

Report for: Cabinet

Date of Meeting: 7th January 2025

Subject: **Award of contract to supply, install and commission new Combined Heat and Power (CHP) plant and battery energy storage system (BESS) at Exe Valley Leisure Centre (EVLC) entirely grant funded by Sport England**

Cabinet Member: Cllr Simon Clist, Deputy Leader and Cabinet Member for Housing and Property

Responsible Officer: Paul Deal Head of Finance, Property & Climate Resilience

Wards Affected: All

Enclosures: None

Section 1 – Summary and Recommendation(s)

Cabinet are asked to consider the report and recommend to approve the decision to go out to market for a new gas turbine CHP unit and BESS for EVLC. There is only one supplier that can fulfil the contract within the time scale required by the funder Sport England who have confirmed the award of the one off contract to the value of £375,681. This installation will replace the old unserviceable CHP at EVLC.

Recommendation(s) that Cabinet be asked:

- 1. To approve the decision to award this one off contract for supply, install and commissioning of a CHP and BESS to Pure World Energy the only supplier of the Capstone gas turbine CHP in the UK.**
- 2. To authorise the MDDC funding element of £61K in support of this project.**

Section 2 – Report

1.0 Introduction – the request to approve the contract award

- 1.1 EVLC has an old unserviceable CHP unit that was installed as part of original site construction; intended to provide resilience and support for the old boilers which have been recently replaced under the ground source and air source heat pump (GSHP & ASHP) project.
- 1.2 The new CHP would provide the same level of resilience for the new GSHP & ASHP technology.
- 1.3 CHP is a highly efficient process that captures and utilises the heat that is a by-product of the electricity generation process by generating heat and power simultaneously. CHP can reduce carbon emissions by up to 30% compared to the separate means of conventional generation via a boiler and power station.
- 1.4 The heat generated during this process is supplied to an appropriately matched heat demand that would otherwise be met by a conventional boiler. CHP systems are highly efficient, making use of the heat which would otherwise be wasted when generating electrical or mechanical power. This allows heat requirements to be met that would otherwise require additional fuel to be burnt.
- 1.5 CHP systems can operate completely off grid avoiding network losses; a disruption in heat and power supply in large Leisure facilities and commercial buildings can pose a threat to the health and wellbeing of the public. CHP systems provide reliable, 24/7 electrical and thermal power even when the grid is down, ensuring energy security for our business and ensuring EVLC will always have electricity and thermal energy when they need it.
- 1.6 The BESS will augment the existing solar PV installation. When the energy generated is over or under the required amount, capacity left on the table will instead be used to charge the BESS. This system can then be used to extend its capacity above and below the PV operating range.
- 1.7 Mid Devon District Council (MDDC) were successful in being awarded £249,177 from the Sport England Swimming Pool Fund earlier this year to replace the old CHP; with an additional £126,504 to provide a BESS to the existing solar PV installation.
- 1.8 Pure World Energy will provide a complete design, supply, install and commissioning service, integrating the proposed CHP into the recently commissioned new Building Energy Management System. Once commissioned, the CHP gives an even greater resilience to the heat pump installations. On low heat demand days at EVLC it would be possible, if needed, to run on the CHP alone.

- 1.9 The saving in energy cost of this CHP for electricity is conservatively estimated to be in the region of £6K - £7K per month, after taking into consideration the gas running costs for the CHP.
- 1.10 If this was a totally funded capital expenditure (capex) project, the payback on the CHP would be 4.8 years but because of the grant awarded, MDDC only needs to fund £61K giving a capex payback period (generally the amount of time to break even) of around 10 months. The project cost will include a fully comprehensive 10 year maintenance plan so no unforeseen spend will be incurred in this time.
- 2.0 **Conclusion**
- 2.1 This CHP project is mainly funded by a grant of £249,177 and £126,504 for the BESS. The MDDC funding element of £61K has a very short payback period of around 10 months. It is estimated that savings of £6 - 7k could be achieved for every month of operation of the new CHP.
- 2.2 Approval is required from Cabinet for this contract to be formally awarded.
- 2.3 Following the decision, there will be a compulsory 10-day standstill period after which the contract will be awarded.
- 2.4 The contract will not commence until after 17th January 2025

Financial Implications

The financial implications are negligible and require a top up to the grant funding of £61k (CHP project only). Taking into consideration the savings on electricity spend, this could be paid back in full in less than 10 months; after this short period of time, the saving would be direct to EVLC's energy running costs.

Legal Implications

The grant funding requires us to keep the doors open for public swimming. As swimmers are the main users of the leisure centre, this will not cause any issues.

Risk Assessment

As part of the contract, the contractor will need to provide Risk Assessments and Method Statements (RAMS) for the works taking into consideration the site operations. All work will take place within the plant room without the need to shut the facility to the public.

Impact on Climate Change

The proposed CHP will run on gas from the main supply already at EVLC but could run now with a 20% blend of hydrogen and very easily in the future be converted to run on 100% hydrogen.

The proposed CHP is needed, as it will provide a backup for when the sustainable power sources are not able to completely provide for the needs of the centre.

This new CHP will be replacing an existing currently unserviceable CHP and is an upgrade to the 20-year-old plant which will provide increased efficiencies and savings for the centre at minimal direct cost. Return on the investment for MDDC will take only 8/9 months.

Equalities Impact Assessment

There are no equality considerations raised by this report or the award of the contract.

Relationship to Corporate Plan

Property assets are linked to the delivery, vision and priorities of MDDC. The way that MDDC manages its land and property assets has a direct impact on the quality of services delivered, as well as maximising the value derived from our property holdings for the on-going contribution in balancing MDDC's budget. To maximise the value derived from all MDDC property and its stakeholders, by delivering an efficient and fit for purpose corporate property solutions service. This project fits with the Corporate Plan to save money, provide resilience and keep the doors open to leisure clients for many years to come.

Section 3 – Statutory Officer sign-off/mandatory checks

Statutory Officer: Andrew Jarrett

Agreed by or on behalf of the Section 151

Date: 20/12/2024

Statutory Officer: Maria De Leiburne

Agreed on behalf of the Monitoring Officer

Date: 20/12/2024

Chief Officer: Stephen Walford

Agreed by or on behalf of the Chief Executive/Corporate Director

Date: 20/12/2024

Performance and risk: Dr Stephen Carr

Agreed on behalf of the Corporate Performance & Improvement Manager

Date: 17/12/2024

Cabinet member notified: yes

Section 4 - Contact Details and Background Papers

Contact: Tim Powell, Corporate Project Officer

Email: tpowell@middevon.gov.uk

Telephone: 07976 200052

Background papers: None