

# WEST NORTHAMPTONSHIRE COUNCIL CABINET

6<sup>TH</sup> DECEMBER 2022

**CABINET MEMBER RESPONSIBLE FOR FINANCE – COUNCILLOR  
MALCOLM LONGLEY**

Report Title	Extended photovoltaic system for One Angel Square
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## Contributors/Checkers/Approvers

MO	Catherine Whitehead	21/11/22
S151	Martin Henry	22/11/22
Other Director	Stuart Timmiss – Executive Director Place, Environment & Economy Simon Bowers – Assistant Director Assets & Environment	17/11/22
Communications	Becky Hutson – Head of Communications	25/11/22

## List of Appendices

None

## **1. Purpose of Report**

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- 1.1 To seek approval for capital budget of £102k in 2022/23 to extend the photovoltaic (PV) array and install a green roof at One Angel Square, Northampton.

## **2. Executive Summary**

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- 2.1 One Angel Square ('Angel') was built with a range of sustainability measures. One of these, pebble roofs, became a problem with crow attacks. The pebbles were therefore removed.
- 2.2 It is proposed to use the space freed up by extending the PV system on the roof. This offers an excellent financial return as well as contributing to the Council's net zero goals.
- 2.3 A green roof is also proposed to be installed to help retain Angel's contribution to sustainability.
- 2.4 The system would cost £102k to install, including a green roof. Payback should be in four years.

## **3. Recommendations**

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- 3.1 It is recommended that Cabinet:
- 3.1.1 Approve a capital budget of £102k in 2022/23 to extend the photovoltaic array and install a green roof at One Angel Square.
- 3.1.2 Authorise the procurement of services and works and entering of contracts to facilitate the works.

## **4. Reason for Recommendations**

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- 4.1 To help with mitigating the electricity costs of the building.
- 4.2 To support the Council's efforts in meeting the net zero target for 2030 by increasing the generation capacity from renewable resources.
- 4.3 To assist in keep the building in good repair.

## **5. Report Background**

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- 5.1 The Council holds a long lease on its offices at One Angel Square, Northampton, and has a right to repurchase the building at a discounted rate at the end of the lease. It thus has

most of the interests of a freeholder. It is also obliged under the lease to keep the building in good repair.

- 5.2 The building was constructed with a range of sustainability measures including solar (photovoltaic, PV) panels and a pebble roof, designed to slow run-off. However, crows have taken to using the pebbles to attack what they perceive as threats, typically reflections in the glazing of the building. This has resulted in a need for expensive repairs.
- 5.3 Accordingly, the pebbles from the lower roof elevation have been removed. This has left parts of the roof with no positive use and insulation materials without protection which can lead to its deterioration. Given the Council's need to save money, the high price of energy, and the Council's net zero goal, the option of further solar panels was explored. This would enable the Council to increase its electricity generation capacity from renewable sources.
- 5.4 An outline design has been prepared which extends the Angel PV system to the largest practicable extent. Extending the PV system in this way would lead to an additional electricity generation of around 89,000 kWh per year. The annual electricity consumption for Angel is around 1,000,000 kWh and the annual generation from the existing PV system is just under 100,000 kWh. The half hourly electricity data for Angel has been reviewed and the building can consume most if not all the electricity generated by the proposed PV System. This offers the highest financial benefits. The cost for the proposed PV system is £77k.
- 5.5 The potential for increasing the size of the array has been reviewed from a planning perspective. Since the installation is less than one megawatt (MW) it would be permitted development.
- 5.6 It is also proposed to extend existing green roof system to further mitigate the risks of pebble damage to the building's glazing. This will also help with the building maintain its sustainability performing including mitigating runoff from the building. This would cost around £25k.
- 5.7 The annual financial savings based on current electricity rates are £24k. This means that the payback would be around 4.2 years for the whole cost, or 3.2 years considering the PV element only.

## **6. Issues and Choices**

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- 6.1 The choices available to the Council are as follows.
  - A. Do nothing and leave the building as it is. This would not enable the Council to mitigate against increasing energy costs or carbon emissions. The area from where

the pebble was removed will still need to be covered to avoid damaging the roof insulation.

B. Carry out the proposed installation.

C. It would also be possible to omit the green roof improvements. However, these help to secure the building against further expensive damage and also help ensure it does not contribute to flooding.

6.2 Option B above is the only option that enables the Council to effectively support its objectives by mitigating energy costs for this building, decreasing its emissions, and keeping it in good repair.

## **7. Implications (including financial implications)**

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### **Resources and Financial**

7.1 A capital budget of £102k is proposed. This would help with decreasing the annual electricity budget for the building by £23k, as well as minimising future costs from bird damage.

### **Legal**

7.2 The Council can install the additional PV system under s111 LGA 1972 as incidental to its wider responsibilities to deliver services through the ownership and management of buildings used for the purpose of service delivery.

7.3 Sale of surplus power, if any is generated, is permitted under the Sale of Electricity by Local Authorities (England and Wales) Regulations 2010, made under Section 11(3)(1) of the Local Government (Miscellaneous Provisions) Act 1976.

### **Risks**

7.4 The project carries a number of inherent risks, notably:

7.4.1 Works could be delayed due to material and labour supply issues. This could be mitigated by the early ordering of materials by the contractor and agreed programme between the parties.

7.4.2 There is a capacity pressure on the grid which can lead the grid operator to reject connecting the extended PV system to the grid. This would mean that any non-consumed generated electricity would not be exported. This risk is considered low, and the risks of

surplus power being generated and thus wasted is also considered low due to the balance between building energy needs and the size of the PV system.

### **Consultation**

7.5 No consultation is considered necessary for this specific scheme.

### **Climate Impact**

7.6 This project will help with increasing the generation capacity from renewable resources.

### **Community Impact**

7.7 No direct community impacts appear likely to arise from this scheme.

### **Communications**

7.8 Communications activities will focus on the outcomes and benefits of this scheme as to how it supports the council's net zero commitment and management of its cost pressures.

## **8. Background Papers**

8.1 None.