Enterprise & Culture Committee:

An Inquiry into the future of the renewable energy sector in Scotland
Submission from The Scottish Renewables Forum

Introduction

This submission represents an overview from The Scottish Renewables Forum. As Scotland's leading renewables body, we represent the interests of almost 100 organisations working in the field of renewable energy in Scotland. Our members range from private individuals to international companies to non-governmental bodies and support agencies. Between them, our members are involved in biomass, hydro, solar, tidal, wave and wind power.

This submission follows the questions laid out in the Inquiry Remit and is intended to provide background to the evidence to be given to the Parliamentary Inquiry on the 20th January in Campbeltown. For this reason in this submission we are focussing on mature technologies. We will be producing a supplementary submission to accompany our presentation to the Committee on the 24th February on Research and Development. That 2nd submission will provide more in-depth comment on emerging technologies (in particular wave, tidal, biomass and small scale renewables). However, this submission provides some information on these technologies as part of an overview.

Will the Executive targets be met, under current circumstances, and are they appropriate?

- How were they arrived at by the Executive?
- What is the relationship with UK targets?
- Have assumptions been made about the contribution of different sectors?
- What are the opportunities and implications for the economy in achieving the targets?
- What are the implications if the executive's targets are not met?

There are two relevant targets, the 2010 target that 18% of electricity generated in Scotland comes from renewable sources, and the 2020 target that 40% of electricity generated in Scotland comes from renewable sources.

It is our view that both targets are achievable, provided existing barriers to deployment are removed and new barriers not created. The 2010 target will be more achievable as it can be done using existing mature renewables. Achieving the 2020 target will require accelerated development of new technologies such as wave and tidal energy.

The relationship with UK targets is important. The key target comes from UK Energy Policy, setting a 10.4% target for 2010. It is this target that is implemented through the Renewables Obligation (RO) and the Renewables Obligation Scotland (ROS) The 18% and 40% targets highlight (a) Scotland's expected contribution and (b) Scotland's aspiration.

The RO and the ROS are interlinked pieces of legislation that can be thought of as Siamese twins. It is important that they are identical to provide a clear market framework and ensure that the costs of new renewables are shared across GB, and that trading of a renewables market across GB is supported.

Approximately 11% of Scottish generation is currently from large hydro, and we expect that the majority of the next 7% will be from wind, with a modest contribution from small-scale hydro. This will take us to the 18% target.

To meet the 2020 target, we would estimate that hydro will meet approximately 12%, wave and tidal up to 10%, with wind contributing most of the remainder. However, much depends on the readiness of the market and other factors to support development of a mix of these technologies.

There are significant opportunities to be gained from renewable development. It is our estimate that by 2020, this industry could be worth £1bn a year to the Scottish economy, and provide up to 20,000 jobs.

Currently the number of jobs are much fewer, but it is important to recognise that activity in renewables is just re-starting. Already we are seeing a rapid increase in the number of jobs in wind energy, yet the bulk of development opportunities lie ahead of us. Developments such as the Vestas factory in Campbeltown and the reopening of the Arnish Yard in the Western Isles highlight the opportunities available. However, the wind market is an international one and very competitive. With the right support job benefits could be further maximised, with more inward investment and a greater level of manufacturing being established in Scotland. To achieve this, companies need a steady stream of projects receiving consents and being constructed, backed up by proactive economic development policies.

A key Scottish sector is hydro. Scotland has a strong presence in the international hydro market, and despite the fact that the opportunities for future development are more limited, it important that hydro developments can continue, both for their role in meeting targets, and for the ability of Scottish based projects to (a) provide jobs within rural areas, and (b) support a continued export market.

In terms of future development beyond 2010, a key focus is obviously wave and tidal: a number of countries are seeking to take the lead in developing their domestic markets for wave and tidal energy with the specific intention of creating a new industrial sector with long term global export opportunities.

The key for Scotland, which is home to some of the world's leading marine energy companies, will be ensuring that these emerging technologies are nurtured and that home markets are created for their innovations to thrive. Scotland now has the world's leading wave and tidal energy test centre, in Orkney, but with companies starting their testing early in 2004, focus will soon turn to the support required to get the first commercial scale projects into the water.

It also needs pointing out that other technologies have a very important role to play. Biomass schemes of all sizes, as well as small scale wind and solar could all make important contributions to the Scottish targets, as well as providing significant numbers of jobs in manufacture, installation and operation and with the potential to add significantly to rural and urban development. Furthermore such jobs could also be located in rural communities. It should be noted that the job potential for such dispersed small scale renewables will likely be higher per unit of energy than larger scale technologies.

Also, ensuring a diverse mix of electricity supplies to meet our future needs will be important, in providing stability and maximising opportunities. A stable, robust electricity network requires a mixture of technologies with different generating characteristics and with foresight can be capable of supporting a significant percentage of non-firm technologies such as wind power.

We would say that the implications for not meeting the Executive's targets are clear. Not only will Scotland not support the UK in meeting its climate change obligations, but we will miss the opportunity to diversify and grow our economy. Maintaining a lead within the UK and Europe on development of technologies will allow Scotland to maintain or create a headstart in securing job benefits from renewable energy deployment.

Finally, in relation to targets, the real omission is the lack of target for non-electrical technologies. Electricity makes up just 20% of our total energy needs: the remaining 80% split equally between heating and transport. Thus the 18% electricity target equates to a 3.6% energy target; and the 40% electricity target an 8% energy target.

Setting of targets has been a key to catalysing interest on the electricity side. It has enabled support initiatives, enabled finance, and given development a drive and purpose. By contrast, no targets have been set for heating and transport. While these markets are more diverse and less regulated than electricity, options exist for using targets and market mechanisms to stimulate and support these technologies.

We estimate that up to 20% of our heating energy could be met from renewables, given the right level of support. Heating needs could be met by biofuels, solar heating or combined heat and power. A 20% target would be challenging but achievable with the right support. Support

mechanisms could learn from successful application of tariff and grant schemes in the energy efficiency sector.

Setting targets for transport would be harder, but bio-diesel technology is available now, and hydrogen fuels will follow in the future.

If not why not? (What are the current barriers, and what action needs to be taken to ensure that the targets are met?)

- Global issues

Currently the Renewables Obligation (Scotland) and its twin, the Renewables Obligation, are acting well in supporting new renewables.

It is worth noting that these Obligations support all electrical technologies equally. However, they reward the most cost-effective technologies, ensuring that renewables are developed at least cost to the consumer. This means that for less mature technologies other support mechanisms will be needed.

One problem with the Obligations has been the lack of a long term signal. The ROCs are the key item used by developers to raise finance for projects. Banks assess long term prices of ROCs and electricity when evaluating potential projects. Both of the Renewables Obligations are linked to the GB 10% target, which is not a strong enough signal to financiers. However, recently the Scottish Executive and UK Government announced their intention to consult on raising this to a 15% target for 2015. This is welcomed and we await the consultation with interest.

A key regulatory issue is the grid, its management and control of electricity trading. Ofgem, as the energy regulator control much of the way the electricity and gas markets are run. Thus they have a major impact on issues of pricing, grid and market development in renewables.

Currently Ofgem are reforming the electricity distribution and transmission markets. We agree with the principles behind these two interlinked reforms, but we have concerns over the detail.

Currently our key concern relates to the implementation of BETTA (the British Electricity Trading & Transmission Arrangements). BETTA will lead to the creation of a GB market in place of the current Scottish & English-Welsh markets. The stated aims of BETTA are to reduce the price of electricity to the consumer, and to facilitate development of renewable energy, particularly in Scotland. Our analysis of current consultations suggests that these aims will not be achieved. Key problems are:

- Discrimination between Scottish and English-Welsh generators, leading to higher charges for connection to the grid in Scotland;
- Introduction of locational charges for generators in Scotland. Locational charges are meant to reflect the fact that moving power long distances is more costly. However, the current proposed differences are too high and would stifle all generation in Northern Scotland.
- Overly bureaucratic regulatory codes. Codes designed for large generators are being applied to smaller generators without adjustment, creating onerous conditions on smaller operators.

Relating to electricity regulation is the development of the grid. It is our view that Scotland's grid is in need of renewal and development at present, as it was planned and built for a time of different needs.

Plans exist to develop a new grid that would facilitate connection of new renewable electricity, and allow export of electricity from areas of good resource to areas of high demand. We would support calls to look strategically at the grid in Scotland, with the Scottish Executive taking leadership on this issue. Without this, development of new grid is likely to be through a series of piecemeal decisions, and be at too slow a pace. Strategic control is particularly important to ensure that the grid can:

- Match demand for renewable projects
- Provide capacity ready for expected development of wave and tidal schemes
- Support the ambitions of Scottish island communities seeking to develop renewables

Grid will not be achieved however, if its development becomes bogged down in a never-ending series of planning decisions, assessments and inquiries. Furthermore, regulations must continue

their development to ensure that grid companies can have confidence in developing new grid ahead of (i.e. pre-empting) market demand.

Another important element of grid development is support for "embedded generation"; that is small scale generation. Currently it is difficult for small scale users to connect onto the grid and sell electricity. There are a number of technical challenges that must be addressed, but also important is ensuring this is prioritised by governments and electricity supply companies.

- Local Issues

Involvement and support of the Scottish public is crucial to continued development of renewables. It should be remembered that it is the public, usually as the electricity consumer, that is paying for development of this new generation. Their continued support will be crucial.

It is our view that support will be maintained provided that:

- Projects are developed in a responsible and sustainable manner
- Employment benefits are maximised
- A range of technologies are deployed
- Those who wish to are supported in developing renewables or investing in renewables

To maintain support it is therefore imperative that work continues to bring new employment to Scotland, particularly to rural and/or peripheral areas, where job gains will be significant. This will mean continued work from enterprise agencies in supporting supply chain development, diversification of Scottish companies and - where appropriate - sensible inward investment.

In terms of community involvement, we would support measures to enable communities to develop schemes. The Scottish Community and Householder Initiative, which provides support and grants to householders and community groups, is a very good initiative, and we would support moves to build on this. In particular, we would like to see the scheme develop to support and encourage public bodies (e.g. local authorities and housing associations) to significantly invest in small-scale renewables.

Simultaneously, we would support measures that assist local communities in developing larger scale projects. Development of large commercial projects and community projects ought to go hand in hand. At present it is difficult for communities to commence such projects, because financing of schemes is difficult and a specialist area.

We would note that the payment of community benefits to local communities is now a well established principle. It is our view that the levels are reasonable, given the current market, and in comparison to other industries. Responsible developers are engaging actively with developers to come up with community benefit agreements that are equitable and provide important revenue funding to rural communities. It should be remembered that community benefit applies across technologies, but that different technologies and different projects will be able to provide different levels of funding, due to different levels of cost and profit.

Also, we would call for reform of crofting law to facilitate rather than block crofting communities that wish to develop renewable schemes. We understand that the Executive is assessing this issue for a future Crofting Bill, but would seek assurances that this will happen, given the enthusiasm for this amongst many crofting communities and the fact that benefits from renewables could be significant.

Examination by sector

Here we will focus on issues relating to the following technologies: wind and hydro. We will provide a more in depth focus on emerging technologies as part of our second submission/visit to the committee.

- Onshore wind

Development of wind projects in Scotland is currently receiving a lot of attention and comment. This is only natural given the scale of development and ambition to develop new wind sites.

Concerns have been expressed about the level of wind developments, and the ability of the planning system to decide on the raft of new proposals.

It is our view that the planning system is robust enough to deal with this issue, and current guidelines are detailed enough to support local authorities in making objective decisions on individual applications. However, it is not always the case that planning authorities properly follow the guidelines. We would note the following:

- Planning authorities need to have the expertise and confidence to deal effectively with applications
- Authorities need to "twin-track" planning applications alongside the secondary tasks of legal agreements and section 75 agreements.
- The Scottish Executive should ensure that planning authorities have sufficient resources to deal effectively with planning applications. A current gap here is the fact that planning authorities receive no fee for work on Section 36 applications.
- The Scottish Executive should ensure that Scottish Natural Heritage, as a statutory consultee and Government Non-Departmental Body, is properly resourced to comment effectively on planning applications.
- Planning authorities, Scottish Natural Heritage, industry and the Executive need to engage on supplementary guidance on cumulative impact.
- The Section 36 process works well, and is very rigorous for developers. Whilst the 50MW limit for wind might have been "inherited" from other parts of the electricity industry, the system is robust and provides sufficient control as well as involvement for local authorities. One concern would be the dismantling and moving of the current s.36 team to another location in Scotland. This would frustrate the consents process at a critical time for the renewables industry. We would call on the Executive not to proceed with moves to relocate the Consents Unit from its current Glasgow base.

In this way, authorities will be able to deal effectively with what is a bulging caseload. We are not of the view that a Strategic Plan would assist authorities in this work: indeed it would not remove any of the tasks local authorities are faced with. Decisions on wind farms must be done on a case by case basis. The best wind farms will be those that apply existing good practice and guidance, and are decided "on the hill" rather than by putting pins on maps in offices within the Executive.

- Offshore Wind

There are fewer opportunities for offshore wind in Scotland than in England-Wales. This is due to the different seabed conditions here that make development more problematic and costly.

However, there needs to be guidance on this matter, because as the wind industry develops in the GB it will learn how to develop offshore wind in deeper, perhaps more challenging sites. Given the specialist nature of offshore planning, we would support moves for a Strategic Assessment that is able to gather up data on seabed conditions, designations and grid, so that the Scottish Executive can form a view about areas that are of most potential for development. However, it will be up to developers to then propose and take forwards schemes on a case by case basis.

Links need to be made with the current offshore wind activity in England-Wales, so that Scotland may benefit from this work (providing turbines and equipment as well as expertise from our oil and gas sector).

Also, there needs to be clarification about how projects outside of the 12 nautical mile territorial limit can be consented. We would support moves to bring this consent process to Scotland within the Scottish Executive consents team.

- Hydro

Hydro is the most mature and cost effective of technologies on the market today. While opportunities for new hydro are more limited than for wind, it has an important role to play in delivering renewables targets.

Hydro power can also assist in providing balancing to the grid, and has proven success in delivering Scottish jobs. Scottish companies have been pioneers in hydro and remain active in serving a worldwide export market (globally hydropower is the world's largest renewables technology), but need a continued domestic market to keep skills and expertise intact.

Support for hydro must continue. We have particular worries about how the Water Framework Directive (and its enabling legislation of the Water Environment Water Services Bill) might stifle development by imposing onerous conditions on existing and new hydro schemes.

Many of our comments in relation to planning (see onshore wind) also relate to hydro. Our particular concerns for hydro are:

- The ability for hydro to receive a "derogation" under the Water Framework Directive must occur. Hydropower is itself a sustainable activity so should not be unnecessarily penalised by legislation. SEPA and SNH must adopt a pragmatic, rather than fundamentalist viewpoint on this issue.
- The consents process must be reviewed. Currently all hydro schemes above 1MW must go through the Section 36 process. This low threshold would seem inequitable in comparison to thresholds for other technologies.

In Conclusion

We hope that the above provides a useful review of current issues relating to renewables, as seen by industry in Scotland. We see the development of renewables as important to Scotland's future economy and environment. Meeting our current and future energy needs requires choices to be made. It is our view that setting targets for renewables to contribute to our energy needs is a sensible choice. However, there are no panacea to solving our energy problem.

While much of the attention is focussed on wind, we would note that all technologies must be enabled to play their part. The Scottish public support renewable development, including wind. All technologies face, or will face opposition, but such opposition (to technologies, rather than to locations) is a minority view.

The way we use energy is in flux at the moment, and the next few years will be crucial in how we meet future energy needs. This Inquiry is timely, and we look forwards to its conclusions. A key issue for the Parliament is how it promotes or enacts change.

In relation to this we would like to address one overarching point. This is the issue of Strategic Planning or the development of an Energy Policy/Plan for Scotland. We have concerns about such proposals, and feel that they may be unworkable.

An overall Strategic Plan, that might guide developments to sites, or set targets for different technologies, would be an unworkable beast. There would be many assumptions involved in such work, and much that remains in flux (e.g. likely contribution of marine renewables). Such work would necessarily take a long time when it may be important to press ahead now. Also, such a Plan would not remove the work of local authorities or various agencies in deciding on or taking forwards projects.

Where Strategic Plans would work is if they are restricted to single issues and given manageable tasks. A good example of this would be having a Strategy on development of the grid, or in environmental assessments of the seabed for marine renewables.

An overall Energy Policy or Plan for Scotland would also have its drawbacks. Primarily this would stem from the fact that much of energy policy remains under the control of the UK Government.

Instead, we would call for Action Plans on key issues, with the Executive pulling such plans together. We would commend the work of the Executive's Forum for Renewable Energy Development in Scotland to the Committee. Its work is at an early stage, but we see it as a good model for fast-tracking deliberation and Action Planning, provided that the resources are available to enact its conclusions and agreed actions.

So, in conclusion, we would thank the Committee for this opportunity to provide evidence. Its work demonstrates how the Parliament wishes to see renewables being developed successfully in Scotland to the benefit of our environment and economy.

We look forwards to returning to engage in a discussion on how we can bring on new technologies to play their part in this renewables future.