



torrshydro
NEW MILLS

Annual Report 2022/23

Torrs Hydro Annual Report, 2022-2023

Welcome!

Welcome to the Torrs Hydro Annual Report for the financial year 2022-23.



We marked 15 years of power generation in the rain

In this year we celebrated 15 years of power generation (appropriately in the rain), achieved our second highest annual power generation with 188,095 kWh produced, and thanks to a steep increase in the unit price of our electricity, our largest total annual income yet.

Our wonderful team of volunteers known as Archies' Angels, has grown in number, and there are now over 30 in the WhatsApp group. And new director, Lynden Potter, has dived straight in, putting his engineering knowledge and project management skills to good use.

The board has been hard at work as ever behind the scenes. This year we have begun work on improving our administrative and financial management systems.

Having already lost contact with a few Torrs Hydro members, we are concerned that as time goes on we could lose touch with more. Whilst we can make frequent pleas to notify the secretary if your contact details change (house move, email address), this doesn't guarantee success. We have therefore been considering what process we should undertake for attempting contact, and what should be done about their shares where attempts to contact fail.

We have also been looking at Torrs Hydro's level of equity (share) investment. This currently stands at nearly £142,000.

Whilst repayment of these funds to members can never be guaranteed, it is considered good practice to aim to do so, whilst at the same time maintaining sufficient equity for the enterprise to be viable. Where the enterprise is considered to have a finite life, such as a renewable energy scheme, this particularly needs to be factored into the financial planning.

We certainly don't want to lose our members' and supportive communities' interests. We would also like to support further impactful environmental community projects, for example through a community grants scheme. The board has therefore been considering how to balance these financial aspirations.

Members will see from the agenda for the AGM on Saturday 27th April 2024 that there will be an opportunity for discussion and two motions proposed to the meeting on these matters. The meeting will be live-streamed for those who wish to take part but cannot attend. If you cannot attend by either means, do read the AGM notice carefully, and contact us by Saturday 20th April via secretary@torrshydro.org or via 07827 743678 the hydro duty phone if you have questions or comments you'd like included at the meeting.

As ever, we are hugely grateful to everyone who has played a part in keeping Archie turning through the year.

Financial Report

At time of writing, the accounts for the year 2022/23 have been prepared, but have not yet been reviewed. The figures shown here are therefore subject to change.

Printed copies of the reviewed accounts for the year to 30th September 2023 will be available by request from secretary@torrshydro.org or via 07827 743678.

Thanks to a very wet year, and little in the way of down-time, our provisional profit for 2022/23 is £28,263. This is very pleasing after the loss of over £25,000 in 2022, and has enabled us to replenish our reserves and consider how the surplus should be deployed.

The price we receive for the power generated now automatically increases annually with the Consumer Prices Index. This meant an increase of 10.50% from 1st January 2023, bringing the rate to 16.575p per unit. Thanks in part to this increase, the income from the sale of electricity therefore amounts to a magnificent £46,105 compared to £12,320 in the previous year.

The low cost of repairs and maintenance of just £1,708 is substantially thanks to the loyal work of our volunteers. These expenses include the purchase of materials (e.g. sand bags) in preparation for changing the bottom bearing (planned for when the water level in the river is next low).

Plant report



Storms depositing silt in front of the inlet are becoming more frequent with three in February 2023 alone. Luckily our fifteen years' experience means we are getting better at clearing the inlet.

One of the issues when silt is deposited in front of the inlet is that it is also deposited behind the sluice gate. The silt pressing against the gate means the gate cannot open mechanically without additional help. We have now bought two chain blocks (think chain winches). These are attached to the gate and give enough help to move the gate. Once the gate is open, the river will clear the silt away for us.

We didn't have time between the storms in February 2023 to move all the silt in front of the inlet. This was in fact beneficial as existing silt about 2 metres out from the inlet protected it, preventing a further build-up of silt and it was easier than expected to get the plant running again. In early 2023, we began planning the replacement of the bottom bearing. An unanticipated failure in 2016, at the start of a wet winter, when 6 months' of power generation was lost, led us to plan preventative maintenance.

Newly elected director Lynden Potter offered to take on project-managing the replacement.

On their initial attempt, the team found huge volumes of stone at the bottom of the screw that needed to be removed, and time ran out. A second attempt was scheduled but the Summer of rain arrived and the project was halted. (Obviously the best way to bring rain is to plan preventative plant maintenance!) The project will be completed in the first dry spell in 2024.

Power Generation over 15 years

Looking back at the data for the fifteen years for which we have full generation figures (reporting years 2008/09 to 2022/23), the average has been 118,184 kWh. Of course, generation is highly variable, depending as it does on both river conditions and Archie's state of mechanical health. In our *annus mirabilis* (2011/12) we generated a total of 252,423 kWh, but in our worst year (2018/19) a "perfect storm" of poor river conditions and mechanical issues meant that we generated only a tiny fraction of that, just 7,500 kWh. Our best generating months tend to be in the winter, with December and January both averaging a bit over 19,000 kWh, and our worst in June and August, which average a little over 3,000 kWh.

The current reporting year, 1st October 2022 to 30 September 2023, has been our second-best generating year since the project's inception, producing a total of 188,095 kWh. Copious rain over the winter and spring enabled Archie to exceed 20,000 kWh in 4 months out of five from December, with November only narrowly missing this target. Although May, June, and July were a little quieter, they still achieved a combined total of a little over 24,000 kWh, and a wet August filled the reservoirs sufficiently to enable Archie to finish the year on a high note, producing a total of just under 26,000 kWh across the final two months of the reporting year, August and September.

With the modification to a variable speed system in 2021 and greater confidence in predicting the need for major maintenance where a period of shut-down is needed, it will be interesting to see how these figures improve (we hope!) in the coming years.

Volunteering

At the start of October 2022 conditions had been very dry for some weeks and Archie was generating around the 7kW mark. Eventually the rain started and by the middle of the month we were clearing large tree branches. During the year, we had at least 11 shout-outs to Archie's Angels for help with inlet clearing. Our engineers did their regular belt tension and grease checks in addition to this, and of course daily checkers also have a little poke at the inlets to move smaller pieces of debris. That's a lot of volunteer hours!

The directors held 6 board meetings including the AGM. These usually take about two hours and are accompanied by plenty of tea, coffee and cakes. We usually have a full board attendance so again a lot of volunteer hours.

We have recruited two new volunteers, and both have been active with working parties. One, Lynden has joined the Board of directors and was busy during the summer of 2023 in managing the refurbishment of the bottom bearing.

We continue to offer an 'open house'. Visitors to the project this year have included Buxton U3A and two Cub Scout groups doing their environmental badges. We took part in the One World Festival at the beginning of July and attracted a lot of interest. In late August, Torrs Youth Festival used the site and we again held an open day at the same time. Whenever the engine house door is open, particularly at the weekend, we always get interest shown. This sometimes leads to recruiting a volunteer. And of course we also had our usual open day after the AGM.

At the end of the reporting year we celebrated 15 years of Torrs Hydro. It was suitably wet, but with umbrellas we welcomed directors, ex-directors, founding members and volunteers for a reminisce with some light refreshments.



We love rain, so a 'crystal' celebration in the wet is not a washout...

Torrs Hydro New Mills Limited is a Community Benefit Society

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