

HTC Special Projects Proposal 2020

HTC Toilet Roof Solar Panels

Background

In September 2019 Haslemere Town Council declared a Climate and Biodiversity Emergency, which included a commitment to facilitate the reduction of greenhouse gases and to becoming a carbon-neutral organisation by 2030. Methods suggested within the declaration to help achieve this included the development and use of renewable energy sources, as well as the promotion of education within our local community to inform and encourage actions to help resolve the problem. The Council further resolved to lead by example.

Project Description

Haslemere Town Council currently manages the toilet block in Waitrose Car park, a prominent town-centre location providing an important community service. This building has a plan footprint of approximately 10m x 6m and a gently sloping roof, the largest section of which faces SE and measures approximately 3m x 10m (tapering to about 6m at the roofline).

This special project proposes to install a set of 6-8 electricity-generating photovoltaic panels on the SE-facing section of the toilet roof, capable of generating between 1.7-2.2 kW of electricity during daylight hours. The precise number of panels allowed and appropriate configuration would be subject to professional inspection.

In the context of HTC's climate emergency declaration, the benefit of this installation would be twofold:

1. To produce a modest yet measurable and significant proportion of HTC's own electricity consumption directly from renewable energy, thereby supporting HTC's own roadmap to meet its target of achieving carbon neutrality by 2030.
 - Based on similar assessments and subject to professional confirmation, such a 6-8 panel system could be expected to generate 1700-2200 kWh of electricity per year, which (according to our January 2020 Carbon Audit) equates to approximately 10% of the total electricity consumed by HTC in 2019. This percentage would be very likely to increase as electricity use at Town Hall continues to increase in efficiency, especially after our newly-commissioned heating/cooling system is installed.
2. To raise general awareness of the commitment and intent of Haslemere Town Council to tackle this Climate Emergency at a local level, while at the same time educating and inspiring residents who may be inspired to take similar measures at their own properties.

As a third benefit, the reduction in HTC energy bills gained by using the electricity produced directly (for heating in the toilet block) and selling the remainder back to an electricity provider via the national grid would result in a modest financial return, which based on previous assessments achieved for similar sites should be expected to see the installation pay for itself over a 10-15 year period. An official expected return would be assessed by a qualified professional during the site assessment.

Cost estimate – Toilet Roof Solar Panels

- 2.24kW solar panel equipment : £1,699.99 inc VAT AND Delivery (example quote received from Plugin Solar - 8 x 280W Peimar Solar Panels with Growatt Mini 2500 inverter).
- Smart electricity meter : £100 (estimated)
- Installation and commissioning : £1200 (based on a comparable quote from Greencap Energy for a slightly larger installation in late 2019)

Estimated total cost: £3000

Note: Before dispensation of any Council funds, the viability of this installation would first be assessed by one or more professional installers (as part of their cost-free inspection and quotation service) and project implementation would of course be subject to these viability assessments.

The building is leased from Waverley Borough Council, their agreement would be required for the installation but would not be unreasonably withheld.

Site Map and Photographs



