Electricity Security Team

Department for Energy Security and Net Zero
1 Victoria Street
London
SW1H 0ET

By email:electricity.security@beis.gov.uk

Uniper UK Limited
Compton House
2300 The Crescent
Birmingham Business Park
Birmingham B37 7YE
www.uniper.energy

Registered in
England and Wales
Company No 2796628

Registered Office:
Compton House
2300 The Crescent
Birmingham Business Park
Birmingham B37 7YE

Response to: Capacity Market 2023 consultation; Strengthening security of supply and alignment with net zero

March 3, 2023

Uniper

Düsseldorf-based Uniper is an international energy company with activities in more than 40 countries. With around 7,000 employees, it makes an important contribution to security of supply in Europe. Uniper's core businesses are power generation in Europe, global energy trading, and a broad gas portfolio.

Uniper procures gas – including liquefied natural gas (LNG) – and other energy sources on global markets. The company owns and operates gas storage facilities with a capacity of more than 7 billion cubic meters. Uniper plans for its 22.5 GW of installed power-generating capacity in Europe to be carbon-neutral by 2035.

The company already ranks among Europe's largest operators of hydroelectric plants and intends to further expand solar and wind energy, which are essential for a more sustainable and autonomous future.

Uniper is a reliable partner for communities, municipal utilities, and industrial enterprises for planning and implementing innovative, lower-carbon solutions on their decarbonisation journey. Uniper is a hydrogen pioneer, is active worldwide along the entire hydrogen value chain, and is conducting projects to make hydrogen a mainstay of the energy supply.

In the UK, Uniper owns and operates a flexible generation portfolio of seven power stations and a fast-cycle gas storage facility.

Our views in summary:

- A secure decarbonised power sector can only be achieved by phasing in low carbon technologies and infrastructure (CCS and Hydrogen, for example).

- The impact of the perceived capacity market issues considered in this consultation will be much reduced if sufficient dispatchable low carbon capacity is brought forward at pace by business model support.

- Maintaining a robust investible capacity market is paramount; technologies competing on a consistent basis to deliver the obligations set out and participating fully in the wholesale and balancing markets, which in itself minimises the CM price and reduces the risk of a stress event.

- The CM may temporarily reduce in size during the transition to low carbon plant but will expand again when capacity returns at the expiry of DPA and other agreements.

- The market transparency principle should apply equally to the CM; mandating that CMUs register as BMUs would achieve transparency and increase confidence by having publicly declared availability of CMUs.

Response to consultation questions:

1. *Do you agree with the proposed changes to the SPD process? Are the proposed changes likely to cause any unintended consequences?*

The government is right to seek improved assurance that CM capacity providers that are not registered Balancing Mechanism Units (BMUs) will deliver at times of system stress, and we agree that the automation of the SPD process by the Electricity Settlements Company has been successful.

However, we strongly disagree with the SPD process you propose. It would introduce market distortions by increasing termination risk for some CMUs based on arbitrary criteria, and by determining generation patterns in the wholesale market. Furthermore, it would not meet the aim of improving assurance that CMUs will be available and capable of delivery during a system stress event.

To illustrate this:

- a CMU could generate an SPD on 1st October, be unavailable due to outage for almost 4 months, generate an SPD on 31st January and face no CM penalty. Alternatively, a CMU experiencing a 2 month outage through the whole calendar months of October and November would have CM payments suspended and be subject to termination.
- the proposed prescriptive process would force all capacity providers to aim to generate in the same window and to take outages at the same time, impacting availability in the wholesale market and potentially leading to operation out of merit order.

And finally, there is no clarity in the proposal about the appeals process and whether CMUs will forego suspended payments.

Implementation of the proposed SPD process would, therefore, introduce additional risks, which would need to be priced into bids by capacity providers.

There is an alternative to this proposal. The availability of Balancing Mechanism units is transparent and publicly available on REMIT. Information available on REMIT is robust: companies face penalties for misleading or inaccurate declarations that are far more severe than CM penalties. Government can check REMIT to identify any long-term outages that would affect security of supply ahead of the winter. In order to be confident about CMU availability through the winter, government could mandate registration as a

Balancing Mechanism Unit as a requirement to be eligible for CM contracts. Alternatively, government could introduce a separate scheme for CMUs not registered as BMUs to publicly and transparently declare their availability, e.g., by providing a directors certificate. Either of these steps, alongside the ESC monitoring SPDs between October and March, would improve assurance for government that CM capacity providers will deliver at times of system stress.

2. Are there any barriers faced by storage CMUs in meeting the CM's performance and duration testing requirements, and if so, can you suggest any potential solutions? Please provide evidence to support your response.

If a storage CMU has a multi-year agreement it must be required to meet its obligation for output capacity for the full duration of the agreement, in line with all other technologies. Should the performance be expected to decline over time, then this could be managed by the capacity provider either by offering a lower capacity into the auction to reflect the lowest level that is likely to be achievable, or by appropriate maintenance/replacement of assets during the life of the project.

3. Do you agree with the proposed changes to enable Capacity Providers to determine a CMU's connection capacity solely on the basis of TEC, MEC or Average Output? Are there any unintended consequences of taking this approach?

No, we do not agree with the proposal as it would result in additional costs. The existing method using Connection Entry Capacity (CEC) is both CMU specific and based on the physical constraint of infrastructure, whereas TEC and MEC values are negotiated commercial agreements. Capacity providers are only required under their CM agreements to produce up to and including their derated capacity. The proposal would, therefore, require capacity providers to hold TEC and MEC to a higher level than necessary, and incur the additional related costs.

4. Should Capacity Providers be allowed to self-nominate their CMUs' connection capacity, provided the nominated figure is not higher than TEC, MEC or Average Output?

Yes, provided that the nominated figure is not higher than CEC.

5. Do you agree with the proposed changes to enable mothballed plants which are existing Generating CMUs to return to the CM? Would these changes result in any unintended consequences?

Providing credit cover until SPD is demonstrated is an appropriate measure, which could also apply to any plant which seeks to return to the CM after a long duration outage (greater than 24 months).

6. Do you agree with the proposed changes to the CM's penalty rate? Are any unintended consequences likely to result from this change?

There are unintended consequences to implementing the penalty rate proposed. The penalty arrangements should act as an incentive to return to service quickly and be available for any further near time stress events. The proposed increase to 1/4 of the relevant annual clearing price would see the penalty reach the monthly cap maximum for a failure period of 40 minutes during a system stress event.

Whilst we support an increase in the penalty rate, the level proposed could reduce incentives for capacity providers to rectify underperformance.

7. Do you agree with the proposed changes to the timelines for calculating non-delivery penalties?

We agree with this proposal.

8. Do you agree with our proposal to introduce lower emissions limits for new and Refurbishing CMUs from 2035?

Yes, we support this proposal.

We also note that this CM rule proposal considers only stack emissions. Upstream and downstream emissions need to be captured by the government's other low carbon business models.

Government must ensure the alignment and consistency of different support mechanisms (CM, DPA, CfD) to enable efficient market operation.

9. Do you agree with our proposed changes to the emission limits regime?

We support the proposed changes to the emission limits regime.

10. Are there any further required changes to the emissions limits regime which have not been identified?

None that we have identified.

11. Do you have any views or evidence on the impact that the emissions limit proposal may have on investment in transitional pathways, such as hydrogen blending or CCUS retrofit?

The proposed emissions limit won't impact CCUS retrofit and is not relevant to hydrogen blending.

CCUS retrofit would meet the proposed emissions limit, so the proposal would not hinder investment in this technology as it would remain eligible to participate in the CM.

Gas power plants running on low or medium hydrogen blends would not meet the proposed emissions limit, and the CM would not drive investment in hydrogen blending as a transitional pathway.

12. If you have an unabated gas CMU in the CM, what are your plans for this capacity as the power sector decarbonises? Do you intend to decarbonise your CMU once viable pathways such as the DPA are available?

Uniper has the ambition for its power generation fleet across Europe to be carbon neutral by 2035. As part of this strategy, Uniper is evaluating technical options for decarbonisation of its assets in the UK, and exploring opportunities to invest in carbon abatement and/or fuel switching. Decisions will very much depend on developments in the relevant T & S infrastructure, support mechanisms for early deployment and having sight of an investible market framework over the long term.

13. From the perspective of a Capacity Provider, are there any additional barriers to decarbonisation than those mentioned above? Would it be necessary to terminate your CM agreement in order to decarbonise your CMU?

The CM will not provide sufficient capex support for investment in decarbonisation in the near and mid-term. Reforming the CM will not lead to the large scale infrastructure build – carbon transport and storage, and hydrogen production, transport and storage – necessary to decarbonise power stations.
However, clarity on how capacity may transition between decarbonisation support mechanisms, such as the power DPA, and the CM would reduce some of the uncertainty for investors; both in terms of securing a CM agreement in advance of successfully securing a DPA, and to be able to factor in the long term market in negotiating a DPA.

Providing a route for a capacity provider to exit an agreement without penalty subject to specified milestones and a completion deadline, must not undermine the CM or introduce unfair market distortions. Maintaining a robust investible capacity market is paramount.

In the longer term, once the technology is mature, the CM rules should explicitly incorporate investment in carbon capture retrofit, or upgrades for fuel switching, as qualifying towards meeting Capital Expenditure thresholds.

The rules will also need to recognise that the capacity of the decarbonised plant may be reduced by 10-15% due to, e.g., parasitic load of capture plant.

Furthermore, rule 4.4.4 , which relates to changes in configuration of generating units, is also a barrier to decarbonisation. The difficulties of interpreting rule 4.4.4 have been consulted on in the Five Year Review of the Capacity Market Rules in 2019. Government should bring forward its proposals to amend or delete this rule.

14. How long would it take to retrofit your plant(s) to either CCUS or Hydrogen and when would it be feasible for your plant(s) to come offline to do so? Please provide a breakdown of this where possible.

Timescales for full operation of any power generation plant fuelled with hydrogen or abated with CCUS would be dependent on the upstream and downstream infrastructure being in place.

We estimate that a retrofit outage could potentially be within the 4 to 8 month timeframe, depending on the technology, site and supply chain.

15. Do you have any comments on our suggestions of how CMUs could decarbonise or suggestions of your own? If so, please provide details of this.

The consultation correctly identifies a number of issues to be addressed in the implementation of a decarbonisation route for CMUs. The DPA and other support mechanisms need to be aligned with the CM to ensure that capacity can transition from one to another without compromising security of supply.

We agree the need to demonstrate a viable pathway. The proposed definition of decarbonisation is appropriate in this context, but note that securing an alternative support agreement (e.g. DPA) should be recognised as ongoing contribution to security of supply and a managed exit from, not a breach of, CM obligations.

16. Could secondary trading provide a pathway to the decarbonisation of an existing CMU? Please provide an explanation to your answer.

Secondary trading could only provide a pathway for small capacity providers. There is not sufficient liquidity in the secondary trading market to provide a pathway for a thermal CMU in the hundreds of MW range. We would like to see the operation of secondary trading improved, but even with increased liquidity secondary trading will not be an adequate mechanism for replacing large scale capacity.

17. Could reactively procuring capacity provide a pathway for CMUs to decarbonise whilst ensuring security of supply? Please provide an explanation for your answer.

Procuring capacity in response to notice of CMU withdrawal is unlikely to provide a pathway. The current level of uncertainty and risks make this route unworkable.

18. Could over-procurement of replacement capacity via the CM enable CMUs to decarbonise whilst ensuring security of supply? Please provide an explanation to your answer.

Over-procurement could provide a useful margin for phasing in low carbon schedulable capacity, which is reliant on as yet untested infrastructure and business models. Large scale infrastructure build – carbon transport and storage, hydrogen transport and storage, and electricity grid - is key to unlocking a decarbonised power sector; Market reform cannot compensate for a lack of investment in infrastructure, and market liquidity will maintain a competitive outcome.

19. Do you agree with the proposal to introduce 3-year agreements for low carbon, low capex CMUs? If not, do you have any suggestions for an alternative approach?

No, long-term agreements were introduced to support investments in projects with large capex requirements. Capital thresholds should remain in place for all technologies to ensure a level playing field. This measure seems to be targeted specifically to DSR, which already benefits from additional flexibility in the rules compared with other types of capacity provider.

20. Are there any potential consequences or risks that you think the government should further consider?

The award of multi-year agreements to low capex CMUs distorts the market, potentially delaying required refurbishment and capex investment, and unnecessarily reducing liquidity in future year ahead capacity auctions.

21. Specifically, which low carbon technologies do you expect might benefit from a 3-year agreement with no capex threshold?

We would only expect DSR to benefit. All other low carbon technologies would likely meet the current capital thresholds requirements.

22. Do you agree with the proposed changes to the reference cost levels underpinning the CM's 3-year and 15-year Capex Thresholds?

Yes, undertaking a review of the capital thresholds and the basis underpinning the proposed change seem sensible .

23. Do you have any concerns about the assumptions made regarding the calculation of the revised reference cost levels?

No.

24. Do you foresee any unintended consequences which could result from making this change to the approach for the 3-year and the 15-year Capex Thresholds? Conversely, do you foresee any unintended consequences which could result from not making substantial changes to the level of the 3-year and the 15-year Capex Thresholds?

No, we do not foresee any unintended consequences.

25. Do you agree with the proposed introduction of a 9-year Capex Threshold for low carbon CMUs? Do you foresee any unintended consequences?

We agree with the proposed introduction of a 9-year threshold, which would allow capacity providers to evaluate a wider range of refurbishment options.

26. Do you agree with the proposed reference cost level underpinning the new 9-year Capex Threshold for low-carbon CMUs? If not, do you have further evidence on alternative reference cost levels?

Yes, we agree with the proposed reference cost level.

27. Do you agree with the proposed changes to the definition of Total Project Spend to extend the scope of the existing permitted period for Capex in respect of new build CMUs (i.e. in effect a 77-month period prior to the commencement of their first Delivery Year) to include Refurbishing CMUs? Do you foresee any unintended consequences which could arise from this change?

We agree with the existing permitted period for Capex for new CMUs, but do not agree with including all Refurbishing CMUs in the 77-month window. The only costs that should be taken into account, are those for refurbishment work which requires CM support in order for it to be undertaken. Extending the window makes it more likely that work that would have been undertaken anyway receives unnecessary support through additional CM payments.

28. The government remains open to considering proposals to address challenges faced by projects with long build times. Please provide further evidence or proposals that you feel would address such challenges.

We agree that the CM is not an appropriate mechanism to support projects with long build times.

29. Do you agree with the proposed clarification to Rule 5.9.7? Does the proposed clarification have any unintended consequences?

We agree with the proposed clarification to Rule 5.9.7.

30. Do you agree with the proposed amendment? Does the proposed amendment have any unintended consequences?

We agree that SoS should only notify the market if no auction is to take place. However there should be a cut-off date by which the SoS should publish the notification, and if no such publication is made by that date then the presumption should be that an auction will be held.

31. Do you agree with the proposed change to the CM Regulations to enable Capacity Providers with relevant CMUs to use the CM to CfD transfer route in practice? Do you foresee any unintended consequences of making this change?

We agree with this proposed change.

32. Do you think that the amended transfer route should continue to be available to new CM agreements in the future, or should it be restricted to existing agreements?

It should continue to be available to new CM agreements. A clear vision of how government expects its low carbon support mechanisms to evolve and interact (see our answers to questions 13 and 15) would allow the value of this transfer route to be determined.

33. Do you agree with the proposed amendment? Does the proposed amendment have any unintended consequences?

We agree with this proposed amendment.

34. Do you have any comments or concerns regarding our proposed phased implementation of the requirement for Fossil Fuel Emissions Declarations to be independently verified?

The proposed phased implementation for independent verification of emissions is a pragmatic approach. We hope that this will be the last deferral for this requirement.

35. Do you agree with the consideration of impacts in section 5? Are there any additional impacts which the government has not considered? Please provide supporting evidence where possible.

There are additional impacts in a number of areas, on which we have provided our views in the detailed answers to the consultation questions.

Uniper UK Limited