

From: EIR
Sent: 09 December 2025 12:03
To: [REDACTED]
Subject: [REDACTED]

Dear Requester

Thank you for your request for information about aerators at Rutland Water, which we received on 10 November 2025. Your request has been considered under the Environmental Information Regulations 2004 (EIR).

You requested:

1. The installed power rating of aerators and the date of commissioning.
2. The annual energy consumption of the aerators

EIR Response: Provision of Requested Information

Item 1 and 2 is held by Anglian Water and has been provided below.

It's important to provide the reason why Anglian Water install these assets in their impounding reservoirs and its to provide a more constant raw water quality to our water treatment works, particularly in the summer months when water temperatures are higher and biological growth is at its greatest.

Improving oxygenation in the reservoir body limits algal growth and prevents any low DO (dissolved oxygen) levels. As many of our impounding reservoirs are pumped storage from rivers, the compressors allow us to maintain consistent water quality.

Rutland built in the mid 1970's, was fitted with a screw compressor from commissioning and Anglian Water have retrofitted the older less efficient compressor with a new Kaiser model. The screw compressor was replaced in 2014 and is the largest in the company at 90Kw.

The compressors are not large enough to provide a Mw/hr rating so they are supplied in the Kw/Hr rating. The ratings vary from the 90Kw compressors to 30Kw compressors depending upon the size of the reservoir.

Because these are very large bodies of water the starting and stopping of the compressors doesn't vary too much, although very cold winters can delay the switch on of the compressors, but the 210 – 240-day duration of the compressors is standard. Anglian Water monitor raw water temperature which is how we manage the on and off sequence.

We use water temperature in the impounding reservoirs as our trigger for switching the destratification compressors on and off and that threshold is 12 deg. As a rule of thumb this is typically from Easter (mid-April) to the end of October, so for the power consumption calculations I've assumed 240 days per year maximum.

The company has eleven reservoirs where we have destratification assets, the example at Rutland below being the largest. In the calculation below I've calculated the energy cost of running Rutland's compressor for the 240-day period against our tariff of 12.4p Kw/hr. For five years this would be 5 x £64K = £320k.

A 90-kW compressor running 24 hours per day:

$$E_{\text{day}} = 90 \text{ kW} \times 24 \text{ h} = 2160 \text{ kWh/day}$$

$$E_{\text{total}} = 2160 \text{ kWh/day} \times 240 \text{ days}$$
$$E_{\text{total}} = 518,400 \text{ kWh}$$

90 kW compressor will consume approximately 518,400 kWh over the 240-day period.

12.4p / Kwh x 518,400Kwh = £64k / year

We don't hold the granularity of power data requested in the original email, but hope the above supports the questions.

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General Counsel, Anglian Water Services, Lancaster House, Lancaster Way, Ermine Business Park, Huntingdon PE29 6XU

If you are not content with the outcome of the internal review, you have the right to apply directly to the Information Commissioner for a decision. The Information Commissioner can be contacted at:

Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire SK9 5AF

If you have any queries about this email, please contact us via EIR@anglianwater.co.uk .

Yours sincerely

EIR Team

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