



Barr River hydro scheme

Monthly report – March 2025

1 Summary

Given the very limited rainfall, a decent performance in line with the long-term average.

2 Monthly generation & revenue

Parameter	Value
Actual generation (FIT meter), kWh	294,450
Average generation in month, kWh	279,361
Forecast generation in month (P50), kWh	611,047
Actual relative to forecast	48.2%
Rainfall relative to 1991-2020 average by month	56%
Calculated generation ¹ kWh	288,473
Actual relative to calculated generation, kWh	5,977
Actual relative to calculated generation, %	+2.1%
Approximate revenue in month ²	£48,500

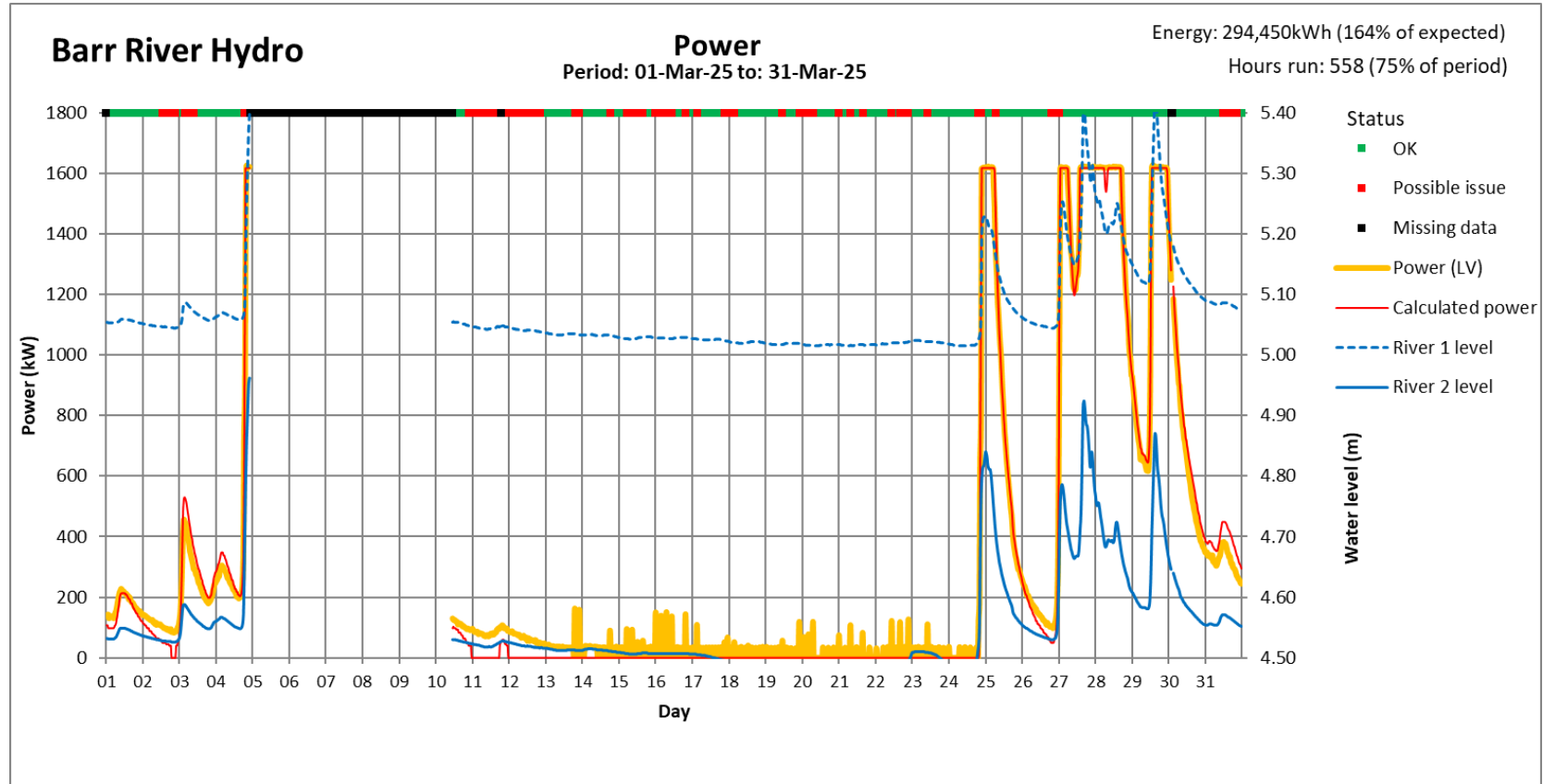
¹ Calculated generation is based on river level data and seeks to establish the expected generation with no performance issues.

² Export revenue based on reported export and estimated GDUoS charges.

Export meter	Value
Export, kWh	136,730
Variance to generation, kWh	-157,720
Variance to generation, %	-53.6%

The export data received from EDF includes estimated values between 21/3/2025 00:30 & 31/3/2025 01:00. These are estimated at zero. This has been taken up with EDF and a revised statement is expected.

3 System reporting



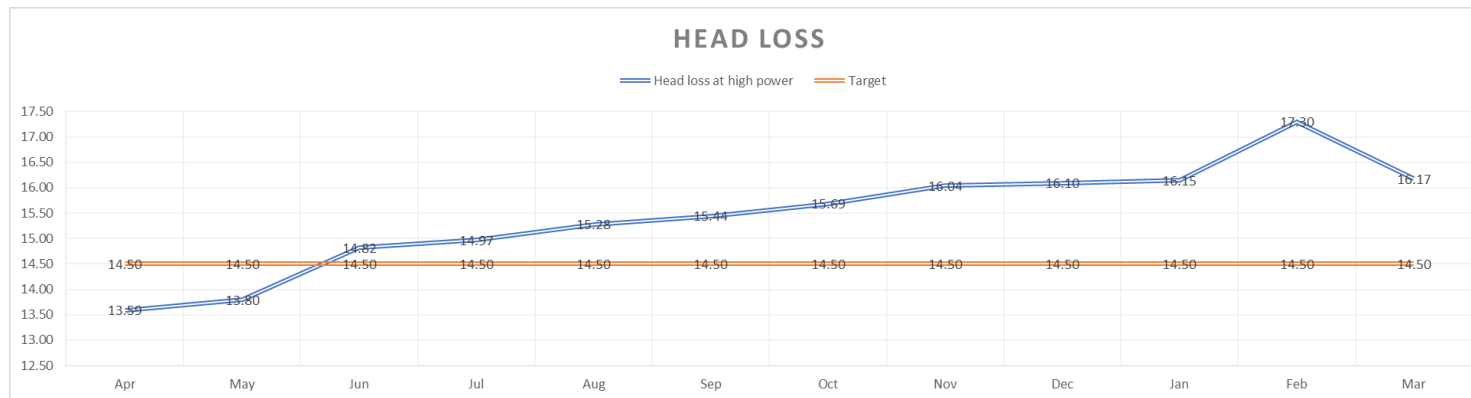
3.1 Scheme anomalies to calculated generation

Date/time	Details	Action required
	None significant	

3.2 Other system events

Date/time	Details	Action required
4-10/3/2025	On 08/03 Angus noticed the graphs had stopped recording data on 04/03. GHC investigated and the real time data had frozen. Douglas visited the powerhouse to confirm the turbine was still operating.	10/03 Cink dialled in and reported the problem was down to a Windows issue. This was resolved by rebooting the SCADA PC. Cink have now implemented an automatic PC reboot every 24 hours.

3.3 Head loss – Head loss increasing. Chris Henshaw has been commissioned to pig the scheme. Chris is planning to do this in the drier months. The sudden increase and decrease shown in February and March could be influenced by some uneven rainfall between the catchments of the two intakes during this month, causing the head-loss to appear to be better/worse than it is. This will continue to be monitored.

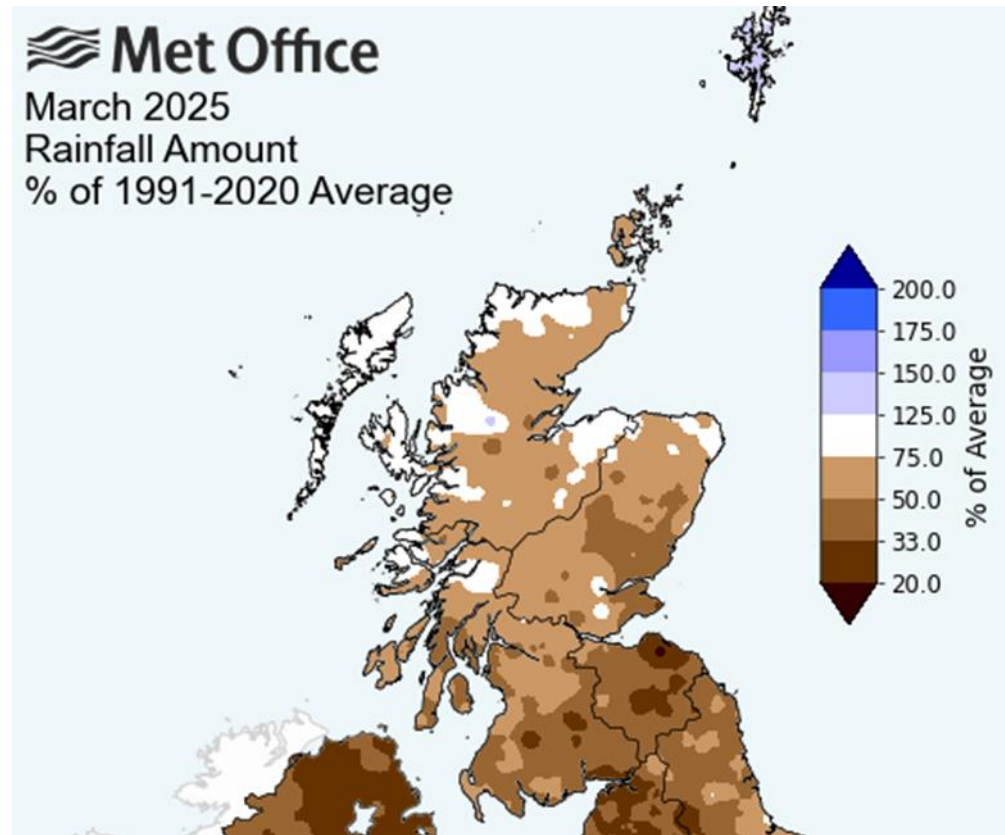


3.4 Temperatures & Vibration

Parameter	Temperature at or near full power, °C	Alert level, °C
Generator DE bearing	39	85
Generator NDE bearing 1	42	85
Generator NDE bearing 2	45	85
Generator windings	64	145

Parameter	Vibration at or near full power, mm/s	Alert level, mm/s
Generator DE	0.45	3.0
Generator NDE	1.24	3.0

4 Rainfall



Rainfall this month (rain gauge), mm	133
Western Scotland rainfall in month with respect to 1991-2020 long term average	56%

5 Scheme annual performance summary

FY 2024/5	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Actual generation kWh	298,851	170,950	236,233	302,216	636,431	181,760	318,014	366,415	819,629	334,946	368,598	294,450	4,328,493
Average generation since commissioning	244,074	240,920	198,801	351,584	308,927	342,342	593,249	597,546	467,890	563,949	559,368	279,361	4,748,008
Forecast generation (P50)	369,360	226,766	188,561	195,146	280,601	387,431	582,631	618,214	620,057	695,941	554,678	611,047	5,330,433
Actual relative to forecast	80.9%	75.4%	125.3%	154.9%	226.8%	46.9%	54.6%	59.3%	132.2%	48.1%	66.5%	48.2%	81.2%
Rainfall relative to 1991-2020 average by month	174%	102%	81%	70%	201%	49%	67%	44%	108%	46%	78%	56%	90%
Calculated generation kWh	301,701	175,752	236,233	302,398	728,169	189,926	361,864	367,128	828,135	360,967	359,919	288,473	4,500,665
Variance to calculated generation kWh	-2,850	-4,802	Nil	-182	-91,738	-8,166	-43,850	-713	-8,506	-26,021	8,679	5,977	-172,172
Variance to calculated generation %	-0.9%	-2.7%	Nil	-0.1%	-12.6%	-4.3%	-12.1%	-0.2%	-1.0%	-7.2%	+2.4%	+2.1%	-3.8%
Approximate revenue	£73,237	£41,323	£57,663	£73,743	£157,116	£43,866	£81,703	£94,692	£212,560	£86,231	£94,994	£48,500	£1,065,335
Capacity factor (monthly)	25.6%	14.2%	20.3%	25.1%	52.8%	15.6%	26.4%	31.4%	68.0%	27.8%	33.9%	24.4%	30.5%
Industry wide RoR capacity factor	43.5%	11.4%	20.8%	16.5%	47.0%	22.0%	27.7%	20.8%	62.1%	26.3%	34.0%		30.2%
FY 2023/4	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Actual generation kWh	240,542	57,453	111,100	374,109	360,348	431,554	434,771	406,551	667,311	502,737	582,749	241,042	4,410,267
Average generation since commissioning	247,605	424,386	286,501	165,261	174,610	297,736	672,489	693,043	368,179	594,556	547,677	298,520	4,770,561
Forecast generation (P50)	369,360	226,766	188,561	195,146	280,601	387,431	582,631	618,214	620,057	695,941	554,678	611,047	5,330,433
Actual relative to forecast	65.1%	25.3%	58.9%	191.7%	128.4%	111.4%	74.6%	65.8%	107.6%	72.2%	105.1%	39.4%	82.7%
Rainfall relative to 1991-2020 average	83%	45%	81%	152%	73%	145%	83%	74%	137%	81%	106%	92%	96%
Calculated generation kWh	243,307	59,162	112,194	377,850	418,162	438,789	445,408	428,068	672,901	536,047	620,238	250,456	4,602,582
Variance to calculated generation kWh	-2,765	-1,709	-1,094	-3,741	-57,814	-7,235	-10,637	-21,517	-5,590	-33,310	-37,489	-9,414	-192,315
Variance to calculated generation %	-1.1%	-2.9%	-1.0%	-1.0%	-13.8%	-1.6%	-2.4%	-5.0%	-0.8%	-6.2%	-6.0%	-3.8%	-4.2%
Approximate revenue	£18,747	£7,087	£14,675	£52,099	£50,104	£60,181	£148,850	£137,974	£227,701	£170,888	£205,490	£81,339	£1,182,212
Capacity factor (monthly)	20.6%	4.8%	9.5%	31.0%	29.9%	37.0%	36.1%	34.9%	55.4%	41.7%	53.5%	20.0%	31.2%
Industry wide RoR capacity factor	20.7%	5.7%	6.0%	27.5%	25.0%	36.0%	40.0%	45.0%	46.0%	43.3%	59.8%	37.2%	32.7%

