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Award

## Organic Rankine Cycle Generator

University of York

UK5: Transparency notice - Procurement Act 2023 - [view information about notice types](#)

Notice identifier: 2025/S 000-085535

Procurement identifier (OCID): ocds-h6vhtk-05fbe3

Published 22 December 2025, 3:58pm

### Scope

### Reference

UY PROC 1244

### Description

The University of York ("the Authority") is delivering an exciting deep geothermal energy project as a transformative step in its journey to Net Zero. The project aims to cut fossil fuel consumption by 78% as part of the Authority's Sustainability Plan 2030 targets, and making a substantial contribution to reducing the City of York's overall carbon footprint.

This multi-phased initiative will leverage the Earth's natural heat to provide sustainable energy solutions for the Authority's campus and potentially the wider community. The project positions the University of York, City and region as a leader in sustainable energy innovation, combining geothermal exploration with our renowned research and educational expertise.

The Authority's geothermal project has identified electrical generation as a goal associated with long term success. Of the research done to date the Organic Rankine Cycle machine

(ORC) has presented itself as the only viable technology compatible with temperatures and energy demands the Authority will have. With the geothermal scheme coming online there is the potential for excess heat to be utilized to generate electricity to both offset the running of the geothermal system and provide energy cost savings to the Authority.

FeTu is a UK manufacturer that has developed a patented design for an ORC that develops double the efficiency of existing units and can output up to 200kW of electricity, while also addressing operational safety concerns like the removal of flammable working fluids.

The Authority is to procure one of the FeTu generators to run on site as a trial unit to research and test the effectiveness of such a power generating system in the Authority's environment.

The Authority shall use the outputs to produce an internal report focussing on the operational efficiency modelling of reciprocal positive displacement turbines, in conjunction with the geothermal scheme at varying temperatures and flow rates. This will be essential in appraising options for how to utilize the geothermal heat dependent on the results of drilling.

The test system shall be installed and operated using unutilized heat in our district heating system at the temperatures likely produced in the geothermal system. The Authority also has the infrastructure to install, maintain, monitor and optimize this new technology as part of the Authority's living lab of energy

technologies.

By being presented with an opportunity to install a unit before the

geothermal scheme is online the Authority can prove the efficiency of operation of the unit, optimize its installation and control and generate savings immediately by utilizing waste heat.

The Authority's Estates engineering team have visited the manufacturing and test facility and completed site assessments with the manufacturer to confirm the suitability of the prototype and new system for installation.

The Authority has researched the market and believes there are no other competing technologies available on the market that offer the same efficiency at present due to the technology being patented technology.

Should this new technology prove effective and the research outcomes favourable this will lead to a future procurement to purchase a number of generators with functionality appropriate to generate power from the waste heat the Authority will have available as it

progresses its geothermal project. A future open tender shall therefore be advertised.

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## **Contract 1. Organic Rankine Cycle Generator**

### **Supplier**

- FeTu Limited

### **Contract value**

- £250,000 including VAT

Above the relevant threshold

### **Earliest date the contract will be signed**

6 January 2026

### **Contract dates (estimated)**

- 6 January 2026 to 31 March 2026
- 2 months, 26 days

### **Main procurement category**

Goods

### **CPV classifications**

- 31100000 - Electric motors, generators and transformers
- 31600000 - Electrical equipment and apparatus

### **Contract locations**

- UKE21 - York

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### **Other information**

#### **Conflicts assessment prepared/revised**

Yes

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### **Procedure**

#### **Procedure type**

Direct award

#### **Direct award justification**

- Prototypes and development

- Single supplier - intellectual property or exclusive rights
- Single supplier - technical reasons
- Extreme and unavoidable urgency

The Authority has researched the marketplace and of the research carried out to date, the Organic Rankine Cycle machine

(ORC) has presented itself as a novel product and a viable technology compatible with temperatures and energy demands the Authority envisages having.

FeTu is a manufacturer that has developed a patented design for an ORC that develops double the efficiency of existing units and can output up to 200kW of electricity, while also addressing operational safety concerns like the removal of flammable working fluids.

The Authority is purchasing a single unit to help its research, which if successful will allow the Authority to issue a future tender for similar units and technology once it better understands the research outputs of the ORC technology.

The Authority is procuring one single unit on the grounds that it believes the unit to be a prototype, and a novel product and wishes to test its suitability, as well as researching the viability of such power generation within the Authority's setting.

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## Supplier

### **FeTu Limited**

- Companies House: 10162038

The Wharf, Gas Works Lane

Elland

HX5 9HH

United Kingdom

Email: [info@fetu.co.uk](mailto:info@fetu.co.uk)

Website: <https://www.fetu.co.uk/>

Region: UKE44 - Calderdale and Kirklees

Small or medium-sized enterprise (SME): Yes

Voluntary, community or social enterprise (VCSE): No

Contract 1. Organic Rankine Cycle Generator

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## **Contracting authority**

### **University of York**

- UK Register of Learning Providers (UKPRN number): 10007167
- Public Procurement Organisation Number: PRDQ-5539-WTHX

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Region: UKE21 - York

Organisation type: Public authority - sub-central government