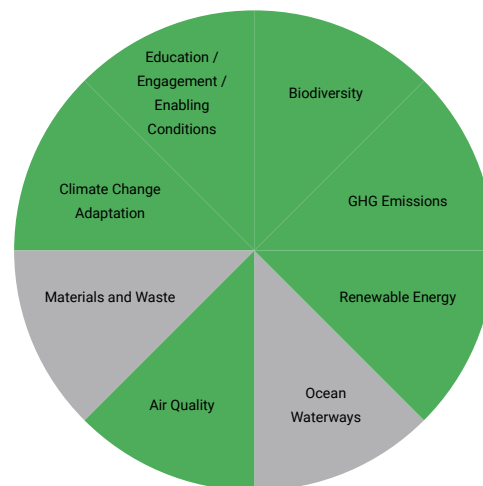


Energy Efficiency Dynamic Purchasing System



Assessment ID: ENE178

Assessment Author: Nicola Turvey

Project Summary:

Implementation of the Energy Efficiency Dynamic Purchasing System (EEDPS) for Plymouth City Council to utilise to procure retrofit implementation services

Summary of Assessment:

Overall this project generates long term positive climate impact in the following areas: - Biodiversity- GHG Emissions - Renewable Energy- Air Quality- Climate Change Adaptation- Education/ Engagement/ Enabling Conditions Currently there is not a directly positive climate impact to: - Materials and Waste- Ocean Waterways However, there is the opportunity to use this project to steer an improvement in retrofit practise when and where it interacts with these 2 x areas. to ensure continual improvement is driven to ensure these areas also benefit from the retrofit delivery within the city.

Biodiversity Score: 5

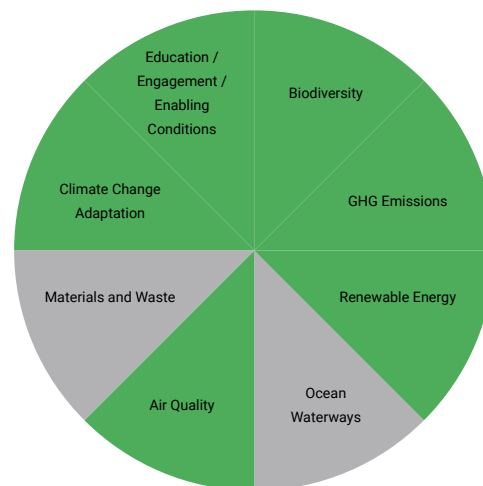
Biodiversity Score Justification: Nature conservation is not enhanced, however retrofit delivery will lead to heating interventions and improvements in privately owned and rented homes across the city; providing fully funded solutions to move homes away from reliance on open fires; wood burners; oil fuelled heating and gas fired central heating (all that emit pollutants into the atmosphere), and instead offer efficient replacements, such as electrically powered air source heat pumps, or solar pV to power electrically operated High Heat Retention Storage Heaters, which will reduce/ mitigate localised & national GHG emissions and particulate matter pollution from fossil fuel generated heating sources, and work towards improving the internal and external air quality, which may aid biodiversity improvements.

Biodiversity Score Mitigate: No

GHG Emissions Score: 5

GHG Emissions Score Justification: Retrofit delivery will involve improving Plymouths eligible privately owned and privately rented homes building fabric, to increase the thermal performance of the home, which should result in a home requiring less heating to reach a comfortable internal temperature, and be able to retain the heat for longer (so less topping up of the heat once that comfort level has been reached). Better insulating our existing housing stock will then lead to a reduction in the heating demand, which will reduce the associated GHG emissions / year,

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improving the energy efficiency of the home. In addition to improving the building fabric, retrofit delivery also seeks to improve the energy self-sufficiency of the home, so if the home also has pV installed and is an electrically heated property it will further reduce its energy demand from the national grid, further reducing its emissions footprint

GHG Emissions Score Mitigate: Yes

GHG Emissions Revised Score: 5

GHG Emissions Revised Score Justification: The installation of effective renewable tech such as pV, or the replacement of gas boilers with ASHP, where the co-efficient is >3:1 will further reduce/mitigate GHG emissions

Renewable Energy Score: 5

Renewable Energy Score Justification: The installation of effective renewable tech such as pV, coupled with battery storage or the replacement of gas boilers with low carbon heating solutions such as ASHP, where the co-efficient is >3:1 will further reduce/ mitigate GHG emissions

Renewable Energy Score Mitigate: Yes

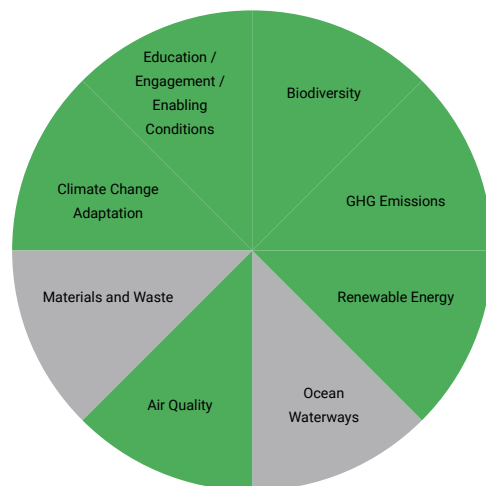
Renewable Energy Revised Score: 5

Renewable Energy Revised Score Justification: Including battery storage as a further self-sufficiency measure to pV enables further mitigation and ability for the home to utilise energy directly generated from the pV panels

Ocean and Waterways Score: 3

Ocean and Waterways Score Justification: It is not possible to record direct impact of retrofit delivery. However, retrofit delivery facilitates and funds the transition of a home away from oil or LPG heating methods, by installing low carbon alternatives. By changing a homes heating method from oil, removes the need for an oil tank, and removes the risk of a leak from the tank into the ground water or a spillage from the tank refill process, which could end up in a local water source or surface drainage which could potentially flow into local water source

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Ocean and Waterways Score Mitigate: No

Air Quality Score: 5

Air Quality Score Justification: Retrofit delivery will lead to heating interventions and improvements in privately owned and rented homes across the city; providing fully funded solutions to move homes away from reliance on open fires; wood burners; oil fuelled heating and gas fired central heating (all that emit pollutants into the atmosphere), and instead offer efficient replacements, such as electrically powered air source heat pumps, or solar pV to power electrically operated High Heat Retention Storage Heaters, which will reduce/ mitigate localised & national GHG emissions and particulate matter pollution from fossil fuel generated heating sources, and work towards improving the internal and external air quality, which may aid biodiversity improvements.

Air Quality Score Mitigate: Yes

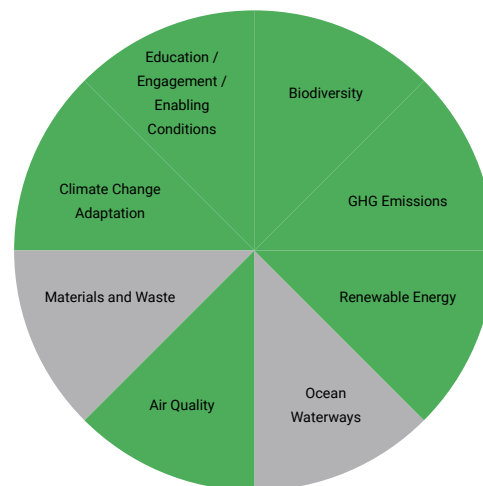
Air Quality Revised Score: 5

Air Quality Revised Score Justification: Removal of reliance on fossil fuel heating sources by installing either renewable heating sources (solar pV generating electricity to power electric radiators or High Heat Retention Storage Heaters); or low carbon heating installations such as Air Source Heat Pumps

Materials and Waste Score: 2

Materials and Waste Score Justification: Retrofit Delivery may likely generate some waste products such as radiators, inefficient storage heaters; gas boilers, window and door replacements; packaging from insulation products. Most product wrapping is recyclable, and the contractors will need to follow their company policies in correctly disposing of packaging. All contractors will need to follow their company policy and procedures in correctly disposing of waste or obsolete items, especially if they contain any hazardous substances. Should they contain hazardous substances, the correct waste transfer notes will be required to be obtained to evidence and audit trail of how item was removed - such as asbestos tiles from a roof, prior to pV being installed

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Materials and Waste Score Mitigate: Yes

Materials and Waste Revised Score: 3

Materials and Waste Revised Score Justification: Ensuring compliance is followed, monitored and evidenced in how materials are procured and waste is handled

Climate Change Adaptation Score: 5

Climate Change Adaptation Score Justification: Yes - each home will receive a full survey from appropriately qualified Retrofit Assessor, which will be reviewed by Plymouth Energy Community's Retrofit Specifier, and overseen by a third party Retrofit Co-Ordinator to ensure the improvement and interventions provided to each home are in line with considerations of cooling as well as heating requirements, to ensure the residents are protected from the property overheating in summer months, and sufficiently ventilated to mitigate/ minimise damp, especially due to the geographical location of Plymouth, whereby being in the SW we have a higher level of exposure to driven wet rain, which saturates house walls and humid weather conditions, which aids the growth of mould should the home not be dry and ventilated enough to prevent this.

Climate Change Adaptation Score Mitigate: Yes

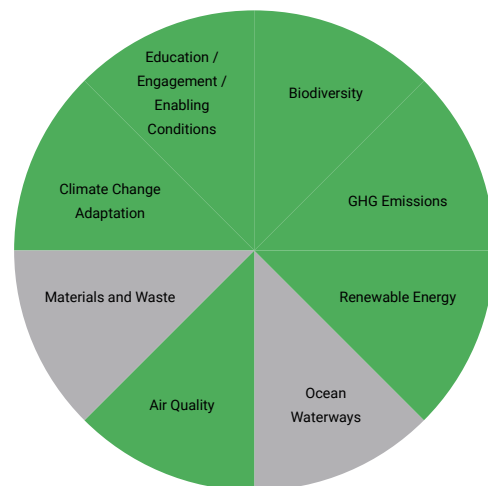
Climate Change Adaptation Revised Score: 5

Climate Change Adaptation Revised Score Justification: Improved ventilation systems with each fabric insulation improvement

Education / Engagement / Enabling Conditions Score: 5

Education / Engagement / Enabling Conditions Score Justification: Yes - the Energy Efficiency Dynamic Purchasing System will be developed to support local micro and SME businesses in upskilling to PAS2030 certification/ standard, which will enable the retrofit funding secured to be invested back into Plymouth's local economy. In doing so an aim is to collaborate with the city college to increase the PAS2030 training courses available to upskill Plymouth's workforce to this standard in delivering either fabric first or low carbon heat installations. In addition to the local

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economy, Plymouth will work with over 500 x residents to improve their homes thermal and energy performance, which in turn will build this awareness into the residents in receipt of grant funded improvements, and through word of mouth they may increase awareness on retrofit amongst their friends and family. We hope retrofit could also become an education piece of learning among school age children, who could actively participate in this learning through school engagement events or through education clubs within local communities

Education / Engagement / Enabling Conditions Score Mitigate: No

Wheel Key

- Long lasting or severe negative impact
- Short term or limited negative impact
- No impact or neutral impact
- Short term or limited positive impact
- Long lasting or extensive positive impact