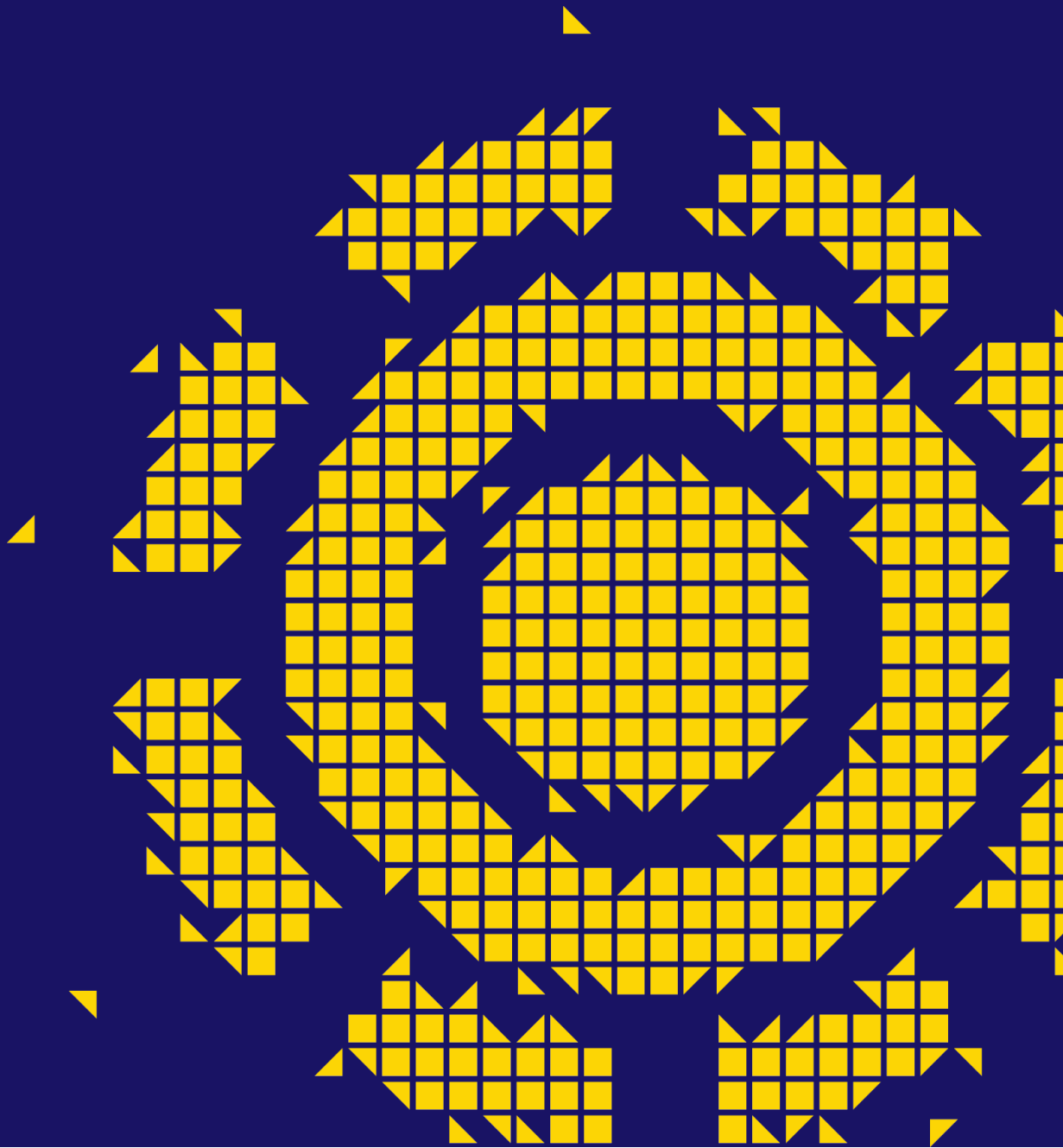


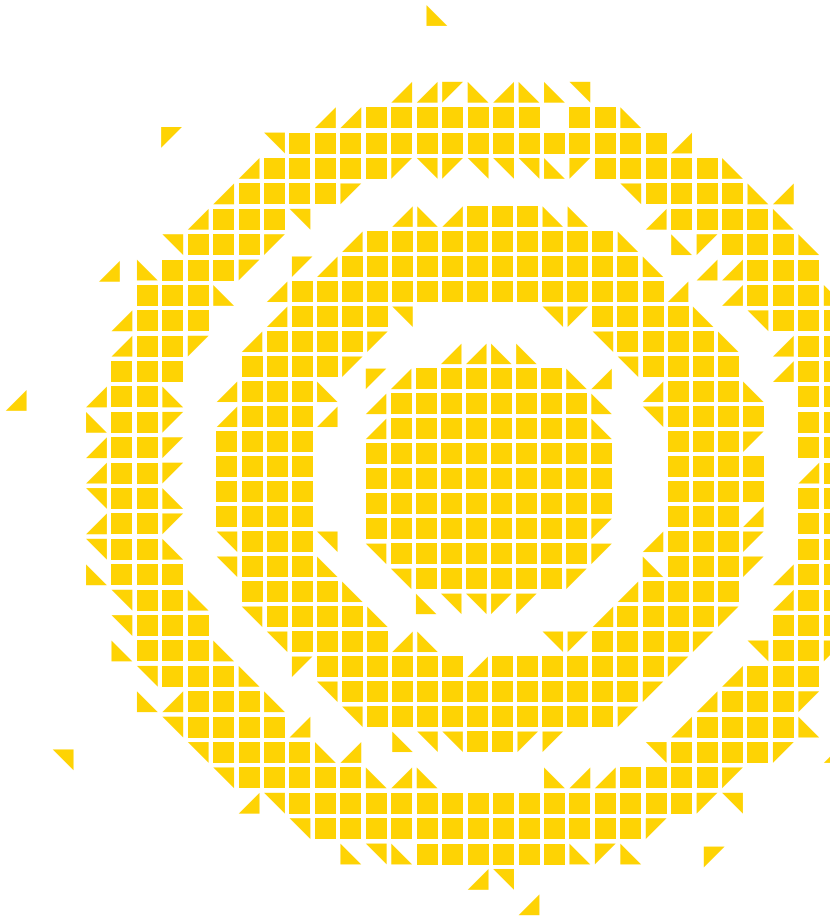
The Future of Northern Ireland Renewables Support





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Introduction

A rapid decision on the future of renewables support in Northern Ireland (NI) is needed to deliver continued investment and the resulting economic benefits. As energy policy is devolved to NI, key decisions on future renewables support will be made by the NI Government.

The NI Executive indicated in the ‘Call for Evidence on the implementation of the Contract for Difference (CfD) scheme in Northern Ireland’¹ that it has not made a final decision on the support scheme:

“the Minister for Enterprise, Trade and Investment, in conjunction with her NI Executive colleagues, will review the earlier decision on whether the CfD scheme should be implemented in NI in light of the responses to this call for evidence and further stakeholder engagement.”

On 30 September 2015, the Department of Enterprise, Trade and Investment (DETI) issued a consultation paper on the early closure of the NI Renewables Obligation (NIRO) subsidy scheme for onshore wind². After a short consultation period, of two weeks, it is proposed that NI align with the Department of Energy & Climate Change (DECC) policy of closure of the Renewables Obligation (RO) to onshore wind on 1 April 2016, with grace periods for projects which meet certain criteria. The Minister for Enterprise, Trade and Investment has indicated that a key driver of this proposal is that, after April 2016, the cost of any new projects supported by NIRO would be borne solely by the relatively small number of NI energy consumers rather than by all consumers across the UK.

In making a decision on the future of renewables support in NI, it is important to take a broad view including:

Impact on renewables deployment:

- Jobs, taxes and other economic benefits;
- Cost of electricity and particularly on the major issue of fuel poverty; and
- NI’s “CfD balance of payments”, subsidy payments to local

projects less payments by NI consumers to fund the CfD.

To support this debate, this paper provides an overview of the current position on renewables support in NI, a summary of the CfD and an assessment of the economic implications of three different ways forward:

- Full participation in the Great Britain (GB) CfD;
- A NI specific variant of the CfD; and
- An All Island renewables support scheme.

We conclude that a CfD variant specifically designed around the situation in NI will deliver the greatest net benefit to NI.

¹ (Department of Enterprise, Trade and Investment, 23 March 2015)

² (Department of Enterprise, Trade and Investment, 30 September 2015)



Time to make a commitment

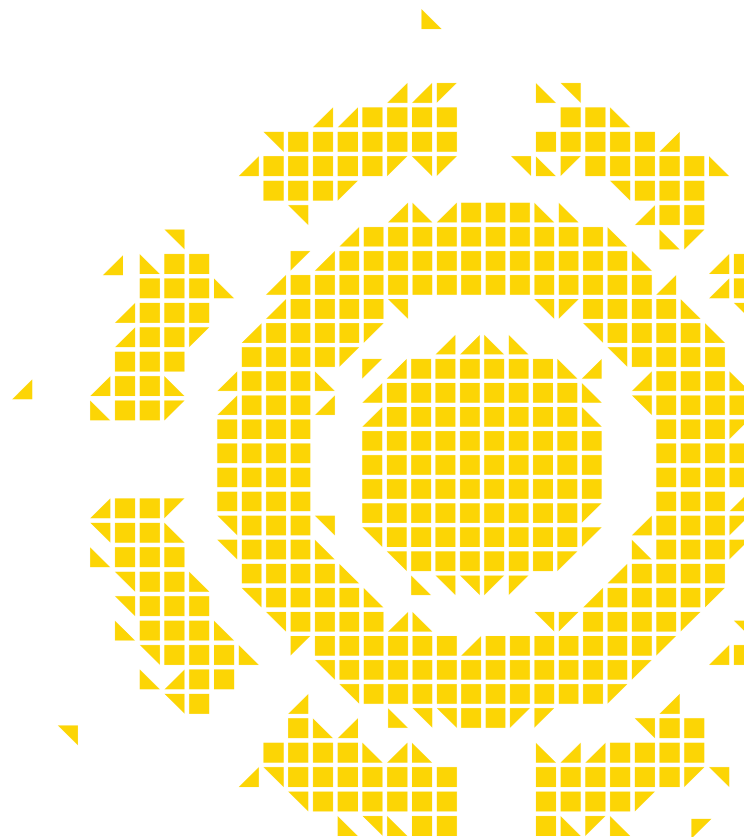
In 2012, the NI Executive consented to the CfD being implemented in NI³ while taking account of NI's participation in the Integrated Single Electricity Market (I-SEM) in Ireland. In December 2013, the DETI Minister gave consent for the CfD strike prices in NI to be the same as those in GB. The NI Government has agreed to end the RO, other than for onshore wind, in April 2017⁴.

The UK Government plans to integrate NI into a UK-wide CfD with a UK-wide allocation mechanism and socialisation of the costs of the CfD across all UK consumers. A key policy driver is that, if the CfD strike prices, allocation mechanism or means of funding are different in NI, then a new EU State Aid approval would be required which is not certain to be granted and would take considerable time.

To support investor confidence and so maintain investment in renewables requires urgent decisions which are seen to be enduring. To maintain investor confidence, the decisions need to make sense in economic, financial and political terms. This requires broad political support in NI and Westminster; and clear local economic and environmental benefits. Making the right decisions now would lead to a net inflow of CfD monies into NI and support increased investment in renewables which will generate green power and local jobs.

Maintaining investment is an important consideration given concerns that the confidence of investors in support for renewables is reducing: the Energy and Climate Change Committee in the House of Commons has recently announced an inquiry into investor confidence in the energy sector⁵. Since its election in May 2015, the UK Government has made thirteen policy changes which inhibit investment in renewables (such as slashing the level of support for solar PV projects) and has not provided investors the certainty they seek by setting a date for the next CfD auction or providing clarity on the Levy Control Framework (LCF) budget for renewables subsidies.

If the NI Government implements the CfD ambition, it should be timed so that local generators can access the next allocation round. Missing the allocation round would be unfortunate, as it could mean consumers helping to fund the CfD, but without generators in NI being eligible for CfDs.



3 (Department of Enterprise, Trade and Investment, 27 March 2015)

4 (Department of Enterprise, Trade and Investment, 23 March 2015)

5 For details of this enquiry go to: <http://www.parliament.uk/business/committees/committees-a-z/commons-select/energy-and-climate-change-committee/inquiries/parliament-2015/investor-confidence/>



EMR in NI

A key part of the GB Electricity Market Reform (EMR) is the replacement of the existing RO with the CfD. CfDs are designed to provide long-term price stabilisation to renewable electricity generators, helping to reduce the cost of capital as compared to the RO. Under a CfD, a generator is paid the difference between the 'strike price' – a price for electricity reflecting the cost of investing in a particular low carbon technology – and the 'reference price' – a measure of the average market price for electricity. The CfD gives greater certainty and stability of revenues to electricity generators by reducing their exposure to volatile wholesale prices.

The cost of CfDs is currently met by GB consumers via the supplier obligation (a levy on electricity suppliers), but the intention is that the supplier obligation will be extended to all UK consumers once the CfD is implemented in NI.

CfDs are allocated by competitive auctions in which generators submit sealed bids. Starting with the project(s) bidding the lowest 'strike price', CfDs are awarded until all of the subsidy budget has been used up. All successful projects receive the market clearing price in their auction, subject to a specific price cap (the administrative strike price for that technology's set by Government).

The Government has placed a cap on support for renewable generation through the Levy Control Framework (LCF), which sets annual limits on the overall projected cost of all low carbon electricity policies funded by consumers, including the CfD and RO schemes. The CfD provides for reserved budgets for certain technologies and in the first auction there was a 10MW minimum for wave and tidal stream projects, allowing these technologies first access to the LCF budget, protected from competition from other technologies.

On current projections, the LCF expenditure cap has been exceeded by approximately 20% as a result of lower than expected market electricity prices and higher than expected renewable energy generation⁶. This overspend is one of the reasons for cut-backs in renewables support schemes in GB, and decisions on the LCF budget and the next CfD auction are being delayed.

⁶ (Office for Budget Responsibility, July 2015)

IMPACT ON ELECTRICITY BILLS IN NI

NI benefits from a discount on funding the RO, which sets a precedent for the CfD. Since 2005, the levy paid by NI energy consumers has been lower than it would otherwise have been, due to the lower RO obligation imposed on NI suppliers compared to those in GB⁷. Under the CfD scheme, with increasing renewables deployment across the UK, the direct cost of renewables support for NI consumers could increase almost three-fold by 2020, compared with a two-fold increase for GB consumers⁸.

In addition, under the RO, there is a net benefit for NI from the development of renewables as GB consumers make a net contribution towards deployment in NI. This net benefit is because a greater proportion of Renewables Obligation Certificates (ROCs) are awarded to generators in NI than are paid for by NI consumers⁹.

⁷ (Department of Enterprise, Trade and Investment, 23 March 2015)

⁸ Currently £17.25 (2.9% of an average domestic annual electricity bill) is NIRO cost in the Power NI 2014/15 tariff, Source: Utility Regulator. The estimated cost of renewables support in 2020 is made up of the following elements; NIRO £24 (DETI estimate as half of the GB RO of £48); CfDs £30; Total £54 on bills in 2020. Source: (Department of Enterprise, Trade and Investment, 27 March 2015) footnote 2).

⁹ (Department of Enterprise, Trade and Investment, 27 March 2015)



Alternative ways forward

There are three main options for NI for future support for renewable generation:

- Full participation in the GB CfD;
- An NI specific variant of the CfD; or
- An All Island renewables support scheme.

Each of these is discussed below, including key economic features and pros and cons.

Once an option has been selected, there will need to be detailed implementation planning, including consideration of an appropriate timetable.

FULL PARTICIPATION IN THE GB CfD

Full participation in the GB CfD is the path the UK Government has proposed for NI. It requires limited changes to the GB CfD, such as determining an appropriate market price for NI.

PROS:

Implementing the GB CfD in NI would be relatively quick and easy as the required changes to the GB CfD would be limited. The major areas of change are:

- Adopting a reference price which is relevant to the NI electricity market, namely the I-SEM;
- Adjusting for the regulatory arrangements in NI where they differ from those in GB; and
- The supplier obligation and the precise way in which funding for the CfD is collected from electricity consumers in NI.

Making the NI CfD as similar as possible to the GB CfD would result in low design and implementation costs which enhances the value for money of this option.

In GB, designing the EMR (and particularly the CfD), consulting on EMR, gaining State Aid approval and then implementation required a significant, sustained effort from both government and the energy sector.

The closer the NI scheme is to the GB CfD, the less work will be required for investors, the public and project developers to

understand the scheme.

Greater consistency will reduce a barrier to investment.

CONS:

Minimising the changes to the GB CfD does not fully reflect that NI is in the I-SEM and adopting a sub-optimal subsidy could have a significant effect on the cost of electricity in Ireland – particularly over time as subsidies shape investment decisions and hence generation plant in NI.

Not being fully tailored to the specific circumstances of NI can lead to unintended consequences. These include inefficient investment (with investment going to the North or South depending on which has the more attractive support scheme, rather than where the best sites are), gaming of the different support schemes and adding complexity to investment decisions which may deter them. There is also the risk of inefficient dispatch decisions with the support system incentivising expensive generation to run in the place of more cost effective plant.

Two separate and different support systems for renewables within the I-SEM will reduce the integration between the markets in the North and South and so limit competition. Price signals will be distorted by the different incentives; generators will focus on getting the biggest subsidy; and management time will be devoted to dealing with a complex market which will reduce the focus on driving down costs and meeting customer demand.

Simply implementing the GB CfD will remove key policy levers available to the NI Government to manage deployment of renewables and the costs imposed on local consumers. The local Executive would lose control of the level of renewables support and also the total cost of support, which would both be determined by the UK Government.

Economic analysis being carried out for DETI suggests that it is economically optimal for a quarter of NI generation to be renewables¹⁰. There is no reason to assume that a UK CfD will deliver the optimal level of renewable generation in NI.

¹⁰ (Department of Enterprise, Trade and Investment, 27 March 2015)



NI specific CfD variant

The CfD can be tailored to NI more accurately than the minimal changes in the first option¹¹. For example, there could be a minimum in the CfD budget for renewables in NI and the NI Executive could have power to set the local strike prices.

Under the CfD, there is already a capacity minimum for wave and tidal CfDs which could be used as a precedent for a minimum for renewables in NI. At present, where any minimum technology thresholds are binding, a separate auction is run before the general CfD auction.

In the separate auction, there are bids from only the relevant technology and the cheapest bids are accepted until the minimum capacity threshold is reached. The projects that are not accepted in the minimum auction still take part in the general auction that follows.

Allowing the Executive to determine strike prices in NI would provide a policy lever to deliver the appropriate balance between the following important local issues:

- Jobs and taxes generated by investment in renewables;
- Increasing the alignment of incentives within the I-SEM; and
- The impact of the CfD levy on the cost of electricity and so on the incidence of fuel poverty. The NI House Condition Survey 2011¹² shows that fuel poverty in NI is endemic, 42% of all households are in fuel poverty.

The cost of the CfD to NI consumers would also be reduced if the NI discount on the RO supplier obligation was extended to the CfD.

PROS:

The pros of a more tailored CfD include:

- The scope to refine policy in order to optimise local economic benefits;
- Making the scheme fit better with local circumstances and be better aligned with support schemes in Ireland; and
- The ability of policy design and implementation to address fuel poverty.

CONS:

On the other hand, the cons of a more tailored CfD include:

- There will be greater design and implementation costs. Most importantly, a requirement for a new State Aid approval could significantly delay implementation of a new policy;
- There is a question as to whether a NI specific CfD variant could be put in place before the expected closing of the NIRO for onshore wind in April 2016;
- Greater divergence from the approach in GB would add complexity for some investors who would need to understand a significantly different system and might be discouraged from investing in the relatively small NI renewables market; and
- Designing an efficient and cost effective renewables support scheme is complex and there is always the danger of unintended consequences and high administrative costs.

¹¹ As an aside, energy policy in NI could be refined by allowing third parties to construct transmission and distribution assets which would encourage offshore wind. This would make NI more attractive for offshore wind projects and drive increased use of the existing offshore wind port facilities in Belfast. This development has been looked at favourably by the Utility Regulator (Utility Regulator, July 2015).

¹² (The Northern Ireland Housing Executive, April 2013)



An all Island renewables support scheme

The third option is for NI to adopt a variant of the Irish Renewable Energy Feed in Tariff (REFIT) scheme. In Table 1, key features of REFIT 2¹³ and the GB CfD¹⁴ are compared. The eligibility criteria are similar for the two schemes, but there are a number of other important differences:

- REFIT 2 is simpler, as the scheme specifies the price paid for the electricity and the subsidy is not auctioned, which reduces risk;

- The electricity price for onshore wind under REFIT 2 is significantly lower than under the CfD; and
- REFIT 2 covers fewer technologies than the CfD and specifically does not cover offshore wind, nor large solar PV.

Table 1: Key features of REFIT 2 and the GB CfD

	REFIT 2	GB CfD
Price level for onshore wind projects per MWh	€66.35 paid to the generator. Adjusting for inflation and the exchange rate this is equivalent to £56.70 on a similar basis to the £95 2014/15 CfD administrative strike price. ¹⁵	The administrative strike price is £95 for projects awarded a CfD in 2014/15. As CfDs are allocated by auction, a project may receive a lower strike price (the market clearing price).
Main technologies covered	Onshore wind, biomass, landfill gas and small hydro ≤ 5MW.	Onshore and offshore wind, large solar PV, biomass, landfill gas, anaerobic digestion and hydro.
Key eligibility requirements	<p>Proof of:</p> <ul style="list-style-type: none"> • Planning permission; • Grid connection; and • Title to the site. <p>In addition, the plant must start operations in the period 2010 to 2015.</p>	<p>Proof of:</p> <ul style="list-style-type: none"> • Planning permission; • An accepted grid connection offer; and • A substantial financial commitment.
Allocation method	<p>Compliant projects are allocated the REFIT 2 on a first come, first served basis until the 4GW capacity limit is reached.</p> <p>Any single project larger than 125MW must apply for its own State Aid approval.</p>	The CfD is allocated by competitive auction within a budget set by Government. CfDs are allocated until the budget is used up starting with the project(s) bidding the lowest strike price.
Subsidy period	Maximum 15 years.	Maximum 15 years.
Indexation	The reference price is indexed to the Consumer Price Index (CPI) in Ireland.	The strike price is indexed to the Consumer Price Index (CPI) in the UK.

¹³ REFIT 1 is now closed to new applications. REFIT 2 is the support mechanism for Onshore Wind, Hydro and Biomass Landfill Gas Technologies connected to the grid over the period 2010-2017. REFIT 3 is the support mechanism for Biomass Technologies connected to the grid over the period 2010-2015

¹⁴ This column provides information for the CfD as implemented in GB

¹⁵ The REFIT 2 tariff has been converted into sterling using an exchange rate of £0.836 per € and assuming 2.2% Irish inflation between 1.1.2010 and 1.4.2012



PROS:

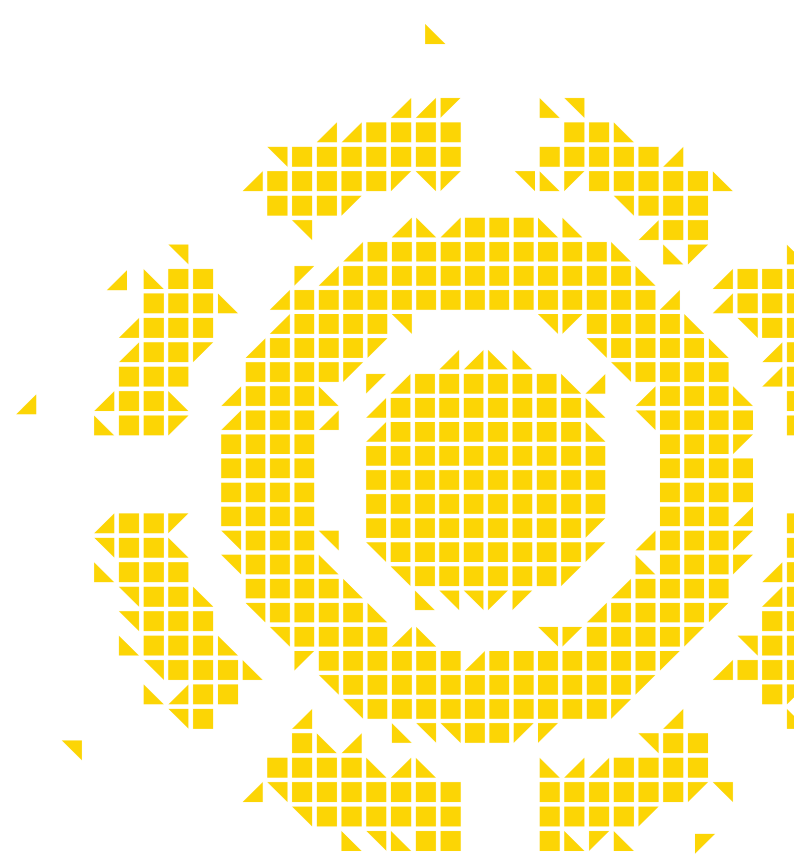
The pros of an All Island renewables support scheme include:

- Greater uniformity within the I-SEM will increase competition and cut administration costs for both the public and private sectors;
- REFIT 2 is simpler and less risky for investors than the CfD, as the former is not allocated by auction and REFIT 2 specifies the price paid for electricity rather than providing a top-up payment; and
- The cost to the consumer of REFIT 2 subsidies are substantially lower than under the CfD.

CONS:

The cons of an All Island renewables support scheme include:

- The value of the REFIT 2 support for onshore wind is substantially lower than under the CfD and hence an All Island REFIT 2 would provide a lower incentive to invest in renewables;
- REFIT 2 does not cover large solar PV, nor offshore wind;
- There will be design and implementation costs in introducing REFIT 2 and the associated funding mechanisms into NI; and
- Issues that would need to be addressed include legislative and regulatory change and introducing the required governance; but the success of the I-SEM project is a basis on which to build.





Conclusions

In order to develop renewable generation in NI to deliver maximum benefits to the local community, our analysis leads us to conclude that:

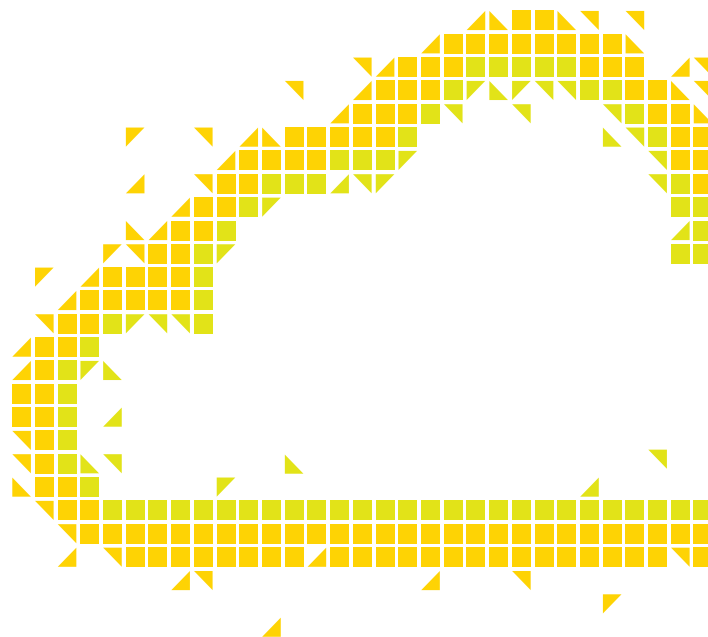
- A new support scheme should be put in place well ahead of the closing of the NIRO for onshore wind in April 2016, so that investors and the institutions administering the support have adequate time to prepare;
- The date at which any NI CfD starts can be optimised so that NI consumers do not start paying the CfD supplier obligation before NI renewables projects have had sufficient time to prepare to bid competitively for CfDs;
- The case for the new support scheme should be clearly documented and communicated to enhance investor confidence and to demonstrate regulatory certainty and commitment. This is particularly the case given the current concerns regarding confidence among investors in renewables; and
- It is important to learn from experience in GB of the costs of policy changes in delaying / reducing investors and hence the level of investment¹⁶.

In our view, the best balance between speed and ease of implementation, and an approach tailored to the specific circumstances in NI is a variant of the GB CfD, with locally determined strike prices, a minimum budget allocation for NI projects and a continuation of the discount which NI enjoyed on the RO supplier obligation.

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October 2015

¹⁶ In GB EMR led to a hiatus in investment in some renewable technologies as Government developed the detail of the CfD and then investors got comfortable with it





Bibliography

Department of Energy & Climate Change. (February 2015). *CfD Auction Allocation Round One - a breakdown of the outcome by technology, year and clearing price*. London: UK Government.

Department of Enterprise, Trade and Investment. (23 March 2015). *Call for Evidence on the implementation of the Contract for Difference (CfD) scheme in Northern Ireland*. Belfast: Government of Northern Ireland.

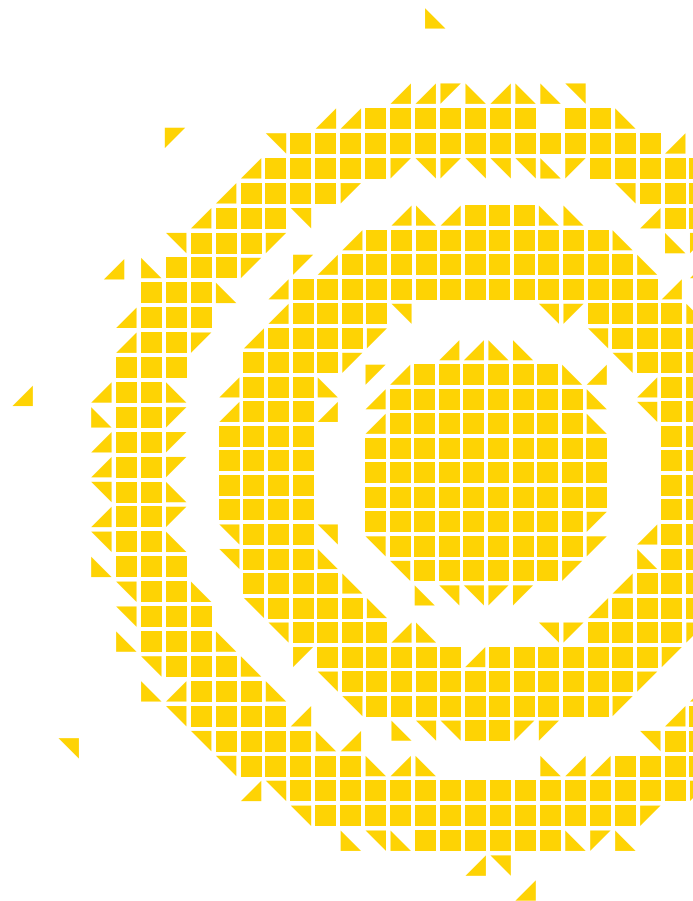
Department of Enterprise, Trade and Investment. (27 March 2015). *CfD Implementation in NI – Strategic issues Discussion Paper*. Belfast: Government of Northern Ireland.

Department of Enterprise, Trade and Investment. (30 September 2015). *Closure of the Northern Ireland Renewables Obligation to new onshore wind in 2016*. Belfast: Government of Northern Ireland.

Office for Budget Responsibility. (July 2015). *Economic and Fiscal Outlook: Fiscal Supplementary Tables*. London: UK Government.

The Northern Ireland Housing Executive. (April 2013). *Northern Ireland House Condition Survey 2011, Main Report*. Belfast: Housing Executive.

Utility Regulator. (July 2015). *Contestability in Connections*. Belfast: Utility Regulator.



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