Department of Climate, Energy and the Environment

Implementation of the Net-Zero Industry Act Requirements into the Renewable Electricity Support Scheme – Consultation Response

21/11/25

About Trifecta Ireland

Trifecta Ireland is an independent, non-profit initiative working to accelerate Ireland's transition to a clean, secure, and affordable energy future.

We provide bold, evidence-informed leadership to address systemic failures in the energy sector. Grounded in global systems change theory, Trifecta identifies what enables successful large-scale transformations and applies these principles to Ireland's unique energy context.

Our niche is connecting global insight with local action. We bring together stakeholders across government, industry, science, and civil society to co-design and drive integrated, system-wide solutions. By fostering collaboration and aligning incentives, we aim to unlock opportunities and remove barriers to Ireland's energy transformation.

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Context

Trifecta Ireland ("Trifecta") welcomes the opportunity to comment on the proposals of the Department of Climate, Energy and the Environment (DCEE) to implement Net-Zero Industry Act (NZIA) requirements into the Renewable Electricity Support Scheme (RESS). Assuming that the NZIA obligations will materialize at the earliest in a 2026 RESS auction, we understand that the earliest assets will connect under these contracts will be 2030.

Our response to this consultation has been framed by our emerging scenarios of the shape of the electricity sector in 2031-2035. This context is relevant as it is reflective of the operational environment for the NZIA RESS assets.

Some relevant considerations from the draft scenario would include:

- Increased electrification meaning that energy services (i.e. useful energy) increases nearly 50% from 2025 to 2035 and rejected energy (i.e. energy lost in transformation) decreasing by 9%.
- Offshore wind volumes are in the market, resulting in higher capacity factor low marginal cost power in the market.
- Based on the RESS volumes awarded to date, utility scale solar capacity is a multiple of today's levels. Onshore wind has increased, but not in line with Government targets.
- The proposed grid investment under PR6 has deployed substantially but some delay in rollout. Embedded and active use of grid enhancing technologies in managing both transmission and distribution.
- Onsite renewables such as rooftop solar and behind the meter battery storage have grown significantly.
- Storage projects with longer durations are connecting and a more varied ecosystem of utility scale storage. Storage continues down its learning curve.
- Electricity market reforms to the SEM are progressing.
- Fuller resourcing of key regulatory agencies.
- District heating projects of scale coming to fruition in large city centres.
- Heat pumps a widely deployed technology across commercial and residential sectors.
- Electric vehicles and related infrastructure more widely available with active vehicle to grid applications under use.

Our broader view on this context shapes how we respond to the consultation questions, even though the questions themselves have been written in the current timeframe reflecting today's concerns.

General observations

Time risk allocation

Time does reflect a significant risk, as noted in our webinar with Bent Flyvbjerg. The multi-year lag between contract award and project delivery under RESS does create an opportunity for risk to manifest. It represents an open window through which a black swan can fly. By this light, it might be more accurate to be surprised by the volume of projects that survive rather than those that fall prey to attrition.

DCEE may need to consider how that time risk is addressed under the RESS framework. The current structure is that a contract is awarded, about half a decade passes, then the project is commissioned.

The state faces risk in two dimensions here: whether the project is delivered and contributes to meeting the nation's targets; and being the counter party to that agreement if/when the project becomes operational within the RESS scheme.

In terms of risk management, there might be value in looking at structures where the time risk is shared more.

Pricing risk

One of the key benefits of the bilateral contract for difference structure is the opportunity for the upside on wholesale market prices to be granted to customers. That said, there is a risk that without supporting policy measures that the auction(s) result in structurally low pricing entailing a draw on the PSO potentially inhibiting the other pricing benefits of renewables.

Relevant measures that DCEE could consider would be:

1. Modelling the cost of the delivered power (including wholesale costs, network costs, PSO etc.) to different customer types under different deployment scenarios. If that work identifies points where electricity consumers or segments face an undue exposure, develop a policy intervention to help address that side effect.
2. The optimal balance for high volumes of green generation is flexible power demand. This simple observation entails a significant and parallel focus upon electrification of energy demand. Recent analysis by Ember suggests that 75% of energy demand can be electrified today. That parallel track warrants a comparable focus on the demand side of the demand-supply equation as on generation.
3. A more aggressive policy on storage both front of and behind the meter enables easier matching of supply and demand in a system with high volumes of variable renewable electricity. The recent Long Duration Energy Storage (LDES) consultation is a reasonable starting point, but guidance on the longer-term trajectory and route to market would be an enabler as it has been for the renewable generation.
4. Ensuring that the €3.5bn state equity investment is maximized to leverage international capital ensuring the lowest cost deployment of the PR6 investment and undoing some of the reputational damage around slow rates of infrastructural deployment.
5. Network delivery is fundamental and we welcome the whole of Government focus on infrastructure delivery, but there is a need to focus on making better use of that network after our country has built and funded it. Given the challenges and delays associated with planning new overhead power lines, grid enhancing technologies such as dynamic line rating, flow controls, advanced monitoring, sensors and storage, are desperately needed as they can unlock more capacity from our existing grids, support the build-out of wind and solar, and increase resilience. Common for these innovative grid technologies are that they are commercially available and can be installed and in operation in a manner of months.

PSO mechanism

Recent inter-annual volatility in the PSO levy and the expected wholesale price effects of system with predominantly renewable generation raises the question as to the appropriateness of the current approach to funding and estimating the PSO. Price cannibalisation and capture pricing effects suggest there is an enduring risk of volatility and potential cost exposure.

The PSO came into effect in 2001 and the energy and market landscape are different nearly a quarter of a century later. There could be value in reviewing how it allocates costs and how it operates given the change in context and the passage of time.

Response to issues raised in the consultation

Temporal flexibility

The definition of "Temporal Flexibility" as a combination of several renewable generation technologies or combining generation assets with storage or demand flexibility, highlights the criticality of an evolved hybrids framework. Ultimately, without a defined set of rules for dispatch, scheduling and active market participation of hybrid sites, this provision will not be operational.

Market feedback has been that the historical RESS rules were not commercially feasible. Two factors drove this conclusion: the inability to use the storage element of the site for managing market prices and build a viable business case; and that the price was unlikely to be sufficiently attractive to support the capital cost and financing of both the renewable asset and the battery.

If the commercial proposition be strengthened, the principle of encouraging hybrid sites onto a congested grid is compelling. Without buttressing this financial case, the volume of hybrids competing is likely to be very similar to that under RESS 2, 3, 4 and 5.

Locational impact and grid forming inverters

The emphasis of the networks regulatory framework is largely on delivered infrastructure through the networks price control, but in a heavily electrified system with lower levels of inertia, the electricity system needs to be more digitised and capable of resolving system challenges. In that system, grid forming inverters and grid enhancing technologies (e.g. Dynamic Line Rating) are crucial elements of the jigsaw.

We'd suggest that a conversation between the regulator, policy makers and the System Operators is required on the appropriate mechanism to encourage a proliferation of these solutions whether through the networks regulatory framework or the renewable auction process or another process.

A systematic discussion is also required on locational signals. There has been discussion in public forums about a plan-led approach to network development allied with strategic development of generation and demand. The current locational signal is largely a diffuse one. If the department, regulator and system operators are minded towards a location approach, we would suggest that work would be required on the market, network and regulatory structures necessary to deliver that signal.

Evaluation Correction Factor (ECF)

There is a question as to whether elements of the ECF overlap with some of the other categories that could be introduced via the proposed NZIA RESS reforms. In principle, the originating motive for the ECF was to reflect the economic value of different generation types which was not captured by the more LCOE-based auction bid pricing. To maintain the ECF within the auction (in a scenario where the auction remained technology neutral), DCEE should be convinced that it is additive.

Another question on the ECF is that it does add a level of complexity to the auction in addition to the new elements arriving under the NZIA reforms. Again, the question is whether the added benefits of that complexity outweigh any potential costs introduced into the auction. In effect, is it worth maintaining for the mature technologies.

That said, if DCEE were to decide to maintain a single auction pool rather than technology pots, the ECF could be a helpful stimulus for technologies beyond wind and solar.

Single-pot vs technology specific

Our response on this question would ultimately be informed by the modelling. If previous auction bids were put into scenarios reflecting the two models, then their effect on the PSO modelled, we suspect that would drive out clarity on cost effect. That said, there is some complexity as to arrive at a meaningful estimate would entail pricing at the granularity of the Day Ahead Market (DAM) e.g. having an hourly price rather than something averaged over the year.

We have not seen evidence as to whether intra-technology or inter-technology competition drives the best result.

Legally binding declarations: Responsible Business Conduct, Cybersecurity, Resilience

Adopting an approach whereby these three areas are validated in the auction by signed declarations is pragmatic. Subject to a key condition, it should minimise cost barriers to entry in the auction and should not unduly discourage participation.

That support is on the proviso that the auction documentation is extremely clear on what a successful developer is obligated to do, how they might discharge and demonstrate compliance, and likely timelines for that document.