

DECARBONISING HISTORIC HOUSES

Scope 1 and 2 Carbon Emissions Baseline (2021)

First understand the key sources of carbon emissions and what is driving them, so you focus your efforts where it's going to make the most difference.











55.5 tCO₃e electricity (72%)

◆ Reduction Opportunity

Renewable energy contract with exploration of alternative technologies such as further solar panels, micro hydro generation and battery storage.

10.3 tCO₂e waste (13%)

♦ Reduction Opportunity

Engage with waste collectors within the supply chain to make sure waste disposable is as efficient as possible.

Pathway to Net Zero

Reducing emissions takes time, setting targets and a practical plan of action over the long term.

· 1,091 m² office space

125,000 Visitors a year [5]



footprint and implement various measures to

In the near future, The Palace Trust is aiming

to expand its carbon footprint measurement

to include Scope 3 emissions, and working

to reduce their impact across their supply

chain. Scope 3 emissions of cultural sector

demonstrated by the Gallery Climate Coalition

organisations can often prove to be the

majority (up to 75%) of emissions as

[3], so this is particularly important.

reach their future decarbonisation targets.



77 tCO₂e Total CO_{.e} emissions

6.5 tCO₂e gas (7%)

Bishop's Palace

The medieval Bishop's Palace & Gardens is

situated in Wells and has been home to the

It is open for all to enjoy, surrounded by a

of outstanding Royal Horticultural Society

Bishop's Palace have recently been on a

its name, a gift shop and a café.

Key Statistics

Bishops of Bath and Wells for over 800 years.

moat (with resident swans) and with 14 acres

(RHS) Partner gardens to explore, as well as the

beautiful well pools from which the city takes

journey to measure their Scope 1 and 2 carbon

◆ Reduction Opportunity

Green gas procurement, as well as considering where and why heating is used - there are conservational benefits to changing this, and many places are no longer used how they were designed for.

50% Reduction in Scope 1 and 2 emissions by 2030

Through energy efficiency and improved operations

Net Zero across all Scopes of emissions by 2050

Eradicating residual emissions within the organisation

developing a quantified carbon roadmap can provide

What have we done



nstalled a 22kW Water source heat pump in the moat [1], meeting all heating and hot water for the palace.



→ 3% Reduction Small scale 18kW trial of solar panels on roofs, reduces emissions by approximately 2.5 tCO2e [2].



Where are we now

2021 Carbon Baseline

Energy Efficiency Measures

Future actions

→ 7% Reduction

Such as installing and maintaining LED lighting, auto-shutdown on computers in the office and staff training on sustainability.



Electric Vehicle Fleet

4% Reduction

4.5tCO₂e car (6%)

♦ Reduction Opportunity

Create employee incentives for green

travel/zero carbon miles e.g. walk to work

Introduce an EV to be made available to employees for business use.



Offset remaining emissions

Use high quality & verified offsetting schemes or carbon removal technologies. Look to source from South-west UK schemes backed by Woodland Carbon Code [6].

2011 2030 2021 2025 2050 2018

References

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- 2. Department for Energy Security 'Green Book supplemen tary guidance: valuation of gas emissions for appraisal, Data tables 1 to 19: supporting the toolkit and the guidance'. Available at: https://view. aspx?src=https%3A%2F%2Fas sets.publishing.service.gov.uk%2Fmedia%2F6567994fc c1ec5000d8eef17%2Fdata-tables-1-19.xlsx&wdOrig in=BROWSELINK (Accessed: 1-15
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- 4. The Palace Trust. (2022) & Plan' and 'Future Net Zero Standard – Accreditation Report - March 2019 – February 2020' Available at: https://racetozero.
- 5. Kidd, M. Microsoft Teams Conversation with 3ADAPT, 29
- 6. Woodland Carbon Code. (n.d.). [online] Available at: org.uk/ [Accessed 23 Jul. 2024]