

Northern Ireland Renewable Heat Incentive

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Department of
**Enterprise, Trade
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Overview

- This session will aim to cover the following;
 - Background to the NI RHI
 - Current proposals relating to the Domestic RHI proposals
 - Issues being considered as part of Phase 2 of the Non-Domestic scheme (new tariffs, new technologies, changes to administration)
 - Next steps
 - Question and Answer



Background

- The RHI is a mechanism whereby non-domestic generators of eligible renewable heat are paid for the renewable heat output for the lifetime of the technology.
- The primary objective for the Northern Ireland RHI is to increase the uptake of renewable heat to 10% by 2020. The 10% target for renewable heat equates to 1.6TWh (or an additional 1.3 TWh when considering existing levels).
- It is expected that the RHI will have a number of other wider benefits in terms of fuel security, lower emissions and 'green jobs'.
- Renewable heat technologies are currently unable to compete with existing fossil fuel alternatives given the often higher capital costs and also the lack of understanding and awareness amongst consumers.



Phase 1 of the RHI

- The RHI was launched for non-domestics on 1 November 2012 and RHPP for domestics in May 2012.
- Phase 1 of the RHI covered the most well-established technologies in the most cost effective sector.
- To date there have been 56 applications and 40 of these have been accredited. All applications have been for biomass and the total capacity of the 56 applications is 9,200kw – the average size of around 165kw.
- Comparing to GB after first 9 months of scheme, NI is 6% of applications, 5.9% of accreditations and 2.9% of accredited heat capacity.



Tariffs

- The RHI aims to compensate investors for the additional costs of renewable heat compared to traditional fossil fuel systems.
- Tariffs take into account all the various types of costs involved (including capital, financing, barrier, fuel and operating) to produce a pence per kWh cost figure.
- A rate of return is included in order to stimulate interest in a developing unknown marketplace and to provide compensation for financing costs.
- Payments will be made on a quarterly basis
- Once an installation is accredited under the scheme they will receive a fixed level of support which will be adjusted annually in line with inflation.



Current NI Tariffs

Received from DfE on 02.05.2017
Annotated by RHI Inquiry

Tariff Name	Eligible Technologies	Size (kWth)	NI levels (pence per kWh)
GSHP	Including water source heat pumps and deep geothermal	Less than 20kWth	8.8
		20 kWth and above up to but not including 100 kWth	4.8
		100 kWth and above	1.3
Biomass	Solid biomass; municipal solid waste	Less than 20kWth	6.3
		20 kWth and above up to but not including 100 kWth	6.1
		100 kWth and above up to but not including 1000 kWth	1.5
Biomethane	Biomethane injection and biogas combustion, except from landfill gas	All scales biomethane, biogas combustion < 200	3.1
Solar Thermal		< 200	8.8

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Premium Payment Scheme

- RHPP launched May 24 2012 as an interim measure before design of domestic RHI scheme.

	Voucher value (£)	Total Vouchers Issued		Total vouchers redeemed	
		Number	% share	Number	% share
ASHPs	1700	100	10	61	9
Biomass	2500	470	48	277	42
GSHPs	3500	96	10	61	9
Solar thermal	320	307	32	262	41
Total		973		661	

- High level of interest, over 1200 applications and 661 installations already in place (9.5MW capacity).
- The total committed spend is £1.8m, this funding represents a total investment in the sector of £6m.



Phase 2 of the RHI

- Expanding the scheme to cover domestics – specifically designed RHI mechanism with different tariffs, payment profiles and eligibility standards.
- Introduction of new tariffs in the non-domestic sector to cover more innovative technologies.
- Consideration of some administrative aspects regarding biomass sustainability, air quality, metering etc.
- Consultation launched in July 2013 and concluded on 14 October 2013.



Domestic RHI proposals



Domestic RHI – Eligibility

- Domestic properties only – i.e. A property that is solely, or predominately, used for domestic uses and has not been adapted for commercial reasons. Rates bill a key determinant.
- Second homes, holiday homes and rental properties are eligible but require metering. Farmhouses (rating = “House (Agricultural)”) will be treated as domestic. Where houses require systems above 45kw different eligibility criteria will be applied.
- The main technologies supported will be similar to RHPP
 - Air to Water Heat Pumps
 - Biomass
 - Ground Source and Water Source Heat Pumps
 - Solar Thermal (hot water heating only)



Domestic RHI – Proposed Approach

- Compressed RHI with upfront support
 - 7 years reflects homeowners desire for a quick return and potential to move property.
 - Upfront support will increase accessibility and reduce the barrier of capital costs.
- Payments are calculated for the asset life (20 years) and then compressed to pay out the full amount over 7 years.
- Tariffs cover additional capex, opex, fuel costs and hassle costs, plus a rate of return of 7.5%.



Domestic RHI – Tariffs

	Installed after 1 September 2010 and without RHPP assistance	New installations and those supported under the RHPP	
	Tariff for 7yrs (pence per kWh)	Up front support	Tariff for 7 years (pence per kWh)
Air to Water Heat Pumps	8.1	£1700	3.4
Biomass	7.9	£2500	5.5
Ground (or Water) Source Heat Pumps	13	£3500	8
Solar thermal	16.4	£320	13.1
Air to Air Heat Pumps	5.5	£1000	3.5
Bioliqids	3.3	£500	2.7



Domestic RHI – Deeming / Metering

- In most cases payments will be made on the ‘deemed’ heat demand of the property, this will be calculated either by;
 - Making a standard assessment based on characteristics of the property such as type, size, number of bedrooms, location, age etc. or;
 - Using information provided on an Energy Performance Certificate.
- Meters will be required in the following circumstances;
 - “Second homes” (rental properties, holiday homes, social housing)
 - Bivalent systems, where a ‘back-up’ boiler remains
 - Systems over 45kw
- Meters won’t be required for solar thermal
- Where meters are installed the payments will be made on the metered heat output but capped at the ‘deemed’ level.



Non-domestic proposals

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Phase 2 – New tariffs

- **Large Biomass** - No tariff provided in Phase 1, previous assumptions demonstrated that biomass already cost effective versus oil over 20 years.
- New assumptions (price of wood chip, market constraints and use of steam boilers) Tariff of 0.6 p/kWhr for 20 years.
- **Biomass direct air** - Tariff of 5.1 p/kWhr proposed for systems less than 100kw and 1.4 p/kWhr for systems between 100kw-1000kw.
- Issue remains on measurement of heat use. Options are;
 - Measurement of the biomass input fuel;
 - Deeming approach based on size of boiler, premises, usage level etc; or
 - Meter the flow and temperature of gas.



Phase 2 – New tariffs

- **Renewable CHP** - Currently incentivised via the NIRO and an uplift of 0.5 ROCs for CHPQA. This will end in September 2015.
- The 0.5 ROC uplift will therefore be replaced by a RHI tariff – from October 2015 biomass and bioliquid CHPQA sites will receive ROCs (for electricity) and RHI (for eligible heating).
- Tariffs proposed are;
 - New Biomass / Bioliquid CHP receive **3.5 p/kWh**
 - Conversion Biomass / Bioliquid CHP receive **1.7 p/kWh**
- Before 1 October 2015, accredited systems choose ROC uplift or ROC + RHI. After 1 October 2015 the choice is removed (unless pre-accreditation has been granted.)



Phase 2 – New tariffs

- AAHPs a tariff of 5.2 p/kWh is proposed. As metering is not possible a deeming approach will be taken to assess heat output. Only systems less than 100kw incentivised at this stage.
- AWHPs a tariff of 2.5 p/kWh is proposed for systems less than 100kw. All systems will require to be metered.
- Deep Geothermal - Tariff of 3.7p/kWh for deep geothermal (defined as heat extracted from more than 500m below earth's surface).
- Bioliquids (heat only) It is proposed that systems smaller than 100kw will receive 2.4 p/kWh and systems between 100kw and 1MW will receive 2.1 p/kWh.



Phase 2 – Other technologies

- **Large biogas over 200kw**

- No biogas supported under NI RHI as yet, more likely that systems will be accredited under NIRO
- NIRO will remain the incentive mechanism of choice for generators.
- Small scale heat only biogas more likely rather than over 200kw

- **Landfill gas**

- Currently incentivised under the NIRO
- Limited potential in terms of contribution towards 10% target
- Danger of artificial heat loads.

- **Large solar over 200kw**

- Currently no applications for solar under the NI RHI
- Potential of solar over 200kw limited, currently 70 accreditations in GB with average size of installation 13.3 kw.
- No tariff to be introduced until more examples of commercial solar thermal are in place.

Phase 2 – District Heating

- Significant potential for district or community heating schemes, specifically in Greater Belfast area.
- Additional costs incurred for district heating schemes regarding pipework and building work. Tariff aims to reflect this cost.
- Tariff of 7 p/kWhr proposed for biomass community heating schemes above 200kw in size.
- Consideration being given to the definition of ‘district heating’, eligibility rules and potential capping of the tariff.



Phase 2 – Administrative issues

- Biomass sustainability
 - Standards for systems over 1MW and need for regular reporting to Ofgem
 - Consideration of biomass sustainability for smaller systems – an approved supplier scheme?
- Air Quality Standards
 - GB have imposed set standard for NOx and PM
 - NI to consider similar standards to maintain and improve air quality
- Metering issues
 - System to be made simpler
 - More simple systems rather than complex



Phase 2 – Administrative issues

Cost control mechanism

- Introduction of tariffs for larger technologies make it necessary
 - System based on providing information to potential applicants
 - Scheme only closed as matter of last resort and with advance warning
 - Would re-open at beginning of financial year
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- Enhanced preliminary accreditation
 - Consideration of tariff award when pre-accreditation granted.
 - Would be time-bound and for large technologies only.
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- Other issues
 - RPI
 - Processes outside of buildings
 - Definition of an installation
 - Relocation of plants



Next Steps

- Consultation concluded on Monday 14 October.
- Assessment and finalisation of policy.
- Passage of legislation, development of admin procedures with Ofgem and approval of EU Commission.
- Implementation in 2014.



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