Chapter 21 – Emerging awareness in the private sector of the RHI and its flaws

21.1 In the last chapter the Inquiry looked at some examples of emerging awareness within the public sector of flaws with the NI RHI scheme. Had that steady volume of important information been communicated to the relevant DETI officials at least they would have had the opportunity to be confronted by it and, potentially, react appropriately to it.

21.2 However, it will also have been apparent from the previous chapter that some of the information received by public sector bodies or organisations came from private sector organisations, particularly from companies operating in the renewable heat market. In this chapter the Inquiry looks at some of the evidence it received relating to the private sector. Other examples will also be found elsewhere in this Report.

21.3 The Inquiry wishes to make clear that the examples that are given below are only a representative selection of a larger body of evidence received by it, including in written statements from a wide variety of heating plant installers and suppliers who were required to provide evidence to the Inquiry, and whose statements have been published by it.

21.4 The evidence the Inquiry received demonstrated that it did not take long for the business world to appreciate the attractions of the NI RHI scheme. Almost from the outset it was clear that biomass was the technology of choice and that installations around 99kW capacity were prevalent, since they were at the upper limit of the band with the potentially lucrative medium biomass tariff of 5.9p/kWh.

Sheridan & Hood

21.5 As set out in the previous chapter, within three weeks of the scheme launch in November 2012, Sheridan & Hood (a private company which designed and delivered biomass boiler systems), and its associate companies, had understood the opportunities offered by the NI RHI scheme.

21.6 The company was entirely open about what it, correctly, considered were the permissible multiple boiler configurations that could be accredited under the NI RHI scheme. It checked its understanding with DETI, the Government Department responsible for the NI RHI scheme, and Ofgem, the scheme administrator. It presented a Government Department, the Department of Justice, which it hoped might ultimately engage its services, with the information as to how the NI RHI benefits might be maximised. In the course of this exchange, Sheridan & Hood explained clearly, as outlined in the previous chapter, how the scheme could be used to generate an income after heating costs had been paid for.

21.7 The Inquiry heard oral evidence from Mr Brian Hood, the managing director of Sheridan & Hood and another company, BS Holdings (BSH), which manufactured package plant including biomass plant. Sheridan & Hood in particular seemed to be an ‘early adopter’ of the NI RHI scheme. It was awarded with a certificate by the DETI Minister for being the first company to attain accreditation under the scheme.1221

21.8 In addition to the letter to the Department of Justice, which has already been discussed, Sheridan & Hood also provided promotional literature to a range of others, including the

1221 WIT-197218; TRA-04510
Department of Finance and Personnel, in an attempt to promote its business through uptake of the NI RHI scheme. This literature was produced towards the end of 2012, at or shortly after the time when the scheme was introduced, and again clearly explained to readers the potential benefits of the scheme and its potential to generate profit.

21.9 In very simple terms, the Sheridan & Hood promotional literature explained that use of biomass heating systems could lead to both savings on fuel costs and the receipt of public funding as well. It set out that, with boilers up to 99kW capacity, a scheme participant could spend £1,000 on fuel but receive £1,475 in subsidy. Mr Hood told the Inquiry that it took only days for his company, which was involved in this market, to figure out that the NI RHI scheme worked in this way. He also explained to the Inquiry that hundreds of leaflets setting out this analysis were produced and dispersed as marketing material by means of mail shots to prospective clients and industry. He considered that his company may have been “ahead of the game” in some respects in realising the extent of the benefits, but his competitors “twigged it on fairly quickly” and caught up.

21.10 Other promotional material produced by Mr Hood’s companies referred to the NI RHI scheme allowing clients to have “free heat”. Indeed, BSH later ran an advertising campaign based around the slogan “20 years of free heat”, including having some of the company’s vehicles branded with that message.

21.11 BSH also informed Janette O’Hagan in communications with her in September 2013 (which, in part, prompted her interaction with DETI discussed in chapter 23) that BSH was promoting “twenty years of free heat to suit your needs”. Mr Cullen of the company provided her with a promotional leaflet produced by BSH which set out clearly what has come to be described as the ‘perverse incentive’ which gave rise to these benefits:

“This is possible as the government has introduced an incentive which is greater than the fuel cost – government incentive of 5.9ppkwh, set against Biomass fuel cost of 3.9ppkwh.”

21.12 Again, the evidence suggests that the leaflet, including this stark explanation, is likely to have been in wide circulation. In discussing this particular piece of marketing, Mr Hood said that potential clients did not always have time to read down through whole screeds of information and so:

“You want to hit them with the bullet points, and the bullet points were, ‘You’re getting a higher tariff paid than your fuel costs, and that’s how you’re making your return on investment’.”

21.13 Mr Hood also emphasised, however, that, from his companies’ point of view, they were “simply implementing the regulations as they [DETI] had laid them down” and they were not “exploiting” the scheme in any way (as had been suggested in the response to their letter

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1222 WIT-197229 to WIT-197230
1223 TRA-04559
1224 WIT-200043; TRA-04562 to TRA-04563
1225 TRA-04570 to TRA-04571
1226 See, for example, WIT-197240; INQ-12507; INQ-12515; TRA-04568
1227 WIT-264963
1228 WIT-264975
1229 TRA-04579
1230 TRA-04517
to DOJ). Rather, they considered that they were merely correctly representing what DETI itself had marketed and confirmed to them in relation to the scheme’s operation.\textsuperscript{1231} He also gave evidence that he had thought that, in due course, after initially very attractive tariffs had generated scheme uptake, the tariffs payable would gradually be reduced as occurred with degression in the GB RHI scheme.\textsuperscript{1232}

\textbf{Renewable Energy Manufacturing}

21.14 On 13 January 2013, some two months after the 2012 NI RHI regulations came into force, the Managing Director of Renewable Energy Manufacturing Limited (REM), Colin Turkington, wrote to the Private Office of the Department of Environment (DOE) referring to a recent meeting with DOE Minister Attwood and seeking assistance in relation to a number of items.\textsuperscript{1233} The letter contained the following passage:

\textit{“Northern Ireland}

There are two tariffs for ‘biomass boilers’ in Northern Ireland. The first is 5.9p per kWh for all such units under 100kW. The second tariff is 1.5p per kWh for those that are 100kW and over. This simply means that a farmer who installs two 99kW biomass (woodchip) boilers (total output = 198kWh) will receive nearly four times more incentives than a farmer who installs just one of bhs’s 200kWh energy systems based on our fluidised bed combustion technology (FBC) for using poultry litter to generate heat on their farm.

The result is a ‘perverse incentive’ for farmers needing more heat than a 198kW unit will produce to install a number of small woodchip boilers rather than one larger PM2E System. The inevitable distortion in the market for the installation of single units over 100kW in capacity that create energy/heat from the use of poultry manure is a barrier to encouraging this single ‘alternative use’ thereby reducing the amount being land spread.

That is why we highlighted to Minister Attwood the unfortunate, but self-evident fact that a heating unit that has the capacity to use only woodchip is not making any contribution to the challenge being presented to Northern Ireland in implementing the EU Nitrates Directives.

Therefore as the setting of rates for the RHI Scheme is a responsibility of DETI, you are also involved in running the SBR1 competition to find an alternative use to land spreading of PM, there is a [sic] evident absence of joined up thinking that needs to be urgently addressed and eliminated with some re-balancing by the responsible Minister, Arlene Foster MLA.”

21.15 DOE passed the correspondence to DETI on 3 April 2013. That correspondence was sent to Ms Hepper by DETI Private Office and, on 10 April 2013, a submission from Ms McCutcheon, with a draft response to the REM letter attached, was sent to the Private Office.\textsuperscript{1234}

\textsuperscript{1231} TRA-04519; TRA-04533
\textsuperscript{1232} TRA-04582
\textsuperscript{1233} DFE-33475 to DFE-33477
\textsuperscript{1234} DFE-33471 to DFE-33479
21.16 The Minister was advised by Ms McCutcheon that Mr Turkington’s concern that RHI installers were incentivised to install multiple smaller boilers instead of a single large boiler was “not the case”. It was pointed out that the regulations underpinning the scheme stated that where two or more boilers were used in the same heating system the total heat capacity was used to determine the tariff rather than incentives paid for the individual boilers. The advice continued: “This prevents an applicant installing multiple boilers in place of a single larger system.” The draft letter of response on behalf of the DETI Minister to be sent to Mr Turkington referred to the potential use of two or more smaller systems to receive a higher incentive than a single system and continued in the following terms:

“I can assure you that this is not the case and that under the Regulations where two or more plants are using the same energy source and form part of the same heating system that they are treated as a ‘component plant’ and the total capacity is assessed. This means that two biomass 99kW systems that form the same heating system would receive the tariff appropriate for a 198kW system.”

21.17 That response, which completely misunderstood the point raised, was forwarded to Mr Turkington by Glynis Aiken, Private Secretary to Minister Foster. It recorded that the DETI Minister had considered the letter and had asked Ms Aiken to respond on her behalf.

21.18 The Inquiry notes that on the annotated version of the submission Minister Foster’s SpAd, Dr Crawford, raised the question as to what would happen if two boilers were installed at different times and whether such an arrangement would attract greater support than a single boiler.

21.19 On the same day that Dr Crawford’s enquiry was received, 16 April 2013, Ms Hepper sent her response to him advising that she considered that the matter had been adequately covered in the original submission and draft letter of response, asserting at the end of her email: “...the Regulation prevents scenarios where applicants seek to install a number of smaller boilers in an attempt to receive higher incentive payments.” Ms Hepper’s email closed with a reference to the July 2011 Consultation and to Volume 2 of the guidance documents relating to the regulations.

21.20 The Inquiry notes that Ms Hepper’s response to Dr Crawford did not deal with the potential to maximise subsidy by installing several separate 99kW boilers in the same premises, a risk that had been originally raised by Ofgem in its legal review of the draft NI RHI regulations in November 2011. As mentioned previously, under the heading “Potential perverse outcomes at section 4d” Ofgem referred to the fact that: “Some participants may install additional pipework and multiple smaller (and potentially less efficient) units in order to meet eligibility or higher-tariff thresholds.” Ofgem suggested that a solution might be “...imposing a requirement that where separate heating systems serve the same end heat use purpose, they are considered to be part of the same heating system.”

21.21 The problems associated with particular types of multiple boiler installations, and the exploitation that the NI RHI scheme facilitated in respect of them, is dealt with in considerable detail later in this Report.

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1235 DFE-33471 to DFE-33479
1236 DFE-33473 to DFE-33479
1237 DFE-33525
1238 DFE-33512
1239 WIT-01243; DFE-314497 to DFE-314526 section 4d at DFE-314505 to DFE-314506
Future Renewables

21.22 Future Renewables was another company that became involved in the NI RHI scheme at an early stage. The Inquiry heard oral evidence from Neil Elliott who set up his firm in Fermanagh in August 2009. The firm was concerned with the supply, installation and maintenance of a range of renewable products including biomass boilers, heat pumps and solar technologies.

21.23 The firm had been involved in the Reconnect grant scheme (mentioned earlier in this Report) which, in the opinion of Mr Elliott, had not proved successful. Mr Elliott had taken part in the subsequent DETI investigation and report into Reconnect carried out by KPMG.

21.24 During the development period for the NI RHI scheme Mr Elliott had attended public meetings at Stormont and in Armagh and had been in regular contact with Mr Hutchinson. He had also been aware of the development of the equivalent scheme in GB and had assumed that the NI RHI scheme would be similar, possibly with some slight amendments for the Northern Ireland jurisdiction.

21.25 Mr Elliott told the Inquiry that he had not fully understood the scheme until the 2012 NI RHI regulations had been published. In his written statement to the Inquiry he said:

“Like most of the renewable industry we were aware that the NI scheme was flawed not long after it was launched. No actions were taken as we thought that DETI would cap the scheme or amend the scheme to the same scheme as the UK mainland.”

21.26 He told the Inquiry that, as time passed, there was widespread knowledge that the scheme was “too good to be true”. Mr Elliott said that Future Renewables used an individual who had been an installer in GB who could not believe that tiering had not been included in the NI RHI scheme. Mr Elliott said that his firm had promoted the scheme in print, on Facebook and during the course of trade events. At such events, posters and advertising with slogans such as: “Cash for Ash” and “earn as you burn” were regularly displayed by installers and Mr Elliott described how his firm would have used promotional materials similar to that used by Solmatix (and described in more detail later in this chapter).

21.27 Mr Elliott produced to the Inquiry a typical Future Renewables client quotation in respect of a biomass boiler installation eligible for RHI accreditation. The quotation in question was dated 12 February 2015 and referred to an annual saving on current electrical heating costs of £2,337. It then continued with the following analysis of the potential returns available under the NI RHI scheme:

“RHI 20 Year Contract Payments. The UK government pay 6.3p for every kWh of biomass heat produced under their incentives for businesses to reduce their carbon foot print and reliance on fossil fuels.

RHI per annum 179,439.24 kWh X by 6.3p = £11,304.67.”

1240 TRA-04627
1241 WT-195710
1242 WT-195710
1243 WT-195711
1244 TRA-04633 to TRA-04634
1245 WT-195711
1246 TRA-04648
Total return per annum

Project is worth saving of £2,337.00 and a payment of £11,304.00.

Total Return per year £13,642.00

Return over 20 years £272,843.44*”1247

21.28 Mr Elliott explained that most of his target market was the agricultural sector and that CAFRE led training in renewables from November 2011 to October 2015.1248 In this regard, Noel Lavery, then Permanent Secretary of DAERA, who provided a written statement of evidence to the Inquiry on behalf of that Department, stated that between November 2011 and October 2015 there had been 58 relevant training events which had included information on the NI RHI scheme.1249 These included twice-yearly POFRE events (organised by CAFRE and addressed in more detail earlier in this Report), all but one of which Mr Elliott believed that his firm had attended.1250

21.29 Mr Elliott referred the Inquiry to an invitation, from the Crops and Horticulture Development Branch on behalf of the then DARD Minister, Michelle O’Neill MLA, to a renewables open day at the Enniskillen campus of CAFRE on 22 February 2012.1251 Part of the purpose of the event was to present DARD’s Renewable Energy Action Plan 2010–13.1252 Mr Elliott told the Inquiry that the event had proved so successful that a marquee was required to house the many installers and suppliers exhibiting at it.

21.30 Mr Elliott explained that, at POFRE events after the launch of the NI RHI scheme, slogans such as “Cash for Ash” appeared on various exhibitors’ leaflets, posters and pop-up stands.1253 Mr Hutchinson, who delivered lectures regarding the NI RHI scheme at a number of these events, explained to the Inquiry that, although he would have spent some time in the rooms where the exhibitors’ stalls were located, he did not recall seeing any promotional material regarding the NI RHI scheme which caused him concern.1254

21.31 Mr Elliott stated that 90% of his firm’s work was the installation of biomass boilers, predominantly 99kW boilers. Many of these were multiple boiler installations, on the same site, but not hydraulically interconnected.1255 He confirmed that, throughout the life of the scheme, the price of biomass fuel had been less than that of oil and that buying in bulk was particularly economical.1256 He also said that some of the installations made by his firm were audited by Ofgem but that the process appeared to him to be very simple and fairly superficial. The inspector would check that the name and address were correct but did not appear to be interested in heat load or the purpose for which heat was being generated. There did not appear, to Mr Elliott, to be a great deal of continuity between inspections, and audit staff were simply asking for the same information again.1257
Alternative Heat

21.32 As noted in the last chapter, one of the presentations at the Action Renewables RHI conference on 20 June 2013 was delivered by Connel McMullan, a director of a company named Alternative Heat, based in County Down. Mr McMullan told the Inquiry how his company, established in 2003, was involved in the design, supply and installation of renewable heating systems, including biomass boilers, in both GB and Northern Ireland.

21.33 In his oral evidence to the Inquiry he described how his business supplied biomass boilers to a number of installers (including Solmatix) and, in his written statement to the Inquiry, provided a useful table showing how, during the three financial years 2013-14 to 2015-16, Alternative Heat supplied a total of 610 biomass boilers to Northern Ireland clients.

21.34 Mr McMullan explained that he had been aware of the GB RHI scheme from his company’s work in GB and, upon the introduction of the NI RHI scheme, was aware of the differences between the two schemes. In this regard Mr McMullan told the Inquiry that he was surprised at the absence of tiering in respect of biomass tariffs in the NI RHI scheme and, although he assumed this omission was deliberate, found it difficult to understand.

21.35 As his company mainly supplied biomass boilers to, and/or installed them for, other companies in the renewable heat market, they were generally not “client-facing”, but Mr McMullan was aware that biomass boilers eligible for accreditation under the NI RHI scheme were generally promoted to potential customers by reference to payback periods. In this regard, he believed that the expected payback under the GB RHI scheme was generally under 5 years whereas under the NI scheme it was less than 3 years in many cases. He also pointed out that, in his experience, payback of 7 years or more was “a harder sell”.

21.36 Unlike Mr Elliott, Mr McMullan did not believe that he realised how lucrative the NI RHI scheme could be at its outset, but that this was something he realised gradually during 2014. That said, he had no difficulty acknowledging to the Inquiry that he had actively promoted the NI RHI scheme, as early as June 2013 at the Action Renewables RHI conference, with slides showing NI RHI case studies in which the payback periods were as low as 3 years or less. Indeed, similar slides presented by him at another conference, the ‘Smart ECO Hub’ event on 26 March 2014, were seen by Peter Hutchinson of DETI on that date and formed one of the pieces of evidence that led him to the conclusion, expressed in his May 2014 handover note, that the medium biomass tariff could become over-generous for those with high heat loads, thereby creating a need for tiering of tariffs.
Hegan Biomass

21.37 The Inquiry also heard oral evidence from Mr Alan Hegan, a director of Hegan Biomass Ltd, another company which was in the business of the supply, installation and maintenance of biomass boilers (as well as the promotion and production of woody energy crops).

21.38 Mr Hegan’s evidence was to the effect that he was of the view from a very early stage that the tariff bands used in the NI RHI scheme were poorly thought out and that, in particular, the medium band (from 20kW to 99kW) should have been up to 199kW, since the way in which the scheme was set up would lead to multiple installations of 99kW boilers servicing essentially the same heat requirement. His evidence was that the renewable heat industry as a whole was widely aware of this feature of the RHI scheme from an early stage, as also, in his view, were DETI and DARD.1269

21.39 In Mr Hegan’s view, the way in which the scheme was set up meant that installing boilers above 99kW capacity was not viable and did not make economic sense.1270 This was a cause of concern for Mr Hegan’s company because they had been trying to market boilers with a capacity exceeding 99kW, since those were generally more suitable for burning woodchip rather than wood pellets. For that reason, Mr Hegan said that he had repeatedly asked the Department in late 2014 and 2015 when tariffs would be amended (as they ultimately were in November 2015) to increase the medium biomass tariff band to include boilers up to 199kW capacity, but he felt that he got no meaningful response.1271

21.40 Mr Hegan’s father (Mr Tom Hegan) was also involved in the Hegan family business and also gave written evidence to the Inquiry. His evidence was that he would have been aware “from the inception of the scheme” that subsidies payable under it exceeded the cost of biomass fuel used to produce heat so that there was an incentive in some cases to produce heat merely to make profit from the scheme, and that “this was not a secret and was widely known”.1272 In Alan Hegan’s oral evidence he made the same point.1273

21.41 Mr Hegan made a presentation in late 2013 at an open day run by Northern Bio Energy, a company formed between his father and other local farmers to grow energy crops and market woodchip. This event was held on 3 October 2013 in conjunction with CAFRE.1274 In the course of his presentation, Mr Hegan drew attention to the proposals, recently consulted upon in DETI’s July 2013 consultation, to introduce a district heating tariff (a centralised system serving multiple users). Mr Hegan observed that this would then be the “only option above 100kW boiler size that will yield guaranteed higher returns than fuel cost”, drawing attention to the fact that this was already the case in the 20-99kW band.1275 He also explicitly drew attention to the fact that the cost of both wood pellets (at 4.2p/kWh) and woodchip was less than the subsidy payable for a 20-99kW capacity boiler (at 6.1p/kWh).1276
21.42  As with BSH, Hegan Biomass also produced marketing material which advertised “free heat for 20 years” adding “plus a £100k profit”. Also like Mr Hood, Mr Hegan’s evidence was that he understood the NI RHI scheme would be generous to begin with to incentivise rapid early uptake but that degression would follow in due course.

**Solmatix**

21.43  Solmatix, another renewable energy installation company, installed its first biomass boiler in December 2014.

21.44  It was responsible for the “cash for ash” advertising material example that was set out in the previous chapter. The advertising material could not have been clearer:

“Our wood pellet-burning Biomass Boilers offer a cost-effective heating solution that can massively reduce your heating bills. And when you factor in your guaranteed quarterly RHI grant income, you’re effectively benefiting from FREE heat plus a significant financial reward. Its cash…for ash.”

21.45  That particular document included a case study involving a nursing home in respect of which the following points were also emphasised:

- £2,300.00 saving on oil
- £11,700.00 RHI grant income
- CASH for ASH
- £14,000.00 income per annum!
- This effectively means FREE HEAT for 20 years …"

21.46  Neville Bell, the managing director of Solmatix, confirmed in his evidence to the Inquiry that Solmatix had these leaflets printed in March 2015. He explained to the Inquiry that Solmatix was initially involved in other forms of renewable energy and was a late adopter of biomass boiler installations. He said to the Inquiry that it was “common knowledge in the industry at the time that the scheme effectively amounted to the provision of free heat for scheme members.”

21.47  Richard Bell, also of Solmatix at the material time, told the Inquiry that: “Everyone in the biomass installation business marketed the scheme in this way. Solmatix was slower to be involved than most companies.” He went on to explain that he could recall members of Solmatix staff telling him the NI RHI scheme “was such an amazing deal that they found it hard to sell as people thought it was too good to be true.”

21.48  As will be mentioned later in this Report in the context of an examination of the 2015 engagement between DETI officials and those involved with the renewable heat industry, within a number of months of becoming involved with RHI installations, Solmatix pointed out to DETI that the NI RHI scheme was the subject of exploitation. On 10 July 2015 Frank McCullagh, the Business
Development Manager of Solmatix, emailed Seamus Hughes at DETI and expressed concerns about the proposed start date for the Phase 2 changes to the NI RHI scheme. He also stated:

“We also appreciate that a number of unscrupulous beneficiaries are not only taking advantage of RHI support, but in many cases, notably within the poultry sector, appear to be actively exploiting it.”
Findings

123. The Inquiry heard compelling evidence that the design characteristics and flaws of the RHI were very quickly observed and understood outside DETI, particularly in the private sector.

124. The same information that allowed others to understand the scheme was available to DETI.

125. There was no “conspiracy of silence”, as originally alleged by DfE in its opening submission to the Inquiry. This was acknowledged by senior DfE officials in their evidence to the Inquiry, including Dr McCormick. Private sector organisations, from virtually the outset of the NI RHI, openly advertised how lucrative the NI RHI scheme was.