

Submission in response to the Public Consultation on:

Electricity Support Schemes: Transitioning to I-SEM Arrangements

Proposed Decision Paper issued on 30 November 2017

Contents

1. Executive Summary

- International investors hold c.51% of total operating Irish REFIT wind assets (“the International Investor Community”). The balance of these assets are owned by utilities, semi-states and independent developer/owners.
- The International Investors include general infrastructure and specific renewable energy investors from across the globe such as Brookfield, BlackRock, Cubico, CGN, GE FS, Greencoat, Invis/Sojitz, I-Squared and NTR, who have the opportunity to invest their capital in attractive renewable infrastructure investments anywhere in the world (subject to their mandates).
- As we work to position and promote Ireland as a Global Green Finance Centre, Sustainable Nation Ireland also advocates for policy and regulatory certainty in order to ensure that Ireland will meet our decarbonisation targets. We recognise the importance of the International Investor Community in stimulating the growth of wind energy in Ireland to date and their importance going forward as we move towards 2030 and beyond.
- In this context, we have consulted with members of our network that are drawn from the International Investor Community (“our Investor Network”) to determine the common factors that should be highlighted in response to the proposed approach to transitioning REFIT into I-SEM. The Investor Network members that we have spoken with, who own 33% of total operating REFIT wind assets, are listed in Appendix I to this paper.
- There are a number of common points upon which our Investor Network agree:
 - They unanimously regard this as a change of government policy, albeit if they invested recently they were aware that some change was coming and would not regard it as a “sudden policy change”.

Certain members of our Investor Network would go so far as to say they are deeply concerned that the change significantly undermines confidence in the Irish policy environment by making fundamental changes to REFIT in circumstances in which the basis of reimbursement was expressly guaranteed for the life of the Scheme.

They also note that this is but one of a number of changes that, together, are materially impacting long term investment decisions that have been made over the last decade in Irish wind, including increases in business rates, Section 5 planning determinations, removal of curtailment compensation etc.

- It is universally acknowledged that government policy change results in a higher risk premium being required by investors. They highlight that policy instability like this will increase the cost of capital for future investments, which will result in a higher cost of

electricity to the Irish consumer and a higher cost of finance for the Irish economy. Their view is that Ireland should be aiming to have a cost of capital approaching the low rates available in Germany, driven by maintaining the consistency and stability of policy that has been in place in Ireland since 2000.

Evidence of the benefit of stable and consistent policy is the rising interest in Irish renewable investments in recent years, increasing transaction volume and falling costs of capital. Their view is that this trend should not be taken for granted, especially as the government has policy objectives involving introducing innovation in finance, e.g. supporting community projects.

- Moreover, they reference the stated objective in the National Mitigation Plan¹, which notes that “policy certainty... will have the direct effect of increasing the available investment opportunities for non-public sources of finance”. They highlighted the importance of joined up thinking, both within specific Departments and across Government more generally.
- Furthermore, they noted that this issue goes broader than just renewables/decarbonisation efforts as the investors in renewables are often broader infrastructure investors and therefore will cross reference their knowledge around Irish government policy certainty in one sector when considering other investments such as in hospitals, toll road, water, waste etc.
- They also raised concerns around the process of engagement with stakeholders in relation to this change and the fact that there are no “grandfathering” arrangements proposed in relation to the transition to I-SEM.

They referred in particular to the emphasis and effort the UK put into grandfathering past renewable energy support agreements, evidenced again on the introduction of the CfD regime there. There is a keen focus in the UK on ensuring that bargains struck at a point in time are not subsequently broken. This has led to the UK being seen internationally as an attractive renewable energy location with huge volumes of inward investment (including offshore wind). Ireland has historically had the same reputation.

- That said, in the main our Investor Network is also cognisant of the need to adapt the existing renewable electricity support schemes so that they are compatible with the new wholesale electricity market design under I-SEM.

It is not that they expect no change, as markets do evolve. However, they do believe that good policy and good regulation involves:

- Grandfathering arrangements to ensure that policy change has prospective effect only

- A process of engagement and consultation that properly takes into account considerations relevant to past investment decisions and their legal and regulatory framework, rather than other less relevant criteria, and
 - Advance planning and timely consultation and decision making.
- Our Investor Network are cognisant of the fact that the Department clearly recognises the need for policy certainty. The Consultation Paper states this at various points, including that “it is not the intention to alter the REFIT scheme in such a way as to undermine investment in the renewable energy sector”². However, and as noted above, certain members are deeply concerned that this change is contrary to this stated intention of the Department.

The Investor Network would like it to be on the record that policy certainty and avoiding policy change is high on their risk analyses with regard to the making of future investment decisions in Ireland and the risk premium they will require in respect of such investments.

- In summary, we can state that all of those listed on Appendix I maintain in the first instance that there should be no change to REFIT. That point made, the listed investors are coalescing around the Dutch Option (Option C). The full detail will be available in their own individual submissions.
- In conclusion, to date Irish policy makers have successfully created an environment for renewable energy investment that is attractive to international investors. In addition to stimulating the growth of wind energy in Ireland, this policy has also facilitated the development of a vibrant, world class cluster of green finance asset management professionals and the ecosystem that serves them.

Now, more than ever, it is critically important for policy-makers to interface with the financial community to ensure we continue to have effective conditions to facilitate investment in renewable energy infrastructure in Ireland. All efforts should continue to be made by the Department to ensure that the voice and concerns of the International Investor Community are heard.

2. Renewable Infrastructure Investment Decisions

This paper has been prepared in response to the Department of Communications, Climate Action and the Environment (“the Department”) Consultation on the Proposed Decision Paper on the transition of REFIT schemes into I-SEM, issued on 30 November 2017.

²

Clearly the Department is aware of the importance of policy certainty in relation to long term investment decisions in renewable energy, as highlighted by the various references in the Consultation Paper³.

We have consulted with our Investor Network to determine the common factors that should be highlighted in response to the proposed approach to transitioning REFIT into I-SEM. The Investor Network members that we have spoken with, who own 33% of total operating REFIT wind assets, are listed in Appendix I to this paper.

Following discussion with our Investor Network, the purpose of this Section 2 of the paper is to highlight, through reference to independent neutral reports and research, the importance of policy certainty and the impact of policy risk on renewable energy investment decisions.

2.1 Investment in Renewable Energy – the Context

As the world focuses on implementing the Paris Agreement, attracting scaled-up private investment to climate solutions is critical.

Ireland has been successful in terms of having the right conditions to attract investment to fuel the growth of our wind sector to date, which has assisted with making progress towards our 2020 renewable electricity EU targets. Key to this were the REFIT schemes, which were specifically designed by policy makers to provide revenue certainty to renewable energy generators in order to stimulate growth of wind energy in Ireland.

International investors hold c.51% of total operating Irish REFIT wind assets (“the International Investor Community”). The balance of the assets are owned by utilities, semi-states and independent developer/owners.

The International Investors include general infrastructure and specific renewable energy investors from across the globe such as Brookfield, BlackRock, Cubico, CGN, GE FS, Greencoat, Invis/Sojitz, I-Squared and NTR, who have the opportunity to invest their capital in attractive renewable infrastructure investments anywhere in the world (subject to their mandates).

Implementation of our National Mitigation Plan over the coming years will require unprecedented levels of private investment, not only for climate reasons but also to deliver energy security, as well as creating the conditions for sustainable development.

The Irish Strategic Investment Fund estimates that Ireland’s transition to a low carbon economy will require in excess of €40 billion of new capital investment by 2050⁴. That top-down analysis of the volume of capital needs to be matched by conditions on the ground that attract and enable capital to be invested.

³ See footnote 2.

⁴

Investment decisions about whether to invest in Ireland (rather than elsewhere around the globe) will be driven by how effectively climate and energy goals are translated into national conditions, particularly policy and regulatory certainty.

Now, more than ever, it is critically important for policy-makers to interface with the financial community to ensure we continue to have effective conditions to facilitate investment in renewable energy infrastructure in Ireland.

2.2 Features of Renewable Infrastructure Investment⁵

Renewable infrastructure projects have high up-front construction costs that are balanced by increasing revenues, or long-term government-regulated – or government contracted– payments over time. Investments in renewable electricity generation require large upfront funding relative to low operating costs.

Please note that for the purposes of this discussion document, we are referring to wind and solar projects only, i.e. where the technology is proven. We are also referring to operational projects – as these have been de-risked from a development/construction perspective.

From an investment perspective, operational wind and solar projects have certain attractive features, including:

- Stable long-term cash flows, often with a level of government regulation underpinning returns
- Long-term inflation linkage
- Low correlation with other asset classes
- Climate-aligned
- Relatively low risk
- Scale – provided projects are large enough/grouped

These features can be very attractive for institutional investors (pension funds and insurance companies) who invest pension or insurance contributions to match their long-term liabilities (to pay policy-holders). As a result, they will accept lower returns over this period given the lower risk taken.

Institutional investment should therefore result in a lower cost of capital for a project and therefore should result in a lower cost of electricity to the consumer.

Unless they have in-house expertise, institutional investors may entrust their capital to investment managers with renewable infrastructure expertise.

These renewable energy infrastructure fund managers would generally, regardless of where they are physically based and depending on their investment strategy, invest in a diverse portfolio of international projects.

⁵ Bloomberg New Energy Finance: Finance Guide for Policy Makers – Renewable Energy, Green Infrastructure (Aug 2016)

2.3 Investment Decision Making⁵

Investors into renewable energy projects carry out detailed risk assessments before making such long term, generally illiquid, investment decisions:

- The approach to investing in renewable energy is approached in much the same manner as it does in any other industry. Investment opportunities are evaluated against internal rate of return or yield expectations, through financial modelling of future cashflows of a project.
- However, this type of investment has certain characteristics that require an additional level of understanding. A number of other factors are layered on top of the basic financial analysis that will be conducted.
- These include the influence of policy and regulation on the viability or attractiveness of an investment, including the detail of any support regime and, as the penetration of renewable energy rises, the broader design and infrastructure of the energy market.
- Policy, politics and regulation can have both a positive and negative impact on renewable energy investment. Overarching policy signals sector growth which is important setting the scale of a pipeline of investable opportunities, and the detail of power markets and specific support (including the pathway out of subsidies) will be instrumental in determining project economics and the attractiveness of the proposition. Conversely, policy uncertainties create investment risk, with retroactive changes being the most damaging.

There are a number of risk assessment frameworks that can be used for renewable energy investment decisions, e.g.:

- Country Risk
- Financial Risk
- Policy and Regulatory Risk
- Technical and Project-Specific Risk
- Market Risk
- Legal/deal Structure

An alternative and comprehensive framework would be the one outlined for the purposes of the EU DiaCore Project⁷, Theme 3 of which addresses financing renewables and risk allocation and explores the variation in capital cost across Europe.

For the purposes of this paper, we simply want to focus on policy risk and how that impacts investment decisions, further detail on which is set out below.

⁵ See footnote 5

2.4 Focus on Policy and Regulatory Risk⁸

Every investor will complete a detailed risk assessment on the policy and regulatory environment before authorizing an investment or a loan.

A long-term, stable policy regime with a sound legal basis is essential for serious investment to occur. Typically, renewable energy generation has been most attractive in a policy-driven market, and that continues to be the case as it moves steadily towards cost competitiveness with conventional power.

Risk analysis in advance of an investment will include an analysis of the duration of the regime, its legal basis, its ability to be amended, a country's track record of adjusting or replacing legislation (and whether this is planned and transparent), and the impact of a change of political party in government.

As the policy framework and any incentive mechanism may be a key part of making project economics attractive, changes to these factors pose a risk, particularly if project revenue is affected.

Keeping policy regimes effective, simple and stable across a time horizon relevant to investments is crucial, given that assumptions about revenue, and factors that can affect this, will be key to investment decisions. One critical condition for investors is 'grandfathering', meaning that policy conditions existing at the time of a particular investment are carried over for that investment, even in the event of any subsequent policy change.

2.5 Impact of Policy Change

On Future Investment Decisions

Retroactive changes that affect the terms of an existing investment (incentives or tax regime, for example) will significantly raise policy risk, often far beyond the individual market or country concerned.

It may also lead some investors to avoid investments backed by revenue support from government. If risk in this area is too high, investors may simply exit a market or sector, or wait until new approaches are fully reflected in law. This results in an investment hiatus. Retroactive policy changes in Europe have also led to a number of lengthy legal battles as investors seek compensation for lost revenues. An oft-cited example of this is the experience in Spain when retroactive cuts to feed-in tariffs for solar PV were made in 2010.

On Cost of Electricity to Consumers

The impact of policy change can also be an increased cost of electricity for the consumer. For this reason, renewable energy support schemes are designed to create more revenue certainty, lowering the cost of capital and thus the cost of electricity (ultimately to the consumer).

- As previously noted, investments in renewable electricity generation require large upfront investments relative to low operating costs

- If investors perceive an investment as higher risk (due to previous retroactive policy change), they will demand a higher fee for making capital available.
- The cost of this compensation (the cost of capital) must be paid from the revenues of the project
- Perceived risky investments have higher cost of capital and require higher tariffs

Key relevant findings from the EU funded DiaCore Project were

- Varying cost of capital can lead to significant cost differences in the development of similar renewable energy projects between Member States
- Policy makers should avoid sudden policy changes and should aim for stable, predictable and enabling policy environments.

For further detail on the cost of capital across different member states, albeit in 2014, see the DiaCore report⁹. For more up to date analysis, see the Grant Thornton Renewable Energy Discount Rate Survey published in December 2017¹⁰.

3. Summary of Feedback from our Network

There are a number of common points upon which our Investor Network agree:

- They unanimously regard this as a change of government policy, albeit if they invested recently they were aware that some change was coming and would not regard it as a "sudden policy change".

Certain members of our Investor Network would go so far as to say they are deeply concerned that the change significantly undermines confidence in the Irish policy environment by making fundamental changes to REFIT in circumstances in which the basis of reimbursement was expressly guaranteed for the life of the Scheme.

They also note that this is but one of a number of changes that, together, are materially impacting long term investment decisions that have been made over the last decade in Irish wind, including increases in business rates, Section 5 planning determinations, curtailment uncertainties etc.

- It is universally acknowledged that government policy change results in a higher risk premium being required by investors. They highlight that policy instability like this will increase the cost of capital for future investments, which will result in a higher cost of electricity to the Irish consumer and a higher cost of finance for the Irish economy. Their view is that Ireland should be aiming to have a cost of capital approaching the low rates available in Germany, driven by maintaining the consistency and stability of policy that has been in place in Ireland since 2000

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- Evidence of the benefit of stable and consistent policy is the rising interest in Irish renewable investments in recent years, increasing transaction volume and falling costs of capital. Their view is that this trend should not be taken for granted, especially as the government has policy objectives involving introducing innovation in finance, e.g. supporting community projects.
- Moreover, they reference the stated objective in the National Mitigation Plan¹¹, which notes that “policy certainty... will have the direct effect of increasing the available investment opportunities for non-public sources of finance”. They highlighted the importance of joined up thinking, both within specific Departments and across Government more generally.
- Furthermore, they noted that this issue goes broader than just renewables/decarbonisation efforts as the investors in renewables are often broader infrastructure investors and therefore will cross reference their knowledge around Irish government policy certainty when considering other investments such as in hospitals, toll road, water, waste etc.
- They also raised concerns around the process of engagement with stakeholders in relation to this change and the fact that there are no “grandfathering” arrangements included in the proposal.

They referred in particular to the emphasis and effort the UK put into grandfathering past renewable energy support agreements, evidenced again on the introduction of the CfD regime there. There is a keen focus in the UK on ensuring that bargains struck at a point in time are not subsequently broken. This has led to the UK being seen internationally as an attractive renewable energy location with huge volumes of inward investment (including offshore wind). Ireland has historically had the same reputation.

That said, in the main our Investor Network is also cognisant of the need to adapt the existing renewable electricity support schemes so that they are compatible with the new wholesale electricity market design under I-SEM. It is not that they expect no change as markets do evolve. However, they do believe that good policy and good regulation involves:

- Grandfathering arrangements to ensure that policy change has prospective effect only
- A process of engagement and consultation that properly takes into account considerations relevant to past investment decisions and their legal and regulatory framework, rather than other less relevant criteria, and
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Our Investor Network are cognisant of the fact that the Department clearly recognises the need for policy certainty. The Consultation Paper states this at various points, including that “it is not the intention to alter the REFIT scheme in such a way as to undermine investment in the renewable

energy sector”¹². However, and as noted above, certain members are deeply concerned that this change is contrary to this stated intention of the Department. The Investor Network would like it to be on the record that policy certainty and avoiding policy change is high on their risk analyses with regard to the making of future investment decisions in Ireland and the risk premium they will require in respect of such investments.

In conclusion, we can state that all of those listed on Appendix I maintain in the first instance that there should be no change to REFIT. That point made, the listed investors are coalescing around the Dutch Option (Option C). The full detail will be available in their own individual submissions.

4. REFIT & I-SEM – the Sustainable Nation Ireland Viewpoint

The transition to a low carbon economy is a huge opportunity for Ireland, catalysing economic growth and jobs. Sustainable Nation Ireland has been established to bring together capital market participants, corporates, innovators, and public sector organisations to stimulate increased investment in sustainable infrastructure and innovation.

Promoting Ireland as a Global Green Finance Centre under IFS2020

Sustainable Nation Ireland has a role under the Irish government’s IFS2020 Strategy to promote and position Ireland as a Global Green Finance Centre, while raising awareness domestically of the responsible investment agenda. Finance Green Ireland is our initiative to drive awareness of Ireland’s world leading green finance credentials and promote Ireland as a Global Green Finance Centre.

However, we do receive feedback that promoting Ireland as a global green finance centre is more difficult when Ireland is unlikely to meet its own EU climate targets. As a result, Finance Green Ireland also advocates for policy and regulatory certainty to allow local and global capital contribute to Ireland’s decarbonisation efforts. We recognise the importance of the International Investor Community in stimulating the growth of wind energy in Ireland to date and their importance going forward as we move towards 2030 and beyond.

In that context, in addition to the concerns outlined above regarding impact on future investment decisions and increased cost of electricity to consumers, we would have a concern that this would augment negative international commentary on Ireland as a Global Green Finance Centre more generally, which also forms part of Irish government strategy.

Irish Based Renewable Infrastructure Fund Managers

We have a cluster of renewable energy infrastructure fund managers in Ireland, including BlackRock, Brookfield Renewable, Greencoat, NTR, InframEnergy and Mainstream Renewable Capital, with €7bn of assets under management (invested and announced). This is one our key USPs with regard to differentiating Ireland as a Global Green Finance Centre.

¹²

Furthermore, as these fund managers have often upskilled in the Irish market, while they are managing international funds and investing in projects all over the world, they generally look to their own backgarden – helping us achieve our national decarbonisation targets. We therefore highlight the opportunity to leverage off our homegrown experts in relation to renewable infrastructure investment, particularly given the importance of this sector under government’s IFS2020 Strategy.

5. Conclusion

To date, Irish policy makers have successfully created an environment for renewable energy investment that is attractive to international capital investors. In addition to stimulating the growth of wind energy in Ireland, this policy has also facilitated the development of a vibrant, world class cluster of green finance asset management professionals and the eco-system that serves them.

Now, more than ever, it is critically important for policy-makers to interface with the financial community to ensure we continue to have effective conditions to facilitate investment in renewable energy infrastructure in Ireland. All efforts should continue to be made by the Department to ensure that the voice and concerns of the International Investor Community are heard.

Appendix I: Investor Network Members

Investor	MW Owned	% REFIT operating assets
Brookfield	413	14%
Greencoat	170	6%
Invis/Sojitz (separate parties)	240	8%
I-Squared	125	4%
NTR (Note 1)	40	1%
TOTAL	988	33%

Note 1: Total NTR MW affected by I-SEM to be 100MW, including assets located in Northern Ireland as part of SEMO.