### **Public Document Pack**

Democratic Services Section Legal and Civic Services Department Belfast City Council City Hall Belfast BT1 5GS



Belfast City Council

Friday 4 August 2023

#### MEETING OF THE CLIMATE AND CITY RESILIENCE COMMITTEE

Dear Alderman/Councillor,

The above-named Committee will meet in the Lavery Room - City Hall on Thursday, 10th August, 2023 at 5.15 pm, for the transaction of the business noted below.

You are requested to attend.

Yours faithfully,

#### JOHN WALSH CHIEF EXECUTIVE

#### AGENDA:

#### 1. Routine matters

- (a) Apologies
- (b) Minutes (Pages 1 12)
- (c) Declarations of Interest
- Rooftop solar PV potential in Belfast Presentation by GIA. (report to follow) (Pages 13 - 48)
- 3. Belfast Region City Deal Net Zero Roadmap
- 4. Belfast Agenda overview of climate and environment interventions (Pages 49 52)
- 5. Application for phase 2 funding from Innovate UK for the Pathfinders: Net Zero Living competition (Pages 53 62)
- 6. Update on Notice of Motion on C40 membership (Pages 63 66)
- 7. Issues raised in advance by Members

(a) Proposed agenda items for future meetings - Cllr Brooks

#### 8. Date of Next Meeting

## Agenda Item 1b

## **Climate and City Resilience Committee**

Thursday, 15th June, 2023

MEETING OF THE CLIMATE AND CITY RESILIENCE COMMITTEE

#### HELD IN THE LAVERY ROOM AND REMOTELY VIA MICROSOFT TEAMS

- Members present: Councillor R-M Donnelly (Chairperson), Councillors Anglin, Bell, Bower, R. Brooks, T. Brooks, Carson, Collins, Doherty, M. Donnelly, D. Douglas, S. Douglas, Kelly, Maghie, McAteer, McCabe, McKeown, Smyth and Walsh.
- In attendance: Mr. J. Tully, Director of City and Organisational Strategy; Ms. D. Caldwell, Commissioner for Climate and City Resilience; Ms. A. Diver, Climate Programme Manager; Ms. M. Quigley, Adaptation and Resilience Advisor; Mr. R. McLernon, Climate Programme Manager City; Ms. B. Roddy, Project Support Officer – Climate; Ms. C. Shortt, Monitoring, Learning and Reporting Officer; Mr. J. McKearney, Project Support Assistant; and Mr. G. Graham, Democratic Services Assistant.

#### Apologies

An apology for inability to attend was reported on behalf of Alderman Copeland.

#### <u>Minutes</u>

The minutes of the meeting of 6th April, 2023 were taken as read and signed as correct. It was reported that those minutes had been adopted by the Council at its meeting on 2nd May.

#### **Declarations of Interest**

Councillor T. Brooks requested that it be recorded that she was a member of the RSUA and that she was employed by QUB School of the Natural Environment.

Councillor Brooks was advised that as the items referred to on the agenda were presentations and that no decision by the Committee was required, there was no conflict of interest and Councillor Brooks was permitted to remain in attendance for the duration of the meeting.

#### Request to Attend the Next Meeting of the Belfast Retro-Hub

Councillor McCabe requested that, in the absence of ex Councillor Spratt, and based on a motion which he had proposed and she had seconded on the subject of the Belfast

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Retrofit Delivery- Hub, that she be permitted to attend the next meeting of the Retrofit Delivery-Hub.

In response, the Commissioner for Climate and City Resilience reported that she would be content to accede to the request of Councillor McCabe and extended an invitation to any Member of the Committee to attend the next meeting of the Retrofit Delivery-Hub should they wish to do so.

#### Reducing Greenhouse Gas Emissions from the Built Environment: Presentation of the RSUA Climate Action Report, Alan Ritchie, Chair of the RSUA Climate Emergency Committee

Mr. Ritchie attended in connection with this item and was welcomed by the Chairperson.

Mr. Ritchie stated that the climate action report was concerned primarily with changes which could be made to the built environment and which could impact positively on climate change. He provided an outline on the role of the RSUA in assisting the development plans to achieve net zero emissions by 2050.

Mr. Ritchie referred specifically to the areas which the Climate Emergency Committee was examining to impact positively on climate change including:

- 1. Existing Buildings
- 2. New Buildings
- 3. Travel
- 4. Green
- 5. Building Materials and
- 6. Heat and Power

He highlighted the areas under which the Council had control and could influence change, under the afore-mentioned specified headings. In terms of buildings, he specified the need to improve the energy performance and reduce emissions from existing buildings and increase the use made of those buildings. The Members were informed that it was important to publish data on energy production and consumption associated with Council buildings, on an annual basis, including a plan to reduce energy consumption within individual buildings. He highlighted the requirement to modify planning laws in order to increase the use of existing buildings.

The Committee was informed that net-zero carbon emissions was required to be within the brief of the construction of new buildings and that they would be required to be constructed in a manner to ensure longevity. Mr. Ritchie explained that there was a requirement to reduce the carbon used to construct new buildings as, in many cases, carbon debt often exceeded the operational carbon produced.

The Members were informed of the need to reduce embodied carbon, which was the amount of energy used to construct new buildings. Mr. Ritchie emphasised the importance of the Council publishing data on embodied carbon in the construction of those buildings.

The Committee was provided with the key areas which required attention if the Council was to achieve its climate ambition targets, including:

#### Travel by Traditional Motor Vehicles

The need to reduce travel and increase the level of high-density inner-city housing was identified as a key determinant to reducing carbon emissions by reducing the need to travel. The Committee was informed that new area plans were required to be put in place to facilitate high density residential development. Mr. Ritchie suggested the recruitment of a city architect, in a cross-departmental role, to assist the Council in that regard. He highlighted the need to integrate the public transport system by incorporating cycles lanes and pedestrian pathways.

#### <u>Green</u>

The Members were informed of the need to increase the coverage of native Irish trees to increase the future supply of local timber. It was reported that Northern Ireland was required currently to import a large proportion of its timber and this would negate that requirement. Mr. Ritchie suggested the creation of a fund to develop green spaces, in urban areas, and of the need to increase urban food production, including the increased provision of allotments, vegetable gardens and terraces.

#### **Building Materials**

The Committee was alerted to the requirement to reduce building material consumption, as part of the building process, and to publish data on the measures taken to reduce embodied carbon. He referred to the need to encourage the use of local building and recycled materials in the building construction process.

#### Heat and Power

The Members were informed of the need to move away from the use of fossil fuels and of the requirement to increase the production of green electricity. Mr. Ritchie highlighted the benefits of facilitating local and community heat and power production within existing communities and new developments.

In response to a question from a Member in regard to how far the Council had progressed in the achievement of reducing its carbon emissions, Mr. Ritchie stated that progress had been made and referred specifically to the new university campus as an example of positive change in building design and social integration.

A Member requested what action could be taken to increase the occupancy of vacant buildings above street level in city centre dwellings. Mr. Ritchie responded by stating that a change in planning policy and financial incentives, through subsidies and grants, might assist and that residents in city centre living required integrated planning and transport with green and eco-friendly spaces throughout the city.

A Member highlighted further the problem associated with a lack of political governance presently and was reminded that the Council could affect change through its local development plans, linked to the Belfast Agenda.

The Committee was informed that the inclusion of mandatory building standards, by the Council, could not only assist the Council in achieving its carbon emission targets but could encourage inward investment. In terms of payback associated with positive building design, Mr. Ritchie stated that it was not always the case that passive house design cost more to incorporate within the structure of a building. He confirmed that the Council needed to look at long-term investment and that, in general terms, a passive house had ten per-cent of the running costs associated with a standard build. He confirmed that investors tended to invest in long-term programmes.

A Member raised concerns in regard to the lack of connective infrastructure associated with the provision of alternative forms of transport, including safe cycle lanes and the maintenance of both road and cycle surfaces. He highlighted the need to separate alternative forms of green transport from congested and dangerous traffic lanes.

The Director of City and Organisational Strategy, at the request of a Member, agreed to bring back, to a future meeting of the Committee, a report on the gaps which the Council was required to address, in terms of meeting its targets, on delivering the recommendations contained within Mr. Ritchie's presentation.

The Chairperson, on behalf of the Committee, thanked Mr. Ritchie for his detailed and informative presentation and he departed from the meeting.

Noted.

#### An Overview of the Climate Programme

The Commissioner for Climate and City Resilience provided the Committee with an overview of the climate programme which had commenced in 2019, when the Council declared a climate emergency. She reported that a Resilience Strategy had been formulated subsequently, in 2020, which had included the creation of a carbon roadmap. The Commissioner reported that the Council had a key role and responsibility to deliver on its climate targets and, in so doing, pay particular attention to the operation within its own estate, including the climate consequence associated with its policies and procurement processes.

The Climate Commissioner highlighted the need to unlock the social and economic benefits associated with a climate transition and how the Council could use its estate to lead by example to achieve net-zero and emphasised the need to encourage behavioural change. She stated, that as part of that objective, the Council would accompany its climate plan with a climate investment plan as a means to promote climate actions and to identify new funding opportunities to meet its emission targets.

The Committee was informed of the work which was required to identify and quantify the Council's Scope one, two and three emissions, stating that over seventy per-cent of the Council's emissions were currently category scope three emissions. The Commissioner reported that the Council was evaluating the implementation of energy audits in regard to its buildings and how energy savings might be attained. The Members were informed that the Council had approved a £1 million climate fund to reduce its emissions and improve resilience.

As part of that investment, it was reported that eighteen projects had been developed as part of that process.

The Committee was informed of the importance of data in building an evidence-based platform regarding de-carbonisation. As part of that process, the Commissioner reported that the Council was undertaking a programme to monitor and record its carbon emissions. The Members were informed that the Council had joined the global reporting framework, Carbon Disclosure Project, during the COP 26 climate conference, receiving a B in year one and an A in year two. She referred to the work undertaken, using heat maps, to identify the most vulnerable areas of the city.

It was reported that the Council was working on a Local Area Energy Plan for Belfast, on a geographical basis, to show the most effective ways to de-carbonise which would provide evidence-based interventions, pulling data from an extensive range of both public and private organisations. The Commissioner reported that it was anticipated that the Council's energy plan would be published in January 2024. She referred to a range of specific projects which had been developed, including the One Million Trees and the UPSURGE projects, which were nature-based solutions to climate change.

The Commissioner informed the Committee that the Council was evaluating the development of Solar PV at locations such as buildings and parks and was looking at options to use hydrogen-based fuel cells to power its vehicle fleet. She highlighted work undertaken regarding sustainable food production, including the establishment of both a sustainable food partnership and heat network for the city.

The Committee noted the information which had been provided.

#### EV charging points: an update on the FASTER Project

The Climate Programme Manager City submitted the undernoted report on the Council's proposals to expand its electric vehicle charging infrastructure.

- "1.0 Purpose of Report or Summary of main Issues
- 1.1 The purpose of this report is to provide Members with an update on the FASTER project, which will increase Electric Vehicle (EV) charging infrastructure in the Republic of Ireland, Northern Ireland and Scotland.

#### 2.0 <u>Recommendations</u>

- 2.1 The Members of the Committee are asked to:
  - I. Note that the sites previously agreed by Committee on 13th October 2022, Girdwood Hub, Brook Leisure Centre, and Ballysillan Leisure Centre are now included as primary sites within the live procurement exercise which will appoint a Charge Point Operator to manage

Design, Installation and Operation of the Northern Ireland charge points.

- II. Note that a process of assessing EV charger capacity at a range of Belfast Leisure Centre locations has taken place, whereby Ulster University who are technical lead in the project, have worked with NIE to assess sites and have made recommendations on inclusion or omission accordingly.
- III. Note that one previously agreed site, Belvoir Activity Centre, has been omitted due to constraints in the energy capacity on site.
- IV. Note that Shankill Leisure Centre and Ozone Complex were assessed and deemed to have insufficient energy capacity at present for EV chargers.
- V. Note that Olympia Leisure Centre was considered for inclusion however had to be omitted due to time constraints relating to the procurement process and the fact that Olympia Leisure Centre's energy is managed by the IFA through Windsor Park.
- VI. Approve Avoniel Leisure Centre being included on the list of primary locations within Belfast, as a replacement for Belvoir Activity Centre.
- VII. Approve an additional three locations which have been included as reserve sites, should they be required. These are Lisnasharragh Leisure Centre, Grove Wellbeing Centre, and Whiterock Leisure Centre.

#### 3.0 <u>Main report</u>

- 3.1 Background
- 3.2 The FASTER Project is a joint cross border project across Scotland, the border Counties of Ireland and Northern Ireland to support the overarching ambition to transition to low carbon transport systems and to demonstrate how each of the three jurisdictions can provide early systems learning in relation to the electrification of transport.
- 3.3 The FASTER Project aims to ensure that the availability of public charging stations is not a major obstacle to Electric Vehicle (EV) market penetration.

- 3.4 Further information about the FASTER Project can be found at <u>www.fasterevcharge.com</u>
- 3.5 The FASTER Project has been awarded funding for the Project's costs from the European Union's INTERREG VA Programme, managed by the Special EU Programmes Body (SEUPB).
- 3.6 The partnership will implement the physical rollout of 73 rapid charging stations in the programme area. The Project aims to ensure that the availability of charging stations is not a major obstacle to Electric Vehicle (EV) market penetration with the proposal to carry out the design, analysis, procurement, installation, and operation of 73 Rapid Chargers across the three programme jurisdictions. There must be cross compatibility between the three jurisdictions which may be achieved using contactless card payments or other methods.
- 3.7 The FASTER Project is led by East Border Region Ltd. There are a total of seven project partners and 16 associate partners from across the three jurisdictions.
- 3.8 The following Project Partners will be directly involved in the planning and delivery of the overall Project:
  - 1. East Border Region Ltd (EBR) (Lead partner)
  - 2. Louth County Council (Procurement lead in R.O.I)
  - 3. Dundalk Institute of Technology (DKIT)
  - 4. Ulster University (Procurement lead in N.I.)
  - 5. South West College
  - 6. Highlands & Islands Transport Partnership (HiTRANS)
  - 7. University of Strathclyde
- 3.9 Other Associate Partners essential to the delivery of the overall project are:
  - 1. Monaghan County Council
  - 2. Cavan County Council
  - 3. Leitrim County Council
  - 4. Sligo County Council
  - 5. Donegal County Council
  - 6. Meath County Council
  - 7. Sustainable Authority of Ireland (SEAI)
  - 8. IT Sligo
  - 9. Armagh Banbridge Craigavon Borough Council
  - 10. Ards and North Down Borough Council
  - 11. Newry Mourne and Down District Council
  - 12. Mid-Ulster Council
  - 13. Fermanagh and Omagh Council
  - 14. Derry and Strabane Council

- 15. Belfast City Council
- 16. Mid & East Antrim
- 3.10 In Northern Ireland it is anticipated that up to 22 EV RAPID chargers will be installed through the FASTER project. RAPID chargers are 55kw chargers, capable of fully charging a vehicle in approximately 30 minutes.
- 3.11 Belfast City Council is in the final stages of developing a Belfast EV Strategy, which will set out the city's requirements and recommended approach to be implemented through a partnership approach, aligned to the regional EV Infrastructure Action Plan <u>https://www.infrastructure-</u> <u>ni.gov.uk/sites/default/files/publications/infrastructure/ev-</u> <u>infrastructure-action-plan-2022.pdf</u>. However, Council has been involved in two funding proposals which will increase publicly available EV chargers in Belfast by utilising the Council estate. These are the FASTER project, and through the ORCS (On Street Residential Charge Point Scheme). FASTER is focused on Leisure Centres, ORCS is focused on publicly available car parks.
- 3.12 Belfast City Council made an initial submission of sites based on criteria provided by East Border Region (the coordinating body) which were that sites had to be publicly accessible 24 hours a day, 7 days a week. This ruled out many of the Belfast Leisure Centres as they are subject to restricted access, leaving Girdwood Hub, Ballysillan Leisure Centre, Belvoir Activity Centre and Brook Leisure Centre.
- 3.13 Of these sites Girdwood Hub, Ballysillan Leisure Centre and Brook Leisure Centre had sufficient energy capacity for the installation of EV chargers. Belvoir Leisure Centre was omitted due to lack of capacity.
- 3.14 Girdwood Hub was deemed to have capacity for a single charger, Ballysillan Leisure Centre was deemed to have capacity for a single charger and Brook Leisure Centre was deemed to have capacity for a double charger.
- 3.15 Subsequently, SEUPB has varied the criteria so that sites which are publicly accessible on a restricted basis can be included, on the proviso that timings are signposted and available through information sources on EV charger availability such as Zapmap <u>https://www.zap-map.com/</u>. This variance resulted in the assessment of additional sites as set out below:
- 3.16 Avoniel Leisure Centre deemed to be suitable for a double EV charger

Grove Wellbeing Centre – deemed to be suitable for a double EV charger Lisnasharragh Leisure Centre – deemed to be suitable for a double EV charger Ozone Leisure Centre – insufficient capacity Shankill Leisure Centre – insufficient capacity Whiterock Leisure Centre – deemed to be suitable for a double EV charger

- 3.17 Following liaison with the Belfast City Council Energy and CO2 Manager officers recommended the inclusion of Avoniel Leisure Centre as one of the four primary sites, subject to approval from Elected Members.
- 3.18 The remaining sites, Lisnasharragh Leisure Centre, Grove Wellbeing Centre and Whiterock Leisure Centre have been placed on a reserve list, should an opportunity arise due to another site not proceeding. This is subject to approval from Elected Members.
- 3.19 One additional site was considered as a potential reserve; however, Olympia Leisure Centre was unable to be included at this stage due to the FASTER project timeframe for procurement which did not allow additional assessment of capacity and, the fact that Olympia Leisure Centre's energy is managed via Windsor Park under IFA management and would have required further engagement with the IFA, which was not possible in the time available to officers. However, Olympia Leisure Centre will be included in any future plans for use of EV on the Council estate.
- 3.20 Further updates will be provided to Committee on the FASTER Project as the project progresses, the ORCS funding application which has previously been agreed by Council, and on the development of Belfast EV Strategy and next steps.
- 4.0 **Financial and Resource Implications**

The FASTER project is fully funded by SEUPB.

5.0 Equality or Good Relations Implications/ Rural Needs Assessment

#### 5.1 Officers are currently developing the Equality, Good Relations and Rural Needs Screening and will incorporate within the emerging programme of work."

In response to a question from a Member in regard to accessibility to the charging points and the various selected leisure centres and the maintenance of the sites, the Climate Programme Manager City reported that, where 24/7 charging was not available, signage would be provided to highlight the operation hours of those sites which did not operate on a 24/7

basis. In response to the Member's further question in regard to the maintenance of EV charging points, it was reported that a charge point operator would be recruited to ensure the maintenance of the various charging points, covering an initial contractual period of seven years.

The Committee adopted the recommendations.

#### <u>Consultation on Climate Change Reporting by</u> <u>Specified Public Bodies - Developing New Regulations</u>

The Monitoring, Learning and Reporting Officer submitted the undernoted report regarding the reporting schedule to DAERA on climate change.

- "1.0 Purpose of Report or Summary of Main Issues
- 1.1 The purpose of this report is to update members on the consultation response to DAERA on climate change reporting.
- 2.0 <u>Recommendations</u>
- 2.1 The Committee is asked to:
  - i) Note the contents of the consultation
  - ii) Agree submission of response to DAERA
- 3.0 Main report
- 3.1 Climate Change Reporting Requirements

A climate emergency was declared by the Northern Ireland Assembly in February 2020. In June 2022, the Climate Change Act (Northern Ireland) 2022 received Royal Assent. This Act sets out Northern Ireland's framework for tackling climate change and reducing emissions, by setting (among other things) challenging targets to deliver net zero emissions ('net zero') in Northern Ireland by the year 2050. The Department of Agriculture Environment and Rural Affairs (DAERA) is leading on the development of Northern Ireland's first 5-year climate action plan (CAP) as required under the Act. The CAP will contain the Northern Ireland departments' policies and proposals to meet the first 5-year carbon budget for the years 2023-27 (which is a limit on the amount of emissions Northern Ireland can emit) and it will set our longer-term pathway towards net zero by 2050.

The important role of public bodies in tackling climate change is recognised by the Act, by requiring new law (regulations) to be made, which will set a requirement for specified public bodies to report on climate change. The consultation aims to help guide the department on what should be included within future monitoring requirements from public bodies and establish how often the information should be gathered.

Belfast City Council response includes:

- Adaptation reports should be provided every 2 years -Adaptation strategies tend to run on 3-5 year cycles, setting the direction of travel and the results of programmes can take longer periods of time to bear fruit, however, adaptation action should be continuous, reflecting the amount of change required, making reporting every 2 years valuable to track progress. The first report should be submitted by January 2025 to align with the independent expert climate change advice from the Climate Change Committee
- Mitigation reports should be provided every 2 years -Mitigation action plans are often short term or can at least be measured in clear stages, reflecting the quarterly energy billing and data collection system. There is therefore a need for more frequent updates on progress towards meeting NI and UK overall emissions reduction targets. It also aligns with the United Framework Convention on Climate Change (UNFCCC) reporting requirements for mitigation. The first report should be submitted by October 2025 to align with outputs from the Climate Change Committee.
- 4.0 **Financial and Resource Implications**
- 4.1 None
- 5.0 Equality or Good Relations Implications/ Rural Needs Implications
- 5.1 None."

A Member raised concerns on the consultation document proposing that NI Concessionary Fare Scheme be raised from sixty to sixty-five years of age. The Member suggested that the Department should be incentivising individuals to use public transport, given the current climate emergency, and suggested that the Council make a submission, as part of the consultation process, to have the decision reversed.

In response, the Director of City and Organisational Strategy stated that he would endeavour to ascertain which Council department would take a lead in the matter raised and would report back, by way of an officer-led response, to the proposal outlined in the consultation document.

The Committee approved the officer-led response to the consultation document.

#### Issues Raised in Advance by Members

#### Felling of Trees in Orangefield Park – Councillor Brian Smyth

The Member raised the issue of the felling of approximately one hundred and seventy trees in Orangefield Park by contractors, acting on behalf of N.I.E. In that regard, the Member requested to be furnished with information on the circumstances surrounding the decision to fell the trees, the agreement which was in pace between the Council and N.I.E., the cost of the tree restoration programme and what legal redress the Council might have in the matter.

The Director of City and Organisational Strategy reported that the matter had been referred to the Council's Legal Services Department and that the Committee would be provided with an update when more information became available.

#### <u>Climate and City Resilience Dashboard –</u> <u>Councillor Tara Brooks</u>

The Member requested if it might be possible to summarise the Council's climate adaptation and mitigation measures, in a dashboard format, for the purpose of clarity and ease of public access.

In response, the Climate Commissioner reported that the Council was working on capturing all of its data, in a dashboard format, showing climate actions, targets and outcomes. She stated that she would be happy to provide the Committee with an update in the matter by the Autumn and that climate actions would be linked to the Belfast Agenda.

The Monitoring, Learning and Reporting Officer informed the Members that a pilot study was being undertaken currently, with Amazon, focussing on climate data capture and that it would be possible to furnish the Committee with a draft outline of the dashboard proposals in the Autumn.

The Director of City and Organisational Strategy reported that a new performance team was being recruited, within his directorate, and that this would provide greater transparency and accountability in terms of climate adaptation and mitigation outcomes and would assist in the promotion of inclusive growth for the local economy.

Noted.

Chairperson





#### CLIMATE AND CITY RESILIENCE COMMITTEE

Subject:	Roof Top Solar Photovoltaic (PV) Potential in Belfast	
Date:	10 <sup>th</sup> August 2023	
Reporting Officer:	Debbie Caldwell	
Contact Officers:	Claire Shortt, Monitoring, Learning and Reporting Officer, Climate Team	

Restricted Reports		
Is this report restricted?	Yes No	X
If Yes, when will the report become unrestricted?		
After Committee Decision		
After Council Decision		
Some time in the future		
Never		

Call-in	
Is the decision eligible for Call-in?	Yes X No

1.0	Purpose of Report or Summary of Main Issues
1.1	The aim of this report is to update Members on a Shared Island funded project that is
	underway in a partnership between Belfast City Council and Cork City Council to explore the
	potential for solar PV on council buildings.
2.0	Recommendations
2.1	The Committee is asked to note the contents of this update and agree to a presentation of its
	findings at a future meeting.
-	
3.0	Background
3.1	Solar photovoltaic (PV) technology is a renewable energy technology that converts sunlight
	into electricity using thin sheets of semiconducting materials, such as silicon. When sunlight
	falls on the solar panel, the photovoltaic cells absorb the energy and release electrons which

generate a flow of electricity. These panels can either be installed on rooftops or installed in large-scale solar power plants

- **3.2** The use of solar PV is likely to be a key element of the decarbonisation of the city and the organisations progress to net zero by reducing dependence on fossil fuels. This project is likely to inform future plans in conjunction with the Belfast Local Area Energy Plan, Retrofit Programme and other key projects working towards net zero.
- **3.3** The potential application of solar PV across Belfast City Council properties is a first step to inform at scale climate change policies and renewable energy strategies by Belfast City Council, particularly in response to the recent introduction of Northern Ireland's formal Climate Change Act (Northern Ireland) 2022 and the targets it sets for the region.
- Belfast City Council, working with Cork City Council has secured Shared Island funding 35,000 euros to undertake three pieces of work: 1) a solar PV assessment of 10 council buildings in Cork and Belfast; 2) a desk-based solar PV rooftop assessment across a number of Belfast City Council owned properties; and 3) a study examining the potential for docklands regeneration in both cities focusing on innovation, tourism, culture, heritage. There will be a separate report on the docklands regeneration project to update Committee at a later date.

#### 3.5 1. Solar PV assessment of 10 council buildings in Cork and Belfast

Through this Shared Island funded initiative an assessment of 10 buildings is taking place, with 5 of those being in Belfast, 5 in Cork. This research includes a structural assessment of the assessed buildings and will be undertaken by a company called JBB. The results of both studies shall be integrated into a final report which captures the learning for Belfast and Cork.

3.6

#### 2. Desk-based solar PV rooftop assessment across a number of Belfast City Council owned properties using VUCity software

Belfast City Council holds a licence with VUCity and has used the platform extensively to visualise planning applications and regeneration initiatives. It has been used in council to assess proposals for new buildings, particularly the Major developments in and around the city centre. Planners can view architects model proposals in the VU.CITY 3D model and this is accurate to 15cm. The Regeneration team have also used this software.

3.7	For this project VUCity incorporates a desk-based solar PV rooftop assessment across a
	number of Belfast City Council owned properties with the analysis undertaken by a company
	called Gordon Ingram Associates (GIA). This study uses cutting-edge 3D modelling,
	bespoke spatial analysis tools, and expert daylight modelling techniques. The properties
	chosen were those with the highest current energy consumption. GIA will be giving a
	presentation of their research to date on these buildings from this desktop study.
3.8	Belfast City Council have also worked with the Department for the Economy (DfE) on an
	additional solar PV potential project in Belfast. DfE used the same software company –
	VUCity to scope the solar PV potential of more than 50 buildings across the city. The report
	will be published on the department's website in the near future.
3.9	Including the Shared Island funded projects and those included within the DfE study, 24
	council buildings have been studied to determine their solar PV potential.
3.10	Combined, the installation of panels on all of these buildings have been estimated to save as
	much as 1,255.9 tonnes CO2/KWh annually. This would equate to approximately 7% of the
	Council's estimated annual emissions. Six of the biggest potential generators of solar PV
	alone could help to avoid 401.29 tonnes of CO2/KWh annually.
3.11	Next Steps
	The next steps will be to use the findings and data generated by these studies to investigate
	and secure further capital funding for installation on those buildings that are most suitable.
4.0	Financial & Resource Implications
4.1	At this point there is no additional funding needed as it has been provided by the Shared
	Island Funding. Further opportunities for funding for the delivery of the recommendations will
	be investigated by the Climate team.
5.0	Equality or Good Relations Implications/Rural Needs Implications
5.1	None
6.0	Appendices
6.1	None

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# Potential of Solar Photovoltaic (PV) in Belfast Area for the Belfast City Council

London | Manchester | Belfast | Bristol | Dublin

Introduction to Project

## Introduction to Project and Deliverables

## Project Aim

• Assessment of Solar Insolation of <u>10 Properties</u> expressed in kilowatt hours (potential electricity generation)

## Deliverables

- Two solar assessment methodologies:
  - Standard Assessment Procedure (SAP) Solar Analysis
  - Climate Based Daylight Modelling (CBDM) Solar Analysis
- Scenario modelling based on:
  - Existing electricity consumption profiles
  - PV self-consumption
  - Export tariffs
  - Carbon displacement / reduction
  - Panel performance viability thresholds
- 3D Visualisation in VU.CITY
- GIS Files
- Summary Report

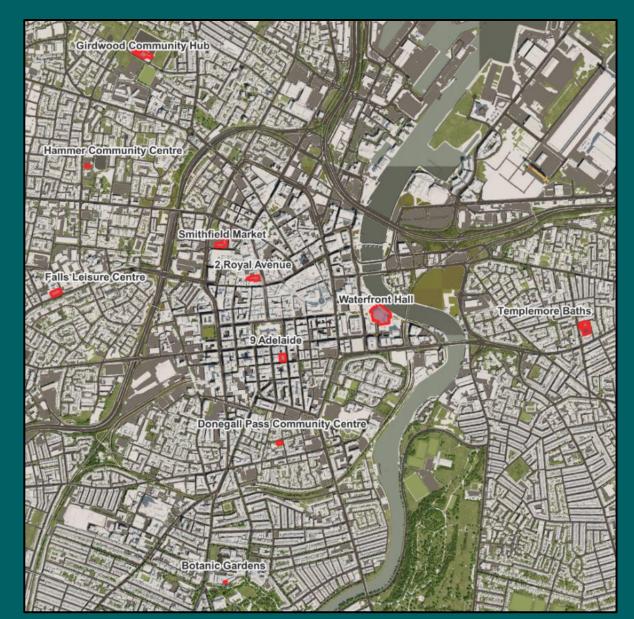


Figure 1: Map of Assessed Properties Locations

## Context: Project Part of Shared Island Initiative

- Shared Island initiative involves working with NI Executive, British Government and Irish Government.
- Announced in the Republic of Ireland's Budget 2021,
- $\in$  500m in capital funding available between 2021-25.
- Ring-fenced for investment in collaborative North/South projects.
- Slimate Action represents a core funding area.
- Research should inform the case for cross-border climate action partnerships.
- The initial PV scoping study will help inform a phase 2 application for capital funding to scale solar PV across Belfast (and Cork)
- Local Authorities to be seen as exemplars in making effective use of their rooftop real estate to reduce their energy costs and achieve local and national climate action targets.

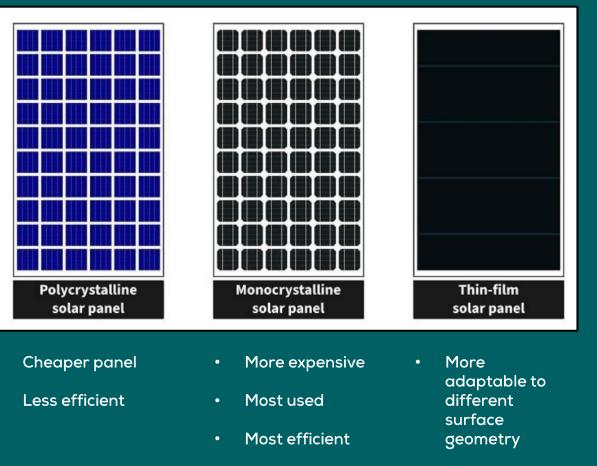


What is Solar Photovoltaic (PV)?

## What is Solar Photovoltaic (PV)?

- Photovoltaic (PV) technology converts daylight directly into electricity.
- PV produces electricity as a result of interaction of sunlight with semi-conductor materials in the PV cells.
- R works best with direct sunshine, but also under a cloudy sky N

#### Figure 3: Types of Solar Cells



Our choice for

testing

•

- Expensive
- Less common

## What is Solar Photovoltaic (PV)?

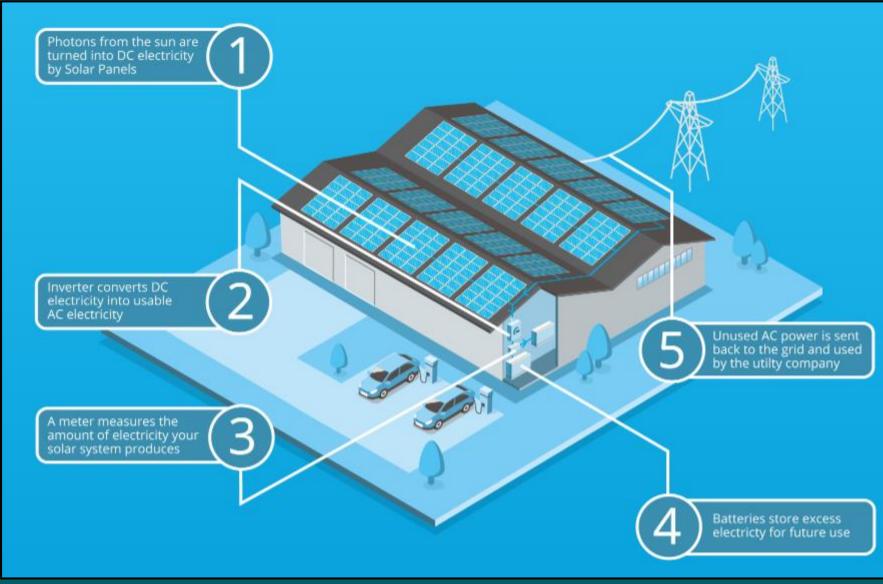


Figure 4: Solar PV System Components

Why is this project Important?

## Cost of Energy

- NI House Condition Survey (2018) estimated 160,000 households (22% of total NI households) were in fuel poverty
- Cost of energy is significant issue for NI's annual budgets
- -Carbon emissions and carbon levy
- OSolar PV can help tackle the issues

## £8.7 billion

Minimum estimated average annual spending on energy

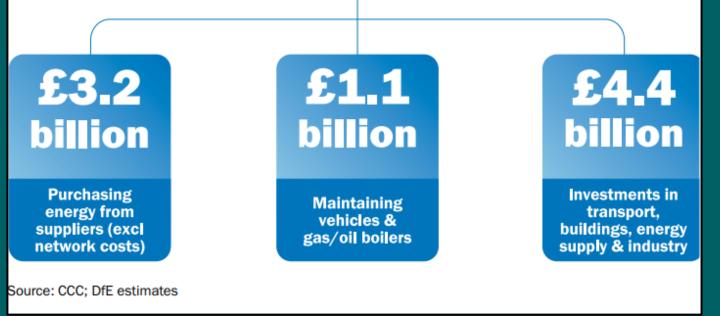


Figure 5: Cost of Energy in NI (DfE, 2021 – Path to Net Zero)

## Legislation – The Climate Change Act (Northern Ireland) 2022



# Climate Change Act (Northern Ireland) 2022

#### Simate Change Act (2022) Northern Ireland

In June 2022 the Climate Change Act (Northern Ireland) received royal assent. The Act creates a target for net-zero greenhouse gas emissions by 2050, with bridging targets including at least a 48% reduction in net emissions by 2030.

The Act contains information about:

- Five-yearly Carbon Budgets
- Climate Action Plans
- Sectoral Plans
- Just Transition Commission
- Northern Ireland Climate Commissioner

#### Figure 6: Climate Act Summary

## Legislative Targets:

- 100% reduction in net zero greenhouse gas (GHG) emissions by 2050.
- Interim target of at least 48% reduction by 2030.
- Article 15 of the Climate Change Act (Northern Ireland) 2022 sets the following target:

"The Department for the Economy must ensure that at least 80% of electricity consumption is from renewable sources by 2030..." (Climate Change Act (Northern Ireland) 2022).







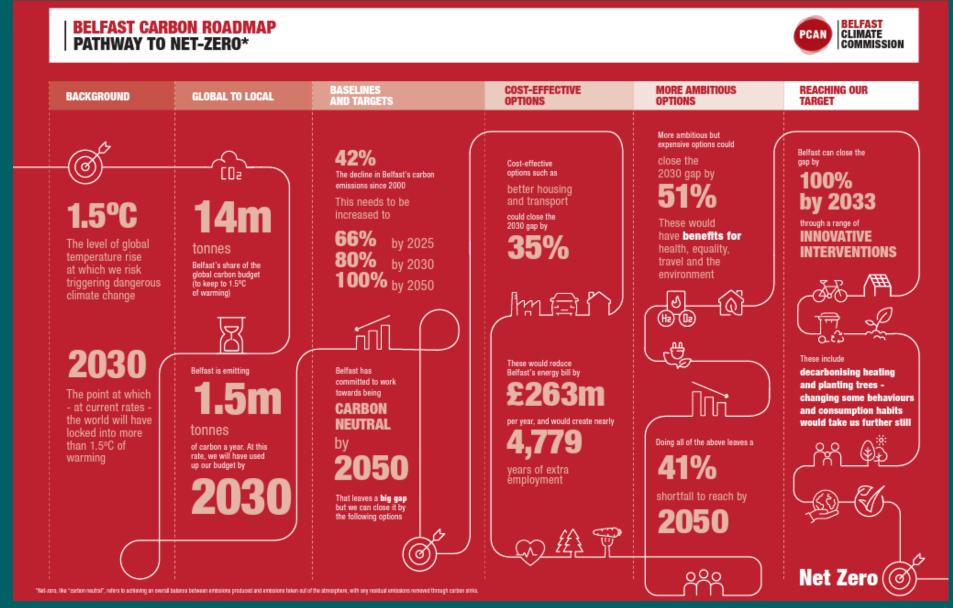






Figure 7: National and Local Documents with Climate Context

## Belfast Carbon Roadmap: Pathway to Net-Zero



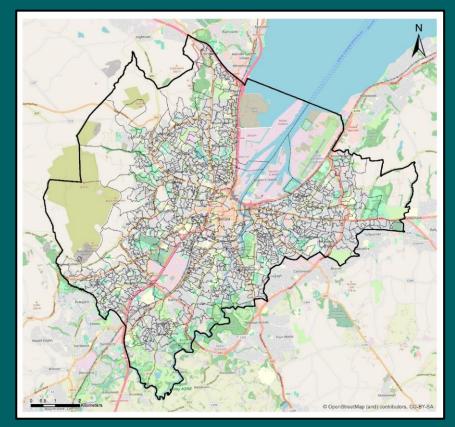
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How to understand a site(s) Solar PV potential?

- 1. Identify site location
- 2. Determine whether site appraisal will be based on desktop and/ or in-person assessment.
- 3. Identify appropriate space for installation (roofs, open space for ground mounts, potential new structures).
- 4. -Measure and calculate the usable space for installations
- 5. Calculate the inclination and orientation for roof / space.
- 6. Calculate the site's annual normalised solar radiation values.
- 7. Calculate the shading factor for the site / panels.
- 8. Calculate electricity (AC) output (kWh) = Annual AC Output (kWh) = PV kWp rating x irradiance x shade factor
- 9. Work out project viability

#### Issues

- 1. Surveying multiple sites locations in-person or via desktop appraisal is time consuming and costly.
- 2. Can make understanding property portfolio difficult



#### 1. Identify site location

- 2. Determine whether site appraisal will be based on desktop and/ or in-person assessment.
- 3. Identify appropriate space for installation (roofs, open space for ground mounts, potential new structures).
- 4. Omeasure and calculate the usable space for installations
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- 7. Calculate the shading factor for the site / panels.
- 8. Calculate electricity (AC) output (kWh) = Annual AC Output (kWh) = PV kWp rating x irradiance x shade factor
- 9. Work out project viability

#### Issues

- 1. Very challenging to understand and screen usable spaces.
- 2. What might appear to be north facing roof (many would discount) could have good radiation potential due to pitch and shading.
- 3. Maximise PV on usable roof space and filtering out low performing areas / panels.



Figure 10: GIA Calculations Account for Consented Surrounding Environment

#### 1. Identify site location

- 2. Determine whether site appraisal will be based on desktop and/ or in-person assessment.
- 3. Identify appropriate space for installation (roofs, open space for ground mounts, potential new structures).
- 4. -Measure and calculate the usable space for installations
- 5.  ${}^{\mbox{O}}_{\mbox{Calculate the inclination and orientation for roof / space.}$
- 6. Calculate the site's annual normalised solar radiation values.
- 7. Calculate the shading factor for the site / panels.
- 8. Calculate electricity (AC) output (kWh) = Annual AC Output (kWh) = PV kWp rating x irradiance x shade factor
- 9. Work out project viability

#### Issues

- 1. Hard to understand shade impact on individual panels.
- 2. Some approaches only consider the SF for the centre of an array or roof which leads to inaccuracies.
- 3. Where multiple roofs are to be used, understanding SFs accurately can be very time consuming.
- 4. Approaches don't consider the consented surrounding environment and future impact.
- 5. Getting onto roofs to calculate shading is problematic.
- 6. Difficulty interpreting what is near and far shading.



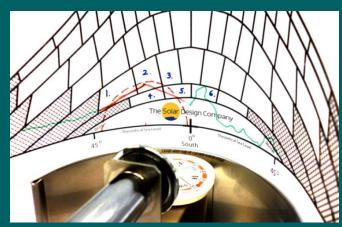


Figure 11: Solar Design Company Shade Calculation Tool

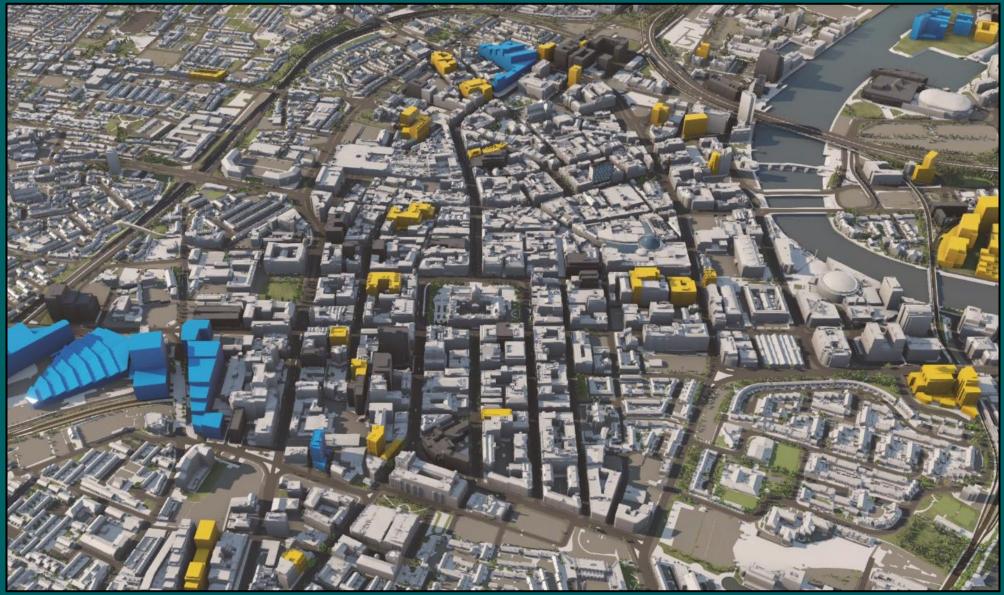
- 1. Identify site location
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- 7. Calculate the shading factor for the site / panels.
- 8. Calculate electricity (AC) output (kWh) = Annual AC Output (kWh) = PV kWp rating x irradiance x shade factor
- 9. Work out project viability

#### Issues

- 1. Calculating the benefits (climate and financial) of PV individually relies on the complex interaction of numerous variables :
  - a) irradiance and shade factor.
  - b) baseline and future built and natural environment.
  - c) climate factors.
  - d) panel efficiency.
  - e) project costs.
  - f) self-consumption profiles,
  - g) existing electricity usage,
  - h) electricity pricing,
  - i) export tariffs,
  - j) PV incentives,
  - k) carbon intensity,
  - I) opportunity cost of PV against other investments.
  - m) planning compliance.
- 2. Becomes more complex at scale when assessing a large property portfolio accurately.
- 3. Understanding options and scenarios to meet investor viability requirements.

GIAApproach

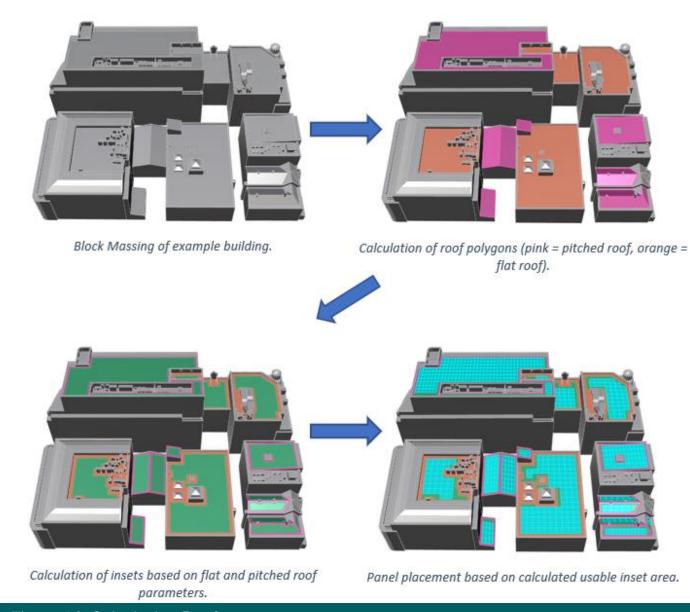
## GIA's Approach to Solar Assessment



### GIA's Approach to Solar Assessment



### GIA's Approach to Solar Assessment



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Figure 14: Calculating Roof space

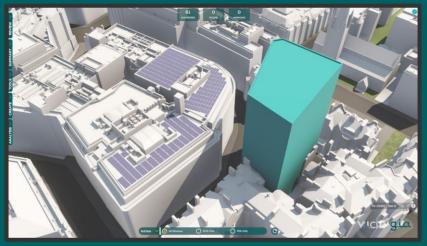
### GIA's Approach to Solar Assessment

BUILDING

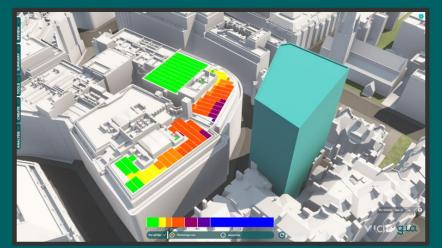


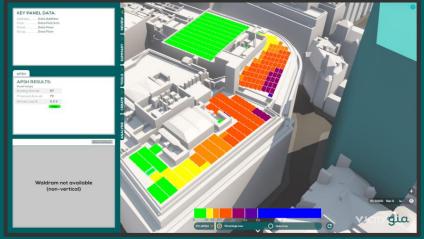
Asset is identified in VU.CITY from a list of addresses provided.

#### KNOWN CONSENTED BUILDING



Solar panels are algorithmically generated to fill the roof space, and consider factors such as including an offset from the roof edge for accessibility.





The panels are then assessed for solar insolation. Factors such as the impact of emerging surrounding schemes are considered. Panels can be individually interacted with, to provide data on the potential performance on a panel by panel basis, or as an aggregate by property.

Figure 15: Staged Approaches to GIA Calculations and Visualisations

### SAP Versus CBDM Approach

SAP	CBDM
Standard approach to solar assessment	Current planning approach
EPCs based on SAP	Can still be used to influence EPCs
Shading factor less accurate (based on categories of shading)	Shading factor is calculated per individual panel
Typically filters out north facing roofs	Is run for all orientations
Based on regional insolation values	Based on local meteorological data

We believe CBDM to be the most accurate approach to assessing solar PV potential

SAP and CBDM Context

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# Summary of the Benefits of GIA's Approach

- 1. Accurate city-wide 3D digital model (trusted by local authority)
- 2. 15cm detail at roofscape (roof lights, chillers, plant etc)
- 3. Future consented buildings (and their shadows)
- 4. Individual panel shading assessment
- 5. Cocal climatic data files
- 6. 👉 inancial and environmental scenario modelling
- 7. Operating at scale and with greater accuracy
- 8. Faster and cost effective methodology
- 9. Daylight and sunlight expert-led approach

Assessment Results

## Input Parameters

Parameter/ Specification	Assumption
Flat Roofs (inclination)	< 2 degrees
Pitched Roofs (inclination)	> 2 degrees
Panel Dimensions	1.6m x 1.0m (L x W)
Panel Wattage (Wp)	350Wp
Panel Efficiency	22%
Panel Cell Technology	Monocrystalline
Electricity Price (£/kWh) - Commercial	£0.189 / kWh
Export Price (£/kWh) – Commercial	£0.0495 / kwh (connection agreements can limit export potential)
Generation Incentive Scheme Tariff (£/kWh)	No incentive scheme currently available in Northern Ireland.
Grid Carbon Intensity (2021)	0.346 kgCO2e/kWh
Carbon Cost of Production and Installation of PV	41 gCO2e/kWh
Scenarios Modelled	100% self-consumption, 75% self-consumption, 50% self-consumption
Panel Viability Parameter Applied	Option 1 – No parameter
	Option 2 – Panel must produce a minimum of 188.17kWh / year

### **Combined 10 Sites Results**

### Scenario 1

- 10 properties
- 100% self-consumption and 0% export.
- PV Installed on 100% of usable roof space

#### Scenario 4

- 10 properties
- 100% self-consumption and 0% export.
- Panel filtering (188.17kWh/year performance threshold)

Scenario 1:	SAP	CBDM	Scenario 5:
Existing Electricity Usage (kWh)	4,403,679	4,403,679	Existing Electricity Usage (kWh)
System Size (kW)	1,172	1,172	System Size (kW)
Estimated PV Generation (kWh/Year)	781,395	711,996	Estimated PV Generation (kWh/Yea
No. of Panels	3,348	3,348	No. of Panels
% Contribution to Existing Electricity	18%	16%	% Contribution to Existing Electricity
Usage / Self-Sufficiency (%)			Usage / Self-Sufficiency (%)
Estimated Carbon Emissions Savings	268	244	Estimated Carbon Emissions Saving
(tonnesCO <sub>2e</sub> / Year)			(tonnesCO <sub>2e</sub> / Year)

Scenario 5:	SAP	CBDM
Existing Electricity Usage (kWh)	4,403,679	4,403,679
System Size (kW)	619	906
Estimated PV Generation (kWh/Year)	521,427	589,186
No. of Panels	1,768	2,588
% Contribution to Existing Electricity Usage / Self-Sufficiency (%)	12%	13%
Estimated Carbon Emissions Savings (tonnesCO <sub>2e</sub> / Year)	179	202

### Example – Falls Leisure Centre



Results	SAP	CBDM
Existing Electricity Usage (kWh)	377,829	377,829
System Size (kW)	38.5	38.5
Estimated PV Generation (kWh/Year) 32,514		24,504
No. of Panels	110	110
% Contribution to Existing Electricity Usage / Self-Sufficiency (%)	9%	6%
Estimated Carbon Emissions Savings (tonnesCO <sub>2e</sub> / Year)	11.15	8.4

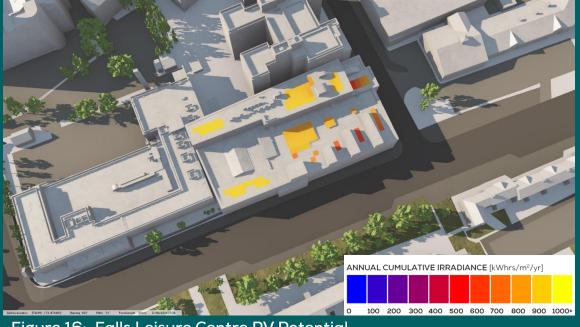


Figure 16: Falls Leisure Centre PV Potential

### Example – Girdwood Community Hub



Results	SAP	CBDM
Existing Electricity Usage (kWh)	416,276	416,276
System Size (kW)	131.25	131.25
Estimated PV Generation (kWh/Year)	107,607	88,059
No. of Panels	375	375
% Contribution to Existing Electricity Usage / Self-Sufficiency (%)	26%	21%
Estimated Carbon Emissions Savings (tonnesCO <sub>2e</sub> / Year)	36.9	30.19



Figure 17: Girdwood Community Hub PV Potential

### Example – 2 Royal Avenue



Results	SAP	CBDM
Existing Electricity Usage (kWh)	200,000	416,276
System Size (kW)	75.95	75.95
Estimated PV Generation (kWh/Year)	34,763	33,086
No. of Panels	217	217
% Contribution to Existing Electricity Usage / Self-Sufficiency (%)	17.4%	16.5%
Estimated Carbon Emissions Savings (tonnesCO <sub>2e</sub> / Year)	11.92	11.34

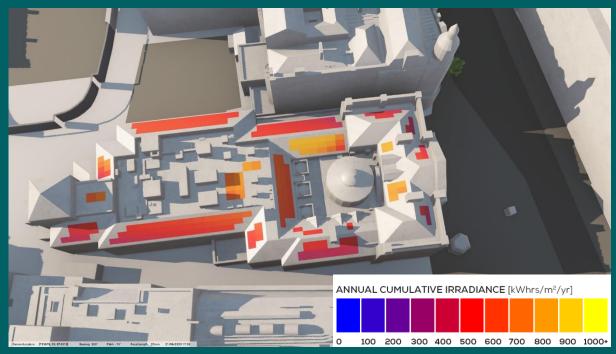


Figure 18: 2 Royal Avenue PV Potential

### Assessments Based on Future Consented Environment



Building Name Waterfront Hall Address 2 Lanyon Place, BT1 3WH Building Reference Waterfront Existing Electricity Usage ( 1,690,061 System Size (kWp) 319.9 PV Generation (kWh/yr) 183,683 No. of Panels 914 Carbon Emissions Savings 62.98 Thank you

Questions?

gia



#### CLIMATE AND CITY RESILIENCE COMMITTEE

Subject:	Belfast Agenda - overview of climate and environment interventions
Date:	10 August 2023
Reporting Officer:	Debbie Caldwell, Belfast Climate Commissioner
Contact Officers:	Debbie Caldwell, Belfast Climate Commissioner

Restricted Reports			
Is this report restricted?	Yes No	X	
If Yes, when will the report become unrestricted?			
After Committee Decision			
After Council Decision			
Some time in the future			
Never			

Call-in	
Is the decision eligible for Call-in?	Yes X No

1.0	Purpose of Report or Summary of Main Issues		
1.1	To provide members with an overview of the climate and environment interventions included within the Belfast Agenda ahead of the public consultation.		
2.0	Recommendations		
2.1	The Committee is asked to:		
	I.	Note the climate and environment interventions included within the Belfast Agenda;	
	11.	A further update will be provided to Members following the public consultation.	
3.0	Main report		
3.1	Background		
	In the refreshed Belfast Agenda the environmental and climate considerations have been strengthened to reflect the feedback from the wide range of stakeholders that have been		

	consulted. At the city level this work has been overseen by the Resilience and Sustainability Board as part of the wider community planning partnership. In particular the carbon targets adopted by Council last year have now been embedded in the city's ambitions for 2035. Creating a sustainable nature-positive city is now one of the five main themes with three key priorities over the next four years:
	1. Re-naturing the city and improving the food system
	2. Creating a sustainable circular economy
	3. Innovating to Net Zero
3.2	Re-naturing the city and improving the food system
0.2	Under this priority, there are three strategic intents:
	<ul> <li>Increase carbon capture and sequestration across Belfast, while reducing flood risk, enhancing biodiversity and improving the health of residents across the city through the One Million Trees project;</li> </ul>
	<ul> <li>Develop a demonstrator site in Botanic Gardens to test nature-based solutions through the UPSURGE project to strengthen climate resilience;</li> </ul>
	<ul> <li>Promote the uptake of nature-based solutions across the city to support climate resilience by integrating climate adaptation into strategic plans and urban agendas, by building adaptive capacity to deliver nature-based solutions, by scoping a city- wide regeneration programme to replace impermeable surfaces with green infrastructure, contributing to biodiversity and civic amenity, and by identifying funding opportunities to scale up nature-based solutions</li> </ul>
3.3	Creating a sustainable circular economy
	Under this priority, there are six strategic intents:
	<ol> <li>Enable the city to decarbonise at scale using the Belfast Local Area Energy Plan to develop a pipeline of investable local energy projects arising from the Local Area Energy Plan and identifying and responding to emerging funding and financing opportunities;</li> </ol>
	<ol> <li>Promote sustainable circular economy approaches through the Shared Island funded Circular Economy Feasibility and Business Case in partnership with Dublin City Council, the UP2030 project (which aims to embed net zero in urban planning) and by reducing the carbon / environmental impact of municipal waste;</li> </ol>
	<ol> <li>Promote a Just Transition to Net Zero in Belfast by addressing the social risks of the transition (eg employment shifts, impact on supply chains etc.), identifying social opportunities and co-benefits of the transition and through meaningful dialogue, co- creation and participation in net zero planning through community planning structures and involvement of key community, business and other statutory partners;</li> </ol>
	<ol> <li>Increase the use of Electric Vehicles in Belfast and improve access to charge points through the Belfast EV Strategy;</li> </ol>
	<ol><li>Reduce energy consumption (and bills) of housing and public /commercial buildings through the retrofit of buildings; and</li></ol>
	<ol><li>Decarbonise the heat supply to buildings in the city via a Heat Network and local energy projects.</li></ol>
3.4	Innovating to Net Zero
	Under this priority, there are five strategic intents:
	<ol> <li>Develop a Net Zero Park on Queens Island as a stand-out global hub and testbed for innovating and investing in advanced green solutions for energy, transport and manufacturing;</li> </ol>

	<ol> <li>Develop a stable supply of green energy to the Net Zero Park and surrounding lands to support the industrial cluster by developing affordable sustainable energy supply, by creating a testbed for multiple green fuels, and by establishing a local hydrogen plant;</li> </ol>				
	<ol> <li>Accelerate the transition to low carbon manufacturing by supporting industries to measure and manage their carbon footprints, by using smart design and digital twin assets to accelerate innovation, test new business models and enhance supply chair resilience;</li> </ol>				
	test new low carbon transport	4. Support Green Multi-Modal Mobility by creating a living lab across Harbour estate to test new low carbon transport solutions, by supporting low carbon innovation in advanced air, maritime & road transport, and by establishing partnerships with maritime districts			
		5. Expand an existing cluster of net zero technology companies to create a burgeoning GreenTech sector in NI and help realise the objectives of the Green Growth Strategy.			
3.5	For example, under housing led rege	mate and environmental considerations are also embedded throughout the other themes. r example, under housing led regeneration and the future city centre priorities. There is to a separate priority (under the Place theme) covering active and sustainable travel.			
3.6	<b>Next Steps</b> The planned next steps to finalising the draft strategy document and action plans are as follows:				
	Early August 2023	Refreshed Belfast Agenda strategy document and Action Plans launched for consultation. EQIA and RNA consultation also commence			
	July – October 2023	Review of Belfast Agenda Governance arrangements, performance framework and co-design framework undertaken.			
	10 October 2023	Refreshed Belfast Agenda strategy document and action plan consultation ends			
	w/c 6 November 2023	Refreshed Belfast Agenda formally launched (date to be confirmed)			
4.0	Financial & Resource Implications				
4.1	There are no financial implications.				
5.0	Equality or Good Relations Implica	quality or Good Relations Implications/Rural Needs Implications			
5.1	An EQIA and RNA have been undertaken and will be consulted on for a period of 12 weeks.				
6.0	Appendices				
6.1	None.				

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# Agenda Item 5

By virtue of paragraph(s) 3 of Part 1 of Schedule 6 of the Local Government Act (Northern Ireland) 2014.

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By virtue of paragraph(s) 3 of Part 1 of Schedule 6 of the Local Government Act (Northern Ireland) 2014.

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#### CLIMATE AND CITY RESILIENCE COMMITTEE

Subject:	Update on Notice of Motion on C40 membership
Date:	10 August 2023
Reporting Officer:	Debbie Caldwell, Belfast Climate Commissioner
Contact Officers:	Richard McLernon, Climate Programme Manager City

Restricted Reports		
Is this report restricted?	Yes No	X
If Yes, when will the report become unrestricted?		
After Committee Decision		
After Council Decision		
Some time in the future		
Never		

Call-in	
Is the decision eligible for Call-in?	Yes X No

1.0	Purpose of Report or Summary of Main Issues	
1.1	This report will update Members on a Notice of Motion raised in Standards and Business	
	Committee on the 25 <sup>th</sup> of October 2022 suggesting membership of the C40 network.	
2.0	Recommendations	
2.1	The Committee is asked to:	
	I. Note the content of the Notice of Motion raised at the Standards and Business	
	Committee on the 25 <sup>th</sup> of October 2022.	

	informed that	aving enquired about Belfast joining C40 the Climate Unit was at membership is at full capacity. Belfast City Council Climate Unit has our interest should membership reopen.	
	member of	relation to climate and resilience networks, Belfast is currently a the Global Resilient Cities Network, Core Cities Network, Eurocities d ICLEI Network, in addition to the PCAN Network mentioned in the otion.	
3.0	Main report		
	Background		
3.1	At the Standards and Business Committee on the 25 <sup>th</sup> of October 2022 Councillor Matt Collins proposed the following notice of motion, which was seconded by Councillor Ferguson and agreed by the Committee:		
3.2	"Belfast City Council notes that the C40 World Mayors Summit occurred between 19 – 21 October 2022 in Buenos Aires. The Council notes that the C40 World Mayors Summit brings together the mayors of global and regional cities, alongside business leaders, philanthropists, campaigners, youth leaders, scientists and residents, to share bold ideas, showcase innovative solutions and stand together to create a sustainable, prosperous and equitable future. This Council notes that it already supports the work of the Belfast Climate Commission and is part of the Place-based Climate Action Network ('PCAN'). The Council also notes that the C40 Leadership Standards are as follows:		
3.3		a resilient and inclusive climate action plan aligned with the 1.5°C greement, and updates it regularly;	
3.4		emains on track to deliver its climate action plan, contributing to quitable outcomes and halving C40's overall emissions by 2030;	
3.5	-	the necessary financial, regulatory and other tools at their disposal to sis and mainstreams their equitable climate targets into the most making processes;	
3.5	-	es and starts taking inclusive and resilient action to address emissions ol of the city government, such as associated with goods and their city;	

- 3.6 Lead: Mayor and the city demonstrate global climate leadership and inspire others to act in support of the Paris Agreement.
- 3.7 These Leadership Standards will guide C40's collective action until at least 2024. The Council considers that this PCAN work would be enhanced by Belfast City Council applying to join C40 as an 'Innovator'. An 'Innovator' city is one that shows exceptional climate leadership at the global level, but do not meet the population/size criteria of a 'Megacity.'
- 3.8 Accordingly, the Council resolves to recommend to the Lord Mayor of Belfast that she apply on behalf of Belfast City Council and her office to join the C40 network and, in any event, adhering to the C40's leadership standards."
- 3.9 Having liaised with contacts in C40 the Climate Unit has been informed that currently (as of April 2023) their membership is at full capacity. C40 are primarily mega cities who will have a population of 3million or more by 2030 and in addition include some innovator cities who are seen as leaders on climate action. However, C40 are not accepting new applications under either category at present. The Climate Unit has registered our interest should this open up again, and C40 have asked to be kept informed of any outstanding climate action similar to the CDP A achieved by Belfast in 2022. Should the situation change, membership will be applied for, and Committee updated accordingly.
- 3.10 The Belfast Climate Unit Climate Unit will seek to adhere to the C40 leadership standards as set out in the body of this report.
- 3.11 Members may be aware that that in relation to climate and resilience networks, Belfast is currently a member of the Global Resilient Cities Network, Core Cities Network, Eurocities Network and ICLEI Network, in addition to the PCAN (Place Based Climate Action) Network mentioned in the Notice of Motion.

4.0	Financial & Resource Implications	
4.1	There are no financial or resource implications at present.	
5.0	Equality or Good Relations Implications/Rural Needs Implications	
5.1	There are no direct equality and good relations implications.	
6.0	Appendices	
6.1	None.	

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