



Subject:	Net Zero Belfast Pathfinder project - update
Date:	8 th August 2024
Reporting Officer:	John Tully, Director Organisational and City Strategy
Contact Officer:	Debbie Caldwell, Belfast Climate Commissioner

Restricted Reports

Is this report restricted? Yes No

Please indicate the description, as listed in Schedule 6, of the exempt information by virtue of which the council has deemed this report restricted.

Insert number

1. Information relating to any individual
2. Information likely to reveal the identity of an individual
3. Information relating to the financial or business affairs of any particular person (including the council holding that information)
4. Information in connection with any labour relations matter
5. Information in relation to which a claim to legal professional privilege could be maintained
6. Information showing that the council proposes to (a) to give a notice imposing restrictions on a person; or (b) to make an order or direction
7. Information on any action in relation to the prevention, investigation or prosecution of crime

If Yes, when will the report become unrestricted?

After Committee Decision	<input type="checkbox"/>
After Council Decision	<input type="checkbox"/>
Sometime in the future	<input type="checkbox"/>
Never	<input type="checkbox"/>

Call-in

Is the decision eligible for Call-in? Yes No

1.0	Purpose of Report/Summary of Main Issues
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	To provide an update on the Belfast Net Zero Pathfinder project which is de-risking two strategic projects to decarbonise the built environment in Belfast: a heat network and a solar PV project.
1.1	
2.0	Recommendation
2.1	<p>To note the contents of the report, specifically that:</p> <ol style="list-style-type: none"> I. the one year project commenced on 1st June 2024 and will be implemented over in partnership with the Energy Systems Catapult; II. the project will de-risk and progress two priority projects (heat network and a solar PV project) from the Belfast Local Energy Action Plan (LAEP) and Queen’s Island Decarbonisation Plan; III. a Project Assessment is currently underway (to scope the projects) with a market readiness assessment and business model development due to start in August; IV. Alongside this work, two separate projects are progressing to determine the potential for adoption of rooftop solar PV and to provide Council with an understanding of the technical and commercial factors surrounding the introduction of a low carbon heat network in Belfast; and V. Shared Island funding has also been secured with Cork under Community Climate Action Fund (CCAF) Strand 1A to install solar PV on Donegal Pass Community Centre.
3.0	Main Report
3.1	Context
3.2	The Belfast Local Energy Action Plan (LAEP) and Queen’s Island Decarbonisation Plan (developed by the Energy Systems Catapult with a local energy consortium) were presented to elected members in April 2024. The LAEP included five outline priority decarbonisation projects as cost effective and deliverable interventions that could deliver significant energy savings and emission reductions while also unlocking growth and job opportunities across the city. These comprised: domestic retrofit, heat network, solar PV on public buildings, solar car port with EV charging and oil boiler to heat pump transition. There were also two modelled scenarios for Queen’s Island (a Heat network and Solar Photovoltaic Carports).
3.3	Members gave approval to establish a LAEP delivery group to support the delivery of decarbonisation projects across the city; and establish a community of practice to ensure that the data generated by the modelling is fully utilised by key stakeholders across the City. This work is underway and a report will be brought back to update elected members in due course.
3.4	Members were also notified in March 2024 that funding (£150K) had been secured from the Innovate UK Net Zero Living Pathfinders competition to de-risk two of the priority projects identified by the city’s LAEP and the Decarbonisation Plan for Queens Island area of Belfast. The two projects are a heat network and a solar PV project which are assessed to have the greatest potential to reduce emissions from the city whilst also delivering significant socio-economic benefits for local communities.
3.5	The Belfast Net Zero Pathfinder project enables Belfast to act immediately upon delivery of the LAEP and QIDP to progress two projects using a whole systems approach to decarbonise a local area. The project commenced on 1 st June 2024 and will be implemented over the coming year in partnership with the Energy Systems Catapult.
	Overview of the project
3.6	<p>The project will focus on overcoming the following non-technical barriers to the delivery of the two decarbonisation projects identified in the LAEP and QIDP, specifically around:</p> <ul style="list-style-type: none"> • low maturity / readiness of market/supply chain to progress net zero innovation;

- capacity of the Council to progress decarbonisation projects;
- appropriate business models (e.g. off-taker arrangements) to enable an attractive value proposition to investors;
- optimum legal and commercial arrangements for Council to engage with private sector to enable net zero projects; and
- potential public resistance to decarbonisation projects and their impact on the local area.

3.7

By accelerating and de-risking the delivery of two priority decarbonisation projects identified in the LAEP and QIDP, the project will support ongoing efforts by the Council and its partners to reduce emissions from the city's built environment which is the largest source of emissions in the City. Project activities include:

1. Project Assessment
 - a. Determine objectives for two priority decarbonisation projects (heat network and solar PV) from the LAEP / QIDP
 - b. Analysis of non-technical barriers to delivery (above)
2. Assess the maturity / readiness of market actors (potential off-takers, investors etc) to engage and deliver low-carbon projects
3. Develop capacity of key stakeholders including Council to take forward LAEP / QIDP outputs
4. Commercial viability and routes to finance
 - a. Business model analysis (value and finance flows)
 - b. Define optimum legal and commercial arrangements for Belfast City Council (BCC) to catalyse investment - this will enhance the capacity of BCC to engage the private sector in developing and delivering complex clean energy projects.
5. Identify opportunities for downstream investments to upskill and empower excluded groups and communities through consultation and engagement
6. Assess economic, environmental and social impacts of the interventions

Progress

3.7

The Energy Systems catapult have commenced the Project Assessment which will scope out each of the two projects in more detail. This will provide the necessary information for the subsequent work packages. Procurement of a commercial and legal firm to deliver 4b is also underway with an initial workshop planned for August. The market readiness assessment and business model development will also commence in August.

3.8

Alongside this work, an initial district heat network feasibility study is being commissioned to provide Council with an understanding of the technical and commercial factors surrounding the introduction of a low carbon heat network in Belfast. This work is being overseen by an internal Heat Working Group which has an overarching remit to inform and lead on the development of the Councils approach to incentivising the development of a heat network in Belfast. The work will take place from August through to November and will include:

1. **Energy Demand and Supply Analysis** – this will include energy profiling of the target area (see Appendix A) to identify key anchor loads;
2. **Heat Mapping and Profiling** – to identify opportunities for the supply and use of heat;
3. **Energy Masterplanning** – to identify promising demand clusters, potential locations for an energy centre, private wire opportunities, provide an optimised solution and initial route map as well as an initial techno-economic assessment; and

<p>3.9</p> <p>3.10</p>	<p>4. Heat Mapping & Masterplanning Outputs – summarised in a technical report with proposed next steps.</p> <p>A separate project is also progressing to determine the potential for the adoption of rooftop solar PV in the same target area. This is a follow-on project from an earlier solar PV study of selected council buildings presented to members in August 2023. The results of this study will be presented to members once the work has been completed.</p> <p>Shared Island funding has also been secured with Cork under Community Climate Action Fund (CCAF) Strand 1A to install solar PV on Donegal Pass Community Centre which was selected as it had the strongest potential for generation and lowest payback (as evidenced in the solar PV report by GIA).</p> <p>These four strands of work are being coordinated by the Climate Team working closely with Property and Projects, Legal Services and Procurement.</p>
<p>3.1</p>	<p><u>Financial and Resource Implications</u></p> <p>None at this point</p> <p><u>Equality or Good Relations Implications/Rural Needs Assessment</u></p> <p>None known</p>
<p>4.0</p>	<p>Appendices - Documents Attached</p> <p>Appendix A: Target area for heat network study</p>