

# Torr climate change focus farm meeting



Farmer discussion group meeting held at Auchenage and Auchencheyne Farms, Moniaive on Tuesday 6<sup>th</sup> December 2011 at 10.30.

## Meeting theme – On Farm Renewables focusing on Micro Hydro

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As part of the Torr Climate Change Focus farm initiative, Ross and Lee were able to take a back seat for this event and instead of acting as hosts, Ross and the group went to visit two other farms in Dumfries and Galloway that had installed renewables, namely micro hydro systems.

The visits were by kind permission of Kath and Matthew Aitken at Auchenage near Auldgirth and Neil and Mary Gourlay at Auchencheyne near Moniaive. SAC's Gillian Reid chaired the meeting.

Kath and Matthew Aitken explained the background to their micro hydro scheme. A turgo turbine had been installed with a generating capacity of 9kW to take advantage of a mean flow rate of around 40litres/second on their hill burn. The group were able to discuss installation issues in the turbine house with Kath and then walk the 680m length of the penstock to see the pipe work and intake screen further up the hill.



*Kath Aitken explains some of the engineering requirements when installing the penstock*

Although it took around 18 months to obtain planning consents and required a range of ecological studies before permission was granted, Kath concluded that it was a worthwhile exercise and was pleased with the operation, returns and low maintenance requirements.



*Farmers hear about range of renewables from The Energy Agency speaker Joe Fergusson.*

returns and low maintenance requirements.

After looking at the turbine installed at Auchenage, guest speaker Joe Fergusson from the Energy Agency talked through a useful handout he had put together covering a range of renewable technologies suitable for installation on the farm. The group discussed some of the issues in getting a scheme to completion; namely permission from other regulatory bodies, although grid connection and grid capacity was also highlighted as an issue. Joe also recommended a useful SEPA document for those considering microhydro; its available at

[www.sepa.org.uk/water/hydropower.aspx](http://www.sepa.org.uk/water/hydropower.aspx)

Following lunch, the group moved on to visit Neil Gourlay at Auchencheyne. After an overview of the farm enterprise, Neil took the group to see the eco-house build that was currently underway. Neil noted that he is being as eco-friendly as possible in the construction of the house, as was including measures such as ground source and solar thermal water heating, biomass heating and rainwater harvesting. An example of Neil's commitment to sustainability was demonstrated in the use of wool from sheep on the farm to provide insulation in the house. Neil estimated that he had about £28,000 worth of insulation for a total cost of £7,500 for the raw material and treatment costs to make the wool into workable sheets of insulation.

Following the visit to the eco house construction, the group looked at one of his micro hydro systems. Neil has two micro hydro schemes on his land; an 11kW system fed from a reinstated Victorian lake and the 12kW system fed by a hill tributary at the home farm which the group visited. Although costing around £70,000, there is an attractive payback period of under three years, making this scheme an excellent investment for the farm. Utilising energy from the micro hydro has also cut oil bills in the farmhouse from £5,000 to nearer £2,000 per year.



Inside the pump house at Auchencheyne.

In summary, both visits were interesting and informative for those considering renewables on their farm. For those already with micro hydro, it also proved a good opportunity to take a look at an alternative installation and see how their scheme measured up in contrast.

#### **Do you farm and would you like to attend to future meetings?**

The meetings provide sensible ideas for the farm business, from invited speakers and other farmers, to improve efficiency whilst reducing the loss of greenhouse gases. It's free to come along and you will be able to influence future topics, speakers and location of meetings.

The SAC facilitators role at Torr is shared by David Keiley and Gillian Reid. For details of the next Torr event you can contact either David at the SAC Dumfries Office on 01387 261172 or email [david.keiley@sac.co.uk](mailto:david.keiley@sac.co.uk) or Gillian in the SAC Bush Office on 0131 535 3435 or email [Gillian.reid@sac.co.uk](mailto:Gillian.reid@sac.co.uk)

If you want to keep up to speed with what's happening at Torr but don't want to attend all the meetings, ask to be added to the Torr email list; you will receive notification of future events and meeting notes. You can also follow us on Twitter **@SACFarm4Climate**

Visit the website at [www.farmingforabetterclimate.org](http://www.farmingforabetterclimate.org) or email a general enquiry to [climatechange@sac.co.uk](mailto:climatechange@sac.co.uk)

