Response by Energia to SEM Committee Consultation Paper SEM-12-004

Proposals for Implementation of the European Target Model for the Single Electricity Market

20 April 2012

The Single Electricity Market (SEM) created an all-island electricity market in 2007, representing one of the first energy market coupling exercises in Europe. The SEM was a bespoke design addressing the characteristics of the all-island market. The European Target Model seeks to introduce common electricity market arrangements across Europe. As part of the Target Model binding Network Codes are being produced to bring about a common and coupled market design in Europe. Importantly in this context, the first of these Network Codes, on Capacity Allocation and Congestion Management (CACM), appears to represent a fatal challenge to the current market design.

The full vision of the European Target Model is incomplete, however, Member States are required to comply with the first stage (CACM Network Codes) by 2014, with provisions for an extension to this deadline for SEM, in light of the challenges it faces, until 2016. Despite purporting to deliver a better market for all of Europe, the current proposals are untried and importantly, do not ensure respective Member States and their customers will be better off as a result of its adoption. It is essential in this context that in complying with the network code requirements, we do so in a manner that best ensures the welfare of the all-island market and its customers. In order to achieve this objective, it is imperative that we engage in a comprehensive and planned market design process as it is readily apparent that there is no simple fix to the challenges posed by the CACM Network Code and the SEM.

Having commenced this project in 2011, the RAs project team have already engaged with industry on a number of occasions but undue influence has been afforded to the TSOs/MO in the development of options for compliance to date. The overall objective of the work undertaken appears to have been one of minimal change to the SEM, however, it is Energia's view that this approach does not constitute a viable option and must be replaced with a comprehensive market design workstream. This workstream should first identify high level principles and possible options for the all-island market. This new European dimension to our market fundamentally alters some of the underlying design principles of the SEM and as such, absent a comprehensive market design process, one cannot assume that perceived successes of the SEM would necessarily transfer across. The shortcomings of the approach to date have culminated in a series of vague, unnecessarily narrow and potentially inconsistent options being forwarded for comment. None of these options are considered to be appropriate for the further development of the all-island market.

In terms of the key design principles to be followed as part of this comprehensive design process, Energia consider the following to be central to the design of a market that is to be compliant with the EU Target Model and published Network Codes;

- Distinct and deliberate separation of the market from the physical system.
- Equal treatment of technology types in the market, there should be no discrimination or preferential treatment of specific technology types or market participants.
- Generators must be able to update prices, and where relevant positions, from the submissions made to the TSO day-ahead, pursuant to the objectives of the Target Model.
- TSOs should have the flexibility to act prior to gate closure and in close to real time, thus preserving absolute control of the system and system planning and security. However, the matter of generator flexibility to submit market positions, referred to vaguely as central/self-commitment in discussions to date, should remain open and not be confused with a loss of control of system security.
- Where relevant, financial compensation must be provided in instances where generators are dispatched away from their market position.

- Generators must continue to recover all relevant short run costs from the energy market with prices continuing to reflect SRMC and Uplift.
- A Capacity Payment Mechanism is a necessary and central feature of any redesigned market. This should compliment a further objective of ensuring the commercial basis for investments made to date are not undermined.
- There is an enduring need to retain regulatory provisions to address market power which will remain a feature of the market unless there is substantial targeted divestment undertaken by ESB.
- Retention of liquidity provisions will be necessary. In the event that a pool-based market is to be implemented, participation should be mandatory to ensure potentially significant liquidity issues are avoided. Similar provisions would be required around the balancing market.
- Locational signals should be retained to ensure appropriate signals are provided to the market on preferred location for new investments.

Energia consider that commitment to these principles as part of a process to design a market that is compliant with the requirements of the EU Target Model will provide for an outcome that is in the best interests of customers, while also respecting the investments made by market participants to date and the absolute role of the TSO in managing and maintaining system security.

The next steps of this project should seek to address the shortcomings of the approach to date, including the need to adopt high level market design principles to guide progress along a planned project path to full compliance for a market that can deliver benefits to customers and does not undermine significant investments made by market participants. The RAs should be assisted in this by independent experts with proven experience of market design. Undue reliance on the assumed impartiality of the TSOs/MO should cease, with the TSOs/MO called on to contribute their technical expertise when required and afforded the same opportunity as market participants to respond to public consultations and engage in future public forums. As a starting point, Energia considers there to be two general but distinct approaches which deserve equal consideration, namely a bilateral market approach and a pool-based market approach. By adhering to the proposed design principles contained in this response, either approach is considered capable of delivering an internally consistent, compliant and efficient market design that will ensure the interests of customers are upheld and significant investments made in the all-island market by participants are not undermined.

1. Introduction

Energia welcomes this opportunity to respond to the preliminary consultation paper SEM-12-004 issued by the Single Electricity Market (SEM) Committee on the implementation of the European Target Model in the electricity market of Ireland and Northern Ireland. The issue of implementing the European Target Model in the all-island market is considered to be the most significant and substantial projects to be undertaken in this market.

The Target Model emanates from a desire to implement regional integration and optimise the efficient use of transmission network capacity throughout Europe, removing barriers to the free flow of electricity across borders. This is in theory should deliver welfare benefits for the European consumer although it remains to be seen if, and, to what extent, this will benefit the island of Ireland and its consumers given the following idiosyncrasies of the island:

- Limited undiversified interconnection, having just two long distance sub-sea interconnectors (following completion of EWIC) to one neighbouring market;
- An evolving neighbouring market with its own market failure concerns;
- HVDC interconnectors characterised by high losses (especially EWIC);
- Small islanded power system with high renewable penetration and targets;
- A very different market design from the rest of Europe; and
- High transaction costs (relative to market size) for changing market design

Taking the above factors into consideration it is worth noting that:

1. Market integration/ price convergence can only exist to the extent there is sufficient, effective and diverse physical interconnection between markets – market power & liquidity issues will still exist on the island;
2. The Target Model is not specifically designed to accommodate a high penetration of renewables in a relatively small power system;
3. The transaction costs of aligning with the Target Model are proportionately high for the island of Ireland; and
4. The risks and adverse consequences of distorting our market to harmonise with the Target Model are significant.

We therefore need to bear in mind what is best for the island of Ireland recognising that compliance with the (evolving) Target Model will eventually be a legally binding requirement. These considerations need to be carefully, expertly, and independently balanced otherwise we risk having an incompatible market with Target Model requirements, or a market that is not fit-for-purpose for the island of Ireland, or, worst of all, a market that fails in every respect.

Regional integration already exists for many wholesale electricity markets in Europe, notably the Central West European Region (CWE) and the Nordic Region. Their experiences and market designs in particular have heavily influenced the development of a reference model (or the Target Model) which is being used as a blueprint for pan European market integration. The translation of the Target Model

(using a top down approach[1]) into Framework Guidelines (FG) and ultimately legally binding Network Codes on Member States presents a significant challenge for SEM given its fundamentally different design from the CWE and Nordic markets. The challenge for SEM is highlighted by the fact that a (conditional) two-year extension until 2016 has been given for it to comply with the requirements for day-ahead and intraday market coupling as set out in the Capacity Allocation and Congestion Management Framework Guidelines (CACM-FG)[2].

Regarding the speed, direction and process of change we strongly suggest keeping the existing SEM design unchanged to the extent possible until the end of 2016 (especially if it is considered to be working reasonably well in accordance with its original objectives) and to plan very carefully from high level design objectives, and with appropriate resources and independent commercially focused market expertise, the smooth transition to an internally consistent market that is compliant with Target Model requirements and that is fit-for-purpose for the island of Ireland according to an up-to-date assessment framework, for implementation by January 2017.

It is important to recognise strengths and weaknesses of existing SEM design and for these to be reflected (or addressed) in a new high level design. Particular care needs to be taken however not to extrapolate from positive affirmations of SEM success that it is consequently desirable to retain core elements of SEM design when implementing the Target Model and to simply "bolt-on" what is considered necessary to achieve compliance. This would dangerously pre-suppose that the internal consistency and effectiveness of SEM design in meeting its objectives remains unchanged when modified and combined with the requirements of the (evolving) Target Model. It should also be stressed that any perceived cost savings associated with this approach would be misconceived[3].

There is no doubt the challenge is immense, and the work done thus far by EirGrid (TSOs and SEMO) and the regulatory authorities (RAs) usefully illustrates this and the fact there are no easy options or feasible "tweaks" to existing SEM design that work in the context of Target Model requirements.

The so-called 'evolutionary' options presented in SEM-12-004 have been extensively scrutinised and helpfully discussed with the RA's Project Team throughout the consultation process (through bilateral meetings, workshops and industry body engagement) and have certainly provoked thought and debate across the industry. However, it is fundamentally clear that none are feasible and should not be considered further as workable options in their own right. We are not ruling out minimal change as a preferred outcome, but it is crucial that such an outcome is

[1] Within Europe it is generally accepted that the bottom-up Regional Initiatives approach was not going to lead to a single integrated European power market by itself. More guidance and direction was needed and for this reason the EU-wide Target Model concept emerged and was presented by the Project Coordination Group of ERGEG at the 2009 Florence Forum covering forward, day-ahead, intraday and balancing markets as well as capacity calculation and governance issues.

[2] The conditional extension was granted to "island systems with central dispatch", i.e. SEM.

[3] Systems and implementation costs are an important consideration but should be considered secondary to the goal of achieving a consistent and efficient market design capable of fostering competition and delivering the required mix of generation plant over a long time horizon.

arrived at having fully considered the approach from an independent, expert, and commercial perspective guided by and assessed against a clear set of relevant and up-to-date design objectives, relative to other options.

Regarding the so-called 'revolutionary' options we should stress the need to move away from this emotive classification and artificial dichotomy between the 'evolutionary' and 'revolutionary' approaches. All entail significant change to existing market arrangements and will likely require systems, legislative, legal, institutional, and administrative change. We also note that the 'evolutionary' options suggested are based on other markets (in other countries) and have not fully considered Target Model requirements or indeed the island of Ireland. This should not be used as the benchmark against which the 'evolutionary' options will be assessed.

The remainder of this response is structured as follows. Section 2 examines the approach taken to date and suggests a new way forward. Section 3 identifies fundamental characteristics of market design that need to be respected in any market. Section 4 briefly considers the options presented in SEM-12-004 and strongly concludes that none are acceptable. Section 5 provides key conclusions and next steps and suggests that two broad options (based on a pool or bilateral-type mechanism) are worthy of further development in the context of the principles and approach recommended.

2. Review of Approach and Suggested Way Forward

In this section we examine the approach taken to date for implementation of Target Model requirements on the island of Ireland. We briefly consider the lessons learned from this process and its implications. We draw from this an appropriate way forward that we suggest should be incorporated into a Roadmap.

2.1 Approach to date

With publication of SEM-11-069 the SEM Market Integration Project was launched on 8 August 2011 by the SEM Committee with a focus on putting in place appropriate transitional arrangements by 2014 to meet the criteria set out in section 1.2 of the CACM Framework Guidelines and as subsequently provided for in the relevant network codes.

The scope of the project was limited to the day-ahead and intraday aspects of the Target Model requirements which are understood to present the most difficulties for existing SEM design, and EirGrid (as TSO and MO) was given a pivotal role in the Project Team.

The Project Team was given the task of considering two broad options for meeting the day-ahead and intraday Target Model requirements, working towards a 2014 compliance deadline for having in place appropriate transitional arrangements:

1. Tweak existing SEM design using an 'evolutionary' approach;

- Led by EirGrid (and overseen by the RAs) the scope of this work included development of *feasible* options for day ahead and intraday capacity allocation to meet the Target Model requirements.
- SEMO and TSOs were to undertake this work using resources approved under existing price controls.

OR

2. Adopt a 'revolutionary' approach of market redesign
    - In parallel with the above the RAs in conjunction with Member States as appropriate (with support from EirGrid) were to explore options for market redesign to provide the counterfactual in informing the SEMC decision on whether to proceed with the evolutionary approach and transitional arrangements .

Evaluation criteria were set out in SEM-11-069 for determining which of the two broad options (evolution versus revolution) should be pursued (discounted), based on:

- The SEM Committee's strategic objectives
- Costs and benefits of options
- Contribution to regional integration
- Compliance with Target Model requirements, and, as appropriate, transitional arrangements under Section 1.2 of CACM.

Complete re-design of SEM was identified as a 'project risk' if the TSOs/SEMO developed 'evolutionary' options that were not compliant with Target Model requirements or if they failed to find cost effective compliant solutions by end of 2012. Along related lines, another 'project risk' identified was the need to review the project plan if it emerged that a more fundamental change is required to SEM in order to meet the Target Model requirements. This clearly indicates a pre-disposition towards a minimal change 'evolutionary' approach and the scope of the project largely reflected this with a strong reliance on existing resources and assessment criteria from original SEM design for choosing between options. Market design principles were not defined, perhaps because of a belief that minimal change from existing SEM design would preserve the efficacy and integrity of its internally consistent and fundamental market design characteristics. It is clear from the options presented in SEM-12-004 that this is not the case.

In many respects the proposals in SEM-12-004 reflect the output from the above process, scope of work, and resource constraint. We comment further on the options proposed in section 4 of this response but suffice to say that none will work primarily because of the narrow terms of reference provided, the lack of crucial input from independent market expertise in the design and implementation process, and the absence of explicit market design principles that need to be respected.

2.2 Suggested way forward

Drawing from the above we strongly suggest the following steps that should now be taken for implementing the Target Model in the electricity market of Ireland and Northern Ireland.

1. *Establish clearly-defined objectives for what has to be achieved and by when*- the RAs should explicitly state the objectives that will apply during the market redesign process. These objectives have not been set out in sufficient detail or clarity to date and this should be addressed giving careful consideration to compliance (notably since publication of the draft CACM Network Code and recognising that the Target Model is not yet fully defined and will continue to evolve), issues specific to the island of Ireland (e.g. market power & liquidity). We should certainly move away from couching objectives in terms of a preference for 'evolution' versus 'revolution' of SEM design.

2. *Agree market design principles* – this should focus on the importance of achieving a final market design that functions both consistently and efficiently from a commercial perspective (independent of dispatch decisions) for all industry participants on a non discriminatory basis. Given its importance and absence from the process to date, section 3 of this response covers key features of market design in more detail.

3. *Provide an up-to-date assessment framework and application thereof for choosing between options* – it is stated in SEM-12-004 that the assessment objectives for SEM design are as relevant in 2012 as they were in 2005 and essentially added to this is a requirements to be compliant with Target Model requirements. We consider this an overly simplistic approach and there is a strong need to consider the new context. The Target Model has not just added to but has fundamentally altered the context within which the high level design principles of the SEM are to be viewed. It is not simply the case that the benefits delivered by SEM will automatically be replicated once just compliance is addressed. In fact, the addition of compliance potentially introduces a conflict between objectives, principally between compliance itself and the SEM Committee's primary objective, the protection of customers. This conflict comes about if, through achieving compliance, additional costs are to be borne by the customer that otherwise would not have arisen.

4. *Centrally involve independent market expertise throughout the process (including steps 1, 2 and 3 above) and in the development and consideration of all options* – EirGrid has been given a central role in the process to date and whilst the TSOs and SEMO have provided valuable input and engagement with market participants, they will clearly have certain perspectives on the market design which stem naturally from EirGrid's position as system operator, current market operator, and interconnector asset owner. The current consultation and design options suffer from a lack of practical commercial perspective on the operations of the market and the needs of commercial market participants. It is Energia's considered view that independent market expertise should play a central role throughout the

process, regardless of whether minimal change or full market redesign is necessary.

These are necessary steps to ensure we develop an internally consistent market that is best for the island of Ireland and that meets Target Model requirements. We suggest the above should be incorporated into a Roadmap and published for consultation as the first phase of this project.

Continuation of the RAs project team's regular engagement with industry is also considered to be an important aspect of the future development. Bilateral meetings, industry workshops, and engagement with trade associations and industry bodies, such as NEAI and the JBC Energy Stakeholder Group, have been welcome features of the process to date. Although this engagement has been relatively frequent, we note that, pursuant to comments contained in this response, it has been somewhat limited by mirroring the general approach of the project team to provide excessive influence to the MO and TSOs in designing compliance options, thus dictating much of the content of these events. Consistent with the change in approach called for in this response, it is important that future regular engagements reflect this change and provide an equal opportunity for all participants to contribute to the future development of the market.

Further reflecting the change in approach called for in this response, the RAs proposed timelines around the next steps of this process, specifically a SEMC decision on the future high level design by end of 2012, are considered to be unrealistic and premature. In light of the absence of workable options for the development of a compliant market, no decisions should be taken until a comprehensive, well planned and equally inclusive market design process, in accordance with the principles set out herein, has completed. There is no quick fix to the problems faced by the current market design, mistakes at this nascent stage of the process risk costing all market participants, including customers, dearly. Hasty, poorly informed decisions should thus be avoided if the risk of costly mistakes are to be minimised.

3. Proposals on Market Design

Within this section we parse our comments on market design so as to provide what we consider should be key features of the approach to market design and separately, features and principles regarded as central to any future market design.

3.1 Key features of the approach to market design

Drawing on some of the preceding discussion, it is useful, in the context of this section, to summarise a number of the salient points in relation to both the SEM, the EU Target Model and, the general approach being adopted by the RAs.

1. The Target Model is a model for the European internal energy market, and is expected to deliver aggregate welfare benefits, it is important that the market design chosen for the purpose of compliance in our market delivers benefits for our customers.

2. The Target Model has not just added to but has fundamentally altered the context within which the high level design principles of the SEM are to be viewed. It is not simply the case that the benefits delivered by SEM will automatically be replicated once just compliance is addressed.
3. A minimalist approach to change, that does not apply a holistic market design approach, risks damaging the market. This exercise should not simply be a matter of "bolting on" compliance to the current SEM design, it should be about redesigning the market to ensure relevant design principles, including compliance, are best achieved.

This summary provides much of the context within which we view the current consultation. Importantly we consider this to differ somewhat from the approach taken by the RAs to date, as expressed in the engagements and publication to date. In terms of market design, in a context different from that of SEM design, the primary question should not be how to reform the market to ensure minimal change, when the full impacts of such an approach have not been fully considered. The benefits from SEM do not necessarily translate to this new market fix to ensure compliance. Nor is the relevant question, what other market should we adopt. It is imperative as part of a process to change the current SEM, an inevitability in the context of the Target Model, that a holistic design approach is adopted and that the design principles inform the creation of options and are simply not used to assess a list of market design options drawn up to achieve separate objectives (e.g. minimal change).

Notwithstanding these comments, we are not ruling out minimal change as a preferred outcome of this process. However, it is crucial that such an outcome is arrived at having fully considered the approach independently and from a basic design principle (i.e. not with reference to SEM), against the relevant design principles, and relative to other options.

3.2 Key features of a market design

At a high level, there are at least three general principles that must be adhered to as part of this market design process;

1. That the options designed are guided by and assessed against a clear set of design objectives as opposed to limiting design options to variants of existing markets;
2. That the objective of designing a market is respected and acknowledge the fundamental difference between a market and the physical system; and,
3. That there is no discrimination or asymmetric treatment of technology types in the market.

The first of these general principles is largely addressed in the preceding section discussing the approach. One further, albeit obvious point, is that the options forwarded must be internally consistent across the respective markets (forward, day-ahead, within day, balancing) of the design. This is something one would expect to be captured as part of a comprehensive design and assessment process.

The second point is perhaps somewhat unusual in the context of this consultation. However, it is precisely the consultation and the options forwarded therein that has raised our concerns on this matter and for the reasons to be outlined, have led us to include this as a key principle of the design process that requires urgent focus as part of the next steps of this process. As a starting point for this process, one has to accept the fundamental difference between the market and the physical system, this difference is clearly recognised in the current SEM and in other electricity markets. An energy market does not have to, and arguably should not, replicate the physical characteristics of the system and its associated limitations. The market can be used to minimise the cost of such limitations, while always respecting system security and the role of the TSO. In fact, it is arguable that the objective of the EU Target Model is to deliver exactly this, an internal market for energy that, while respecting limitations in the interconnection of markets, seeks to overcome them using a market based approach. It is similarly important that we adopt a similar approach with respect to our market and do not apportion an undue amount of importance to the physical system and its inherent limitations in the design of the market. To do so would be both costly and myopic.

Non-discrimination is a fundamental requirement of a new market. Equal opportunity must be advanced to all participants in the market to trade. It would be somewhat contradictory to afford certain technology types preferential access to the market where the underlying characteristics of the product (i.e. MWh) are homogeneous. In the context of market design and the point being advanced herein, it is worth reiterating the absolute need to separate the physical system from the market design if we are to achieve an outcome that satisfies the relevant design objectives.

Without dwelling on the points made with respect to the approach and high level design, it is worthwhile addressing two associated points. Firstly, the role of the TSOs in the context of these proposals, and secondly the need to ensure market participants' existing investments in the SEM are not undermined.

Nothing proposed herein is designed to, or expected to, diminish the role of the TSOs in fulfilling their role with respect to running, managing and maintaining the system in a secure and prudent manner. It must be acknowledged that TSOs elsewhere in Europe face similar challenges to those faced by Eirgrid, therefore the Target Model should not be seen as a threat to limit or restrict the role of the TSO. Importantly, however, the TSOs role is with respect to the system, not the market. Where the market is to operate closer to real time, the appropriate solution is not to restrict the market design but, where required and appropriate, it may be to ensure the TSOs has absolute power and control over the system, while market mechanisms (e.g. compensation payments) would continue to respect the market position of participants.

It is furthermore important to accept the general principle that market participants should not bear the market risks associated with the incumbent monopoly model of system development.

We recognise that the TSO must be in a position to dispatch generators to meet system security and constraint requirements. Powers for the TSOs to act both prior to

and after gate closure may be required. To the extent that TSO dispatch differs from a market position (whether derived through a pool type mechanism or the commercial preference of a generator) requires financial compensation. Debates around central dispatch / commitment should not therefore be seen in the context of system security but in the context of financial transactions. Options for self-commitment, taken to be flexibility for generators to submit a desired market position, must therefore be considered as part of this design process. The need to highlight the distinction between real time operation and financial transactions follows on from the discussion contained in the consultation paper and the system-centric approach to market design forwarded in the options for consideration.

Another key, high level feature of the market design process should be an objective to ensure investments made by market participants in the SEM are not undermined in any future market. Investments made to date have been on the basis of a System Marginal Price (SMP) that is made up of Short Run Marginal Cost (SRMC) and Uplift. Although retention of the explicit structure within SEM is not essential, any future design must ensure revenue streams consistent with this approach. It is important to note that any under-recovery would undermine the financial viability of investments made to date and could be fatal to the operation of market participants and any future planned investment. Furthermore, in the context of a pool market (or balancing mechanism) the potential price volatility of voluntary pool participation renders such an approach infeasible. Should a pool-based market be implemented, participation should be mandatory to ensure potentially significant liquidity issues are avoided Stability and predictability of cashflow must remain a central feature of any future market, and the design must respect investments already committed to the market and provide appropriate compensation

Having addressed these high level principles, it is also important to outline what we consider to be key features of any market design being developed or assessed for the Ireland and Northern Ireland energy market.

- Capacity Payment Mechanism
- Market power mitigation strategy
- Liquidity provisions
- Locational signals

A CPM is regarded by Energia to be a necessary and central feature of any future market design for the electricity market in Ireland. Consistent with moves in other European countries, largely in response to the increased prevalence of low cost renewables in the generation mix pursuant to Member States' 2020 targets, we expect a CPM to become an increasingly common feature of electricity markets in Europe. Substantial investments have already been made in this market on the basis of the current CPM and although stability and predictability in this regard is important, we accept the possibility of some change to the current CPM in light of wider market changes but remain steadfast in our support for the principles of the current mechanism; to remunerate investments made and to incentivise future investment.

Irrespective of the final market design implemented, Energia consider the continued presence of a market power mitigation strategy to be a necessary control on market power in the all-island market. Arguments that increased interconnection and market coupling will reduce the relevant market share of all participants in the all-island market below any reasonable level of concern with regard to competition policy, is too simplistic. For the foreseeable future, absent significant divestment of ESB generation assets, Energia consider the retention of a market power mitigation strategy of as central to the protection of the market, participants and customers from anti-competitive effects arising from the effective local market dominance of one player in a relatively small market.

Consistent with views expressed elsewhere in this response, the design of a market power mitigation strategy should be with reference to the preferred market design. To the extent that there is a current strategy, this may no longer be relevant when considered alongside the future market design and while features of the current approach may be retained, it should not be assumed that the complete strategy can be transferred and expected to achieve the same objectives. Important features that should be retained include; price/bid transparency, price/bidding rules, market share mitigation mechanisms, and vertical separation of the incumbent.

Similar to the approach outlined with respect to market power mitigation, the preservation of liquidity provisions, although not necessarily a replication in their current form, is considered to be another central feature of any future market design. As a secondary benefit of the proposed market power mitigation strategy, market share mitigation mechanisms will ensure a level of liquidity is preserved, however, further auctions, to be determined in accordance with the new market design and regulatory objectives, similar to those currently provided are likely to remain important for generators, suppliers, competition and customers post-2016.

It is Energia's continued view that locational signals are an important feature of the all-island market and these should be retained as part of any market design process. Locational signals provide important signals to investors on where investment is most beneficial to the system, environment and in welfare terms the customers. Locational TLAFs and TUoS charges provide such signals and we stress that these should be retained into the future.

A final consideration that must be included as part of any market design, is the cost of the options up for consideration. In this respect, the cost should not simply be adjudged to be the cost of implementation but once should also consider the future discounted costs the design option will impose on the market. The cheapest option to implement is no indication of the overall cost that option will impose on the market and ultimately customers over the lifetime of the market (e.g. 10 years). This significant concern is considered to represent a further basis for the RAs to readdress their approach and ensure the institution of a holistic market design process as the next phase of this project. It would be a fundamentally flawed assumption to merely expect a minimal change approach to also be cost minimising.

In summary, Energia consider the following principles to be central to the design of a market that is to be compliant with the EU Target Model and published Network Codes;

- Distinct and deliberate separation of the market from the physical system.
- Equal treatment of technology types in the market, there should be no discrimination or preferential treatment of specific technology types or market participants.
- Generators must be able to update prices, and where relevant positions, from the submissions made to the TSO day-ahead, pursuant to the objectives of the Target Model.
- TSOs should have the flexibility to act prior to gate closure and in close to real time, thus preserving absolute control of the system and system planning and security. However, the matter of generator flexibility to submit market positions, referred to vaguely as central/self-commitment in discussions to date, should remain open.
- Where relevant, financial compensation must be provided in instances where generators are dispatched away from their market position.
- Generators must continue to recover all relevant short run costs from the energy market with prices continuing to reflect SRMC and Uplift.
- A Capacity Payment Mechanism must be a necessary and central feature of any redesigned market. This should compliment a further objective of ensuring the commercial basis for investments made to date are not undermined.
- There is an enduring need to retain regulatory provisions to address market power which will remain a feature of the market unless there is substantial targeted divestment undertaken by ESB.
- Retention of liquidity provisions will be necessary. In the event that a pool-based market is to be implemented, participation should be mandatory to ensure potentially significant liquidity issues are avoided. Similar provisions would be required around the balancing market.
- Locational signals should be retained to ensure appropriate signals are provided to the market on preferred location for new investments.

Energia consider that commitment to these principles as part of a process to design a market that is compliant with the requirements of the EU Target Model will provide for an outcome that is in the best interests of customers, while also respecting the investments made by market participants to date and the absolute role of the TSO in managing and maintaining system security.

4. MO/TSOs Options for Compliance

In the previous section we provided Energia's view of both the approach and key features that should characterise the market design process and resulting market

design of the all-island electricity market post-2016. All of the options presented in the consultation paper fall considerably short of these proposals and as such are deemed to be inappropriate as options for our future market design. It is also unclear that the options forwarded are internally consistent or, absent the required level of detail, how they are can be expected to operate and fulfil the objectives of the market design as identified in the consultation paper. Having accepted these options are not appropriate it does not serve a purpose to dwell on them as part of this response.

One key conclusion that can be drawn from the shortcomings of the options presented is that to achieve the objectives of this project, substantial change in unavoidable and should be undertaken as part of a holistic and planned market design process. The distinction drawn between evolutionary and revolutionary options are not appropriate in this context. As already discussed, it is therefore not a suitable approach to seek to "bolt-on" features to the current SEM design in order to try and achieve compliance with the Target Model, without full consideration of the market design against the relevant market design principles, assessment criteria and against alternative options.

One positive outcome from the development and publication of the TSOs/MO options in the consultation paper is that it has ignited the debate on the future design of the market. The approach taken with respect to this response has been to identify key design principles relating to both the approach and features of the future market design and to provide a starting point for the continuation of this important workstream. On the latter point there appears to be two separate high level approaches worthy of further investigation in the next stage of this process, a bilateral market approach and a pool market approach. We consider both high level approaches to be equally valid and, with adherence to the design principles advanced herein, can both deliver a compliant and acceptable outcome.

Without addressing what are termed "Revolutionary" options in the consultation paper, it should suffice to conclude that wholesale adoption of another market is unlikely to achieve the best outcome for the market in Ireland and Northern Ireland, may not resolve the compliance issue and is contrary to the proposed approach outlined in this response.

5. Conclusions and Proposed Next Steps

The European Target Model seeks to introduce common electricity market arrangements across Europe. As part of the Target Model binding Network Codes are being produced to bring about a common and coupled market design in Europe. Importantly in this context, the first of these Network Codes, on Capacity Allocation and Congestion Management (CACM), appears to represent a fatal challenge to the current market design.

The full vision of the European Target Model is incomplete, however, Member States are required to comply with the first stage (CACM Network Codes) by 2014, with provisions for an extension to this deadline for SEM, in light of the challenges it

faces, until 2016. Despite purporting to deliver a better market for all of Europe, the current proposals are untried and importantly, do not ensure respective Member States and their customers will be better off as a result of its adoption. It is essential in this context that in complying with the network code requirements, we do so in a manner that best ensures the welfare of the all-island market and its customers. In order to achieve this objective, it is imperative that we engage in a comprehensive and planned market design process as it is readily apparent that there is no simple fix to the challenges posed by the CACM Network Code and the SEM.

Having commenced this project in 2011, the RAs project team have already engaged with industry on a number of occasions but undue influence has been afforded to the TSOs/MO in the development of options for compliance to date. The overall objective of the work undertaken appears to have been one of minimal change to the SEM, however, it is Energia's view that this approach does not constitute a viable option and must be replaced with a comprehensive market design workstream. This workstream should first identify high level principles and possible options for the all-island market. This new European dimension to our market fundamentally alters some of the underlying design principles of the SEM and as such, absent a comprehensive market design process, one cannot assume that perceived successes of the SEM would necessarily transfer across. The shortcomings of the approach to date have culminated in a series of vague, unnecessarily narrow and potentially inconsistent options being forwarded for comment. None of these options are considered to be appropriate for the further development of the all-island market.

In terms of the key design principles to be followed as part of this comprehensive design process, Energia consider the following to be central to the design of a market that is to be compliant with the EU Target Model and published Network Codes;

- Distinct and deliberate separation of the market from the physical system.
- Equal treatment of technology types in the market, there should be no discrimination or preferential treatment of specific technology types or market participants.
- Generators must be able to update prices, and where relevant positions, from the submissions made to the TSO day-ahead, pursuant to the objectives of the Target Model.
- TSOs should have the flexibility to act prior to gate closure and in close to real time, thus preserving absolute control of the system and system planning and security. However, the matter of generator flexibility to submit market positions, referred to vaguely as central/self-commitment in discussions to date, should remain open and not be confused with a loss of control of system security.
- Where relevant, financial compensation must be provided in instances where generators are dispatched away from their market position.
- Generators must continue to recover all relevant short run costs from the energy market with prices continuing to reflect SRMC and Uplift.

- A Capacity Payment Mechanism is a necessary and central feature of any redesigned market. This should compliment a further objective of ensuring the commercial basis for investments made to date are not undermined.
- There is an enduring need to retain regulatory provisions to address market power which will remain a feature of the market unless there is substantial targeted divestment undertaken by ESB.
- Retention of liquidity provisions will be necessary. In the event that a pool-based market is to be implemented, participation should be mandatory to ensure potentially significant liquidity issues are avoided. Similar provisions would be required around the balancing market.
- Locational signals should be retained to ensure appropriate signals are provided to the market on preferred location for new investments.

Energia consider that commitment to these principles as part of a process to design a market that is compliant with the requirements of the EU Target Model will provide for an outcome that is in the best interests of customers, while also respecting the investments made by market participants to date and the absolute role of the TSO in managing and maintaining system security.

The next steps of this project should seek to address the shortcomings of the approach to date, including the need to adopt high level market design principles to guide progress along a planned project path to full compliance for a market that can deliver benefits to customers and does not undermine significant investments made by market participants. The RAs should be assisted in this by independent experts with proven experience of market design. Undue reliance on the assumed impartiality of the TSOs/MO should cease, with the TSOs/MO called on to contribute their technical expertise when required and afforded the same opportunity as market participants to respond to public consultations and engage in future public forums. As a starting point, Energia considers there to be two general but distinct approaches which deserve equal consideration, namely a bilateral market approach and a pool-based market approach. By adhering to the proposed design principles contained in this response, either approach is considered capable of delivering an internally consistent, compliant and efficient market design that will ensure the interests of customers are upheld and significant investments made in the all-island market by participants are not undermined.