Northern Ireland Non Domestic Renewable Heat Incentive

Research into Hardship

Report of Findings to Department for the Economy

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CONTENTS

1. Introduction

Buglass Energy Advisory Limited ("BEA") has been contracted by the Department for the Economy ("DfE") to conduct research into the existence and nature of hardship as a result of participation in the Northern Ireland Non Domestic Renewable Heat Incentive scheme (the "Scheme"), and specifically whether participants have experienced hardship due to the regulatory reductions to the heat tariff which occurred during 2017 and 2019.

The BEA team for this review comprised Andrew Buglass, BEA's founder and the lead author, and Lixin Li, a highly experienced financial modeller with significant expertise in the assessment and analysis of renewable projects of all generation types. Neither of the team has had any prior involvement in any RHI projects in Northern Ireland, which we feel is important to stress at the outset in terms of our independence in approach to this review.

Section 2 provides an overview of the specific brief which BEA has followed for the purposes of this review.

Please note that neither of the team is a technical expert on biomass or renewable heat systems, and as such, any commentary which follows on technical matters should not be viewed as an "expert opinion", but rather a re-statement of comments or information which have has been provided to us in the course of the review. Such statements are principally to give what we feel to be important context to observations from a commercial perspective. We also give no opinion on regulatory, tax, accounting or legal matters in what follows. Our remit here has been to review the financial and commercial aspects of a small subset of Scheme participants. We confine ourselves principally to financial and commercial matters, relying primarily on the material supplied to us by those respondents who chose to engage with this review on a voluntary basis.

We would like at the outset to thank all those who contributed any information to our review, recognising that doing so required additional time and effort, and that in many cases, respondents have done so despite concerns on confidentiality of the data they supplied. We sincerely appreciate all information which has been provided, and in particular we thank those who made themselves available for clarificatory interviews during the review process.

2. Remit and scope

The research assignment brief from DfE has been as follows:

- Recommendation of an appropriate definition of hardship or a definition of the approach taken to concluding whether hardship exists in individual cases (including which precedents have been considered), and consideration of the relevance or otherwise of any benefits realised from participation in NIRHI;
- Research on the presence and nature of hardship, including through analysis of evidence provided by participants, on an anonymised basis;
- Reasoned conclusions on the nature and extent of hardship as a result of participation in the non-domestic NIRHI Scheme; and
- Recommendations on the appropriate next steps that the Department could take as a result of the conclusions drawn.

We should underline from the outset that it is not the scope of this review to "judge" individual cases. Instead, the review uses the information from individual cases to reach a broad consensus on what could represent hardship across the scheme participants, and to identify recurring trends within the responses we received. We have also attempted to highlight areas on which we feel it would be appropriate for any subsequent processes to focus their attention.

As we write this report in February 2020, we are mindful that the cross-party political statement "*New Decade, New Approach*" which underpins the re-convening of the Stormont Assembly has committed the Stormont assembly parties to close the RHI scheme[1]. It is not clear at the time of writing what implications this has for participants, nor the means by which closure would be accomplished – nor is it within our remit to speculate on this. However, we hope that this review may help to inform any consideration of next steps which such closure may require.

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/856998/2020-01-08_a_new_decade__a_new_approach.pdf p.44 "*RHI will be closed down and replaced by a scheme that effectively cuts carbon emissions.*"

3. Process adopted for the review

It is obvious that any review of this sort may be sensitive, given the high profile which the Scheme has attracted, and the extensive and long-standing nature of criticism of it from many quarters. It was also clear that this research follows a number of other review processes, some of which are still ongoing, and that some participants are understandably sceptical or in some cases hostile to further efforts to review and gather information.

We note in particular the work of the Public Inquiry chaired by Sir Patrick Coghlin, which we understand is due to report shortly, and also that a judicial review of some aspects of the changes to the Scheme is pending in the courts. None of what follows should be viewed as any form of comment on any other external proceedings, as that would be inappropriate and is entirely outside the remit of our review.

To address participants' potential concerns about confidentiality and security of their data, a dedicated email address for this review process was set up by BEA, and participants were asked to respond direct to that, with assurances that their responses would remain anonymous, and that no personally identifiable data would be shared with DfE by BEA. Respondents were asked to reply using a template form shared with all Scheme participants by DfE[2]. A number of participants immediately contacted BEA with a request for further assurances as to the security and confidentiality of their data, and we explained the safeguards put in place to protect the data, details of which are provided below. Some participants similarly questioned the independence of the research process, and again were advised that BEA is acting entirely independently of DfE in this research. It should be noted that all information given in this report has been anonymised, and the greatest effort has been made to ensure that no personally identifiable information of any kind is included in this report.

Participants were asked to submit their information by 8th November 2019. A number of extensions to this date were requested by participants, for various reasons, and these were granted. In addition, a small number of participants responded much later than the deadline, but since a prime objective of the research is to make a broad survey of the Scheme, late responses have also been reviewed. All who submitted any information to this process may be assured that the information provided has been considered in the writing of this report, although it is of course impossible to reflect every perspective provided from such an extensive body of information.

It is worth observing that DfE was also running a voluntary buyout process which by coincidence had the same closing date as this review's call for evidence. A handful of responses were received which indicated that participants felt the questionnaire for this review would in some way feed into the buyout process – the potential confusion probably being driven by both processes having the same cut-off date. All such responses were sent clarifications to stress that the buyout call from DfE and this hardship review are entirely separate processes, and that this review has no bearing whatever on any potential consideration for buyout or any other process run by DfE.

In total, 93 responses of one form or another were received. All information received has been stored on an encrypted network drive upon receipt. A very small number of respondents chose to register an objection to participation in the process, writing only to record their frustration or scepticism at "yet another review process" – these are not included in the total number of responses received.

<u>Data retention and information security</u>.

Much of the information received from scheme participants is personally identifiable data and is thus covered under the General Data Protection Regulation 2016/679. BEA is registered with the Information Commissioner's Office as a data controller. Please see APPENDIX 2 – Information Security and Data Retention for details on BEA's data security and retention policy.

Specifically for this review, BEA will delete the electronic records of information supplied 6 months after submission of the final report to DfE. A very small number of respondents supplied material in paper form – this has already been returned to them after due consideration during this review.

[2] Template form attached as APPENDIX 1 – Template of information request form

4. Approach / overview

As mentioned, the remit for this review calls for a fully independent approach and review of the information submitted by those Scheme participants who chose to respond. The Scheme has around 1000 participants, and participation in this review process was entirely voluntary. As noted, many participants were sceptical about engagement with the review and chose not to respond. The response rate represents around 9% of all participants[3] and there is therefore some risk of "selection bias", whereby those responding may not be statistically representative of the broader population of those on the Scheme. However, the brief from DfE was that the review be based specifically on responses received through the voluntary call for information.

The level of detail and quality of responses varied considerably. Some responses contained detail far in excess of that requested in the template and included extensive additional documentation on costs or other relevant data, while others were extremely brief. However, as noted above, all have been reviewed, and where information was felt to be relevant or informative for the review, it has been included or has informed the analysis we have carried out.

In order to maintain independence, BEA has deliberately not relied on information supplied by DfE or other external bodies, basing our analysis and conclusions solely on information made available by respondents. In many cases, such information has been able to be confirmed in documentary form (for instance, by sight of bank statements, review of the Ofgem meter readings for specific installations etc). However, it is important to stress that this review has not carried out an audit of information supplied. Although clarifications have been sought from respondents when information was either unclear or appeared to have been incorrectly entered in the response forms, our review relies extensively on the assumption that information supplied by respondents has been given correctly and in good faith – though wherever possible, direct assumptions in our analysis are based on documentary evidence supplied.

After an initial, high level review of all information received, we drew up a short list of responses for further study in more detail. These are not the sole basis of the observations and conclusions in this report, however. Observations which we found relevant or informative in relation to particular aspects of the Scheme are incorporated in the review, regardless of whether the respondent contributing them was one of those selected for more detailed review.

To the greatest extent possible, we have tried to ensure that the businesses selected for case study review are diverse and representative of the wider Scheme population – selecting by size of installation, type of business and so on, although to an extent the level of detail supplied was also, of course, a determining factor, in that some of the responses simply did not provide the granularity of information needed to perform the analysis.

Breakdown of responses by sector

The table which follows shows details of how many responses came from different economic sectors.

Sector	Total number of NI RHI installations	% of installations	Number of replies to this review	% of replies to review	Number of NI RHI installations in review	% of installations
Agriculture	1,124	53%	57	61%	201	69%
Forestry / wood	178	8%	7	8%	39	13%
Retail & office	145	7%	11	12%	22	8%
Hospitality	106	5%	9	10%	11	4%
Other	575	27%	9	10%	20	7%
	2,128	100%	93	100%	293	100%

Source: https://www.economy-ni.gov.uk/sites/default/files/publications/economy/Non-domestic-RHI-Statutory-Information.pdf (except for data on this review specifically)

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[3] During the follow up interview process with a small number of participants (see later comments), several expressed surprise that there we had received as many responses as we did, commenting that there have been multiple studies, reviews, enquiries, and that scheme participants were weary of further interaction.

Of the 93 responses received, 61% came from the farming sector. By number of discrete boilers installed, the responses equate to 69%, which is somewhat above the 53% of installations across the entire scheme. Furthermore, we note that the sub total of "agriculture" in the overall scheme data encompasses farming types other than poultry. Broken down, 62% of responses (by number of installations) were from the poultry sector and 7% from non-poultry farms, thus poultry farming is slightly over-represented in the sample of respondents.

From these data, we see that there are differences between replies received and the actual scheme distribution:

- As noted, agriculture is somewhat over-represented by total responses and rather more by the percentage of installations to total installed base;
- Retail & office and Hospitality sectors were in line with total scheme boiler population by number of units installed; whilst
- "Other" sector was under-represented in the total responses.

Within those constraints, we feel nevertheless that the responses received can be viewed as broadly representative of the overall scheme population – noting, still, the comments made earlier about possible selection bias.

The next stage of the review process was the creation of a template financial model to support the analysis of the businesses considered. Section *5 - Response review* and sets out detail of the approach and process used for this stage. The responses received from ten selected businesses were then analysed both qualitatively and using the financial model. Where necessary, during this process, specific points were queried with respondents, to ensure that the information supplied was being reflected correctly. We also reviewed some of the responses supplied to the earlier DfE enquiry, where participants agreed to share these with us. In addition, further information was provided to us directly by the Renewable Heat Association for Northern Ireland (RHANI) at the request of some of their members.

To augment this analysis of responses, we requested in person meetings with a number of the respondents, in order to receive additional clarification on their comments, and to put them in better context. As an additional benefit, it became clear during these interviews that they also represented an opportunity to hear directly comments which respondents indicated they would not have been comfortable to provide in writing. Those verbal comments, while mostly not repeated verbatim here in order to respect the privacy requests of the respondent, have been extremely helpful to inform the hardship consideration process.

The meetings were held over three days in January 2020, mostly at the premises of the respondents, and involved businesses from a wide area of Northern Ireland, covering counties Tyrone, Down, Armagh, Fermanagh and Antrim plus meetings in central Belfast. In total, 15 meetings were held with scheme participants. In addition, a senior representative of a bank involved in lending to some of the participants on the Scheme, and two representatives from biomass supply businesses generously provided their perspectives as well.

5. Response review and analysis

As part of our analysis, we developed a financial model to support the assessment of different businesses and potential hardship suffered. This was done for our internal review purposes and we deliberately do not include results from that analysis in this report in order to maintain the anonymity of respondents, since factors such as sector, number of boilers, heat loads and commissioning date are likely to make respondents identifiable.

The model was designed to allow consideration of single or multiple boiler installations, and relies for its assumptions, as noted, on the data provided by respondents. The responses chosen for more detailed financial analysis were primarily those which had supplied the most extensive data sets, and which therefore allowed data supplied by respondents to be cross checked to third party documentary evidence (invoices, receipts, bank statements or the like). The key assumptions for the financial model comprise installed capacity, capital cost, heat load, fuel costs, boiler efficiency, and operating / maintenance costs.

We used the financial model to provide an alternate perspective from which to review the data supplied by the respondents. This has been helpful in a "directional" sense, allowing us to compare respondent comments based on a standardised set of assumptions (while stressing that we would not seek to extrapolate from these assumptions to wider conclusions across the Scheme.)

Of a variety of financial ratios considered, we initially felt that use of a "debt service cover ratio" ("DSCR") would be the most appropriate approach. DSCR is a metric widely used in infrastructure projects and is simply the ratio between the cashflow available to service debt, and the amount of debt service payment (interest and principal) during any given period. DSCR has the advantage of being a cashflow driven metric, which we felt particularly important since the impact of the changes in tariff level has principally been to reduce cashflow – what some respondents referred to as "cashflow shock".

However, early review of the responses received showed that a DSCR metric would be difficult to implement and be of limited analytical value, since:

- Not all respondents had chosen to fund their boiler installations with debt, some having used cash within the business or in some cases introducing their own personal funds to install the boiler;
- Some respondents had raised additional debt at the time of procuring the boiler. If overall cashflow available to the business supported additional debt, lenders were reportedly happy to advance further debt, which businesses used variously to acquire other assets, or provide further working capital for business expansion. It was thus very difficult to assess what amount of debt should be attributed specifically to the acquisition of the boiler, and what might be "non-attributable debt" for modelling purposes;
- Different approaches to debt raising would also skew the analysis of results. Some businesses chose to borrow for relatively short periods, thus having high repayment obligations in the early years, whilst others opted to extend the loan repayment terms – these would drive very different debt service costs for otherwise similar installations and thus mean that the DSCR metric was not a helpful comparator.

Having concluded that DSCR was not sufficiently applicable to all cases, we considered alternatives which could be more appropriate. We concluded that retaining a cashflow-based approach was important, since the primary impact of the tariff changes has been to cashflow, and also because cashflow is more objective than other more accounting-based metrics such as profitability. To maximise the ability to compare a variety of heterogenous businesses, we adopted an Internal Rate of Return model, since IRR is possible to derive for all businesses, and is independent of whether debt was taken or not.

We are aware that a number of precursor studies have also performed IRR analysis, in particular in relation to the question of the acceptable level of return in relation to EU State Aid and other considerations. This was covered extensively during the course of the Public Inquiry hearings and we do not intend to repeat those considerations here, nor was our financial modelling analysis meant to replicate in any way the approaches taken by previous analyses. As noted above, we must stress that the use of an IRR model in this review has been for internal analysis and is not in any way comparable with the precursor work done by the Ricardo study mentioned earlier, nor with other prior analyses. Those studies were able to perform more detailed research to validate key assumptions, which was not possible within the limited scope of this review.

Rather, we used IRR to inform our analysis of potential hardship, as an illustrative tool to enable comparison between different respondents analysed for the case studies, and to derive high level conclusions on the impacts experienced by individual respondents as a result of the tariff reductions.

It is more appropriate to assess the impact of scheme changes by looking at individual instances, which we shall do in the next section of this report.

6. Summarised analysis of individual responses

The following section provides anonymised details derived directly from the ten responses reviewed in greater detail. We include also, where relevant, commentary made either in the written submissions or during in person interviews, where these were carried out. Note that it was not possible to meet with all of the respondents which we selected for detailed review.

Before we turn to individual case observations, we highlight some observations common to most of the responses reviewed.

During the course of our detailed review, and particularly in our discussions with participants, it was pointed out, repeatedly, that the businesses already had functional heating systems prior to installation of the biomass installation(s). Very many of the respondents stressed that they had had no intention of replacing their existing fossil fuel installations, and would not have done so but for the incentives offered by the Scheme. Furthermore, respondents also commented frequently that the promotion of the Scheme by the government, and the environmental benefits which the biomass installation offered, were prime factors in their decision to install a boiler, taken of course together with the economic case which they assessed at the time of the decision to invest.

One factor common to all of the cases analysed is that under the reduced 2019 tariff, the tariff receipts from RHI are lower than the incremental additional cost reported by respondents to burn and operate the biomass boilers as compared to the counterfactual fuel (mostly LPG for poultry farmers based on their statements to this review).

Maintenance

One over-arching comment on maintenance is that respondents indicated that the regular maintenance of a biomass boiler is more expensive than that for the counter-factual gas or oil boiler (a rough average of £600-1000 per year was documented in respondent-supplied data for their biomass boilers, contrasting with an equivalent annual cost of around £70 which was reported by respondents for a gas or oil boiler). Additionally, respondents commented that they had experienced generally a higher than expected number of breakdowns or other issues requiring intervention on top of scheduled annual maintenance. While some scheme participants were able and willing to perform such servicing by themselves, it was nonetheless noted that there was an additional cost at least in time required, and in sourcing any required replacement parts.

Respondents also commented frequently that their experience was that the cost of maintenance was trending upwards as the boilers aged – even though the earliest boilers installed on the scheme are not yet 10 years old. This is consistent with our expectations, since biomass boilers would naturally be more maintenance intensive, having more moving parts and involving solid fuel which can vary somewhat in quality characteristics between loads.

Administrative cost

Several respondents also noted, either in written submissions or in the in-person interviews, that there was additionally an administrative burden attached to participation in the RHI scheme. The scheme conditions require submission of regular meter readings, plus retention of records, at a level which would not be expected for a fossil fuel installation. One respondent commented: "*we had massively underestimated time spent on administration for the scheme*".

Additionally, the random audits carried out as part of the scheme's compliance function, (while a necessary and understandable part of ensuring that any abuse in the scheme would be detected and pursued) imposed an additional and quite significant burden from the administrative perspective. Businesses which had been through one or more audits noted a high level of documentary request, which took in most cases a substantial time for the business to satisfy.

Respondent A
This poultry farm respondent reported that the impact of the first tariff cut in 2017 meant that the business had to increase its overdraft limit from £30,000 to £50,000 to fund the additional cost of fuel purchase and maintenance which was no longer being covered by the RHI income (documents were provided to confirm the increase in overdraft limit). The 2019 cut led to a further need to increase the overdraft limit to £100,000. This is now fully drawn and business has been experiencing significant cashflow squeeze. Business has been unable to pay invoices due from fuel supplier and from servicing as overdraft is fully utilised – we received copies of 5 monthly invoices showing as past due totalling over £30,000. The business has been "living hand to mouth" waiting for sales invoices to be paid before it is able to settle bills due.

The respondent advised that the fuel supplier will no longer supply biomass until the oldest outstanding invoice is settled; respondent noted that the business will likely run out of fuel stocks before receipt of a sales payment enables payment of the overdue invoices, since respondent's bank has refused to make further funds available. This cashflow squeeze is further adding to pressure to switch to gas heating, as the business cannot operate without a functional heat system in the poultry sheds.

Respondent B
The business (in manufacturing and retail supply) supplied its annual accounts, which show a profitable, cash-generative operation which has therefore been able to fund the incremental cost of the boiler. Respondent elected to finance the scheme with a loan of 5 year tenor, which is therefore almost repaid now, lessening the cashflow impact of the debt service once the loan is repaid. While one could not argue that the company is suffering "hardship" – it is profitable and cash generative – the diversion of funds from elsewhere in the business represents a potential dilution of opportunity.

Respondents commented in many cases on the opportunity cost of funds diverted from otherwise profitable business lines to fund the excess costs of the boilers installed (please see section 9 below for more details), and this case is a good illustration of that. Respondent chose not to indicate whether other investments have been curtailed as a result, which some other respondents <u>have</u> indicated.

Respondent C
The respondent - a small scale poultry farmer with one poultry house - financed the installation of the scheme with debt, which is now nearly repaid, though this has been achieved by diverting funds from elsewhere in the business, and indeed from respondent's personal funds. Despite having nearly repaid the debt on the boiler, respondent indicated during our meeting that the business will likely switch to gas heating - the owner commented that ongoing additional running costs of the system are not covered by the residual RHI payments, particularly since the 2019 tariff reduction.

In terms of switching, respondent indicated that the lowest cost option would be a gas boiler to replace the biomass, at a cost of just under £7,000, although a more efficient option would involve a cost of around £15,000 for heating which would deliver 25-30% fuel savings compared to the cheaper model.

Respondent's research indicates that ongoing maintenance costs for either of these options would be minimal by comparison to the biomass system (though we did not receive evidence of this assertion). We find the impending decision to switch away from an installed, almost fully paid for system, to a new system requiring additional capital cost and administrative / logistical burden of installation, supports the respondent's statement that the RHI tariff since the 2019 reduction does not even offset the ongoing operational costs, let alone delivering adequate capital compensation for the sunk cost of the initial installation. Such a decision would represent a material additional drain to the business's cashflow. The business had nearly amortised the capital cost of the biomass boiler in full plus the interest costs on the related debt. Adding a further £7,000 for a replacement installation represents significant opportunity cost, and a further drain on already strained business cashflow.

The respondent has used up personal savings to keep funding the business's cash shortfalls, and is now running a personal overdraft in addition to extra debt taken on at the business. He pointed out these significant opportunity costs incurred in order to service the debt. We will comment later on "hardship" in this respect, but note here that this respondent was typical of many in referencing the stress of "juggling" finances to continue to service business obligations such as debt or other fixed costs once tariff payments received failed to cover ongoing additional expenses- hence also the logic of a switch back to fossil fuel firing.

Respondent D

Respondent (a poultry farm with several poultry houses) supplied us with his own calculation of the cashflow impact on the business of the 2017 and 2019 tariff reductions, on a going forward basis. In the following table, we show the numbers on a sole boiler basis, but of course the actual impact on the business is magnified, since the cashflow impact is multiplied by the number of boilers installed. Adding in the debt service burden, the 2017 reductions left the business cash negative and needing to fund an additional £2,000 per boiler. The 2018-2019 year differs somewhat, due to timing differences based on when the tariff reduction was introduced. For both years before the 2019 tariff cut, the business would likely have been able to sustain this level of cash drain as against a counterfactual fossil installation. Anecdotally, the respondent commented that the 2017 cut was "painful and unexpected", but "survivable". However, the 2019 tariff reduction worsened the position, as the table shows, leaving the business with sharply negative cashflow on an ongoing basis until the end of the scheme life. Note that there is some mitigation of this when the 10 year maturity loans are repaid during 2025, but even with that reduction in cash drain, the business remains cash negative based only on the respondent's figures for incremental additional cost of the biomass boiler versus their assessment of an alternative fossil installation.

	2017-2018	2018-2019	2019-2025	2025-2036
RHI income	£12,313	£13,210	£2,200	£2,200
Wood pellets incremental cost vs LPG	(£5,237)	(£4,668)	(£2,048)	(£2,048)
Maintenance costs incremental cost vs LPG	(£851)	(£851)	(£851)	(£851)
Electricity costs incremental cost vs LPG	(£1,474)	(£1,314)	(£566)	(£566)
Debt service	(£6,792)	(£6,792)	(£6,792)	£0
Net cashflow p.a.	(£2,042)	(£415)	(£8,057)	(£1,265)

Respondent noted further that there have been other direct cashflow impacts on the business. He noted that the investment decision to join the Scheme was based on the 20 year nature of the payments, and that some of the surplus income received in the early years was therefore committed to other business investment in upgrading capacity and renovating buildings and equipment. Additionally, he commented that the additional income in the early years of the Scheme was of course taxable, and this has reduced the actual benefit to the business below that which is perceived on a gross of tax basis. Respondent described a deterioration in the business's cash position such that other business lines have had to cross-subsidise the cash losses in the poultry business, now being supplemented by injections of cash from personal cash and other assets – which are of course finite resources and will not suffice to bridge a cashflow gap which extends for another 16 years. We will return to consideration of this aspect in the section on hardship.

Respondent E

This respondent (poultry farmer with several poultry houses), reported that debt was raised to fund the boiler installations – which is still being serviced (final maturity 2025). Only 36% of the loan balance has been amortised since installation, so a significant debt burden remains for the coming 5 years. Experience across the responses seen suggests that participants entering the Scheme later, and thus closer to the first tariff reduction in 2017 have not been able to offset the debt service costs with the reduced payments since 2017.

In terms of assessing hardship impacts, the respondent reported that the business overdraft limit has had to be increased from £15,000 to £40,000 to offset the working capital impacts and cashflow shortfall. In addition, respondent reported he has injected a further £15,000 of personal savings to support the business's bills as they fell due – but despite that, the business is in need of a further overdraft limit increase. Assuming that the bank is supportive of doing that, it would be only a temporary respite as the ongoing need to service a large debt burden is unsustainable on the numbers supplied by respondent.

Respondent stated he was assessing the option of switching to gas fired heating, but that this would come at a considerable capital cost, which the business does not currently have available. Lenders are, understandably, unwilling to extend further credit for this purpose, since the cashflow position of the business is so weakened. Also, as noted elsewhere, a switch of heating source does not remove the burden of servicing the debt incurred for the existing facility.

Respondent F

This poultry farm respondent raised debt to install a number of 199kW boilers.

The loan raised for the boiler installation has been repaid ahead of its term to reduce cashflow pressures on the business – but this was achieved only by sale of a property which was otherwise intended as a long term investment or pension opportunity for the owner of the business. As he commented in his submission, he has "exchanged" the property (which was debt free) for the boilers which he is now needing to replace with ones of lower operating cost.

Respondent supplied very extensive documentation, from which we were able to validate the statements concerning debt and cashflow. He also commented that this was in part because he had undergone an audit process in relation to the Scheme- which he had found to be extremely burdensome from an administrative perspective. This was a point made by several other respondents, some of whom were of the view that the audit process could be aimed at least in part at barring participants from the Scheme, rather than to check appropriate compliance.

Respondent G

Respondent – a single poultry house farm - funded the installation with a 10 year loan, which matures in 5 years. Respondent commented that the lender was initially very supportive, as the additional RHI cashflow was seen to be highly predictable and secure over the 20 year life of the Scheme. Since the tariff reductions, the lender has been unwilling to support a restructuring of the payments, due to the ongoing cashflow stress suffered by the business.

The business has survived thus far by cross-subsidising from other income sources, but this has involved significant trade-offs. In particular, there was a recent opportunity to purchase an adjacent piece of land which would have been an ideal expansion opportunity for the farm. Respondent commented that they had not been able to take this up because the business was not financially robust enough to raise the necessary funding, having expended its surplus funds in managing the day to day working capital demands. Further details of the potential transaction were not forthcoming, but given the business's cashflow position this seems credible.

Reflecting a common theme among respondents[4], this business has now discontinued use of the biomass boiler and reverted to gas. They stated that there were two drivers for this decision. First, on a cash basis the operating expenses (fuel and maintenance) were presented as dramatically lower with gas than with biomass. Second, the working capital squeeze means that the business was no longer able to fund the payment in advance of biomass pellets, and is instead making use of the Moy Park credit arrangement[5] whereby LPG costs are deducted from the eventual sales invoice, reducing cashflow stress on the business.

Respondent H

Response covers a multiple boiler installation for poultry houses. The business supplied annual accounts, which showed a profitable business, however, one with worsening liquidity, which bears out the statements made by the respondent. Specifically, the firm in the most recent trading period was making greater use of trade creditors (up 18%) and had run down current assets by 24%.

As observed in our opening remarks, such changes in working capital can of course result from many factors in the business, and we do not feel it is possible to attribute this solely to the tariff changes. However, it does corroborate the respondent's description of a cashflow squeeze on the business, which has resulted in the need to restructure the biomass boiler loan, adding a further 27 months to the maturity date, which although easing the cashflow pressure on a monthly basis, does of course increase the total cost to the business over the life of the asset. In addition, the respondent commented that he had been forced to inject personal funds of over £35,000 to support the business's ongoing obligations.

Business has now reverted to use of LPG heaters for part of the time, since it finds it uneconomic on a cost basis to run the biomass at the higher operating costs, and respondent commented that it was also unfeasible for the business to bear the

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[4] See section 9.6 below

[5] Covered in section 7 below

additional working capital requirement of pre-funding the pellet purchase. This again was consistent with comments from other respondents, who commented that it would only be economic for them to operate the boiler for a maximum of 1314 hours, reflecting the cap on the reduced tariff, and after that – in this case - use LPG heaters for the remainder of their heat needs.

Respondent I
This poultry farm respondent reported relatively a low capacity factor of around 30% – borne out by a cross check to the Ofgem records for the installation – which has limited the opportunity to defray capital cost during the early years of the Scheme where tariff was higher. The installation was also accredited relatively later in the Scheme life, so did not benefit from the higher early tariff for a prolonged period. Indeed, respondent noted that the business joined the Scheme after the introduction of degression, and that the investment decision was therefore made on the more conservative tariff assumptions.

The debt financing in place for the boilers will be repaid within 3 years, so at this point there is an ongoing cash burden for the debt servicing, equating to around £1,000 per month per boiler. Respondent stated that initial calculations had indicated a roughly 6 year payback for the boiler installation, which led him to structure his loans in the same way. The response includes an outline calculation supplied by the respondent of actual costs for the installation since the 2019 tariff reduction. Using the same format as in our earlier example, we see the following on a per boiler basis:

	2019-2023	2023-2036
RHI income	£2,200	£2,200
Wood pellets incremental cost vs LPG	(£3,026)	(£3,026)
Maintenance & electricity incremental cost	(£1,500)	(£1,500)
Debt service	(£11,958)	£0
Net cashflow p.a.	(£14,284)	(£2,326)

Again, the table indicates considerable cashflow burden on the business, with resultant pressure on working capital. Even after repayment of the loans in 2023, the business remains cash negative as a result of the additional cost cited by the business to operate the biomass as compared with the gas alternative. The supplied audited annual accounts show pressure on profitability in the year to 2019, before the 2019 tariff reduction. Despite a 7% increase in turnover and corresponding increase in gross profit, direct costs increased by 15%, driven principally by a 96% increase in repairs and maintenance while other costs remained broadly in line with prior year. As a result, net profit declined by 44% over the period. Due to the accounting period end date, we do not have access to figures covering the current year which would illustrate the impact of the 2019 tariff.

Respondent J
This industrial sector respondent is a multiple boiler installation across more than one site, with the heat used for office and industrial space heating. The installation of the biomass system was a major investment for the business, and according to the meeting we held, was driven as much by the business's desire to improve its overall sustainability as by the investment characteristics of the original Scheme economics.

The business is performing well, and although the debt incurred to fund the installation has been a major squeeze on the corporate cashflow, the respondent was at pains to stress that they are not "claiming hardship" – the business is able to meet its obligations. However, doing so has meant that other investment plans have been put on hold, since sufficient cashflow has not been available to support them.

In purely cash terms, due to a low utilisation factor (averages 25%) and relatively later entry to the Scheme, the business reported that it had expended capital of around £66,000 per boiler (and supplied invoices showing these costs), and received to date gross RHI payments of just over £56,000 per boiler. This does not take account of fuel differential or financing costs (nor tax on the RHI payments) – the investment has failed to return even a simple payback, and the lack of positive margin on the operating level from 2019 onwards means that this will never able to be made up on the current basis. Respondent mentioned that a gas alternative heating system which was considered at the time of the investment would have cost 8% of the cost of the biomass, and would have had lower fuel and maintenance costs on an ongoing basis. Like many respondents, they are seriously considering a switch back to fossil fuel heating because the negative operating margin of the scheme represents an ongoing drain on other cash from the business[6].

The business was pleased to be able to replace its previous oil-fired system with a sustainable biomass installation, but now deeply regrets the decision since they reported that it has curtailed business expansion options which they would otherwise have had. Respondent commented in some detail on possible options for resolving the current situation, and these comments are reflected in section 9 on hardship below.

[6] See section 9.6 Fossil fuel switching below

7. Factors relating to poultry farm relationship with Moy Park

As noted, 62% of responses to the review came from the poultry farming sector. Among the written and verbal commentary received, there were frequent references to Moy Park, which is understandable given that the company is the principal buyer for most of the NI poultry sector. Those respondents who commented on their relationship with Moy Park explained that they were subject to non-disclosure agreements in relation to any details of their supply contract. This seems entirely appropriate since they are private, commercial matters between parties to a confidential contract. As such, we must stress that our understanding of these arrangements is very superficial, and we do not believe it appropriate that we should comment in any way on them. At a high level, though, we find it relevant, based on the respondent comments received, to highlight certain aspects of the farmer – buyer relationship as they may pertain to this consideration of potential hardship.

First, one respondent explained that once the biomass heating system had been installed, the health of the business's chickens improved due to the hot water heating being more suitable for bird welfare than direct gas brooder heating. (Note that similar improvements could have been achieved through other indirect heating methods, though the respondent made the point that in its case the switch from direct gas brooder heat to indirect (biomass fuelled) had delivered the benefit). The business sells all of its chickens to Moy Park, and respondent commented that some of the benefit of this uplift in productivity (birds were maturing faster under the new heat supply system) was shared with Moy Park under the terms of the business's supply contract. While not able to describe the exact arrangements for reasons of commercial confidentiality, the respondent explained that in simple terms, there is a sharing of upside and downside under the contract, which provides a level of protection to the farmer should yields be low, but conversely sees around half of any over-production (upside) being clawed back under the supply contract.

Over the medium and long term, this was viewed by the respondent as a helpful arrangement. However, from a pure cashflow perspective in the case of the Scheme tariff reductions, this was unhelpful. The additional cash was not retained within the business when cashflow was strong, and when the tariff reductions hit cashflow, not all of the "surplus" funds were available to the business to service debt and other obligations, as the upside sharing provisions had paid it away. We recognise that this is entirely outside the scope of the Scheme's terms, but feel it warrants consideration in the context of hardship, since its direct cashflow and timing impact was mentioned by several poultry farm respondents. This will be considered in more general terms in our overall discussion of hardship impacts later in this report.

Similarly, a small number of other respondents commented that they had experienced this clawback during the early years of the Scheme where farmers were earning well from the business (increased crop productivity) and the Scheme was paying in full on the original tariff. In these cases, the farmers had expanded their businesses and were therefore benefitting from capital allowances on newly-constructed poultry houses or new machinery, so were able to absorb the impact of the clawback. However, once the tax allowances ended, in several cases at around the time of the 2017 tariff reduction, the businesses were left with materially lower receipts and had already paid away some of the "overperformance" benefit under the terms of their contracts with Moy Park. This could explain why in some cases the actual cashflow impact of the cuts on some of the poultry farm population seems to have been disproportionately higher than might have been suggested only by considering the gross amounts of tariff payments received through the life of the installation; in fact, the farmers' experience was quite different on a net basis. This point was made by quite a number of poultry farmers responding to our review.

We note in various places that several respondents stated they were considering switching from biomass heating back to fossil fuel heating, or in some cases already had done so. Specifically in the case of poultry farmers, there is a further consideration on top of the lower ongoing operational cost. Respondents explained that their contracts with Moy Park provide a facility whereby the business can source its LPG directly from an LPG supplier, but payment for the fuel is made directly by Moy Park, and then deducted from the gross amount of the sales invoice. As a result, the business receives the sales proceeds net of the heat cost to produce a given crop. This has obvious attractions from a cashflow perspective and was cited by a number of respondents as a helpful mechanism to mitigate strained cashflow.

8. Defining hardship

During the course of our meetings with the scheme participants, and indeed in several of the written responses, there was a recurring statement that the term "hardship" itself was found by participants to be unhelpful, and even somewhat pejorative. Comments included "we are not asking for a handout", "all we want is to receive what was originally promised in the contract". One farmer commented that a neighbour had not engaged with any of the DfE processes since in the neighbour's view, "he was not in hardship – he had managed to pay off his debts by selling a piece of land". Others might argue, of course, that having been forced to sell land would be a clear indicator of cashflow struggles – but apparently for that individual, since he was able to resolve the situation through an asset sale, he did not suffer hardship. It is clear that the very term hardship means lots of different things to different people.

In our initial approach to this assignment, we researched how other bodies have approached the question of hardship and how to define it. The first point to note is that there is apparently no statutory definition of the term in the UK, which is used in the UK context most frequently in connection with consideration of HMRC decisions on tax and VAT. Indeed, a respondent noted that their worsened financial position had required them to make a hardship appeal to HMRC in relation to their VAT obligation, which hardship appeal was granted. (Respondent shared documentation evidencing the HMRC decision to grant "hardship" status).

While we were unable to find a consistent definition for economic hardship, we did find some consistency of themes,

First, a dictionary definition:

> *economic hardship: difficulty caused by having too little money or too few resources:*
> (from the Cambridge Business English Dictionary © Cambridge University Press)

The Internal Revenue Service in the US, has a more specific published definition and approach to hardship:

> ***5.8.11.3.1 (10-04-2019)*** *Economic Hardship* [7]
> *When a taxpayer's liability can be collected in full but collection would create an economic hardship…..*
> *The definition of economic hardship […]is derived from [Treasury Regulations] 26 CFR § 301.6343-1(b)(4). Economic hardship occurs when a taxpayer is unable to pay reasonable basic living expenses. The determination of a reasonable amount for basic living expenses will be made by the Commissioner and will vary according to the unique circumstances of the individual taxpayer*

From the Australian banking sector, we found:

> "*Financial hardship occurs when you're unable to meet your existing financial obligations for a period of time. It may be caused by a number of factors, such as unforeseen weather events, a major change in your circumstances, such as illness or* ***injury, or a change in employment***." [8]

Looking for a more specific UK example, HMRC's approach to hardship appears to be formed mostly on the basis of case law – we could not find a published definition of hardship, and various commentators seem to confirm that there is no such definition. In particular, a 2017 case heard in the Upper Tribunal, Tax and Chancery Chamber - HMRC vs Elbrook (Cash & Carry) Limited - granted relief to the claimant on the basis that hardship would be caused if the business were forced to make the disputed payment. In making the decision, the court noted:

> *Whether resources are immediately or readily available to pay the tax without hardship is a value judgment.* ***The test is not simply of capacity to pay, but capacity to pay without financial hardship****. Thus,* ***the mere existence of cash or other readily-realisable resources will not necessarily suffice, if the employment of those resources in paying the disputed cash would have consequences that would cause financial hardship****. The requirement that the resources be immediately or readily available is a reflection of the structure of s 84(3B), which looks to the existing financial position of the appellant, and does not require enquiry as to possible future action or any potential resources that might become available in the future.*[9]

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[7] Source: https://www.irs.gov/irm/part5/irm_05-008-011
[8] Source: https://www.ausbanking.org.au/policy/customers/financial-hardship/
[9] Appeal number: UT/2016/0101. 30th March 2017 THE COMMISSIONERS FOR HER MAJESTY'S REVENUE AND CUSTOMS - and - ELBROOK (CASH & CARRY) LIMITED

The key element here for purposes of this review is the guidance that **<u>while a tax debtor could reasonably be expected to use available cash to meet their liabilities, they should not be expected to sell assets nor to incur additional debt to meet their tax obligations</u>**.

All of these approaches are only somewhat helpful in the context of the Scheme. We have seen clearly through the responses received, and the in-person interviews which we held, that every respondent has been impacted to some extent by the cashflow pressures resulting from the tariff reductions. Each respondent stated, in various ways, that they made a decision based on the expectation of a predictable 20 year stream of cashflow being received, and now have to deal with the consequences of that having changed.

However, we have also seen that each business reviewed chose to respond in different ways to the reduced cashflow. Some were able to supplement the shortfall with cash from elsewhere in the business, others sold assets, or introduced personal funds to support the business. For those businesses which did not incur debt to fund their boiler(s), the impact was perhaps less immediate although no less real (receipts from the investment are generally substantially below what would have been assumed when the investment decision was made or costs of operation are materially higher than expected), while for those businesses carrying a large debt burden, the monthly or quarterly requirement to service a fixed payment amount has caused real and lasting stress - both direct financial stress and, some respondents reported, mental stress. In the next section we consider the nature and extent of hardship among those responding to this review process.

While we use the word “hardship” throughout this review (in line with the review’s scope), we would suggest that a more neutral term could be “economic impact”, since there are many respondents who presented evidence of clear and negative economic impact while most resisted strongly the suggestion that they were destitute or seeking some form of “hand out” which they felt was implied by the term “hardship”.

9. Consideration of hardship among Scheme participants

9.1. Introduction

A further complicating factor is that no two businesses have been impacted equally by the changes to the Scheme. Each business is highly individual – businesses of similar size and characteristics operating in the same marketplace will each experience different performance at different times, for many reasons. We find that it is next to impossible to separate categorically what is the impact of Scheme changes on a business's cashflow from other business factors and the fluctuations of the wider economy in which the business operates. In any given year for a business, there are many drivers of business performance and the cashflow which results.

That said, there are clearly some common factors across the vast majority of those who chose to engage with this review. First and foremost, the reductions to the Scheme tariff manifested themselves most directly in significant and unexpected reductions to cashflow. In this review, as noted 61% of responses came from the agriculture business, principally, although not exclusively, poultry farmers. One might expect some commonality of experience since the external or market factors (weather, demand, overseas competitor behaviour etc) should be similar. However, the analysis we have done shows that even within this seemingly homogenous group, the changes to the Scheme have produced very different outcomes.

9.2 Risk appetite

From the discussions we had with respondents across all sectors, one differentiator was risk appetite and approach to business decisions. Given two similar businesses under the same set of circumstances, decisions taken for rational business reasons at the time can lead to radically different outcomes. We would find it impossible to validate any of these decisions after the fact, nor is it within our remit to do so. However, discussing how those decisions were reached when the business entered the Scheme, we heard very different (although arguably equally valid) reasoning. At the inception of the Scheme, potential participants were presented with the scheme terms, essentially a 20 year fixed price tariff with inflation indexation, and received various assurances from government including grandfathering of the tariff. Each business owner then used these factors in their investment decision– some of them commenting at length on the due diligence processes they had gone through to validate their assessment and assumptions.

9.3 Financing approach

Assuming a predictable stream of future cashflow, a large proportion of respondents chose to finance their installations with debt (as they would routinely with other major business investments). The various banks and other lenders who provided the debt ran customary due diligence processes and concluded they were happy to lend against the RHI income.

The bank representative whom we met described the process taken by his institution in the agricultural sector, and the credit metrics which were assumed, noting that the buffer calculated into the cashflow assessment when reaching the lending decision has been severely eroded by the tariff reductions. In essence, the lender's customary 50% buffer on cashflows to take account of poor crops or other unexpected events has been eroded to 10% (or less in some cases) – looking at the debt decision on a farm-wide basis, and assuming the financing of a new poultry house with new biomass boiler over a 10 year period. This is clearly one indicator of ability to service debt. Decisions taken at the time of entry to the Scheme by individual businesses have the potential to vary this outcome significantly.

Several respondents indicated that they had chosen to fund the boiler over a five year rather than ten year or longer period, because the cashflow forecasted on the original tariff supported that. Perhaps paradoxically, those who chose to take the heavier debt burden (arguably at the time a more "aggressive" risk decision than spreading the debt over a longer period), were more able to service the boiler debt during the early years of the high, original tariff. Those who elected to finance over a longer term have now typically a further five or so years of repayments to make, where businesses indicated that the tariff no longer supports even the marginal operating costs of the installation, let alone any return on the capital invested.

However, we should consider also what those businesses elected to do with the "surplus" cash arising in the early years of the original tariff. There is a multitude of possible decisions and we heard many variants. At one extreme could be a decision by a very conservative business owner simply to hold the "excess" funding in reserve for the business – essentially the argument that the funds received relate only to the boiler and should not be used for any other business purposes. At the other, a different business owner might decide to use what was seen at the time as a highly predictable stream of cashflow - over a 20 year period - for other business purposes, choosing to invest into other productive assets or otherwise expanding the business.

We suggest that either of these decisions would have been equally valid at time of being taken, based on the prevailing circumstances seen by the business at the time and their risk appetite. However, the outcome of that decision *after* the cuts to tariff had a direct bearing on the most obvious form of hardship – namely cashflow stress. The hypothetical business which chose not to invest the surplus cash, holding it in reserve, would now be able to service the remaining debt repayments from its reserves. The alternative hypothetical business which opted to invest into other opportunities no longer has access to that "buffer". It therefore experiences much more cashflow stress resulting from the need to service remaining debt without sufficient tariff income to support the additional, differential spend on biomass, as opposed to cheaper fossil fuel heating systems.

This is deliberately an over-simplistic characterisation for the sake of illustration. Reponses to the review, and discussions with respondents showed a wide variety of gradations. Many borrowed additional sums for legitimate business purposes at same time as borrowing for the boiler & equipment (because the cashflows forecasted supported that decision, and banks were essentially confirming the assessment through their own lending decision), while others chose only to part-finance their boilers and use cash balances in the business to fund the remainder.

9.4 Opportunity costs

Debt therefore has certainly tended to magnify the financial stress on respondents, but the ability to continue to service the business's debt obligations is not, we believe, the only manifestation nor the only cause of hardship across the respondents. Many of the respondents pointed to opportunity costs they had incurred in order that their business remain able to meet its overall cashflow obligations. Several respondents commented in detail on investment opportunities which they had not been able to progress due to the cashflow of their businesses having been reduced by lower than expected tariff receipts and debt service. These included decisions to defer or not make necessary renovations to assets or buildings, which would tend to lessen competitiveness either in price terms (older, less efficient infrastructure being less reliable and higher cost) or in terms of customer attractiveness (less modern facilities for accommodation providers, for example).

We mentioned above one respondent who noted that the cashflow stress meant the business had been unable to acquire a piece of adjacent land for expansion. Another explained that the firm had not been able to quote for business which it would have had a high likelihood of securing, because its financial condition meant it could not secure bank bonds and guarantees required to support its bid. Several spoke of more direct personal impact – having diverted personal funds to provide funding to the business, and experiencing material reduction to their standard of living (not taking any holidays, not replacing very old cars or failing to maintain other family assets etc.).

9.5 Asset sales

Other forms of opportunity cost were also seen among the responses. Several respondents explained in detail how they had addressed cashflow stress through the sale of assets – either business or personal. Selling business assets (or in one case, an entire business line) has consequences for the future capabilities of the business in terms of resilience, competitiveness or expansion opportunities. A handful of respondents highlighted that the decision to reduce business scale to meet obligations had either required them to reduce workforce numbers or had prevented the hiring of additional staff, with obvious consequences both for the business and the wider economy.

Personal asset sales included properties, reductions to personal savings or investments, and in some cases liquidation of entire pension funds to provide funds to the business. While these businesses might seem outwardly to have managed to service their debt or other payment obligations, it has clearly come at real cost to the business owners and will have lasting consequences on retirement savings or plans, among others. Similarly, many respondents noted they had incurred additional personal debt (overdraft or bank loans) to provide funding into the business – all of which needs to be serviced over coming years, and represents another drain on personal resources.

Most of the commentary around asset sales was anecdotal - we did not receive confirmatory evidence of specific sales in most cases. However, two respondents did share with us bank statements showing loan accounts which had been either reduced or paid off using proceeds from asset sales, which were documented in the bank statement narrative entries. Notwithstanding that most of the commentary was anecdotal, we feel it is significant. Sale of assets, either business or personal, to fund business obligations was reported by 19 out of the 93 respondents to the review.

Based on the data supplied, our analysis, and the verbal commentary of those respondents with whom we met, we believe that evidence of asset sales (either at business or personal level) to fund business obligations is a clear indicator of "hardship", particularly when considering the HMRC vs Elbrook case noted in *Section 8 Defining hardship* above. It is of course hard to prove definitively that the asset sales cited result *only* from the Scheme's tariff cuts, but it is certainly the case that in the statements made by respondents, a direct link was made between the sale of assets and their need to realise cash to address cashflow shortages caused, in their view, by the tariff reductions.

9.6 Fossil fuel switching

We have commented above about respondents discontinuing use of their biomass boiler, or considering doing so. Specifically, the responses showed that 23% of respondents have either switched back to fossil fuel heating, or reported that they were close to doing so. 6 respondents commented that they had already switched to fossil heating, while a further 16 indicated that they were considering seriously making the switch (and supplied in most cases evidence of research on the cost of doing so). We did not receive direct, documentary evidence from all those respondents that they had indeed switched, though we did observe during two of our visits inactive biomass boilers with the business's heat being supplied by alternative heat sources.

It seems economically rational to source the lowest cost heat possible, as one would seek to reduce any business cost. Responses to our review indicated that the marginal cost of fossil provided heat is lower than that for biomass (this is backed up by multiple respondents' comments), and we received a small quantity of documentary evidence showing the relative cost of biomass versus fossil heating. We accept therefore statements from respondents that, regardless of the installed cost of the biomass – which is a sunk cost for investment decision purposes - businesses which have the opportunity to do so are deciding to switch out of the scheme and revert to fossil firing. This seems to be supported by declining heat load numbers of a number of the respondents. We have not reviewed wider Ofgem data to form a view across the entire scheme, as our remit is confined to data shared by those who responded to the review request. Switching away from a fully or partially depreciated system which is still in working order, (and potentially incurring additional expense to install a new system) however, could reasonably be expected to pose further financial strain on the business.

9.7 Non-financial aspects

As mentioned earlier, our review indicates that hardship can also be affected significantly by non-financial aspects which cannot be analysed in a quantitative way but whose presence is, we believe, equally important in addressing the potential existence of hardship as a result of Scheme changes.

The bank representative explained that in his assessment, farm customers in Northern Ireland are at a relative competitive disadvantage compared to farms in Great Britain, since most of the feedstock is imported, introducing structurally higher costs for a key input. The tariff reductions had worsened this – he noted that both GB and the Republic of Ireland have introduced RHI schemes providing support to agricultural users, but an equivalent is no longer available to farmers in NI – giving them a further cost disadvantage. This was supported by comments from a number of the farmers interviewed, who commented that they were seeing reductions in the volume of crops which were purchased from them, since the same supply could be procured more cheaply in GB or the Republic of Ireland. While it would be an oversimplification to attribute all of this to the RHI changes, it seems likely that they have been a factor in reduced crop sales reported in the last year or two by respondents.

More intangible, and impossible to quantify, was the experience of many, if not most, respondents of stress related to the impact of the tariff cuts, and more broadly, to their participation in the Scheme.

Respondents gave many examples of how this stress arose. The most obvious was the stress of dealing with the financial impact of the changes, of having to juggle cashflow and not knowing whether they would be able to secure the future of their business. This was reported to have knock on effects in relationships and families, with recriminations among family members or heated disagreements on what action should be taken as a result. Several respondents commented that they or close family members had suffered ill health, which they (or in some cases their doctors) attributed to stress arising from the changes to the Scheme. Certainly for a cohort of the respondents who had liquidated pension funds, either in part or whole, or sold personal or business assets that had been intended for the long term, there was a clear feeling that the changes had made them less certain of their financial future and that of their family.

Added to this in many cases was a reputational impact. Multiple respondents indicated that they had suffered from association with the Scheme, especially after the publication of the list of participants. The media coverage was stated to be overwhelmingly negative, and most of those who spoke about this aspect gave examples of how they had been subject to negative comments or worse in their local communities. One respondent stated that his wife had chosen to avoid visiting their local town due to aggressively adverse comments. Another commented that his children had faced bullying in school as a result.

Common to these experiences was respondents' perception that the public saw all Scheme participants as to some extent fraudulent. A number of respondents commented that the audit process, intended to discover non-compliance with Scheme terms or outright fraud had had only limited impact. These respondents felt that those who had been guilty of inflating claims for heat should have been pursued more vigorously, and that slowness and some opacity in the audit process had not helped illustrate that abusers of the Scheme were in fact a very small proportion of the participants.

Such perceptions are very difficult for individuals to counter, and should certainly be considered in the context of the overall impact of the changes to the Scheme.

9.8 Related businesses

We heard both directly and indirectly from businesses which are not themselves Scheme participants but whose business is closely linked to the Scheme. These include suppliers of biomass fuel, the landowners who supply such suppliers, as well as those businesses installing and / or maintaining biomass systems.

Respondents commented on the indirect impact on these supply businesses, and as mentioned, we had the opportunity to meet with a couple of these businesses directly to hear their experiences. The two fuel suppliers commented that their business has been critically impacted by the tariff reductions. The high volume of participants switching back to fossil fuels means a large drop in sales volumes. The businesses had expanded in anticipation of the biomass sector being a growth opportunity, investing in plant and machinery as well as hiring staff to gear up their production capabilities. Such investment is now uneconomic. One respondent had planted short rotation coppicing in order to make more productive use of an area of his farm, and has now abandoned the attempt, writing off the money invested in the crop expansion. Equipment supply and maintenance businesses were similarly noted by respondents to have suffered reduction in workforce due to falling sales levels. Based on these comments, there seems to have been quite extensive collateral damage to businesses not directly participating in the Scheme, albeit that such effects will be extremely hard to quantify.

9.9 Conclusion on hardship among respondents

To summarise our views on hardship within those who responded to our review, the preceding comments show that the economic and broader impacts of the Scheme changes are very varied and take many forms. We believe that these forms of hardship include:

1. Direct cashflow stress caused principally by debt repayments, (but also seen in businesses not funded by debt) - reduction to operating cashflow leaves business struggling to meet obligations
2. A need to extend or refinance debts to reduce payments – extending the tenor and costing the business more in the longer term
3. Funding of the business other than from operating cashflow. For instance, from asset sales or personal funds, either from liquidating personal assets or incurring personal debt
4. Enforced switching to alternative heat sources, regardless of whether the biomass system is amortised, and resulting in additional capital cost being incurred by the business
5. Opportunity costs of businesses being unable to invest as they would have ordinarily, principally due to liquidity constraints
6. Impairment of competitive position due to liquidity or opportunities foregone
7. Reduction in business scale – closure of business lines, staff redundancies or premature closure
8. High levels of reported stress as noted above – direct causation from financial position, but also indirect through reputational impact

Through the written and oral responses to our review, we have received direct commentary, and in many cases, evidence of the more direct of these aspects. We have seen evidence, specifically, of:

- increases to other debt lines (principally overdraft facilities);
- refinancing or extending the maturity of debt;

- asset sales or diversion of personal funds to support business cashflow; and
- fuel switching.

As noted in various places in this report, we have received anecdotal evidence of:

- opportunity costs of businesses which have not expanded, not been able to bid for new business or not replaced / maintained assets;
- closure of part or all of businesses, redundancy of some staff.
- Nearly all of the respondents made at least some comments, written or oral, on stress impacts experienced.

As we have shown, there are factors which are common to most of those responding to our review (particularly cashflow and difficulty servicing debt), but it is important to stress that individual circumstances at the level of each different business mean it is almost impossible to select only one or a number of metrics which would establish definitively whether hardship exists in a particular case – we believe reliance on one metric alone is highly likely to lead to unequal treatment across the total population of Scheme participants.

To give a specific example, if one determined that a key criterion of hardship was for instance an inability to service current debt payments, that would clearly not identify potential cashflow stress across all respondents. Those who had chosen not to debt finance obviously would be excluded from consideration, as would those who had decided to sell assets to repay their debt ahead of the point at which debt serviceability was assessed.

Similarly, early entrants to the scheme were, of course, able to receive the payments at the original tariff for longer than those who were accredited later. There is an almost philosophical question here – should the treatment of the early adopters of the scheme, who maximised (unwittingly) their opportunity to receive tariff at the higher rate, differ from those accredited later? Those accredited later did not receive the same "buffer" of additional cashflow to offset the subsequent reduced tariff. Conversely, the early adopters may have made (an again legitimate) business decision to use the extra cashflow to incur additional debt for business purposes, which financed other aspects of their operations - and now find themselves in hardship since their underlying business does not support the debt repayments without the RHI payments at the original tariff level.

For these reasons, we would be very cautious of any piecemeal attempt to compensate only a subset of participants, since we find that this is very likely to be unfair to others who, though not meeting the specific criteria, may well have suffered hardship in other forms. With that in mind, we will move in the final section to a consideration of some potential options for resolution or next steps.

10. Potential remedies / next steps

10.1. Aims

As noted in the introduction above, we are aware that the newly convened Stormont Assembly has committed to closure of the Scheme. There is at this time no public indication of what such Scheme closure may entail, nor how it may be accomplished. However, in seeking to achieve that aim, and also consistent with DfE's request in the brief for this review for "recommendations on the appropriate next steps that the Department could take as a result of the conclusions drawn", we would make the following observations.

One key driver could, or probably *should,* be to discourage further switching to fossil fuels. We find two principal reasons for this. First, reversion to fossil fuel use is economically inefficient in that installed infrastructure which has not been fully depreciated and has lot of remaining operational life is no longer being used. This is a drain on the resources of the business which installed it, and ultimately can be seen to impact on the productivity of the NI economy. Second, from a policy perspective, with net zero climate targets in mind, it is clearly retrograde to have businesses switching back to fossil fuel use when they have already installed and at least partially paid for a low carbon alternative. For this reason alone, it would seem appropriate to consider setting any tariff or compensation at a level which would defray at least the ongoing cash operating costs (i.e. the differential to the cheaper fossil fuel alternative) to allow businesses to continue to use the installed base of partially depreciated biomass boilers.

10.2. Options

Since the root cause of the hardship analysed in this review is principally a shortage of cashflow, the most obvious form of remediation would come through restoration of at least some of the missing cashflow. We believe that if this were done, it should be done across the population of the Scheme, in order to maximise equitable treatment. It would seem to us to be unfair, for instance, to address debt servicing difficulties only, since we have provided several examples of businesses which have repaid their debt through asset sales or injection of personal money, and there are others which did not raise debt in the first place, but would have had an equally valid expectation of RHI payments as the borrowing businesses did.

10.2.1 Tariff changes

During the information gathering phase of this review, tariff increases were mentioned many times by respondents as a potential route to mitigation of cashflow impacts caused by the earlier reductions. Clearly, this was before the joint political declaration was made prior to the resumption of the Stormont assembly. As noted earlier, this has stated an intention to close the Scheme. At the time of writing, it is not clear whether this will be done, or if it is, on what basis. Whilst it seems unlikely, based on this, that tariff adjustment could be a route to resolve hardship under the Scheme, we make the following commentary since it was raised by multiple respondents, and we feel it is appropriate to reference their opinions, given admittedly before the announcement that the joint political declaration intends the Scheme to be closed.

A change in tariffs could take the form of reversion to one of the earlier tariff levels, or the introduction of a new one. We questioned each of those whom we met on what could provide a remedy for the cashflow challenges they have suffered. Almost unanimously, the first response was along the lines that respondents merely expected what they had originally been "promised" on a grandfathered basis. Recognising that this was however very unlikely, most of the respondents then said that reversion to the 2017 tariff level would provide much needed financial support and would allow them to continue to operate their boilers (supported by our analysis, which indicated that the 2017 tariff did in most cases cover incremental additional operating expenses plus an element of capital amortisation). There was a widespread feeling that managing the business on the basis of the 2017 tariff was challenging but was felt in most cases to be achievable, whereas there was near universal commentary among respondents that the 2019 tariff was set at an unsustainable level.

If reversion to the pre-existing tariff is not an option, which it may not be politically (even absent the recent Stormont declaration of the intent to close the Scheme), then the feedback from many respondents was that an acceptable alternative would be to adopt the same tariff structure as the GB scheme. This was felt to have many potential benefits. The scheme is operational, has a track record and is seen to be bringing forward investment in low carbon heat, without the controversies which have attached to the Scheme. From a competitive perspective, a number of the respondents felt it would act to level the playing field with competitors in GB. We received from several respondents calculations of how the tariffs would compare in their particular situation. While it is outside our remit to analyse the potential benefits or costs of an alternative incentive scheme, we do feel that this option would have the advantage of simplicity, and would certainly avoid a lengthy process of determining what might be the appropriate level at which to set a revised NI incentive payment.

10.2.2 *Buyout schemes for hardship*

Several respondents commented that they had considered the voluntary buyout scheme on offer from DfE – though felt that the assumptions underlying the compensation were inadequate to restore sufficient of the value lost in their business. If a key aim is now Scheme closure, then some form of compulsory buyout may be required, particularly since there is a large cohort of participants who have lost value through their time in the Scheme. Note that most respondents commented they did not want to discontinue use of their boiler(s), but sought some minimal level of support to offset the additional cost of operation. It seems unlikely that any buyout proposal would be able to provide sufficient incentive to achieve that aim.

We note also that setting the parameters for a compulsory buyout scheme is highly complex and likely to advantage some and disadvantage others in the Scheme. We have seen through our own financial modelling process that a variance in a relatively small number of key factors can produce dramatically differing results. With the inherent variability of the businesses seen in this review, let alone in the total Scheme population, it would seem extremely difficult, if not impossible, to reach an equitable level of compensation for every business regardless of their individual circumstances.

An example from elsewhere in Europe may be instructive. Following the Global Financial Crisis, the Kingdom of Spain reduced its renewables tariffs starting in 2009, though a series of retroactive cuts to subsidy. In 2013, a Royal Decree introduced a new regime for existing installations. This was based on a standard set of assumptions for a facility of the relevant type, selling energy at market price, and it calculated the subsidy based on the value of initial capital investment, standardised operating costs and a "reasonable level of profitability" (which was linked to Spanish bond market rates). There has been extensive litigation on this through international arbitration processes, many of which have not yet been determined. A critical conclusion, however, is that this approach to standardisation of facilities is open to significant challenge – as we have already noted, different installations can show dramatically different cost bases which are arguably no less valid for that particular business.

There is a further concern with a compulsory buyout process. This is a point which we have made earlier. How should one compare a business which has made an asset sale to repay debt (an opportunity cost which could have gone into other productive assets) and is now debt free, with another business which has continued to service the debt? The latter still has the debt in place and thus could receive buyout whereas the former does not, and would receive nothing?

We feel that equality of treatment is critically important, and thus any buyout proposal should not be based only on the circumstances prevailing at the time of the buyout. Instead, it should try to equate to economic return on a levelised basis regardless of debt incurred, assets sold, income diverted or investments not made.

10.2.3 *Non-financial considerations for remediation*

The previous section highlighted other aspects of hardship which respondents shared with us in their written submissions and in our interviews. An overarching theme from these was a feeling of deep regret at involvement with the Scheme, and that their participation had had long-lasting reputational impact. Several respondents commented that they had been through the Scheme's audit / compliance processes and wished that a clean audit determination could be used in some way to "clear their name". While there are surely privacy and data issues around such a disclosure, it does seem that as part of a resolution, DfE and / or Ofgem could publicise in some way their results from the compliance checks. If not done at an individual level (clearly problematic in some ways) then a wider Scheme level disclosure could perhaps address the perception, often reported by respondents, that everyone on the Scheme had benefited unfairly from it.

10.3. Conclusion

Throughout this review, we have drawn especially on the data and commentary supplied by the respondents who chose to engage with the process, and we thank them for their frank and open commentary. We have attempted to balance quantitative assessment using our financial model with a qualitative review of the softer aspects which are not captured through purely financial assessment. We believe that both are of importance in considering hardship in the Scheme – as we have illustrated, each business reviewed has experienced different consequences from the tariff reductions, and each has responded in differing ways. As stated, we have identified financial or economic hardship which has arisen especially since the 2019 tariff cuts, and we have attempted to highlight the various ways in which this has manifested.

There has been considerable focus on the Scheme, for often understandable reasons, and it is clear that it will remain a controversial subject, which is highly likely to continue through any process that may close the Scheme entirely. Those respondents with whom we engaged, either in writing, by telephone or in person, overwhelmingly expressed hope for some resolution which would allow them to continue to run their businesses, live their lives and put behind them the experience of the tariff reductions.

In closing, we would stress that we do not wish to stray beyond the remit of our review, and certainly feel that other review processes, most notably the RHI Inquiry and the judicial review, have access to materially more information and resource to reach valid conclusions. We hope that, within the constraints of the limited sample of respondents to whose data we have had access, and of the relatively short period of this review, we have delivered some additional perspective which respects both the confidentiality of those who have responded, and does justice to the information to which we have had access.

Our review leads us to conclude that many of the respondents have suffered one or more forms of economic hardship as a result of the reduced cashflow following the tariff reductions. As we have observed, such economic impacts have manifested in many different ways across the population of those who responded. We note that any resolution of these issues will be complex and likely controversial, but we feel that perhaps the most important principle to be adopted in any resolution process is that of fair and equal treatment for all those who have participated legitimately in the Scheme.

11. APPENDIX 1 – Template of information request form

Northern Ireland Non-Domestic Renewable Heat Incentive
Independent review of hardship

As you will be aware the Department for the Economy has appointed me as an independent expert to review the impacts that the changes to the RHI tariffs have had on scheme participants, and to develop an unbiased assessment of the financial hardship which may have been caused.

As background, I have been working on the financing of energy projects since 1992, for several different project developers and banks. I have worked in many countries during that time, but I have not been involved in any projects in Northern Ireland nor under its RHI scheme, so I can assure you that I will act as a truly independent assessor.

I would like to emphasise that my review is entirely separate from the DfE. Any submission which you choose to make to me will be treated in the strictest confidence - no official of DfE will have access to the information supplied. No financial details you share, nor the identities of those submitting responses, will be made available to the DfE, who will only receive an anonymised report at the conclusion of my review. To ensure confidentiality, I have set up a dedicated email address, which is **ni_rhi@buglassenergyadvisory.com**. I would like to reassure you that no one other than me will have access to this email account. I will be working with a specialist colleague who will assist me in the review and analysis of some of the data, but he is bound by the same confidentiality conditions as I have accepted.

If you would like to respond in confidence to my review, I would ask you to supply me with as much information on your participation in the scheme as you are able to, so that I can make the most accurate assessment possible of the impact of the tariff changes. I attach a questionnaire with details of the information which I would ask you to provide. While it is quite extensive, I am sure you will agree that it is important to consider all relevant data in my review of hardship. Depending on the response received, it may be useful for me to meet with a small number of scheme participants to clarify some specific areas of detail.

It is my aim to complete the review by the end of 2019, although this of course depends on the amount of information received from this request. In order to ensure sufficient time for a full and thorough review, I would ask you to send your response to me by Friday 8th November 2019.

Please feel free to email me on **ni_rhi@buglassenergyadvisory.com** if you have any concerns or questions about the background to this review.

Many thanks in advance for your engagement with this process.

Andrew Buglass

Buglass Energy Advisory
Postal address: BM 8256 London WC1N 3XX
www.buglassenergyadvisory.com

Thank you for providing this information, which will remain confidential and will not be available to the DfE nor its officials.
Responses from this survey will be used only for the purposes of the independent enquiry, and only an anonymised summary of the responses will be provided to DfE in the final report.
Where possible, please provide supporting documents as background to the data provided (for example, invoices, bank statements etc.) or reference the source you have used to calculate the numbers provided.
When you have completed the form, please return it and supporting documentation via email to ni_rhi@buglassenergyadvisory.com by Friday 8th November 2019.
If you have any queries about completing this information, please contact me using the same email address.

ABOUT YOU

Your name	
Business name (if applicable)	
Your address	
RHI scheme installation reference number	
Address of the RHI boiler (if different from above)	

ABOUT YOUR BUSINESS

Name of business	
Nature of your business	
What is the main use for the heat generated by your biomass boiler?	

How much heat does the business need in kWh? **(specify per month / year etc)**	
Do you have any alternative source of heat? **Please give details.**	
What source of heat were you using prior to the biomass installation?	

ABOUT YOUR BIOMASS BOILER

Type of boiler and size (kWh)	
Date installed	
Cost to install **(Please separate, if possible, cost of boiler, installation, cost of permits etc)**	
Load factor / number of hours run per month or year **(Please specify any seasonal differences)**	
Fuel type	
Fuel source **(how do you buy your fuel? Please provide brief details of any contract for supply – price, length of contract etc.)**	

Maintenance costs How is your boiler serviced? Is there a maintenance contract – if so, please provide details of cost	

HOW YOU FINANCED YOUR BOILER

Cost to install (as above)	
Loan amount and lender	
Loan term (years)	
Date borrowed	
Current balance	
Monthly repayment amount	
Interest rate	
Final repayment date	
Other funds introduced to fund boiler? Source and amount?	

THE CHANGES TO THE RHI TARIFFS

What average annual RHI tariff payment did you receive when you first installed the boiler?	
What is the expected average annual RHI tariff payment following the changes to the tariff?	

If you did not use the biomass boiler, what alternative heat source would you have available? (if any)	
Please give an estimate of the cost to provide such alternative heat source. Please include cost to install, fuel cost (either per kWh or per period) as compared to biomass, as well as estimated maintenance costs for the alternative (if available)	

FINANCIAL DETAILS

Please provide the last 3 years of financial statements for your business, including cash-flow statements if available If possible, please show separately in these accounts major business expenses such as rental, business rates etc as well as bank balances (borrowings or deposits)	
Please provide financial projections or cashflow forecasts based on the revised tariff level	
Please give details of any other borrowings:	
Loan amount and lender	
Loan term (years)	

Date borrowed	
Current balance	
Monthly repayment amount	
Interest rate	
End of loan term (date)	

OTHER COMMENTS

Have you had discussions with your lender about restructuring your existing borrowings? Please give details	
Please add any other comments which you think are relevant to an assessment of hardship caused by the changes to the scheme (Use a separate sheet if necessary)	

SIGNATURE

Signed	
Name	
Date	

12. APPENDIX 2 – Information Security and Data Retention

Privacy Policy

About this Privacy Policy
This Policy applies when you visit our website www.buglassenergyadvisory.com It also applies where we are in contact with you in other ways in your capacity as an individual or as a director, shareholder, partner, employee or other representative of a company or other organisation.

Who we are
We are Buglass Energy Advisory Limited, a limited company registered in England and Wales under registered number 9396299 with registered office at Ledbury, Willow Street, Oswestry, Shropshire, SY11 1AJ, United Kingdom ("BEA", "Buglass Energy Advisory", "we", "our", and "us").

We are registered with the UK Information Commissioner's Office ("ICO").

Contacting us
We are not required to appoint a formal data protection officer under data protection laws. However, if you have any questions about this Privacy Policy or your information, or to exercise any of your rights as described in this Privacy Policy or under applicable data protection laws, you can contact our Privacy Officer:

By post: Privacy Officer, Buglass Energy Advisory Limited, BM 8256 London WC1N 3XX

By email: privacy@buglassenergyadvisory.com

Data protection principles
Buglass Energy Advisory adheres to the following principles when processing your personal information as data controller:
- Lawfulness, fairness and transparency – data must be processed lawfully, fairly and in a transparent manner.
- Purpose limitation – data must be collected for specified, explicit and legitimate purposes and not further processed in a manner that is incompatible with those purposes.
- Data minimisation – data must be adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed.
- Accuracy – data must be accurate and, where necessary, kept up to date.
- Storage limitation– data must be kept in a form which permits identification of data subjects for no longer than is necessary for the purposes for which the personal information are processed.
- Integrity and confidentiality – data must be processed in a manner that ensures appropriate security of the personal information, including protection against unauthorised or unlawful processing and against accidental loss, destruction or damage by using appropriate technical or organisational measures.

Information we may collect
Information you provide us with
You may choose to provide us with personal data when you are introduced to us, when we meet you in person, or when we are in contact by phone, email, via. our website or otherwise.
The categories of personal information you provide may include:
- first and last name;
- job title and company name;
- email address;
- phone number;
- mailing address
- bank details;

- marketing and communications data including your preference in receiving marketing from us and your communication preferences;
- any other identifier that permits us to make contact with you.

Information we collect from third parties

We collect most of this information from you directly. However, we also collect information about you:

- from publicly accessible sources, e.g. Companies House
- from third party sources of information such as internet search sites;
- which you have made public on websites associated with you or your company or on social media platforms such as Twitter or LinkedIn;
- from a third party, e.g. a person who has introduced you to us or other professionals (such as solicitors) you may engage.

Information we collect online

We collect, store, and use information about your visits to our website and about your computer, tablet, mobile or other device through which you access the website. This includes the following information:

- technical information, including the Internet protocol (IP) address, browser type, internet service provider, device identifier, your login information, time zone setting, browser plug-in types and versions, operating system and platform, and geographical location; and
- information about your visits and use of the Site, including the full Uniform Resource Locators (URL), clickstream to, through and from our Site, pages you viewed and searched for, page response times, length of visits to certain pages, referral source/exit pages, page interaction information (such as scrolling, clicks and mouse-overs), and website navigation and search terms used.

Sensitive categories of ("Sensitive") personal data

We do not generally seek to collect sensitive personal information through our website. Sensitive personal information is information relating to racial or ethnic origin, political opinions, religious or philosophical beliefs, health or sex life, sexual orientation, genetic or biometric information. If we do collect sensitive personal information, we will ask for your explicit consent to our proposed use of that information at the time of collection.

How we use your information
As data controller, Buglass Energy Advisory will only use your personal information if we have a legal basis for doing so. The purpose for which we use and process your information and the legal basis on which we carry out each type of processing is explained in the table below.

Purposes for which we will process the information	Legal Basis for the processing
To provide you with information and services that you request from us.	It is in our legitimate interests to respond to your queries and provide any information and materials requested in order to generate and develop business. To ensure we offer an efficient service, we consider this use to be proportionate and will not be prejudicial or detrimental to you.
To enforce the terms and conditions and any contracts entered into with you.	It is in our legitimate interests to enforce our terms and conditions of service. We consider this use to be necessary for our legitimate interests and proportionate.
To send you alerts, newsletters, bulletins, announcements, and other communications we believe may be of interest to you.	It is in our legitimate interests to market our services. We consider this use to be proportionate and will not be prejudicial or detrimental to you. You can always opt-out of receiving direct marketing-related email communications or text messages by following the unsubscribe link.
To send you information regarding changes to our policies, other terms and conditions and other administrative information.	It is in our legitimate interests to ensure that any changes to our policies and other terms are communicated to you. We consider this use to be necessary for our legitimate interests and will not be prejudicial or detrimental to you.
To administer our website including troubleshooting, data analysis, testing, research, statistical and survey purposes; To improve websites to ensure that consent is presented in the most effective manner for you and your computer, mobile device or other item of hardware through which you access the websites; and To keep our website safe and secure.	For all these categories, it is in our legitimate interests to continually monitor and improve our services and your experience of the Sites and to ensure network security. We consider this use to be necessary for our legitimate interests and will not be prejudicial or detrimental to you.

Where you provide consent, you can withdraw your consent at any time and free of charge, but without affecting the lawfulness of processing based on consent before its withdrawal. You can update your details or change your privacy preferences by contacting us as provided in "Contacting us" above.

BEA will only use your personal information for the purposes for which we have collected it, unless we reasonably consider that we need to use it for another reason and that reason is compatible with the original purpose. If we need to use your personal information for an unrelated purpose, we will notify you in a timely manner and we will explain the legal basis which allows us to do so.

Third party processors
We will not sell, distribute, rent, lease or otherwise share your personal information other than as outlined in this Privacy Policy or without obtaining your consent beforehand.

We may share your personal information with the following third parties:
- with BEA staff and / or associates working on a particular assignment;
- our service providers who assist with the running of our website and our office services including our diary management services, accountancy and banking services, IT support services, data storage and back up services, and email security services.

Our third party processors are subject to security and confidentiality obligations and are only permitted to process your personal information for specified purposes and in accordance with our instructions.

In addition, BEA may disclose information about you:
- if we are under a duty to disclose or share your personal information in order to comply with any legal or regulatory obligation;
- if necessary to protect the vital interests of a person; or
- to enforce or apply our terms and conditions or to establish, exercise or defend the rights of BEA, our staff, clients, or others

International transfers
Your personal data may be transferred, stored, and processed, outside of the European Economic Area. Regardless of where your personal data is transferred, we shall ensure that your personal data is safe and shall take all steps reasonably necessary to put in place appropriate safeguards to ensure that your personal data is treated securely and in accordance with this Policy and applicable law. Details regarding these safeguards can be obtained by contacting us or our Privacy Officer (see details above).

Security of your information
We are committed to ensuring that your information is secure. We use industry standard physical and procedural security measures to protect information from the point of collection to the point of destruction. This includes encryption, firewalls, access controls, policies and other procedures to protect information from unauthorised access.

Where data processing is carried out on our behalf by a third party, we take steps to ensure that appropriate security measures are in place to prevent unauthorised disclosure of personal information.

Despite these precautions, the transmission of information via the internet is not completely secure. Although we will do our best to protect your personal information, we cannot guarantee the security of your data transmitted over the internet or that unauthorised persons will not obtain access to personal information.

If you have any questions about security on our website, you can contact us as our Privacy Officer using the contact details set out above.

How long we keep your personal data
Your personal information will not be kept for longer than is necessary for the purposes for which it was collected and processed. We will retain your personal information for as long as your account is active or as needed to provide you with services or products you have requested.

The criteria we use for retaining different types of personal information, includes the following:
- General queries– when you make an enquiry via our website or contact us by email or telephone, we will retain your information for as long as necessary to respond to your queries. After this period, we will not hold your personal information for longer than two years if we have not had any active subsequent contact with you.

- Direct marketing– where we hold your personal information on our database for direct marketing purposes, we will retain your information for no longer than two years if we have not had any active subsequent contact with you.
- Legal and regulatory requirements– we may need to retain personal information for up seven years after we cease providing services to you, where necessary to comply with our legal obligations, resolve disputes or enforce our terms and conditions.

Your rights

Access to and updating your personal data

You have the right to access information which we hold about you ("data subject access request").

You may also have the right to receive personal information which you have provided to us in a structured and commonly used format so that it can be transferred to another data controller ("data portability"). The right to data portability only applies where your personal data is processed by us with your consent or for the performance of a contract and when processing is carried out by automated means.

We want to make sure that your personal information is accurate and up to date. You may ask us to correct or remove information you think is inaccurate. Please keep us informed if your personal information changes during your relationship with us.

Right to object

You have the right to object at any time to our processing of your personal information for direct marketing purposes.

You also have the right to object, on grounds relating to your particular situation, at any time to processing of your personal information which is based on our legitimate interests. Where you object on this ground, we shall no longer process your personal information unless we can demonstrate compelling legitimate grounds for the processing which override your interests, rights and freedoms or for the establishment, exercise or defence of legal claims.

Your other rights

You also have the following rights under data protection laws to request that we rectify your personal information which is inaccurate or incomplete.

In certain circumstances, you have the right to:

- request the erasure of your personal information erasure ("right to be forgotten");
- restrict the processing of your personal information to processing in certain circumstances.

Please note that the above rights are not absolute and we may be entitled to refuse requests, wholly or partly, where exceptions under the applicable law apply.

For example, we may refuse a request for erasure of personal information where the processing is necessary to comply with a legal obligation or necessary for the establishment, exercise or defence of legal claims. We may refuse to comply with a request for restriction if the request is manifestly unfounded or excessive.

Exercising your rights

You can exercise any of your rights as described in this policy and under data protection laws by contacting the Privacy Officer.

Save as described in this Policy or provided under applicable data protection laws, there is no charge for the exercise of your legal rights. However, if your requests are manifestly unfounded or excessive, in particular because of their repetitive character, we may either:

i. charge a reasonable fee taking into account the administrative costs of providing the information or taking the action requested; or

ii. refuse to act on the request.

Where we have reasonable doubts concerning the identity of the person making the request, we may request additional information necessary to confirm your identity.

Links
Our website may, from time to time, contain links to and from third-party websites. If you follow a link to any of these websites, please note that these websites have their own privacy policies and BEA does not accept any responsibility or liability for these policies. Please check these policies before you submit any personal data to these websites.

Complaints
You should address your complaints to our Privacy Officer whose details are set out above.

In addition, you have the right to complain to the Information Commissioner's Office (https://ico.org.uk/) about our data processing activities in relation to your personal information if you think they infringe applicable data protection laws. (ICO helpline on 0303 123 1113).

Changes to the policy
We may change this Policy from time to time. The current version will always be available from us in hard copy or on our website. We will post a prominent notice on our website to notify you of any significant changes to this Policy or update you by other appropriate means.