



House of Commons  
Northern Ireland Affairs  
Committee

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**Electricity sector in  
Northern Ireland**

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**Third Report of Session 2016–17**

*Report, together with formal minutes  
relating to the report*

*Ordered by the House of Commons to be printed  
26 April 2017*

## Northern Ireland Affairs Committee

The Northern Ireland Affairs Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Northern Ireland Office (but excluding individual cases and advice given by the Crown Solicitor); and other matters within the responsibilities of the Secretary of State for Northern Ireland (but excluding the expenditure, administration and policy of the Office of the Director of Public Prosecutions, Northern Ireland and the drafting of legislation by the Office of the Legislative Counsel).

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### Publication

Committee reports are published on the Committee's website at [www.parliament.uk/niacom](http://www.parliament.uk/niacom) and in print by Order of the House.

Evidence relating to this report is published on the [inquiry publications page](#) of the Committee's website.

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# 1 Introduction

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1. Developing a coherent, long-term strategy which successfully balances the competing demands for electricity to be secure, affordable and sustainable is one of the most fundamental challenges for any government. The strength of an electricity sector is a key determinant of success in a range of policy areas. Industrial strategy requires an electricity sector which ensures reliable, accessible and competitively-priced energy to attract foreign direct investment and create jobs. Welfare policy requires an electricity sector that can provide secure and affordable energy so people can keep the lights on and power their homes. Environmental strategy requires policies that encourage sustainable, renewable energy and promote technologies which will maximise their utility.

2. Northern Ireland has struggled historically to balance the challenges within this so-called energy ‘trilemma’ of security of supply, affordability and sustainability, and continues to do so. Electricity prices remain uncompetitive for large energy users, with this having been identified as a leading factor in the loss of major employers, such as Michelin in Ballymena, and an inability to attract new foreign direct investment from energy-intensive industries.<sup>1</sup> The security of supply situation is such that the system operator, SONI Ltd, fears it may not be able to “keep the lights on” beyond 2021 without new interconnection with the Irish Republic.<sup>2</sup> In addition, the NI Executive’s target for 40 per cent of electricity to come from alternative energy sources by 2020 has been put at risk by the early closure of the Northern Ireland Renewables Obligation (NIRO), leaving Northern Ireland as the only part of the UK without a renewables incentivisation scheme.<sup>3</sup> The Committee was deeply concerned by these developments and, knowing the relevance of the electricity sector to the wider policy environment, we wanted to investigate further.

3. The electricity sector in Northern Ireland consists of organisations responsible for generation, transmission, distribution, supply and regulation. The primary generators of electricity are AES—owners of the Ballylumford and Kilroot Power Stations—and ESB—owners of the Coolkeeragh Power Station—as well as a growing number of renewables generators. The transmission network is owned by NIE Networks and operated by SONI, while the distribution network is both owned and operated by NIE Networks. There are a number of electricity suppliers in Northern Ireland, the most dominant of which are Power NI and SSE Airtricity. The electricity sector is regulated by the Utility Regulator, an independent non-ministerial government department.

4. Energy policy is devolved to the NI Executive, but energy policy, markets, systems and infrastructure are complex and interconnected, which means that the UK Government continues to play an important role, both directly and indirectly, in shaping the electricity sector in Northern Ireland.<sup>4</sup> In addition, following the referendum on 23 June 2016 on the UK’s membership of the European Union, it is clear that Whitehall will play a leading role in determining Northern Ireland’s energy relationship with other Member States, including the Republic of Ireland, during the negotiation process.

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1 Manufacturing NI ([ENI0006](#))

2 SONI Ltd ([ENI0024](#))

3 Q75 (Rachel Anderson, Northern Ireland Renewables Industry Group)

4 AES UK and Ireland ([ENI0013](#))

5. There are many reasons for the challenges faced by Northern Ireland's electricity sector, not least its geographic remoteness and the pressures that are inevitable within a small system. However, there is considerable scope for policy interventions which would help to promote a more secure, affordable and sustainable electricity system in the region.

6. With this in mind, we decided to undertake an inquiry in April 2016 into *the electricity sector in Northern Ireland*. The scope of our inquiry was deliberately broad, reflecting the fact that electricity policy should be considered in a way which reflects its interconnected nature. We sought evidence on the challenges faced by the NI Executive in meeting its target for renewables to contribute 40 per cent of electricity supply by 2020 and asked about the steps required to prevent an anticipated shortfall in generating capacity in the coming years. We were interested in addressing the factors underlying higher electricity prices in Northern Ireland, and how these could be tackled. We also wanted to find out more about the steps required to improve interconnection with the Republic of Ireland and GB markets. In particular, we were keen to find out whether the implementation of UK energy policy had caused difficulties for Northern Ireland in the context of the all-island electricity market, and whether the UK Government was adequately taking into account the aspirations of the sector and the NI Executive when developing energy policy.

7. Over the course of our inquiry we took oral evidence from a wide range of organisations, including Ulster University, the Northern Ireland Renewables Industry Group (NIRIG), RenewableUK, the Consumer Council for Northern Ireland, Power NI, SSE Airtricity, AES UK and Ireland, ESB, the Utility Regulator, SONI Ltd, Mutual Energy, NIE Networks, the Chair of the Energy and Manufacturing Advisory Group (EMAG), Manufacturing NI, Bombardier, and Simon Hamilton MLA, the then Minister for the Economy. In addition, we received written evidence from 30 organisations and individuals, all of which has been published on our website, and held informal meetings with AES UK and Ireland and Gaelectric in October 2016.

8. This Report uses that evidence to highlight some of the key issues affecting the electricity sector in Northern Ireland and makes a number of recommendations to the UK Government, Northern Ireland Executive and industry bodies, urging changes to policies and working practices which we believe would create a more secure, affordable and sustainable electricity system in Northern Ireland.

9. We should note at the outset that the Committee has not taken evidence in relation to the Renewable Heat Incentive (RHI) Scheme, as it is a wholly devolved matter and outside the scope of the inquiry. However, we reserve the right to do so in the future should the NI Executive seek support from the UK Government to cover its liabilities under the Scheme.

10. The Report starts by considering how electricity policy is formulated in Northern Ireland, with a particular focus on how, despite devolution, decisions made at a UK-level continue to have a significant influence in Northern Ireland. The second chapter considers the implications of the UK's decision to leave the EU on Northern Ireland's electricity sector, and the policy implications that will need to be addressed by the Government and the NI Executive in the forthcoming negotiations. The final three chapters summarise the key challenges facing the electricity sector, as raised with us by our witnesses. These are structured in terms of the 'energy trilemma'—security of supply, affordability and sustainability.

11. We are grateful to all those who gave oral evidence and provided informal briefings, to those who submitted written evidence, to the Speaker of the Northern Ireland Assembly, Robin Newton MLA, for allowing us to hold our oral evidence sessions at Parliament Buildings in Stormont, and for the NI Assembly staff who facilitated our meeting there.

## 2 Electricity policy in Northern Ireland

12. Energy policy is a devolved matter, with the newly-formed Department for the Economy taking lead responsibility. Only nuclear energy is an excepted matter, with responsibility for policy-making retained at a national level.<sup>5</sup> Nevertheless, there remain significant interdependencies between the two electricity sectors. This chapter examines the ways in which the UK Government influences Northern Ireland's electricity sector and the lessons which could be learned from recent UK-wide policy changes that have had unintended consequences in the region. It also considers some of the challenges the NI Executive faces in developing electricity policy and addresses concerns raised in evidence regarding the Executive's approach to policy-making and the draft Programme for Government.

### The UK Government's role

13. Although electricity is devolved, policy changes at a UK level continue to have implications for Northern Ireland due to, as AES described, "the complex, interconnected nature of energy markets, systems and infrastructure".<sup>6</sup> This means that the NI Executive is often not able to develop policies in isolation, but instead must consider constraints which exist at a UK-level, as well as an all-island level, due to its participation in the Single Electricity Market. This is a wholesale market through which electricity is bought and sold on the island of Ireland through a mandatory pool.<sup>7</sup> The following sections outline some of the ways in which the UK Government exerts significant influence over policy-making in Northern Ireland.

### Renewables Obligation

14. The Renewables Obligation (RO) was introduced in 2002 by the UK Government as a financial support scheme for renewable electricity projects, providing participants with support per megawatt hour (MWh) of renewable electricity generated at a relatively stable rate for 20 years. The NI Executive launched its own version of the RO, the Northern Ireland Renewables Obligation (NIRO), in April 2005. Renewables Obligation Certificates issued in Northern Ireland (NIROCs) were fully tradeable with Renewables Obligation Certificates issued in Great Britain (GBROCs), and through this mechanism, the cost of the NIRO was shared across the UK.

15. As part of the 2011 programme for Electricity Market Reform, the UK Government announced the replacement of the RO in 2017 with a new scheme, Contracts for Difference (CfD), in which the level of subsidy varied according to the wholesale price of electricity. However, following a commitment made in the 2015 Conservative Party Manifesto to "halt the spread of onshore windfarms", the Government announced in June 2015 that it would close the RO for onshore wind one year early, in 2016.<sup>8</sup>

16. The Government told the NI Executive that, were the NIRO not similarly reformed, it would prevent GB suppliers from meeting their annual RO quota by using NIROCs produced by schemes accredited after 1 April 2016 which did not meet the grace period

5 Northern Ireland Office, 'Devolution settlement: Northern Ireland', 20 February 2013

6 AES ([ENI0013](#))

7 Northern Ireland Renewables Industry Group ([ENI0021](#)) para 20

8 House of Commons Library, 'The Renewables Obligation', Commons Briefing papers SN05870, 22 July 2016

eligibility criteria. Were this to have happened, the cost of subsidising renewable energy would likely have increased considerably for NI consumers.<sup>9</sup> As a consequence, the NI Executive followed the UK Government by closing the NIRO to new small-scale onshore wind. In June 2016, the Northern Ireland Assembly approved the Renewables Obligation Closure (No.2) Order (Northern Ireland) 2016.

17. The closure of the RO and NIRO was highlighted to the Committee by a number of witnesses as an example of poor coordination and communication between the UK Government and the NI Executive. Reflecting on this experience, the then Minister for the Economy, Simon Hamilton MLA, told us, “We were not really consulted properly in my view in terms of how we might be involved and what the shape and nature of a future scheme might take”.<sup>10</sup>

18. Unsurprisingly, the renewables industry was especially affected by the short notice and lack of consultation between the Government and Executive. ABO Wind told us:

Experience of the recent NIRO closure has demonstrated a total lack of coordination between Governments, leading to constantly changing announcements and increased uncertainty for investors.<sup>11</sup>

19. Energia said the Government should have engaged with the NI Executive much earlier, given the likely impact on the policy and investment environment in Northern Ireland.<sup>12</sup> Stephen Kelly, Chief Executive of Manufacturing NI told us “there were letters going forward and back looking for some clarity” at the time, noting that the communication between the Government and the Executive “could have been a little better” and that “this is hopefully something that will not be repeated”.<sup>13</sup>

20. The Northern Ireland Office (NIO) was directly criticised by a number of organisations. ABO Wind and RES told us the NIO had failed in its responsibility to ensure that the implications for Northern Ireland of the closure of the RO were fully understood and dealt with by the former Department of Energy and Climate Change prior to the policy’s announcement.<sup>14</sup> This lack of awareness of the implications for Northern Ireland was apparent during the passage of the 2015–16 Energy Bill, which gave effect to the closure of the RO scheme. NIRIG highlighted that no Northern Ireland MPs were appointed to the House of Commons Public Bill Committee to scrutinise the legislation. Members of the Public Bill Committee repeatedly sought clarification from Ministers regarding the effect of the closure of the RO on Northern Ireland, reflecting a need for greater understanding in Parliament and Government as to the wider impact of the policy change.<sup>15</sup>

21. For many electricity market participants, and especially generators, it was not clear until late in the process what the relevance to Northern Ireland would be.<sup>16</sup> This damaged investor confidence, with market participants unable to obtain clarity about timescales for the phasing out of the NIRO. Action Renewables, and others, told us this damage

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9 Department of Enterprise, Trade and Investment, ‘Closure of the Northern Ireland Renewables Obligation to new small scale onshore wind’, March 2016

10 Q619 (Simon Hamilton MLA, Minister for the Economy)

11 ABO Wind ([ENI0015](#)) para 21

12 Energia ([ENI0025](#)) para 30

13 Q569 (Stephen Kelly, Manufacturing NI)

14 ABO Wind ([ENI0015](#)) para 22, and RES ([ENI0018](#)) para 6.3

15 Q97 (Maf Smith, Northern Ireland Renewables Industry Group)

16 Q97 (Maf Smith, Northern Ireland Renewables Industry Group)

was further exacerbated by the continued absence of a replacement renewables financial support scheme for Northern Ireland. We consider this issue in more detail later in this Report.<sup>17</sup>

**22. There was a lack of coordination and collaboration between the UK Government and the Northern Ireland Executive on the closure of the Renewables Obligation (RO), and no clarity until late in the process regarding the consequential effect on the Northern Ireland Renewables Obligation (NIRO). This led to significant uncertainty for electricity market participants in Northern Ireland, damaging investor confidence and putting projects at risk. This could and should have been avoided with greater foresight and a more joined-up approach between the UK Government and NI Executive.**

### **Carbon Price Floor**

23. In March 2011, the Coalition Government announced a floor price for carbon emissions in the power sector, to take effect from 1 April 2013. The proposal required industries to pay a top-up if the market price for carbon fell below a certain level, set by the existing EU Emissions Trading Scheme, and was intended to stimulate investment in low-carbon infrastructure.<sup>18</sup> In March 2014, the Government announced that the floor price would be capped at £18 per tonne from 2016–17 to 2019–20, to limit any competitive disadvantage faced by UK businesses. In December 2012, the NI Executive secured an exemption from the Carbon Price Floor, following interventions by the Executive and operators in the electricity market, who argued that it would distort the all-island market, creating a competitive disadvantage for market participants in Northern Ireland by increasing electricity prices by 10–15 per cent.<sup>19</sup>

24. The Carbon Price Floor was highlighted by a number of witnesses as an example of how policy implemented by the UK Government can have an indirect and negative effect on the electricity market in Northern Ireland, despite the devolution of energy policy.<sup>20</sup> ESB told us the non-application of the Carbon Price Floor in Northern Ireland had set a precedent in that UK-wide interventions which were likely to distort the operation of the Single Electricity Market should be avoided, and that future UK policy proposals which were likely to impact Northern Ireland's electricity sector should be carefully considered before a decision is made.<sup>21</sup>

25. Even though the Carbon Price Floor was ultimately only implemented in Great Britain, it nevertheless had an indirect effect on the electricity market in Northern Ireland. Mutual Energy told us that the flow of electricity on the Moyle Interconnector, which connects the NI and GB markets, had been affected by the introduction of the Carbon Price Floor, despite Northern Ireland's derogation from the policy.<sup>22</sup> Since the doubling of the Carbon Price Floor in Great Britain in April 2015, NI Generators had found it more

17 Action Renewables ([ENI0026](#)) para 2.2

18 House of Commons Library, 'Carbon Price Floor', Commons Briefing paper SN05927, 14 May 2014

19 Northern Ireland Chamber of Commerce ([ENI0020](#)) para 6.2, and Quarry Products Association Northern Ireland ([ENI0007](#))

20 Northern Ireland Chamber of Commerce ([ENI0020](#)) para 6.2

21 ESB ([ENI0017](#)) para 3.28

22 Mutual Energy ([ENI0014](#)) para 3.1

attractive to export electricity to Great Britain, such that flows of electricity had moved from being almost 100 per cent import in 2002, to 50 per cent import, 50 per cent export in 2015. Mutual Energy told us:

The pricing and support mechanisms that are applied in the Great Britain market only do not appear to take account of the consequent effects in interconnected markets, including in Northern Ireland. Inconsistent policies across interconnected markets distort cross-border flows and lead to less efficient generation.

**26. The implementation of the Carbon Price Floor was initiated by the Coalition Government without consideration for Northern Ireland's position as part of the Single Electricity Market on the island of Ireland. While a derogation was ultimately secured thanks to the vigilance of electricity market actors and the NI Executive, it is a further example of how the UK Government should be more alert to the effect of GB-only policies on Northern Ireland.**

### *Interconnectivity with Scotland*

27. The Moyle Interconnector, owned and operated by Mutual Energy, connects the electricity grids in Northern Ireland and Scotland through submarine cables running between converter stations in County Antrim and Ayrshire. With a capacity of 500 MW, the high voltage direct current link allows users to flow electricity from low to high priced markets.<sup>23</sup> A key issue, which we consider in more detail later in this Report, relates to recent restrictions placed on the Moyle Interconnector in Scotland, reducing the capacity of the interconnector to 300 MW, and scheduled to reduce further to 80 MW in October 2017.<sup>24</sup> This restriction has limited the ability of Northern Ireland to export surplus wind generation to the GB market, increasing costs for users in the Single Electricity Market.<sup>25</sup> Recently, the interconnector has also developed a fault with one of its underwater cables, which has halved its capacity.

28. The restrictions on the Moyle Interconnector have been put in place by National Grid, which operates according to legislation and policies set by the UK Government.<sup>26</sup> For Northern Ireland to take full advantage of the 500 MW capacity of the Interconnector, it will require UK-driven investment in the Scottish grid and policy decisions from Ofgem, National Grid and the new Department for Business, Energy and Industrial Strategy. This again highlights the need for more joined-up thinking and a collaborative approach between the UK Government and the NI Executive on electricity policy.

### *Brexit*

29. Following the referendum on the UK's membership of the European Union, the UK Government will play the leading role in determining Northern Ireland's energy relationship with other Member States, including the Republic of Ireland, during the negotiation process. Recognising this, in their letter to the Prime Minister of 10 August 2016, the then First Minister and Deputy First Minister noted that energy should be a key

23 Mutual Energy ([ENI0014](#)) para 2.2

24 Q394 (Paddy Larkin, Mutual Energy)

25 Mutual Energy ([ENI0014](#)) para 4.5

26 Q392 (Paddy Larkin, Mutual Energy)

priority in the Brexit negotiations, given the cost and supply issues faced by Northern Ireland.<sup>27</sup> The Prime Minister responded to the First Minister and Deputy First Minister in October, affirming her commitment to an affordable, secure and sustainable electricity sector in Northern Ireland.<sup>28</sup>

30. In the next chapter, we will examine some of the key issues which have been raised with us relating to the impact of the UK's decision to leave the European Union on Northern Ireland's electricity sector. What is clear, however, is that the forthcoming negotiations will be another area in which the UK Government will continue to have a significant influence over how Northern Ireland's electricity market functions over the coming years. As Dr David Dobbin, Chair of the Energy and Manufacturing and Advisory Group (EMAG), told us:

There is so much talk at the moment about trade. Well, energy is going to be a big part of that trade and I am hoping that the Government negotiators get us a good deal.<sup>29</sup>

**31. The UK Government continues to have both a direct and indirect influence on policy-making for the electricity sector in Northern Ireland. However, recent experience has shown that GB electricity policy is not always devised and implemented in a way which adequately reflects the aspirations of the electricity sector in Northern Ireland or the interconnected nature of the two markets. It is vital, though, that the UK Government remembers the unique needs of Northern Ireland's electricity sector when determining the UK's future energy relationship with EU Member States after Brexit.**

### *Improving collaboration; promoting joined-up thinking*

32. In written evidence, the then Department of Energy and Climate Change (DECC)—whose responsibilities have since been absorbed by the new Department for Business, Energy and Industrial Strategy (BEIS)—told us that, in accordance with the principles set out in the memorandum of understanding between the UK Government and the devolved administrations, the Government does seek to engage and work closely with the Northern Ireland Executive in the development and implementation of UK policies which affect Northern Ireland.<sup>30</sup> However, the Department told us it would be happy to consider the degree to which these arrangements currently work effectively and make improvements, where necessary, to working practices.<sup>31</sup>

33. We welcome the UK Government's commitment to consider changes to the current arrangements, as much of the evidence we have received suggests there is a need for better collaboration and coordination in the development of electricity policy. Many organisations have called for a substantially more joined-up approach between the

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27 [Letter to the Prime Minister from the First Minister and Deputy First Minister](#), 10 August 2016

28 [Letter to the First Minister from the Prime Minister](#), 14 October 2016

29 Q547, (Dr David Dobbin, Energy and Manufacturing Advisory Group)

30 [Memorandum of Understanding between the UK Government and the devolved administrations](#), September 2012

31 Department of Energy and Climate Change ([ENI0012](#)) para 15

Government, NI Executive and electricity stakeholders in Northern Ireland to ensure the needs of the sector are better taken into account in the development of UK-wide electricity policy.<sup>32</sup>

34. The then Executive Minister for the Economy, Simon Hamilton MLA, described the relationship between the Government and the Executive as “patchy”, and that while some areas of co-operation had worked well, “There have been examples of not so good cooperation”.<sup>33</sup> He highlighted that, on some occasions, the NI Executive had been asked for input too late into the process, perhaps after decisions had already been made. Mr Hamilton told us he would “like to see some of that engagement happening earlier” and there needed to be improvement in the consultation process, reflecting the importance of the electricity sector to the wider economy.<sup>34</sup>

35. We also heard that there has been particular concern over the role played by the NIO in defending the interests of Northern Ireland’s electricity sector within Government. ABO Wind told us the early closure of the Renewables Obligation highlighted how the NIO had struggled to ensure Northern Ireland issues are fully taken into account in this area.<sup>35</sup> The CBI said it was not clear what, if any, role the NIO currently played in defending and promoting Northern Ireland’s interests in the context of UK electricity policy, and that this must change in the future.<sup>36</sup> AES was one of a number of stakeholders which argued that the NIO should have a greater role at Cabinet level in ensuring that devolved energy policy was not adversely affected by decisions taken by the UK Government.<sup>37</sup> However, the Minister for the Economy said he did not want to criticise any Westminster Department in particular. He told us he doubted the NIO had expertise in electricity policy, but that this was understandable given energy policy was devolved to the NI Executive.<sup>38</sup>

36. One approach, advocated by Mutual Energy, would be to legislate for a new, statutory duty for Great Britain authorities to consider the impact on Northern Ireland of any policies or decisions relating to the electricity sector prior to their implementation.<sup>39</sup> This would be a significant change; one which could be necessary in the longer term, if GB electricity policy continued to be implemented without adequate consideration of its effect on Northern Ireland. However, non-statutory measures may also be helpful in improving collaboration between the UK Government and NI Executive in this area.

37. The Scottish Affairs Committee reflected on these issues in its 2016 inquiry into the renewable energy sector in Scotland. Noting the impact of UK renewables policy on Scotland, it called for the Government to put in place a clear process for consulting the Scottish Government on the future design of, or amendment to, renewables incentives.<sup>40</sup> The Committee further recommended that a consultative process be established for wider UK energy policy:

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32 For example: Northern Ireland Chamber of Commerce ([ENI0020](#)) para 2.1

33 Q619 (Simon Hamilton MLA, Minister for the Economy)

34 Ibid.

35 ABO Wind ([ENI0015](#)) para 22, and RES ([ENI0018](#)) para 6.3

36 CBI Northern Ireland ([ENI0023](#)) para 43

37 AES UK and Ireland ([ENI0013](#)) para 36

38 Q620 (Simon Hamilton MLA, Minister for the Economy)

39 Mutual Energy ([ENI0014](#)) para 6.1

40 [1st Report – The renewable energy sector in Scotland](#), 2016–17, Scottish Affairs Committee, para 73

[ ... ] the obvious impact UK Government energy policy has on Scotland, means that it is essential the Scottish Government is involved in the development of not just support for renewables, but the UK's wider energy policy.<sup>41</sup>

The evidence we have heard—especially relating to the closure of the Renewables Obligation—suggests that a new, formal consultative process for electricity policy, such as that recommended by the Scottish Affairs Committee, would also benefit Northern Ireland.

**38. The present guidance on consultation as set out in the Memorandum of Understanding between the UK Government and Devolved Administrations clearly did not lead to sufficient collaboration between the UK Government and NI Executive during policy development on the closure of the Renewables Obligation. A new, more robust consultative process for electricity policy is, therefore, essential between the UK Government and NI Executive.**

*39. We join the Scottish Affairs Committee in calling on the Government to establish a new process for consulting the devolved administrations on the design of, or amendment to, policies that are likely to have an impact on the electricity markets in the devolved regions. The Government should present details of a new, clear and transparent process, outlining how the Northern Ireland Executive and key stakeholders in Northern Ireland's electricity sector will be formally consulted on UK electricity policy changes in future.*

*40. We also urge the Northern Ireland Office to add to its expertise such that it is better able to represent the interests of Northern Ireland's electricity sector in Whitehall. A failure to represent adequately the interests of Northern Ireland's electricity sector within Government represents a significant risk to Northern Ireland's future prosperity, especially in the context of the forthcoming negotiations with the EU over Brexit.*

## Northern Ireland Executive

41. Formal responsibility for the development of electricity policy in Northern Ireland rests with the Department for the Economy. Much of the evidence we received reflected this, and here we summarise the concerns raised relating to those areas over which the NI Executive is solely responsible.

### ***Need for longer-term policy guidance to drive investment***

42. The NI Executive published its Strategic Energy Framework (SEF) for the period 2010 to 2020 in September 2010. It was intended to provide a clear signal of the Executive's priorities for the energy sector, to guide market participants, encourage investment in increased levels of renewable energy and the necessary associated infrastructure, to improve energy security and support economic activity.<sup>42</sup>

43. One of the most consistent messages we heard from electricity market participants was the need for the NI Executive urgently to update the SEF and publish a new long-term strategy for the electricity sector. This was a point made by the Energy and Manufacturing

41 Ibid, para 126

42 Northern Ireland Executive, 'Strategic Energy Framework 2010–2020', September 2010

Advisory Group (EMAG), when it recommended in its March 2016 report that, “The Executive should provide long-term policy certainty by developing a clear, consistent long-term energy and decarbonisation strategy for Northern Ireland to 2030”.<sup>43</sup> AES told us an updated strategy was needed to guide investment, to ensure Northern Ireland received electricity of the right quality, in the right location and at the right price and, in particular, to define the level of indigenous generation Northern Ireland needed in order to ensure its security of supply.<sup>44</sup> Jenny Pyper, Chief Executive of the Utility Regulator, told us it would “really enhance” its role to have a clear policy framework, targets and a direction of travel set by the NI Executive.<sup>45</sup>

44. The CBI noted that the current SEF was quickly becoming outdated, and the absence of a clear long-term strategic energy policy was leading to low levels of investment in the electricity sector and a widespread sense of uncertainty.<sup>46</sup> They argued that, without a clear view of what outcomes the NI Executive wanted for the electricity sector in the medium and long term, it would be unable to articulate its ambitions to the UK Government and ensure that Northern Ireland’s interests are taken into account in the context of UK energy policy-making.<sup>47</sup> ABO Wind told us there needed to be policy guidance even for the period 2030 to 2050.<sup>48</sup>

**45. We were repeatedly told that the NI Executive needed to develop a new Strategic Energy Framework which sets out clearly its ambitions well beyond 2020. This is because a long-term framework provides certainty to investors, who expect the assets and generation plants they build to be in operation for many years.**

**46. We urge the NI Executive, once it has been re-established, to update its Strategic Energy Framework as soon as practicable, to provide long-term policy clarity for the electricity sector and to guide investment in the near, medium and long-term.**

### **Programme for Government**

47. In May 2016, the NI Executive published a draft Programme for Government, which outlined 14 high-level strategic outcomes, setting out the priorities that the Executive had intended to pursue in the Assembly mandate. The Executive invited views in an extensive consultation process, the first phase of which concluded in July 2016.<sup>49</sup> An updated draft Programme for Government was subsequently published, with a second phase of consultation concluded in December 2016.

48. Much of our evidence was received prior to the conclusion of the first phase of consultation, and reflected widespread disappointment in the industry that the initial draft did not include an explicit energy-focused strategic outcome. The CBI told us this reinforced the view that the NI Executive did not give energy the policy priority and

43 [Ministerial Energy and Manufacturing Advisory Group Report](#), March 2016, page 3

44 AES UK and Ireland ([ENI0013](#)) para 19

45 Q322 (Jenny Pyper, Utility Regulator)

46 CBI Northern Ireland ([ENI0023](#)) para 5

47 CBI Northern Ireland ([ENI0023](#)) para 6

48 ABO Wind ([ENI0015](#)) para 6

49 Northern Ireland Executive, ‘Programme for Government’, 2016

resources it deserved.<sup>50</sup> The renewables industry, including Action Renewables, expressed concern that the initial draft only contained the word ‘renewables’ once, and that there was no reference to fuel poverty or electricity at all.<sup>51</sup>

49. It was pleasing, then, that the Executive took these criticisms on board in its second draft Programme for Government.<sup>52</sup> The updated draft included a number of references to energy, with a specific ambition for a secure, sustainable and cost-efficient energy supply. The new draft stated:

Energy is necessary for the effective functioning of modern economies. We are dependent on an abundant and uninterrupted supply of energy for living and working. The energy sector brings employment, investment, infrastructure, technological advances, knowledge and skills, that can be highly beneficial to the wider economy in general. Energy is both a facilitator of, and a contributor to, economic growth. In addition energy costs are a key factor in the competitiveness of our economy.<sup>53</sup>

50. The updated draft committed the NI Executive to addressing the future of energy policy and strategy, including the increased use of renewable and sustainable sources, through the SEF. This is important because, as highlighted earlier, the Executive needs to urgently provide long-term policy clarity and certainty for market participants in order to drive much needed investment in Northern Ireland’s electricity sector.

**51. Following the collapse of the NI Assembly in January 2017 and the subsequent elections, a new Programme for Government will need to be drafted by the incoming Executive. We expect the new NI Executive’s Programme for Government to maintain an ambition for a secure, sustainable and cost-efficient energy supply, and commit to updating the Strategic Energy Framework as soon as possible.**

### *Formal mechanisms for consultation with industry*

52. To support the NI Executive in the development of a long-term electricity strategy for Northern Ireland, there have been calls for the establishment of a permanent, formal energy forum which can give officials, who may have limited practical experience of operating in the energy sector, access to the knowledge and experience they need to develop coherent policy. The Consumer Council for Northern Ireland recommended that such a forum should be modelled on the Energy and Manufacturing Advisory Group (EMAG) and the National Energy Forum in Ireland, and should exist to examine policy, to help achieve consensus and identify long-term priorities and policy proposals for the electricity sector in Northern Ireland.<sup>54</sup>

53. Indeed, the EMAG appears to be a sensible and proven model for providing advice to the NI Executive. Founded in December 2015 by the then Minister of Enterprise, Trade and Investment, the EMAG had a brief to recommend measures to reduce Northern

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50 CBI Northern Ireland ([ENI0023](#)) para 5

51 Action Renewables ([ENI0026](#)) para 2.2

52 Northern Ireland Executive, ‘Programme for Government’, 2016

53 Ibid

54 Consumer Council for Northern Ireland ([ENI0016](#)) para 7

Ireland's high energy costs for manufacturers. The Group was chaired by Dr David Dobbin, Chief Executive of Dale Farm, and had representation from industry groups, including Manufacturing NI, SONI Ltd, NIE Networks and AES UK and Ireland.

54. EMAG published its report in April 2016, making 24 recommendations to the NI Executive, urging policy changes to improve the competitiveness and effectiveness of Northern Ireland's electricity market.<sup>55</sup> Dr Dobbin told us he was yet to receive a formal response from the Executive regarding the Group's recommendations, as the report was published shortly before the purdah period and the restructuring of departments in the NI Executive.<sup>56</sup> However, he hoped that the Group's recommendations would help to shape the Executive's review of the Strategic Energy Framework.<sup>57</sup>

55. The then Minister for the Economy, Simon Hamilton MLA, told us he was very grateful to the EMAG for its report, and he was using it to help inform the policy decisions that he would take relating to the electricity sector. He told us there were no plans to ask the Group to meet again, but that he would speak to its individual members to take their advice on the future direction of electricity policy.<sup>58</sup>

56. The recent establishment of a new Energy Forum by the Northern Ireland Chamber of Commerce and Industry, in partnership with SONI, was in direct response to one of the EMAG's recommendations.<sup>59</sup> It will seek to provide a bridge between energy providers and large energy users in Northern Ireland, meeting four times a year, establishing a platform for the sharing of best practice on energy efficiency and informing businesses of significant changes within Northern Ireland's electricity sector. While the Energy Forum is an excellent initiative, which will provide valuable support to large energy users in Northern Ireland, it is clear that it is not intended to be a successor organisation to the EMAG, which had a specific advisory role with the NI Executive.

**57. The Energy and Manufacturing Advisory Group (EMAG)'s report made a number of important recommendations urging policy changes to improve the competitiveness and effectiveness of Northern Ireland's electricity market. Officials at the Department for the Economy will benefit from the expert advice contained within the EMAG's report as they conduct a review of the Executive's Strategic Energy Framework and establish long-term priorities for Northern Ireland's electricity system. It appears unlikely, however, that EMAG itself will continue to meet and advise the Executive on electricity policy in future.**

**58. *We urge the NI Executive to establish a permanent advisory body for electricity policy. Its membership should represent all major stakeholders within Northern Ireland's electricity sector, including large energy users, generators, suppliers, network operators and domestic consumers. Like the EMAG, the body should have a mandate to examine the NI Executive's electricity strategy and identify long-term priorities and policy proposals. Such a body would help to ensure that electricity policy is given the priority it deserves within the Executive and that market participants have clarity and confidence in the Province's long-term energy strategy.***

55 [Ministerial Energy and Manufacturing Advisory Group Report](#), March 2016

56 Q546 (Dr David Dobbin, Energy and Manufacturing Advisory Group)

57 Q541 (Dr David Dobbin, Energy and Manufacturing Advisory Group)

58 Q652 (Simon Hamilton MLA, Minister for the Economy)

59 Northern Ireland Chamber of Commerce and Industry, 'New Energy Forum to power ahead with critical issues', 6 September 2016

### 3 Brexit and the electricity sector

59. On 23 June 2016 the UK electorate voted to leave the European Union. This decision will have significant implications for Northern Ireland across a range of policy areas, including electricity. Given the high degree of interdependence between Northern Ireland and the Republic of Ireland’s electricity sectors—in particular through the Single Electricity Market—the decision to leave the EU has given rise to a number of important considerations in this area for the UK Government and NI Executive.

60. In our First Report of the 2016–17 session we examined the issues we believed were among the most relevant to electors in Northern Ireland when considering how to cast their votes in the EU referendum.<sup>60</sup> This included an assessment of the future of Northern Ireland’s participation in the Single Electricity Market. We noted evidence from the Utility Regulator and SONI which suggested leaving the EU was unlikely to undermine the case for a wholesale electricity market on the island, and highlighted that non-membership of the EU had not been an impediment to Russia’s participation in an integrated regional electricity market with Finland and the Baltic States, or prevented Norway’s interconnection with the UK.

61. We concluded that, “We have not received any evidence to suggest that Northern Ireland’s electricity market would be detrimentally affected by a Brexit”.<sup>61</sup> This remains the case, but in order for it to be so, the UK Government and its negotiators will need to be conscious of the unique energy arrangements which exist on the island of Ireland and prioritise Northern Ireland’s interests when determining its objectives for the UK’s future energy relationship with the EU.

62. The NI Executive appears to be fully aware of the challenges arising from Brexit for Northern Ireland’s electricity sector. In their letter to the Prime Minister of 10 August 2016, the then First Minister and Deputy First Minister wrote:

[ ... ] energy is a key priority, given that there are inherent cost and supply issues in a small, isolated market so we will need to ensure that nothing in the negotiation process undermines this vital aspect of the economy.

63. The Prime Minister responded in October, affirming that she would ensure Northern Ireland’s energy needs will not be side-lined during the negotiations:

I also recognise the unique issues raised by the single electricity market [ ... ] to Northern Ireland, and resolving these will be a priority for the Government. We are committed to working with you, with the Irish Government and with the EU to make sure that Northern Ireland continues to have access to an affordable, secure and sustainable supply of energy for business and domestic use.

64. The UK Government’s White Paper on ‘The United Kingdom’s exit from and new partnership with the European Union’, published in February 2017, also confirmed the Government’s commitment to protecting the Single Electricity Market on the island of Ireland:

60 [1st Report – Northern Ireland and the EU referendum](#), 2016–17, Northern Ireland Affairs Committee, HC 48

61 *Ibid*, para 99

We are considering all options for the UK's future relationship with the EU on energy, in particular, to avoid disruption to the all-Ireland single electricity market operating across the island of Ireland, on which both Northern Ireland and Ireland rely for affordable, sustainable and secure electricity supplies.<sup>62</sup>

65. We welcome the Prime Minister's acknowledgment of the importance of an affordable, secure and sustainable supply of electricity for Northern Ireland, and that this will be prioritised during the forthcoming negotiations with the European Union. There are, however, a number of issues which will need to be addressed by the UK Government if its commitment is to be realised. We summarise these in the following sections.

### Internal Energy Market and the future of the Single Electricity Market

66. The Internal Energy Market was established to harmonise and liberalise the energy market across the EU, Norway, Iceland and Lichtenstein. EU legislation adopted between 1996 and 2009 has sought to address market access, transparency and regulation, consumer protection, supporting interconnection and adequate levels of supply.<sup>63</sup> Participation in the Internal Energy Market requires ongoing alignment with the EU rules and regulations which govern it, including the Industrial Emissions Directive, restrictions on state aid, and the EU Emissions Trading Scheme.<sup>64</sup>

67. Since 2007, Northern Ireland and the Republic of Ireland have operated a Single Electricity Market (SEM), a wholesale market through which electricity is bought and sold on the island of Ireland through a mandatory pool. The SEM has brought considerable benefits to Northern Ireland, joining two small and relatively inefficient systems, to create greater economies of scale, cheaper electricity prices and improved security of supply. The new Integrated Single Electricity Market (I-SEM), due to come into operation in 2018, is expected to build on the success of the SEM, delivering increased levels of competition and transparency, lower prices for consumers, while further aligning the market with EU legislation designed to create a fully liberalised internal electricity market.<sup>65</sup>

68. Regulators and market participants are operating on the understanding that they will be participating in the I-SEM from 2018 and beyond. However, following the referendum, some believe the future viability of the I-SEM is now less certain, and will be largely determined by the UK Government's negotiating priorities in its talks with the remaining members of the EU.<sup>66</sup>

69. As part of the Brexit negotiations, the Government will need to determine the future relationship the UK will have with the Internal Energy Market. It is a separate entity to the Single European Market, so the UK could seek to remain a member and be subject to EU legislation in this respect. Alternatively, it could withdraw entirely, or negotiate a new bilateral relationship. It could also negotiate a special status for Northern Ireland's energy market, separate to that which will operate in Great Britain.

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62 HM Government, 'The United Kingdom's exit from and new partnership with the European Union', 2 February 2017, para 8.28

63 European Parliament, 'Internal Energy Market: Factsheet', September 2016

64 AES UK and Ireland ([BDR0019](#))

65 Single Electricity Market Committee, 'I-SEM: Overview'

66 AES UK and Ireland ([BDR0019](#))

70. We were told the UK Government’s negotiating strategy could have a significant impact on the future viability of the I-SEM. As an EU Member State, the Republic of Ireland will continue to be subject to Internal Energy Market legislation. There are concerns that, if the UK decides to withdraw from the Internal Energy Market or does not seek for Northern Ireland a special status or derogation, then Northern Ireland and the Republic of Ireland will no longer be able to jointly participate in a single electricity market, as they will be operating under a different set of energy regulations and state aid rules.<sup>67</sup>

71. Of course, withdrawal from the Internal Energy Market could present opportunities for Northern Ireland. Jenny Pyper, Chief Executive of the Utility Regulator, noted, for example, that the Industrial Emissions Directive requires the imminent closure of one of Northern Ireland’s coal-fired power plants, the life of which could be extended outside the Internal Energy Market.<sup>68</sup> Expensive investments to extend the life-span of existing power plants are currently being made on the assumption that those regulations will continue to apply.<sup>69</sup> In addition, AES highlighted that Brexit could provide an opportunity to differentiate the UK from the EU market by opening the capacity market to energy storage technologies, incentivising investment in what is proving to be an extremely important emerging technology with significant potential for the UK to become a world leader.<sup>70</sup>

72. However, the implications of withdrawing from the Internal Energy Market, and therefore potentially the I-SEM, would be significant for Northern Ireland. In a smaller, less efficient electricity market, Northern Ireland would likely see higher electricity costs and diminished security of supply. A more fundamental electricity market restructure could be necessary in such circumstances, potentially requiring greater integration and interconnection with the electricity market in Great Britain, the implementation of which could lead to significant costs for consumers in Northern Ireland. The NI Executive and the Regulator would also likely have less influence as smaller players in a much larger electricity market.

73. There is a clear desire from electricity market stakeholders in Northern Ireland to retain the existing electricity market arrangements on the island of Ireland. Mutual Energy told us, “anyone in the energy industry—I think this goes for the regulator and the system operators and everything—have said that the [internal] energy market across Europe is a good thing. We would want it to continue.”<sup>71</sup> Indeed, the Utility Regulator, which is leading in the design of the I-SEM, told us, “there is a real opportunity to make the case that the I-SEM should continue [ ... ] we have to make sure that everything possible is done to protect it”.<sup>72</sup> SONI said it believed the current market arrangements were appropriate and had brought benefits to customers in Northern Ireland, and that Brexit should not lead to a decision to change that model.<sup>73</sup> AES told us there were viable options to allow the I-SEM to continue operating after Brexit, but that these require active consideration by the UK Government during the negotiation process.<sup>74</sup>

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67 AES UK and Ireland ([BDR0019](#))

68 Q316 (Jenny Pyper, Utility Regulator)

69 Q243 (Carla Tully, AES UK and Ireland)

70 AES ([EUE0065](#), Energy and Climate Change Committee)

71 Q444 (Paddy Larkin, Mutual Energy)

72 Q284 (Jenny Pyper, Utility Regulator)

73 Q376 (Robin McCormick, SONI Ltd)

74 AES UK and Ireland ([BDR0019](#))

74. Of greatest importance is the need for long-term policy clarity from Government as to its intentions for Northern Ireland's electricity market. The Article 50 negotiating process is due to overlap with the implementation of the I-SEM in 2018, as well as competitive auctions for the Capacity Remuneration Mechanism, financing of successful projects, and the initial stages of delivery of new and upgraded generation. AES told us the industry cannot afford uncertainty at what is a critical point in the life-cycle of Northern Ireland's electricity market, and that without clear, long-term policy guidance from the UK Government, private investment in Northern Ireland's electricity sector would be likely to diminish significantly.<sup>75</sup>

**75. Northern Ireland's electricity system is highly integrated with that of the Republic of Ireland through the Single Electricity Market (SEM). The UK's decision to leave the EU potentially challenges the future viability of the SEM and its successor, the Integrated Single Electricity Market (I-SEM), which operate on the basis of mutual membership of the Internal Energy Market and compliance with its rules and regulations.**

**76. The Government should give particular consideration to how any changes to the UK's relationship with the Internal Energy Market will affect Northern Ireland. The Government may wish to seek a special status or derogation for Northern Ireland's electricity sector. Whatever is decided, the Government must provide long-term policy clarity as soon as possible in order to guide private sector investment at what is a critical point for Northern Ireland's electricity system.**

### Fuel imports, tariffs and exchange rates

77. Northern Ireland is highly dependent on energy imports. Wind is the only commercially-exploited indigenous resource, with Northern Ireland's three major power stations—Ballylumford, Coolkeeragh and Kilroot—relying on largely imported gas, coal or oil. AES have said the UK Government will need to consider this in the context of its negotiations with the EU and in trade talks with non-EU countries, to ensure that any tariffs imposed on fuel imports do not significantly affect the cost of electricity for consumers in Northern Ireland.<sup>76</sup>

78. The fall in the value of the pound is also likely to have an impact on the cost of electricity in Northern Ireland. NIE Networks noted that they expect to borrow in the region of £500 million in the RP6 price control period due to start in 2017, which will be invested and then recovered through customer bills over a 40-year period. They told us that volatility in the debt markets following the referendum was something they would need to bear in mind in the coming period, as additional costs would need to be passed on to consumers. They also noted that much of the equipment and infrastructure they purchase comes from the EU, so highly variable exchange rates and future tariffs would likely lead to cost increases for consumers.<sup>77</sup> AES highlighted that the cost of energy storage systems had also increased due to recent movements in the exchange rate, with component parts, such as batteries, imported from South Korea, Japan and the USA now costing more than they did before.<sup>78</sup>

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75 AES UK and Ireland ([BDR0019](#))

76 AES ([EUE0065](#), Energy and Climate Change Committee)

77 Q464 (Nicholas Tarrant, NIE Networks)

78 AES ([EUE0065](#), Energy and Climate Change Committee)

79. The possibility that tariffs could be imposed on electricity imported and exported between the Republic of Ireland and Northern Ireland was of significant concern to the industry representatives we spoke to. Manufacturing NI told us they were worried by suggestions that tariffs could be imposed through the North–South interconnectors, and that such a levy could be very damaging to industry in Northern Ireland, for whom electricity prices were already uncompetitively high.<sup>79</sup> Bombardier also highlighted energy tariffs as a concern, although they noted that their strategy of coming off-grid should mitigate the impact of higher prices for their business.<sup>80</sup> We were however told by AES that current plans for the design of the I-SEM would not permit the imposition of tariffs within the market.<sup>81</sup>

**80. The cost of generating electricity and reinforcing Northern Ireland’s energy infrastructure will be affected by exchange rate volatility and any future fuel tariff regime the UK Government agrees with the EU and non-EU countries in forthcoming trade negotiations. When determining its negotiating strategy, the Government will need to reflect on Northern Ireland’s reliance on fuel imports, and the impact higher electricity prices would have on domestic consumers and the competitiveness of the Province’s manufacturing base.**

## Projects of Common Interest

81. As part of the European Commission’s plan to create a fully integrated EU energy market, 195 infrastructure projects known as Projects of Common Interest (PCIs) were identified across the EU between 2014 and 2016.<sup>82</sup> To become a PCI, a project must have a significant impact on the energy markets and market integration of at least two EU countries, increase competition between energy markets, and boost the EU’s energy security by diversifying sources and integrating renewables. Support available to PCIs includes accelerated planning and permit granting, increased visibility to investors and access to financial support from the EU.

82. Of the PCIs currently identified, a number relate to projects based in Northern Ireland.<sup>83</sup> These include the proposed North–South Interconnector between Cavan and Tyrone, Gaelectric’s Compressed Air Energy Storage (CAES) Project in Larne—an innovative project that will help to maximise the use of Northern Ireland’s renewable energy infrastructure—as well as a £300 million gas storage project managed by Mutual Energy.<sup>84</sup>

83. The UK’s decision to leave the EU is likely to have implications for the future of PCI projects in Northern Ireland. While we were pleased to hear in our informal meeting with Gaelectric that the Commission was still committed to the CAES Larne project, having increased the level of its financial support in recent months, the referendum has created uncertainty for the other PCIs. For example, Mutual Energy told us they had no guarantee

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79 Q559 (Stephen Kelly, Manufacturing NI)

80 Q561 (Cecil McBurney, Bombardier)

81 AES UK and Ireland ([BDR0019](#))

82 European Commission, ‘Projects of Common Interest’, accessed 25 November 2016

83 European Commission, ‘List of Projects of Commons Interest’, accessed 25 November 2016

84 Eirgrid, ‘Project of Common Interest: The North–South 400kV Interconnection Development’; Gaelectric Holdings ([ENI0011](#)); and Qq440–441 (Paddy Larkin, Mutual Energy)

from the EU that their gas storage project would continue to receive funding from the EU after Brexit, and that the project may not be commercially sustainable without continued support.<sup>85</sup>

**84. Projects of Common Interest (PCIs) in Northern Ireland are likely to be affected by the UK's decision to leave the European Union. The financial and logistical support provided through the EU's PCI programme is supporting energy infrastructure projects in Northern Ireland which would otherwise have not been commercially viable.**

*85. The UK Government should undertake an analysis to identify energy infrastructure projects in Northern Ireland which are beneficiaries of the EU's PCI programme. Through consultation with affected parties, the Government should establish whether it would be preferable to retain Northern Ireland's eligibility for PCI funding through continued participation in the European Commission's scheme, or commit to replicating PCI financial and logistical support through a UK-specific scheme, so that strategically important current and future energy infrastructure projects remain commercially viable. A decision should be made as soon as possible so that businesses investing in PCI projects have the necessary confidence in their commercial viability.*

## 4 Security of Supply

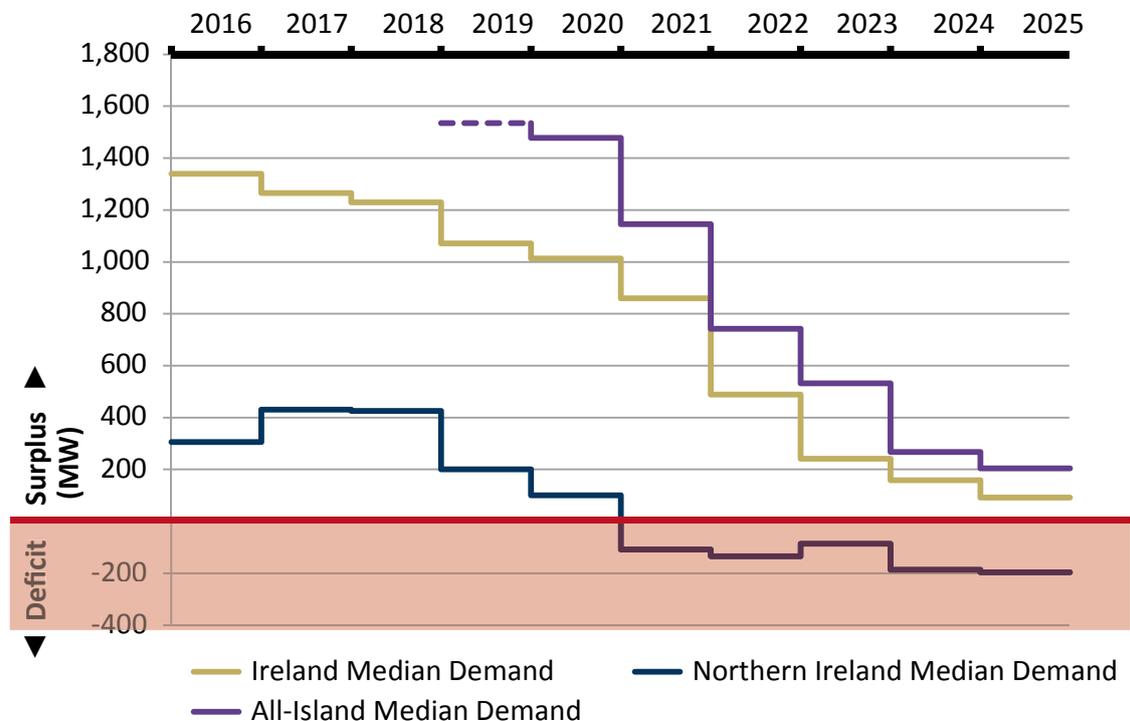
86. The rest of our Report considers in more depth the energy ‘trilemma’ in Northern Ireland: security of supply, affordability and sustainability. Of these, the then Minister for the Economy, Simon Hamilton MLA, told us security of supply “is probably the most important issue in terms of the electricity sector in Northern Ireland”.<sup>86</sup>

87. We start by reflecting on evidence that Northern Ireland is due to enter a supply deficit within the next six years and the consequential importance of constructing a new North–South Interconnector before 2021. We look at the restrictions placed on the Moyle Interconnector in Scotland, as well as the importance of emerging energy storage technologies and their relevance in the context of Northern Ireland’s significant renewables generation capacity. We conclude with consideration of the issues relating to the electricity grid and the difficulties that exist in obtaining connections, especially in the west of the Province.

### Supply deficit

88. Northern Ireland is anticipated to fall into a generation supply deficit by 2021.<sup>87</sup> SONI’s Generation Capacity Statement, published in February 2016, showed an anticipated deterioration in Northern Ireland’s generating capacity in the coming years.

**Figure 1: Adequacy results for the Base Case scenario, shown for Ireland, Northern Ireland and on an all-island basis.**



Source: All-Island Generation Capacity Statement 2016–25, Eirgrid and SONI, February 2016

86 Q616 (Simon Hamilton MLA, Minister for the Economy)

87 Eirgrid and SONI, ‘All-Island Generation Capacity Statement 2016–25’, February 2016

89. A key driver of this is the restriction due to be placed on Kilroot Power Station from June 2020, to ensure that it complies with the emissions levels required within the UK Transitional Plan under the Industrial Emissions Directive. Further reductions in Northern Ireland’s generating capacity are also anticipated, with Ballylumford B due to be taken offline to meet emissions targets within the next five years. It is important to note, however, that on an all-island basis, there would continue to be a generating surplus throughout the reporting period, demonstrating the importance of ensuring adequate interconnection between the two markets; an issue considered in more detail later in this chapter.

90. AES, the operator of Kilroot and Ballylumford Power Stations, told us the assumption made in the Generation Capacity Statement—that Kilroot would operate at a reduced 1,500 hours per year with no further incremental environmental investments—would be commercially unsustainable in practice, and that the deficit of supply could be even greater than forecast if Kilroot was forced to cease operating entirely.<sup>88</sup> They told us there were three realistic options for Kilroot.<sup>89</sup> The first was that it would cease to operate if the market failed to provide the signals necessary to justify further investment. The second option would be for Kilroot to be upgraded, allowing it to meet emissions regulations, and operate until 2023. The third option would be to redevelop both Kilroot and Ballylumford with new lower carbon technologies, providing a longer-term generation capability. The second and third options would require the market to provide the necessary investment signals and long-term policy clarity from the Executive, which AES felt did not currently exist. We noted earlier in this Report the need for the NI Executive to update its Strategic Energy Framework to provide such clarity.

91. However, the owners of Coolkeeragh Power Station, ESB, told us the predictions of an impending electricity supply deficit were overly pessimistic and that there was a “low probability of there being a shortfall in generation capacity in Northern Ireland in the coming years”.<sup>90</sup> Arguing that a new North–South Interconnector would be built “because it has to”, ESB questioned whether estimates of the capacity of existing and future interconnection had been too conservative.<sup>91</sup> They also suggested that, despite concerns raised by AES, existing generation would continue to operate through the forecasting period, provided they remained commercially viable. ESB recognised, however, that this would be a challenge for AES and policy makers.

92. Further complicating attempts to limit the supply deficit in Northern Ireland is the fact that the structures for how generators will be compensated through the new Integrated Single Electricity Market have yet to be determined and are not likely to be until 2018. AES stated that this was leading to uncertainty over future income streams and the profitability of existing generation capacity.<sup>92</sup> ESB told us they were anticipating lower revenue streams over the coming years, and consequently took a write-down on their Coolkeeragh business in its latest set of accounts.<sup>93</sup> These factors inevitably cloud investment signals for market participants at a time when investments need to be made to ensure the construction of additional generation capacity in the period beyond 2025.

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88 Q245 (Carla Tully, AES UK and Ireland)

89 Q249 (Carla Tully, AES UK and Ireland)

90 ESB ([ENI0017](#)) para 3.8

91 Q245 (Paddy Hayes, ESB)

92 Q248 (Carla Tully, AES UK and Ireland)

93 Q247 (Paddy Hayes, ESB)

93. The CBI said that uncertainty around Northern Ireland’s electricity supply deficit had weakened the Province’s ability to attract foreign direct investment.<sup>94</sup> It told us the NI Executive needed to take urgent remedial action to encourage investment in new, flexible sources of electricity generation to demonstrate to businesses that Northern Ireland has a secure and reliable electricity system.

94. It was reassuring, then, to learn about Evermore Energy’s plan to develop a new 400MW gas-fired power station within the Belfast Harbour Estate.<sup>95</sup> Subject to planning and financing, the firm’s intention is for the plant to be operational by 2019. The Utility Regulator also explained that a new power plant could make a very valuable contribution to Northern Ireland’s capacity margin, and it was encouraging that Evermore Energy saw the I-SEM as a market in which it could trade.<sup>96</sup> SONI also noted that Evermore Energy’s plan would help to alleviate the pressure on capacity, although investment in Northern Ireland’s electricity infrastructure would be needed to ensure it is able to function properly within the market and deliver the best price of electricity to consumers.<sup>97</sup>

95. Extending the life of existing power stations and providing additional generating capacity will not be the only ways to alleviate security of supply concerns in Northern Ireland. The Institution of Engineering and Technology explained that policymakers may want to encourage further demand-side management in the system, through the use of ‘smart grid’ technologies, greater control of demand peaks through tariff incentives, and encouragement of larger users to generate their own power off-grid at times of high consumption.<sup>98</sup>

**96. Northern Ireland is anticipated to fall into a generation supply deficit in 2021. While interconnection with the Republic of Ireland will alleviate short-term concerns, it is clear that Northern Ireland will require new generating capacity to replace what is due to be lost at Kilroot and Ballylumford B. Decisions to invest in extending the life of existing power stations, or to build new low-carbon generating capacity, need to be made soon if Northern Ireland is to avoid a more serious generation supply deficit after 2025. In order to invest, generators require long-term policy clarity from the NI Executive and a clearer idea of how they will be compensated through the new Integrated Single Electricity Market. This reiterates the importance of updating the Strategic Energy Framework.**

## Interconnection

97. Interconnection between electricity markets as a means of achieving economies of scale can reduce prices for consumers, permit greater market penetration of intermittent, renewable sources of electricity, and increase security of supply, allowing users to flow electricity from low to high priced markets. The following sections consider plans for a new North–South Interconnector, ongoing technical limitations placed on the Moyle Interconnector, and ambitions for future interconnection with Great Britain and continental Europe.

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94 CBI Northern Ireland ([ENI0023](#)) para 10

95 Evermore Energy ([ENI0027](#)) para 1

96 Q314 (Jenny Pyper, Utility Regulator)

97 Q334 (Robin McCormick, SONI Ltd)

98 Institution of Engineering and Technology ([ENI0022](#)) para 2.2

### North–South Interconnector

98. At present, three transmission connections join the Northern Ireland and Republic of Ireland grids: the Louth–Tandragee 275 kV double line; the Corraclassy–Enniskillen 110 kV line; and the Letterkenny–Strabane 110 kV line.<sup>99</sup> Only the Louth–Tandragee connection has any significant capacity, with the other lines providing limited support to the local network. It is usually restricted to 300 MW of electricity flowing in either direction, to protect the grid in case the point of connection is damaged.<sup>100</sup> The limitations of the current infrastructure connecting Northern Ireland and the Republic have created inefficiencies within the Single Electricity Market, affecting security of supply, the connection of new renewables generation, and the cost of electricity for consumers.<sup>101</sup>

99. A planning application was submitted in 2009 for a new 400 kV North–South interconnector which will run from Monaghan, through Cavan and Meath in the Republic of Ireland, to Armagh and Tyrone in Northern Ireland. It is designed to have a capacity of 1,500 MW and so should allow for the more efficient operation of the Single Electricity Market on the island of Ireland. The project is expected to cost approximately £200 million, of which £90 million would be funded by Northern Ireland consumers through their electricity bills.<sup>102</sup> However, the interconnector has yet to be approved, with the planning application currently resting with the Planning Appeals Commission. A public inquiry was held in February 2017, and a decision is due to be made before the end of the year. Planning permission has already been granted for the Republic of Ireland side of the interconnector.

100. Opponents of the interconnector—the most prominent of which are based in Armagh, Bainbridge and Craigavon—are primarily concerned with plans to build the interconnector using 401 overground pylons over a distance of 138km, of which 102 pylons will be located in Northern Ireland over 34km.<sup>103</sup> They describe the “potentially devastating impact” for the natural environment and say the interconnector will damage tourism in the affected areas.<sup>104</sup>

101. SONI told us there would be significant financial and technological concerns in building the interconnector underground, with some independent estimates suggesting it could increase construction costs by 300 per cent.<sup>105</sup> Post-construction, operating the interconnector, facilitating connections and identifying faults would be far more efficient were it to be constructed above ground. SONI also highlighted that the interconnector had been designed with smaller pylons to minimise its visual impact.<sup>106</sup> The CBI told us the project was so urgent, there was not time to restart the planning process and build the interconnector underground, and the NI Executive should discard this as an option.<sup>107</sup>

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99 Eirgrid, ‘North–South Interconnector: Answering your Questions’, page 5

100 *Ibid*, page 6

101 SONI Ltd ([ENI0024](#)) para 1.2

102 Q357 (Robin McCormick, SONI Ltd)

103 Q343 (Robin McCormick, SONI Ltd)

104 Robert Graham ([ENI0002](#)) para 11

105 Q364 (Robin McCormick, SONI Ltd)

106 Q363 (Robin McCormick, SONI Ltd)

107 CBI Northern Ireland ([ENI0023](#)) para 18

102. Of all the evidence we took during the Committee’s inquiry, one of the most clear and consistent messages we heard was that the new North–South Interconnector was essential for ensuring security of supply in Northern Ireland. The then Minister for the Economy, Simon Hamilton MLA, described it as, “perhaps the key piece of new energy infrastructure in Northern Ireland”.<sup>108</sup> SONI’s evidence was particularly striking:

Without the second North–South interconnector, as [the system operator], SONI cannot be confident that we can ‘keep the lights on’ beyond 2021.<sup>109</sup>

103. With Northern Ireland due to enter a supply deficit in 2021, the new North–South Interconnector will be essential in order to access generation from the Republic of Ireland. The timescale for completion is tight, with planning permission unlikely to be granted until mid- to late-2017, and construction expected to take two years.<sup>110</sup> ESB stated that, if the interconnector was not built on time, older generation might need to be brought out of retirement, or new emergency generation constructed at short notice.<sup>111</sup> At worst, short-term restrictions on the availability of electricity in Northern Ireland could be necessary, estimated to cost the Northern Ireland economy up to £9 million per hour.<sup>112</sup>

104. Ultimately, a new interconnector is vital for ensuring the long-term viability of the all-island electricity market. The SEM and its successor, the I-SEM, are designed to operate as a single market across the island of Ireland, but they are not able to do so if there are serious physical constraints within that market. Mutual Energy explained that a single wholesale price for electricity would be unachievable in the long term without improving interconnectivity between the two markets.<sup>113</sup>

105. The Utility Regulator stated that improving interconnection would allow greater wind capacity and other renewable sources of electricity onto the system, and reduce high generating constraint costs, which are paid to compensate generators who are constrained from supplying electricity into the grid when there is excess generation on the system. They are estimated to total £10 million a year in Northern Ireland.<sup>114</sup> SONI pointed to evidence that consumers were currently paying an additional £40 million a year due to the absence of the new North–South Interconnector in various additional charges, such as the £8 million in capacity payments made to the Ballylumford power station. The interconnector’s continued absence was likely to see capacity costs increase further amidst a wider generation supply deficit after 2021.<sup>115</sup>

106. A new interconnector would, moreover, give confidence to potential investors in Northern Ireland’s electricity sector. SONI told us it would show that the all-island market was robust and unconstrained, and that investors could be confident that the electricity they generate would have full access to the SEM and I-SEM.<sup>116</sup>

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108 Q617 (Simon Hamilton MLA, Minister for the Economy)

109 SONI Ltd ([ENI0024](#)) para 2.11

110 Q356 (Robin McCormick, SONI Ltd)

111 Q250 (Paddy Hayes, ESB)

112 As reported in CBI Northern Ireland ([ENI0023](#)) para 18

113 Q429 (Paddy Larkin, Mutual Energy)

114 Q314 (Jenny Pyper, Utility Regulator)

115 Qq332–3 (Robin McCormick, SONI Ltd)

116 Q332 (Robin McCormick, SONI)

107. **The proposed North–South Interconnector has near unanimous support from across the electricity sector in Northern Ireland. Its benefits are clear: security of supply amidst an anticipated supply deficit after 2021, greater capacity for renewable energy, and substantially lower costs for consumers. We recognise that there are objections to the new interconnector regarding its likely impact on the landscape. However, the evidence we have received strongly suggests building the interconnector underground would be financially and technologically impracticable.**

108. *We urge the Planning and Appeals Commission to make its final decision on the interconnector as soon as possible so, if approved, construction can be completed well in advance of the anticipated generation supply deficit in Northern Ireland in 2021.*

### **Moyle Interconnector**

109. The Moyle Interconnector connects the electricity grids in Northern Ireland and Scotland through submarine cables running between converter stations in County Antrim and Ayrshire. Owned by Mutual Energy, the high voltage direct current link has a capacity of 500 MW. The Moyle Interconnector has suffered from technical faults in recent years. It had been fully repaired and running at full capacity, but has recently developed another fault, which has for the time-being halved its capacity.<sup>117</sup>

110. In addition, as noted briefly in Chapter One, technical restrictions have been placed on the Moyle Interconnector in Scotland. Mutual Energy explained that they hold a long-term Transmission Entry Capacity for flows of electricity into Scotland of 80 MW, which was agreed when the Moyle Interconnector was built on the assumption of a low demand for electricity exports from Northern Ireland into Scotland.<sup>118</sup> However, following the implementation of the Carbon Price Floor in Great Britain and an increase in costs in that jurisdiction, demand profiles have changed and forecasts indicate that exports to Great Britain are likely to exceed imports into Northern Ireland for the foreseeable future. While the Transmission Entry Capacity in Scotland was temporarily increased in 2016 to 287 MW in the summer months and 295 MW in the winter, a long-term increase has not been granted by National Grid in Scotland. The company has argued that the grid network has become too congested in south-west Scotland, with a significant recent increase in the number of wind farms in that region. Consequently, the Moyle Interconnector's Transmission Entry Capacity is due to revert to 80 MW in November 2017.<sup>119</sup> Imports to Northern Ireland have also been constrained to 450 MW.<sup>120</sup>

111. The Utility Regulator stated that restrictions on the Moyle Interconnector were a key concern, and that significant investment was required by National Grid in south-west Scotland, so that both regions could benefit from the ability to import and export electricity through the interconnector.<sup>121</sup>

112. However, Mutual Energy gave evidence that National Grid currently has no plans to upgrade the grid in Scotland, as there was no incentive for them to make the necessary investments.<sup>122</sup> We were told that the Utility Regulator, SONI, Mutual Energy and the

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117 Q385 (Paddy Larkin, Mutual Energy)

118 Mutual Energy ([ENI0014](#)) para 4.1

119 Mutual Energy ([ENI0014](#)) para 4.3; and Q395 (Paddy Larkin, Mutual Energy)

120 Mutual Energy ([ENI0014](#)) para 4.14

121 Q317 (Jenny Pyper, Utility Regulator)

122 Mutual Energy ([ENI0014](#)) para 4.4

Northern Ireland Executive had been liaising with their counterparts in Great Britain (including Ofgem, National Grid, Scottish Power and the then Department of Energy and Climate Change), but no progress had yet been made. Mutual Energy stated that, ultimately, a decision would need to be taken by the UK Government to direct Ofgem and National Grid if the restriction was to be cleared.<sup>123</sup>

113. Overall, restrictions on the Moyle Interconnector have added to security of supply concerns in Northern Ireland and increased electricity costs for consumers.<sup>124</sup> Limitations on Northern Ireland's ability to export electricity at times of high wind generation has forced the system operator to require renewables generators to curtail their supply to maintain the stability of the network.<sup>125</sup> This has increased costs for consumers in the Single Electricity Market, with substantial constraint payments being made to affected generators, and reduced incentives to invest in renewables generation in Northern Ireland.

114. The Moyle Interconnector is further restricted by frequent outages, enforced by National Grid in order to facilitate the connection of additional wind farms on the network in Scotland. This included a three-month outage in the summer of 2016.<sup>126</sup> As with the Transmission Technical Capacity restriction, outages on the interconnector have led to increased costs for consumers and diminished security of supply in Northern Ireland. Despite the clear impact on Northern Ireland, Mutual Energy stated that National Grid did not consult with their counterparts in the Province when determining when to implement network outages, and no formal mechanism existed to take account of the effect on consumers in Northern Ireland.<sup>127</sup>

115. Of particular concern to Mutual Energy was an apparent lack of joined-up thinking in the UK Government with regard to interconnector policy. During the 2016 Budget statement, the then Chancellor, George Osborne MP, announced that the Government had accepted the National Infrastructure Commission's recommendation for "an increased level of ambition on interconnection", and support for "the market delivery of at least 9 GW of additional interconnector capacity".<sup>128</sup> Mutual Energy expressed disbelief that the UK Government could announce an ambition for greater interconnection, while ignoring restrictions currently in place on the Moyle Interconnector. They stated:

In that context it is remarkable that an existing interconnector, by which consumers in Great Britain might have access to low carbon wind energy from Northern Ireland, is constrained by the grid in Scotland<sup>129</sup>

116. Mutual Energy explained that removing the constraint on the Moyle Interconnector and making the necessary investments in the Scottish grid would be more cost-efficient than building new interconnectors to other external markets, and bring substantial benefits to both the Northern Ireland and Great Britain markets.

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123 Q426 (Paddy Larkin, Mutual Energy)

124 Mutual Energy ([ENI0014](#)) para 4.5

125 Q389 (Paddy Larkin, Mutual Energy)

126 Mutual Energy ([ENI0014](#)) para 4.5

127 Ibid

128 HM Treasury, Budget 2016, 16 March 2016, sections 5.3 and 5.8

129 Mutual Energy ([ENI0014](#)) para 4.11–4.13

### *Collaboration between regulators*

117. Emerging from this is a wider point about the effectiveness of the existing collaborative mechanisms between policymakers, system operators and regulators in Northern Ireland and Great Britain. Reflecting on their experience with the Moyle Interconnector, Paddy Larkin, Chief Executive of Mutual Energy, noted that there was no legal requirement for the regulator in Great Britain to coordinate or collaborate with the regulator in Northern Ireland, or operate with regard to the interests of the other jurisdiction.<sup>130</sup> This contrasted with the legislative requirement for the regulators of Northern Ireland and the Republic of Ireland to work together within the SEM Committee. Jenny Pyper, Chief Executive of the Utility Regulator, gave evidence that:

[ ... ] there are healthy tensions when it comes to the interests of consumers in Northern Ireland and the interests of consumers in the Republic of Ireland, but the legislation that was put in place charges the SEM Committee with considering the interests of all the consumers on the island of Ireland.<sup>131</sup>

118. This clearly makes sense in the context of operating a single electricity market on the island of Ireland. But it is also a model of collaboration that could have relevance within the context of operating the UK's electricity system. Mutual Energy recommended that legislation be introduced to require UK regulators to work together, in much the same way as the regulators are required to within the SEM Committee.<sup>132</sup> They also told us there was a need for one body to have overall responsibility for crossborder coordination, which was able to ensure that regulators and other bodies in each jurisdiction worked together to ensure issues of mutual interest were resolved as quickly and efficiently as possible.

119. The Utility Regulator stated that it already had close linkages with Ofgem.<sup>133</sup> However, Mutual Energy was of the view that, although UK regulators made some effort to work together informally, cross-border considerations appeared to be of a much lower priority than issues affecting a single jurisdiction, and there was no obligation to consider the interests of the whole of the UK in decision-making. This had contributed to a lack of urgency over resolving issues such as the restrictions placed on the Moyle Interconnector.<sup>134</sup>

**120. The Moyle Interconnector has been placed under a substantial technical restriction by National Grid, leaving the only interconnector between Great Britain and Northern Ireland considerably underutilised. The restriction is indicative of the lack of joined-up thinking on electricity policy. Restrictions have been imposed by National Grid without meaningful consultation or with regard to the effect on the electricity sector in Northern Ireland.**

***121. We believe that, as it is the UK Government's intention to deliver 9 GW of additional interconnector capacity to the UK, it should first ensure the full utilisation of existing interconnection infrastructure within the whole of the United Kingdom. With this in mind, the UK Government should direct National Grid, Scottish Power and Ofgem to make the necessary investments in the Scottish grid to ensure the Moyle Interconnector is able to import and export electricity at its full capacity as soon as practicable.***

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130 Q395 (Paddy Larkin, Mutual Energy)

131 Q285 (Jenny Pyper, Utility Regulator)

132 Q411 (Paddy Larkin, Mutual Energy)

133 Q284 (Jenny Pyper, Utility Regulator)

134 Q410 (Paddy Larkin, Mutual Energy)

122. *We recommend the UK Government consults with the regulators in Northern Ireland and Great Britain to determine whether a more formal mechanism should be introduced to improve collaborative working practices and to better facilitate the consideration of UK-wide interests in the operation of electricity markets. The Department for Business, Energy and Industrial Strategy should also take greater responsibility for ensuring that cross-border issues are resolved to the satisfaction of stakeholders in both the GB and NI jurisdictions in a timely manner.*

### Further Interconnection

123. The Northern Ireland Executive has ambitions for additional interconnection between Great Britain and Europe. The then Minister for the Economy, Simon Hamilton MLA, told us, “we should not think just about the North–South interconnector, we should think more about East and West, but we should be looking at more opportunities”.<sup>135</sup> One opportunity the Minister noted would be for Northern Ireland to serve as the landing point for a potential new 750-mile interconnector with Iceland. Such a decision would need to be made by the UK Government, but Mr Hamilton highlighted the potential benefits to Northern Ireland, were the Province to be included in these plans.

124. *Noting the Executive’s enthusiasm for inclusion in UK-wide plans for future interconnection with Europe, we urge the UK Government to give full consideration to Northern Ireland when determining landing points for potential future interconnectors with countries such as Iceland.*

### Electricity Storage

125. Emerging electricity storage technologies have the potential to revolutionise the operation of electricity systems, significantly increasing efficiency and enhancing security of supply without the need for extensive investment in additional generation and reinforcement of electricity grids. Electricity storage encompasses a range of technologies, from small-scale demand-side systems designed for individual consumers to manage their electricity usage, to large-scale grid-level technologies, intended for the management of electricity supply and demand at the national level.

126. Electricity storage presents a particular opportunity for Northern Ireland, where these technologies could allow the market to take full advantage of the significant investment that has been made in renewable generation in recent years. The ability to store renewable energy—capturing excess electricity at times of high generation so that it can be used when the wind does not blow—has the potential to dramatically increase the contribution of renewables on the system, reduce costs for consumers through lower wholesale prices and constraint payments, and allow for the more efficient management of the electricity grid through better control of supply and demand and reduced congestion on the network. RES explained that large-scale, subsidy-free electricity storage has the potential to save UK consumers £10 billion a year by 2050.<sup>136</sup>

127. Grid-scale electricity storage technologies are already commercially and technically viable.<sup>137</sup> During the Committee’s visit to Kilroot Power Station, AES showed us its

135 Q640 (Simon Hamilton MLA, Minister for the Economy)

136 RES ([ENI0018](#)) para 2.5

137 AES UK and Ireland ([ENI0013](#)) para 10

Advancion Energy Storage Array, which is the largest battery energy storage array in the UK and Ireland, with a capacity of 10 MW, and the only system at transmission scale. This was a fully commercial, subsidy-free project, and was the first stage of a planned 100 MW lithium-ion battery array at Kilroot, which would reduce system costs in Northern Ireland by £8.5 million per year.<sup>138</sup>

128. Gaelectric told the Committee of its plans for a Compressed Air Energy Storage (CAES) facility in Larne, which will have a generation capacity of 330 MW once it becomes operational in 2018.<sup>139</sup> CAES Larne was designated a Project of Common Interest by the European Commission, allowing access to EU funding and logistical support. We learned that the CAES project could present an opportunity for Northern Ireland to be a world leader in this area of energy storage technology.

129. These existing projects demonstrate that grid-scale energy storage technologies should not be dismissed as opportunities for the distant future, but are instead systems that can be utilised today. However, we were given evidence that the UK Government, Northern Ireland Executive and Utility Regulator could do more to support investors in storage technologies, and that the current regulatory framework for energy storage was outdated and represented a significant barrier to market entry.<sup>140</sup>

130. For example, one of the key concerns for energy storage technologies such as CAES Larne—although less so for in-house technologies, such as at Kilroot—relates to the double-charging of policy costs on electricity. Storage facilities are charged for consuming the electricity they store, while the end-user of the electricity is then also charged for consuming it. It has been recommended that the regulatory framework be updated so that policy costs only apply to the end user, not the electricity storage provider.

131. More broadly, Gaelectric highlighted the Energy and Climate Change Committee's recent Report into 'the energy revolution and future challenges for UK energy and climate change policy', and agreed with its analysis of the main issues faced by potential investors in energy storage. In its Report, the Committee made the following recommendations:

We reiterate our previous call on Government to move quickly on addressing regulatory barriers faced by storage: there must be a clear definition for storage, double-charging must come to an end, and a separate asset class for grid-level electricity storage should be established as a matter of urgency. The Government must also review the outdated Capacity Market rules and regulations in relation to storage, including considering increasing the contract length and addressing restrictions around the stacking of revenues for storage projects. We further recommend that Government sets out a high-level public commitment to making the UK a world leader in storage and sets a storage procurement target for 2020. The Government should also consider a possible subsidy framework for energy storage to accelerate deployment given the importance of storage to unlocking the full potential of renewable energy<sup>141</sup>

138 Ibid.

139 Gaelectric Holdings ([ENI0011](#)) para 1.5

140 Gaelectric Holdings ([ENI0011](#)) Executive Summary

141 [3rd Report: The energy revolution and future challenges for UK energy and climate change policy](#), 2016–17, Energy and Climate Change Committee, HC 705

132. Technically and commercially viable energy storage technologies are already available. They present an opportunity to revolutionise Northern Ireland’s electricity system, increasing efficiency and enhancing security of supply, reducing the need for substantial investment in additional generation and extensive reinforcement of the electricity grid. The AES Advancion Energy Storage Array at Kilroot Power Station and Gaelectric’s plan for a Compressed Air Energy Storage (CAES) facility in Larne are two prominent examples of the potential that already exists for energy storage in Northern Ireland. However, the current regulatory framework is outdated and represents a considerable barrier to market entry for potential investors.

133. *We join the former Energy and Climate Change Committee in calling on the UK Government and Northern Ireland Executive to address the regulatory barriers faced by investors in energy storage technologies. In particular, double-charging must come to an end and the Utility Regulator should ensure that the new Integrated Single Electricity Market (I-SEM) is designed with regard to the future role of storage technologies within the system.*

## Electricity Network

134. The Northern Ireland Executive has put considerable effort into achieving its vision of making Northern Ireland a more attractive place to do business, rebalancing the economy away from the public sector, and attracting foreign direct investment to create private sector employment. Part of this approach should see Corporation Tax cut to 12.5 per cent from April 2018; a policy which this Committee has already examined in detail.<sup>142</sup> To take full advantage of the growing interest in Northern Ireland as a place to invest, the Province also needs a modern electricity network; one that is reliable, efficient and able to support businesses as they look to invest, expand and create jobs. In addition, generators—in particular in the renewables industry—need to be able to secure connections to Northern Ireland’s electricity grid without incurring significant costs or extensive delays.

135. During our inquiry the Committee was keen to explore whether Northern Ireland’s electricity network was effective at supporting the Northern Ireland Executive’s ambitions for the economy in the Province. We considered the extent to which the grid was an enabler or an inhibitor of economic growth, as well as the promotion of sustainable energy and security of supply.

### Concerns for renewables generators

136. The Northern Ireland Executive’s ambitious target for renewables to contribute 40 per cent of electricity supply by 2020, alongside the introduction of the Northern Ireland Renewables Obligation (NIRO) in 2005, led to a rapid increase in the number of renewables generators of all scales requiring connections onto Northern Ireland’s electricity network. Nicholas Tarrant, Managing Director of NIE Networks, stated that 926 MW of renewable generation was currently connected to the grid, with another 703 MW of projects contracted for connection.<sup>143</sup>

137. However, NIE Networks has struggled to cope with the rapid increase in demand for connections. The Northern Ireland Renewables Industry Group (NIRIG) told us the

142 [Corporation Tax in Northern Ireland](#), 2010–12, Northern Ireland Affairs Committee

143 Q484 (Nicholas Tarrant, NIE Networks)

Northern Ireland electricity network was ageing and was never designed to facilitate connections remote from bulk supply points or demand sources, which is where the majority of wind connections are requested.<sup>144</sup>

138. Connection problems were further exacerbated in August 2015, when NIE Networks and SONI announced a ‘connections moratorium’. Following a decision by the Utility Regulator to relax the rules relating to the requirement to achieve planning permission before a connection offer could be requested—leading to a “deluge of new applications” beyond the 1,600 already in the pipeline—NIE Networks and SONI announced they were unable to fulfil outstanding connection requests or make new connection offers for the foreseeable future.<sup>145</sup>

139. We received evidence from renewables industry representatives that the moratorium, combined with the early closure of the NIRO in June 2016, represented a serious threat to the Northern Ireland Executive’s 40 per cent target for renewable electricity, and the attractiveness of the Province’s electricity sector for investment.<sup>146</sup> NIRIG stated that the moratorium had put at risk £900 million of investment in onshore wind farms.<sup>147</sup> Lightsource Renewable Energy Holdings Ltd informed us that 13 of their renewables projects, representing a total value of £140 million, were subject to the connections moratorium, of which six had been granted full planning permission.<sup>148</sup> They explained that its investment decisions would need to be reconsidered if there continued to be uncertainty.

140. Later in 2016, NIE Networks told us they had consulted with the renewables industry and agreed planning permission should be re-established as a criteria for obtaining a grid connection offer.<sup>149</sup> The company further decided to issue 200 MW of new connection offers to renewables generators, but also rejected 1,600 MW of applications. Some applications were rejected due to limitations in transmission capacity in the electricity network, while others were rejected due to constraints, and the need for further investment, in the distribution network.<sup>150</sup>

**141. Deficiencies in Northern Ireland’s ageing electricity network and the recent ‘connections moratorium’ imposed by NIE Networks and SONI caused considerable uncertainty for the renewables industry, threatening investment in the sector, undermining security of supply, and putting at risk the Northern Ireland Executive’s ambitious target for renewables to contribute 40 per cent of electricity supply by 2020.**

### **Concerns for businesses**

142. Manufacturers also reported that Northern Ireland’s ageing electricity network was damaging investment and growth. The then Minister for the Economy, Simon Hamilton MLA, reflected this in his evidence to the Committee, telling us he had spoken to a number

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144 Northern Ireland Renewables Industry Group ([ENI0021](#)) para 21

145 Q485 (Nicholas Tarrant, NIE Networks)

146 Lightsource Renewable Energy Holdings Ltd ([ENI0009](#)) para 1.4

147 Northern Ireland Renewables Industry Group ([ENI0021](#)) para 22

148 Lightsource Renewable Energy Holdings Ltd ([ENI0009](#)) para 3.1.4

149 Q485 (Nicholas Tarrant, NIE Networks)

150 Q485 (Nicholas Tarrant, NIE Networks)

of businesses who had concerns about their ability to connect to the grid and expand their businesses. Mr Hamilton stated he did not want private sector growth to be inhibited in any way by restrictions in the electricity network.<sup>151</sup>

143. We heard other evidence reflecting these concerns. Dr Patrick Keatley, Research Fellow at Ulster University, said it was “difficult, expensive and slow to get connections” to the network.<sup>152</sup> Large businesses, heavily reliant on an efficient electricity network, frequently encountered high costs and delays when seeking connections to the grid, limiting their ability to expand, create jobs and bring much needed economic growth to Northern Ireland.<sup>153</sup> Stephen Kelly, Chief Executive of Manufacturing NI, reported concerns from his members regarding the lack of availability of power on the grid and difficulties in getting necessary connections due to congestion in the electricity network.<sup>154</sup> Worryingly, Dr David Dobbin, the Chair of the Energy and Manufacturing Advisory Group (EMAG) said that inadequacies in the electricity network had created an environment in which, “Northern Ireland is not currently in a position to compete for investment where there are high energy requirements”.<sup>155</sup>

144. Dr Dobbin also told us there was a “postcode lottery” in Northern Ireland, where it was easier to obtain grid connections and develop economically if the business was in the east of the Province than if it was based in the west.<sup>156</sup> While Larne, Ballymena and Belfast tended to benefit from a relatively strong grid, there were considerable weaknesses in Cookstown, Tyrone and Fermanagh where the electricity network was “not fit for purpose”.<sup>157</sup> This was a concern echoed by the CBI, who told the Committee grid connection problems were hampering efforts to rebalance economic development in the west.<sup>158</sup>

145. Dr Dobbin also told us that Dale Farm had direct experience of these difficulties. Dale Farm had intended to make a £30 million investment in a new plant in Cookstown, but was informed by NIE Networks that there was insufficient capacity in the local area and so was asked to pay for its own 27-mile line from Magherafelt, at a cost of £7 million, and wait two years for the connection to be completed.<sup>159</sup> The substantial additional cost and delay made the investment by Dale Farm in Cookstown—which would have created 100 additional jobs in the area—commercially unviable.

146. We also heard concerns about the reliability of the existing grid. Dr Dobbin told us one of Dale Farm’s plants had experienced 15 brownouts—intentional or unintentional reductions or restrictions in the availability of electricity—in one year as a result of failures in the electricity network.<sup>160</sup> The power failures had led to substantial additional costs for the agri-foods business, with each incident estimated to have cost the firm between £40,000 and £50,000. It was noted that reliability was one of the main factors, alongside high energy costs, why many large industrial users were choosing to generate their own electricity off-grid.

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151 Q646 (Simon Hamilton MLA, Minister for the Economy)

152 Q23 (Dr Keatley, University of Ulster)

153 Qq574–575 (Stephen Kelly, Manufacturing NI)

154 Ibid.

155 Q537 (Dr David Dobbin, Energy and Manufacturing Advisory Group)

156 Ibid.

157 Q523 (Dr David Dobbin, Energy and Manufacturing Advisory Group)

158 CBI Northern Ireland ([EN10023](#)) para 24

159 Qq523–536 (Dr David Dobbin, Energy and Manufacturing Advisory Group)

160 Q528 (Dr David Dobbin, Energy and Manufacturing Advisory Group)

147. The costs quoted by NIE Networks for connections onto the network were of particular concern to several witnesses. Manufacturing NI reported that one of its members had been required to pay £2 million to obtain a connection to expand their business.<sup>161</sup> The Ulster Farmers' Union said they were aware of quotes of £600,000 to connect a 250 kW wind turbine to the electricity network.<sup>162</sup> Action Renewables explained that grid connection charges were often over 50 per cent of capital costs in the small-scale generation sector.<sup>163</sup>

148. Of particular concern was the way in which connection offers were prioritised by NIE Networks and SONI. During its inquiry, EMAG was told offers were made on a strict first-come-first-served basis, and no consideration was given to the relative economic benefit of each investment in determining when connections would be made.<sup>164</sup> This had created a situation in which applications from businesses seeking to make high-value investments were often left waiting behind smaller, less strategically important connections. Dr Dobbin suggested that a new, independent body be established to adjudicate as to the relative economic importance of each grid connection, to guide NIE Networks on what priority to give each application. He believed NIE Networks would support such a plan.<sup>165</sup> The CBI recommended the Northern Ireland Executive bring forward legislation to ensure priority was given to connections which offered the greatest economic return and aligned best with its economic strategies.<sup>166</sup>

**149. We share concerns expressed to us that capacity on the electricity network has become an inhibitor of economic growth in Northern Ireland, especially in the west of the Province. Industry groups reported that the costs and delays associated with connecting to the grid had limited their ability to invest, expand and create jobs.**

**150. *The Northern Ireland Executive should consider establishing an independent advisory body to identify connection applications with high strategic importance, and ensure these are given appropriate priority by NIE Networks when connection offers are sought.***

### **Additional investment in the Network**

151. NIE Networks is regulated by the Utility Regulator and is subject to periodic reviews in respect of the prices it is able to charge for the use of the transmission and distribution networks in Northern Ireland. NIE Networks recently submitted its business plan for the period October 2017 to March 2024 for the 6th regulatory price control period since Northern Ireland Electricity was privatised in 1993. This price control period will be known as RP6. The business plan proposed capital expenditure of £508 million on Northern Ireland's electricity network between 2017 and 2024, of which 55 per cent would be spent on asset replacement.<sup>167</sup>

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161 Q574 (Stephen Kelly, Manufacturing NI)

162 Ulster Farmers' Union ([ENI0031](#)) Section 4

163 Action Renewables ([ENI00026](#)) para 3.2

164 Q534 (Andrew Webb, Energy and Manufacturing Advisory Group)

165 Q534 (Dr David Dobbin, Energy and Manufacturing Advisory Group)

166 CBI Northern Ireland ([ENI0023](#)) para 25

167 Q467 (Nicholas Tarrant, NIE Networks)

152. Manufacturing NI stated that consumer research had demonstrated that business customers were unwilling to pay more for network investments than they had done during the RP5 price control period, and that the costs proposed by NIE Networks for RP6 should be carefully scrutinised.<sup>168</sup>

153. Other witnesses told us significant investment was required in the grid, over and above what had been proposed by NIE Networks for RP6. Renewables industry groups, including ABO Wind, called for “significant investment in the NI grid network [ ... ] to ensure that renewables generation can connect to the grid”.<sup>169</sup> Dr Patrick Keatley of Ulster University told us “the network—the grid—needs an overhaul”, while the CBI highlighted that the grid requires additional investment to facilitate the connection of renewables, improve system security and permit further economic development.<sup>170</sup>

154. In its report, EMAG recommended that the Northern Ireland Executive make strategic investments in the electricity network, following a similar model to that used when public funding was provided to the public sector to facilitate the roll-out of the broadband network into rural areas in Northern Ireland.<sup>171</sup> It called on the Northern Ireland Executive to carry out:

[...] a review of whether strategic grid investment by the Executive is needed, beyond what would normally be approved by the Regulator, particularly in the west of Northern Ireland to support regional economic development and facilitate the deployment of renewable energy.<sup>172</sup>

155. *We join EMAG in calling on the incoming Northern Ireland Executive to undertake a review into whether additional investment in Northern Ireland’s electricity network, beyond what has been proposed by NIE Networks for the RP6 price control period, could have substantial benefits for economic development, security of supply and the deployment of sustainable sources of electricity.*

## Security of Supply overview

156. The then Minister for the Economy, Simon Hamilton MLA, said he had no concerns about security of supply up until 2020.<sup>173</sup> He also told us it was not necessary to be “alarmist” regarding security of supply concerns beyond then, but that he was mindful of the importance of the issue.<sup>174</sup> However, he said Northern Ireland could be in a far worse position, and there were a number of reasons to be optimistic with regard to security of supply after 2020. He noted that the North–South Interconnector, the proposed new power station in Belfast Harbour, the battery storage facility at AES Kilroot, and the Gaelectric proposal for a Compressed Air Energy Storage (CAES) facility in Larne, would—if developed as planned—mean “we will look back and say we were worrying about nothing” in the years to come.<sup>175</sup>

168 Manufacturing NI ([ENI0006](#)) para 54

169 ABO Wind ([ENI0015](#)) para 11

170 Q23 (Dr Keatley, University of Ulster), and CBI Northern Ireland ([ENI0023](#)) para 12

171 Q545 (Dr David Dobbin, Energy and Manufacturing Advisory Group)

172 [Ministerial Energy and Manufacturing Advisory Group Report](#), 5 April 2016, Recommendation 7

173 Q616 (Simon Hamilton MLA, Minister for the Economy)

174 Q642 (Simon Hamilton MLA, Minister for the Economy)

175 *Ibid.*

**157. The then Minister for the Economy had an optimistic outlook for the security of supply situation in Northern Ireland. We nevertheless urge the next Northern Ireland Executive to focus on the challenges that exist within Northern Ireland's electricity sector, and make the necessary policy and legislative changes to alleviate these significant security of supply concerns before they become crises.**

## 5 Affordability

158. For most people, the cost of electricity is the most important indicator of whether an electricity sector is operating effectively. Domestic users need to light and power their homes without undue concerns about cost, while energy-intensive industries need access to competitively priced electricity.

### The price of electricity

159. There are broadly three factors which determine the cost of electricity: wholesale costs, network and policy costs, and supplier costs.<sup>176</sup> For domestic consumers, wholesale costs typically account for 60 per cent of the electricity tariff, and network and policy costs account for 30 per cent. The final 10 per cent reflects the costs and profits of electricity suppliers.

### Wholesale costs

160. Wholesale electricity costs are determined through the Single Electricity Market (SEM), which operates across the island of Ireland. Wholesale costs are therefore identical in both Northern Ireland and the Republic of Ireland. The SEM is an all-island pool market into which generators with over 10 MW capacity are required by law to trade with electricity suppliers. The cost of electricity within the market for each half-hour trading period—the System Marginal Price—is determined by the bids made into the pool by generators, which are then ranked according to the bids they have submitted. The final generator needed to meet consumer demand then determines the price of electricity in the SEM, with all other generators also receiving the agreed price. Jo Aston, Director of Wholesale Markets at the Utility Regulator, told the Committee the SEM was not a very active or competitive market, with electricity suppliers simply taking the price of electricity as determined by the Single Electricity Market Operator (SEMO) in each half-hour period.<sup>177</sup>

161. The new Integrated Single Electricity Market (I-SEM), due to be implemented from May 2018, is expected to allow for the trading of electricity in a different way, creating a more competitive environment within the electricity market and putting downward pressure on costs.<sup>178</sup> In the I-SEM, electricity will be traded over four timeframes—a forward timeframe, a day ahead, an intraday, and a balancing of dispatch—giving greater freedom to electricity suppliers over how they purchase electricity through the market. In addition, better use of interconnectors, the implementation of an auction-based capacity contracting framework, and the DS3 programme—aimed at improving the utilisation of low-cost renewable sources of generation—were also measures likely to see wholesale prices in the new I-SEM reduce over time.<sup>179</sup>

176 Qq294–296 (Jenny Pyper, Utility Regulator)

177 Q312 (Jo Aston, Utility Regulator)

178 Ibid.

179 Utility Regulator, 'Electricity Prices in NI: A Factual Analysis', Autumn 2016, page 22

### Generator Profits

162. A key area of concern raised in evidence during our inquiry related to the level of profit generators were able to make within the electricity market. The Consumer Council pointed to research from Ulster Business which found the profit levels of some generators within the SEM were far higher than other businesses on the island of Ireland, and that greater transparency was required concerning the profits made by generators.<sup>180</sup>

163. In December 2016, the SEM Committee published a report into Generator Financial Performance within the Single Electricity Market.<sup>181</sup> The report showed that operating profit margins for generators within the SEM were 31 per cent in 2014 and 34 per cent in 2015, an increase on the 29 per cent reported in 2012. Excluding large impairment charges, net profit margins were 11 per cent between 2012 and 2014, before rising to an average 13 per cent in 2015. Net profit margins remained stable despite a fall in generator revenue over the period, with average revenue per MWh of electricity falling from over €100 in 2013 to €86 in 2015.

164. The Utility Regulator told us gas generators typically set the marginal price within the SEM, and that gas generators had an average net profit margin of between 5 per cent and 7 per cent in 2013.<sup>182</sup> With gas providing approximately 46 per cent of generation output, there has been a strong correlation between gas fuel prices and the cost of wholesale electricity within the SEM.<sup>183</sup> Coal generators typically have a net profit margin of 20 per cent, wind generators achieve 10 per cent, while oil and distillate generators receive relatively high margins of 40 per cent.<sup>184</sup> It is important to note, however, that oil and distillates account for only a small proportion of generation, with the majority of their revenues received through capacity payment mechanisms.

165. Referring to data from the 2014 Generator Financial Performance report—which showed lower operating profit margins than the 2016 report—Manufacturing NI argued that generator profits were unreasonably high, and not sustainable in the long term.<sup>185</sup> They called on the SEM Committee to publish Generator Financial Performance more regularly, arguing that the two-year gap between the 2014 and 2016 reports was too great and damaged confidence in the market.<sup>186</sup>

166. However, the main generators have publicly denied that their profit margins are too high. For example, in October 2016, it was reported that Kilroot Power Station—owned by AES—had made a £14.8 million loss, with turnover down from £133.5 million to £113.6 million.<sup>187</sup> In the same period, Ballylumford Power Station had also seen its pre-tax profits halve to £6.3 million. In addition, although Coolkeeragh Power Station—owned by ESB—achieved a 9 per cent increase in revenue in 2015, it made an overall loss due to a £32.7 million impairment charge in the year.<sup>188</sup>

180 Q152 (Richard Williams, Consumer Council for Northern Ireland)

181 Cambridge Economic Policy Associates Ltd (CEPA), 'Generator Financial Performance in the Single Electricity Market', November 2016

182 Q312 (Jo Aston, Utility Regulator)

183 SEM Committee, 'Generator Financial Performance in the Single Electricity Market (SEM)', December 2014, page 10

184 Q312 (Jo Aston, Utility Regulator)

185 Q576 (Stephen Kelly, Manufacturing NI)

186 Ibid.

187 Belfast Telegraph, 'Mild weather leads to fall in profits for Kilroot', 4 October 2016

188 The Irish News, 'Lights out for power stations' profits', 4 October 2016

167. Wholesale costs account for 60 per cent of the electricity price paid by consumers. These costs are determined within the Single Electricity Market, and are the same in both Northern Ireland and the Republic of Ireland. From 2018, the Integrated Single Electricity Market (I-SEM) is expected to put a significant downward pressure on the wholesale price of electricity through changes to the way in which electricity is traded, better use of interconnection between markets, the implementation of an auction-based capacity contracting framework, and greater utilisation of low-cost renewable sources of generation.

168. *The most recent generator profitability report, published in December 2016, indicated high profit margins in the sector. To aid transparency and provide greater confidence to consumers, the SEM Committee should ensure that its Generator Financial Performance reports are published annually rather than every two years.*

### Network and policy costs

169. The second main determinants of the cost of electricity are network and policy costs. Policy costs refer to schemes such as the Northern Ireland Renewables Obligation (NIRO) and the Climate Change Levy, the cost of which is passed through to consumers. Policy costs account for just under 10 per cent of the total tariff. Network costs—which refer to the cost of maintaining and investing in the electricity transmission and distribution network—account for an average of 21 per cent of the total electricity tariff, although this varies across customer groups. For the very largest electricity users, network costs accounted for between 5 per cent and 6 per cent of the electricity tariff, while for domestic users, network costs accounted for approximately 25 per cent of the total price.<sup>189</sup>

170. The level and allocation of network and policy costs varies between Northern Ireland and the Republic of Ireland, and it is this that largely accounts for the differences in the price paid between the jurisdictions. Since 2010, the Republic has recovered network costs disproportionately from different categories of users, with costs more apportioned towards domestic users and away from larger energy users. In Northern Ireland, costs are distributed more evenly across all groups. Because of the difference in approach, domestic consumers in the Republic pay around 20 per cent more for their electricity than consumers in Northern Ireland.<sup>190</sup>

171. The extent of the policy costs embedded in electricity prices in Northern Ireland was raised as an issue of concern by industry and consumer groups during our inquiry. Some, such as the CBI, questioned the cost effectiveness of current environmental levies in Northern Ireland, and urged the NI Executive to ensure that future decarbonisation policies were more market driven.<sup>191</sup> Manufacturing NI questioned why the budget for the DS3 programme—a long-term programme of work designed to increase the level of renewable generation able to operate on the system—was due to increase so substantially in the coming years, and argued that it should not be increased above current levels.<sup>192</sup> Other organisations, such as Windwatch NI, argued that renewables policy costs resulted

189 Q493 (Nicholas Tarrant, NIE Networks)

190 Q296 (Jenny Pyper, Utility Regulator)

191 CBI Northern Ireland ([ENI0023](#)) para 31

192 Manufacturing NI ([ENI0006](#)) para 47

in a “regressive wealth transfer from consumers to investors in renewables and to large utilities”, and that this was particularly undesirable in the context of high fuel poverty in Northern Ireland.<sup>193</sup>

172. Some groups, however, did not believe that policy costs were too high, arguing that the renewables subsidies have had substantial benefits for Northern Ireland. NIRIG told us the NIRO had contributed to higher economic growth, both within the renewables industry and in rural areas, increased levels of sustainable generation and reduced dependence on fuel imports.<sup>194</sup>

173. We also heard criticism of network costs in respect of both their level and the way in which funding was used by the network owners. In particular, Manufacturing NI was highly critical of NIE Networks, suggesting they had charged substantially more than they needed to invest in the network, and had significantly underspent the money allocated during the RP5 price control period.<sup>195</sup> NIE Networks strongly denied that network charges were not reflective of costs, and pointed to a recent Utility Regulator study, which showed that network costs in Great Britain, Northern Ireland and the Republic of Ireland were broadly similar.<sup>196</sup> They told us the figures used by Manufacturing NI were incorrect, and NIE Networks expected to be “broadly in line” with the expenditure permitted within the RP5 price control period.<sup>197</sup>

### Supplier costs

174. Suppliers are the visible face of the electricity sector and often bear the brunt of consumer ire when energy costs are perceived to be high. However, it is important to note that they account for just 10 per cent of the overall price consumers pay for electricity. Suppliers’ operating profits are regulated within the domestic market and SME sector, with maximum profit margins determined by the Utility Regulator. For example, Power NI gave evidence that they were regulated to a profit margin of 2.2 per cent, while SSE Airtricity said its permitted profit margin was 1.5 per cent.<sup>198</sup> We were also told price reviews were fully transparent, and regular consultation took place with the Consumer Council when price changes were anticipated.<sup>199</sup>

175. In addition, as outlined earlier, suppliers operate within the Single Electricity Market (SEM)—a market in which suppliers are largely ‘price-takers’—restricting their ability to influence the wholesale price they pay for electricity.<sup>200</sup> The competitiveness of the market is, however, anticipated to improve with the implementation of the Integrated Single Electricity Market (I-SEM) in May 2018.

193 Windwatch NI ([ENI0003](#)) section 9

194 Northern Ireland Renewables Industry Group ([ENI0021](#))

195 Manufacturing NI ([ENI0006](#)) para 30; and Q605 (Stephen Kelly, Manufacturing NI)

196 Q496 (Peter Ewing, NIE Networks)

197 Q506 (Nicholas Tarrant, NIE Networks)

198 Q187 (Stephen McCully, Power NI); and Q189 (Andrew Greer, SSE Airtricity)

199 Q186 (Stephen McCully, Power NI)

200 Q312 (Jo Aston, Utility Regulator)

### **Prospects for lower prices in Northern Ireland**

176. A number of organisations—including the Consumer Council, Northern Ireland Chamber of Commerce, and Manufacturing NI—called for the NI Executive to set a target for consumers to pay no more for electricity than the EU average.<sup>201</sup>

177. However, other witnesses told us electricity costs would always be higher in Northern Ireland when compared to the EU average. Power NI stated that it was not a realistic expectation for Northern Ireland to have energy costs lower than in Great Britain or the EU. They noted geographic remoteness, limited economies of scale in the supply chain, high dependency on fuel imports, limited access to cheap local energy sources, and limited interconnection with other markets, as the main reasons why Northern Ireland should expect to have higher electricity prices than in the larger European markets.<sup>202</sup>

178. This sentiment was echoed by academics from Ulster University. They explained that in mainland Europe, there were 400 million people and a number of large industrial users, who together provided substantial baseload demand that reduced the price paid by all consumers. This compared to 800,000 users on the Northern Ireland network, and approximately 20 large industrial consumers. European countries were also better able to take advantage of cross-border interconnection. For example, Luxembourg, which has one of the cheapest electricity prices in Europe, is only able to serve 30 per cent of its own electricity demand, and imports what it needs from its cheapest neighbours. Sweden generates a significant proportion of its energy from hydroelectricity, whilst Iceland benefits from substantial geothermal energy. As Dr Patrick Keatley of Ulster University told the Committee: equating electricity prices in Northern Ireland with those in Europe was “not comparing apples with apples”.<sup>203</sup>

**179. A number of organisations have called for the NI Executive to set a target for consumers to pay no more for electricity than the EU average. While this would be a challenging objective, given Northern Ireland’s comparative geographic remoteness and limited economies of scale, it may indeed be necessary if the next Northern Ireland Executive wishes to attract large energy-intensive employers to the Province.**

### **Domestic users**

180. Prior to the recently announced price increases, electricity prices for domestic users were low by historic standards. Domestic bills had fallen by approximately 20 per cent since 2014, mirroring the fall in wholesale gas prices during that period.<sup>204</sup> In 2016, prices were 17 per cent lower than they were in the year before the electricity market was privatised in the early 1990s, and 32 per cent lower than in 2008.<sup>205</sup> Figure 2, below, shows that household annual bills had fallen to the lows achieved during the early 2000s.<sup>206</sup>

201 Consumer Council for Northern Ireland ([ENI0016](#)) para 4.1, Northern Ireland Chamber of Commerce ([ENI0020](#)), para 5.9, and Manufacturing NI ([ENI0006](#)) para 8.

202 Power NI ([ENI0005](#)) para 18

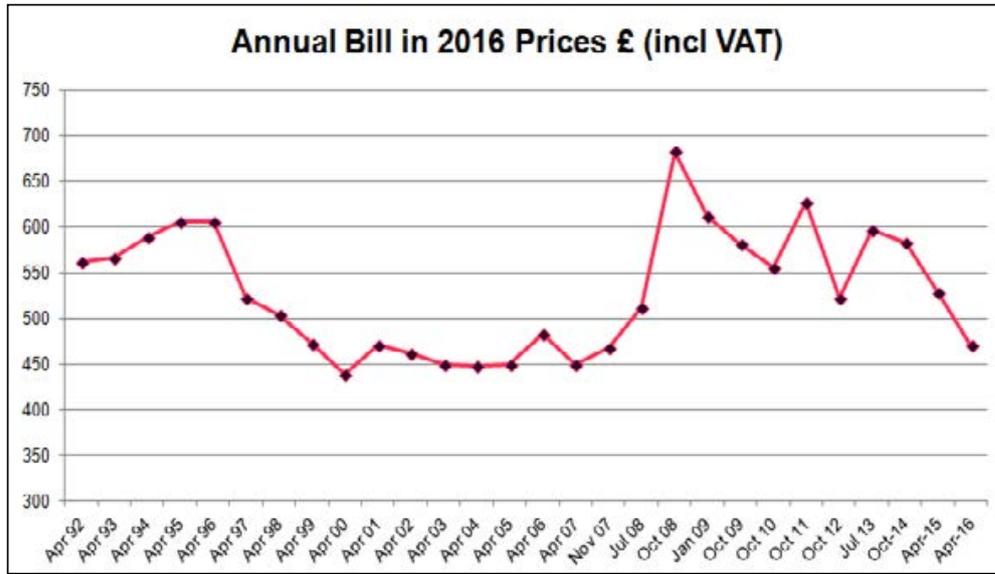
203 Q1 (Dr Keatley, University of Ulster)

204 Q290 (Jenny Pyper, Utility Regulator)

205 Q202 (Stephen McCully, Power NI); and Q616 (Simon Hamilton MLA, Minister for the Economy)

206 Utility Regulator, ‘Electricity Prices in NI: A Factual Analysis’, Autumn 2016

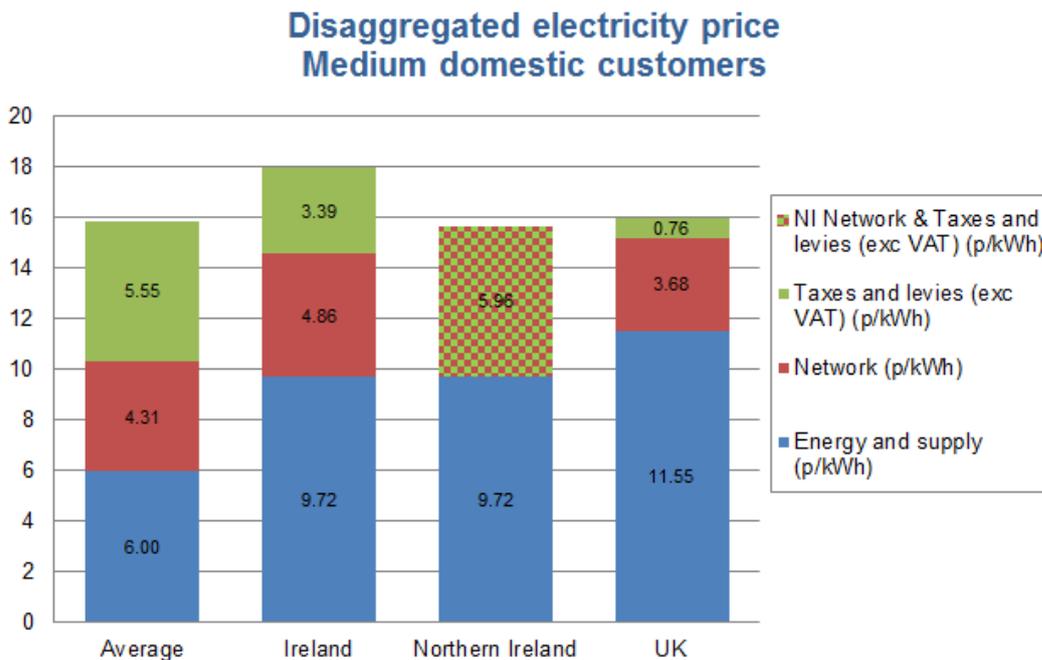
Figure 2: Average annual (3,200 kWh) domestic electricity bill in Northern Ireland



Source: [Electricity Prices in NI: A Factual Analysis](#), Utility Regulator, Autumn 2016

181. Prices are also low by comparison to Northern Ireland’s nearest neighbours. Stephen McCully, Managing Director of Power NI, told the Committee in June 2016, electricity costs for domestic users were 16 per cent below the average price in Great Britain.<sup>207</sup> Analysis provided by the Utility Regulator (Figure 3) showed, for average medium-use domestic consumers, Northern Ireland customers paid less than their counterparts in Great Britain and the Republic of Ireland, and broadly matched the EU average in the second half of 2015.<sup>208</sup>

Figure 3: Domestic customers disaggregated electricity prices, S2 2015



Source: [Electricity Prices in NI: A Factual Analysis](#), Utility Regulator, Autumn 2016

207 Q197 (Stephen McCully, Power NI)

208 Utility Regulator, ‘Electricity Prices in NI: A Factual Analysis’, Autumn 2016

182. However, the relatively low price of electricity for domestic users should not detract from the extremely high levels of fuel poverty in Northern Ireland. Fuel poverty is typically caused by a combination of low household income, poor energy efficiency, and the cost of energy.<sup>209</sup> In Northern Ireland, households are considered to be in fuel poverty if they spend more than 10 per cent of their income on energy. Data from 2012—the most recent available—showed 42 per cent of households in Northern Ireland (290,000) were fuel poor, substantially higher than the UK average of 15 per cent.<sup>210</sup> Fuel poverty was most prevalent in households with annual incomes below £10,000, in the private rented sector, and in rural areas.<sup>211</sup> The then Minister for the Economy, Simon Hamilton MLA, told us fuel poverty was “a big and worrying concern”, and that the Northern Ireland Executive had been looking at a new policy, focused on improving energy efficiency, to help address it.<sup>212</sup>

**183. Electricity prices for domestic users are low by historic standards and in comparison with neighbouring countries. However, fuel poverty levels remain extremely high in Northern Ireland. Lower electricity prices are only part of the solution; work must also be done to improve household energy efficiency and support low-income families with their electricity costs.**

### Non-domestic users

184. The picture for non-domestic consumers was more mixed. The then Minister for the Economy told us approximately two-thirds of the 80,000 non-domestic customers in Northern Ireland were paying electricity prices slightly above the EU average.<sup>213</sup> For the very smallest industrial consumers—those with an annual consumption of less than 20 MWh, accounting for 46,000 businesses (65.7 per cent of the total)—prices were relatively competitive when compared to the Republic of Ireland, although still higher than in Great Britain and the EU average (Figure 4).<sup>214</sup>

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209 Q155 (John French, Consumer Council for Northern Ireland)

210 Consumer Council for Northern Ireland ([ENI0028](#)) Table 1

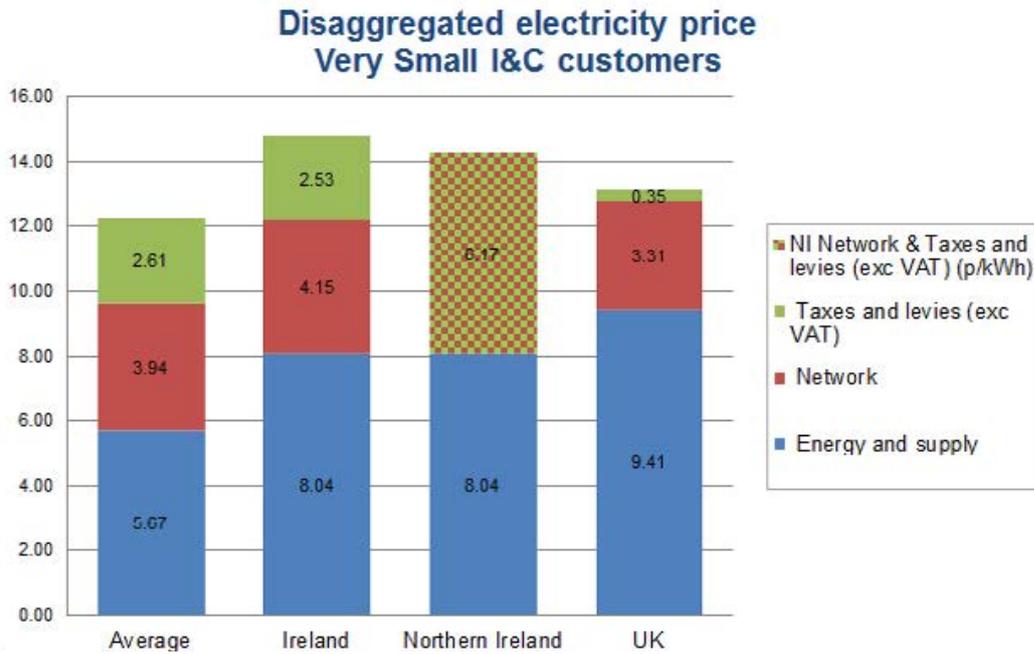
211 NEA, ‘UK Fuel Poverty Monitor 2014–15’, page 12

212 Q634 (Simon Hamilton MLA, Minister for the Economy)

213 Q616 (Simon Hamilton MLA, Minister for the Economy)

214 Utility Regulator, ‘Electricity Prices in NI: A Factual Analysis’, Autumn 2016

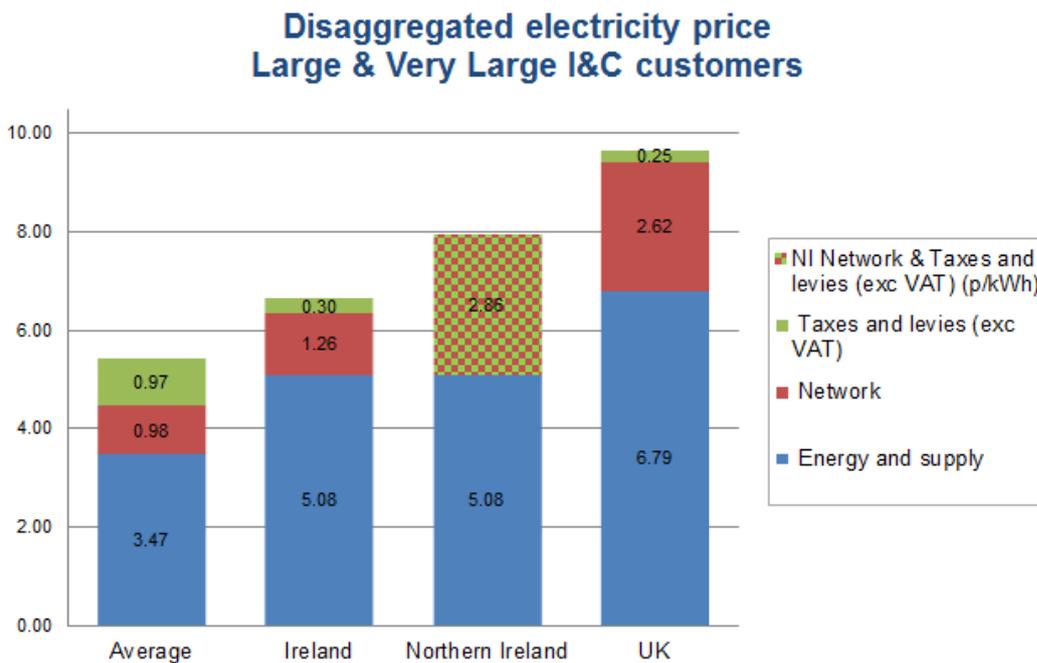
Figure 4: Very small industrial customers electricity prices, S2 2015



Source: [Electricity Prices in NI: A Factual Analysis](#), Utility Regulator, Autumn 2016

185. However, electricity prices for medium users—with an annual consumption of between 2,000 MWh and 19,999 MWh, accounting for 265 businesses—were 45 per cent higher than the EU average. For large and very large users—with an annual consumption of 20,000 MWh and above, accounting for 20 businesses—prices were 46 per cent higher than the EU average (Figure 5).<sup>215</sup>

Figure 5: Large and Very Large industrial customers' electricity prices, S2 2015



Source: [Electricity Prices in NI: A Factual Analysis](#), Utility Regulator, Autumn 2016

215 Utility Regulator, 'Electricity Prices in NI: A Factual Analysis', Autumn 2016, page 13

186. The Northern Ireland Chamber of Commerce told the Committee: “Northern Ireland is one of the least competitive regions not just nationally but internationally when it comes to energy costs”.<sup>216</sup> The CBI reported that energy costs for the most intensive users can account for 5 per cent to 15 per cent of turnover, while Manufacturing NI said electricity was the third largest input cost for the largest industrial users in Northern Ireland.<sup>217</sup> The Chamber of Commerce stated that energy cost pressures were a concern for 71 per cent of their members, and 78 per cent of local manufacturers in Northern Ireland.<sup>218</sup>

187. Energy costs have been cited as one of the key reasons for the loss of major employers in Northern Ireland in recent years. The closure of the Michelin factory in Ballymena was highlighted by several witnesses as a prominent example of this.<sup>219</sup> The CEO of Michelin UK, Wayne Culbertson, reportedly said, “Our energy bill in Northern Ireland last year was £9 million. It has been an Achilles heel for us”.<sup>220</sup>

188. In addition to the risk of losing businesses already based in Northern Ireland, high electricity prices have been a deterrent to new investment. The Chair of the Energy and Manufacturing Advisory Group, Dr David Dobbin, told us, “if you were an energy intensive company [ ... ] you would [ ... ] not come to Northern Ireland. You would go to Scandinavia or countries where there is significantly lower electricity cost”.<sup>221</sup> Similarly, the Chamber of Commerce reported that 29 per cent of its members said high energy costs would be a potential deterrent to future investment decisions in Northern Ireland.<sup>222</sup> The CBI echoed this, telling the Committee high energy costs made it particularly hard to attract new energy intensive industries, such as large-scale data storage and manufacturing.<sup>223</sup>

189. High electricity costs—alongside issues associated with connecting to the electricity network (as outlined in Chapter 3)—have led a number of large manufacturers to make the decision to generate their own electricity off-grid. By self-generating electricity, manufacturers were able to lower their electricity costs by avoiding network and policy costs. Manufacturing NI said that businesses were able to generate electricity at approximately half the price of what it cost through the marketplace.<sup>224</sup> Bombardier told us it would soon be able to generate 70 per cent of its own electricity requirements off-grid, whilst the then Minister for the Economy told us he had visited an agri-food processing business which had recently invested in its own wind turbines and anaerobic digestion generation.<sup>225</sup>

190. Manufacturing NI explained that they encouraged their members to generate their own electricity, suggesting it would send a signal to policymakers that energy costs were too high.<sup>226</sup> However, other witnesses noted that, whilst there may be cost advantages for large users that can afford to generate electricity off-grid, there were disadvantages for the consumers left behind. For example, the then Minister for the Economy highlighted that, as large users came off the electricity network, the network and policy costs they had been

216 Northern Ireland Chamber of Commerce ([ENI0020](#)) para 5.1

217 Q573 (Stephen Kelly, Manufacturing NI); and CBI Northern Ireland ([ENI0023](#)) para 27

218 Northern Ireland Chamber of Commerce ([ENI0020](#)) para 5.4

219 Robert Graham ([ENI0002](#)) para 8, and Manufacturing NI ([ENI0006](#)) para 4

220 As quoted at Q590 (Stephen Kelly, Manufacturing NI)

221 Q531 (Dr David Dobbin, Energy and Manufacturing Advisory Group)

222 Northern Ireland Chamber of Commerce ([ENI0020](#)) para 5.3

223 CBI Northern Ireland ([ENI0023](#)) para 11

224 Q565 (Stephen Kelly, Manufacturing NI)

225 Q563 (Cecil McBurney, Bombardier), and Q646 (Simon Hamilton MLA, Minister for the Economy)

226 Q603 (Stephen Kelly, Manufacturing NI)

absorbing would need to be distributed between the consumers remaining on the grid.<sup>227</sup> The Consumer Council also highlighted this as a concern, noting the network had “to be paid for by somebody, and if big slices of that pie are taken away by the large energy users, more of it will fall to domestic consumers”.<sup>228</sup> The Chamber of Commerce similarly urged caution, noting the potential detrimental impact on remaining consumers.<sup>229</sup>

**191. Electricity costs for large industrial users in Northern Ireland are substantially higher than the EU average and in the Republic of Ireland. High prices are damaging Northern Ireland’s economic competitiveness and putting at risk present and future business investment in the Province. Many large businesses are choosing to generate their own electricity off-grid, but this emerging trend risks increasing prices for all other domestic and non-domestic consumers.**

### *Reallocation of costs*

192. As outlined earlier in this chapter, wholesale costs as determined through the Single Electricity Market (SEM) are identical across the island of Ireland. The reason why prices are higher for large non-domestic users in Northern Ireland is due to differences in the level and allocation of network and policy costs.

193. Policy costs in the Republic of Ireland are relatively low in comparison to Northern Ireland. In addition, the Irish Government also recovers network and policy costs disproportionately from different categories of users—shifting costs away from large manufacturers and on to domestic users—in order to give a competitive advantage to large businesses and attract energy intensive industries into the country.

194. It was noted that the Republic was not the only country to reallocate network and policy costs to give manufacturers a competitive advantage. The Chair of the EMAG told the Committee there were a number of European countries, including Germany, where policy costs—in particular renewables subsidies and the costs of environmental compliance—were met by government for large users as a “backdoor method” of subsidising electricity for industry.<sup>230</sup>

195. A key question which emerged during the Committee’s inquiry was whether Northern Ireland should follow suit, and reallocate network and policy costs away from the largest manufacturers to help them be more competitive. “Yes, is the short answer”, Manufacturing NI told us.<sup>231</sup> Whilst it was acknowledged that imposing higher costs on domestic users would be politically difficult in the context of existing high levels of fuel poverty, Manufacturing NI said the best way to lift people out of poverty was to ensure they had a job, which a reallocation of costs would help to do. The CBI argued that the Northern Ireland Executive should examine the case for reallocating costs, mirroring the system in the Republic of Ireland. It also noted that domestic consumers already benefited from low electricity prices and no water charges, and that the wider economic benefits of such a measure should be considered.<sup>232</sup>

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227 Q646 (Simon Hamilton MLA, Minister for the Economy)

228 Q162 (John French, Consumer Council for Northern Ireland)

229 Northern Ireland Chamber of Commerce ([ENI0020](#)) para 4.4

230 Q540 (Dr David Dobbin, EMAG)

231 Q592 (Stephen Kelly, Manufacturing NI)

232 CBI Northern Ireland ([ENI0023](#)) para 29

196. Power NI gave evidence that a reallocation of costs need not fall entirely on domestic consumers but instead could be redistributed between both domestic consumers and the SME sector, such that the overall impact might be small for most people.<sup>233</sup> Dr Patrick Keatley from Ulster University said that the effect of reallocating costs could be further reduced by only targeting relief towards energy-intensive companies which were competing in global markets, and noted that this was how such policies operated elsewhere in Europe.<sup>234</sup> Indeed, the Utility Regulator suggested that the Minister for the Economy might want to consider a targeted initiative to reduce energy costs for the 20 largest electricity users in Northern Ireland, given their significant contribution to GDP.<sup>235</sup> The Chair of the EMAG, Dr David Dobbin, also reflected an appetite within industry for a new approach to the allocation of energy costs. He said:

We are not talking about something that is suddenly going to disadvantage the normal consumer or increase the risk of fuel poverty. We are talking about something that hopefully, if it is done sensibly, could bring costs down for all users.<sup>236</sup>

197. The Consumer Council was less enthusiastic about a reallocation of costs towards domestic users. They told us, given a choice between reallocating costs and reducing electricity consumption through energy efficiency measures, they would prefer to see a focus on the latter. They urged policy-makers to consider the consequences of such a measure: “if you, in the short term, pull one policy lever to improve things for business, you will cause other unintended problems down the line”.<sup>237</sup>

198. Jenny Pyper, Chief Executive of the Utility Regulator, told us a reallocation of costs would require a decision by the Northern Ireland Executive, and was not something they were empowered to implement unilaterally.<sup>238</sup> She said, if the Minister for the Economy advised them he would like to see costs reallocated away from large manufacturers, the Regulator would certainly produce the necessary modelling work.<sup>239</sup>

199. However, the then Minister for the Economy told us he had “limited ability to affect electricity prices”, and instead looked for other opportunities to put downwards pressure on energy costs.<sup>240</sup> He also highlighted that electricity prices were not the only determinant of an economy’s competitiveness, and large businesses had many other positive reasons to invest in Northern Ireland.<sup>241</sup> In particular, he pointed to the Province’s low labour, property and transportation costs, as well as the new low rate of corporation tax due to be introduced in April 2018.

200. Manufacturing NI agreed that energy costs were not the only determinant of competitiveness, but argued that changes to the allocation of electricity costs would make Northern Ireland more attractive to investors.<sup>242</sup> Academics from Ulster University also

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233 Q211 (Stephen McCully, Power NI)

234 Q32 (Dr Keatley, University of Ulster)

235 Q304 (Jenny Pyper, Utility Regulator)

236 Q530 (Dr David Dobbin, Energy and Manufacturing Advisory Group)

237 Q175 (John French, Consumer Council for Northern Ireland)

238 Q301 (Jenny Pyper, Utility Regulator)

239 Q304 (Jenny Pyper, Utility Regulator)

240 Q616 (Simon Hamilton MLA, Minister for the Economy)

241 Q646 (Simon Hamilton MLA, Minister for the Economy)

242 Q590 (Stephen Kelly, Manufacturing NI)

told us, in the context of attracting foreign direct investment to Northern Ireland, “This is only one element, but good value energy costs for industry coming in, creating jobs, is a good starting point”.<sup>243</sup>

**201. We acknowledge that high levels of fuel poverty in Northern Ireland make proposals to reallocate network and policy costs away from large industry and onto other users politically very challenging. However, we have been struck by the number of organisations—both within the industry, but also independent experts—who told the Committee that a reallocation of costs, appropriately targeted, could provide much needed support to Northern Ireland’s largest employers, and attract foreign direct investment from energy-intensive industries.**

*202. We believe this proposal is worthy of further consideration. We call on the next Northern Ireland Executive to undertake a detailed analysis to determine the potential effects of a targeted reallocation of electricity network and policy costs. Consideration should be given to the likely short-term increase in domestic fuel bills, but also the wider benefits which could arise from higher levels of investment from energy-intensive industries.*

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243 Q29 (Professor Hewitt, University of Ulster)

## 6 Sustainability

203. The final dimension within the energy ‘trilemma’—sustainability—refers to the need to ensure that electricity systems are designed and managed with appropriate regard to their effect on the environment and long-term viability. In this Chapter we consider the progress which has been made during the lifetime of the Northern Ireland Renewables Obligation (NIRO) and since the 2010 Strategic Energy Framework outlined the Northern Ireland Executive’s ambition for 40 per cent of electricity consumption to come from renewable sources by 2020. We also look at the future of renewables incentivisation in Northern Ireland, and the proposals that have been made in light of the closure of the NIRO scheme.

### Renewables policy

204. In the Strategic Energy Framework for Northern Ireland, published in September 2010, the then Minister of Enterprise, Trade and Investment, wrote:

I believe that Northern Ireland needs, and is able, to move rapidly to much higher levels of renewable electricity production and so am confirming that Northern Ireland will seek to achieve 40 per cent of its electricity consumption from renewable sources by 2020.<sup>244</sup>

205. This ambition, combined with the financial support made available through the NIRO scheme, has seen Northern Ireland increase its level of renewable generation from 3 per cent in 2005 to 25.4 per cent in 2015.<sup>245</sup> In October 2016, there was 926 MW of installed renewable energy capacity on the Northern Ireland electricity system, over 90 per cent of which was onshore wind generation.<sup>246</sup>

206. Through the DS3 programme, the Executive has also invested heavily in the electricity network so that it is able to support higher levels of renewable generation. SONI told us the non-synchronous penetration cap—the level of wind generation the electricity network is able to support at any one time—was currently at 55 per cent, with a medium-term ambition to increase this to 75 per cent; a level that has not been achieved anywhere else on a synchronous system.<sup>247</sup>

### Benefits and costs

207. We were told there have been some significant benefits arising from this rapid increase in renewable generation in Northern Ireland. The onshore wind industry has directly created 500 skilled jobs, and indirectly supported up to 10,000 jobs, contributing £32 million gross value added (GVA) to the economy in 2014.<sup>248</sup> Wind generation has also reduced Northern Ireland’s dependence on fuel imports, with savings estimated to be £40 million per year, rising to £80 million per year by 2020 if the next Northern Ireland

244 Department for Enterprise, Trade and Investment, A Strategic Energy Framework for Northern Ireland, September 2010, Ministerial Foreword

245 Q616 (Simon Hamilton MLA, Minister for the Economy)

246 Q484 (Nicholas Tarrant, NIE Networks), and Q71 (Rachel Anderson, Northern Ireland Renewables Industry Group)

247 Q335 (Robin McCormick, SONI Ltd)

248 RES ([ENI0018](#)) para 1.2, and Action Renewables ([ENI00026](#)) para 2.4

Executive achieves the 40 per cent target.<sup>249</sup> The Northern Ireland Renewables Industry Group (NIRIG) gave evidence that every megawatt of wind capacity deployed equated to £1.18 million invested in the Northern Ireland economy, and that this investment had particularly benefited rural communities.<sup>250</sup>

208. However, the Committee also took evidence from individuals and groups who were concerned by the rapid growth of onshore wind in Northern Ireland. West Tyrone Against Wind Turbines told us the policy costs associated with renewable energy placed an unfair burden on industry and those in fuel poverty.<sup>251</sup> Mr Robert Graham, a rural resident affected by wind turbines in his community, was concerned that planning rules had led to a proliferation of onshore wind that “impact adversely on rural residents, spoil the countryside and jeopardise tourism”.<sup>252</sup> Windwatch NI questioned the employment statistics and economic gains quoted by the renewables industry, arguing that thousands of jobs had been lost in the manufacturing industry due to high energy costs caused by green subsidies and network costs designed to facilitate the connection of renewables generators.<sup>253</sup>

209. Reflecting the range of views on renewables policy, we also heard disagreement between academics from Ulster University as to the value of small-scale onshore renewables generation. Dr Keatley told us small-scale renewables were “not good value for money”, and they made the low-voltage network difficult to manage for the system operator. He said that only large-scale renewables systems, controlled from the grid and centrally-managed, brought the economies of scale necessary to provide value for money for consumers.<sup>254</sup> Professor Hewitt disagreed, stating that small-scale renewables did have an important role in strengthening the voltage and frequency of the low-voltage network.<sup>255</sup> Rachel Anderson, Chair of NIRIG, echoed this view, stating that small-scale turbines and solar panels had brought significant benefits to farms and businesses in Northern Ireland, whilst the renewables industry had helped the rural economy to diversify.<sup>256</sup>

**210. The Northern Ireland Executive’s ambitious target to achieve 40 per cent of electricity consumption from renewable sources by 2020 has seen a rapid growth in onshore wind generation over recent years. The Committee recognises that some rural residents have legitimate concerns about the impact of wind turbines on the visual environment. However, we believe Northern Ireland will benefit in the long-term from having invested in a sustainable, low-cost and indigenous source of electricity.**

## Northern Ireland Renewables Obligation (NIRO)

211. In June 2015, the UK Government announced that the Renewables Obligation scheme for onshore wind would be closed a year earlier than had originally been intended, to be replaced with a new auction-based subsidy, Contracts for Difference (CfD). As referred to earlier in this Report, the UK Government’s decision had profound consequences for the then Northern Ireland Executive’s NIRO scheme. The UK Government told the NI

249 Q78 (Rachel Anderson, Northern Ireland Renewables Industry Group)

250 Northern Ireland Renewables Industry Group ([ENI0021](#)) para 11

251 West Tyrone Against Wind Turbines ([ENI0004](#)) paras 4,11 and at end

252 Robert Graham ([ENI0002](#)) para 2

253 Windwatch NI ([ENI0003](#)) section 7

254 Q24 (Dr Keatley, University of Ulster)

255 Q24 (Professor Hewitt, University of Ulster)

256 Q77 (Rachel Anderson, Northern Ireland Renewables Industry Group)

Executive that, were the NIRO not similarly reformed, it would prevent GB suppliers from meeting their annual RO quota by using NIROCs produced by schemes accredited after 1 April 2016 that did not meet the grace period eligibility criteria. Were this to have happened, the cost of subsidising renewable energy would have increased considerably for NI consumers.<sup>257</sup> As a consequence, the NI Executive followed the UK Government by closing the NIRO to new small-scale onshore wind in June 2016.

212. In Chapter 1, we addressed the early closure of the NIRO in the context of the insufficient consultation which took place between the UK Government and Executive throughout the closure process. Here, we focus on the effect the early closure of the NIRO has had on the renewables industry in Northern Ireland, and the policy implications this has had for the Executive.

213. The closure of the NIRO has left Northern Ireland as the only part of the UK not to have a support mechanism for the renewables industry.<sup>258</sup> Unlike the UK Government, which announced a new scheme to replace the Renewables Obligation in GB, the NI Executive had not revealed how—or whether—it would support the renewables industry beyond 2017–18 prior to the collapse of the power-sharing arrangements in January this year.

214. Action Renewables told the Committee that the current lack of policy called into question the Executive’s target to achieve 40 per cent of electricity consumption from renewable sources by 2020.<sup>259</sup> The Northern Ireland Renewables Industry Group (NIRIG) told us that, with uncertainty around the closure of the NIRO and ongoing difficulties in connecting to the electricity network, the Executive was unlikely to achieve the target. It estimated that a figure of between 35 per cent and 38 per cent was more realistic.<sup>260</sup> RES claimed there would be a shortfall of between 200 MW and 400 MW in the amount of generation needed to meet the target.<sup>261</sup> However, the then Minister for the Economy told us that enough grid connections offers had been made to achieve the 40 per cent target by 2020, if all the projects worked through the system as anticipated.<sup>262</sup>

215. The closure of the NIRO without a replacement, and the lack of long-term policy clarity, have been detrimental to investor confidence. ABO Wind noted large infrastructure projects were complex, time-consuming and expensive, and that the importance of policy stability could not be overstated.<sup>263</sup> They told the Committee their investment plans were being kept under review until further policy clarity was offered by the Northern Ireland Executive. NIRIG told us this was “likely to lead to a hiatus of renewable energy development in the coming years”, which would be detrimental to the economy and lead to a loss of skilled jobs and increased reliance on fossil fuels.<sup>264</sup>

216. The early closure of the NIRO was exacerbated by difficulties in receiving grid connection offers during the ‘connections moratorium’ imposed by NIE Networks (as outlined in Chapter 3). Investors, many of which had spent significant sums on planning

257 Department of Enterprise, Trade and Investment, ‘Closure of the Northern Ireland Renewables Obligation to new small scale onshore wind’, March 2016

258 RES (ENI0018) para 1.4

259 Action Renewables (ENI0026) para 2.5

260 Northern Ireland Renewables Industry Group (ENI0021) para 23

261 RES (ENI0018) para 1.4

262 Q656 (Simon Hamilton MLA, Minister for the Economy)

263 ABO Wind (ENI0015) para 2

264 Northern Ireland Renewables Industry Group (ENI0021) para 17

and consultancy fees, found themselves unable to get connections into the grid in time to avail of the NIRO, leaving their projects commercially unviable. The Ulster Farmers' Union gave evidence that many farmers and landowners had spent substantial amounts in preparation for connecting small-scale renewable schemes to the grid before the closure of the NIRO, but did not receive those connections in time.<sup>265</sup> Action Renewables highlighted the 1,500 MW of grid connection applications received by NIE Networks since August 2015, and noted that many will not be processed before the NIRO closes, leaving the majority financially unviable.<sup>266</sup>

217. The emerging 'policy gap' around renewables support has the potential to significantly damage Northern Ireland's burgeoning renewables industry. Action Renewables stated that a strong microgeneration sector had emerged in recent years and that the jobs within this industry would be difficult to sustain without continued support for renewables businesses.<sup>267</sup> NIRIG said the loss of Northern Ireland's renewables industry would put at risk between £1.5 billion and £2 billion of further investment in the electricity sector, £409 million of lost rates to local councils, and £687 million in lost wages to the economy.<sup>268</sup>

### **Future support for renewables**

218. The then Minister for the Economy explained that he had not yet made a decision as to how the Executive would support Northern Ireland's renewables industry after the closure of the NIRO. He did, however, outline three guiding principles which would be considered when determining the NI Executive's future strategy:

First is gaining access to the grid, which I treat and view as a scarce and precious resource, and should be treated as such. There are some issues in terms of pressures with the grid, accessing the grid and getting renewable connections to the grid.

I have to also bear in mind that at this minute in time there are not the energy storage facilities that we would like and we would need if we were going to go beyond the capability to generate peak demand.

The third and most important factor that I have to bear in mind is the cost of any future support and, allied to the affordability issue, what that would do for both domestic and non-domestic customers.<sup>269</sup>

219. Mr Hamilton also made clear he would not be able to create a new renewables support scheme on the same scale as the NIRO.<sup>270</sup> He noted that the costs associated with the NIRO had been socialised across all UK customers, while a replacement scheme would need to be paid for through the bills of Northern Ireland consumers, such that an identical programme to the NIRO would be substantially more expensive.

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265 Ulster Farmers' Union ([ENI0031](#)) Section 11

266 Action Renewables ([ENI0026](#)) para 3.3

267 Action Renewables ([ENI0026](#)) para 2.6

268 Northern Ireland Renewables Industry Group ([ENI0021](#)) para 13

269 Q616 (Simon Hamilton MLA, Minister for the Economy)

270 Q654 (Simon Hamilton MLA, Minister for the Economy)

## Contracts for Difference

220. Contracts for Difference (CfDs) were introduced by the previous Government as part of its Electricity Market Reform programme.<sup>271</sup> CfDs operate by fixing the prices received by low-carbon generators with a generating capacity of over 5 MW. Through a reverse auction process, a ‘strike price’ is agreed with renewables generators, ensuring they receive financial support when prices are low, but pay money back when prices are high. CfDs thereby guarantee that eligible technologies receive the electricity price they need to make investments commercially viable, whilst protecting consumers from excessive prices. The first CfD auction took place between October 2014 and February 2015, following which 27 projects were awarded £315 million of contracts.<sup>272</sup>

221. We received mixed evidence as to whether Northern Ireland should join the CfD scheme. Action Renewables stated that they supported calls for CfDs to be used to support larger renewables generators in Northern Ireland, although they also warned that small-scale generators should not be left without any government support.<sup>273</sup> NIRIG said that it “made sense” for Northern Ireland to join the CfD scheme, arguing that its renewables industry would be able to compete with schemes in Scotland and Wales, whilst benefiting from the socialisation of costs across the UK.<sup>274</sup> ESB said that the competitive auction mechanism was sensible from a policy perspective, and they would be interested in bidding into a CfD process, were Northern Ireland to participate in the UK-wide scheme.<sup>275</sup>

222. However, other witnesses advised the Northern Ireland Executive against joining the CfD scheme. Dr Patrick Keatley of Ulster University stated that, “the big problem [ ... ] is that we could end up paying for Contracts for Difference and see no benefit in Northern Ireland”.<sup>276</sup> They highlighted that the auctioning process meant there was no guarantee of seeing renewables projects built in Northern Ireland, yet consumers would nevertheless pay for Northern Ireland’s participation in the scheme, with a potential three-fold increase in the cost of renewables support by 2020.<sup>277</sup>

223. The Consumer Council made similar arguments, telling us, “[ ... ] if we are looking at trebling the renewables subsidy with no guarantee of any return, that is a real concern to us”.<sup>278</sup> Manufacturing NI agreed, arguing that all the evidence they had seen showed the CfD scheme would be “very detrimental” to Northern Ireland.<sup>279</sup> Energia said, while a suitable financial support mechanism for renewables was needed, the CfD scheme was unsuited to Northern Ireland and should not be adopted by the NI Executive.<sup>280</sup> Power NI told the Committee the CfD scheme could be “very dangerous” for customers in Northern Ireland, if they were asked to pay more for renewables subsidies, without seeing the benefit of that.<sup>281</sup>

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271 House of Commons Library, ‘Energy Policy Overview’, Briefing Paper, 23 June 2016, page 7

272 Ibid.

273 Action Renewables ([ENI0026](#)) para 2.6

274 Qq130–131 (Maf Smith, NIRIG)

275 Q275 (Paddy Hayes, ESB)

276 Q59 (Dr Keatley, University of Ulster)

277 Professor Neil Hewitt and Dr Patrick Keatley, Centre for Sustainable Technologies, Ulster University ([ENI0008](#)) section 4

278 Q178 (Richard Williams, Consumer Council for Northern Ireland)

279 Q570 (Stephen Kelly, Manufacturing NI)

280 Energia ([ENI0025](#)) para 12

281 Q232 (Stephen McCully, Power NI)

224. This is the view that was adopted by the Northern Ireland Executive. The then Minister for the Economy explained that he had reviewed the evidence we had received and, in particular, agreed with Ulster University’s position. He said:

I would agree [ ... ] that Contracts for Difference does not really work for Northern Ireland. It would have a significantly high cost. There would be no guarantee that it would benefit our economy and Northern Ireland schemes would have to be part of a wider bidding process. [ ... ] the scheme is not necessarily designed with Northern Ireland in mind.<sup>282</sup>

### *All-island proposal*

225. An alternative proposal, suggested by some witnesses, was that the NI Executive should work with the Republic of Ireland to implement a new financial support mechanism that would extend across the island of Ireland. Action Renewables argued that renewables policies originating in Great Britain had caused problems within the Single Electricity Market and that a better solution could be to develop an all-island renewables scheme specifically designed to operate within the Single Electricity Market.<sup>283</sup>

226. SSE urged the NI Executive to look at the Republic of Ireland’s renewables support scheme, which it described as one of the most successful and cost-effective in Europe.<sup>284</sup> Moreover, SSE told us there could be efficiencies in scale in adopting a similar scheme in Northern Ireland, and for it to operate throughout the Single Electricity Market. Power NI also described a potential all-island scheme as “a very cost-effective means” of supporting renewable generation in Northern Ireland.<sup>285</sup>

### *No renewables support*

227. The next Northern Ireland Executive might also decide not to implement a new financial support mechanism for the renewables industry in Northern Ireland. When asked whether the NI Executive’s decision rested on whether there was a need for further incentivisation, or whether there were sufficient renewables projects already in the pipeline, the then Minister for the Economy said, “That is a fair summary”.<sup>286</sup> Given the principles he outlined with regard to renewables—supporting the grid, recognising limitations with regard to energy storage, and making electricity costs affordable—it appears possible that a future NI Executive might decide not to adopt any new support scheme for the industry.

228. However, many in the renewables industry gave us evidence that some form of financial support mechanism was needed. NIRIG told us the wholesale price of electricity was too low for generators—renewables or otherwise—to be able to build and operate schemes at profit.<sup>287</sup> For the market to send the necessary signals for investors to build renewables capacity without financial support from government, the wholesale price would need to be higher.<sup>288</sup> As such, without an adequate incentivisation scheme for the industry, there would be substantially less investment in renewables generation in Northern Ireland.

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282 Q658 (Simon Hamilton MLA, Minister for the Economy)

283 Action Renewables ([ENI0026](#)) para 4.2

284 Q231 (Marian Troy, SSE)

285 Q232 (Stephen McCully, Power NI)

286 Q657 (Simon Hamilton MLA, Minister for the Economy)

287 Q101 (Maf Smith, Northern Ireland Renewables Industry Group)

288 Q74 (Maf Smith, Northern Ireland Renewables Industry Group)

**229. Having made significant progress in moving towards much higher levels of renewable energy production since 2010, the next Northern Ireland Executive needs to consider the future direction of renewables policy in Northern Ireland. The former Minister for the Economy elaborated three sensible principles: to protect the grid, to acknowledge current technological limitations, and to make sure electricity costs are affordable. In making its decision, the Northern Ireland Executive should remember the need to support its new renewables industry and to quickly provide the long-term policy clarity which investors in the electricity sector need.**

# Conclusions and recommendations

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## Electricity policy in Northern Ireland

1. There was a lack of coordination and collaboration between the UK Government and the Northern Ireland Executive on the closure of the Renewables Obligation (RO), and no clarity until late in the process regarding the consequential effect on the Northern Ireland Renewables Obligation (NIRO). This led to significant uncertainty for electricity market participants in Northern Ireland, damaging investor confidence and putting projects at risk. This could and should have been avoided with greater foresight and a more joined-up approach between the UK Government and NI Executive. (Paragraph 22)
2. The implementation of the Carbon Price Floor was initiated by the Coalition Government without consideration for Northern Ireland's position as part of the Single Electricity Market on the island of Ireland. While a derogation was ultimately secured thanks to the vigilance of electricity market actors and the NI Executive, it is a further example of how the UK Government should be more alert to the effect of GB-only policies on Northern Ireland. (Paragraph 26)
3. The UK Government continues to have both a direct and indirect influence on policy-making for the electricity sector in Northern Ireland. However, recent experience has shown that GB electricity policy is not always devised and implemented in a way which adequately reflects the aspirations of the electricity sector in Northern Ireland or the interconnected nature of the two markets. It is vital, though, that the UK Government remembers the unique needs of Northern Ireland's electricity sector when determining the UK's future energy relationship with EU Member States after Brexit. (Paragraph 31)
4. The present guidance on consultation as set out in the Memorandum of Understanding between the UK Government and Devolved Administrations clearly did not lead to sufficient collaboration between the UK Government and NI Executive during policy development on the closure of the Renewables Obligation. A new, more robust consultative process for electricity policy is, therefore, essential between the UK Government and NI Executive. (Paragraph 38)
5. *We join the Scottish Affairs Committee in calling on the Government to establish a new process for consulting the devolved administrations on the design of, or amendment to, policies that are likely to have an impact on the electricity markets in the devolved regions. The Government should present details of a new, clear and transparent process, outlining how the Northern Ireland Executive and key stakeholders in Northern Ireland's electricity sector will be formally consulted on UK electricity policy changes in future.* (Paragraph 39)
6. *We also urge the Northern Ireland Office to add to its expertise such that it is better able to represent the interests of Northern Ireland's electricity sector in Whitehall. A failure to represent adequately the interests of Northern Ireland's electricity*

*sector within Government represents a significant risk to Northern Ireland's future prosperity, especially in the context of the forthcoming negotiations with the EU over Brexit. (Paragraph 40)*

7. We were repeatedly told that the NI Executive needed to develop a new Strategic Energy Framework which sets out clearly its ambitions well beyond 2020. This is because a long-term framework provides certainty to investors, who expect the assets and generation plants they build to be in operation for many years. (Paragraph 45)
8. *We urge the NI Executive, once it has been re-established, to update its Strategic Energy Framework as soon as practicable, to provide long-term policy clarity for the electricity sector and to guide investment in the near, medium and long-term. (Paragraph 46)*
9. Following the collapse of the NI Assembly in January 2017 and the subsequent elections, a new Programme for Government will need to be drafted by the incoming Executive. We expect the new NI Executive's Programme for Government to maintain an ambition for a secure, sustainable and cost-efficient energy supply, and commit to updating the Strategic Energy Framework as soon as possible. (Paragraph 51)
10. The Energy and Manufacturing Advisory Group (EMAG)'s report made a number of important recommendations urging policy changes to improve the competitiveness and effectiveness of Northern Ireland's electricity market. Officials at the Department for the Economy will benefit from the expert advice contained within the EMAG's report as they conduct a review of the Executive's Strategic Energy Framework and establish long-term priorities for Northern Ireland's electricity system. It appears unlikely, however, that EMAG itself will continue to meet and advise the Executive on electricity policy in future. (Paragraph 57)
11. *We urge the NI Executive to establish a permanent advisory body for electricity policy. Its membership should represent all major stakeholders within Northern Ireland's electricity sector, including large energy users, generators, suppliers, network operators and domestic consumers. Like the EMAG, the body should have a mandate to examine the NI Executive's electricity strategy and identify long-term priorities and policy proposals. Such a body would help to ensure that electricity policy is given the priority it deserves within the Executive and that market participants have clarity and confidence in the Province's long-term energy strategy. (Paragraph 58)*

### Brexit and the electricity sector

12. Northern Ireland's electricity system is highly integrated with that of the Republic of Ireland through the Single Electricity Market (SEM). The UK's decision to leave the EU potentially challenges the future viability of the SEM and its successor, the Integrated Single Electricity Market (I-SEM), which operate on the basis of mutual membership of the Internal Energy Market and compliance with its rules and regulations. (Paragraph 75)

13. The Government should give particular consideration to how any changes to the UK's relationship with the Internal Energy Market will affect Northern Ireland. The Government may wish to seek a special status or derogation for Northern Ireland's electricity sector. Whatever is decided, the Government must provide long-term policy clarity as soon as possible in order to guide private sector investment at what is a critical point for Northern Ireland's electricity system. (Paragraph 76)
14. The cost of generating electricity and reinforcing Northern Ireland's energy infrastructure will be affected by exchange rate volatility and any future fuel tariff regime the UK Government agrees with the EU and non-EU countries in forthcoming trade negotiations. When determining its negotiating strategy, the Government will need to reflect on Northern Ireland's reliance on fuel imports, and the impact higher electricity prices would have on domestic consumers and the competitiveness of the Province's manufacturing base. (Paragraph 80)
15. Projects of Common Interest (PCIs) in Northern Ireland are likely to be affected by the UK's decision to leave the European Union. The financial and logistical support provided through the EU's PCI programme is supporting energy infrastructure projects in Northern Ireland which would otherwise have not been commercially viable. (Paragraph 84)
16. *The UK Government should undertake an analysis to identify energy infrastructure projects in Northern Ireland which are beneficiaries of the EU's PCI programme. Through consultation with affected parties, the Government should establish whether it would be preferable to retain Northern Ireland's eligibility for PCI funding through continued participation in the European Commission's scheme, or commit to replicating PCI financial and logistical support through a UK-specific scheme, so that strategically important current and future energy infrastructure projects remain commercially viable. A decision should be made as soon as possible so that businesses investing in PCI projects have the necessary confidence in their commercial viability.* (Paragraph 85)

### Security of Supply

17. Northern Ireland is anticipated to fall into a generation supply deficit in 2021. While interconnection with the Republic of Ireland will alleviate short-term concerns, it is clear that Northern Ireland will require new generating capacity to replace what is due to be lost at Kilroot and Ballylumford B. Decisions to invest in extending the life of existing power stations, or to build new low-carbon generating capacity, need to be made soon if Northern Ireland is to avoid a more serious generation supply deficit after 2025. In order to invest, generators require long-term policy clarity from the NI Executive and a clearer idea of how they will be compensated through the new Integrated Single Electricity Market. This reiterates the importance of updating the Strategic Energy Framework. (Paragraph 96)
18. The proposed North–South Interconnector has near unanimous support from across the electricity sector in Northern Ireland. Its benefits are clear: security of supply amidst an anticipated supply deficit after 2021, greater capacity for renewable energy, and substantially lower costs for consumers. We recognise that

there are objections to the new interconnector regarding its likely impact on the landscape. However, the evidence we have received strongly suggests building the interconnector underground would be financially and technologically impracticable. (Paragraph 107)

19. *We urge the Planning and Appeals Commission to make its final decision on the interconnector as soon as possible so, if approved, construction can be completed well in advance of the anticipated generation supply deficit in Northern Ireland in 2021. (Paragraph 108)*
20. The Moyle Interconnector has been placed under a substantial technical restriction by National Grid, leaving the only interconnector between Great Britain and Northern Ireland considerably underutilised. The restriction is indicative of the lack of joined-up thinking on electricity policy. Restrictions have been imposed by National Grid without meaningful consultation or with regard to the effect on the electricity sector in Northern Ireland. (Paragraph 120)
21. *We believe that, as it is the UK Government's intention to deliver 9 GW of additional interconnector capacity to the UK, it should first ensure the full utilisation of existing interconnection infrastructure within the whole of the United Kingdom. With this in mind, the UK Government should direct National Grid, Scottish Power and Ofgem to make the necessary investments in the Scottish grid to ensure the Moyle Interconnector is able to import and export electricity at its full capacity as soon as practicable. (Paragraph 121)*
22. *We recommend the UK Government consults with the regulators in Northern Ireland and Great Britain to determine whether a more formal mechanism should be introduced to improve collaborative working practices and to better facilitate the consideration of UK-wide interests in the operation of electricity markets. The Department for Business, Energy and Industrial Strategy should also take greater responsibility for ensuring that cross-border issues are resolved to the satisfaction of stakeholders in both the GB and NI jurisdictions in a timely manner. (Paragraph 122)*
23. *Noting the Executive's enthusiasm for inclusion in UK-wide plans for future interconnection with Europe, we urge the UK Government to give full consideration to Northern Ireland when determining landing points for potential future interconnectors with countries such as Iceland. (Paragraph 124)*
24. Technically and commercially viable energy storage technologies are already available. They present an opportunity to revolutionise Northern Ireland's electricity system, increasing efficiency and enhancing security of supply, reducing the need for substantial investment in additional generation and extensive reinforcement of the electricity grid. The AES Advancion Energy Storage Array at Kilroot Power Station and Gaelectric's plan for a Compressed Air Energy Storage (CAES) facility in Larne are two prominent examples of the potential that already exists for energy storage in Northern Ireland. However, the current regulatory framework is outdated and represents a considerable barrier to market entry for potential investors. (Paragraph 132)

25. *We join the former Energy and Climate Change Committee in calling on the UK Government and Northern Ireland Executive to address the regulatory barriers faced by investors in energy storage technologies. In particular, double-charging must come to an end and the Utility Regulator should ensure that the new Integrated Single Electricity Market (I-SEM) is designed with regard to the future role of storage technologies within the system.* (Paragraph 133)
26. Deficiencies in Northern Ireland's ageing electricity network and the recent 'connections moratorium' imposed by NIE Networks and SONI caused considerable uncertainty for the renewables industry, threatening investment in the sector, undermining security of supply, and putting at risk the Northern Ireland Executive's ambitious target for renewables to contribute 40 per cent of electricity supply by 2020. (Paragraph 141)
27. We share concerns expressed to us that capacity on the electricity network has become an inhibitor of economic growth in Northern Ireland, especially in the west of the Province. Industry groups reported that the costs and delays associated with connecting to the grid had limited their ability to invest, expand and create jobs. (Paragraph 149)
28. *The Northern Ireland Executive should consider establishing an independent advisory body to identify connection applications with high strategic importance, and ensure these are given appropriate priority by NIE Networks when connection offers are sought.* (Paragraph 150)
29. *We join EMAG in calling on the incoming Northern Ireland Executive to undertake a review into whether additional investment in Northern Ireland's electricity network, beyond what has been proposed by NIE Networks for the RP6 price control period, could have substantial benefits for economic development, security of supply and the deployment of sustainable sources of electricity.* (Paragraph 155)
30. The then Minister for the Economy had an optimistic outlook for the security of supply situation in Northern Ireland. We nevertheless urge the next Northern Ireland Executive to focus on the challenges that exist within Northern Ireland's electricity sector, and make the necessary policy and legislative changes to alleviate these significant security of supply concerns before they become crises. (Paragraph 157)

### Affordability

31. Wholesale costs account for 60 per cent of the electricity price paid by consumers. These costs are determined within the Single Electricity Market, and are the same in both Northern Ireland and the Republic of Ireland. From 2018, the Integrated Single Electricity Market (I-SEM) is expected to put a significant downward pressure on the wholesale price of electricity through changes to the way in which electricity is traded, better use of interconnection between markets, the implementation of an auction-based capacity contracting framework, and greater utilisation of low-cost renewable sources of generation. (Paragraph 167)

32. *The most recent generator profitability report, published in December 2016, indicated high profit margins in the sector. To aid transparency and provide greater confidence to consumers, the SEM Committee should ensure that its Generator Financial Performance reports are published annually rather than every two years.* (Paragraph 168)
33. A number of organisations have called for the NI Executive to set a target for consumers to pay no more for electricity than the EU average. While this would be a challenging objective, given Northern Ireland's comparative geographic remoteness and limited economies of scale, it may indeed be necessary if the next Northern Ireland Executive wishes to attract large energy-intensive employers to the Province. (Paragraph 179)
34. Electricity prices for domestic users are low by historic standards and in comparison with neighbouring countries. However, fuel poverty levels remain extremely high in Northern Ireland. Lower electricity prices are only part of the solution; work must also be done to improve household energy efficiency and support low-income families with their electricity costs. (Paragraph 183)
35. Electricity costs for large industrial users in Northern Ireland are substantially higher than the EU average and in the Republic of Ireland. High prices are damaging Northern Ireland's economic competitiveness and putting at risk present and future business investment in the Province. Many large businesses are choosing to generate their own electricity off-grid, but this emerging trend risks increasing prices for all other domestic and non-domestic consumers. (Paragraph 191)
36. We acknowledge that high levels of fuel poverty in Northern Ireland make proposals to reallocate network and policy costs away from large industry and onto other users politically very challenging. However, we have been struck by the number of organisations—both within the industry, but also independent experts—who told the Committee that a reallocation of costs, appropriately targeted, could provide much needed support to Northern Ireland's largest employers, and attract foreign direct investment from energy-intensive industries. (Paragraph 201)
37. *We believe this proposal is worthy of further consideration. We call on the next Northern Ireland Executive to undertake a detailed analysis to determine the potential effects of a targeted reallocation of electricity network and policy costs. Consideration should be given to the likely short-term increase in domestic fuel bills, but also the wider benefits which could arise from higher levels of investment from energy-intensive industries.* (Paragraph 202)

### Sustainability

38. The Northern Ireland Executive's ambitious target to achieve 40 per cent of electricity consumption from renewable sources by 2020 has seen a rapid growth in onshore wind generation over recent years. The Committee recognises that some rural residents have legitimate concerns about the impact of wind turbines on the visual environment. However, we believe Northern Ireland will benefit in the long-term from having invested in a sustainable, low-cost and indigenous source of electricity. (Paragraph 210)

39. Having made significant progress in moving towards much higher levels of renewable energy production since 2010, the next Northern Ireland Executive needs to consider the future direction of renewables policy in Northern Ireland. The former Minister for the Economy elaborated three sensible principles: to protect the grid, to acknowledge current technological limitations, and to make sure electricity costs are affordable. In making its decision, the Northern Ireland Executive should remember the need to support its new renewables industry and to quickly provide the long-term policy clarity which investors in the electricity sector need. (Paragraph 229)

# Formal Minutes

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**Wednesday 26 April 2017**

Members present:

Mr Laurence Robertson, in the Chair

Mr Gregory Campbell                      Jack Lopresti

Lady Hermon                                Nigel Mills

Danny Kinahan                             Jim Shannon

## **1. Electricity sector in Northern Ireland**

The Committee considered this matter.

Draft Report (*Electricity sector in Northern Ireland*), proposed by the Chair, brought up and read.

*Ordered*, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 229 read and agreed to.

*Resolved*, That the Report be the Third Report of the Committee to the House.

*Ordered*, That the Chair make the Report to the House.

*Ordered*, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134

## Witnesses

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The following witnesses gave evidence. Transcripts can be viewed on the inquiry publications page of the Committee's website.

### Wednesday 8 June 2016

*Question number*

**Professor Neil Hewitt and Dr Patrick Keatley**, Centre for Sustainable Technologies, Ulster University

[Q1–68](#)

### Wednesday 15 June 2016

**Rachel Anderson**, Chair, Northern Ireland Renewables Industry Group, and **Maf Smith**, Deputy Chief Executive, RenewableUK

[Q69–134](#)

### Wednesday 29 June 2016

**Sheila McClelland**, Chair of the Board, The Consumer Council, **John French**, Chief Executive Officer, The Consumer Council, and **Richard Williams**, Head of Energy, The Consumer Council

[Q135–181](#)

**Stephen McCully**, Managing Director, Power NI, **William Steele**, Settlement and Regulation Manager, Power NI, **Marian Troy**, Head of Corporate Affairs (Northern Ireland), SSE, and **Andrew Greer**, General Manager Northern Ireland, SSE Airtricity

[Q182–235](#)

### Wednesday 6 July 2016

**Carla Tully**, President, AES UK & Ireland, and **Paddy Hayes**, Executive Director, Generation and Wholesale Markets, ESB

[Q236–280](#)

### Tuesday 6 September 2016

**Jenny Pyper**, Chief Executive, and **Jo Aston**, Wholesale Director, Utility Regulator

[Q281–328](#)

**Robin McCormick**, General Manager, SONI Ltd

[Q329–380](#)

### Monday 17 October 2016

**Paddy Larkin**, Chief Executive, and **Tim Cox**, Regulatory Analyst, Mutual Energy

[Q381–445](#)

**Nicholas Tarrant**, Managing Director, and **Peter Ewing**, Deputy Managing Director, NIE Networks

[Q446–521](#)

### Tuesday 18 October 2016

**Dr David Dobbin**, Chair, and **Andrew Webb**, Energy and Manufacturing Advisory Group (EMAG)

[Q522–553](#)

**Stephen Kelly**, CEO, Manufacturing NI, and **Cecil McBurney**, Director of Fabrications and Plant Engineering, Bombardier

[Q554–615](#)

### Wednesday 7 December 2016

**Simon Hamilton** MLA, Minister for the Economy, Northern Ireland Executive

[Q616–659](#)

## Published written evidence

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The following written evidence was received and can be viewed on the [inquiry publications page](#) of the Committee's website.

ENI numbers are generated by the evidence processing system and so may not be complete.

- 1 ABO Wind NI Ltd ([ENI0015](#))
- 2 Action Renewables ([ENI0026](#))
- 3 AES UK & Ireland ([ENI0013](#))
- 4 CBI Northern Ireland ([ENI0023](#))
- 5 Consumer Council for Northern Ireland ([ENI0016](#))
- 6 Consumer Council for Northern Ireland ([ENI0028](#))
- 7 David Bowen ([ENI0001](#))
- 8 Department for Energy and Climate Change ([ENI0012](#))
- 9 Electricity Association of Ireland ([ENI0019](#))
- 10 Energia Group ([ENI0025](#))
- 11 ESB ([ENI0017](#))
- 12 Evermore Energy – Belfast Power Station ([ENI0027](#))
- 13 Gaelectric Holdings plc ([ENI0011](#))
- 14 Institution of Engineering and Technology ([ENI0022](#))
- 15 Lightsource Renewable Energy ([ENI0009](#))
- 16 Manufacturing Northern Ireland ([ENI0006](#))
- 17 Mr Robert Graham ([ENI0002](#))
- 18 Mutual Energy Ltd ([ENI0014](#))
- 19 NIRIG ([ENI0021](#))
- 20 Northern Ireland chamber of commerce ([ENI0020](#))
- 21 Northern Ireland Electricity Networks ([ENI0029](#))
- 22 Power House Innovations Ltd ([ENI0030](#))
- 23 Power NI ([ENI0005](#))
- 24 Quarry Products Association NI ([ENI0007](#))
- 25 RES ([ENI0018](#))
- 26 SONI ([ENI0024](#))
- 27 SSE ([ENI0010](#))
- 28 Ulster Farmers Union ([ENI0031](#))
- 29 Ulster University ([ENI0008](#))
- 30 West Tyrone Against Wind Turbines ([ENI0004](#))
- 31 Windwatch NI ([ENI0003](#))

## List of Reports from the Committee during the current Parliament

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All publications from the Committee are available on the [publications page](#) of the Committee's website.

The reference number of the Government's response to each Report is printed in brackets after the HC printing number.

### Session 2016–17

First Report	Northern Ireland and the EU referendum	HC 48
Second Report	Promoting the tourism industry in Northern Ireland through the tax system	HC 50
First Special Report	Northern Ireland and the EU Referendum: Government Response to the Committee's First Report	HC 924

### Session 2015–16

First Special Report	Northern Ireland Affairs – First Special Report Northern Ireland: banking on recovery?	HC 344
Second Special Report	Northern Ireland Affairs – Second Special Report The administrative scheme for "on-the-runs"	HC 345