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| For Information | |
| Public/Non Public | Public |
| Report to: | Strategic Resources and Performance Meeting |
| Date of Meeting: | 18th September, 2020 |
| Report of: | Tim Wendels, Head of Estates and Facilities Management |
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| Agenda Item: | 9 |

Environmental Management

1. Purpose of the Report

- 1.1 The purpose of this report is to provide an update to the Police and Crime Commissioner (PCC) on the Force's environmental management, waste recycling figures and current environmental initiatives.

2. Recommendations

- 2.1 It is recommended that the PCC notes the Report.

3. Reasons for Recommendations

- 3.1 To ensure that the OPCC is aware of the Force's current environmental management initiatives.

4. Summary of Key Points

CARBON MANAGEMENT PLAN

- 4.1 In 2011, the Force developed a Carbon Management Plan which set out a target for a net reduction in its carbon emissions of 30% and the Plan also set out projects and proposals to meet that target.
- 4.2 The target was achieved by the end of financial year 2018/19 with a 38% reduction from the original baseline. These energy reductions have been made through projects and new initiatives that have been developed, along with the reducing number of buildings in the estate.
- 4.3 The estate rationalisation should continue to reduce our emissions slightly over the next year to 18 months, but emissions may then increase slightly when the new build for the joint HQ with Nottinghamshire Fire and Rescue Service is completed as this will increase the floor space of the estate. We will continue to monitor carbon emissions and will reassess the baseline and set further targets once the new joint HQ has been completed and a clearer picture emerges for the future.

SPEND TO SAVE

4.4 The following gives a description of the projects that have been carried out by the Estates and Facilities department to reduce energy consumption over the past 7 years:-

- i 9 sites have PV panels installed.
- ii Sherwood Lodge was fitted with double glazing, roof insulation and LED lighting to many parts of the site.
- iii Ollerton Police station, was fitted with a biomass boiler, double glazing, loft insulation and LED lighting with automatic controls.
- iv Broxtowe Police station was fitted with double glazing, loft insulation and LED lighting with automatic controls.
- v Sherwood Lodge has had two biomass boiler houses built to reduce the oil consumption.
- vi LED lighting has been used whenever we have carried out major improvements to the estate.
- vii The Force has installed new boilers and Building Management Systems (BMS) to regulate the heating and be more efficient at seven sites. The following list of buildings were included in this project, because they were typically 20-25 years old, and have gas and oil heating systems that are considered inefficient by today's standards and in most cases were near, or at the end of their life. This project was completed in the autumn of 2018 and will continue to provide us with efficient heating and minimise our energy consumption over many years.

Arrow Centre
Mansfield
Oxclose Lane
Phoenix House
Radford Rd
Sherwood Lodge
West Bridgford

4.5 The following additional works have been carried out over the past 12 months:-

- i Smart LED lighting systems have been fitted at Bulwell, Oxclose Lane and in the new Locker room at Sherwood Lodge.
- ii An Air Source Heat Pump has been installed in the new Locker Room at Sherwood Lodge.

- 4.6 The following additional works are currently at planning stage and are to be implemented in 2021:-
- i Smart LED lighting system to be installed throughout Mansfield Police Station.
 - ii Replacement of windows and roof coverings at Radford Road and Oxclose Lane providing increased standard of insulation.
 - iii Consideration of possible voltage optimisation scheme to reduce energy usage.

ESTATE RATIONALISATION AND MAJOR CHANGES

- 4.7 The estate rationalisation programme has had a significant effect on reducing our energy usage and carbon emissions over several years. We have moved out of several buildings and either not replaced them, which has saved the full amount of energy/carbon, or teams have relocated to smaller buildings with lower energy consumption for the Force. Further details of the estates rationalisation programme and future proposals are contained in a separate report elsewhere on the agenda for this meeting.
- 4.8 The Force is in the process of implementing two major new build projects which are due to be completed in 2021. These are a new custody suite and a new joint HQ building with Nottinghamshire Fire and Rescue Service (NFRS) on the Sherwood Lodge site. The new joint HQ building will increase the floor space, so this will have an effect on our future consumption but will enable NFRS to join the Force on the Sherwood Lodge site and will be offset by NFRS's floor space reduction through the disposal of their HQ – Bestwood Lodge.
- 4.9 In order to minimise carbon emissions and energy consumption from these two new builds, they have both been designed with a strong focus on environmental credentials as set out below:-
- i. Sherwood Lodge – The roof area has been maximised with Photovoltaic (PV) panel arrays to provide electrical power direct to the building or return to the grid when there is a surplus. The building fabric has been designed with low heat loss and air infiltration to keep heating requirements down. In addition, orientation, glazing and solar shading have been considered to limit solar gains and cooling requirements. Heating and cooling are provided by high efficiency air source heat pump units and ventilation systems utilise heat recovery to minimise heat input. Lighting utilises intelligent occupancy and daylight monitoring to minimise artificial lighting where not required, and also a self-test system to monitor faults and operation to reduce maintenance requirements. Finally a whole Building Energy Management System (BEMS) monitors and controls all systems which can modulate to meet load requirements based on occupancy, temperature, air quality etc.
 - ii. Custody Suite - The scheme has been designed to incorporate 420m² of PV panels which maximises the main roof footprint. The aim has been to provide

an energy efficient building. The primary focus has been to minimise energy usage through a fabric first approach, which utilises high performing components and materials to maximise the energy efficiency of the building. Efficient use of systems, and application of controls to suit zoning for heating, ventilating and air conditioning (HVAC) plant and lighting all contribute to the low energy consumption. A number of different services concepts have been assessed along with their suitability for incorporating low carbon energy systems into the scheme.

WASTE RECYCLING FIGURES

- 4.9 The waste contractor currently recycles or diverts to alternative uses approximately 98% of the waste we create. Part of our waste is separated on Police sites and is sent straight for recycling. While the rest of our waste is taken and separated by the waste contractor, who recycles it in several ways, including energy recovery, so that very little waste goes to landfill.

VEHICLE FUEL CONSUMPTION

- 4.10 The Force continues to reduce its carbon emissions from its vehicles, with better engine efficiency and lower car use, which has contributed to the overall reduction in carbon emissions. Funding is in place to purchase two electric vehicles this financial year and charging points have been installed at Sherwood Lodge and Byron House in Nottingham. Further charging points are to be installed as part of the new custody site and the new joint HQ build at Sherwood Lodge and the makeup of the fleet will be kept under review.

5. Financial Implications and Budget Provision

- 5.1 The capital programme contains budgets to implement the changes as required by the estate rationalisation programme and the other schemes that will continue to deliver lower energy consumption.
- 5.2 In the past, there was a general energy reduction fund for “spend to save” initiatives, but at the present the energy reduction schemes are either part of larger projects or are funded on a project by project basis through specific requests for capital funds.

6. Human Resources Implications

- 6.1 There are no human resource implications arising from this report.

7. Equality Implications

- 7.1 There are no equality implications arising from this report.

8. Risk Management

- 8.1 There are no organisational risks associated with this report.

9. Policy Implications and links to the Police and Crime Plan Priorities

- 9.1 There is a link to the PCC's Corporate Social Responsibility agenda.
- 9.2 This area of business is also linked to the Police and Crime Plan priority, 'Transforming Services and Delivering Quality Policing' priority, which is about improving confidence and satisfaction in policing and securing value for money.

10. Changes in Legislation or other Legal Considerations

- 10.1 There are no changes in legislation or other legal considerations for this report.

11. Details of outcome of consultation

- 11.1 There has been no consultation in relation to this update report.

12. Appendices

- 12.1 None.