Cyfoeth Naturiol Cymru
Natural Resources Wales

Daniel McDermott
RWE Generation UK plc
Pembroke Power Station
West Pennar, Pembroke
SA71 5SS

Our reference: PAN-025790

By email only:
Daniel.McDermott@rwe.com

Date: 11 June 2024

Dear Daniel

Invalid Application
Application number PAN-025790

We have received your application to renew your water resources licence, however we are unable to accept it as valid. Please read the letter below which outlines what further information is required.

Supporting information
Further to my renewal letter and subsequent email of 6th February 2024 associated with your pre-application reference PPN-01182; you have not supplied all of the requested information. Please can the following be supplied:

1(a). Provision of the raw entrapment data: Data from 2019 – 2022 has only been submitted. Monitoring started in 2012, and continues to date, so an incomplete dataset has been provided. Entrainment data is provided as already scaled to 10^6m^3 of water. We request the data on the actual entrainment numbers, and the sampled flow data from the flowmeter used to scale the sample to 10^6m^3 of water. We also require the station abstraction flow data to scale to the annual estimates. It is also not clear whether impingement data is provided as per 10^6m^3 water abstracted or actual impingement sampling numbers. For impingement we need the daily abstraction flow data used to scale impingement to 10^6m^3 and/or the actual impingement numbers.

1(b). Transparently presented calculations of annual estimates of impingement and entrainment from raw entrapment data: The process of analysing the data is explained briefly in Appendix B of the entrapment monitoring reports but the calculations from actual numbers of fish entrapped to estimates of fish per 10^6m^3, or monthly/annual estimates of fish entrapped, have not been presented. Furthermore, we do not have all the raw impingement and entrainment data, and the raw daily abstraction volume data, to be able to reproduce and/or verify the figures provided in the monitoring reports.

2. Provision of updated EAVs for the entrapment data: This has not yet been provided. A review has been conducted by Jacobs which showed various differences in parameters from recently published literature that could influence the EAV values. Please provide this data.

3. Provision of annual entrapment estimates using arithmetic means rather than geometric means: This has not yet been provided. It is acknowledged that work has been done by Jacobs to present comparison between use of geometric and arithmetic means for impingement numbers. This shows the consistent underestimate in entrapment estimates from using the geometric mean. The entrainment data also apparently uses the arithmetic mean – it is not clear why an inconsistent approach is used between the two datasets.

4. Provision of the uncertainty/variability in annual entrapment estimates to account for sampling resolution and scaling uncertainties: This has not been provided. Jacobs has done some work to present charts of sprat, poor cod and sand smelt from 2023 impingement (to note the 2023 impingement monitoring data has not been provided to NRW) which shows considerable variability in the potential annual estimates. But no other species or years have been provided.

5. Provision of species-specific trend analysis: this has not been provided. Charts showing monthly impingement of three species (sprat, sand smelt, poor cod) over the monitoring period is provided but no formal trend analysis has been applied to test for the presence of trends in these species or any other species.

Abstraction quantities

Please can you clarify your proposed peak instantaneous abstraction rate. Application form WRD -Abstraction Quantities section states a peak rate of 11.11111111112 l/s, whereas throughout your application and supporting information you have stated that you wish to apply for a same-terms renewal. The current instantaneous abstraction rate on your existing licence is 40 m/s (equal to 40,000 l/s).

Application fee

You have paid £1,398 which is the fee associated with a simple terms renewal. Your application is for a technical renewal which has an application fee of £4,995. Please can you arrange for payment of the outstanding fee owed of £3,597.

Application form declarations

Both applications have been signed by yourself, however we require signatures from an authorised person, which for a registered company is expected to be either the Director, or Company Secretary. You can re-submit the forms with appropriate signatures. However, we normally accept provision of evidence from an authorised person confirming that you are able to submit the applications on behalf of the company; email evidence is acceptable.

Proposed licensed end date

You have applied for any licence issued to have an end date of 31 December 2037. This does not align to the Cleddau and Pembrokeshire Abstraction Licensing Strategy (ALS), where any licences ending in March 2025 which are renewed will be issued with an end date of 31 March 2037. Please can you confirm if you wish your licence application end date to align with the ALS date. If you do not, you will need to supply further evidence to demonstrate your application for a 'Long Duration' licence. If this is the case, please contact me to discuss this aspect and I can also supply you with further guidance.

If we have not received the information we have asked for to clarify abstraction quantities, licence end date, correct application forms declaration, and payment of the outstanding application fee within 10 working days from the date of this letter, we cannot accept your application and we will return it to you. I appreciate that the items requested under the 'supporting information' heading above will take a considerable length of time to collate. I suggest that you contact me to discuss a suitable time period.

Thank you for providing the following, which meets our data submission request for validation purposes:

- Provision of post-hoc power analysis of the monitoring data.
- Assessment of whether entrapment at the power station in-combination with increased water temperatures within the Haven as a result of the power station operation, affects populations of any fish species, the wider fish community or indirectly bird or marine mammal species through prey losses, to inform the HRA and WFD assessment.
- Provision of SSSi assessments
- Justification of need
- Details of water efficiencies

I look forward to hearing from you,

Yours sincerely

Liz Cole
Water resources permitting officer