Title: Impact Assessment for the Assignment of Rights in the Renewable Heat Incentive scheme **IA No:** DECC0175 **Lead department or agency:** Department of Energy and Climate Change **Other departments or agencies: N/A**	**Impact Assessment (IA)** **Date:** 08/08/2014 **Stage:** Development/Options **Source of intervention:** Domestic **Type of measure:** Primary legislation **Contact for enquiries:** **correspondence@decc.gsi.gov.uk**

Summary: Intervention and Options

RPC: N/A

Cost of Preferred (or more likely) Option				
Total Net Present Value	**Business Net Present Value**	**Net cost to business per year** (EANCB in 2009 prices)	**In scope of One-In, One-Out?**	**Measure qualifies as**
£m	N/A	N/A	No	N/A

What is the problem under consideration? Why is government intervention necessary?

The Renewable Heat Incentive (RHI) is a voluntary incentive scheme providing tariff based support for renewable heating systems in both the domestic and non-domestic sectors.

Under the primary legislation, RHI payments must be made to the owner of the renewable heating system. Where installations are financed by lenders, participants can use their RHI payments to repay the loan. However, in this situation, lenders face a credit risk, from the “double handling” of payments. As such, loans of this type are more expensive and have not so far been taken up on a widespread basis.

What are the policy objectives and the intended effects?

The objective of the regulatory change is to reduce the barrier that lack of access to credit poses to consumers who may wish to install renewable heating technologies. In addition to provide an additional incentive for the renewable heat supply chain to identify cost effective opportunities and share in the benefits that RHI payments can bring.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

This Impact assessment considers the following options:

- **Do nothing:** keeping the current restriction that RHI payments can only be made direct to the owner of the system.
- **Introduce assignment of rights:** to allow RHI payments to be paid directly to a nominated third party, reducing the credit risk faced by the lender.

The preferred option given the significant uncertainty in the evidence base is to change the primary legislation to introduce the assignment of rights into RHI as it best meets the objectives. DECC will continue to develop this option to consider how the new powers could be taken in the secondary legislation, particularly focusing on the consumer protection, customer journey and deliverability issues identified. DECC will also look to improve the evidence base and understanding of the potential finance markets in RHI.

Will the policy be reviewed? It will be reviewed. **If applicable, set review date:** n/a

Does implementation go beyond minimum EU requirements?			**N/A**		
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.	**Micro** No	**< 20** No	**Small** No	**Medium** No	**Large** No
What is the CO_2 equivalent change in greenhouse gas emissions? (Million tonnes CO_2 equivalent) (Net savings total to 2015/16)			**Traded:**	**Non-traded:**	

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible Minister: ______________ Date: 14 August 2014

Summary: Analysis & Evidence — Policy Option 1

Description: DECC proposes to amend the primary legislation, to allow Renewable Heat Incentive payments to be paid directly to a nominated third party, reducing the credit risk faced by the lender.

FULL ECONOMIC ASSESSMENT

Price Base Year	PV Base Year	Time Period Years	Net Benefit (Present Value (PV)) (£m)		
			Low:	High:	Best Estimate:

COSTS (£m)	**Total Transition** (Constant Price)	Years	**Average Annual** (excl. Transition) (Constant Price)	**Total Cost** (Present Value)
Low	Optional		Optional	**Optional**
High	Optional		Optional	**Optional**
Best Estimate				

Description and scale of key monetised costs by 'main affected groups'

This impact assessment is an initial qualitative assessment of the potential for this policy change.

Other key non-monetised costs by 'main affected groups'

The main potential cost of the introduction of assignment of rights could be the increase in total resource costs associated with the RHI. This is because there are some resource costs associated with most installations of renewable heat, given the fixed tariff and the inherent variability in costs. The allowing of assignment of rights could boost deployment and therefore increase the total resource costs.

BENEFITS (£m)	**Total Transition** (Constant Price)	Years	**Average Annual** (excl. Transition) (Constant Price)	**Total Benefit** (Present Value)
Low	Optional		Optional	**Optional**
High	Optional		Optional	**Optional**
Best Estimate				

Description and scale of key monetised benefits by 'main affected groups'

This impact assessment is an initial qualitative assessment of the potential for this policy change.

Other key non-monetised benefits by 'main affected groups'

Allowing the assignment of rights could have a positive impact on deployment and given that renewable heating installations typically offer carbon savings compared to conventional technologies, DECC's assessment is that this will increase the carbon savings associated with RHI compared to the counterfactual.

The resource costs could be lower than currently in the RHI because of the rent seeking from the supply chain who may have an incentive to find more cost effective (therefore lower resource cost) opportunities. This could reduce the average resource cost per installation.

Key assumptions/sensitivities/risks — **Discount rate (%)**: n/a

There is significant uncertainty around the effects and impacts of this policy change. This is for a number of reasons:

1. **Evidence base –** it is not known the extent to which that assignment of rights would solve issues of access to finance in the renewable heat market. Market intelligence and stakeholder engagement has suggested that it might be a method to expand access, but the scale of the opportunity is not known
2. **Demand/supply side impacts** – the demand and supply side impacts discussed in this impact assessment are an initial high level view of how assigning rights could feed into scheme level impacts. A further assessment of these will be required once DECC's evidence base is more robust.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			In scope of OIOO?	Measure qualifies as
Costs: N/A	**Benefits: N/A**	**Net: N/A**	No	N/A

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Executive Summary

1. The Renewable Heat Incentive (RHI) is a voluntary incentive scheme providing tariff based support for renewable heating systems in both the domestic and non-domestic sectors.

2. Under the primary legislation, RHI payments must be made to the owner of the renewable heating system. Where installations are financed by lenders, participants can use their RHI payments to repay the loan. However, in this situation, lenders face a credit risk, from the "double handling" of payments. As such, loans of this type are more expensive and have not so far been taken up on a widespread basis.

3. DECC proposes to amend the primary legislation, to allow RHI payments to be paid directly to a nominated third party, reducing the credit risk faced by the lender.

4. On the demand side, this change could extend access to finance for renewable heat to a larger population, due to the relative reduction in required credit rating. In addition simplification of financing arrangements could provide a benefit.

5. On the supply side, the change may allow installers and financiers to better share in the economic rents of the RHI, and thus incentivise these parties to identify appropriate consumers to offer their product. If these parties are able to achieve scale, they should be able to further reduce the costs of delivering to consumers.

6. For these reasons, DECC believes that the introduction of the ability for consumers to assign rights to RHI payments could lead to an increase in both demand and supply. Together this could lead to a mix of higher deployment and lower costs, depending on how this interacts with the budget management mechanism.

7. As highlighted in the evidence section, there is significant uncertainty about the magnitude of impact that this change could have as there are significant uncertainties around the evidence provided by stakeholders. DECC's assessment is that this change has potential to boost deployment and lower costs but will continue to improve the evidence base as the policy development process progresses.

8. DECC anticipates that this change could not be implemented until 2016 at the earliest. Detailed policy development is under way and will require changes to secondary legislation; changes are unlikely to be delivered before summer 2016. Consumer protection and customer journey, as well as deliverability, will be key considerations in detailed policy design.

9. DECC will also work to ensure that the renewable heat offer can be part of a whole house approach for householders. This includes linking appropriately with other consumer facing policies.

10. This Impact Assessment also briefly considers the impacts of DECC taking the powers to compete the RHI delivery partner and a summary of the proposed changes to resolution procedure for RHI regulations

Section 1: Problem

11. The Renewable Heat Incentive (RHI) is a voluntary incentive scheme providing tariff based support for renewable heating systems in both the domestic and non-domestic sectors. The scheme is based on powers taken in the Energy Act 2008. The non-domestic scheme, which provides support to all sectors excluding single domestic premises, was launched in November 2011, while the domestic scheme was launched in April 2014.

12. Renewable heating systems typically involve a larger capital investment than a conventional heating system, like oil or gas. At present, the majority of participants in both the domestic and non-domestic schemes use cash savings to fund their investments. Where this is not possible, consumers will typically have to take out a loan, or re-mortgage, in order to fund installations.[12]

13. Householders or businesses may then use the RHI payments received to pay the financier as agreed in their loan agreement. The current regulations relating to RHI tariff payments specify that they must be paid to the property owner in the domestic scheme and the owner of the plant in the non-domestic scheme (in the case of hire purchase agreements or similar, the party in possession of the plant is considered the owner).

14. Potential lenders to would-be RHI participants face a credit risk resulting from the fact that payments are made to the participant who must then pass them on to their lender.

15. In the domestic scheme, the credit risk means lenders will likely only offer finance to those with a good credit rating. They may also have a higher cost of capital to compensate for the default risk, making loans and therefore installations more expensive to consumers.

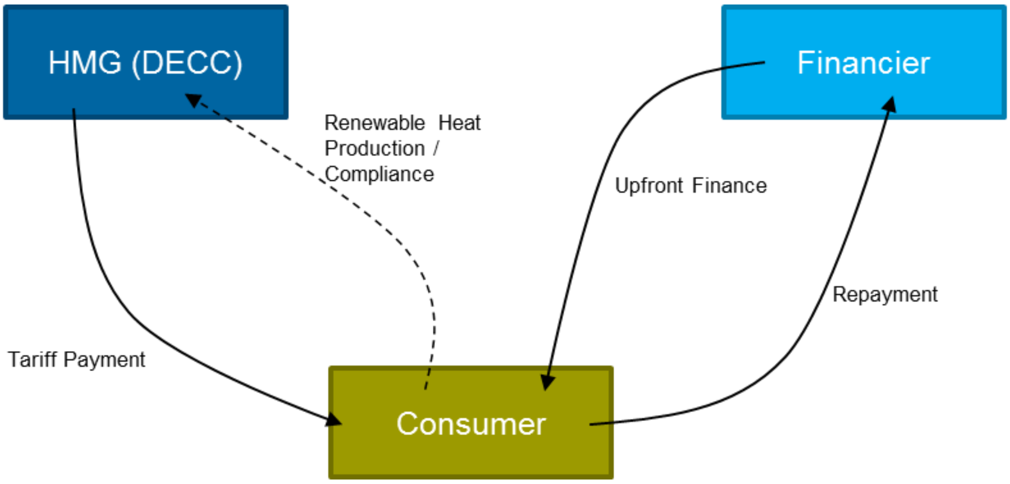

Figure 1: Flows and payments and information in Domestic RHI financing

16. The non-domestic sector has yielded a greater variety of financial arrangements for funding installations. The small-scale end of the non-domestic market shares some similarities with the domestic scheme, with businesses funding installations from their own capital[1]. There is also some borrowing[2] to finance installations, in a range of forms.

[1] RHPP Evaluation https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/265585/Analysis_of_customer_data_from_phase_one_of_the_renewable_heat_premium_payments__RHPP__schemeFINAL.pdf

[2] Non-Domestic Evaluation - to be published in September NOT for wider circulation before publication

17. If the financier (or other third party) is also classed as the owner of a system, they may prefer that that user is paid RHI, so they can receive a fixed repayment from the user and not be exposed to the variability of RHI payments because of changes in heat production.

18. The inability to assign rights to RHI payments therefore acts as an artificial constraint on both the demand and supply side of the RHI market, as explored in more depth later. The implication of this is that the potential for RHI deployment is reduced as consumers who would be able to install renewable heat systems cost-effectively cannot do so because of a lack of access to finance or may be discouraged by unnecessarily high finance costs.

Policy constraint

19. Difficulty in funding renewable heat installations under the RHI is in part exacerbated by the policy design, under which tariffs are paid over an extended period (7 years in the domestic scheme and 20 years in the non-domestic scheme).

20. One possible solution to this problem would be to pay upfront the additional cost of the renewable heating system[3]. However, two considerations led DECC to implement a tariff based system:
    a. **Affordability –** An upfront payment system would have significant affordability issues for government and would limit the deployment which could effectively be supported.
    b. **Compliance –** DECC wishes to support the on-going production of renewable heat. A tariff based system ensures that DECC is able to attach compliance requirements to the support for renewable heat and make sure that, for example, biomass fuel used conforms to sustainability standards and that the installation continues to be used to generate renewable heat.

[3] (versus the counterfactual – typically a fossil fuel boiler)

Section 2: Policy solution

Objective

21. The objective of the regulatory change is to reduce the barrier that lack of access to credit poses to consumers who may wish to install renewable heating technologies.

22. Reducing this barrier should contribute to reductions in the price of renewable heat installations, proving an additional driver to uptake and meeting the RHI's objectives of:
    a. Facilitating the heat sector's contribution to the 2020 renewable energy target;
    b. Delivering significant reductions in the carbon emissions from fossil fuels used for heating;
    c. Delivering a step-change in the uptake of renewable heat technologies, helping to increase renewable heat from its current level;
    d. Incentivising uptake across a range of technologies and sectors, minimising the costs to society and avoiding the creation of perverse incentives.
    e. Encouraging cost reductions in renewable heat technologies, through innovation and development of the supply chain, in order to better enable the long-term decarbonisation of the UK.

Policy solution

23. To meet the objectives outlined above DECC proposes to amend the primary legislation, to allow RHI payments to be paid directly to a nominated third party. Under this change it will be the owner of the renewable heat plant that has the right to assign rights to payments to a third party.

24. Further detailed policy development is under way and will require changes to secondary legislation (potentially needing to use the affirmative procedure). These changes are unlikely to be delivered before summer 2016. DECC's current thinking is to not impose limits on which types of RHI participants can exercise their right to assign payments so as not to limit competition.

25. DECC also expects to allow the partial assignment of rights to third parties, though the manner in which this can be done may be limited. Partial assignment of rights would allow consumers to part-fund their installations through other financing options, like cash or savings. This eliminates the requirement on a consumer considering participation to make the choice between entirely self-funding or borrowing the entire amount and assigning all rights. This greater flexibility for the consumer could encourage uptake.

26. DECC is not currently minded to allow the assignment of rights to be available for existing installations (i.e. for persons already on the scheme), since current scheme participants will have already overcome the issue of access to finance, which the assignment of rights is designed to address.

27. A vital aspect of the policy development will be to ensure proper consumer protection arrangements are developed to enable customers to have confidence and clarity around the arrangements they are entering into. Policy development will also focus on facilitating a more consumer focussed and friendly offer by the market. DECC's aim will be for this offer to be easy for consumers to understand and access.

28. This aim also extends to the processes of the scheme administrator. In order to ensure an appropriate consumer experience it will also be necessary to consider the impacts of policy changes in relation to assignment of rights on each stage of the customer journey, including the application process and on-going obligations, and to ensure changes reflect these considerations appropriately.

29. In addition, it will be necessary to ensure this policy change does not negatively impact on the interactions between the RHI and DECC's other policies. This will be a particularly important consideration when making changes to the domestic scheme, where there are significant interactions between DECC's consumer policies and incentives. This is explored in more detail in Section 6.

Section 3: Evidence sources

30. The financing options for renewable heating is an area where little research has yet been conducted due to the small size of the current market. However there are several sources of evidence which are useful in considering the current finance market and the barriers which exist in it:

    a. **Non Domestic RHI & RHPP Evaluation** – DECC has commissioned an evaluation of Renewable Heat Premium Payments and the non-domestic RHI which looks in detail at the applicants to both schemes. There were several questions in these surveys on the current financing options uses by consumers and some qualitative interviews with investors.

    b. **Scheme administration -** Since the launch of the domestic RHI, DECC and Ofgem have been approached directly by companies planning to offer funded solutions to homeowners for whom assignment of rights would be an important simplification. Some of these businesses are finding legal workarounds to enable their business models at considerable extra cost than would have been needed if payment rights could be assigned.

    c. **Market Intelligence –** DECC has collected market intelligence from various parts of the current renewable heat supply chain and from potential entrants to the market. Additionally DECC runs a specific Industry Advisory Group (IAG) who provide wide ranging evidence and market reactions to RHI policy.

31. This market intelligence provides a valuable source of information about how the renewable heat market is functioning, however it does require interpretation alongside other sources of evidence.

32. Throughout this impact assessment DECC has used a combination of evidence such as this alongside a theoretical assessment of what could happen, to explore the issue, look at why assignment of rights could mitigate some of these issues and understand what the impact may be.

33. DECC will continue to develop its evidence base for renewable heat financing to further support the development and implementation of this policy change.

Section 4: Counterfactual

34. Evidence from the early stages of the Renewable Heat Premium Payment scheme (RHPP) suggests that the majority of households (81%[4] of RHPP1 householders) used cash or savings to fund the installation of systems. Furthermore, in the non-domestic scheme on-balance sheet methods of funding have so far been most prevalent[5]. DECC expects other funding models to emerge over the next few years as larger technologies (particularly CHP and biomethane) are supported, but the evaluation of the RHI non-domestic scheme has also revealed significant barriers to funders moving into the Renewable Heat market[6].

35. If consumers are purely relying on cash and on-balance sheet funding there is a significant limit to deployment potential. While market intelligence suggests that some finance products are being developed, particularly for the domestic sector, it has been highlighted to DECC that access to capital could become a major constraint on deployment[7].

36. There is some evidence that some of the supply chain and financiers are developing financing models[8] which attempt to reduce the credit risk of lending to consumers. These could involve:
    a. The householder setting up a joint account with the financier for payments which the financier has access to.
    b. The financier taking a stake in the property, and therefore having equal rights to payment as the householder.
    c. In the non-domestic market, complex hire-purchase and lease-back arrangements.

37. While market innovation in the provision of financing products could be a sign of a healthy (if constrained) market, it raises several issues for renewable heat deployment and consumers:
    a. These models are typically complex and could involve significant legal and transaction costs which act as deterrents for consumers and investors, preventing the market reaching the scale which they could[9].
    b. It is important that such arrangements are covered by clear consumer protections which the whole market can have confidence in. Currently there is not that clarity for consumers or financiers.

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4 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/265585/Analysis_of_customer_data_from_phase_one_of_the_renewable_heat_premium_payments__RHPP__schemeFINAL.pdf

5 RHI Non-Domestic scheme Evaluation – to be published NOT for wider circulation before publication
6 RHI Non-Domestic scheme Evaluation – to be published NOT for wider circulation before publication
7 Based on market feedback, for more details see Section X.X Evidence sources
8 Several organisations have been working with Ofgem to ensure that their financing models offer them greater financial security and are compliant with the scheme regulations.
9 Based on DECC judgements formed from market intelligence

Section 5: Impacts

38. The market considered in this Impact Assessment is the renewable heat market, with consumers being the buyers, and the supply chain (selling the installation, finance etc) the sellers. In reality there are likely to be multiple markets operating for installation and financing, with complex links between the different elements of the supply chain. However, in order to simplify the qualitative description of impacts this simplification has been made.

39. The impact of allowing the assignment of rights will depend on several interacting factors, which can be split into:
    a. **Demand side impacts –** How consumer behaviour changes in response to allowing the assignment of rights to RHI payments. This can be split into access to finance, investment decision making and simplification impacts.
    b. **Supply side impacts –** The impacts on the supply of the product of renewable heat installation, plus financing. This can be split into rent seeking, financial decision making and aggregation potential.

40. These impacts will also interact with the budget management mechanism which limits the spending on RHI through a controlled reduction in tariff payments.

41. There is also potential for consumer protection and installation quality issues which may undermine confidence in the scheme. DECC will consider carefully how these risks can be mitigated, particularly through appropriate consumer protections built into the policy design.

42. The impacts set out in the sections below give a broad assessment of the potential for this policy change to affect the price and supply in the renewable heat market and the deployment of renewable heat through the RHI. This assessment also considers qualitatively the change in incentives for various consumer segments and parts of the supply chain.

43. When the consumer is referenced in this document the reference is to the end user of the heat produced by the renewable heating system, whether that be the householder in the domestic sector, or a business in the non-domestic sector.

Section 5.1: Demand Side Impacts

44. The ability to assign rights would provide the consumer with a different financing offer from the RHI. There are several impacts which should be considered:
    a. **Access to finance –** An assignment of rights product would likely mean that a greater proportion of the population would be able to access finance through a lower credit rating requirement.
    b. **Investment decision making –** Assigning rights to the financier instead of the consumer means that the financier is making the investment decisions. The financier could have a lower discount rate then the consumer. The consequence would be that they would face a lower cost of capital.
    c. **Simplification of financing models –** Particularly in the non-domestic scheme, where complex financing models are most prevalent, the added flexibility afforded by the option to assign rights may simplify the financing models used for fund renewable heat projects and reduce costs.

Section 5.1.1 Access to Finance

45. Based on the evidence from the RHPP evaluation and the non-domestic scheme evaluation, the majority of scheme participants choose to use savings and on-balance sheet funding models, with some use of re-mortgaging, to fund renewable heat installations. This means that to access renewable heat, participants either have significant savings, are able to access credit (only available to those with a good credit score or an asset) or have their system funded through a Local Authority or Social Housing organisation.

46. Allowing financing through the assignment of rights could help expand access to a greater proportion of the UK population, particularly to:
    a. Households unable to access appropriate finance products because of their credit rating or other credit commitment – potentially including the fuel poor.
    b. Households who are unwilling to take out a loan, but are willing to exchange a potential future stream of payments for a new heating system.

47. In the non-domestic sector, the assignment of rights could help expand access by enabling “operating-lease” models, which reduce the financier’s exposure to the credit risk of the business.

Section 5.1.2 Investment decision making

48. Householders and consumers making an investment decision in renewable heat will discount future returns from bill savings and tariff payments. The discount rate consumers apply to RHI payments is high[10], determined by their need to achieve a rapid payback, as they are credit constrained or acknowledge they may move house.

49. The high consumer discount rates mean that the tariff needs to achieve a rapid payback for consumers to find renewable heat technologies attractive.

50. By allowing the consumer to assign rights to a financier, the consumer’s payback period is shortened (or cut to zero) because the financier takes on board the financing and RHI return elements of the installation process. The consumer’s decision making process is therefore about weighing up the barriers (hassle costs and performance risks), additional upfront costs (such as

[10] Household and non-domestic discount rates and their composition are discussed in detail in: http://www.nera.com/extImage/PUB_Renewable_Heat_July2009.pdf

other structural work) and the potential fuel bill savings, not the necessity of achieving a rapid payback on the upfront capital costs.

51. The financier's discount rate will not be determined by a need to achieve a payback in a short period of time. Instead it will be determined by the underlying cost of capital, a risk premium and the required profit margin over the lifetime of the investment.

52. The implied rate of return required for investors is uncertain and depends on a number of factors. These should be considered illustratively:
    a. **Base cost of capital –** The cost of capital that financiers are able to access will depend on the competing investment options.
    b. **Compliance risk premium –** The RHI tariff is only payable if the consumer complies with the scheme terms and conditions. For example, the householder/business must use appropriate fuel in biomass systems. There is a risk that the user may not comply and so the financier will not receive the RHI payments. Financiers will likely demand a risk premium to cover the possibility of non-compliance. This is a principle (financier) – agent (consumer) problem which could require some contractual or incentive sharing solution.
    c. **Heat demand risk premium** – For installations which are metered the RHI returns will vary depending on the heat use of the consumer. Financiers may wish to mitigate this risk by setting up a contract for the consumer to bear.

53. The impact of some financial decisions being taken by the financier instead of the consumer means that the discount rate of the decision maker is likely to be lower. This is because the financier does not have the same risks around immediate payback or moving house[11]. The implications of this lower discount rate could be that there is more demand for a given price.

Section 5.1.3 Simplification

54. Specific renewable heat finance products which are currently available for renewable heating could involve significant legal and accounting fixes to enable the finance offer to be consistent with the RHI rules on payments to owners. There are likely to be significant costs to set up these arrangements and they introduce significant complexity, which market intelligence suggests is off-putting for both financiers and consumers.

55. Allowing consumers to assign the rights to payments to financiers could allow simpler financial arrangements to be developed, which are both lower cost and simpler for the whole market to understand. To support this DECC is considering how best to structure consumer protection arrangements to give consumers additional confidence and clarity in the financing options they are taking up.

56. Lowering the costs of delivery to the provider of finance could both increase demand for, and supply of, finance products compared to the current market as the price for arranging the finance would be lower.

[11] This would mean the homeowner would no longer be able to access RHI payments for that installation

Section 5.2: Supply Side Impacts

57. The RHI supply chain consists of many organisations that could react in different ways to the introduction of the ability to assign payment rights to third parties:
    a. **Rent/Return seeking behaviour –** installers and financiers will be more able to share in the economic rents produced by RHI, and so will have more incentive to invest in finding appropriate households and businesses to provide finance to.
    b. **Aggregation –** If financiers are able to aggregate financing offers they will be able to reduce their costs of delivering finance to consumers.

    These impacts together mean that suppliers could be willing to supply more renewable heat installations for a given price paid by the consumer (and subsidy paid by DECC).

Section 5.2.1: Rent seeking incentives

58. The tariffs in the RHI introduce economic rent into the renewable heat market. This is the difference between the tariff payment and the "tariff required" in order for a renewable heating system and a conventional heating system to be equally attractive to a consumer. These economic rents occur because DECC offers one tariff per technology band and costs and circumstances are heterogeneous. Householders who happen to have lower than average costs (or greater than average benefits) from renewable technologies are likely to accrue economic rents.

59. The important factor in determining the relative rents accrued by the consumer or supply chain/financier depend on the relative power they have. DECC's assessment is that currently the price paid for installations is driven by underlying cost as consumer power is prevalent. This means that RHI rents will typically accrue to the householder. Therefore, with the vast majority of the market power lying with the consumer there is little incentive for supply chains to find the most cost effective opportunities, as they are unlikely to capture the rent from doing so (though there is some incentive as it may increase sales if rents are identified and demonstrated as part of the sale).

60. By allowing the assignment of rights the supply chain/financier could offer some degree of price differentiation through offering, for example, installations for no upfront cost. This would allow them to capture some of the rents and provide a significant incentive for them to find appropriate consumers who could benefit from renewable heat. It would also increase the potential households they could target as the access to credit barrier is removed, opening up more cost-effective opportunities to sell into.

61. The rents generated by the price differentiation opportunities offered by assignment of rights could accrue to different parts of the supply chain. How rents are split between the supply chain will be determined by two key factors:
    a. **Concentration –** If there are relatively few providers of finance, but lots of intermediary/installers, then the market power would likely rest with the financiers. They would therefore be able to capture a greater share of the economic rents.
    b. **Accessibility –** the rents identified are likely to be accessible to the supply chain through the finance product, not the installation of the renewable heating system[12]. This could give the financier a route to access the rents, which installers do not necessarily have.

[12] This is a judgement based on DECC's understanding of the market and how assignment of rights might change this. This is highly dependent on the structure of financing products created.

62. In summary, by allowing consumers to assign RHI payment rights, financiers and installers will be able to do some degree of price discrimination, allowing them to capture some of the economic rents created by RHI. These rents would be split across the supply chain depending on relative market power. This could create a stronger incentive for them to search for more opportunities for potential renewable heat sales than currently exists.

Section 5.2.2 Aggregation

63. Aggregation is when multiple financing products are packaged together, meaning that one financier provides multiple loans to multiple parties. In such circumstances, the financier will invest on the basis of an average rate of return on the whole package, rather than set returns on each individual investment.

64. Aggregated loans differ from single investments of comparable size in some key aspects:
    a. Loans which are aggregated tend to be less risky compared to individual loans as the multiple loans diversify the source of the return. This is particularly true for the tail-end risks of complete default.
    b. This mitigation of risks could allow larger investors, who can invest at scale, to offer finance in markets where scale can be achieved, in particular to the domestic markets and small scale non-domestic markets.
    c. It is often difficult for the financier to judge the exact return for individual projects, because of their hidden characteristics. However the financier may well have greater knowledge about the market as a whole. This allows projects with lower than average returns to be cross subsidised by those with higher rates of return.

65. In the current finance market (detailed in the Counterfactual section), aggregation in relation to renewable heat financing is difficult, particularly in the domestic scheme. This is because, firstly, there is not currently the scale in the market to allow aggregation and, secondly, few lenders are offering a renewable heat specific product.[13]

66. Allowing the assignment of rights to financiers could mitigate some of these barriers by:

    a. Allowing financiers to offer loans at the scale needed for aggregation to offer a significant diversification of risks.
    b. Creating a specific renewable heat financing market with a clear identifiable product for funders to invest in.

67. This aggregation could allow a reduction in the cost of capital for the financier to offer assigned rights finance, which means that more finance can be offered at any given price. The impact of aggregation is crucially dependent on the scale of consumer demand, where lower demand could mean significantly less impact on price.

[13] This is a judgement based on DECC's assessment of the current market size and complexity of creating financing products for the renewable heating market.

Section 5.3 Equilibrium Impacts

68. Through the demand and supply side factors identified in the above sections, DECC believes that the introduction of the ability of consumers to assign rights could lead to an increase in both demand and supply. Together this could lead to a mix of higher deployment and lower costs, depending on the level of budget available and the resultant tariffs offered by DECC.

69. As highlighted in the evidence section, there is significant uncertainty about the magnitude of impact that this change could have as there are significant uncertainties around the evidence provided by stakeholders. DECC's assessment is that this change has potential to boost deployment and lower costs but will continue to improve the evidence base as the policy development process progresses.

70. The budget interaction is important as, if demand exceeds the budget set out by the budget management mechanism, the tariff will reduce which will reduce the RHI cost per installation. This should dampen the incentive to install renewable heat measures and bring spending back into line with the budget.

71. DECC anticipates that this change could not be implemented within the RHI until 2016 at the earliest. This is driven by the significant policy, consumer protection and delivery decisions to work through.

Section 5.3.1 Summary of the Costs and Benefits

72. The costs and benefits of this change are currently unknown given the qualitative nature of the assessment. However, it is possible to describe the direction of impacts on the main costs and benefits identified in previous RHI Impact Assessments:
    a. **Benefits – Carbon savings:** Allowing the assignment of rights could have a positive impact on deployment and given that renewable heating installations typically offer carbon savings compared to conventional technologies, DECC's assessment is that this will increase the carbon savings associated with RHI compared to the counterfactual.
    b. **Costs – Resource Costs:** DECC anticipates that there will be two impacts on the resource costs associated with RHI. Firstly increased deployment of renewable heating systems will mean that the resource cost[14] of RHI could increase. This however could be offset by the rent seeking from the supply chain who may have an incentive to find more cost effective (therefore lower resource cost) opportunities. This could reduce the average resource cost per installation.

73. In summary, at this stage it is not possible to assess the magnitude of the costs and benefits, but it is possible to provide an indication of influencing factors and direction.

Section 5.3.2 Sectorial Implications

74. The demand and supply implications in this Impact Assessment have been mainly discussed in aggregate across the whole market. However, this measure will have differential impacts on various types of consumers in the domestic and non-domestic schemes. This section considers the broad indicative impacts on key market segments and some elements of the supply chain.

[14] The RHI payments that renewable heat installations can receive through the RHI are intended to compensate for these additional costs. However, because the additional costs faced by heat producers vary depending on the type of kit being installed and the use of the heat, there will be some degree of over-compensation at any given tariff level. i.e. those heat producers for whom it is relatively cheap to install a renewable heat technology will achieve a better rate of return than those for whom the RHI only just makes renewable heat financially viable.

75. Figure 2 illustrates the potential players in the renewable heat market, with financiers working through intermediaries and installers to supply renewable heat installations to consumers.

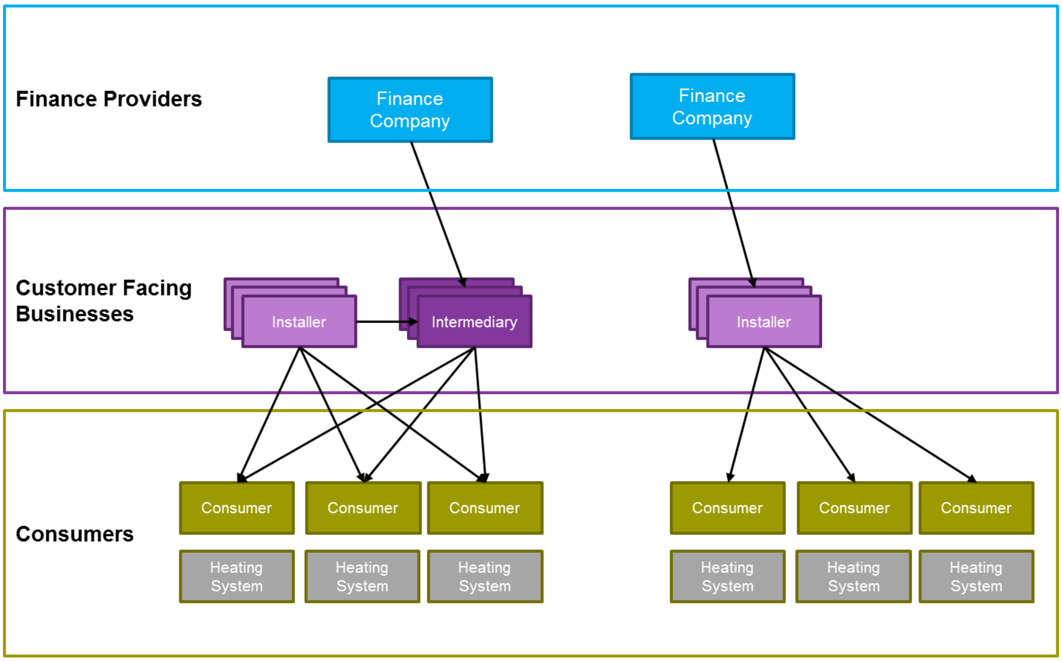

Figure 2: Illustrative Market Structure

Finance Providers

76. While it is uncertain where finance providers will initially come from, it is likely the early entrants into the assignment of rights market would be specialist funds, perhaps with experience from the Feed in Tariff market or the Green Deal market (such as the Green Deal Finance Company).

Consumer Facing Businesses

77. The consumer facing businesses are currently predominantly installers, who have the most direct relationship with consumers. Typically they provide a complete technical service to consumers including installation, maintenance and advice, while some installers may offer additional services such as finance and cross-selling other measures.

78. The introduction of assignment of rights as a financing option may allow installers and intermediaries to form relationships with finance providers to deliver financing products to consumers. We would expect the finance available initially to be limited and installers and intermediaries to have to compete to be able to deliver the financing product.

79. The availability of economic rents (discussed in section 5.2.1) may provide an additional incentive for installers and intermediaries to find cost-effective opportunities, with the rents in particular covering some of the search costs associated with finding the right opportunities.

80. The introduction of the assignment of rights as a financing option may encourage the development of an integrated offer by consumer facing businesses. The financier, an intermediary, or an installer, could increase their competitiveness by offering to co-ordinate the financing, installation and maintenance of the system, giving the consumer a single point of contact. Such an offer would provide a smooth customer journey for the RHI consumer.

Consumers

81. The domestic consumers could be split into three sectors depending on the tenure of the occupant. The installation of renewable heat through assignment of rights is likely to appeal to all consumers that need to replace existing systems and are faced with the up-front costs of the conventional fossil fuel alternatives. However, this incentive is likely to work differently depending on occupant tenure type. This is because the decision maker will face different costs and benefits of using assigned rights products in different tenure situations.

    a. **Private rented sector –** The improved access to finance could have an impact in this sector. The assignment of rights could allow them to avoid the upfront costs of installing a new boiler, which they would have had to install anyway if for example it breaks down. If landlords are able to pass on the net fuel bill savings from a new renewable system to tenants through increased rent, this may provide an additional incentive for the landlords.

    b. **Social Landlords** – This sector may be able to benefit from assigned rights in a similar way to the private rented sector, however additionally would be able to benefit from their scale. Social Landlords could plan to renovate a large portfolio of properties which could allow them to benefit further from the scale and aggregation effects which financiers see.

    c. **Owner Occupiers** – This sector could potentially benefit significantly from assigned rights products as they would be able to lower substantially the upfront cost associated with a renewable heating technology, while directly benefiting from the potential fuel bill savings a renewable heating system could offer compared to a conventional system.

82. The non-domestic consumer base is significantly more heterogeneous than the domestic consumer base and so difficult to segment effectively. Instead DECC has considered two broad types of installation: small and large. The key feature driving differences is the way installations are financed. DECC's assessment is that initially it would be small heating systems who could benefit from this change.

    Small heating systems - DECC market intelligence suggests that the market structure for small non-domestic installations (typically small biomass and ASHPs) may be most similar to the domestic market structure.

    Currently installations in this sector are primarily funded by consumers and, where financing is used, more complex operating lease agreements are used. These arrangements may involve significant set-up costs which can act as a barrier to deployment.

    Allowing financing products based on the assignment of rights could enable the financier/owner to assign rights to the business, allowing them to take the fluctuation in RHI payment risk.

83. DECC has also been in discussions with one of the leading lenders in this market, which have indicated that assignment of rights could be an important enabler for certain types of operating leases which are favoured by public sector bodies. This could potentially unlock a large amount of renewable heat deployment in public sector buildings.

84. Further work to quantify the impact on consumers of this change will be carried out as the policy is further developed.

Section 5.3.3 Heating Systems

85. In addition to the impact on different market segments, an assigned rights financial product will affect different technologies in different ways and could affect the quality of installations in the market. These factors should be taken together when considering the overall impact of allowing the assignment of rights.

Technology impacts

86. As the assignment of rights specifically mitigates a financing issue (and potentially decreases the cost of capital), the impact could be largest for those technologies and projects where finance and upfront costs make up the greatest proportion of additional capital costs. Table 1 demonstrates a simple breakdown of the relative impact on incentives for renewable technologies by upfront cost and fuel bill savings for the consumer. This simple incentives analysis demonstrates the potential for changes to technology incentives. The relative change in incentives for different technologies will be considered as part of the policy development work to be undertaken.

Table 1: Potential attractiveness to consumers of Assignment of Rights by technology characteristics

	High Additional capital cost	Low additional capital cost
High Fuel Bill savings	Greatest relative impact as the high capital barrier is mitigated and the fuel bill reduction incentive is strongest.	Some impact
Low Fuel Bill savings	Some Impact	Least relative impact as capital may prove less of a barrier and the incentive to use assignment of rights is therefore weakest.

Installation quality

87. The quality of installations under an assigned rights scheme could move in either direction:
    a. **Lower quality –** under an assignment of rights set up there could be an incentive for installers to install a lower quality product in order to minimise the upfront costs, while collecting the same RHI payments. This could lead to a reduction in standards to the lowest allowed by the scheme rules and product standards.
    b. **Higher quality –** financiers could demand “gold plated” installations to minimise the risk of non-compliance with the RHI’s on-going requirements and therefore minimise the risk to payments. There is was some market intelligence evidence that this was the case for Solar PV under the Feed-in-Tariff scheme. These demands could push costs up in the short term, but may bring down costs for high quality products in the medium term.

88. DECC will consider in more detail the potential installation quality impacts of this change and whether, if any action is required to mitigate this risk.

Section 5.3.4 Delivery and Consumer Protection

Consumer Protection

89. As highlighted in this impact assessment, appropriate consumer protection to ensure consumers are aware of their rights and obligations is vital, particularly under a financial arrangement of which consumers may not have much experience. The implementation of a consumer protection framework would have important impacts on the reputation and the RHI in general.

90. Throughout the policy development DECC will work with a wide range of consumer organisations, such as the Renewable Energy Consumer Code and potential third-parties/financiers, to ensure appropriate design of the consumer protection framework.

91. This framework could also include, for example, limitations on the parties to whom rights can be assigned (e.g. those with appropriate credit licences), mandatory communications of rights and obligations to consumers by third-party/financiers, and registration of financiers with the RHI scheme administrator.

Deliverability and Consumer Experience

92. The assignment of rights introduces a new actor (the third-party/financier) into the customer journey, the application process and on-going obligations. This will make the schemes more complex and costs to deliver and administer the scheme may be impacted as a result.

93. In addition, setting up appropriate levels of consumer protection may increase the complexity and delivery costs of some sections of the RHI.

94. Deliverability will be a key consideration in the detailed design of this policy. DECC will work closely with the scheme administrator and other delivery partners to ensure the impact on the administrative system is minimised, and will place the consumer experience at the centre of policy design, to ensure the customer journey remains smooth.

Section 6: Wider Implications

95. Changes to elements of the RHI will inevitably have impacts on other DECC policies, particularly in the domestic sector, where there are significant interactions between DECC's consumer policies and incentives. DECC will work to align the implementation of this change to the RHI with the delivery of its other schemes, in order to provide for the sharing of benefit across these schemes.

96. Introducing assignment of rights into the RHI creates opportunities for innovative finance products to be combined with Green Deal finance and other forms of support. Combining these forms of support could allow more households to benefit from the installation of renewable heat and energy efficiency products at no upfront cost. DECC will consider the scope for, and feasibility of, developing greater integration between the RHI and Green Deal finance.

97. The improved accessibility of the RHI, through the assignment of rights, may encourage more landlords to consider higher standard installations. Such installations will improve the Energy Performance Certificate (EPC) rating of the property, which may prove an incentive to landlords seeking to meet the requirements of proposed Private Rented Sector (PRS) regulations, which are designed to raise the minimum standard of energy efficiency in properties (domestic and non-domestic) and will prohibit the letting of properties of the lowest energy efficient ratings. DECC will need to consider further the extent of integrations required between RHI financing and the PRS rules.

98. DECC also acknowledges that it is important to explore ways to ensure that those on low incomes living in the coldest homes might be able to benefit from renewable heating technologies. This policy change could make renewable heat accessible to fuel poor households by supporting households which cannot make the upfront payment to access finance. DECC will need to consider fully how best to ensure the assignment of rights policy change can help stimulate appropriate uptake among fuel poor households while also ensuring the risks to such consumers under the change are appropriately minimised.

99. There is also a clear link between this policy change and the Energy Company Obligation (ECO) Affordable Warmth scheme, under which renewable heat installations are an eligible measure. DECC will need to consider further the extent to which integration of these schemes can occur in order to provide benefits across both while minimising the risks of ECO obligated suppliers receiving undue compensation for work claimed towards meeting statutory obligations.

Annex A: Summary of Affirmative/Negative Resolution Procedure changes

Summary
Section 100 of the Energy Act 2008 gives the Secretary of State power to make regulations to establish the RHI. Subsection (1) gives powers to the Secretary of State to make regulations while Subsection (2) provides details about the scope of that power. It also contains provisions to allow a levy to be established to fund the RHI.
Section 105 of the 2008 Act sets the level of Parliamentary control to be applied to subordinate legislation, including section 100. By virtue of 105(2)(vi) the RHI Regulations are subject to the affirmative resolution procedure.

Proposal
Section 105 of the Energy Act 2008 should be changed to allow certain amendments to the RHI Regulations to be made using the negative resolution procedure.
The negative procedure would be used for changes to provisions under sections 100(2)(a) – (b) and (i).
The affirmative procedure would be retained for the following changes:

- the first time a power under Section 100 of the Energy Act is exercised (this includes the levy powers in s100(2)(d)-(g))
- any exercise of the power to use regulations to amend Section 100 of the Energy Act (i.e. s100(5)-(6))
- any exercise of the power under Section 100(2)(c) or (h) (covering sanctions and enforcement)

Rationale
The current legislation means that any amendments to either the Domestic or Non-Domestic RHI Regulations are subject to the affirmative procedure regardless of their level of complexity or materiality. Under the current arrangements it can take up to nine months to implement a change. Trade associations and industry bodies are already finding this causes them significant administrative difficulties, for example in aligning important technical changes to product standards with suitable legislative opportunities.

Impacts
Amending section 105 of the Energy Act 2008 to allow certain aspects of the RHI Regulations to be subject to the negative resolution procedure will have the following impacts:

- The UK government would be more responsive to changes in the market, for example the development of new technologies or changes in product standards, with more flexibility to address issues as they arise rather than having to wait for suitable legislative opportunities. As a result such changes could be brought in more quickly to the benefit of consumers and businesses.
-
- The negative resolution procedure offers a more streamlined approach to amending legislation. Using this approach for more straightforward technical and administrative amendments would ease pressures on RHI policy and legal resource as well as on Parliamentary time.
- Use of the affirmative resolution procedure would be retained for areas that could generate some level of contention, for example in relation to sanctions and enforcement or exercising a power for the first time. For the remaining elements Parliament would still retain the option of scrutinising the changes through the negative resolution procedure.

Annex B: Appointment of an alternative administrator to deliver the RHI

Summary

Section 100 of the Energy Act 2008 limits administration of the RHI schemes to either Ofgem or the Secretary of State. There is no scope for putting the delivery of the schemes out to competitive tender.

Proposal

The proposed change would allow the Government to appoint an alternative administrator to deliver the RHI schemes and to provide for an appeals regime under the scheme.

Rationale

In 2010 DECC's Delivery Review recommended that in future, delivery partners should be selected on the basis of a competitive tender process to ensure value for money and promote the best possible delivery standards.

The legislation that sets the basis for the RHI (Section 100 of the Energy Act 2008) limits the administration of the scheme to either Ofgem or the Secretary of State. This means that as drafted there is no scope for opening the delivery of the RHI schemes to competitive tender.

Government signalled its intention in its consultation on the domestic RHI scheme (published in September 2012) to seek the necessary legal powers to enable it to run a competitive tender process for the administration of the RHI in the future.

Impact

The proposed change would enable the Government to test the market to ensure it is achieving best value for money in its delivery of the RHI schemes. The change would also establish a new mechanism by which decisions taken under the scheme by the new administrator can be appealed. The detail of the new appeals regime would be specified in secondary legislation.