

By email: GasShipperObligation@energysecurity.gov.uk

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Response to: Funding mechanism for the Hydrogen Production Business Model: Proposed design of the Gas Shipper Obligation

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About Uniper

Düsseldorf-based Uniper is a European energy company with global reach and activities in more than 40 countries. With around 7,500 employees, the company makes an important contribution to security of supply in Europe, particularly in its core markets of Germany, the UK, Sweden, and the Netherlands. Uniper's operations include 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 total capacity of more than 7 billion cubic meters.

Uniper aims to be carbon-neutral by 2040. To achieve this, the company is transforming its power plants and facilities and investing in flexible, dispatchable power generation units. Uniper is one of Europe's largest operators of hydropower plants and is helping further expand solar and wind power, which are essential for a more sustainable and secure future. Uniper is gradually adding renewable and low-carbon gases such as biomethane to its gas portfolio and is developing a hydrogen portfolio with the aim of a long-term transition. The company plans to offset any remaining CO_2 emissions by high-quality CO_2 -offsets.

Uniper is a reliable partner for communities, municipal utilities, and industrial enterprises for planning and implementing innovative, lower-carbon solutions on their decarbonization 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.

About Uniper in the UK

In the UK, Uniper owns and operates a flexible generation portfolio of power stations, a fast-cycle gas storage facility and two high pressure gas pipelines. We also have significant long-term regasification capacity at the Grain LNG terminal in Kent, to convert LNG back to natural gas.

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Consultation Response

We have set out below our views in summary:

- We welcome government's work on a stable long-term funding mechanism for hydrogen production. However, to ensure longevity and avoid market distortions, the costs of hydrogen business model support need to be spread over as many customers as possible. Not all gas customers will be future hydrogen customers, so it is unfair to target all the costs on them. This decision should be re-visited for future hydrogen infrastructure support costs.
- Given the restrictions in the Energy Act, we consider the proposals are workable, but overly complex and have room for improvement.
- The proposed approach excludes gas transporters and their agent Xoserve from the charge setting and settlement process. These are key functions that they already deliver in the gas industry. It would be inefficient to duplicate them just for the purposes of the GSO.
- The model used for the Supplier of Last Resort (SoLR) process would be a
 better solution for the GSO. Transporters recover all SoLR costs from
 Shippers, via a dedicated transportation charge type. Forecasting and underrecovery risks are managed by the transporters.

Our views in full:

Section 2 - Impacts on energy users

1. Do you agree with the assumption (as stated above and in the analytical annex) that gas shippers and suppliers will pass on 100% of the cost of the Gas Shipper Obligation to their customers? If you do not agree with this assumption, what do you think is a more appropriate assumption? Please explain your answer with supporting evidence.

Yes, but this will include both gas and electricity customers, which is not fully recognised in the supporting analysis for this consultation. As gas shipping is a wholesale market activity, back-to-back cost pass through may not always be possible, but it would be reasonable to assume that eventually the costs will find their way to customers. However, not all gas shippers have an affiliated, licenced gas supply business and may, for instance, focus on shipping gas for electricity generation. In this case, companies will pass the costs through to the electricity wholesale market. How it is passed through depends on the design of the GSO.

If the GSO were to be a commodity charge (levied on a £/MWh or pence/therm basis), then this would likely go into variable generation costs, effectively increasing the cost of buying natural gas. This will then be passed through higher wholesale electricity prices, or Balancing Market (BM) actions, depending in which market stations are sold.

If the GSO were to be an annual fixed charge, this would likely go into OPEX calculations and included in Capacity Market (CM) bids. If the GSO is a daily or monthly charge (like exit gas capacity), this cost would likely be converted to a variable £/MWh



cost and passed through in wholesale prices, as outlined above. This does not mean that CM and wholesale prices will likely see an increase 1:1 to reflect the GSO, as the exact impact will depend on the marginal plant. For example, if the CM/wholesale/BM price is set by a battery, then there would be no impact on prices.

We disagree with the conclusion in the consultation that electricity customers will not see any or minimal GSO costs because gas-fired generation is not expected to be setting electricity prices. Whilst we may expect gas to have a less prominent price-setting role in the future electricity wholesale market, given that the GSO is proposed to be in place from 2028 it would be reasonable to assume gas generation will still be influential in setting prices. As a result, electricity customers will pick up a proportion of GSO costs, unless gas shipped for the purposes of electricity generation is exempt from the proposed levy.

Section 3 - Charging approach Section 3.1 Charging approach options

2. Do you agree that a volumetric design is more likely to facilitate a fairer distribution of costs than a meter point design? Please explain your answer and provide supporting evidence. If you disagree, please provide an explanation with supporting evidence for how a meter point design can equally or better facilitate the pass-through of costs compared with a volumetric design.

And

 Do you agree with our proposal to proceed with a volumetric design for the Gas Shipper Obligation? Please explain your answer and provide supporting evidence.

For the purposes of the proposals laid out here, yes. We are not convinced, however, that the GSO is a viable long term cost recovery mechanism, due to the large distortions it will create in the gas market. For example, the costs of all hydrogen production, storage and transportation could exceed the allowed revenue of National Gas, meaning that perversely, shippers could end up paying more to support the hydrogen industry than to perform their licenced activity – shipping gas.

We note that the design of the GSO is unlike any other cost recovery mechanism on gas shippers; primarily because it excludes gas transporters from the setting and recovery of charges. This means that shippers are being asked to perform activities which they are not best placed to undertake, such as estimating their own "market share" and managing under and over-recovery risks.

Conversely, transporters (and their agent Xoserve) have established billing and settlement systems and associated knowledge and resources. In the case of SoLR charges, our understanding is that GDNs fund the costs but recover them in full, via a dedicated transportation charge to shippers. As this is then levied via a separate transportation charge, Transporters can apply the same supply / demand methodologies and expertise to setting charges accurately. Furthermore, settlement and credit arrangements are embedded into the operations of gas transporters (for transportation credit and Xoserve for energy balancing credit).



As a result, there is a risk that the GSO will incur very significant set up and operational costs, if the LCCC effectively duplicates activities already carried out by gas transporters and Xoserve. This is inefficient and not in the best interests of all customers.

Section 3.2 - Determining the quantities of gas shipped

4. Do you agree with the proposal for the Administrator to use the underlying data set for the GNTS charge on Exit (potentially subject to modifications as set out above) as a basis for determining the quantity of gas shipped for the calculation of collection amounts? Please explain your reasoning with any supporting evidence. If you disagree, please set out any alternative approaches which could be used and explain why you consider them to be preferable and how they align with the design principles.

We agree in principle, but the amount of gas that a gas shipper off-takes in one month bears no resemblance to the amount of money that might need to be recovered in another month to fund the HPBM. This will cause volatility in the charge level each month. We would recommend some form of smoothing, such as an annual charge.

5. Please provide suggestions of any data or evidence that could be used to determine current and future quantities of gas conveyed outside of GB through interconnectors? Please explain your answer and provide evidence to support your response.

National Gas is well accustomed to forecasting gas supply and demand of all types, so would be best placed to carry out this role. Using the same forecasts would also provide consistency and transparency. Duplicating existing processes would be inefficient and confusing.

6. What are your views on the possible exclusion of gas shipped to interconnectors for conveyance outside of GB from the determination of quantities of gas shipped for the calculation of collection amounts? Please explain your answer and provide any supporting evidence.

We agree. Gas exported from the UK has no correlation with a domestic hydrogen production target. Without an exemption, gas flowing out of the UK would be more expensive than gas coming in. This has the potential to distort trading on bi-directional interconnectors, which may disincentivise Shippers from using gas interconnectors for cross border trading. This outcome could reduce GB gas market liquidity and impact security of supply.

7. Do you agree with our intention to use reconciled gas quantities to derive actual gas consumption when calculating the collection amounts? Please explain your answer and provide any supporting evidence.



Yes. Unless it is calculated on fully reconciled volumes, there will be significant, regular adjustments once meter reads become available, which will require reallocation between Shippers - either as credits or debits. This will likely become very difficult to manage efficiently by the administrator. We are also unclear whether LCCC would have the capability to manage this.

8. Do you have any views on how best to include reconciled gas quantities within the GSO, including whether to implement an earlier cut-off date than the standard four-year process, and whether you have any views on running the gas reconciliation process and correction of payments less frequently than the collection frequency? Please explain your reasoning with any supporting evidence.

It should be consistent with the prevailing UNC cut-off date. Creating an inconsistency will likely lead to significant risk premiums being applied to customer bills, if there is uncertainty about the ability to pass through costs.

It should also be noted that there is a live UNC proposal, which proposes a change to the four year "line in the sand" cut-off period, moving from an annual, four year to a rolling monthly, two year cut-off. The design of the GSO will need to take any potential changes into account.

Section 4 - Operation of the Gas Shipper Obligation Section 4.1 - Calculating gas shippers' collection amounts

9. Do you agree with the proposal to take the Market Share approach set out in Option A to calculate gas shippers' collection amounts for an obligation period? Please explain your answer and provide supporting evidence.

The phrase "market share" is confusing in this context and a more suitable name would be "GSO eligible flows".

Unlike retail market share, wholesale market share (when measured by monthly gas flows), is much more variable, as it is determined by market forces. For example, gas shipped for electricity generation is extremely difficult to forecast accurately. This is because generators will not know each month whether their station will have bids or offers accepted in the Balancing Mechanism. As a result, some Shippers will face challenges in accurately forecasting their own "market share" and therefore their share of the GSO. This is likely to result in risk premiums being added to account for the uncertainty around cost recovery.

10. Are there any other options for calculating gas shippers' collection amounts for an obligation period that you think should be considered? Please explain your reasoning and provide any supporting evidence.

A credible alternative could be to levy the charge at gas distribution level, rather than at transmission. If all potential exemptions are applied in full (storage, energy intensive



users, interconnectors and power generators) then the still substantial volumes of gas remaining at NTS level would be for supply to domestic, SME and smaller industrial customers. Therefore, calculating the GSO eligible volumes at gas distribution level could be more appropriate, as it would not require so many exemptions and so may lead to a more stable charge.

We note that the existing Supplier of Last Resort (SoLR) process could be used as an good example of how to manage the recovery of sometimes large, unpredictable and variable costs from Shipper / Suppliers, including "truing up" across multiple gas years. The SoLR charge is calculated based on site Supply Offtake Quantity (SOQ) and levied as a distribution network-level charge, with under/over recovery managed by the transporters and oversight from Ofgem.

11. What are your views on how shippers will manage the uncertainty under each option? Please explain your answer and provide supporting evidence.

For Shippers with a licenced Gas Supply business, uncertainty over charge levels will effectively become a supply side risk to manage. We would expect Shippers to seek a direct pass through of GSO costs to Suppliers, but Suppliers will not be able to vary customer contracts monthly to account for this. As a result, Suppliers will have to apply risk premiums to customer contracts, as otherwise full cost pass through may not be possible. A monthly variable will be harder to forecast and manage than an annual variable, so the risk premiums applied will likely be larger.

A pre-determined, annual unit rate for the GSO could resolve this issue and may avoid risk premiums being applied by Suppliers. This approach is consistent with how network charges are currently set and charge – i.e. set annually but recovered monthly. As outlined above, transporters or Xoserve should be capable of setting an accurate unit rate charge.

12. Do you have any views on how we should manage new gas shippers entering the market when calculating gas shippers' collection amounts for an obligation period? Please explain your answer and provide any supporting evidence.

It would be sensible to align with how Xoserve treats new Shipper market entrants.

13. Do you have any views on how we should manage gas shippers exiting the market when calculating gas shippers' collection amounts for an obligation period? Please explain your answer and provide any supporting evidence.

Shippers exiting the market is likely to be a much more significant issue for the stability and credibility of the GSO charge. Shippers exiting the market in an orderly manner would have to settle any liabilities incurred or due, before they are permitted to exit. This is the current arrangement, administered on behalf of the gas industry by Xoserve.



If LCCC is managing the GSO in isolation, there is a risk that a Shipper may be allowed to exit the market (within the meaning of the UNC and their Licence) but may still have outstanding liabilities to the LCCC. It should be a key part of the UNC / Xoserve / Ofgem process, therefore, that all monies owed to LCCC have been settled before a Shipper is permitted to formally exit the market. The simplest approach would be for Xoserve to manage all of this.

Another critical issue to consider is Shippers exiting the market in a disorderly manner – i.e. through financial failure leading to insolvency. In this case, any outstanding liabilities against the GSO will not be recovered due to insolvency, resulting in "missing money" under the GSO. The LCCC (or any levy administrator) will need to seek to recover these monies, in the same way that Xoserve do for Energy Balancing debt, so there to be clear rules for how this is recovered from the remaining shipper and over what period.

The Energy Balancing Credit Rules (EBCR) exist under the UNC and so these could be used as basis for credit arrangements underpinning a GSO. Xoserve are well equipped to undertake the role of credit management. It is unclear if LCCC has the expertise or resources to fulfil this critical role. Making best use of existing knowledge, resources and systems of Xoserve would be a better value option for consumers, rather than LCCC duplicating existing gas industry processes.

Section 4.2 - Length of the obligation period and collection frequency

14. Do you agree with the proposal for the Gas Shipper Obligation to operate on a monthly obligation period and collection frequency? Please explain your answer and provide supporting evidence.

No. This proposed approach is inconsistent with how other transportation charges are set - annually but collected monthly. We see no compelling reason to move away from this. A monthly obligation period will introduce unnecessary and increased volatility to the GSO charge, resulting in risk premiums being applied to customer bills.

An annual obligation period would provide a much more stable and predictable basis. A longer obligation period will help smooth out seasonality and supply/demand variations. Aligning with the Gas Year (Oct - Sept) is also important for customer billing.

Section 4.3 - Alignment of charging periods

15. Do you agree with our proposal for the obligation period to precede the HPBM billing period by at least two months, dependent on the length of obligation period and collection process? Please explain your answer and provide supporting evidence.

No. The period is largely irrelevant as there is no correlation between gas shipper volumes in February and the amounts to be collected for the HPBM in April.

Section 4.4 - Long-term "signal" forecasting



16. Do you agree with the proposal for the signal forecast to include aggregated monthly costs projected over a year, and for it to be updated on a rolling monthly basis? Please explain your answer and provide supporting evidence.

Yes. Shippers can manage risks more efficiently if they have the best possible information available to them. We see this already in gas transportation charging, where accurate and timely forecasts are critical to the efficient operation of the market and facilitating competition.

17. Are there any other considerations that should be taken into account to help improve sight of anticipated costs and shipper readiness? Please explain your answer and provide supporting evidence.

Rules for dealing with Shipper failure and the reallocation of outstanding GSO charges amongst shippers, along with projected timescales for recovery.

Section 4.5 - Managing uncertainty

- 18. What are your views on the options for further mitigating the risk of under-collection (option A headroom, and option B separate reserve pre-payment)? Please explain your answer and provide supporting evidence.
- 19. Are there any other options for mitigating the risk of under-collection that you think should be considered? Please explain your answer and provide supporting evidence.
- 20. What are your views on the handling of overcollection (option A offsetting, and option B returning over-collected sums)? Please explain your answer and provide supporting evidence.
- 21. Are there any other options for the handling of overcollection that you think should be considered? Please explain your answer and provide supporting evidence.

Under and over-collection risks could be better managed by having an annual unit rate. Any over or under collection can be factored into a revised unit rate for the following obligation period. This is how network charges are set, with the transporter managing this under and over recovery risk.

In an efficient market, the risks should be placed with those best able to manage them. We believe that bringing in transporters / Xoserve to the GSO process could significantly reduce complexity for industry participants, allowing the established experts to best manage risks.

Section 5 - Administration of the Gas Shipper Obligation Section 5.1 - Administration

As set out in the introduction of the consultation and above, this consultation, and the accompanying analytical annex, provide a snapshot of the GSO costs and impacts by setting out the estimated costs and



quantitative impacts for HAR1 projects only, given that these are the only projects that are in the final stages of contract signature. Costs and impacts would change with the funding of further hydrogen projects beyond HAR1, the extent of which will be subject to Government's future decisions on hydrogen production and the funding arrangements for it. However, we do not expect the administrative costs of the GSO or administrative burden to shippers to materially change with the funding of further hydrogen production projects, given the administrative requirements would remain the same.

22. Do you have any views on whether the administrative and operational costs of the Gas Shipper Obligation should be separated from the other costs of the HPBM, such as payments under relevant contracts? Please explain your reasoning and provide supporting evidence.

For transparency reasons, the administrative and operational cost elements should be separated from the HPBM payments. It could also facilitate future cost savings via competition between potential scheme administrators, which may not be possible if all the costs are bundled.

23. Do you agree with our estimates of the administrative burden to shippers,

including the types of costs identified, the impact on small shippers, and

assumptions underpinning them, including in relation to gas suppliers, as set out in the analytical annex? Please explain your reasoning and provide supporting evidence.

Suppliers are well equipped and accustomed to dealing with Government levies as part of their day-to-day business. Shippers are not. As outlined elsewhere in our response, this unconventional approach means that shippers will be asked to undertake roles they not best placed to undertake – such as estimating their own market share. The administrative burden could be significantly reduced by aligning with current gas market processes and procedures by bringing in transporters and Xoserve to administer the GSO. Monies collected could then be passed to the LCCC and then to HPBM funding recipients.

Section 5.2 - Compliance, enforcement and non-payment. Section 5.2.1 Credit cover

24. Do you think credit cover should be used as a mechanism to mitigate against the risk of defaulted payments bearing in mind the alternative measure of significantly increased contingency payments, should credit cover not be used? Please explain your answer and provide supporting evidence.

Yes. Credit cover will be essential to protecting the integrity and credibility of the GSO.



25. If the design of the scheme includes a credit cover process, do you have any views on how to best minimise non-compliance with credit cover obligations, including enforcement arrangements? Please explain your reasoning and provide any supporting evidence.

This is dealt with in the gas industry under the UNC and associated Energy Balancing Credit Rules. Non-compliance results in sanctions and ultimately, the risk of termination of a Shipper account. This provides sufficient incentive to comply. This activity is carried out by Xoserve on behalf of the gas industry.

26. Are letters of credit and cash feasible options for lodging credit cover? Please explain your answer and provide supporting evidence.

Yes, provided the cash is protected by a deposit deed, as is the case for energy ealancing credit, under the terms of the UNC.

27. What are your views on the appropriate credit cover period (options A-C above)? Please explain your answer and provide supporting evidence.

No particular view, but alignment with the existing UNC credit rules would make sense.

28. If the design of the scheme includes a credit cover process, are there any other considerations we should take into account? Please explain your reasoning and provide any supporting evidence.

We would question whether the LCCC has the capability to manage a credit exposure process. Xoserve would be better positioned to undertake this task as the current UNC Energy Balancing credit managers.

Section 5.2.2 - Mutualisation

- 29. Do you agree with the proposed mutualisation process? In particular, that mutualisation would be exercised at the discretion of the Administrator with calculations of mutualised amounts based in proportion to quantities of gas shipped (similar to the main collection amount)? Please explain your answer.
- 30. Do you have any views on how quickly reimbursement of mutualisation payments should take place where costs are later recovered from the defaulting shipper and whether they should take place based on a set frequency? Please explain your answer and provide supporting evidence.

Based on our experience from energy balancing credit under the UNC, monies recovered from insolvent Shippers is typically very small, relative to the total loss that shippers are exposed to.

Under corporate insolvency law, energy balancing debt is treated as an unsecured debt. It ranks after secured and preferential creditors in an insolvency situation. We



assume the same would apply to GSO charges. This means that in the event of a shipper failure, the remaining shippers are exposed to long-term costs, to fill the gap in funding that results

Past shipper financial failures demonstrate a clear need for robust and well managed credit arrangements, to ensure that sufficient, liquid collateral is posted to guard industry from the risk of defaulting shippers and to minimise the impact.

Section 5.2.3 - Compliance and enforcement arrangements

31. Do you agree with the compliance and enforcement levers proposed above? Should the Government consider any other compliance and enforcement actions, in addition to those captured above? Please explain your reasoning and provide any supporting evidence.

Yes, we agree.

Section 5.2.4 Appeals

32. Do you have any views regarding the design and implementation of an appeals process? Please explain your answer and provide supporting evidence.

No.

Section 6 - Consideration of a potential exemptions scheme in respect of non-domestic gas users

- 33. Do you consider that gas intensive industries would be at risk of carbon leakage due to GSO costs? And if so, should government consider exempting gas quantities shipped to these industries from GSO charges? Please explain your answer and provide supporting evidence.
- 34. Are there any other factors besides carbon leakage that could be considered as grounds for an exemption for gas quantities used by gas intensive industries? Please explain your answer and provide supporting evidence.
- 35. Please provide suggestions for metrics that could be used to define 'gas intensive industries' (for example gas intensity and trade intensity) and any evidence or data that could be used to support that definition.
- 36. Please provide suggestions of any additional eligibility criteria that may be needed and any data that could be used/evidence that could be required to determine whether the criteria have been met.
- 37. Please provide suggestions for how an exemption for gas-intensive industries could be implemented and the lessons that can be learnt from how existing exemption schemes are delivered, including the British Industry Supercharger.

As we are not active in this market segment, we have no specific view on these matters. As a general principle, the more customers that are exempt from charges, the greater the risk of market distortions and unintended consequences for those exposed to the charge.



38. Should gas quantities shipped to CCUS-enabled hydrogen projects capable of meeting the UK Low Carbon Hydrogen Standard be exempt from the Gas Shipper Obligation charges? Please explain your answer and provide supporting evidence.

Yes – otherwise the levy would also be funded by the intended beneficiaries – i.e. hydrogen producers.

39. Please provide suggestions of eligibility criteria and any data that could be used/evidence that could be required to determine whether the criteria have been met. Please explain your answer and provide evidence to support your response.

The Hydrogen Standard would be a sensible place to start.

40. Please provide suggestions for how an exemption for CCUS-enabled hydrogen projects could be implemented.

Assuming these projects have a dedicated network exit point, then the flows could be identified and removed from the charging base.

41. Should government be considering any other potential exemptions from the GSO? If you answer yes to this question, please explain your rationale as well as suggestions of eligibility criteria and any data or evidence that could be used/required to determine whether the criteria have been met. Please provide evidence to support your response.

To avoid market distortions, hydrogen infrastructure support costs should be spread over as many customers as possible. Indeed, it is stated in the analytical annex that "further deployment of hydrogen would also be expected to result in wider benefits to the energy system" - which includes more than just gas customers.

In the case of the proposed GSO, the pool of eligible customers is already small and will become smaller still with many exemptions. This is likely to distort the market for gas shipping. As the UK gas market is generally considered to be liquid, well-functioning and key to security of supply, anything that potentially undermines this is unlikely to be in the best interests of all customers. Concentrating all the costs on a relatively small group of consumers means that the GSO is not, in our view, a sustainable long term cost recovery mechanism.

Closing question

42. Is there anything else you would like to share with us on the design and operation of the Gas Shipper Obligation?

We are strongly of the view that the GSO proposals should be limited to HAR1 projects, until further development or consultation is undertaken. We believe that an alternative



method of recovering the costs should be considered, as a more sustainable and equitable solution. To avoid market distortions and unintended consequences, the costs should be recovered from as many customers as possible. This will ensure a robust and secure funding mechanism for the longer term for hydrogen business models.