC Pre Apporved	318	€ 151,422	€ 87,845,856
	5470		€ 748,161,717

	MW	Price	Cost
Unconstrained Auction	1825	€ 54,586	€ 156,343,202
CCGT Fleet	3326	€ 106,667	€ 354,805,131
USPC Pre Apporved	318	€ 151,422	€ 87,845,856
	5470		€ 598,994,188





As we have seen, recent interventions in terms of temporary emergency generation (TEG) have come at an extortionate cost to the consumer via an opaque process. We must therefore take all steps reasonable to ensure this proposal does not place additional burden on the end consumer. BGE strongly believes USPCs should be paid as bid and not impact in setting the auction price. To continue to allow them to do so is a severe distortion to the market.

ii. **Security of Supply:** Keeping units on the system for security at least cost until they can be replaced by units that are more suitable for a net-zero world without compromising security of supply, needs to be a key objective here in our view. Allowing existing plants to undergo long-term refurbishment to become capable of running on low carbon would mean reducing dispatchable generation available in the short term during our ongoing security of supply crisis. Rather than allowing units to go on long term outages to refurbish to run on low carbon fuel, it would be more prudent to allow the oldest, least reliable units to undergo shorter minimalist refurbishments to extend their lifespan and increase reliability. We believe this is technically and commercially possible for them. These older units could then provide cover for the longer-term outages that would be needed to allow newer more efficient plant to decarbonise and to help bridge the gap while new plants build and come online. These longer-term decarbonisation outages by more efficient existing plant with no ILCs would line up with ORESS coming online in 2030. Thus ORESS would dampen the effect of expiring ILCs being a risk to security of supply, while longer-term decarbonisation outages / new build is occurring.

iii. **Carbon Emissions:** The prospect of considering a gCO2/KWh threshold is good in principle, however it would result in a decrease in the available dispatchable generation as CCGTs would need to undergo substantial refurbishment, which would undermine security of supply. As mentioned, security of supply and the need for low carbon / net zero capacity with our ongoing security of supply crisis are two concepts that must be addressed separately but in parallel. That said, any investment this decade must necessarily improve the carbon efficiency of a unit.[2] We must also necessarily keep in mind that this Consultation is focused on delivery of units from 2028 which is at least 3 years before decarbonised fuels will be widely available.

iv. **Transparency:** A high risk of gaming exists with the RAs' proposal if the USPC affects capacity market outcomes. This proposal will create more ambiguity and increase distortion in a Capacity Market design under which price predictability and forecast volume requirements are already very opaque. Portfolio players will still have an incentive to set a high price to maximise Capacity Market revenues across their portfolio. This proposal as it is could also be open to the challenge under retrospectivity. It is a new change which rewards less prudent, inefficient market operators and penalises those who have already undergone costly refurbishment without having had a special purpose contract at the time they incurred the cost. The only way to increase transparency in this process is by granting USPCs directly to participants via an updated modelling methodology and preventing those USPCs from affecting market outcomes. This is more transparent for the RAs, more helpful in forecasting auction outcomes for all interested parties and this transparency will help optimise consumer costs.

5. Answers to Consultation Questions

BGE agrees with the principle in this consultation that for security of supply reasons, investment in existing thermal generation must continue to be made whole via the Capacity Market so they can remain financially viable. As explained in sections 2 and 3 above existing thermal generation must necessarily as a rule in our view be paid as bid via the capacity market USPC process and the USPC prices cannot affect auction prices, not least for gaming and cost to consumer reasons. The USPC process must not only work for the older units at which this Consultation is targeted however but must equally work fairly for existing efficient units for whom the ECPC approach is not working from an economic viability perspective. As explained in section 3 also in the timeframe between now and 2028/ 29 for decarbonisation and emissions reduction purposes, while the USPC process is applied for older existing as well as efficient existing units, we need to focus on designing an enduring market design that will see auctions commence from 2030 for delivery of decarbonised units by the mid-2030s.

Ultimately we believe the RAs need to take a holistic approach to solving existing security of supply issues and delivering low carbon generation. Please see section 3 for our proposals which we ask the RAs to consider as part of this Consultation's outcome but in summary:

i. All existing CCGTs should be permitted a USPC as a rule, at a USPC level approved by the RAs. The USPCs should be granted for the same time period for which ILCs are granted to existing plant already near end of life, so as to mitigate any risk of disparity in treatment, albeit the requested duration should be at the discretion of the relevant bidding market participant. The USPC should not affect auction outcomes i.e. should be paid as bid and out of market. The USPC methodology needs considerable revision and consultation however, as outlined in answer 4 below.
ii. Existing units close to end of life but also necessary for security of supply should be able to apply for ILCs paid via the USPC process. The USPC price should not affect auction outcomes i.e. should be paid as bid and out of market. The ILC duration must take into account the coming online of offshore wind which will help security of supply also, and the duration during which existing plants will refurbish and new plants will build to run on decarbonised fuel. We believe that ILCs should be for three years, and can be reviewed for potential extension with offshore wind and decarbonised fuels status updates.
iii. A competitive procurement (auction/ tender) process should be designed by and come into effect (start procuring decarbonised capacity) by 2030. We anticipate that a newly design capacity market type process that accounts for flexibility and carbon intensity of units would incentivise new unit build as well

[2] This highlights one of the fundamental issues in the Capacity Market – a lack of carbon signals which have resulted in inefficient, high carbon intensity OCGTs getting 10-year contracts.

as complete refurbishment of existing units to be capable of operationalising in tandem with the timeline by which decarbonised fuels will be available.

1. **What is the appropriate maximum duration for the intermediate length contract (ILCs)?**

We believe the contracts should be for 3 years. This consultation is for contracts for units to be delivered from 2028. We have stringent decarbonisation targets to meet for 2030 thus we need to have ILCs only for so long as decarbonised capacity is being developed and delivered in parallel which we expect should be delivered in the early 2030s. Otherwise we are at risk of consumers over-paying and of these ILC units being stranded as investments that are under today's NCIRT level will not deliver units capable of running on decarbonised fuels on an enduring basis. The market and systems need to be phasing out carbon intensive generation and these ILC contracts should not extend behind the end of 2031. By granting 3 year contracts these contracts will provide the capacity to allow newer efficient generation to undergo low carbon refurbs. ILCs need to only provide for the minimum amount of investment in keeping these units on for the minimum period possible before they can be replaced by decarbonised capacity. By 2031 we should also have more offshore wind to help mitigate any security of supply challenges. If the ILCs need extension this should be informed by updates in the timing of arrival of offshore wind and widespread availability of decarbonised fuels. Please see section 3 above for our proposed solution to what we see as the 3-pronged problem of maintaining security of supply in the decarbonisation transition.

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

BGE does not have a strong view on the ICIRT rate threshold needed. If a unit needs a USPC then it should be allowed apply regardless of the investment level. As explained in section 2 above it is becoming increasingly evident that all CCGTs need USPC to remain financially viable as the ECPC will not be adjusted in a timely manner to incentivise investment in the near term and all CCGTs are needed to maintain security of supply for the remainder of the decade. CCGTs as a rule should be granted UPSCs at the level approved by the RAs but the USPC methodology including modelling inputs needs consultation imminently to update it to reflect an updated market landscape.

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

Yes there is risk of gaming from portfolio players in the proposed intermediate length contracts process as they stand to benefit from a high USPC setting the clearing price. In this proposed arrangement market participants with large portfolios have a vested interest in overstating the cost of refurbishment to in order to get the highest USPC, on the basis that this could set ACP at a higher level for all their respective units.

By granting USPCs pay as bid and keeping the USPC out of the market (i.e. not affecting clearing prices), it would reduce the incentive for participants with large portfolios to try and game USPCs as their other units would not stand to benefit from an ACP.

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

We believe that the Consultation proposals only address one aspect of the three-pronged problem to maintaining security of supply in the decarbonisation transition. Please see section 2 above for more detail on this but specifically the Consultation does not address issues in the exception application process for USPCs especially around modelling inputs, predictability of outputs, transparency in decisions and the **necessity for USPCs not only for units near the end of their life (which we understand are the focus of this consultation) but for units that are currently already efficient**. **Introducing intermediate length contracts will not remove the necessity to fix the USPC process**. BGE strongly believes that, as a rule, granting pay as bid USPCs that do not impact T-4 auction prices to all CCGTs that apply are crucial to ensuring security of supply at optimum cost to the end consumer. On the application process we urge to RAs to address the following:

- **USPC timelines need to be revised** – Exception Application Decisions need to be issued before opt out date. BGE has raised this point before and we understand that there is wide industry support for it.

- **Approved SEMC Validated Plexos model and associated assumptions and inputs need to be published annually and a consultation** held with market participants to improve understanding, on both sides, of the assumptions made and allow valid feedback to be taken on board. This will help the RAs in their modelling and assessing of USPC applications. This could also help address known issues in the current SEMC validated Plexos model in modelling of IC flows, GB etc.

- As discussed above in section 3, **USPCs should be out of market and pay as bid**. USPCs should not feed into the auction price. Failure to implement this will see inefficient allocation of wealth from consumers to price taking generators, who could make supernormal revenues.

5. 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?

Yes it should be treated similarly as new capacity, failure to do so would be preferential treatment of existing units and would risk undermining the CMC under A.1.2.1 (f) *to ensure no undue discrimination between persons who are or may seek to become parties to the Capacity Market Code;* .However we anticipate that the time period for which the refurbishment needs to occur should be limited to the extent necessary to enable these units to improve their carbon efficiency and maintain reasonable economic viability for a limited time period i.e. until such time as new and existing fully refurbished units can operate on decarbonised fuel and compete for such contracts on as level a playing field as possible.

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

This would depend on the scale of outage. The duration for which these units obtaining ILCs should be limited to the minimum possible, that allows them improve carbon efficiency while maintaining economic reliability while the market design and competition develops between new and fully refurbishing units for decarbonised contracts. We believe that 18 months is too long and that the time period should be at the shorter end of the range of 6-12 months.

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

The capacity should be treated similarly as new capacity as failure to do so could be seen as preferential treatment of existing units and would risk undermining the CMC under A.1.2.1 (f) *to ensure no undue discrimination between persons who are or may seek to become parties to the Capacity Market Code*. Further consideration however is needed to ensure the level of payments/ security requirements set, strike a balance between their return to market and the extent of investment being undertaken to remain economically viable for a limited period of time (please see sections 3 and 4) at optimum cost to the consumer.

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

In isolation intermediate length contracts cannot promote investment in low carbon technologies. However any investment made in any technology this decade must necessarily improve the carbon efficiency of the unit.

Extending the lifespan of the oldest least efficient plant on the system would help enable a planned low to net zero carbon refurbishment and investment process to happen across SEM. So while these contracts won't have a direct impact, their role in prolonging the life of older plants for a limited time period would play an instrumental part in the overall decarbonisation process. Please see section 2 above explaining the three-pronged problem we have and section 3 for the proposed solutions to these problems. This Consultation only deals with one aspect of the three prongs, and we urge the RAs to consider the problems in a holistic manner whereby the solutions to the three issues are separate but must necessarily work in parallel if maintenance of security of supply during the decarbonisation transition is to be achieved. Specifically the issue of USPCs not enabling currently efficient units to wash their face financially and the issue of a lack of market signals for decarbonised new units (and decarbonised fully refurbished units) which require substantial capex, both still need to be addressed alongside introducing ILCs for older inefficient plant needed for security of supply.