

Havant Thicket Reservoir

Renewable Energy Strategy (Phases 1-8)

Main Reservoir Works Phase

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1. Introduction

1.1 Purpose of Document

This Renewable Energy Strategy has been prepared for submission to Havant Borough Council (HBC) and East Hampshire District Council (EHDC) in order to secure the discharge of Condition 29 for Phases 1-8 of the approved Detailed Phasing Plan (ref. HTR-FUW-RZ-RE-DP-W-507) for the Havant Thicket Reservoir scheme.

Specifically, the Renewable Energy Strategy relates to:

- Condition 29 attached to planning permission APP/24/00312 (HBC); and
- Condition 29 attached to planning permission 51680/012 (EHDC), the wording of which is identical:

“No development shall take place until a Renewable Energy Strategy has been submitted to, and approved in writing by, the Local Planning Authority. The development shall be carried out in accordance with the approved details and retained thereafter.”

1.2 Scope of Document

This document provides the required Renewable Energy Strategy (RES) sufficient to enable the discharge of the planning conditions in relation to Phases 1-8 of the approved Detailed Phasing Plan. These phases vary from those detailed previous revisions of the RES as a result of updates to the Phasing Plan and therefore this RES has been drafted to cover all phases except the Visitor Centre and associated visitor amenities (Phase 9) which will be discharged separately.

As with previously approved versions, the RES relates to Scope 1 (direct) emissions and Scope 2 (indirect emissions from consumption of purchased electricity, heat or steam) only. It does not seek to address Scope 3 emissions (those in the supply chain for goods and services).

The RES also only relates to the measures to be taken in relation to the design and operation of the reservoir development and not its construction. Construction related carbon has been considered and addressed as part of the Environmental Statement submitted with the planning applications, and any construction related mitigation measures (i.e. specific construction equipment and construction working practices fall to be considered within the Construction Environmental Management Plan (CEMP) and Construction Method Statement (CMP) and not this RES).

1.3 Planning Context

1.3.1 The planning permissions for the reservoir

In 2021, planning permission (ref APP/20/00990 and 51680/001) was granted by Havant Borough Council (HBC) and East Hampshire District Council (EHDC) for development of a reservoir for raw water storage, subject to further planning conditions. Subsequently, a Section 73 application proposing a number of amendments to the design of the main embankment and related infrastructure was approved by both authorities in December 2024 (ref APP/24/00312 and 51680/012) and planning conditions are henceforth discharged against this planning permission.

Renewable energy is required to be considered as part of Condition 29 and Condition 7, as follows:

Condition 7:

“The reserved matters application for the North West Corner (including Visitor Centre and car park) submitted pursuant to Conditions 2 and 4 shall include: - Consideration of the play area location (currently in proximity to the bin store, a more suitable location should be explored); - Any non-residential buildings to achieve BREEAM 'Very Good' certification and/or contribute to a reduction in greenhouse gas emissions using 'Fabric First' principles and renewable technology (i.e. solar PV); - Closed Circuit Television (CCTV) cameras linked to a monitoring station to provide for immediate response to incidents as they are occurring; - Electric Vehicle (EV) parking spaces and charging points; - Cycle parking (within a covered sheffield stand). Regarding the latter, cycle parking for e-bikes, tandem bikes, cargo bikes and bicycles used by disabled visitors should be considered and provided.”

Condition 29:

“No development shall take place until a Renewable Energy Strategy has been submitted to, and approved in writing by, the Local Planning Authority. The development shall be carried out in accordance with the approved details and retained thereafter.”

This document is submitted in relation to Condition 29 for Phases 1-8 as follows:

- Phase 1 – Northern Access Road
- Phase 2 – Wetland Embankment & Structures
- Phase 3 – Main Embankment, Culvert & Valve Tower
- Phase 4 – Southern Access Road
- Phase 5 – Control House
- Phase 6 – FE Track Culverts
- Phase 7 – Spillway and Bi-directional Pipe
- Phase 8 – Remaining areas of hard and soft landscaping, not approved during previous RMAs

A separate RES will be submitted in relation to Condition 29 and Condition 7 for Phase 9 (Visitor Centre and associated visitor amenities).

1.3.2 Planning Application Documentation

The **Design & Access Statement (2020)** includes a ‘Sustainability Statement’ in Chapter 9 of the document which includes a commitment to a number of sustainability principles, including:

3. Energy – *“Maximise opportunities to improve operational energy efficiency of the new developments”.*

Paragraph 9.8 of the Design and Access Statement states:

“The Scheme design shall explore the viability to use renewable technologies in the new developments such as the Visitor Centre and the control house:

The design proposes use of energy efficient lighting (like LEDs) to reduce energy requirements of the new developments (visitor centre, car parks), alongside the use of natural material in the Visitor Centre to improve insulation and thereby the building energy performance.

The Planning permission approval for the outline design of the reservoir will be subject to a condition seeking a renewable energy strategy.”

Paragraph 9.13 of the Design & Access Statement states:

“The Scheme design supports the UK’s Net Zero Carbon target by minimising where practical greenhouse gas emissions at all stages of the infrastructure lifecycle, and maximising opportunities for greenhouse gas removals”, noting specifically that:

The Scheme design is considering the use of renewable technologies for heating sources in the Visitor Centre and plans to put a living roof to give a mass to the roof for better insulation.”

The **Design & Access Statement Addendum (2024)** submitted with the Section 73 Permission does not vary any of these commitments.

The climate change assessment in Chapter 16 of the **Environmental Statement (2020)** summarises the sustainable design, mitigation and enhancement measures embedded in the Scheme, these include:

- 1. Optimising sustainable design opportunities, including:**
 - Enhancing energy efficiency.
 - Considering decentralised low-carbon energy sources.
 - Improving climate resilience and whole-life sustainability.
 - Minimising material use and selecting low-carbon alternatives.
- 2. Supporting the UK’s Net Zero Carbon target by:**
 - Minimising greenhouse gas emissions across the infrastructure lifecycle.
 - Maximising greenhouse gas removals via vegetation sequestration and renewable energy generation.

An **Environmental Statement Addendum (2024)** was submitted with the Section 73 Permission, and although there were some policy updates since the 2020 ES, the measures embedded in the Scheme remained unaffected.

As detailed in the **Environmental Statement Addendum (2024)**, the construction of the reservoir will generate approximately 83,890 tCO₂e, representing a 52% decrease in emissions compared to the 2020 ES following re-evaluation of the use of site-won materials. Greenhouse gas emissions will be generated by raw material extraction and product manufacturing, the transport of materials and workforce to the site, energy and water use during construction, waste management, and plant and equipment use. Assuming construction emissions are spread evenly across the construction period, the construction of the Scheme will contribute 0.003% and 0.001% to the fourth and fifth carbon budget periods respectively.

The operational phase of the Scheme is expected to commence in 2032, with an estimated 42,984 tCO₂e of operational stage emissions related to the use of the Control House and other activities. This equates to 716 tCO₂e per year over a 60-year design life), contributing 0.00004% to the fifth carbon budget period and 0.0004% of the sixth carbon period.

The Scheme was assessed in the **Environmental Statement (2020)** and **Environmental Statement Addendum (2024)** as unlikely to cause significant effects on climate, or significantly affect the UK’s ability to meet its emissions reduction targets.

2. Renewable Energy Planning Policy and Guidance

2.1 Local Development Plans

Relevant Local Development Plans include:

- **East Hampshire District Council**
 - Part 1 - Joint Core Strategy (2014)
 - Part 2 - Housing and Employment Allocations (2016)
 - Local Plan Second Review (2006)
- **Havant Borough Council**
 - Local Plan (Core Strategy) adopted March 2011
 - Local Plan (Allocations) adopted July 2014

Both Councils are preparing new Local Plans, which when adopted will replace the existing development plans for their areas. These are not yet at a stage where they carry material weight in decision making.

2.2 Relevant Development Plan Policies

The existing Development Plan is relatively silent on policies relating to renewable energy provision, other than in relation to on-site renewables and energy efficiency for new housing and other built forms of development.

HBC Core Strategy Policy CS14 promotes the efficient use of resources, with part 2 of the policy stating that planning permission will be granted for development that “*Locally contributes to the delivery of the PUSH target of 100MW of renewable energy by 2020 for the whole of the PUSH area. Major areas of development must ensure that their on site renewable energy production is maximised and resource efficiency is maximised*”.

Supporting text paragraph 7.29 states that:

“Renewable energy technology is a rapidly developing market where new products and improved efficiency and reliability are continuously emerging, together with changing public perceptions. Technologies that are currently not considered viable, or are only emerging such as tidal power, biomass, energy and heat from waste and ground source heat will become more viable. The use of renewable technologies will have an increasing role to play in energy production in the borough over the plan period. In any new development the priority is on reducing the amount of energy we use, following the principles of – Lean – reduce energy consumption; Clean – generate energy using low carbon technologies and Green – generate energy using renewable sources. The council will require all major areas of development to produce on-site renewable energy as there are economies of scale that mean the technologies will be more effective. Major Development Areas are defined as 250 dwellings or more and 5,000 square metres of non-residential floorspace. Further information on the technologies that could be appropriate in the borough can be found in the Havant Energy Study (Savills 2005) and the PUSH Energy Study (Atkins 2009).”

HBC Core Strategy Policy CS18 refers to Strategic Site Delivery, with Site 2 being Havant Thicket Reservoir. The Strategic Site Profile for Site 2 includes “renewable energy infrastructure” within the list of infrastructure for the site. The ‘Development Requirements’ for Site 2 includes that “*The proposal should realise the potential for renewable energy dependent on nature conservation and other site constraints*”.

EHDC Joint Core Strategy Objective 19 is: *“To plan for new development to be built to a high quality that promotes the use of sustainable resources in developments, in particular to minimise waste, increase energy efficiency in new and existing developments and to maximise the proportion of energy generated from renewable sources within environmental constraints;”*.

EHDC Joint Core Strategy Policy CP24 requires new residential development and non-residential development over 500sqm to achieve BREEAM ‘Excellent’ standards, with part (b) of the policy going on to also require that it *“provides at least 10% of energy demand from decentralised and renewable or low carbon energy sources (if possible, including connections to a district heating system), unless it is proven that this is not feasible or viable;”*. Policy CP24 also states that *“Major areas of development must ensure that their on-site renewable or low carbon energy production and resource efficiency is maximised. Where on-site proposals to achieve higher levels of carbon reduction are not feasible or viable ‘allowable solutions’ should be used.”* The policy clarifies that ‘major development’ in this context is defined as 10 dwellings or more, or 0.5 hectares or more.

Core Strategy paragraph 7.43 goes on to state that *“Proposals for renewable energy developments will be considered on their merits and consideration will be given to whether their scale, form, design and materials are sympathetic with the surrounding landscape or built environment, and whether they would impact on the local community, economy, nature conservation and historical interests”*.

2.3 National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG)

NPPF paragraph 161 states:

“The planning system should support the transition to net zero by 2050 and take full account of all climate impacts including overheating, water scarcity, storm and, flood risks and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.”.

NPPF paragraph 166 states that in determining planning applications, *“local planning authorities should expect new development to:*

- a) comply with any development plan policies on local requirements for decentralised energy supply unless it can be demonstrated by the applicant, having regard to the type of development involved and its design, that this is not feasible or viable; and*
- b) take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption. “*

NPPF 168 then goes on to state that when determining planning applications for renewable and low carbon development, *“local planning authorities should:*

- a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and give significant weight to the benefits associated with renewable and low carbon energy generation and the proposal’s contribution to a net zero future;*
- b) recognise that small-scale and community-led projects provide a valuable contribution to cutting greenhouse gas emissions*

The online **Planning Practice Guidance** (PPG) provides additional national guidance on renewable energy provision. Paragraph ID: 5-001-20140306 states:

“Increasing the amount of energy from renewable and low carbon technologies will help to make sure the UK has a secure energy supply, reduce greenhouse gas emissions to slow down climate change and stimulate investment in new jobs and businesses. Planning has an important role in the delivery of new renewable and low carbon energy infrastructure in locations where the local environmental impact is acceptable”.

The PPG goes on to provide detailed guidance on the different types of renewable technologies and supports the identification of specific policies and proposals within Local Plans to guide their future provision.

2.4 Other Relevant Evidence Studies and Guidance

The Paris Agreement was adopted through the twenty first session of the Conference of Parties (COP21) in December 2015, entering into force on 4th November 2016 and the UK ratified the Agreement on 18th November 2016. Article 2 of the Paris Agreement sets out the ambition of holding the increase of global average temperature to “well below 2°C” and to pursue efforts to limit temperature increase to 1.5 °C. It was acknowledged that to achieve these ambitions, there is a requirement to ensure Parties reach global peaking of greenhouse gas emissions as soon as possible and do so by employing means that allow pathways toward “low greenhouse gas emissions and climate-resilient development”.

The UK Climate Change Act (2008) commits the UK government to reducing greenhouse gas emissions by at least 100% of 1990 levels (net zero) by 2050. The Government expects each local authority to contribute to meeting the targets and reducing overall demand for energy. The Government introduces legally binding commitments to carbon reduction through specific carbon budgets, setting a cap on the maximum level of the net UK carbon account for each five-year budgetary period (e.g. The Carbon Budget Order 2021 – which set the carbon budget for the 2033-2037 budgetary period at 965 million tonnes of carbon dioxide equivalent).

The Planning and Energy Act (2008) enables local planning authorities to set requirements for energy use and energy efficiency in local plans, including a proportion of energy used in development to be generated from renewable and low carbon sources in the locality of the development.

Increasing numbers of Local Authorities around the UK are developing more ambitious energy policies. However, a 2019 government consultation on the implementation of the Future Homes Standard and uplift to Building Regulations proposed to restrict Local Authorities from setting their own standards. In January 2021, the government confirmed that Local Authorities will be allowed to continue to set their own energy standards for the time being.

The then DCLG published its “Planning practice guidance for renewable and low carbon energy” in July 2013 – the content of which has been updated and incorporated into the online Planning Practice Guidance (see above).

At a local level, EHDC has published a Renewable and Low Carbon Study (Nov 2018) – prepared by LUC, and published as part of the evidence base for its emerging Local Plan. The detail in the study, including a review of the potential for different renewable energy technologies to be adopted across the District, and the planning policy approach to their provision, have not yet been taken forward into detailed Local plan policies and proposals. The study identified that there is potential for significant renewable energy development,

subject to consideration of detailed impacts associated with individual schemes, across a number of different technology types:

- Wind turbines.
- Photovoltaic (PV) solar arrays.
- Small scale hydro.
- Energy from waste.
- Renewable and low carbon heat.
- Biomass.
- Microgeneration technologies.

2.5 Portsmouth Water Net Zero Operational Carbon Emissions Target

Portsmouth Water has set themselves a target of net zero operational carbon emissions by 2040. This is detailed in their [Annual Reporting Accounts 2024-25](#) and embedded within their [Long-Term Delivery Strategy](#) for 2025-2050. Their key deliverables over the next five years to reduce carbon emissions include:

- Reducing leakage and customer demand for water in order to use less energy and chemicals to treat and pump water into supply
- Installing more renewable energy schemes, particularly solar and battery storage
- Optimising energy efficiency at operational sites and offices
- Converting PW fleet to electric vehicles
- Continuing to purchase energy from renewable sources

Portsmouth Water's ongoing programme of investment in solar assets (running into 2026) will see 990KWp of new assets delivered at three Portsmouth Water owned sites, increasing capacity to 2.2Gwh per year. This is in addition to further planned rooftop solar array and battery storage schemes at locations within Havant away from the main reservoir site.

When purchasing energy from the UK grid, 99% of electricity required by Portsmouth Water is obtained from sources backed by Renewable Energy Guarantee of Origin certificates (REGOs), meaning that 99% of its grid-electricity consumption is certified as carbon free.

3. Operational Energy Use

As noted in Section 2.2 above, the **Environmental Statement (2020)** and **Environmental Statement Addendum (2024)** assessed the operational energy use and related emissions for the reservoir development. The operational energy use at the reservoir site is expected to be irregular in nature, as the frequency and nature of any drawdown of the reservoir and use of on-site pumps and other equipment will be dictated by operational requirements that will vary seasonally, and year by year.

The only building included within Phases 1-8 is the Control House, which will be accessed intermittently by authorised persons for the purpose of inspecting or maintaining plant and machinery. Given the utilitarian nature, the building will be largely unlit and heated only to prevent moisture build up within the building and on electrical equipment, resulting in low operational emissions.

4. Energy Principles

Taking into account the relevant Development Plan policies, national policy and guidance and relevant background studies and information, this RES adopts the following energy principles as the basis for the strategy:

- prioritising energy reduction and energy efficiency; then
- on site renewable energy provision; then
- off site renewable energy provision; and then
- securing renewable and/or low carbon energy supplies from the grid

4.1 Prioritising energy reduction and energy efficiency first

Throughout the detailed construction and engineering designs for the individual elements of the reservoir development, including mechanical and electrical designs, reduction in the the overall energy demands arising from the operation of the reservoir have been reviewed. Where there are options available for selection as part of design and engineering work, a preference for those options involving lower energy use and maximised energy efficiency will be made, unless there are health and safety, operational or regulatory reasons that require otherwise.

The below summarises the key achievements in energy efficiency and energy demand reduction for the embankments and operational structures:

Main Embankment & Wetland Embankment

The design for the main reservoir embankment and wetland embankment minimises material imports as much as possible by utilising site-won clay from within the reservoir site, meaning there are no transport emissions incurred for this material. Other required materials not naturally present at the site, such as sand and shingle, have been procured from local suppliers to minimise emissions from these sources as much as possible.

Culvert, Valve Tower and Control House

As reinforced concrete structures buried within the main embankment, the culvert, valve tower and control house are able to leverage the insulating properties of the surrounding soil. The earth acts as a natural thermal buffer, significantly reducing heat loss in winter and minimising heat gain in summer, thereby reducing the requirement for mechanical heating and cooling. Additionally, the building's integration into the main embankment will reduce exposure to wind and solar radiation, further enhancing its energy performance.

The structures are formed using GGBS concrete, a concrete mix utilising ground granulated blast furnace slag (GGBS), a by-product of iron manufacturing, as a partial replacement for Portland cement. GGBS is considered more carbon efficient than traditional Portland cement due to its lower embodied carbon and thus helps reduce the overall carbon footprint of the project.

As set out above, the control house building is largely unlit (both internally and externally) with lights activated only when required and heating and ventilation only to prevent moisture build up within the building and on electrical equipment, resulting in low operational emissions.

4.2 On site renewable energy provision

Within Phases 1-8 of the Scheme, the potential for on-site renewable energy provision has been evaluated during the engineering design development process. The types of on-site renewable energy provision which will have been considered include:

- Wind turbines;
- Photovoltaic (PV) solar arrays;
- Hydro-electric power;
- Microgeneration technologies, including small scale wind, biomass, air ground and water source heat pumps.

Wind turbines

Given the landscape, historic and biodiversity sensitivity of the reservoir site and surroundings, it is not considered that any medium to large scale implementation of wind turbines could appropriately be accommodated within the environmental and planning constraints of the site.

Photovoltaic (PV) solar arrays

On a similar basis to wind turbines, given the landscape and historic sensitivity of the reservoir site and surroundings, it is not considered that any medium to large scale implementation of ground mounted PV Solar Arrays could appropriately be accommodated within the environmental and planning constraints of the site.

Ground mounted PV would not be capable of being accommodated on the main reservoir embankment slopes, as a result of the need to ensure the protection of the embankment integrity.

Opportunities for roof mounted PV are limited given the relative lack of large scale built development as part of the reservoir proposals. The Control House (Phase 5) is largely built into the reservoir embankment and is required by the Section 73 scheme parameters to have a green roof, therefore this is not a suitable location for their inclusion. The Visitor Centre building forms part of Phase 9 and utilisation of roof mounted PV will be assessed separately.

A floating PV array installed on part of the reservoir itself would give rise to undesirable landscape and visual impacts given the environmental sensitivity of the reservoir location and does not form part of the development granted planning permission. There are also factors to be considered regarding operational requirements of the reservoir, water quality and biodiversity which have input into the decision not to further consider floating PV array.

Hydro-electric power

Hydro-electric power, as might be generated by the gravity flow from the reservoir down to the Bedhampton pumping station, is not considered to be economically viable. Typically, hydroelectric schemes rely on a certain amount of reservoir outflows being exceeded for 95% of the year, which is not to be exceeded with a significant volume of water year round, given the reservoir's primary usage as water storage for use during Summer drought.

Similarly, a pumped storage scheme is likely to be unfeasible since this would rely on surplus flows at the Bedhampton spring source being available year round (beyond the water required to top up the reservoir) and the existing surplus flows are only seasonal.

Microgeneration technologies, including small scale wind, biomass, air, ground and water source heat pumps

Microgeneration technologies have been reviewed within the detailed design process for the Control House (Phase 5), which will require power for equipment and limited heating to prevent moisture build up. However, due to its location within Sir George Staunton Conservation Area and close proximity to Staunton Country Park, application of technologies with a visual and/or biodiversity impact has been discounted.

Small scale wind

As evaluated above in relation to medium to large scale implementation of wind turbines, given the landscape, historic and biodiversity sensitivity of the reservoir site, it is not considered that wind turbines could be appropriately be accommodated within the environmental and planning constraints of the site. These same constraints exist with small scale wind turbines, particularly due to the sensitivity of the Control House location.

Biomass

While biomass is considered renewable, its sustainability depends on the sourcing of materials. Given the setting of the reservoir, it would be unlikely suitable materials would be readily available within the site and therefore transport emissions are likely to undermine any benefits. Additionally, if the system were located at the Control House it would be sited within the Sir George Staunton Conservation Area which is not desirable.

Air, ground and water source heat pumps

The use of a ground source heat pump for heating of the Control House would require deep boreholes within the main embankment for the ground loops to be installed into. Due to artesian groundwater conditions present in the south-central area of the site, installing a ground source heat pump in this area would be extremely complex, and create a risk of uncontrolled seepage impacting dam safety, and as such this is not a suitable option.

An air source heat pump is considered to be inappropriate in the setting, as the external unit contains a fan and compressor which can produce noticeable noise. With the likely impact this would have on ecology, including bats using the provided bat boxes on the Control House façade, the use of an air source heat pump has been determined not to be feasible.

Usage of a water source heat pump, which would use water in the reservoir as a heat exchange medium, would require provision of coils or pipes laid on the bottom of the reservoir basin to absorb energy from the water. This gives rise to concern regarding operational requirements of the reservoir, resulting in the decision not to further consider such a system.

Although not feasible for the Control House, primarily due to its sensitive location, there may be the potential for microgeneration technologies to be incorporated within the detailed design of the Visitor Centre and associated visitor amenities (Phase 9) subject to the detailed design process for this phase of the development.

4.3 Off site renewable energy provision

Given the environmental sensitivity of the reservoir site, the potential for renewable energy generation on site is limited (as explored in Section 4.2 above), however, as noted in section 2.5, Portsmouth Water has identified a series of measures that it is implementing to reduce emissions associated with its operations. This includes a significant increase in the renewable energy generated at its operational sites as part of their target of net zero operational carbon emissions by 2040.

4.4 Securing renewable and/or low carbon energy supplies from the grid

Portsmouth Water already purchases 99% of its electricity from the UK grid backed by Renewable Energy Guarantee of Origin certificates (REGOs), meaning that 99% of its grid-electricity consumption is certified as carbon free.

5. Conclusions

This Renewable Energy Strategy (RES) has been prepared to support the discharge of Condition 29 of the planning permissions granted by Havant Borough Council and East Hampshire District Council for Phases 1–8 of the Havant Thicket Reservoir scheme. It outlines a comprehensive approach to minimising operational carbon emissions and promoting energy efficiency across the reservoir development, in alignment with national and local planning policy, Portsmouth Water's Net Zero Operational Carbon Emissions Target, and broader climate commitments.

The strategy prioritises energy reduction and efficiency through design and engineering choices, with a detailed assessment of on-site renewable energy opportunities. Due to the environmental sensitivities and planning constraints of the reservoir site, large-scale on-site renewable installations such as wind turbines, solar arrays, and hydroelectric systems have been deemed unfeasible. Microgeneration technologies have also been evaluated, with limited applicability for the Control House, as the only building in Phases 1-8, due to its location within a conservation area and proximity to sensitive ecological features.

Recognising these constraints, the RES identifies off-site renewable energy provision as a viable alternative with Portsmouth Water currently delivering a programme of solar generation and battery storage projects to provide renewable energy across their sites. This initiative complements Portsmouth Water's existing

commitment to sourcing 99% of its electricity from the grid backed by Renewable Energy Guarantee of Origin (REGO) certificates.

In conclusion, while on-site renewable energy generation is constrained by environmental and operational factors, the strategy demonstrates a robust and forward-looking approach to reducing emissions and supporting the transition to low-carbon operations. It reflects Portsmouth Water's commitment to sustainability and its role in contributing to national and local carbon reduction targets.