



Maximising the Opportunities for Scotland from District Heating and Decarbonising the Heat System

6 March 2014

Introduction

Scotland's successful and rapid roll-out of renewable electricity has been achieved through a combination of political leadership, cross-party backing, policy and financial support mechanisms, meaningful targets, and a collaborative approach across government, industry and civil society. **It is the joint ambition of Scottish Renewables and WWF Scotland that renewable heat now receives the same level of focus.**

Scottish Renewables and WWF Scotland welcome the publication of the Scottish Government's draft Heat Generation Policy Statement (HGPS) as a step in the right direction towards achieving the ambition to largely decarbonise Scotland's heat supply by 2050. The Scottish Government has a heat target of 11% of all heat demand to come from renewables by 2020, as of 2011 we were only at 2.6%¹, so there is still a long way to go in order to decarbonise our overall heat use. **It is only by increasing the deployment of renewable heating that Scotland will be able to meet our renewable energy and climate change targets.**

If the final HGPS is to trigger the transformation we need to see, then it will need to flesh out the broad framework provided with a **stronger package of regulation and support** that builds investor and consumer confidence. The Government's own modelling² shows that a high uptake of renewable heat requires **clear Government direction, policy and support**. We hope that, following this consultation, the final HGPS will offer clearer direction and support, backed up by regulation where necessary.

Draft Heat Generation Policy Statement (HGPS)

The Scottish Government have used the draft HGPS to outline a number of new initiatives:

- A **national heat map** to ensure planning system and enterprise agencies support co-location of relevant industrial plant – this will allow for a more strategic approach to the development of heat networks in Scotland.
- A **target for 40,000 more homes** benefiting from affordable low carbon heat from **district heating** complementing current Scottish Government fuel poverty targets. This is part of a target of 1.5TWh of heat delivered by DH by 2020 to both domestic and non-domestic properties.
- Prioritising the development of the emerging district heating sector by **increasing funding for the District Heating Loans Fund by over £4m**, making a total of £8m available over two years 2014-16. Continue to support projects to come forward to secure Renewable Energy Investment Fund (RIEF) finance.
- New work on exploiting Scotland's geothermal resource. Support development of this industry initially through developing a call for a geothermal heat or heat & power demo projects – which was a key recommendation of recent Scottish Government report on geothermal

¹ <http://www.scotland.gov.uk/Topics/Statistics/Browse/Business/Energy/Compendium2014>

² <http://www.scotland.gov.uk/Resource/0044/00445639.pdf> (Chart 9, page 25)

While we welcome these as positive steps in helping to decarbonise our heating sector, the document does not provide a strong enough steer to stimulate the necessary consumer and industry confidence that is required to achieve such a significant transformation in our heating sector. Where there were opportunities to provide clear direction in policy and regulatory terms, this draft document does not identify them.

The Scottish Government's Renewable Heat Action Plan suggests that approximately 5% of heating demand in the domestic sector will come from renewables by 2020. WWF Scotland's research indicates that under even their lowest scenario, this needs to be closer to 8% and under a more ambitious scenario, the contribution rises to almost 15%. The final HGPS must attempt to bridge this gap and put our heating sector on the right trajectory for 2030.

The role of regulation

There must be a role for regulation to ensure opportunities to maximise uptake of renewable heat in Scotland are exploited. While the draft HGPS speaks of the role of regulation, it provides no indication of the timescales for implementation or the types of regulation the Government is considering. Regulation can both protect the consumer and provide confidence to the industry that there is a market. Regulation can include providing powers for local authorities to require heat users connect to a district heating system if feasible, require local authorities, wherever possible, to connect their public buildings to district heating networks or require planning authorities to include district heating in suitable new developments.

Political leadership

To more holistically tackle the goal of reducing Scotland's carbon emissions, and to show the political leadership required by the renewable heat sector, we believe that the Scottish Government should look into bringing in a national indicator to 'Increase renewable heat production' as part of the National Performance Framework (NPF).

Fuel poverty and energy efficiency

The development of the renewable heat sector is not just essential in order to meet our targets but is also fundamental to the country's effort to improve energy security and tackle fuel poverty. In Scotland, approximately half of all the energy we use is for heating, highlighting the scale of the challenge to decarbonise our heat sector. Furthermore, with 27% of households in Scotland estimated to be in fuel poverty, the need for more innovative and cost-effective means of heating our homes is an even greater priority³.

Renewable heat's full potential can only be realised if we are heating homes that are well-insulated. We therefore need any strategy to be hand-in-hand with well-funded schemes to increase the overall energy efficiency of our stock. The better the energy efficiency, the less the heating demand.

Domestic housing sector

WWF Scotland recently completed a report on renewable heat in the housing sector. The report uses analysis from independent energy experts Element Energy and the Energy Savings Trust in Scotland to highlight the transformation needed if renewable heat generation is to match the milestones in the second Report on Proposals and Policies.

The report's key insights and policy recommendations include:

- Current government plans aren't sufficient to meet government ambitions for renewable heat by 2030. **A greater contribution from the domestic housing sector is needed.**
- The Scottish Government needs to **provide leadership and support to deploy district heating** schemes in order to meet renewable heat targets.

³ Scottish House Conditions Survey 2012 - <http://www.scotland.gov.uk/Publications/2013/12/3017>

- **Long-term financial support (such as the Renewable Heat Incentive) is needed until at least 2030** to achieve the necessary uptake of renewable heat technologies by individual households.
- Given the high reliance on heat pumps to deliver carbon reductions, the Scottish Government needs to **achieve greater uptake of home insulation to improve the efficiency of heat pumps.**
- The Scottish Government needs to develop **a strategy on engaging with householders and businesses** to educate and reassure them about renewable heat technologies. This will be critical to delivery.

Air Source Heat Pumps (ASHPs)

In England and Wales, general permitted developments for air-source heat pumps were introduced in September 2011 provided the unit complies with the MCS Planning Standards or equivalent standards. In Scotland, there are still restrictions on where permitted development applies based on the distance from neighbouring properties. We strongly urge the Scottish Government to look at how the system operates in England and Wales and how noise concerns are addressed to see whether this can be extended to Scotland.

Greater support for energy storage projects

Heat storage enables demand to be disconnected from generation. The integration of heat networks can help alleviate some of the challenges of the low carbon transition by storing excess electricity generation from periods of low demand in the form of heat and deploying it when required, thus reducing the need for additional generation. For lower density communities and rural areas, 'smart' storage heaters and a range of thermal storage options can play a key role in capturing low cost renewable electricity when it is available, and storing it as heat. We welcome the Scottish Government's intention to work with ClimateXChange on energy storage in order for policy development in this area.

Increased focus on renewable heat systems in off gas grid areas

More needs to be done to highlight the opportunity for renewable heat in Scotland. Fuel poverty is most prevalent amongst consumers in off-gas grid rural areas. Targeting these homes, for renewable heat installations, will produce the maximum carbon dioxide savings and significantly address fuel poverty in Scotland.

The launch of the domestic phase of the RHI should stimulate interest in renewable heat technologies, offering huge potential to cut costs. However, the upfront capital cost of these units is still likely to be a major barrier to widespread deployment, particularly among the fuel poor.

Heat metering

Scottish Renewables believes that the proposals put forward in the DECC consultation, Implementing the Energy Efficiency Directive, as it applies to the metering and billing of heating and cooling could significantly affect the uptake of district heating and could have detrimental impact on those in fuel poverty in Scotland.

Although Scottish Renewables understands that the intention is not to discourage the installation of district heat networks, we believe that DECC's proposals could inadvertently act as a barrier to their development in Scotland so call on any new regulations to be translatable to the Scottish context and take account of Scotland's local circumstances and fuel poverty situation⁴.

⁴ Scottish Renewables response to DECC's consultation on Implementing the Energy Efficiency Directive as it applies to the metering and billing of heating and cooling - <http://www.scottishrenewables.com/publications/scottish-renewables-response-deccs-consultation-im/>