Artificial energy atolls offer unique opportunities for long-term offshore monitoring programmes

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Feasibility study performed by Ecorem

- Artificial atolls for producing and buffering energy
- Analysis of alternatives:
  - Environmental impact
  - Financial and socio-economic feasibility

One of the main findings of the feasibility study was that an energy atoll in the North Sea can be cost-effective by using its multifunctional potential

Opportunities

- Creating an 'operating base' that is manageable logistically and in maintenance
- Scientific research station:
  - Synergies between windmill farms and the atoll in their impact on (avi)fauna
  - Marine fauna monitoring programmes
  - Permanent weather stations
  - Monitoring abiotic conditions above and below the water surface

The atoll

- A large reservoir
- A dike that carries hydropower turbines and windmills
- An artificial land mass

Subject of further investigation

- Collaboration in search for clean energy production, sustainable infrastructure development, and scientific progress
- Shaping ideas and overcoming major logistical obstacles for research