

Via email to: electricityconnectionpolicy@cru.ie



March 2024

Re: Large Energy Users Connection Policy Consultation

Dear Sir/Madam,

I am writing on behalf of the Demand Response Association of Ireland (DRAI), a group that represents flexible energy demand customers participating in the all-island Single Electricity Market (SEM). These flexible customers create predictable, reliable, and controllable assets, which provide the valuable source of Demand Side Flexibility (DSF) that can be actively used by system operators to meet the near-time needs of the power system.

Today, the DRAI represents approximately 700 MW of demand and embedded generation response across hundreds of industrial and commercial customer sites throughout the island of Ireland. These sites are managed by our members each of whom actively participate in the capacity, DS3, and energy markets.

DRAI members are committed to shaping the future of power system flexibility through advancing DSF on the island of Ireland. The organisation expresses a single voice on policy and regulatory matters of common interest to its members, and we welcome the opportunity to respond to the LEUs Connection Policy Consultation and trust that you will consider it in your deliberations.

We also acknowledge the RAs' engagement with stakeholders during the consultation period and the productive conversations and interactions during that time. This engagement along with the detail you will find in our answers below, highlight three major concerns that we have:

- The DRAI believes that where possible flexibility measures required of LEUs should be linked to market participation
- Where possible measures should be voluntary. The introduction of mandatory measures will like lead to lower value to the system
- No limits should be placed on what zero carbon fuels are used by LEUs at this time as their investment in the area will create a market and so lead to better innovation and growth in the area.

On behalf of the DRAI we hope that you consider the points we have put forward, and we welcome future engagement on the matter.

Your sincerely,

A handwritten signature in blue ink, appearing to read "Patrick Liddy".

Patrick Liddy
DRAI

Q.1 Comments are invited from interested parties on the categories of LEU in electricity and gas to which this policy should apply (e.g. for electricity is DG10, DTS-T is appropriate, should DG6-DG9 be included, should the definition focus on capacity or usage, should a combination of criteria be applied?).

The decisions made in this paper could meaningful influence the investment prospects of many businesses in Ireland as well as the willingness of customers captured by the policy to participation in Energy Markets in a meaningful way (see question X). We therefore it should be focused on as large as possible – DG10.

Q.2 Please provide views on whether this proposed policy should apply to capture smaller LEUs in due course, and if so which categories of LEU and on what timeline should this occur. Please provide rationale for any views shared.

It should not include other LEUs – market solutions should be preferred.

Q.3 Comments are invited from interested parties on the proposed use of a transition period/glide path in relation to (i) the changing requirements at time of connection on the transition to zero real time emissions, and (ii) once connected, the changing requirements as the project transitions closer to real time zero e.g. from non-firm connection to firm connection linked to milestones.

N/A

Q.4 Please provide views on the proposed timing of different options.

N/A

Q.5 Should optionality be maintained in allowing a menu of different options to perspective LEUs, with the end net zero emissions target becoming more binding as the glide path advances?

N/A

Q.6 Comments are invited on how compliance and enforcement with required provisions can be effectively implemented in the operation of a transition period/glide path approach.

We believe that many of the measures proposed are best facilitated through existing market mechanisms. To that end where possible the compliance and enforcement mechanism employed should be as part of markets.

Q.7 Comments are invited on the approaches used to account for net zero emissions. This could include timestamped GOs or renewable certificates. Please provide reasons and rationale for any views provided.

N/A

Q.8 Should the end target/goal be real time zero emissions? Do respondents have other suggestions as to how this can be demonstrated? Please provide reasons and rationale for any views provided.

It is not likely that the electricity system as a whole will become zero emissions at all times. Furthermore it is likely that the most challenging times for the grid in relation to both security of supply and emissions will be times when the LEUs are providing support through market led Demand Response. To require “Zero” emissions at these times is therefore illogical. Instead the goal should be emissions which are materially lower than the grid average, rather than zero.

Q.9 Comments are invited on the use of a glide path to implement the basis on which net zero emissions are determined. This could entail starting with measuring net zero performance on an annual basis and moving closer to more real time arrangements in incremental steps.

This seems fairer than real time.

Q.10 Comments are invited on the use of self-reporting based on best available data/methodology and transitioning to a more robust formal framework over time when it becomes available.

N/A

Q.11 Comments are invited on the requirement for indigenous sources of renewable energy e.g. renewable electricity feeding into the Irish system and for gas secure sufficient renewable gas credits feeding into Irish system.

Ireland is in competition for business internationally. We import some goods and export others. When an Irish based company invests in a product that was produced in another

country, an incentive is created for further investment in that country, and so more is produced.

We disagree with biofuels being treated differently. Irish based companies should invest in biofuels produced elsewhere and so help incentive its production in all markets.

Q.12 Comments are invited on how the storage of renewable energy is captured by any measurement system when this stored renewable energy is used.

This should be captured in line with the energy market rules.

Q.13 Comments are invited on whether the electricity and gas measuring and tracking systems should be integrated to help avoid double counting? If so, how might this be achieved?

N/A

Q.14 Comments are invited on who should have responsibility for measuring LEUs emissions and emissions abatement performance?

We believe the same mechanism as per the energy market should be used.

Q.15 Should new LEUs be located close to areas of renewable generation and/or storage or within energy parks? Please provide reasons and rationale for any views provided.

While this may be preferable it seems an impossible goal

Q.16 What type of measures to facilitate this approach could be introduced to encourage new LEUs to locate close to renewable generation.

N/A

Q.17 Should there be any exemptions to locational requirements for certain LEUs? How could this be assessed? If so what type of connection conditions/requirements might these require?

N/A

Q.18 Comments are invited from interested parties on the level of proximity between LEUs and renewable generation? How should this be measured? Should this value apply across the board or be determined on a case-by-case basis?

N/A

Q.19 If locational requirements are introduced, there is a need for better integrated planning of the network, generation and demand. What are the roles of the System Operators and enterprise agencies in supporting/facilitating this?

N/A

Q.20 If introduced on a mandatory basis in order to recognise that any locational requirements LEU demand may require time to be facilitated, should locational requirements be implemented using a glide path?

N/A

Q.21 Should non-firm LEU connections be introduced? If so should these non-firm connections be made on an enduring basis? Please provide reasons and rationale for any views provided.

Non-firm should be minimised where possible and be limited to being related to local constraint issues. Once this constraint is fixed the non-firm requirement should be lifted.

We believe a critical issue in relation to Non-firm connections relates to the sites participation in DSU capacity market and potential other future measures.

A recent review by DRAI on the relative value of a site with a non firm/flexible connection agreement with the TSO is that it was called upon to deliver reduction on 4 occasions during the past 24 months while if participating in DSU and if utilised in the same way as other DSUs it would have been called upon to provide flexibility on 40 occasions. This demonstrates the relative value of mandatory measures versus market based approaches. Market based approached deliver a 10 fold better return.

A further point is that DSU participation allows for sites to provide export in the event that they have enough qualifying (Zero/Low emissions) generation. 100% of this capacity is lost to the Irish system in the event of non-firm connections and so results in further fossil fuel generation being built and supported by the tax payer.

Q.22 If non-firm LEU connections are implemented on a temporary/non-enduring basis what should trigger these connections being made firm? Examples could include date(s)

specified upfront or linked to certain requirements. Please provide reasons and rationale for any views provided.

N/A

Q.23 If non-firm LEU connections are mandatory in certain parts of the system, should there be any exemptions for certain LEUs? If so what type of connection conditions/requirements might these require?

N/A

Q.24 Comments are invited regarding the proportion of the LEU demand that would be connected on a non-firm basis. For example, would a non-firm connection apply to 100% of the connection, or would it apply to smaller proportion than this?

See Q32

Q.25 Comments are invited regarding what measures could be applied to facilitate non-firm LEU connections. If so, should these measures to facilitate recognise the potential locational value of these?

N/A

Q.26 How should the SOs deploy this flexibility provided by non-firm demand?

See Q21

Q.27 Should non-firm/flexible electrical connections be provided to islanded LEUs in order to facilitate flexibility between the electrical and gas systems?

N/A

Q.28 Comments are invited on the use of renewable generation and storage on-site. Should this be used to match LEUs demand on-site or to provide flexibility services to the system? Please provide reasons and rationale for any views provided.

We agree with allowing these resources to provide flexibility services including capacity market services to the system. Note the potential increase in services possible when provided to the market via DSU versus non-firm connection

Firstly the utilisation of the resources increases 10 fold (historic DSU dispatches versus non-firm/flexible connection customers).

Secondly where an export licence is appropriate, it would allow sites with sufficient qualifying (Zero/Low emissions) generation to export clean power to the grid.

This increase inflexibility will be important to allow Ireland to facilitate more renewables and reach its Zero carbon targets more quickly.

Q.29 Should the use of on-site dispatchable generation using only renewable fuels have limited run hours, to reflect limited availability of an indigenous renewable fuel? Please provide reasons for any views provided.

No. The use of these fuels by the sites will increase the market for them. Increasing the market size/price will allow innovation and new sources to be identified. Limiting the use of these fuels defeats the goals of encouraging their markets to grow.

Q.30 Do LEUs require back-up generation for operational reasons? If so, what is the typical annual running hours of this back-up generation?

N/A

Q.31 What should demand flexibility services provided by new LEUs be used for, system support, decarbonisation or both? Please provide reasons and rationale for any views provided.

Demand Flexibility can provide support in 3 main areas

1. System Support in the form of Capacity Market and System Services
2. Decarbonisation in the form of low/zero carbon capacity when compared to the current norm (Grid scale diesel based emergency generation). Demand flexibility also reduces embedded carbon by reducing the need for further plant/grid to be constructed
3. Grid buildout reduction – by facilitating LEUs to provide market based services it means that the grid connection is being used twice, once for demand and then again for traditional generation side services.

We encourage the facilitation of LEUs to provide all of these services through market mechanisms.

Q.32 Should demand flexibility services be mandatory or voluntary for new LEUs? Please provide reasons and rationale for any views provided?

Voluntary – In almost all cases a LEUs priority will be the production of their main product service. This means that they should never take actions in providing system services that will put their production at risk as it will not be as profitable. Examples of this is many sites understandable resistance to use their current plant to support the grid for the risk it would mean exceeding their EPA emissions limits or permits.

In the event of some mandatory obligations being placed on LEUs as part of their connection agreement, we believe they will be unwilling to provide any services to the market even when those services are unlikely to breach the limitations of their “mandatory” obligations.

By allowing a voluntary market based system where the rules and rewards are fair, the resulting quantity of flexibility/carbon reduction will be far higher.

Q.33 Should LEU connections in certain parts of the network be required to provide demand flexibility services? Is this measure justified?

As per Q32

Q.34 If demand flexibility is voluntary for new LEUs, what type of incentives could be introduced to encourage the adoption of these services?

DRAI believes that a number of reforms are required to maximise the potential of voluntary participation of demand response in the market. These can be covered in another paper but among them are:

- Availability and so derating should be based on obliged capacity rather than registered capacity
- Energy payments should be made to DSUs to reduce the loss they make each time they are dispatched
- Where demand reduction is achieved Short Notification Declaration penalties should not be applied
- Onsite generation should not be partially curtailed in the event of high wind

Q.35 If demand flexibility is mandatory for new LEUs, should there be any exemptions for certain LEUs to having to provide these services? How could this be assessed? On what basis could these exemptions be applied?

Sites could be provided with an exemption in the event they provide system services that are equal to or greater than the mandatory requirement via market based systems

Q.36 Should timed/profiled connections be introduced? Please provide reasons and rationale for any views provided.

This should be a market based issue. The market provides price signals which would provide this. Changes could be made to standing/networks charges to improve the efficiency of this signal if required.

Q.37 Comments are invited from interested parties on the use of waste heat from LEU sites.

N/A

Q.38 Comments are invited on the use of waste heat from LEUs to feed district heating networks or other processes.

N/A

Q.39 Should provisions to use waste heat from new LEUs in suitable locations to feed district heating or other processes be mandatory or voluntary? Please provide reasons and rationale for any views provided.

N/A

Q.40 Comments are invited from interested parties on the use of biomethane towards decarbonisation of LEU demand. Do respondents have a view on the volume of indigenous biomethane that can be produced annually? Do respondents have a view on the scalability of using biomethane towards the decarbonisation of LEU demand?

We believe that the market should be allowed to incentivise the production of more biomentane and other similar qualifying Zero/Low emissions technologies. We therefore believe that LEU demand for these products would be a significant incentive for their increase in production and so should be encouraged.

Q.41 Comments are invited on what running profile should be adopted by onsite gas generation which is being run on a limited supply fuel like biomethane e.g. should it be limited running for back-up and/or flexibility purposes, or baseload (islanded LEU)? If for flexibility services what would be a typical capacity factor?

We believe that the running profile of these resources should be based on market incentives. Like other units the generation resources should bid into the SEM and allow it to decide on the most economic dispatch (within the emissions limits required of it by government).

Q.42 Comments are invited from interested parties on the use of green hydrogen towards decarbonisation of LEU demand and the timelines in which this might be viable. Please provide reasons and rationale for any views provided.

As per Q41

Q.43 Comments are invited from interested parties on the renewable gas certification scheme.

N/A

Q.44 Are there other options for decarbonisation of gas demand that should be considered?

N/A

Q.45 Comments are invited on the introduction of non-firm/interruptible gas connections for LEUs (at exit point). Do respondents have a view on whether these non-firm/interruptible connections can help alleviate emissions? Please provide reasons and rationale for any views provided.

N/A

Q.46 How can demand flexibility services on the gas system provide a benefit for both system support and decarbonisation?

N/A

Q.47 Comments are invited from interested parties on maintaining optionality in what provisions an LEU must meet as part of its net zero emissions requirements.

The issue of emissions is a world issue and where an LEU can demonstrate measures they are taking nationally/internationally which far exceed that of the local site these should be considered. Encouraging a LEU to increase emissions substantially in another jurisdiction to affect a minor reduction in emissions in Ireland is not a sensible approach.

Q.48 Comments are invited on how a new LEUs location may inform what criteria it may need to meet.

N/A

Q.49 Comments are invited on how a transition period may inform an evolving net zero target and demand flexibility services that could be provided.

N/A

Q.50 Respondents are welcome to suggest alternative approaches in how criteria is selected.

N/A

Q.51 Respondents are welcome to suggest any additional approaches for LEUs to help meet net zero requirements not considered in sections above.

As per Q47

Q.52 Comments are invited from interested parties on the roles of other organisations in the different approaches considered in this paper.

We believe that Eirgrid/SEMO market should be the favoured approach in all practical cases

Q.53 Comments are invited on what functions should be carried out by who, in the context of potentially real time net zero emissions for LEUs going forward.

As per Q52

Q.54 Feedback is requested from stakeholders on other mechanisms that may need to be considered for the implementation of SECs and who should be responsible for delivering them.

N/A