



Regulatory Authorities
c/o SEM Committee

By email: mjoseph@cru.ie; donna.maye@uregni.gov.uk

30th November 2022

RE: SEM-22-076 Best New Entrant Net Cost of New Entry (BNE-Net CONE) Consultation Paper¹

Dear Sir/Madam,

I write as an experienced developer with over 30 years' experience in the power generation business. Before starting my own company, I worked in ABB Switzerland and led bid teams for global projects including the Ringsend 415MW CCGT project (2000).

ART Generation is an indigenous Irish company that develops wind farms and power plants. I was one of the founders of the Grange Backup Power (Grange) project in West Dublin. We understand this is the only project being built at present out of the 2019 T-4 2022-23 batch which were awarded new capacity. This project is only progressing on the basis of innovative corporate financing strategies necessitated by the CRU's and ISEM impractical policies which did not support the financing of projects for new market entrants.

Background

The Commission for Regulation of Utilities (CRU), EirGrid, SEM Committee (SEMC) and the Department of the Environment, Climate and Communications (DECC) have all failed in previous consultations and deliberations on the security of energy crisis by not recognising and ignoring the fundamental auction design requirements on what it takes to develop, plan, finance, construct, commission and deliver bankable power plant(s) to the market – i.e., 7 years. And most importantly the importance of pre-qualification for the auction to avoid a free for all. This failure to recognise developer experience and knowledge has cost the State and unnecessarily diverted Government time and resources away from other important matters that it could well do without. They have continually disregarded the warnings

¹ <https://www.semcommittee.com/publications/sem-22-076-best-new-entrant-consultation>

and advice of market participants over the past seven/eight years choosing instead to persist with policies which were clearly failing to deliver culminating in the 2019 T-4 2022-23 auction failure and the consequential security of electricity supply crisis.

We note in Section 2 of the CEPA/Ramboll report that no reference is made to the current energy security of supply crisis and it only mentions the Russian invasion of the Ukraine. It would be disingenuous to blame the war in the Ukraine and the cost of gas for Ireland's security energy crisis.

In the interest of clarity and the avoidance of doubt, it is important to understand the issues and interrelationships that have led to the current security of electricity supply crisis. There are two issues at play:

- 1.The security of supply crisis in the energy market (which is homemade), and
- 2.The cost-of-living energy crisis related to the war in Ukraine.

To differentiate between the two issues, even if we had 'free' gas supply this winter, Ireland could not generate the required MWs to meet demand as there are insufficient commissioned power plant(s) in situ, hence the panic purchase of emergency generator sets (640MW) at premium prices for the peak demand winter period at the cost of about €800M to be borne by already stretched Irish consumers. The distinct issues of security of supply and energy costs should not be conflated or used to deflect from addressing fundamental problems in how capacity is procured.

The security of supply crisis in the Irish energy market relates to the fact that we cannot generate enough megawatts (MWs) to meet the country's electricity demand, particularly on calm days. This is a result of the CRU and SEMC not putting in place sufficient and adequate policies to meet the country's future electricity MW demand. First and foremost, it is primary responsibility of the CRU and SEMC to ensure security of energy supply. But instead, the CRU and SEMC have persisted with defective policies (e.g. lack of indexation in previous auctions) without testing the commercial viability with financial institutions.

Grange predicted and forecast the 2019 T-4 2022-23 auction failure as far back as 2014 which is the origin of the current security of electricity crisis. The company made many submissions from 2014/2015 where the same issues were discussed in detail. So, it is very surprising that we are revisiting some false assumptions in the current BNE consultation e.g., attributing values to inframarginal rent and DS3/ system services which cannot be quantified. Banking and financial institutions do not accept same for quantity risk that cannot be guaranteed in order to avoid project financing default. The capacity signal has to be sufficiently strong to satisfy financing on its own.

The pattern of behaviours of the SEMC has been to consistently defer to the incumbents, play devil's advocate, argue and ignore the advice of new entrants at its peril, essentially creating policy that was built on sand and not proofed by the banking and financial institutions. This leads to market foreclosure, anti-competitiveness by the incumbents and distortion of the market at a cost to the end consumer.

In case there is any misunderstanding or confusion about the history of the matter, we have attached Appendix 1 as a sample correspondence to demonstrate that the energy security crisis is homemade, it was predicted and it illustrates the poor judgment shown by the CRU and SEMC over the years.

For the benefit of the reader and provide a more comprehensive understanding of the current electricity supply crisis, we draw your attention to two recent Committee on Environment and Climate Action meetings:

Topic: Engagement with the Commission for Regulation of Utilities (20 Sept 2022)

<https://www.oireachtas.ie/en/oireachtas-tv/video-archive/committees/6368>

Topic: Engagement to discuss Energy Security (30 August 2022)

<https://www.oireachtas.ie/en/oireachtas-tv/video-archive/committees/6319>

Specific Comments on Consultation Paper

With reference to this consultation, we have reviewed same in detail. It should be noted that the business environment we are living in today is not business as usual and a realistic belt and braces approach must be employed to ensure that there is a 100% successful outcome of future auctions i.e., delivery of the required MWs.

There are two additional matters that are contributing and having an impact on costs namely:

1. Raw materials availability (and cost)
2. Production cost of steel which is linked to gas prices. For example, Germany's second largest steel mill in Hamburg is mothballed at present.

We have seen a doubling of grid and civils connection costs for renewables projects in the past 12 months.

There are several major inaccurate assumptions in the CEPA/Ramboll assessment that only an on the ground developer would know and we have provided some advice on these matter below. While the consultants discuss in detail the intricacies of the various elements of different technology power plant solutions from a hypothetical perspective, the most obvious question is does this analysis provide a sufficiently strong market signal for new entrants to enter the market? The market will consider the market context in its entirety and if the market signal is not sufficient and adequate for the financial institutions to lend against, then the market will decline to engage resulting in another auction failure and ultimately blackouts.

There are a number of levels of financial screening which must be undertaken to reach financial close and ultimately secure new utility investment:

1. Screening by the OEM on the economic viability of a project.
2. Satisfy OEM senior risk committee review to make a firm bid which is needed for financing.
3. Satisfy credit risk committee approval by the banking/financial institutions.

If the BNE cap is set too low i.e., at a point where the OEM, banking/financial institutions and developer cannot earn a reasonable return on their investment, the market will refrain from responding. We recommend that SEMC stress test the BNE cap and make sure it is set at a level that

will deliver new investment, rather than a repeat of previous auction failures. The cost to the consumer is a very important consideration, but it must be a secondary consideration to the real risk of blackouts.

It is of critical importance to the Irish State and the Government of the day that the collapse of the 2019 T-4 2022-23 auction is **not** repeated and lessons are learned. There is no room for further failure.

Therefore, we strongly recommend that this analysis is further stress-tested with the expertise and knowledge of financial banking institutions and banking advisors.

You have requested comments on the cost estimates, revenue structures and methodology in the CEPA/Ramboll study, and we give feedback on this below.

1 Feedback on Reference Technology Selection

We disagree that a 200MW SGT5-2000E OCGT would be the technology of choice for a rational investor in the Irish market. A rational investor would more than likely look at the 220kV system for fear of constraints.

A number of 50-60MW OCGT units installed alongside each other would be a more realistic reference point for the study, such as the SGT800 units shortlisted in the report.

Some rationale for this as follows:

- The minimum generation set out in the grid code would mean a 200MW GT would have to run at ~100MW, providing no operational flexibility to the site operator or the system operator. Exemptions from the grid code would have to apply, or more rationally, smaller units coming on in sequence are preferred.
- Having more than one unit provides redundancy in the event of a unit being offline.
- From an operational point of view, one generator can act as a reference point for the other for monitoring and maintenance purposes.
- There is a long lead time on larger 200MW units and the associated trafos and switchgear. Smaller units are somewhat easier to procure and construct, especially on a T-4 auction timeline.
- Smaller units can provide system services with more flexibility and in smaller volume increments due to the smaller size but also the faster ramp rates and start times observed.
- Smaller units can more easily be retrofitted or reconfigured to meet future needs including e.g., hydrogen readiness or emissions abatement or hybrid configurations.
- The 110kV network would struggle to accommodate 200MW MEC at a single in-feed, it is much more feasible to connect smaller units on a modular design basis.
- The market evidence in recent years in Ireland supports the case that smaller units are the technology of choice – there has been very little development proposing 200MW units to our knowledge, the majority of sites advanced are for ~50MW OCGT units.

2 Feedback on Capital Fixed Costs

2.1 EPC contract

As outlined above, if the reference technology choice is wrong, then the EPC costs do not reflect BNE. We trust that pricing will be updated to reflect this and also to adequately reflect inflation.

It should also be noted that there is a new development in the market. The form of contracting has changed and many of the major OEMs are refusing to undertake Turnkey EPC work due to associated risk. Many of the OEMs are only delivering the power train to site and it is up to the developer to install and commission. This is another cost centre that has been omitted in the EPC calculation (Section 4.1) that has an additional layer of project management, conceptual engineering, basic and detailed engineering and the sizing, procurement and integration of the balance of plant equipment.

We suggest an additional 20% engineering and project management cost centre is added to the EPC costs to address the market engineering delivery issue.

2.2 Site Procurement

It is not rational to use agricultural land values.

Favourable sites will require inter-alia good setback distances from houses (at least 250m), good access, industrial zoning and gas, water and electrical utility services. Therefore, there are a limited number of suitable sites available as the Irish countryside has a lot of one-off housing.

A rational landowner will not dispose their well-located lands for a power plant at agri-values.

Local authorities in south county Dublin for example charge €350k/ac. Refer to South Dublin County Council CEO Order dated 3/5/2018 to dispose of a serviced site for €350,000 / acre for an OCGT plant.

We also note that the land acquisition excludes a substation site. In our experience EirGrid will typically require the freehold purchase of a further ~6ac for a standard AIS 8-bay substation, and this is non-negotiable. See below also feedback on connection costs.

In total about 15ac would be required for a 200MW OCGT, with a site procurement cost of €5.25m.

2.3 Electrical Connection Costs

We do not agree that the reference scenario should be a new line bay in an existing 220kV substation.

In our experience, there are almost no such sites.

The vast majority of new generation at this scale have to carry more than the €6.7M suggested.

We are seeing the need for significant new infrastructure:

- New 220kV GIS loop-in substation
- New 110kV GIS loop-in substation
- Existing 110kV not fit for purpose and has to be expanded and upgraded.

It costs circa €1M per kilometre for a 110kV underground connection and assume it could be up to 10km to the nearest node. There will be a need for an onsite tail fed substation (estimated €8M) and

bus bar extension works (estimated €4M) with associated land acquisition costs (circa 3 acres). These numbers quoted are relatively current from ESB standard charges.

It is also wishful thinking that 5km of 220kV overhead line and towers would be consented for planning within a reasonable timeframe to deliver for T-4 auction. Connections of this length have to run by underground cable.

We estimate the connection costs to be €25m for a 220kV substation with a short cable run to the existing line. These numbers are live in the market at present.

2.4 Gas Connection

The transmission gas network in Ireland is limited. We consider the 2km assumption to be much too short and suggest 5km is a more realistic distance to get to the transmission network. This should be calculated at circa €2M per km, allowing for hot gas AGI for circa €5M to tap into the transmission line which has been omitted. This would mean a gas connection cost of €15m which is consistent with our commercial experience across different projects to-date.

3 Market and System Services Revenues

3.1 Inframarginal Rent

As acknowledged within the consultation document, the inframarginal rent is likely to reduce over time as run hours decrease for new OCGT but this is not reflected in the modelling. The base case should be changed to assume no inframarginal rent as the banking and financial institutions will not finance based on a revenue stream that cannot be quantified or is susceptible to major fluctuations, as it would put a project at major risk of default.

3.2 System Services Revenue

We disagree with the assumption that DS3/system services revenue are going to be maintained from 2026/27 through to 2035/36.

It is common industry knowledge that the system services maximum budget is being shared among more generators with each passing year, moving the individual generator payments downwards.

As with the inframarginal rent, the banking and financial institutions will not provide finance based on this revenue stream that also cannot be properly quantified and is subject to major fluctuations. There should be no value put on DS3/ system services in the BNE.

Any bank or funder will test the robustness and solidity of a project to meet its interest and principal repayments and meet its debt service cover ratios. It will not entertain bespoke home bake policies of what the SEMC might like or CEPA/Ramboll's theoretical hypothetical scenarios.

There are strict rules for financing such large-scale infrastructure investment. Once again, we strongly recommend that an additional exercise is undertaken by a financial corporate bank to test the BNE assumptions.

Conclusion

The collapse of the T-4 2022-23 auction which ran in 2019 and the failure of ISEM to take advice on board regarding the auction design has caused a significant embarrassment to the Irish Government and State that could have been avoided. The current security of electricity supply crisis will cost at least €800M to the Irish consumer (for emergency gen sets) with the ongoing risk of blackouts and the damage to Ireland Inc's reputation for foreign direct investment (FDI).

Therefore, it is vitally important that the next auction does not fail. There is genuine industry concern regarding the T-4 2024-25, T-3 2024-25 and T-4 2025-26 auction implementation due to a lack of indexation on the awarded capacity contracts.

The electrical system is operating on very tight margins and we urge SEMC to stress test the BNE cap and make sure it is set at a level that will deliver new investment, rather than a repeat of previous auction failures. Another auction failure will lead to blackouts and cause a significant Government problem that will not be welcomed. The matter is of such critical national interest that the Government have commissioned the former Secretary General of the State Mr Dermot McCarthy to carry out an independent investigation on the cause of the current energy crisis.

In light of critical importance of this issue, please note that we will be circulating this submission to An Taoiseach, An Tánaiste, the Minister for the Environment, Climate and Communications, the Secretary General of DECC, the leader of Opposition parties and the Chair and members of the Committee on Environment and Climate Action.

We sincerely trust that our advice will be taken on board.

Yours faithfully,



Richard Walshe
CEO ART Generation Limited

Appendix 1 attached (as Zip file)

Grange Sample Correspondence (2014-2016)

Grange Backup Power Ltd

c/o Synergy Global
3015 Lake Drive, Citywest, Dublin 24

Mr Andrew Ebrill,
CER,
The Exchange, Belgard Square,
Tallaght,
Dublin 24

5th Jan 2016

Re: Follow-up Bilateral Meeting 14th December 2015

Dear Andrew,

Further to our meeting on 14th December 2015 in CER office in Tallaght and our subsequent telephone conversation on Friday 18th December 2015, I was disappointed in the content of the draft consultation paper. It made no allowances for New Entrants despite the fact that Grange made an extensive submission in June 2015 on the market powers mitigation measures. A copy of this submission was given to Mr James Curtain at our meeting. No provision has been made in the recent paper to address our concerns relating to New Entrants. Much of this paper is focused on the various markets and protecting the electricity consumer against price spiking which is desirable. However, this is little value if New Entrants cannot enter the market due to market foreclosure and extensive barriers to entry.

We are at a loss to understand why there is such a limited focus in this paper on protecting the electricity consumer against the incumbents on a Short Run Marginal Cost Basis instead of taking a longer term view and promoting competition with New Entrants. Market power has many forms and can be exercised by having limited number of participants in a market. The argument that it is not the responsibility of the Commission for Energy Regulation (CER) to give guaranteed returns to New Entrants has been verbalised by yourself. However, it appears acceptable to waste Irish consumers' money to support plants that are up to 50 years of age now when security of supply is not an issue (as illustrated in a recent paper (CER/15/284)). The inefficiencies of these old plants are a cost to the consumer and affect interconnector flows. The SEM Committee stands idly by allowing this situation to occur. A cost benefit analysis would demonstrate that the benefit of a few new plants to the system would significantly outweigh the cost of maintaining and supporting repaired, retrofitted clapped out banger plant(s). Indeed by extrapolation of this approach, no new long term strategic investments would be realised. This is a perverse and biased view by the SEM Committee.

There is a continuous reluctance by the SEM Committee and the TSO to accept the need for New Entrants and support their entry into the market. There seems to be a misconception among the SEM Committee that New Entrants are a cost to the electricity consumer and that they are getting privileged and preferential treatment. In fact, the SEM Committee are giving preferential treatment and cost advantages to the incumbents through by their inaction (i.e. the 'do nothing approach to make a sustainable economic case') to implement appropriate policy in a timely and effective manner to address the issues for New Entrants and level the playing field. This reluctance to assess on a Long Run Marginal Cost Basis the cost savings that new plants would bring to the system is imbalanced myopic. EWIC's preferred treatment and involvement in the new DS3 and its volume rights have not gone unnoticed either. We believe that the SEM Committee's biased and prejudiced approach against New Entrants with the lack of appropriate, clear and objective policy to support same is in direct

conflict with EU Directives. This is further illustrated in the Market Power Mitigation paper (SEM-15-094) and ‘---aggregation of distributed generation---’ and ‘*The benefits of greater demand side management could include avoided investment in peaking plant-----*’ (i.e. Clause 2.4).

As I indicated, it is with regret that Grange is left with no option now but to raise the matter directly with the European Commission. It is worth noting that energy is a priority sector in EU competition enforcement. Grange feels let down by the lack of support from the SEM Committee for New Entrants. This is despite the matter having been raised continuously over the past two years through face to face meetings, workshops and numerous submissions and correspondence. While New Entrants are mentioned as a token aside in some papers, there is no tangible and realistic entry roadmap being provided. It is clear from the recent ‘Review of Connection and Grid Access Policy’ (CER/15/284) paper that flexible generation capacity is desirable ‘*in particular flexible generation capacity, is needed to facilitate an increase in System Non-Synchronous Penetration (SNSP) and to release the benefit of renewable generation for the market*’. Grange can provide this flexibility, has planning permission and full firm access quantity (FAQ).

To recap on a few of the salient points discussed during our meeting and expand on others:

1 Exit signals

A clear definable exit signal should be implemented (e.g. all plants should be retired at 35 years of age and not benefit from any supports thereafter; plants are fully depreciated on a 30 year plant life cycle in accounting terms or at least be required to demonstrate their fitness for purpose). The determination of the competitive strike price will also facilitate exit.

There are 3,000 MW of plant over 30 years of age and at least 1,000 MW of plant close to 50 years of age now (these plants will be close to 60 years of age by 2024). These plants over the past number of years have benefited from substantial capacity and Harmonised Ancillary Services (HAS) payments. For example, we are aware of one plant which was paid €36M for 23h running time in recent years. There should be clear signals for such plants to exit the market as these old plants are a cost burden to the consumer and prohibiting competition.

The TSO’s flawed analysis that ‘*there is a significant capacity surplus, both in terms of dispatchable generation and total plant on the system*’ is incorrect (Generation Capacity Statement 2015-2024). On this basis, all plants are built for perpetuity and this thinking is not in keeping with good modern National Fleet Power Plant Management and in fact is protecting the incumbents and prohibiting New Entrants that can provide these services and new competition. At the same time, EirGrid is promoting its own new 500 MW interconnector while the exit signals are being manipulated to give a false illusion that there is sufficient plant in the system currently. It is common knowledge that the existing plant is the wrong type of plant and increasingly becomes more inadequate as wind penetration increases. The manipulation of the entry and exit signals are acting as a dampener to weaken the business case for New Entrants, therefore protecting the incumbents while enhancing and benefiting the existing providers.

2 Entry Signals

To have a level playing field, there needs to be a separate category for New Entrants. The reason why there should be a distinct category for New Entrants is that the incumbents have a distinct cost advantage of at least 30% and these plants have no interest or debt repayments and are fully amortized. This means that no New Entrants can enter the market and the oligopoly remains in situ. The incumbents control the release and development of these strategic sites for their own benefit, therefore controlling market share which ultimately will result in higher prices at the cost to the electricity consumer.

The definition of new should mean new and should not mean old plant dressed up as new (i.e. the retrofitting of brownfield sites which have enjoyed capacity and HAS payments for many years). These plants are already amortized and it would provide an unfair and inequitable competitive advantage to the incumbents – essentially indirectly cross-subsidising the incumbents and be contrary to principals of fair competition. New in the true sense of the word should mean a new market participant who is not in the market already or with less than 5% market share, on a greenfield site with a new grid offer and has not received capacity or HAS payments previously. The incumbents will have built up significant war chests from the capacity and HAS payments that could be used to cross subsidise their own developments. This situation in part has been aided by the I-SEM delay go-live date derogation of 9 months.

We believe that there should be four different categories with a clear definition of each category to ensure optimum use of existing plants and encourage New Entrants:

- Existing 1 year rolling category
- 2-3 year retrofits/refurbished category
- 15 year + new entrant category
- Regulated tariff category.

3 Barriers to entry

Many of the proposals from the TSO and SEM Committee to-date concerning DS3 services actually hinder New Entrants from entering the market.

3.1 Regulated Tariffs

The latest proposals on regulated tariffs are a case in point. In the event that there is insufficient competition in the DS3 auctions, it is proposed that regulated tariffs will apply. The proposed regulated tariff structure is based on a one-year cost-plus approach. This is simply not bankable for New Entrants and increases the missing money problem, whilst favouring the incumbents. In essence, the provision of DS3 services and capacity is being assigned to existing players in the market (including EWIC as a price taker) and only if there is a shortfall will there be an opportunity for New Entrants to enter the scene. This approach puts the incumbents in a privileged position because their plants are already amortized and gives them an unfair competitive advantage over New Entrants. It also seems ironic that in the event that there is insufficient competition in the market (a market which is dominated by the incumbents), regulated tariffs will apply and which will further prevent New Entrants from entering the market.

To have a full and proper functioning market in this sector, barriers to entry need to be removed. It is not acceptable to have the incumbents (who have distinct infrastructure advantages - gas, grid, buildings, site which can have a cost advantage of up to 30%) pitted against New Entrants affording them a preferential competitive advantage and only promoting competition between the incumbents. Furthermore the incumbents have benefited for many years from capacity and HAS payments, and can simply undercut New Entrants to lock them out of the market as seen recently in Great Britain. It is not a level playing field to have such a material discrepancy allowed to develop against New Entrants.

Regulated tariffs should only be used as a last resort or as an interim measure while New Entrants are being built out until 2022. There should be a dual approach and we suggest 800MW of New Plant be planned and brought in to the New Entrant Independent Category in March 2017 to go live on the system in 2022.

Other barriers to entry working against New Entrants include:

3.2 Segmentation and fragmentation of DS3 services and the CRM

The splicing and dicing of investment signals means that a new entrant would need to win the CRM, be in the market schedule and win a large number of the 14 DS3 services to be financially viable. This is the equivalent of running the Grand National and if one misses a hurdle (contract), one fails. The auctions are designed to fail New Entrants. We suggest a separate combined auction with a single minimum bankable entry signal (e.g. Minimum Annual Required Return (MARR)).

3.3 Technology bias towards CCGTs

We note the SEM Committee's position that the procurement process should be technology neutral to allow all providers to compete on an equal basis (letter 10 August 2015) and we support this.

However, to be consistent, this neutrality policy should be applied to plant type and plant age – which it is clearly not. How can this be the case if the incumbents have first rights to the provision of these services while New Entrants are regulated to the bench – if they can make the panel at all? But now to add insult to injury, the SEM Committee has changed the definition of availability to favour combined cycle gas turbine (CCGT) technology with higher efficiencies – if/when running on base load - which is not technology neutral. CCGTs for all intents and purposes represent most of the base load plants in Ireland (excluding Moneypoint). The objective of a base load plant is to be running 8760 hour per year (less adjustment for maintenance) with a minimum amount of cycling. The higher the level of cycling the higher the stresses and degradation to the blades and cooling systems and the higher the probability of blade failure with catastrophic consequences (e.g. North Wall). These are costs that essentially will be passed on to the consumer should a plant be run in a manner that is detrimental to its base case design and operation.

Payment is now being proposed on an availability basis. Availability is now defined by the Regulatory Authorities (RAs) as the higher of market or physical running of the unit in any given time period. The previous standard generator definition of availability is that the unit is available to run but may not actually have market or physical running in any given time period. By granting CCGTs base load status – which we believe to be totally unjustified due to higher penetration of intermittent generation in the I-SEM and is therefore a false assumption - it means that 'CCGT base load plants running above 57% efficiency' can provide the bulk of DS3 services to the exclusion of new fast flexible plant. As stated in the 'All-Island TSO Facilitation of Renewables Report', the market requires fast flexible plant with excellent part load performance with short start-up times to support wind penetration. This design flaw of the new definition of payment linked to running is against the principle of the development of New Entrants facilities being able to finance their plants. The payment mechanism is unstable for the financial institutions to bank the plants but it does not matter for the incumbents as the plants are already built. Furthermore, if they have a lower efficiency in part load performance or indeed it may be preferable not to run at all as these plants are already paid for and can stay live by selecting a few DS3 products. It is pitting the new definition of availability and payment against New Entrants' financing.

This new proposed definition of availability should be amended or reversed and/or appropriate independent incentives implemented to increase new flexible plant in the system that complements and supports increased wind penetration. It is worth noting that fast flexible plant has the same operational capability of a car (stop/start) while base load plant, by definition, does not. Base load plant must remain on min generation load (approx. 20%) and that includes the entire cumulative national power plant fleet to the system which is obviously a significant cost in part-load mode. The optimum approach would be to have a good part-load performance of the base load plant, high wind penetration complimented with flexible plants. All old plants that provide little support to the system should be made redundant in the interest of cost-savings to the consumer. There should be appropriate provision made to encourage and support fast flexible plant. Fast flexible plant by definition have a lower efficiency than 'CCGT base load plants running above 57% efficiency' and will not be in the

market schedule unless constrained on and therefore cannot supply many of the DS3 services. Therefore, these revenue streams are not available to a fast flexible plant which impacts negatively on bankability. We reject the assumption of ‘CCGT base load plants running above 57% efficiency’ due to minimal levels of base load running for these plants as wind penetration increases.

Essentially the SEM Committee is giving preferential treatment to incumbent CCGTs. Equally so, the only new plant that can be built are by the incumbents on their sites who are already in the market schedule due to cost infrastructure advantages and plant amortisation. These brownfield sites can be withheld from the market to maintain market share and prices and could be a form of market power. We suggest payment provisions are not linked to availability for the first 15 years for New Entrants but a clear predictable price which is indexed (e.g. MARR).

3.4 Incomplete evaluation analysis

From an economic perspective, it is our considered view that base load and stretches of steady running by CCGTs will be very scarce in the I-SEM, thereby eroding the apparent advantage of higher efficiency CCGT plant. In effect, low part-load efficiency, high start-up and no load costs, plus inherent inflexibilities due to minimum generation and slow start-up times will all erode the advantages of CCGTs. In contrast, fast flexible gas-engine plants like Grange will have a significant advantage in these areas but we cannot see how the proposed methodology for the auctions will capture these cost advantages for the consumer under the present proposals. All power plants operating in the I-SEM will have a capacity contract and/or a DS3 contract and hence the customer must pick up the attendant costs (energy and dispatch balancing costs). The point is that the lowest cost plants that win capacity + DS3 contracts may not in effect be the optimum portfolio that delivers the overall lowest costs to the consumer when all costs - capacity, DS3, energy and dispatch balancing costs - are considered and properly taken into account.

If EirGrid/RAs/SEM Committee all want the lowest cost electricity for the consumer – as they claim and we believe this is their intention – then they must ensure that the auction rules’ design and methodology takes all costs into account in its evaluation and determination of the winning plants – and not just the capacity and DS3 auction prices. The well recognised ‘missing money’ problem for New Entrants needs to be addressed through an appropriate MARR. Capacity and DS3 annual costs are likely to be about €20+ million in the I-SEM while energy and dispatch balancing costs can be more than twice that figure – hence the importance of taking account of these in establishing auction winners. If the results of the auctions are based solely on the lowest aggregate capacity and DS3 costs – rather than the lowest total cost – then the Irish electricity consumer will have been duped and all economic rationale will have been thrown out the window.

A further serious flaw in the economic analysis for procuring both capacity and system services is the short timeframe being considered – for example the latest year for which DS3 volumes were calculated was 2019/20 (c.f. ‘Consultation on Volume Calculation Methodology and Portfolio Scenarios’). With such a short timeframe being considered existing plant will always win out – but over a longer term timescale, as should be the case, the answer is almost certainly very different. This short timescale gives an unbeatable advantage to the incumbents over the short term to continue with their high cost strategy, to the detriment and abuse of the Irish electricity customer however unwitting over the longer term and the inevitable lockout of New Entrants. It is noteworthy that in their ITC modelling in 2008/9 EirGrid and the CER correctly decided on a timeframe out to 2025 (CER/09/191), but in recent times by adopting a very short timeframe economic rationale has been jettisoned to the benefit of incumbents and the detriment of Irish electricity consumers. It is difficult to see how the proposed rules for procurement of capacity and DS3 are consistent with the stated overall aim of the CER’s economic role namely ‘*to protect the interests of energy customers, maintain security of supply, and to promote competition in the generation and supply of electricity and supply of natural gas*’.

3.5 Increase in MEC

The paper (CER 15/284) proposes to increase MEC by 10% for all existing generators. This again dilutes the investment signals for New Entrants and demonstrates preferential and privileged treatment of the incumbents. In some cases, this would represent substantial increases in MW for the larger CCGT plants. This constitutes an unjustified barrier to the market for New Entrants contrary to EU free movement and competition law principles. Obviously all incumbents will welcome this proposal except New Entrants.

4 Market competition

The requirement for New Entrants is specifically provided for in legislation. However, this is not being translated properly into appropriate policy locally. It is worth remembering some key legislative obligations that the SEM Committee is obliged to adhere to:

1. Under SEM /13/009 The SEM Committee Statutory objectives and duties are outlined and the SEMC are required to consider that: *'To secure that authorised persons are able to finance their activities'*.
2. Legal duty upon SEM Committee under 3rd Electricity Directive to facilitate New Entrants, e.g. Recital 12 : *'Any system for unbundling should be effective in removing any conflict of interests between producers, suppliers, and TSOs.....to create incentives for necessary investment and Guarantee and access of new market entrants'*.
3. The SEM Committee is also subject to EU Competition law and should neither *'enact or maintain in force any measure'* contrary to EU Competition law.

The SEM Committee has a duty of care to all stakeholders to ensure that they are treated in a fair and equitable manner. We believe that the SEM Committee will become negligent if appropriate and sufficient action is not taken to ensure that New Entrants are treated in a fair and reasonable manner.

5 Bankability

Banks require certainty to lend money to New Entrants. It is important to recognise that unless long term contracts (15-20 years) with a reasonable MARR are provided, there will be no financing of these projects and therefore no New Entrants and new competition in the thermal sector. Typically for New Entrants (which the CER is already aware of from the Aughinish Alumina & Tynagh projects), market entry signals with a minimum IRR of 12% are required for hurdle investment rates and lending. Simply put if the entry signal is not strong enough, no New Entrants will come into the market which leads to protectionism of the incumbents as their market shares are maintained at a long term cost to the electricity consumer, market foreclosure to new competition, inefficiencies of old plant and lower penetration of wind.

6 Timing

If the auction is designed properly and a new entrant did win a contract, the earliest any new entrant could enter the market would be 2022/2023 (which essentially is 6-7 years from now). This will increase the average age of the existing plants (some plants will be up to 60 years of age by then) and decrease performance of the national fleet and flows of the interconnector negatively unless the average age of the fleet is decreased. This is based on different efficiencies and marginal costs in the two market jurisdictions.

7 Recommendations

In designing the auction and connecting the various work streams, below is a summary of our key recommendations. Primarily a separate competition category would address many of the issues facing New Entrants currently and level the playing field.

1. 15% or 800 MW of New Entrants volumes reserved for new CRM & DS3.
2. Exit signals for plant above 35 years of age and a competitive strike price for the Reliability Option (RO).
3. A combined independent integrated auction category for CRM & DS3 services with defined volumes and a defined pot for bankability. A New Entrant will need both revenue streams and by fragmenting and segmenting the revenue across CRM, ETA and DS3 (14 services) the process becomes a barrier to entry through its complexity.
4. Minimum Annual Revenue Requirement (MARR) amounts for CRM and DS3 services (combined) for bankability.
5. Index linked revenues to provide economical sustainability.
6. Fifteen year contracts to allow for bankability.
7. Criteria for New Entrants should be consistent with CER/09/191 or applicants in receipt of new connection agreements or not already providing harmonised system services to be fair and reasonable to those applicants that were already successful.
8. Non-eligibility of retrofits in new auction category to provide a level playing field.
9. Auctions in blocks of 20 MW-50 MW to avoid one player taking the entire market with a large plant.
10. Appropriate procedures to avoid manipulation of the bidding process by old retrofit plants dressed up as new to level the playing field.
11. There should be a clear definition of each category to ensure optimum use of existing plants and encourage New Entrants:
 1. Existing 1 year rolling category
 2. 2-3 year retrofits/refurbished category
 3. 15 year + new entrant category
 4. Regulated tariff category.

Conclusion

The Irish electricity market as it stands is foreclosed. Unless the various work streams are connected and a holistic view taken, the market will remain foreclosed and the existing oligopoly will remain in situ. While we welcome the SEM Committee's objective to promote competition, this has to be matched with appropriate action to have a true open market. Provisions need to be put in place for a separate auction for New Entrants and bankability with a separate distinct category to have a level playing field. The entry signal for New Entrants must be sufficiently strong for a project to be economically viable (reasonable MARR). Otherwise, foreclosure of the market will remain in place and indeed market failure will occur again as happened in 2004 when Aughinish Alumina and Tynagh had to be awarded Virtual Independent Power Producer concession contracts. This impacts negatively on competition and the electricity consumer ultimately pays.

It should be noted that Grange is not looking for preferential treatment but fair and equitable treatment.

We look forward to your support in addressing the policy deficiencies for New Entrants.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Richard Walshe". The signature is fluid and cursive, written on a light-colored background.

Richard Walshe

CC:

James Curtin (CER)

Gonzalo Saenz (CER)

JP Miura (UR)

Joe Craig (UR)

Atilla Hajos (CEPA)

Andrei Vladareanu (CEPA)

Mo Cloonan (CER)

Andrew McCorriston (UR)

Elaine Gallagher (SEM Committee).

Grange Backup Power Ltd

Synergy Global, 3015 Lake Drive, Citywest, Dublin 24

Ms Mo Cloonan
Commission for Energy Regulation,
Exchange Square,
Tallaght,
Dublin 24.

24 Nov 2015

Dear Mo,

It was nice to meet you briefly in Dundalk on 12 November 2015.

First of all, I would like to take the opportunity to welcome you to your new position.

As you will have gathered, there are a number of serious concerns for bankability/revenue certainty in the development of new plants for new entrants. New entrants believe that they are being undermined by the TSO approach and their requirements are not being properly addressed in the consultations, presentations and workshops. The concerns of new entrants are not new. There has been a significant amount of correspondence and numerous meetings between Grange and the CER and the SEM Committee on this subject. Moreover, it is over two years since Grange submitted a detailed Legal Opinion outlining the competition concerns with the TSO's proposals. Despite this engagement, there has still not been a satisfactory resolution to many of the concerns that Grange has highlighted to the SEM Committee and the TSO in recent years.

In this letter, we describe briefly the main concerns and the recommendations that we are proposing to enable new entrants to provide a truly competitive market on the island of Ireland. We also enclose for your information the most important correspondence to date. In our view, there is a limited window of opportunity for the SEM Committee to act in order to resolve these concerns and a failure to avail of it will leave new entrants with little choice but to bring their concerns to the attention of the European Commission. It is our hope that this letter will provide the SEM Committee to take the necessary steps to avoid such a situation.

1. Consultation process fundamentally flawed

The consultation process on the island of Ireland has turned out to be wholly inadequate. Instead of providing new entrants with clear market signals, the TSO and Regulatory Authorities have lurched from one consultation to the next – with no end in sight. Of course, regulatory inertia is not bad news for everyone. For the incumbent and large generators already in the market, it provides a boon for profits as new entrants are kept out of the market for years. Unlike those already in the market, new entrants cannot wait for years on end for a decision to be taken on the market structure.

There is also a serious communication disconnect between the SEM Committee and TSO on the matter of new entrants. The SEM Committee seems to have sub-contracted the TSO for the entire auction process. The TSO has interpreted this as a right to advance their own agenda,

paying lip service to new entrant suggestions and recommendations. Consultations and workshops seem nothing short of public relation exercises for the TSO to present a *fait accompli* system and are fast becoming a waste of time and money for all parties concerned as submissions and suggestions by new entrants are not being properly considered and reflected in Consultation papers and decisions.

Given these factors, the time has come for the SEM Committee to recognise that the current approach to consultations has not worked and to put forward a concrete proposal dedicated to new entrants that would facilitate their entry onto the market. It is also incumbent upon the SEM Committee to vet any proposals to see if they take into account the position of new entrants.

2. Failure to provide tariff proposals that facilitate market entry

Turning then to the content, many of the proposals from the TSO and SEM Committee to date concerning DS3 services actually hinder new entrants from entering the market.

The latest proposals on regulated tariffs are a case in point. In the event that there is insufficient competition in the DS3 auctions, it is proposed that regulated tariffs will apply. The proposed regulated tariff structure is based on a one year cost plus approach. This is simply not bankable for new entrants and increases the missing money problem, whilst favouring the incumbents. In essence, the provision of DS3 services and capacity is being assigned to existing players in the market (including EWIC as a price taker) and only if there is a shortfall will there be an opportunity for new entrants to enter the scene. This approach puts the incumbents in a privileged position because their plants are already amortized and gives them an unfair competitive advantage over new entrants (at least 40% advantage if those plants are allowed to retrofit against new entrants). It also seems ironic that in the event that there is insufficient competition in the market (a market which is dominated by the incumbent), regulated tariffs will apply which will further prevent new entrants from entering the market.

We note the SEM Committee's position that the procurement process should be technology neutral to allow all providers to compete on an equal basis (letter 10 August 2015) and we support this. However, to be consistent, this neutrality policy should be applied to plant type and plant age – which it is clearly not. How can this be the case if the incumbents have first rights to the provision of these services while new entrants are regulated to the bench – if they can make the panel at all? Existing plants with their inherent cost competitive advantages of amortized plant of up to 40% (including grid, gas, cooling water, property, buildings and economies of scale) are pitted directly against new entrants. One size does not fit all and a rebalancing provision should be made to have a level playing field for new entrants with a dual approach back to back for incumbents and new entrants. This would ensure that the services are procured on an equal basis.

Similarly, there is a misconception that new flexible plant are a significant cost addition to the consumer and that the most cost-effective way to provide these services is from old inefficient plant. This is also a false assumption and is based on a myopic perspective of the market. The SEM Committee is in fact giving preferential treatment to a particular class of plant, namely the incumbents and discriminating against new. It should be noted that we are aware of one plant that secured circa €36M for 24h running time in one year in recent years. These plants have enjoyed decades of accumulating capacity payments while providing little support to the system. It is not unreasonable that these plants would now devise a predatory pricing strategy

of undercutting new entrants with past accumulated profits. In fact, the cost to the consumer will be reduced by fast flexible plant because it complements the low cost producer which is wind; studies from Sustainable Energy Authority of Ireland (SEAI) have confirmed this. The CRM signal is insufficient to facilitate new entrant to the market, as it is too weak and not bankable due of the missing money problem. For this reason, there is a requirement for a long-term DS3- CRM combined auction as a separate independent category and thereby addressing the missing money problem gap. There is unlikely to ever be a strong enough market entry signals for new entrants to enter the market because the CRM signal is insufficient on its own, and hence the need for a DS3 – CRM integrated approach.

To compound matters, it would appear that the TSO is doing a solo-run on this conceptual marginal approach for regulated tariffs and without proper direction from the SEM Committee and Regulatory Authorities. Legitimate concerns and recommendations of new entrants are not being taken on board. This is despite detailed presentations given by various new entrants in Ballymascanlon House including Grange and our technology partner in November 2014. There is a marked reluctance on the part of the TSO to even answer straightforward questions where these could be interpreted as supportive to new entrants. It is unacceptable that there is approx. 3,000 MW of plant in the system 30 year-old or more being paid capacity payments and now being offered first option rights for DS3 services at the cost the consumer. In sharp contrast, new entrants - which encourage competition and lower the price to the consumer through efficient new technology - are not being offered any reasonable contract terms in the current auction design. It appears that the TSO is giving the existing plants the first rights of supply while treating a new entrant's capability and requirements as secondary.

This does not make any sense. This approach is deliberately diluting the demand for new plant and is a barrier to entry and not in the best interest of the consumer. This favourable treatment of old plant is inconsistent with the principles of accounting depreciation of equipment (usually on 30 year basis) and good fleet management practices as seen in other sectors of the economy (e.g. aircraft, automotive, rail travel or agri sectors). Moreover, from a competition law perspective, this approach also appears at first sight to be illegal as it essentially amounts to an attempt to foreclose new entrants to the benefit of the incumbent and existing market players.

It is, therefore, necessary for the SEM Committee to put in place a tariff structure that is fair and equitable for new entrants.

3. Segmentation of DS3 services a barrier to entry

The segmentation and fragmentation philosophy approach for the fourteen DS3 services is also not bankable for new entrants.

The “slice and dice” approach for DS3 services has materially damaged the business project finance model for new entrants because a new plant could not be financed on the back of a contract for a small number of System Services. It is recognised that the system needs fast flexible plant to cater for the increased penetration of wind and yet no proper design incentives for new plant are being properly co-ordinated with the CRM and integrated with the DS3.

The current proposals are also a direct contravention of the TSOs' own “All-Island TSO Facilitation of Renewables Studies” published in June 2010 which state (on page 57) regarding investments and further development of the conventional power plant Portfolio – “*Important aspects are the flexibility of the plant mix, sufficient peaking capacity and granularity of the*

portfolio. Construction of inflexible and large units (multiple 100 MW range) might be discouraged by the regulative framework”.

The stark situation facing new entrants can be seen in the following realistic analogy arising from the current proposals. In order to simply to enter and survive in the market, a new entrant would have to win every competition (that is a CRM contract, a DS3 contract, be in the market schedule and deliver most of the fourteen DS3 services) against the backdrop of artificially low volumes by recognising 30 year-old plants. What is proposed means that new entrants only get the volume left-overs after the incumbents have provided the vast majority of the services and EWIC picks up the bulk of the remainder as a price-taker. The volume of new plant requirements are only known then which is a false methodology which protects old and inefficient plant at the cost of the consumer.

4. Duration of contracts to ensure bankability

Contracts have to be of reasonable duration for bankability (circa minimum of 15 years as with wind). Grange has already written extensively on this topic.

It was surprising then to hear at the recent meeting that one the regulatory authority personnel thought a new plant could be financed on 3-5 year basis and still be competitive in the market, which would indicate a significant lack of project finance understanding. We have previously advised the CER to bring in banking experts in this regard. Banks require certainty and minimum guaranteed annual amounts to ensure that a plant can meet its principal and interest repayments.

Nor is this link between duration and bankability something new. The CER management already recognised the principles of project certainty and bankability as far back as 2003 and awarded 10-year contracts to Tynagh and Aughinish Alumina. There seems to be a lack of financing capability in the CER and SEM Committee of late and no consistency in the approach being taken. It is time for a simple concrete proposal to be put in place to ensure that new entrants have long-term contracts that enable them to get the necessary investment.

5. Competition and new entrant flexible plant

One of the governing principals of ISEM is to encourage competition. Indeed, this is further reflected in the ISEM objectives to ensure that applicants can finance their activities thereby encouraging competition. There can be no competition if the entry signals are so weak, volumes so low, the missing money problem so large and regulated tariffs awarded on an annual basis which means that projects are not bankable. This is further complicated when payments are made on an availability and scalar basis.

These are all market barriers to entry for new entrants. Despite these issues being raised numerous times at many conferences/meetings and in correspondence over the years, it beggars belief that there is still such a disconnect internally between the SEM Committee, the RAs and TSO to properly design a market auction that is fair, reasonable and equitable for all, including new entrants.

It will be a resounding failure for the SEM Committee, Regulatory Authorities and TSO if a reasonable level of new entrants fail to win auction contracts on fair and equitable terms having regard to the capital costs associated with market entry. How can the market be said to be

competitive if new entrants are not even able to compete on it? The Irish market is at risk of becoming a model example of market foreclosure.

The manifest failure by the SEM Committee, Regulatory Authorities and the TSOs to assist new entrants appears to contravene the obligations of EU law. As explained in the Legal Opinion of 2013 and subsequent correspondence on the point, the preferential treatment by the TSOs of their own operations in the EWIC almost certainly amounts to a serious infringement of EU competition law. It is therefore incumbent upon the SEM Committee and the Regulatory Authorities as well as the TSO itself to take measures that facilitate market entry and make the market a truly competitive one.

6. Recommendations

Grange believes that a dual approach can be achieved to accommodate a balanced approach between the incumbents and new entrants and not solely focusing and adopting a controversial position of one size fits all. Grange has previously provided detailed submissions on how a number of simple measures could resolve many of the competition concerns and send the right market signals to allow investment in new efficient plant that can only benefit the Irish consumer in the long term. These recommendations can be summarised in the following ten action points:

- (i) An additional separate auction for new entrants;
- (ii) A combined integrated auction for CRM & DS3 services with defined volumes and a defined pot for bankability;
- (iii) Minimum guaranteed revenue amounts for CRM and DS3 services (combined) for bankability;
- (iv) Index linked revenues;
- (v) Fifteen year contracts;
- (vi) 15% of the volumes reserved for new CRM & DS3 entrants consistent with the philosophy and approach taken by the Belgian Regulatory Authorities recently;
- (vii) Criteria for new entrants should be consistent with CER09/191 or applicants in receipt of new connection agreements or not already providing harmonised system services;
- (viii) Non-eligibility of retrofits in new auction;
- (ix) Auctions in blocks of 20 MW;
- (x) Appropriate procedures to avoid rigging and manipulation of the bidding process by old retrofit plants dressed up as new.

Grange will be happy to provide more detail on each of these proposals.

7. Conclusions

In conclusion, the manner and treatment of new entrants to-date has been very disappointing and unsatisfactory. The SEM Committee has had ample time and opportunity to take on board new entrants requirements but has failed to act to-date. In Grange's views, we are now at a cross-roads. Either the SEM Committee takes responsibility for designing a competitive market that facilitates new entrants or the new entrants such as Grange will have no option but to ask the European Commission to do so. The recent decision of the Commission concerning Starbucks and its opening of procedures against dominant undertakings shows that it, at least, is prepared to hold those who stifle competition to account.

In Grange's view there is still time for SEM Committee to avail of the first option but time is now of the essence. A proper co-ordinated approach with clear leadership and instructions to the TSO must be implemented. The above ten recommendations would go some way to addressing the imbalance in the market for new entrants while at the same time providing the necessary system services at a lower cost to the consumer.

We wish to be constructive, and with that in mind, we would appreciate if you could arrange a meeting with all the appropriate personnel. We are happy to meet in Dublin, Dundalk or Belfast at the earliest convenience. Your support on the matter would be much appreciated.

We look forward to hearing from you regarding some dates.

Yours sincerely,

Richard Walshe Peter Duffy

Grange Backup Power Ltd

Attachments:

Letter to Robert O'Rourke dated 17 June 2015
Legal Opinion September 2013

CC:

Minister Alex White, Minister for Communications, Energy and Natural Resources

Minister Arlene Foster, Northern Ireland Energy Minister

Mr Michael Manley, DCENR

Mr Garrett Blaney, Chairperson CER - SEM Committee Member

Mr Jenny Pyper, Chief Executive, Utility Regulator

Mr Bill Emery, Chairperson, Utility Regulator - SEM Committee

Ms Jo Aston, Director of Wholesale Energy Markets, Utility Regulator

Mr Paul McGowan, Commissioner, Commission for Energy Regulation

Mr Odd Håkon Hoelsæter, Independent Member SEM Committee

Professor David Newbery, Deputy Independent Member SEM Committee

Grange Backup Power Ltd

c/o Synergy Global

3015 Lake Drive, Citywest, Dublin 24

Email: [REDACTED]

Mr Kenneth Spratt
Assistant Secretary General
Department of Communications, Energy & Natural Resources
Energy Division
29 Adelaide Road, Dublin 2

28 May 2014

Private & Confidential: Key Substantive Issues Affecting New Market Entrants (Grange OCGT plant)

Dear Ken,

Many thanks to yourself, Colm and Paul for taking the time to meet with us last Thursday 22 May to discuss the issues we have raised regarding the Grange OCGT project. We appreciated your positive engagement.

We understand that there is an SEM Committee meeting on Thursday 29th May 2014 regarding the upcoming I-SEM consultation. We would be grateful if the points raised in this letter, and in particular the recommendations set out here and in the Appendixes, could be taken into account at this meeting with the support of the Department.

Key Messages from Our Meeting

The four key messages we wanted to get across at our meeting were:

- 1. Grange wants to remain in the market;** currently it is being asked to pay its grid deposit which is non-refundable at a time when the whole electricity market is under review, and we have yet to receive basic market information. This was caused by TSO / Eirgrid not acting in a timely and effective manner. The delay of over 4 years culminated in the TSO/ Eirgrid producing a very biased and anti-competitive document in TSO's favour for provision of these system services. This legal opinion raises serious anti-competitive concerns and was submitted for the SEMC Chairman's attention in August 2013. A copy will be forwarded later today in a separate email for you review.
- 2. There needs be a clear route to market for new entrants** and the SEMC should provide fair and reasonable investment terms and conditions to new

entrants that meet the acid test of bankability, economic viability and sustainability consistent with SEMC statutory objectives and duties.

3. **We want to see CER Direction 09/191 honoured.** Grange has been awarded a connection offer under CER Direction 09/191 (P182) under the CER's 'Small Steps' approach, and is therefore in principle authorised to proceed in the development and advancement of this OCGT plant since December 2009.
4. **We are asking that an independent study is commissioned on EWIC** – its current performance and impact on the SEM vis-à-vis the original business case for this project. A predominant feature of that case was that it would facilitate the significant exports of wind generation and reduce potential curtailment; in contrast to this there are ongoing significant imports and increased curtailment.

Benefits of Grange's fast flexible plant

As you may know, the Grange project was awarded a connection offer under CER 09/191 (P182) and is therefore in principle authorised to proceed in the development and advancement of this OCGT plant since December 2009. The current status of the project is that it is the subject to a CER Section 34 dispute regarding the demand for a non-refundable payment of approx €644k coupled with intolerable long-stop dates and other issues described in this letter. However, we have been waiting for the outcome of ancillary services for over four years. The benefits of fast flexible plant which have been detailed in earlier correspondence to the CER, namely:

1. Fast flexible plant increases the level of wind penetration onto the system and considering wind is the low cost producer, it helps to lower the production cost of energy which is in the interest of the consumer.
2. The proposed Grange plant is a new state of the art facility and a new investment that is specifically designed to provide fast ramping and the fourteen ancillary services; these together with the key financial figures are listed in Appendix 2 of this letter. It supports the achievement of the SEMC objective of System Non-Synchronous Penetration (SNSP) target of 75% and reduces curtailment for wind. The plant can reach full load in of 115MW in less than 8 seconds from a hot start and from a cold start less than nine minutes through its jet engine technology.
3. The location of the Grange project is optimum for voltage support in the Dublin area where one third of the Republic of Ireland (RoI) demand is concentrated and growing (e.g. with increased number of data centres being constructed).

The delivery of the Grange project is contingent on the appropriate proposals being included in the forthcoming CRM/I-SEM and DS3 Programme documents.

Grange project jeopardised by unbankable market conditions

As already stated to the CER, the Grange project is being asked to pay its grid deposit which is non-refundable at a time when the whole electricity market is under review. We are without basic market information. The project's economic viability is entirely

dependent on the shape of the market and in particular the SEMC's long-anticipated completion of the DS3 Programme concerning ancillary services and its consultation on I-SEM. The results of these two policies are critical before an informed investment decision can be made.

The I-SEM discussion is ongoing at SEMC. Once concluded, it will fundamentally change the way the electricity market operates on this island from 2016 onwards, and probably for the next decade or two, which is when the Grange facility is needed. The fact that Ireland has a two-year derogation has meant that the market is changing later than all other Member States, but now causes the timing of our project to be unavoidably pre-mature, through no fault of its own.

As part of the DS3 Programme, EirGrid is developing an ancillary services offering, which is the other key aspect that will have a significant impact on the commercial viability. But, as recognised by the Regulatory Authorities (RAs), the DS3 Programme has suffered from unreasonable delays. These delays have been caused in particular by failure of the TSO and RAs to act in a timely and effective manner to deliver adequate investment signals and basic information required for new entrants. In the case of the TSO, the information provided to date has not been fit for purpose. The TSO has manifestly failed to adhere to the requirement in Article 12(g) of the 3rd Electricity Directive which lists amongst the "Tasks of Transmission System Operators" responsibility for "*Providing system users with information they need for efficient access to the system*".

Both the requirements as regards payment of grid deposits and the structuring of the market and DS3 are in the hands of SEMC/RAs, and yet they are completely disconnected in terms of time, and possibly economics – we simply don't know yet.

This failure has been compounded by the fact that EirGrid has acted in an inconsistent manner that contravenes the principle of legitimate expectation. This is where information from a public body was published (i.e. EirGrid publication of Transmission Forecast Statements and Generator Adequacy Reports (GAR)/Generator Capacity Statements (GCS) in 2010) which highlighted the proposed decommissioning of various plants and therefore the need for new plants. CER Direction 09/191 endorsed this as a small steps approach. Applicants relied upon this information and paid upfront processing fees only for the signal to be changed in the GCS of 2014. It is now apparent that the TSO and RAs are at cross purposes as to the future direction of the industry with old inefficient plant being retained on the system and new entrants being disadvantaged.

Against this background, it is not acceptable that Grange is required to pay a substantial grid deposit and is being subjected to aggressive long-stop dates at the same time as SEMC/RAs are themselves fundamentally changing the market and continuing to regulate the offering for ancillary services offering. This is contrary to the SEM statutory duties and responsibilities to facilitate applicants to finance projects (ref. 15 February 2013 SEM /13/009 page 10 'to secure that authorised persons are able to finance their activities'). It is also contrary to the duty to facilitate new entrants as it effectively pushes new entrants off the field.

New Entrants foreclosed by unfair advantages to inefficient generators

The difficulties facing new entrants to the market are being compounded by lop-sided

and discriminatory policies that benefit inefficient large market players already on the market. Indeed, existing market players and the incumbent are thriving at the expense of new entrants in the current market climate because:

- (i) They are already operational and in many cases are amortised and can now compete on the marginal cost instead of a full costs recovery basis. New entrants still have to service their debt and this gives incumbents a competitive advantage.
- (ii) They are sitting on legacy grid connections and can extend their plant life indefinitely, even when it is out of merit and contrary to Government policy on emissions, because it receives capacity payments at enormous cost to the consumer. Availability matrices are being advanced as reasonable and just cause to retain old plant (e.g. Tarbert, where end date varies by approximately a decade, as shown in our recent presentation; also Marina & North Wall who have no exit dates). See attached EirGrid letter of 31 Oct 2007, which states inter alia “EirGrid is of the opinion , in general terms, that Tarbert no longer represents a desirable point for the connection of new, or replacement capacity,”
- (iii) They can maintain grid capacity and even firm capacity, even though they are retiring plant and even changing plant type; and for that they can even get deemed application dates ahead of other applicants (such as Grange) and not real ones, as with Tarbert (P183) and Great Island, who actually applied after Grange.

Old plant is making the cost of electricity expensive to the Irish consumer and making the interconnector flows uncompetitive despite having a high portion of renewables energy on the system. This has a double negative effect (i.e. paying large capacity payments for old plant to stay on the system and are losing the opportunity cost to export). Ireland has approximately 10% more expensive than the UK production costs therefore affecting the interconnector flows in the UK’s favour and at a loss to the Irish exchequer. The point is we are effectively paying from the Irish exchequer to import this energy instead of exporting our own surplus power. It was recently announced Ireland has the 4th most expensive electricity in the EU and perhaps would be most expensive in Europe if it were not for the interconnector who according to EirGrid saved us 9% this year. However, even this “saving” is deceptive because it excludes loss in revenue from potential exports to Great Britain (GB).

The TSO is also baldly mistaken in GCS 2014 (Table 3.1) to allow particular plant extensions unilaterally at full price for clapped-out plant that is 45 years old and advance the argument of availability of 99% as just cause for market foreclosure and think it is fair, reasonable and logical. Is it acceptable to the Irish consumer to pay €36m million for 2.7 days running last year not to mention the proceeding 3 years? The reasoning is fundamentally flawed and needs to be revisited and discussed at SEMC level and its judgment and motives as an organisation is now in question. It was stated at the Generator Forum on the 15 May 2014 that the market only needs 100 MW of additional new plant by 2020 even before the SEMC conclude on I-SEM and System Services Review. But this approach means favouring inefficient plant at the expense of bringing in new state-of-the-art generators that will bring significant

long-term benefits to end-users and consumers.

Moreover, capacity payments are being paid to completely outdated inefficient plant that can then sit on grid capacity and run occasionally, producing high emissions from heavy fuel oil - we estimate at a cost to the consumer of roughly €900 per MWh (about fifteen times standard cost of production). We might also remind ourselves that most times the industry asks for a change of policy, it is refused on the grounds that cost to the consumer is the over-riding priority of SEMC/RAs. We are at a loss to understand how €900/MWh for electricity from old inefficient power stations is acceptable in the interest of the consumer. This is exactly the sort of arrangements that the European Commission is targeting in its state aid review of capacity payments.

Generation Mix and Fleet Management

Over the past forty years approx, attention has been given to developing a broad generation mix including coal, oil, gas and peat-fired in addition to pumped storage and the early hydro plants. These generally have been base load plants. Many of these old plants are well past their plant life cycle commercial operation date but are still on the system. More recently there has been a clear route to market for the wind industry with the AER and REFIT schemes. However, what is largely missing in recent times is a route to market for new flexible plant – particularly for independent players who cannot build on balance sheet and rely upon normal Standard Project Finance methods, which is a common finance methodology. The ramifications of this is an ageing generation fleet that is having difficulty reliably providing the system services for a safe, secure and reliable operation today let alone meeting the increasing system services needs required between now and 2020. Best prudent utility management requires an efficient and cost effective system with a continuous but small stream of new plant coming onto the system to ensure a modern and fit-for-purpose generation fleet. It is in the interest of the consumer by way of reducing the cost of production that proper utility fleet management is maintained. Power plants like any other fleet needs to be regularly renewed with new plant and new investment.

Question Mark Over capability of Existing Fleet

Evidence from recent system incidents clearly indicates that the existing portfolio is experiencing difficulty in providing the necessary system services to ensure a safe and secure system. One such recent incident indicated that a significant portion of the generation plant failed to perform in delivering its contracted operating reserve resulting in an extended period of four minutes before system frequency was restored – this is not an acceptable performance for a modern electricity system and is way outside the expected timeframe for recovery. We believe it is legitimate to ask the question ‘if the current portfolio is unable to support the system to an acceptable standard today then how can we have confidence that the same portfolio is capable of delivering the new system services required to take us to 2020 and beyond?’ Indeed had Grange been on line or one unit been ‘*ticking over in hot mode*’ during the peak demand period, where 1/3 of the state’s energy in the Dublin region alone is consumed, this would have been automatically the first port of call and an automatic choice of reserve to help resolve the issue.

Grange has consistently argued - particularly since December 2012 when the “System Services Consultation Financial Arrangements” was published by EirGrid stating that “a number of existing CCGTs will also provide more flexible performance through shorter start up times, improved frequency response and improvement in min load” – that the current fleet can credibly deliver a substantial tranche of the new 2020 system services. We believe the SEMC and the RAs are being misled and that plant owners and OEMs will not deliver in time for achieving an SNSP 75% target and the end result will be increased curtailment, triggering a breach of covenants on the debt-service ratio, step in right by the banks and bankruptcy for wind farmers.

It is Grange’s considered view that significant capital investment will not be forthcoming from the existing generation portfolio, due to the impact on the generators’ other revenue streams and disinterest from OEMs to refurbish existing plant’s legacy designs. Discussions with OEMs have indicated they are focused on developing new and more sophisticated plant – with multiple sales opportunities - to meet the challenges of the future rather than concentrating on one-off old/middle-aged plants in the SEM.

The EU 3rd Electricity Directive

The purpose of this Directive 2009/72/EC was to open up further the gas and electricity markets of the European Union; it was proposed by the EU in 2007, adopted in July 2009 and came into force on 3 Sept 2009. This was 3 months before CER/09/191 Direction was issued and the RAs must have had regard to this in any deliberation. A core element of the Directive includes ownership unbundling from generation and transmission. We have included several extracts in Appendix 1 that are of relevance here e.g. recital 6, 12, 19, 35, 39, 56, especially 57, Article 12 (g) Article 36, Article 37. We believe the state is in breach by not properly implementing same and the TSO / Eirgrid needs to be directed to comply with the Directive.

Levelling the playing field

It is apparent that there is not a level playing field, never mind one that facilitates new entrants. The market is foreclosed and protectionism for the existing incumbent and large players is being promoted by weak regulatory signals, long delays, marginal pricing, uncertainty in contract tenure, excessive penalties or changing electrical services product definitions in favour of particular technologies. It is contrary to both the spirit and the letter of the 3rd Electricity Directive (see the relevant extracts in the Appendix 1 Recital (56) which states “*Market prices should give the right incentives for the development of the network and for investing in new generation electricity generation*”).”

To address these concerns, the market now requires a new regulatory approach for fast flexible plant. An overall market signal is required for all technologies including industrial OCGTs and new flexible plant including entry signals for BNE, for OCGTs and aero-derivatives and exit signals.

As a first step, SEMC/RAs should establish a proper procedure for retiring plant, by which announcements of retirement are made formal and then adhered to (unlike what has happened with Tarbert).

In addition, there needs to be a clear route to market for new entrants and the SEMC should provide fair and reasonable investment terms and conditions to new entrants that meet the acid test of bankability, economic viability and sustainability consistent with SEMC statutory objectives and duties. The capacity remuneration mechanism (CRM) should be amended for new entrants and / or ancillary services contracts made back to back or be independently bankable that provide certainty. These figures (as outlined in Appendix 2) should be indexed linked to achieve standard industry basis market financials.

The CER has recognised the principle of certainty as a key component of route to market and that new entrants needed market certainty for project finance back in 2005. It successfully incentivized and built two new power stations by awarding a 10-year VIPP contract to Aughinish Alumina and Tynagh. We believe a similar approach is required for new build with regard to CRM and System Services. Project financing of debt will always be based on the worst case scenario. Therefore, the CRM needs to be 100% bankable to such an extent that the bank can lend the debt or the ancillary services is contractually back to back for the same tenure period paying a minimum annual standard charge. These figures must meet the parameters set out in Appendix 2.

With these considerations in mind, we make the following proposals:

(i) Revenue: Different revenue signals are essential for different categories of plant and can be achieved by awarding the following contracts at auction:

15 year contracts	Eligibility confined to authorised new build in CER/09/191, CER/10/017 and earlier
3 or 5 year contracts	Eligibility confined to plant who meet retrofit requirements
1 year contracts	For existing plant

(ii) Quantity based: This method ensures only the calculated capacity requirement is procured, generators can manage their volume risk, firm entry and exit signals are provided, while competition and efficient price discovery can be achieved through an auction process. The calculated capacity requirement should be allocated per the contract quantities above e.g. 1,000 MW for 15 year contracts, 2,500 MW for 3 or 5 year contracts and 4,500 MW for 1 year contracts. The advantage of the quantity based system is that it is consistent with CER09/191 small steps approach where the MW quantities were defined and rolled out over a number of years. It is simplistic and transparent. It is fair and reasonable to existing incumbents. And it is a mechanism to provide clear value to the consumer.

(iii) Capacity payments: capacity payments should reflect the age of the plant, where older inefficient plant is paid less, e.g. 30 years unless of strategic security value – Moneypoint, to encourage new efficient plant; we mentioned the example of the new

capacity contracts in GB, which give shorter contracts to older plant. Moreover, capacity payments should have a carbon component, as has been done with car tax and VRT and which has been seen to have a significant effect on average car emissions.

TSO in a conflicted position

We also raised with you our concerns about a possible conflict in the position of EirGrid as regards ancillary services. The RAs need to be very careful about how EirGrid as TSO contracts and dispatches such services from its own plant, EWIC. Recital 12 of the 3rd Electricity Directive states *‘any system for unbundling should be effective in removing any conflict of interest between producers, suppliers and transmission system operators’*.

It is a fallacy to say that EirGrid is unbundled from the incumbent, so that there can be no conflict. This is a misinterpretation and contrary to the Directive as reasonable justification that EWIC should be given preferential treatment over and above other potential suppliers of services.

Likewise, it is incorrect to justify such a conflict on the basis that it could lead to lower TUOS charges and savings could be passed back to the users. Essentially this point of view would allow EirGrid to justify any discrimination in favour of its own commercial activities on the basis that it could lead to lower TUOS charges for end-users. There is also no support that this will actually happen as EirGrid can use the same revenues to finance the interconnector (or construct a new interconnector) rather than lowering TUOS charges to end-users. In any event, the best way to reduce TUOS charges is better transmission planning and RA targets in annual reducing costs for TSO.

Nor is this threat of a conflict of interest illusory. The TSO took over four years to produce in 2013 a very biased and potentially anti-competitive recommendations paper. EirGrid has further recently proposed in a group submission by EirGrid (TSO, EIL and SEMO) could also benefit from capacity payments in the new CRM/I-SEM. Additionally, the proposed reclassification of some EWIC services, with increased payments, as set out in the recent Harmonised Ancillary Services paper and the Black Start payments - all to be supplied by the interconnector - all benefit EirGrid’s own commercial activities.

This is tantamount to abuse as the TSO is making the rules to suit itself. This indicates that the TSO is overstepping its responsibility and is attempting to position itself to control entry admission to the generation market by setting aggressive longstop deadlines while it delays and withholds the information.

We have no confidence that we will receive anything contractually meaningful from EirGrid for System Services as it is incentivised to do the opposite unless the RAs / SEMC intervene. We welcomed the SEMC intervention last year following the publication of the TSO Recommendations and request continued intervention. It is now necessary for the RAs to review the TSO’s regulatory and commercial functions. In particular, the RAs should create a Chinese wall between the TSO and EirGrid’s

EWIC. As a stop-gap, we propose that the CER direct that EWIC only be used as an ancillary service provider of last resort and that other service providers be given right of first refusal to contract on generic commercial terms and conditions prepared by the RAs.

RoCoF

We have concerns and we should not accept the assumptions of EirGrid blindly, and the assumptions should be robustly challenged/verified for solidity and accuracy, with a proper cost benefit analysis by an independent expert. We believe the SEMC and the RAs are being misled and that plant owners and OEMs will not deliver in time for achieving an SNSP 75% target and the end result will be increased curtailment, triggering a breach of covenants on the debt-service ratio, step in right by the banks and bankruptcy for wind farmers. The reasons are well known but simply put; these are incompatible technologies, lack of specialised human resources and substantial costs. It may be hypothetically possible but is it practically achievable in the timescales? The technology owners do not share the view as the hypothetical theories of EirGrid. We believe that new system services (including those from fast flexible plant) will contribute 10% to the SNSP target, and disagree with EirGrid's fig. of 5%.

CER Direction CER 09/191

This Direction on "Detail for Allocating Scheduled Firm Access in Gate 3 ITC Programme" was published on 18 Dec 2009 following an intense and rigorous ITC process. The queue of circa 6,000 MW of conventional plant was reduced to 3,400 MW – required out to 2025 - and then to circa 1,500 MW through a "small steps approach". This consisted of (i) 600 MW that had received a non-firm offer, (ii) c. 320 MW projects on the network with non-firm/partially firm access and (iii) the first 500 MW (capped at 550 MW) with the earliest firm connection date for their full requested MEC. **Grange came out at the top of the list in this section – with immediate FAQ.** If the generation plant identified under CER/09/191 are not provided with sufficient certainty to make rational investment decisions, substantial time will be lost if it is later determined that new-build plant will be required. Further consultation and analysis will be required to select new generation plant; considering the substantial time taken to run the previous selection process such a delay should not be underestimated. I-SEM and DS3 timely certainty should build upon the extensive consultations and work already undertaken for Direction 09/191.

Conclusions

In conclusion, there has been a systemic failure by the SEM and the regulatory authorities to adhere to the spirit and intent of the EU 3rd Directive fully and the TSO/ EirGrid are acting contrary to it. There is no route to market and new entrants have been seriously disadvantaged by the lack of certainty, and clear entry and exit signals. The TSO is conflicted and there should be clear boundaries between the relevant organisations, or the ownership EWIC should be removed from EirGrid.

We propose as next steps:

1. Realignment of Timelines

Grange is being asked to pay its grid deposit at a time when the whole market is in a state of flux. It is the same parties who are setting the timing rules on payment and the review of the market who have not provided fit for purpose information. The timeline for both Directions (I-SEM and DS3) needs to be realigned considering both are interacting. The grid deposit should only be due 3 months after the final Direction of I-SEM or DS3 whichever comes last to allow an applicant to make a full and informed investment decision particularly when the delays have not been caused by the applicant. The tie-break decision set a precedent in this regard. Mr Jean Pierre Miura has informed us that the final details of I-SEM will not be known until Feb 2015.

2. Fair and Reasonable Capacity Contracts for new entrants

Capacity payments and ancillary service offerings need to be fair, reasonable, economic and sustainable. The route to market needs to be specifically addressed for new entrants

- (i) A multi-tiered approach similar to GB should be employed not only because it is appropriate and prudent policy to get the best out of old plant but because it also encourages new investment. We will have a price coupling mechanism with GB so our market design should be at least similar if not better, not to put the production cost of the I-SEM at a competitive disadvantage and decrease our export potential ([https://www.gov.uk/government/news/electricity-Market reform capacity market design](https://www.gov.uk/government/news/electricity-Market_reform_capacity_market_design)).
- (ii) We believe that different revenue signals are essential for different categories of plant and can be achieved by awarding the following contracts at auction :

15 year contracts	Eligibility confined to authorised new build in CER/09/191, CER/10/017 and earlier
3 or 5 year contracts	Eligibility confined to plant who meet retrofit requirements
1 year contracts	For existing plant

- (iii) Quantity based: This method ensures that only the calculated capacity requirement is procured, generators can manage their volume risk, firm entry and exit signals are provided, while competition and efficient price discovery can be achieved through an auction process. The calculated capacity requirement should be allocated per the contract quantities above (e.g. 1,000 MW for 15 year contracts, 2,500MW for 3 or 5 year contracts and 4,500MW for 1 year contracts).

3. Entry & Exit Signals

Exit signals need to reflect both carbon emissions and age of plant. Entry into the market should be based on CER/09/191 Direction as this is the pillar document for new generation entry into the electricity market.

4. EWIC

Without complete legal unbundling from the TSO, EWIC must only act as an ancillary service provider of last resort and not become a front and central main provider and direct competitor. We request that the SEM Committee and regulatory authorities to issue a clear direction clarifying the issues raised above for new entrants and to honour CER/09/191.

5. New Entrants-Key Commercial Conditions

Finally, we are asking that the principal contents of Appendix 3 below be captured in both the forthcoming SEMC/RAs' papers namely (i) the I-SEM/CRM Draft Decision in early June and (ii) the DS3 Consultation in early July as new entrants were completely omitted in the Poyry Report.

We thank you for your time and request your assistance and support to resolve these matters raised above especially Grange staying on the field, Bankable commercial terms for new entrants and adhering to CER 191 Policy Direction small steps approach.

We look forward to hearing from you and will be in contact in the near future.

Yours sincerely,

Richard Walshe

Peter Duffy

Grange Backup Power Ltd

CC: Colm O'Conaill, Paul Mulqueen

APPENDIX 1

Extracts from 3rd Electricity Directive:

Recitals (which guide interpretation):

(6) A well-functioning internal market in electricity should provide producers with the appropriate incentives for investing in new power generation, including in electricity from renewable energy sources, paying special attention to the most isolated countries and regions in the Community's energy market.

(12) Any system for unbundling should be effective in removing any conflict of interests between producers, suppliers and transmission system operators, in order to create incentives for the necessary investments and guarantee the access of new market entrants under a transparent and efficient regulatory regime.....

(19) The full effectiveness of the independent system operator or independent transmission operator solutions should be ensured by way of specific additional rules. The rules on the independent transmission operator provide an appropriate regulatory framework to guarantee fair competition, sufficient investment, access for new market entrants....

(35) In order to ensure effective market access for all market players, including new entrants, non-discriminatory and cost-reflective balancing mechanisms are necessary. As soon as the electricity market is sufficiently liquid, this should be achieved through the setting up of transparent market-based mechanisms for the supply and purchase of electricity, needed in the framework of balancing requirements. In the absence of such a liquid market, national regulatory authorities should play an active role to ensure that balancing tariffs are non-discriminatory and cost-reflective. At the same time, appropriate incentives should be provided to balance the in-purchase and off-take of electricity and not to endanger the system. ...

(39) The internal market in electricity suffers from a lack of liquidity and transparency hindering the efficient allocation of resources, risk hedging and new entry. There is a need for enhancement of competition and security of supply through facilitated integration of new power plants into the electricity network in all Member States, in particular encouraging new market entrants. Trust in the market, its liquidity and the number of market participants needs to increase, and, therefore, regulatory oversight of undertakings active in the supply of electricity needs to be increased. ...

(56) Market prices should give the right incentives for the development of the network and for investing in new electricity generation.

(57) Promoting fair competition and easy access for different suppliers and fostering capacity for new electricity generation should be of the utmost importance for Member States in order to allow consumers to take full advantage of the opportunities of a liberalised internal market in electricity.

Articles:

Article 12 Tasks of transmission system operators

Each transmission system operator shall be responsible for:

(d) managing electricity flows on the system, taking into account exchanges with other interconnected systems. To that end, the transmission system operator shall be responsible for ensuring a secure, reliable and efficient electricity system and, in that context, for ensuring the availability of all necessary ancillary services, including those provided by demand response, insofar as such availability is independent from any other transmission system with which its system is interconnected;

(g) providing system users with the information they need for efficient access to the system;

Article 36 General objectives of the regulatory authority

(e) facilitating access to the network for new generation capacity, in particular removing barriers that could prevent access for new market entrants and of electricity from renewable energy sources;

Article 37 Duties and powers of the regulatory authority

6. The regulatory authorities shall be responsible for fixing or approving sufficiently in advance of their entry into force at least the methodologies used to calculate or establish the terms and conditions for:

(b) the provision of balancing services which shall be performed in the most economic manner possible and provide appropriate incentives for network users to balance their input and off-takes. The balancing services shall be provided in a fair and non-discriminatory manner and be based on objective criteria; and

Appendix 2

Financial Parameters for 2 x Trent 58 MW units = 116MW with 10 yr Tenure

	Assumptions	Typically
1	Debt / equity ratio	70/30
2	Interest on long-term Debt	6.5%
3	Debt Serviced Cover Ratio	1 : 1.55
4	Total Capital Cost	€85.831 million
5	Starts	400 -500 warm – 50 cold
6	IRR	11.5%
7	Operation	Running, synch comp, standby
8	Tenure	10 years
9	Gross income stream per annum required	€18.28 million- draft

New Services		Existing Services	
SIR ✓	Synchronous Inertial Response	SRP ✓	Steady-state reactive power
FFR ✓	Fast Frequency Response	POR ✓	Primary Operating Reserve
DRR ✓	Dynamic Reactive Response	SOR ✓	Secondary Operating Reserve
RM1 ✓	Ramping Margin 1 Hour	TOR1 ✓	Tertiary Operating Reserve 1
RM3 ✓	Ramping Margin 3 Hour	TOR2 ✓	Tertiary Operating Reserve 2
RM8 ✓	Ramping Margin 8 Hour	RRD ✓	Replacement Reserve (De-Synchronised)
FPFAPR ✓	Fast Post-Fault Active Power Recovery	RRS ✓	Replacement Reserve (Synchronised)

APPENDIX 3
Key Commercial Requirement for New Entrants

In order to make a new power plant, such as Grange, work, the following are required in both the System Services Consultation Paper and the I-SEM/CRM Draft Decision Paper:

1. Accept the general consensus for new investment and fast flexible plant
2. Include a new investment scenario in both forthcoming DS3 and I-SEM papers, in relation to the system services procurement process and the CRM mechanism respectively; the DS3 proposals would be an expansion of the existing Poyry system services procurement paper.
3. Bankability of these projects with specific reference to the key commercial parameters should be addressed- see Appendix 3 Financial parameters.
4. Implement a tiered system and accept the need for longer term contracts, such as 15 years for new build as currently adopted in the GB capacity payments mechanism; in addition there should be 1-year rolling contracts for plant over 35 years old, 3-5 year contracts for plant over 20 years old and 15-year contracts for new plant. These contractual timescales should apply back-to-back for both CRM/I-SEM and DS3.
5. Eligibility for new investment system services or CRM contracts must be confined to proposed new entrants as published in CER/09/191 or earlier. This Directive followed the most comprehensive and detailed analysis undertaken since market opening and, with its small steps approach, was to be the guiding principle for new investment out to 2025.
6. The new CRM could be based on Best New Entrant (BNE), coupled with a back-to-back DS3 contract, for fast flexible but amended for a 15 year period indexed linked **to achieve bankability**. As OCGT peaking plant would be operating on the margin fuel costs would effectively on a pass through basis. The industry-recognised figure of 11.5% IRR must obtain for these projects, if they are to come into the market and help deliver RES 2020 targets.