Commissioning and Procurement Executive Committee – 10 December 2024

Subject:	Solar PV operation and maintenance services								
Corporate Director: Director:	Colin J Parr – Communities, Environment and Resident Services Michael Gallagher – Environment and Sustainability								
Executive Member:	Councillor Sam Lux - Carbon Reduction, Leisure and Culture								
Report author and contact details:	Roisin Hickey roisin.hickey@nottinghamcity.gov.uk								
Other colleagues who have provided input:	Susan Turner – Finance Richard Bines – Legal Sue Oliver – Procurement								
	Yes 🗌 No Subject to call-in 🖾 Yes 🗌 No								
Reasons: X Expenditure taking account of the overa	Income Savings of £750,000 or more								
	munities living or working in two or more wards								
Type of expenditure:	Revenue Capital								
Total value of the decision	on: Up to £2,299,498								
Section 151 Officer expe									
	oved by the Section 151 Officer? 🛛 Yes 🗌 No 🗌 N/a oval reference number: 11372								
Commissioner Consider									
Has this report been share	ed with the Commissioners' Office? 🛛 🖾 Yes 🗌 No								
Any comments the Comm	issioners wish to provide are listed in section 6 below.								
Wards affected: All									
	n Executive Member: 03/10/2024								
Relevant Council Plan K									
Green, Clean and Connected Communities									
Keeping Nottingham Working									
Safer Nottingham									
Child-Friendly Nottingham									
Living Well in our Commun									
Keeping Nottingham Movin	ng								
Improve the City Centre									
Better Housing Serving People Well									

Summary of issues (including benefits to citizens/service users):

Nottingham City Council (NCC) own and operate over 3,200 domestic solar PV systems installed on NCC social homes. These assets are split into two phases: Phase 1 which were purchased via the Housing Revenue Account (HRA) and Phase 2 which are owned directly by NCC. Around 10% of the total portfolio are installed at private houses where a tenant has opted to purchase the property under the right to buy scheme after solar panels were installed. NCC also owns and operates around 30 individual commercial solar PV systems, installed on operational buildings, and commercial buildings owned by NCC and leased privately.

Around 95% of assets receive Feed-in Tariff (FiT) payments, which was a government incentive to

install renewable generation. The FiT income for both phases is detailed in Table 1, below. The commercial solar PV systems installed on NCC's operational buildings also offer bill savings, as the building can use some free electricity produced by the solar panels rather than paying to import electricity from the grid. These significant bill savings to the authority are detailed in Table 1, below.

Phase	FiT Income	Annual Bill Savings
Domestic Phase 1	~£1.6m	No bill savings for the authority. Tenants benefit from
Domestic Phase 2	~£0.26m	the free electricity, saving an average of £300 per
		year/home
Commercial	~£0.1m	~£0.14m
Total FiT income and bill savings	~£1.9m	

Table 1 - FiT income, estimated tenant and authority bill savings

Funding for maintenance works has been secured via several budgets:

Phase 1: budget has been secured for this financial year, FY 2025/26 and FY 2026/27. This will be funded via the HRA, and the Solar Hub will re-charge them quarterly for all works completed during the period. HRA spend on solar maintenance has been agreed with the relevant Programme Manager in Housing Services.

Phase 2 & Commercial: budget has been secured for this financial year. Funds will be drawn down from reserve and allocated to cost centre 13021. It is anticipated that the budget allocated for this financial year will not be completely spent by March 2025. This has led to the recommendation for a sinking fund/reserve to be requested to be set up to ensure that the funding for the maintenance costs is available moving forward into the future financial years, thereby reducing possible impact on future MTFP.

Currently, an annual payment of ~£220k is made from the General Fund to the HRA to repay a loan that funded the installation of the solar panels. There is a LKD currently in progress to transfer ownership of Phase 2 domestic assets to the HRA which would remove this payment. Should this be agreed, funding for the next two financial years will come from the savings this would release. If not agreed, budget for the next two financial years would need to be identified elsewhere at a later date.

The invitation to tender will stipulate that we may spend up to £2,299,498, but there will be no commitment to spend this in total.

Table 2Error! Reference source not found. gives a summary of the financial forecast across the whole solar portfolio.

	2024/25	2025/26	2026/27	Total
Phase 1 – HRA funded	£543,838	£425,968	£438,747	£1,408,554
Phase 2 – NCC/ General Funded	£309,985	£231,072	£237,405	£778,462
Commercial – NCC/ General Funded	£45,466	£20,000	£47,016	£112,482
Phase 2 & Commercial Total	£355,451	£251,072	£284,421	£890,944
Portfolio Total	£899,289	£677,040	£723,168	£2,299,498

Table 2 – Summary financial forecast

Where the forecast exceeds the available budget, priority will be given to the safety of assets to ensure they are operating safely, and those with a higher FiT rate to maximise returns to NCC and ensure budgets are not exceeded.

A detailed breakdown of the forecast for domestic and commercial solar assets can be find in sections 2.3 and 2.4 of this report.

Exempt information: None.

Recommendations:

- 1 To approve spend of up to £2,299,498 on procurement of a solar PV operation and maintenance service.
- 2 To delegate authority to the Director of Environment Sustainability to tender, award and enter into a 3-year contract for a solar PV operation and maintenance service.
- 3 To authorise setting up of a sinking fund / reserve to ensure that funding for the maintenance costs is available in future financial years, thereby reducing possible impact on future MTFP.

1. Reasons for recommendations

- 1.1 NCC are responsible for the safe operation and maintenance of their solar assets, and therefore have a duty of care to ensure they are inspected and tested regularly and pose no safety concerns to the tenants, building, building users, staff and members of the public.
- 1.2 Solar PV systems must be maintained and problems affecting performance, such as failed components replaced. This will provide the site with continued renewable energy, and allow the authority to receive revenue from the FiT, as well as electricity savings on commercial sites.
- 1.3 Maintaining NCC's solar assets will continue to contribute to NCC's carbon neutural 28 aspirations and provide a cleaner environment for tenants, citizens, and visitors to Nottingham City.

2. Background (including outcomes of consultation)

- 2.1 The Commercial Oversight Board approved this ITT on 17 June 2024. No comments were received from the Board.
- 2.2 The executive member was briefed on this ITT on 3 October 2024.
- 2.3 Table 3 and Table 4 below detail the current status of domestic solar assets with known generation or metering issues, together with the estimated costs to fix them along with forecasted maintenance spend this financial year, FY 2025/26 and FY 2026/27.

ltem	Phase 1 quantity					Phase 1 quantity		hase 1 cost 2026/27	
Known inverter failures that require replacing	118	£	70,655	-	£	-	-	£	-
Known metering faults that require new generation meters	227	£	59,622	-	£	-	-	£	-
Metering failure rate @ 8 per month	96	£	25,214	96	£	25,971	96	£	26,750
Failure rate of inverters @ 11 per month	132	£	79,038	132	£	81,409	132	£	83,851
Pigeon protection measures	250	£	293,550	250	£	302,357	250	£	311,427
Roof inspections @ 15 per year (fault finding)	15	£	15,759	15	£	16,232	15	£	16,719
Total		£	543,838		£	425,968		£	438,747
		£							1,408,554

Table 3 - Phase 1 known issues and financial forecast

Table 4 - Phase 2 known issues and financial forecast

ltem	Phase 2 quantity	-	hase 2 - 2024/25	Phase 2 quantity		ase 2 cost 2025/26	Phase 2 quantity		ase 2 cost 2026/27
Known inverter failures that require replacing	96	£	57,482	-	£	-	-	£	-
Known metering faults that require new generation meters	105	£	27,578	-	£	-	-	£	-
Metering failure rate @ 8 per month	96	£	25,214	96	£	25,971	96	£	26,750
Failure rate of inverters @ 11 per month	132	£	79,038	132	£	81,409	132	£	83,851
Inspection and testing	300	£	88,065	300	£	90,707	300	£	93,428
Roof inspections @ 12 per year (fault finding)	12	£	12,607	12	£	12,985	12	£	13,375
Contingency budget	1	£	20,000		£	20,000	1	£	20,000
Tatal		£	309,985		£	231,072		£	237,405
Total		£							778,462

2.4 Table 5 shows the financial forecast for commercial solar assets.

Table 5 - Commercial financial forecast

ltem	Commercial quantity 2024/25	Con	nmercial - 2024/25	Commercial quantity 2025/26		mmercial t - 2025/26	Commercial quantity 2026/27		nmercial - 2026/27
Bi-annual Inspection and testing	32	£	25,466		N/A		32	£	27,016
Contingency budget	1	£	20,000	1	£	20,000	1	£	20,000
Total		£	45,466		£	20,000		£	47,016
		£							112,482

3. Other options considered in making recommendations

- 3.1 Do nothing doing nothing means that NCC will neglect its duty of care to ensure that the authority's solar PV assets are operating safely and pose no danger to building users and citizens. Systems that have developed a fault would no longer be providing free electricity to tenants/homeowners and the authority would not receive the expected FiT income nor electricity savings on commercial buildings where solar is installed. Furthermore, this would be a step back in the council's CN28 ambitions as more properties would rely on carbon-intensive grid electricity.
- 3.2 Use internal resource this would require multiple MCS qualified electricians to be hired or trained up within NCC and housing services; these skills do not currently exist within the council. Currently housing services electricians cannot work on Phase 2 solar assets due to the ring-fencing of HRA funds. Additional team resource would also be required for making appointments, buying in stock, processing any changes to systems etc. Due to anticipated fluctuation in the management of the solar assets, there is a risk with this option that the right level of internal resource would not be able to be maintained for a full-scale maintenance program. It is more favourable to have continuity of the program through the procurement of an external supplier.

4. Consideration of Risk

4.1 Nottingham City Council have a duty of care to ensure that the solar arrays installed on homes and commercial buildings are safe and pose no risks to

the tenant, homeowner, building users and or staff. It is therefore important that these systems are inspected and tested on regular intervals with testing reports issued back to the authority. Solar systems that are found to be a hazard will need to be safely isolated until they are fixed and safe to operate.

Mitigation action: Commence inspection and testing regime and rectify all faults.

4.2 NCC receive in the region of £1.6m in FiT payments for generating electricity and save more than £140,000 annually from using solar generated electricity and not importing from the grid. To ensure that these funds are received, and bill savings realised, maintenance of the solar arrays is imperative.

Mitigation action: Maintain solar assets and fix the ones that are faulty.

4.3 Not maintaining the assets or fixing problems is likely to cause complaints into NCC and or housing services.

Mitigation action: Act swiftly to maintain or fix problems with solar assets.

5. Best Value Considerations

- 5.1 Best value will be demonstrated by working with procurement colleagues to secure the best value tender, with consideration given to cost, quality and service. A costing exercise, quality questions and previous customer testimonials will be required as part of the tendering process.
- 5.2 Solar PV maintenance is a specific skill considering the dangers of working with direct current (DC) voltage. Considerations have been given to utilising internal resource, however colleagues across NCC, including housing services currently do not have the skills, knowledge or experience to work with these systems and is unlikely to change in the near future.

6. Commissioner comments

6.1 Commissioners accept the need for necessary maintenance to the solar panels. They recommend the Council undertake a review of provision to assure it is maintained on a reasonable basis. (22/11/24)

7. Finance colleague comments (including implications and value for money/VAT)

- 7.1 This decision is seeking to go out to tender for the proposed level of Solar PV operation and maintenance for the Phase 1 and Phase 2 operations (including on behalf of HRA with their agreement as declared by the author) of up to a value of £2.299m and a request to create a reserve to support this ongoing requirement moving forward.
- 7.2 The council has invested in solar energy systems for public buildings and social housing units and needs to prioritise regular maintenance to maximise efficiency and longevity. Routine tasks such as cleaning, inspections, and prompt repairs help keep solar panels operating at full efficiency, which translates to best value long-term cost savings on energy and could avoid more significant repairs later in the asset's life and higher grid energy costs. This will also ensure that the existing FiT income will be consistent and in line

with current MTFP expectations, if these assets are allowed to deteriorate then this income could decrease with reduced efficiency.

- 7.3 It is anticipated that the budget allocated for this financial year will not be completely spent by March 2025 due to the timeline required to proceed with the tender process. This has led to the recommendation for a sinking fund/reserve to be requested to be set up to ensure that the funding for the maintenance costs is available moving forward into the future financial years, thereby reducing possible impacts on future MTFP both from an escalation of repair costs, asset end of life and FiT income perspective.
- 7.4 The 2024-25 funding has been identified from within the current MTFP for the NCC costs and the noted HRA/Housing agreement, although this will need to be monitored and ongoingly reviewed to identify any changes to the planned expenditure (also in conjunction with HRA). Future years expenditure is expected to be met for Phase 1 (in agreement with HRA supporting these assets as declared by the author). The Phase 2 and Commercial elements funding currently is linked to an "in progress" Leader Key Decision and is not yet agreed at this stage. Should this agreement not take place then the future year non-HRA funding would have to be reevaluated and either cost reduction or alternative mitigations sought before proceeding on any spend beyond the year 1 expectation.
- 7.5 This funding will also likely need to be used to support removal costs from the NCC properties in future if this is not already been accounted for elsewhere so these costs will need to be represented too when considering expenditure.

Susan Turner, Senior Commercial Business Partner - 14/11/2024

8. Legal colleague comments

- 8.1 Authority is sought to procure and approve the spend of up to £3,273,576 on Solar PV panel Operation and Maintenance (O & M) Services, to ensure compliant contracting of these services on the basis of a 3 year contract. Solar PV system operations and maintenance (O&M) services are understood to be technical services required to establish and maintain a specific performance level for an independent energy system, that cover preventive and corrective maintenance services.
- 8.2 The approval sought should be subject to Section 151 Officer expenditure (Spend Control Board) approval, due to the s.114 (3) of the Local Government Finance Act 1988 report status of the Council and spend not being exclusively HRA money (which is exempt from SCB process).
- 8.3 There are no significant legal issues form a procurement law perspective subject to compliance with the Council's Contract Procedure Rules and Public Contract Regulations 2015 (PCR) / or new Procurement Act 2023 regime (depending on when the procurement exercise is commenced) as the proposed spend on the supply of the above service is above the relevant service contract threshold (on the basis of the estimated value inclusive of VAT) specified for the purposes of the aforementioned regulations.
- 8.4 Regardless of the applicable procurement regime the contract remains a public service contract therefore the Council must ensure it complies with the core principles either in regulation 18 PCR 2015 to treat economic operators equally and without discrimination, act in a transparent and proportionate

manner and shall not artificially narrow competition, or in section 12 of the Act when it must have regard to:

- the importance of delivering value for money;
- the importance of maximising public benefit;
- the importance of sharing information for the purpose of allowing suppliers and others to understand the contracting authority's procurement policies and decisions;
- the importance of acting, and being seen to act, with integrity.

Section 12 also provides that, when carrying out covered procurement, contracting authorities must:

- treat suppliers the same unless a different treatment is justified;
- have regard to the fact that small and medium-sized enterprises may face barriers to participation and consider whether such barriers can be removed or reduced.
- 8.5 A compliant procurement process will also need to ensure that the best value duty under s3 of the Local Government Act 1999 is fully considered to "make arrangements to secure continuous improvement in the way in which its functions are exercised, having regard to a combination of economy, efficiency and effectiveness". This includes maximising social value in procuring or commissioning goods and services, above and beyond the benefit of merely the goods and services themselves.
- 8.6 Given the underlying services to be provided and serious Health and Safety ramifications in the performance of the service, appropriate consideration in the assessment of relevant tenders bid should take account of all of the relevant Health and Safety considerations including matters such as:
 - effective Health and Safety (H&S) management standards are achieved;
 - site and task-specific H&S documentation is produced by competent persons including Risk Assessment Methods Statement s(RAMS);
 - providers have appropriate Employers' Liability Insurance as well as public and product liability insurance set at appropriate levels for the relevant H&S risks;
 - compliance with all industry guidance (statutory and non- statutory) applicable to the delivery of Solar PV Panel O&M services
- 8.7 It should be noted that as the owner of many of the sites mentioned, the Council will have responsibility under the Construction (Design and Management) Regulations 2015 to check and ensure the roof access is safe to access for the eventual provider.
- 8.8 Legal advice and support will be provided to support with the drafting of the contracting arrangements to be put in place.

Richard Bines (Solicitor) Contracts and Commercial Team - 06.11.2024

9 **Procurement Comments**

9.1 Procurement will work with the client team to carry out the procurement exercises set out in the recommendations. Procurement activity will be carried out in line with the Public Contracts Regulations 2015 or the Procurement Regulations 2024 depending on when the tenders are published. Of the

tender required, we would consider it as a tender for new Repairs and Maintenance contract. This will most likely be an open procedure. Cashable savings are unlikely against previous costs; however, the tender may be able to demonstrate savings against a rising market

Sue Oliver, Category Manager for Places - 09/08/2024

10 Crime and Disorder Implications (If Applicable)

10.1 N/A

11 Social value considerations

- 11.1 Continued reduced carbon emissions for Nottingham City residents and visitors.
- 11.2 Continued electricity savings for Nottingham City Council and tenants of social homes with solar PV installed.
- 11.3 Local employment as a result 3-year maintenance contract with a stipulation of local employment within the invitation to tender.

12 Regard to the NHS Constitution (If Applicable)

12.1 N/A

13 Equality Impact Assessment (EIA)

13.1 An EIA has been undertaken and due regard will be given to any implications identified in it.

14 Data Protection Impact Assessment (DPIA)

14.1 A DPIA has been undertaken and due regard will be given to any implications identified in it.

15 Carbon Impact Assessment (CIA)

15.1 A CIA has been undertaken and due regard will be given to any implications identified in it.

16 List of background papers relied upon in writing this report (not including published documents or confidential or exempt information)

- 16.1 None.
- 17 Published documents referred to in this report
- 17.1 None.