

HALLS, CEMETERIES AND ALLOTMENTS COMMITTEE

Date: Monday 14 September 2020

Title: Renewable Energy Sources Follow Up

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Background

The last renewable energy report presented to the halls meeting explored the opportunity to install different forms of renewable energy production across WTC buildings and lands. The purpose of this report is to move forward with that progress and directly apply it to our buildings.

Current Situation

Burwell Hall and Electric Heating solutions

Burwell Hall is one of only 2 buildings WTC runs that are supplied by mains Gas. The current gas boiler is almost at the end of its serviceable life, with parts now not manufactured and hard to source. With the council's target of becoming carbon neutral by 2028 the aim of this building is to remove it from mains gas. Part of the current plans drawn up from research would involve replacing the heating with electric Infrared panel heaters. Electricity per Kw is significantly more expensive than gas so it is in interest to use the most efficient technology's when it come in the form of electric heating. IR panel heater use 25% of the energy required from electric oil radiators.

IR panel heaters differ to traditional electric heating method in that they heat physical objects and do not waste energy heating the air. The IR panels are suitable for Burwell as they can quickly heat the room ready for sessions and not waste heat aiming to keep the room at a set temperature.

To trial the effectiveness of the IR panel heaters and possible further rollout, it would be proposed that one of the offices in the town hall have them installed. This would be at a cost of around £500 (not including installation), this would include 2 x IR panel heaters and a thermostat.

The Leys Depot

From a primary assessment and preliminary research, the Leys Depot is the most feasible building to become carbon neutral. The building is supplied entirely by electricity with minimal usage. The exception to this would be the use of excavation equipment and fuel supplied power tools.

The first stage to achieve this is to make the depot more thermally efficient and reduce its energy usage. This would be done through the following methods.

- Installing secondary glazing units around the depot office, staff room and toilet.
- Changing all heating to more energy efficient systems.
- Convert the changing room into a drying room by replacing the radiator with a timed de-humidifier.
- Install motion sensors across the depot.

The second stage would be to introduce renewable energy production to cover the usage of the depot. To do this a survey from a chosen installer would be commissioned with the remit to install a solar carport and small wind turbine.

The final stage of the project would be to convert the fleet of van's and flatbeds to electric. These vehicles being charged from the energy produced from the solar car port and wind turbine. A solution has been research as an alternative option to the expensive electric van options on offer. The fleet of vehicles would instead be replaced by electric utility vehicles. The specification of these vehicles makes them suitable replacements for the work duties the maintenance team carry out.

Gas Energy Provider

WTC recently switched its electricity provider over to a 100% green energy provider (Green Energy UK). Our gas supplier Crown Gas and Power is due to expire in November, with a one-month notice of cancelation required the process to switch will have to be started in October. Would the council prefer to switch this supplier onto a greener supplier for 2 years or alternatively seek out the cheapest possible tariff per kwh.

As gas production can never be carbon neutral a cheaper option may be financially a better option to save on energy cost's and reinvest. Alternatively, the uniformity of having both supplies from a green supplier is better advertising for the council and the gas supplied is from greener methods.

Environmental impact

Having declared a Climate Change Emergency at its Council meeting on 26 June 2019 – with this in mind Councillors should have due regard to the environmental impact of any decisions they make with regard to its facilities and services it operates.

Risk

In decision making Councillors should give consideration to any risks to the Council and any action it can take to limit or negate its liability.

Financial implications

In this year's Capital budget, there is provision of £15,000 towards the 'new boiler' for Burwell Hall.

The Town Hall has a set budget for property maintenance currently sitting at £2,500. The purchase and installation of the infrared panel heater would come from this.

The Leys Depot property maintenance budget of which the improvement would be made is significantly less than that of the town hall offices. In order to modernise and extend the serviceable life of the Leys Depot additional funds would be required.

There is a budget of £10,000 for climate and biodiversity where renewable energy projects would be drawn from. The cost would cover potential survey cost and small installations but would not be substantial enough to cover the cost of renewable energy installations.

Recommendations

Members are invited to note the report and consider the following:

1. Installation of an infrared heater in one of the offices in the town hall.
2. Agree to an increased budget toward energy improvement works at the Leys Depot.
3. To choose between a cheaper or a green gas supplier for the renewal