



Barr River hydro scheme

Monthly report – April 2025

1 Summary

A very poor month due to extremely low rainfall.

2 Monthly generation & revenue

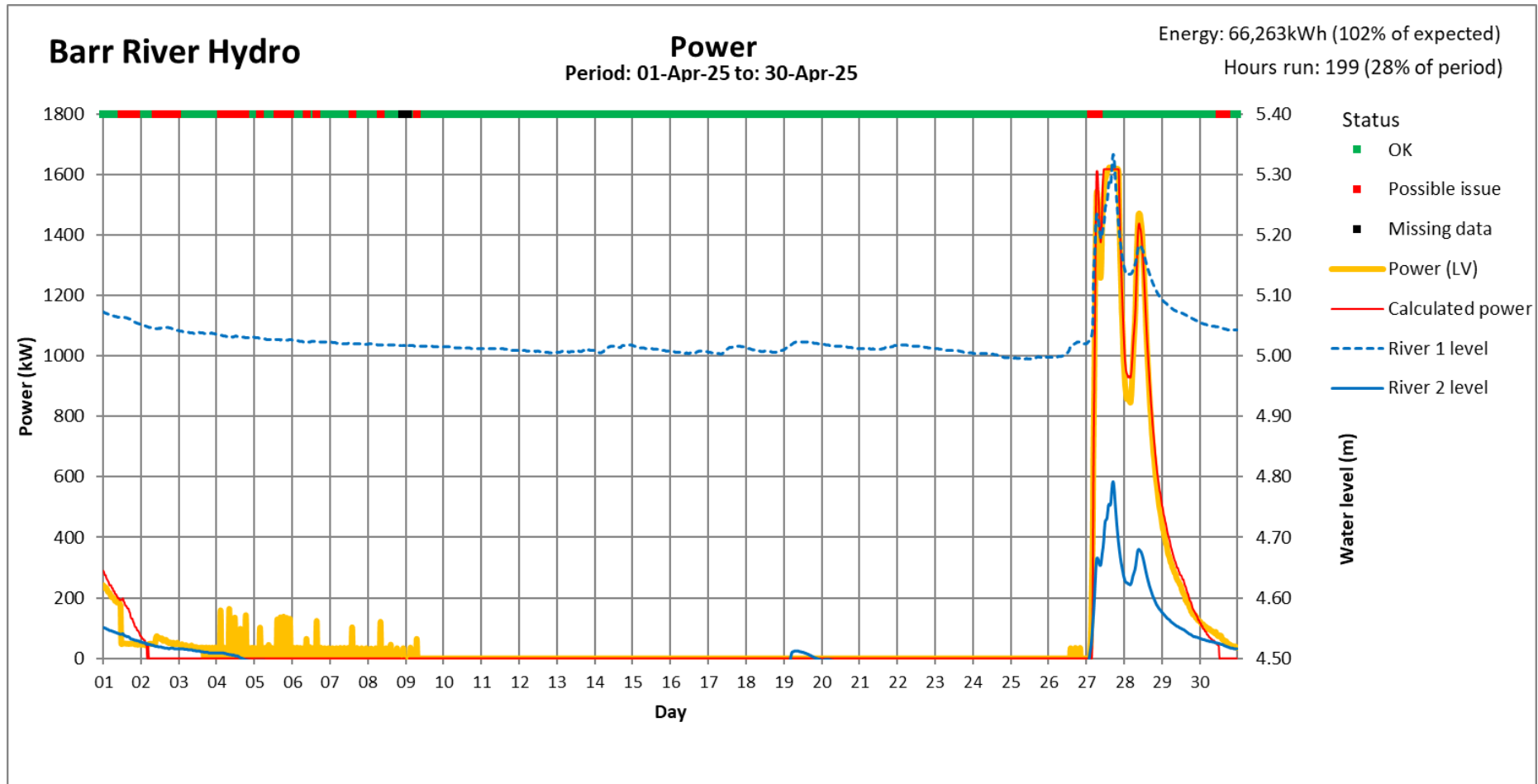
Parameter	Value
Actual generation (FIT meter), kWh	66,263
Average generation in month, kWh	262,333
Forecast generation in month (P50), kWh	369,360
Actual relative to forecast	17.9%
Rainfall relative to 1991-2020 average by month	54%
Calculated generation ¹ kWh	65,116
Actual relative to calculated generation, kWh	1,147
Actual relative to calculated generation, %	+1.8%
Approximate revenue in month ²	£10,279

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	59,563
Variance to generation, kWh	-6,700
Variance to generation, %	-10.1%

3 System reporting



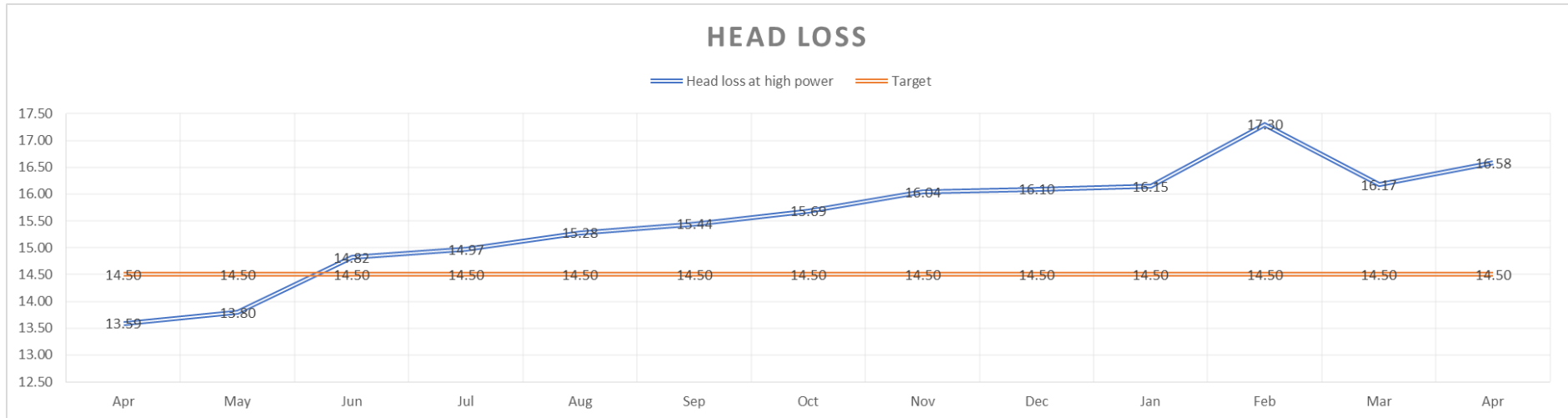
3.1 Scheme anomalies to calculated generation

Date/time	Details	Action required
1/4/2025	SSE constraint (50kW) in place due to a tree down on a line	N/A

3.2 Other system events

Date/time	Details	Action required
9/4/2025	Short-cycling. Cink have now revised their thinking on this; we are changing the control parameters to prevent the scheme from starting until there is sufficient water for it to run for a prolonged period.	This is an ongoing process. Initially the chamber 1 start level was increased from 2.9 to 3.1.
25/4/2025	Decreased chamber 1 start level from 3.1 to 3.07	Start level continues to be reviewed
29-30/4/2025	Estimated data on export statement. Missing revenue.	Angus to raise with EDF following similar in previous month.

3.3 Head loss – Limited data points in April. Head loss increasing. Chris Henshaw has been commissioned to pig the scheme. Chris is planning to do this in late May or early June. 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.

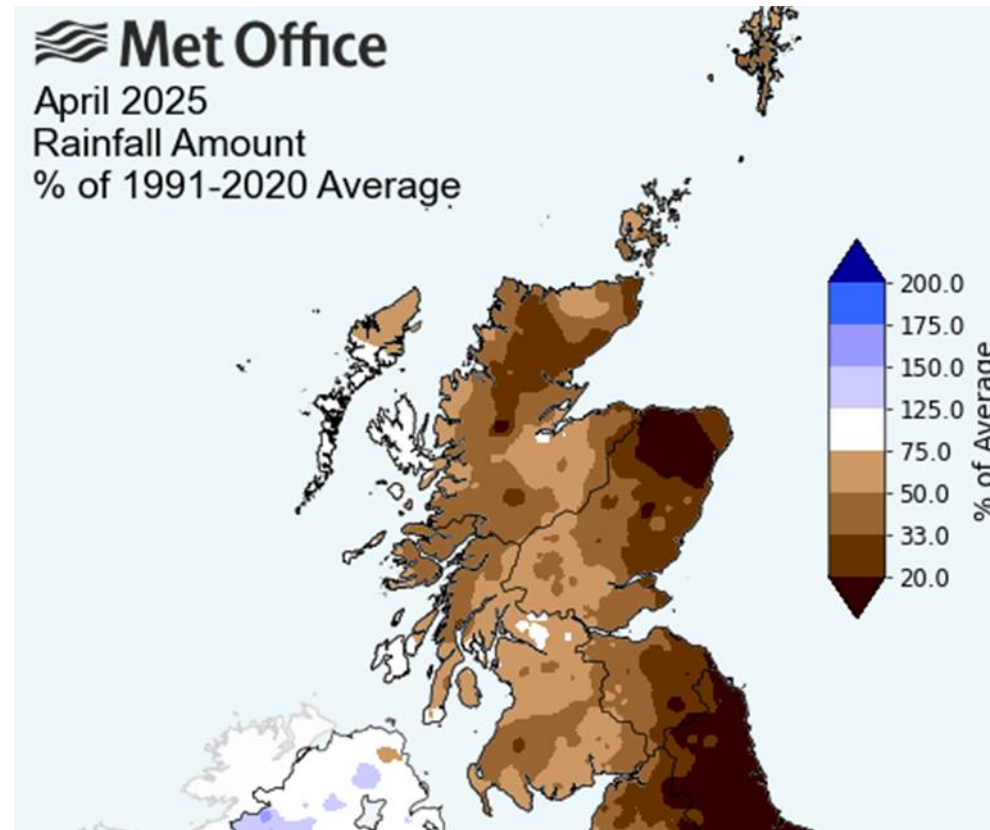


3.4 Temperatures & Vibration

Parameter	Temperature at or near full power, °C	Alert level, °C
Generator DE bearing	47.5	85
Generator NDE bearing 1	41.1	85
Generator NDE bearing 2	51.3	85
Generator windings	68.8	145

Parameter	Vibration at or near full power, mm/s	Alert level, mm/s
Generator DE	0.42	3.0
Generator NDE	1.29	3.0

4 Rainfall



Rainfall this month (rain gauge), mm	58.2
Western Scotland rainfall in month with respect to 1991-2020 long term average	50%

5 Scheme annual performance summary

FY 2025/6	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Actual generation kWh	66,263												66,263
Average generation since commissioning	262,333	217,596	211,278	335,128	418,095	302,196	524,441	539,763	555,825	506,699	511,675	283,133	262,333
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	369,360
Actual relative to forecast	17.9%												17.9%
Rainfall relative to 1991-2020 average by month	54%												54%
Calculated generation kWh	65,116												65,116
Variance to calculated generation kWh	1,147	-	-	-	-	-	-	-	-	-	-	-	1,147
Variance to calculated generation %	+1.8%												+1.8%
Approximate revenue	£10,279												
Capacity factor (monthly)	5.7%												5.7%
Industry wide RoR capacity factor													#DIV/0!
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%	17.5%	30.2%

