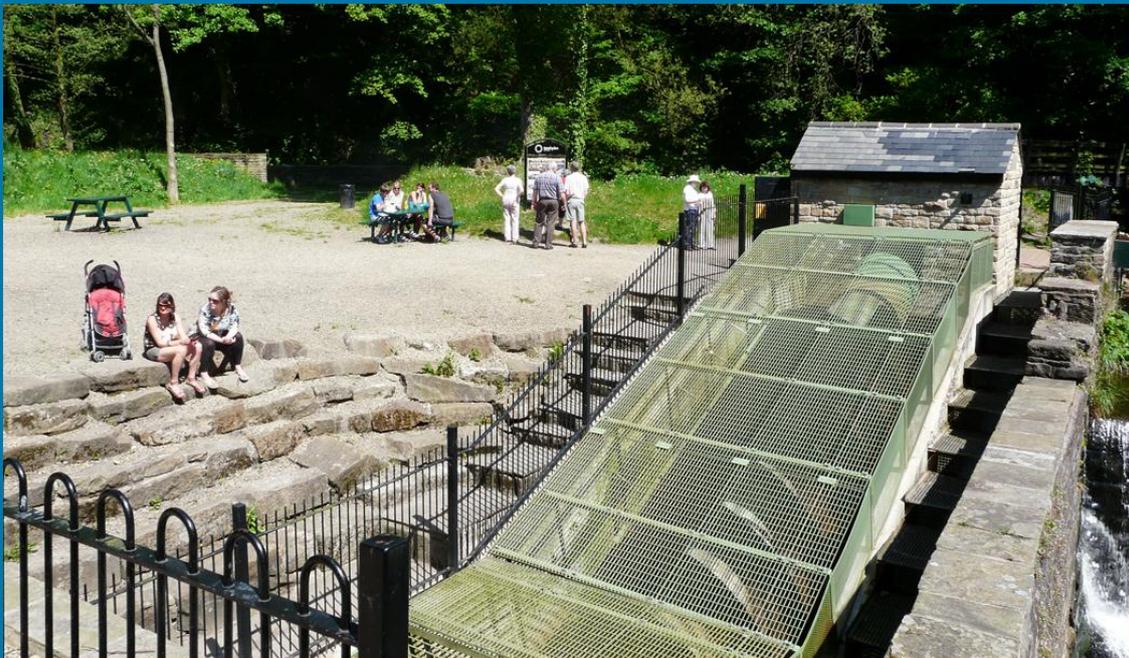




torrshydro
NEW MILLS

Annual Report 2011/12



Introduction

After all the difficulties and challenges of the 2010-11 year we are delighted to report an excellent year to 30th September 2012 for Torrs Hydro.

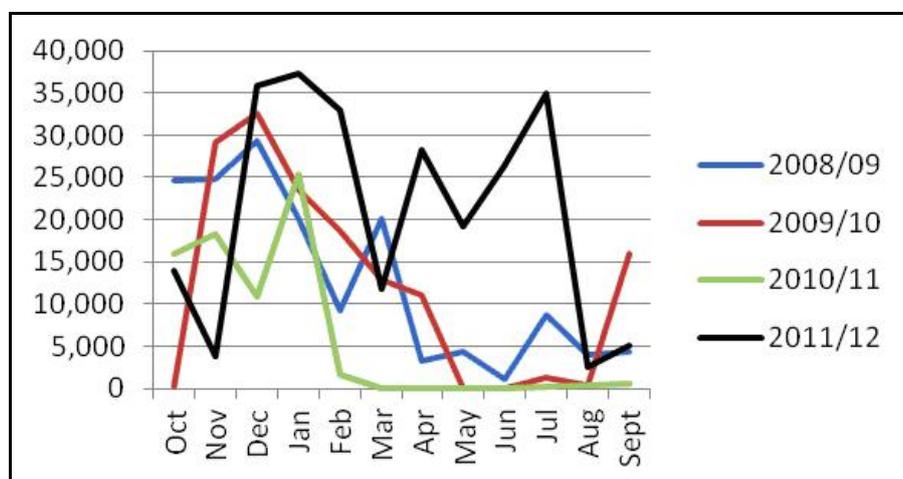
A wet rather than snowy Winter and the otherwise appalling Summer enabled us to recover from our ‘annus horribilis’ and set power generation records that are unlikely to be broken for a long time. We are consequently in a much stronger financial position than a year ago. This year has also seen a steady increase in the number of visitors, especially to Open Days.

Power Generation

The rainy Spring and early Summer resulted in a bumper year for energy generation. No fewer than 6 of our top ten generating months to date fell in the 2011/12 financial year, with the big surprise being July, the third highest month. Productivity fell off in the late summer as the rain finally ended just in time for the Olympics. The year’s production total of 252,423 kWh means that uniquely this year Archie exceeded the original predicted output.

Output to 30th September 2012 (kWh):

	2008/09	2009/10	2010/11	2011/12
Oct	24,694	212	15,935	14,012
Nov	24,786	29,195	18,278	3,891
Dec	29,397	32,673	10,931	35,866
Jan	20,036	23,544	25,445	37,293
Feb	9,203	18,739	1,687	32,985
Mar	20,146	12,909	0	11,848
Apr	3,275	11,133	0	28,285
May	4,436	0	0	19,227
Jun	1,089	0	0	26,379
Jul	8,653	1,273	247	34,985
Aug	3,947	370	368	2,569
Sept	4,324	16,030	622	5,083
Total	153,986	146,078	73,513	252,423



Financial Summary

Torrs Hydro has had an excellent year. The perpetually wet weather combined with our growing experience of how to get the best out of the plant has helped us to generate more electricity than in the two previous years combined.

The financial headline figures are that income was £31,695 (compared to £12,124 in 2010/11) and expenditure was £12,053 (£12,780 in 2010/11). This has replenished our financial reserves to a healthy level, and may now allow us to establish a small grant fund. Donations are dominated by a £500 award from a director's employer. The board decided to use this unexpected award to make five grants of £100 each to local organisations.

The cost of sales – the commission paid to trade the electricity – has fallen because of a new pricing structure we negotiated with our broker. This includes payment for the Levy Exemption Certificates (LECs) from April 2012.

Our maintenance costs continue to be kept very low as we rely on our team of volunteers for the major part of the day to day maintenance.

We pay subscriptions to the FSA, Cooperatives UK and Transition New Mills.

Copies of the full 2011-12 Financial Report are available from secretary@torrshydro.org.

Operations

As ever, the plant continues to be checked daily and maintained by a group of talented and committed volunteers. We continue to build on our experience of managing the site and the plant and this helped us to maximise our running time this year. Nevertheless, Archie continues to challenge us.

This year the team were rewarded by the magnificent levels of power generation. During the three months December 2011 – February 2012 we had just seven days stoppage. With the exception of March, generation remained unusually high – especially in July – until the rain eased off in August.

- This year the battery charger that maintains the sluice gate's hydraulic pump system failed. The charger was replaced, as were the batteries. This highlighted a weak point that is now more closely monitored as a result.
- Vandalism to the powerhouse roof during the Autumn of 2011 was soon remedied by Nobby, one of our indispensable volunteers.
- Adjustments were made to the fish pass camera system by representatives of the Environment Agency, although to date it has still not been able to log data. We look forward to seeing fish using the pass but as one volunteer put it, 'I've never seen a heron waiting for lunch at the top!'
- A particularly heavy storm at the end of September 2012 brought a large deposit of silt from the Sett to the intake. With our previous experience of the process we were able to clear it more quickly this time, adding a further layer of knowledge for an even quicker response when it inevitably happens again.

As we dealt with these and smaller problems, Dave Mann of Mann Power Ltd continued to advise when needed.

This year end also saw the last regular check by one of our volunteers, Caroline. She has visited Archie most Friday mornings for nearly 3 years. Many thanks and best wishes for the future Caroline.

The coming year

Last year we outlined plans to convert the plant to a variable speed system in the hope that this would overcome the recurrent noise problem and allow the plant to generate for longer and over a wider range of river levels. With much thought, advice and research our group of volunteer engineers have spent many hours producing a User Requirement Specification for possible tender invitations. The approximate costs from the 2 estimates subsequently received were considerably above our initial estimate, with both being in excess of £30,000, but highlighted the need to raise the standard of other aspects of the plant, thus incurring further costs of some thousands of pounds. On reflection, and in light of the further silting problems this year, the Engineers and Board have decided to concentrate on modifications to the management of the site to increase operational time. These may include modifications to the intake, site fencing and the development of a system for more easily clearing the tail race of silt and stone. If these prove successful, then we may revisit the question of modifications to the plant system in the future with a greater understanding of the potential benefits.

Debris

Maggie was interviewed by High Peak Radio on the issue of debris around the intake. On the day of the interview no fewer than **5** traffic cones were pulled out. Other items during the year included:

A child's scooter

Traffic cones – too many to keep count

Part of a sofa

A wok

A sledge

Half a canoe

A large plastic panel

A Royal Mail jacket

Plastic bags galore

Footballs

Bin bags – both empty and full

A-frame advertising board – subsequently returned to its owner, The Queens Arms

Chip board 1.5m x 1.5m

A car seat

A walking stick

Large pieces of foam

Large pieces of fabric



An unravelling reel of barbed wire

A golf bag – a frustrated golfer or a fed up wife?

Cable reel drum

Various young trees and large bushes

An unfortunate dead rooster

Enough logs to keep a stove operating for a year

Visitors and Educational Endeavours

In addition to the Open Day after last year's AGM, there were five Open Days over the course of the summer. Archie was one of the stops on the Co-op's "Passport to Cooperation" programme, attracting visitors from all over the northwest. Other visitors this year included a group of Welsh hill farmers looking for new ideas for diversifying their operations and a number of school and university groups.

Following last year's successful "Wrap the Railings" art project, THNM again worked with students at New Mills School, together with artists Amanda Whewell and Junkstop, sponsoring their tree at St George's Festival of Trees (largely constructed from "found objects" removed from the intake) and hosting their artwork 'Message In a Bottle' as part of the New Mills Festival Art Trail.



Message in a bottle...

During the year we were also in touch with potential hydro start-ups in London, Manchester, Oxford, Sheffield and Tutbury, as well as fielding enquiries from groups as far away as Belgium and Bulgaria. We also helped students from the Open University, Heriot Watt, the University of Toronto, Central Lancashire, Aberdeen, Cardiff, Bath, and Sheffield gather information for research projects on sustainable energy, community financing, and environmental topics.

Our directors have also been in demand as speakers. Esther co-led a workshop in community energy at the national Village SOS conference in February and spoke to Leek Community Benefit Society about share issues later in the year; Richard gave a talk at Salford University as part of a meeting organized by Envirolink; and Maggie was interviewed on High Peak Radio about river rubbish and how this affects Archie. Friends of the Earth is also using Archie as one of the three featured technologies on their "Clean British Energy" website.



Volunteers' Week, June 2012: Andrew Bingham MP helped with general site tasks, clearing weeds and cleaning the interpretation boards

Volunteer Experience: Education and Site Tours, by Mary Cohen



One of our major objectives at Torrs Hydro is to advance education, particularly concerning asset based community development and enterprises with a community or environmental focus. We are also developing an educational programme on environmental issues for as many audiences as possible. Many people contact us wanting to know about Archie and how the scheme works, and we try to gear our talks to each - our visitors range from young primary school children to post graduate students, researchers and engineers. Of course, we are often in touch with other hydropower groups. In addition to those in the earliest stages of planning a scheme, projects that are up and running may encounter a problem that we have some experience with, which of course works both ways!

Site visits require extensive planning - risk assessments, finding a room if necessary, toilet provision, coach parking directions and power point preparation are only some of the things we have to consider. We manage this with just the team of voluntary directors and helpers. People give up their free time to inform and educate at the required level, whether it's showing a class of seven year olds how the river water makes Archie turn or discussing the fine points of gearing and variable speeds with a retired engineer. In addition to our Open Days, groups often visit by special arrangement, although with the latter we do ask for a donation. We have recently hosted a party of 21 Chinese hydropower managers on a fact-finding tour of the UK and 70 primary school children from the West Midlands, amongst others. Each of these visits involve numerous emails, phone calls and rounding up of help, but we feel it is very worthwhile as it advances the cause of community based renewable energy.



**THANKS TO ALL OUR HARD WORKING VOLUNTEERS AND TO OUR SHARE HOLDERS,
ALL OF WHOSE COMMITMENT TO TORRS HYDRO 'MAKES IT HAPPEN'**

Torrs Hydro New Mills Ltd is a Community Benefit Society

Website: www.torrshydro.org Blog: torrs-hydro-new-mills.blogspot.com Twitter: @torrs_hydro

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