City Finance Framework

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Abbreviations and acronyms

Abbreviation / Acronym	Description
CAP or AP	Climate Action Plan
Capital Hub	Climate City Capital Hub
CFF	City Finance Framework
CFS	City Finance Specialist
CIP or IP	Climate Investment Plan
NZC	NetZeroCities

Summary

In 2021, 112 cities from across the European Union member states and associated nations (Mission Cities) made a bold commitment: to reduce greenhouse gas emissions by at least 80% by 2030. This commitment created an opportunity to forge a pathway to decarbonisation that could be followed by other places in Europe and further afield.

The Mission Cities have developed individual Climate Action Plans (CAP) to plot out their route to decarbonisation, and have supplemented these plans with Climate Investment Plans (CIP) that identify existing and potential sources of capital, and calculate funding gaps for the projects and plans as set out in their CAP. While a number of climate projects have completed feasibility studies and, in some cases, are already in the construction or implementation phase, the vast majority have yet to commence beyond the concept stage. Regarding this latter group of projects, many cities have requested assistance with assessing which projects should be prioritised and the type of financing pathways that are viable.

The City Finance Framework (CFF) is a decision-support tool developed to help the Climate City Capital Hub (Capital Hub) and cities prioritise and implement climate and sustainability projects. It provides clear metrics on project readiness, impact potential, and financial viability, supporting informed decision-making for sustainable urban development.

The CFF has a user-friendly, web-based interface for data entry and an Excel-based calculation module that generates weighted scores across eight key areas: technological readiness, impact (both direct and co-benefits), monitoring, enabling conditions, financial efficiency, finance gap and project development. This standardised scoring helps cities to compare projects, track progress, and allocate resources effectively. Designed to be iterated as activity through the Capital Hub accelerates, the CFF will evolve with user feedback to enhance its utility in driving urban sustainability.

Introduction

The CFF is a custom-built tool that is designed to support cities with the difficult task of prioritising their climate and sustainability projects by providing them with a clear understanding of the information needed to implement a project. Through its structured approach, the CFF also enables the Capital Hub to assess projects on various metrics such as project readiness, potential impact, and financial viability, facilitating the allocation of appropriate support to cities and advising on suitable financing pathways. By evaluating both immediate and long-term benefits, the CFF helps the Capital Hub select projects that align closely with its mission to drive impactful and sustainable urban development.

The CFF does not dictate project prioritisation. It is designed to support informed decision-making by providing project developers and the Capital Hub with insightful metrics that can be assessed alongside other considerations not captured by this tool.

1. Tool Structure

The CFF tool has two primary components to facilitate efficient data entry, processing, and analysis:

1. User Interface: The user-facing component is a web-based questionnaire, designed with intuitive navigation for ease of use. Individuals input data via this user-friendly interface and their responses are saved for further processing. This arrangement allows for consistent, structured data entry while ensuring that information can be readily exported to Microsoft Excel for in-depth analysis.

2. Calculation Module: After the data has been entered, the responses are processed through a calculation module in Excel. The responses are converted into quantitative scores that represent key project characteristics, such as technological readiness, potential impact, ease of monitoring, readiness for implementation, and financial efficiency. The calculation module generates a weighted score for each section, providing a comprehensive snapshot of each project's strengths and areas for potential further improvement.

1.1. User Interaction and Data Collection

The CFF's data collection process is structured to balance both qualitative and quantitative insights, ensuring a thorough evaluation of each project. The tool is divided into eight sections, each focusing on different aspects of project evaluation. Sections 1 to 5 of the tool cover qualitative aspects, allowing users to provide context on factors such as project feasibility and alignment with sustainability goals. The final three sections make up the Project Intake Form and should be competed when more specific/granular data is available. The information collected in these three sections is mostly quantitative, and will help in assessing the financial robustness and capital efficiency of a project.
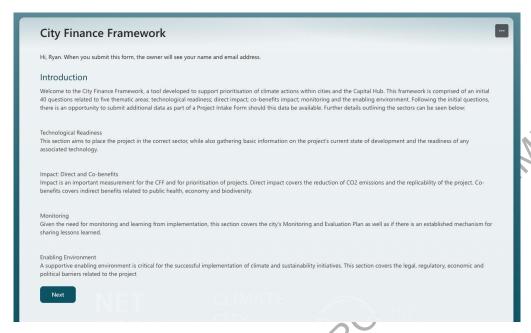
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Figure 1: Introduction and CFF Section Overview

To streamline responses, the qualitative sections use **a probability scaling metric that ranges from 'unlikely' to 'extremely likely'.** This enables projects that are still in the early stages of development to be accommodated by the tool by making it easy for users to provide an assessment even when specific data is not yet available. In instances where users are uncertain, '**unlikely'** serves as a default option to ensure consistent input. For the more quantitative components (Financial Efficiency, Finance Gap, and Project Development), cities are required to provide financial and technical data. A full list of every question in the CFF is available in Annex A.

An overview of each of the eight sections in the CFF is provided below:

Technological Readiness

This section aims to place the project in the correct sector (e.g., 'Waste: Circularity'), while also gathering basic information on the project's current state of development and the readiness of any associated technology. Cities can indicate if, for example, this is a new, untested technology that is being piloted by the city, or that the technology is commonly used and has already been commercialised and implemented in Europe. Understanding the readiness of the technology available is crucial for project prioritisation for both the city and the Capital Hub. If the technology is at a conceptual stage, cities will need to work extremely hard on its initial development, identifying opportunities for grant funding to build and test the technology and then piloting it on a small scale to test its effectiveness and solve for any weaknesses or other issues.

Impact – Direct and Co-benefits

Impact is a crucial measurement for the CFF, covering both direct impact through reduction of CO_2 emissions and project replicability, and indirect impact through co-benefits such as public health, economy, and biodiversity. The inputs required for the Impact section is aligned with existing work completed by the NetZeroCities (NZC) consortium, as outlined in both *NZC D2.7 Report on Indicators & Assessment Methods for Social Innovation Action Plans* and *NZC D2.4.3 Pilot City Indicator Framework*. The aim was to utilise approximately 20 of the co-benefit indicators that are already being monitored through Pilot City Projects and CAP to avoid overcomplicating the CFF and to provide a route to synchronised monitoring of all projects at a later stage. As impact drives both city project prioritisation and prioritisation within the Capital Hub, this is one of the largest sections of the Framework.

Monitoring

Monitoring and learning from implementation are key not only to the success of individual projects, but for their potential for being successfully replicated elsewhere. As such, the city must outline whether a project monitoring and evaluation plan is already in place (and, if there is a copy, provide a copy of it), as well as if the project is expected to lead to any measurable change in sustainability metrics and if there is already an established mechanism for sharing lessons learned so that these can be incorporated into other projects. Although this section is small, it is still a critical component of the CFF and links very closely to the monitoring of direct and co-benefits impact as outlined above.

Enabling Environment

As has become clear with the development of both CAPs and CIPs, a supportive enabling environment (legal, regulatory, economic and political) is vital for the successful implementation of climate and sustainability initiatives. The Enabling Environment section is designed to ascertain the current enabling environment for projects by assessing how well the project aligns with the city's broader goals and if it has been developed in collaboration with key city-based stakeholders. While this is not a requirement for the project to be prioritised by the city or the Capital Hub, the process of developing a supportive enabling environment can be lengthy, so acknowledging this early and beginning the process quickly is important for all prioritised projects.

Project Intake Form

The remaining three sections make up the Project Intake Form for projects looking to utilise the targeted support of the Capital Hub. Once sections 1 to 5 have been completed, CFF users will be asked if they have sufficient data to proceed (Figure 2). If sufficient data is available, then they can move on to complete the Financial Efficiency, Finance Gap and Project Development sections. If the required information is not yet available, the data for sections 1 to 5 can be submitted, with the ability to provide the outstanding data through the interface at a later date.
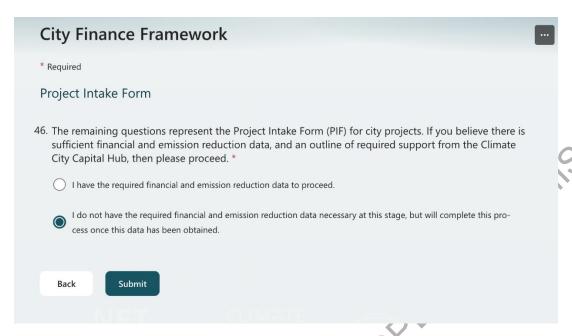
Figure 2: CFF Project Intake Form Entry

Financial Efficiency

The Financial Efficiency section is intended to provide more concrete project-level information to the Capital Hub team for the identification of viable funding pathways. By providing data such as capital expenditure requirements, potential project returns, and targeted leverage for a project, the CFF can identify whether the project is a good candidate for private financing (for example, through equity and debt arrangements) or whether it is more suitable for being financed directly by the municipality or through grant funding for new and innovative projects. While this is more useful for the Capital Hub in terms of project prioritisation, the output provided to cities will incorporate feedback on viable funding pathways and provides a valuable first line of guidance for cities in their project preparation actions.

Finance Gap

The Finance Gap section provides insight into the extent to which (if any) cities have identified and/or secured the financing required to implement the project. It asks cities to outline the stakeholders they have identified and engaged for financing and whether any funding has been committed by these parties. As with the Financial Efficiency section, this is primarily for informing the intake of the project by the Capital Hub, but is also useful for monitoring and identifying trends across projects inputted into the CFF more broadly.

Project Development

This section supports the prioritisation of projects through the Capital Hub, identifying target areas for project support and the degree to which these align with the Capital Hub's support offering. The data entered in this section focuses on the stages of project development that have already been completed,

and allows the CFF users to submit any supporting documentation such as feasibility studies, technical drawings, or economic and financial models.

1.2. Calculation Process

Once a project's data has been entered, the CFF calculation process can begin. User responses are exported from the web-based survey to an Excel file, where the data is used to compute scores. Each question contributes to a section score, with weights (see Figure 3 below) applied to each section based on the importance of each metric to the overall evaluation. This can only be adjusted in the calculation process – i.e., it cannot be adjusted by the CFF user when they provide their answers.

These weights should, of course, be fixed for the purposes of meaningfully comparing scores, but there is the option to alter the weights of the different sections should this be necessary and/or appropriate in the future (though it is not envisaged that these weights will change over the course of the CFF's implementation). The CFF takes both qualitative and quantitative features of a project into account, ensuring an accurate representation of its unique attributes is provided.

Factors under consideration	Weights Assigned
Technological Readiness (do not adjust)	20%
Impact value	20%
Ease of Monitoring	7.5%
City or Country Readiness	7.5%
Financial Efficiency	45%

Figure 3: CFF Scoring Weights

The final score for each project is derived by adding up the weighted section scores. These calculations generate a comprehensive project score, making it easy to compare projects within a single portfolio or across multiple cities. For cities, they receive a basic colour scoring output that advises them which projects should be prioritised, the next steps for development, and potential funding pathways if the financial data is inputted. For the Capital Hub, the scoring is more granular and numeric, and is used to help identify which projects can best be supported through the Capital Hub based on the opportunity for private financing pathways, but also the alignment of support needs with the expertise of the Capital Hub. **This does not decide which projects will be supported by the Capital Hub**, but is a useful indicator of what support a project needs and whether it needs to be referred to external technical assistance providers or grant funding opportunities.

2. Output and Reporting

The CFF generates a range of scores for each project, including standalone section scores, weighted section scores, and an overall project score (see Figure 4 below). This output is saved in an archive,

creating a historical record of project evaluations. As new data becomes available or projects are updated, CFF users can re-enter project data to generate an updated score that reflects the current status.

Factors Under Consideration	Raw Score	Weighted Score	Portfolio Average
Technological Readiness	10.0	2.0	1.4
Impact value	3.4	0.7	1.1
Ease of Monitoring	1.7	0.1	0.4
City or Country Readiness	5.0	0.4	0.4
Financial Efficiency	6.0	2.7	1.7
Total project score		**5.9**	**5.0**

ADD TO ARCHIVE

Figure 4: CFF Scoring Output

The archived data is particularly valuable for tracking a project's development progress, providing a clear view of how project readiness, impact, and other metrics have evolved over time. To maintain clarity in tracking, each version is saved with a project name and date, enabling stakeholders to compare changes in scoring as the project develops.

As use of the CFF expands, it will be iterated and enhanced to ensure it delivers valuable and highly actionable information.

3. Comparative Analysis and Decision Support

One of the main benefits of the CFF is its ability to provide a comprehensive overview of projects within a portfolio (see Figure 5 below). By generating standardised scores, the tool enables the Capital Hub to easily compare projects, whether within the portfolio of one city or across multiple locations. This comparative analysis functionality is essential for effective resource allocation, helping to ensure that support and funding are directed toward projects with the highest potential impact.

Please **manually** fill in the project name once you have archived the project	Technology Readiness	Impact	Ease of monitoring	City or country readiness	Financial Efficiency
Portoflio Average	1.4	1.085714286	0.375	0.39375	1.71
City A - Project X - October 2024	1	1.446428571	0.5	0.46875	0.45
City A - Project X Update - November 2024	1	1.232142857	0.375	0.375	0.45
City B - Project Y - October 2024	1	1.178571429	0.5	0.375	0.45
City B - Project Z - October 2024	2	0.785714286	0.375	0.375	4.5
City C - Project X - November 2024	2	0.785714286	0.125	0.375	2.7

Figure 5: Portfolio Overview

Furthermore, the CFF's scoring system is flexible. Section weights are adjustable on the main page of the Excel calculation module, allowing the Capital Hub team to tailor the tool to specific project portfolios or priorities. However, as noted above, to maintain consistency and fairness in project comparisons, the same weights should be consistently applied across all projects being evaluated and it is not intended that these will change.

4. Users

Although the CFF is a tool designed for cities, it is recommended that City Finance Specialists (CFS) support cities in its use. CFSs are trained to use the tool during their onboarding programme and continue to receive ongoing support in its application and any developments in functionality. By becoming frequent users of the tool, this will help ensure the data inputted is broadly consistent and removes the potential for inaccurate data due to a lack of understanding of what the framework is specifically asking.

Cities were introduced to the tool during a virtual session on November 28, and follow-up bilateral calls will be organised on a case-by-case basis upon request, but this is more for information purposes and to demonstrate the reasons for using the tool in collaboration with their CFS rather than to facilitate their own use of the tool.

5. Conclusion

The CFF is a powerful tool for project assessment and informed decision making. Its outputs provide valuable support and structure for engaging in discussions on project prioritisation and next actions. By taking a structured approach to project scoring, the CFF equips cities and the Capital Hub with critical insights for evaluating aspects such as the technological readiness, impact, and financial viability of projects. This, in turn, enables CFSs and cities to build portfolios that are strategically aligned with broader sustainability goals and benefit from having an informed overview of project readiness.

As use of the CFF expands, its functionality and structure will be iterated and enhanced to ensure it continues to provide insightful and actionable information.

The CFF plays a crucial role in ensuring the Capital Hub provides cities with appropriate and effective support in navigating the complexities of project prioritisation, making a valuable contribution to ensuring a more sustainable future for urban environments.

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Annex A: City Finance Framework Questions

Your Details

- Full Name: *(text box)*
- Email Address: *(text box)*
- Project Name: *(text box)*
- Project Location (City): *(text box)*
- Submission Date: *(text box)*

Technological Readiness

- Please identify the maturity of the technology that the project proposes to employ? *(multiple choice)*
- Please provide further detail about the technology and its intended use within the project? *(text box)*
- Which sector best represents the project proposal? *(multiple choice)*

Impact – Direct

- Does the project lead to a reduction in CO2 emissions? *(sliding scale 1-10)*
- Does the project lead to a reduction in the use of fossil fuels? *(sliding scale 1-10)*
- Is there scope for the project to be scaled without equivalent increase in capital expenditures (are there economies of scale)? *(sliding scale 1-10)*
- Does the project provide incentives to market participants to shift to low-carbon/sustainable solutions by reducing costs or risks, and eliminating barriers? *(sliding scale 1-10)*
- Does the project lead to the mitigation of specific climate-related risks (such as poor AQI)? *(sliding scale 1-10)*
- If 'yes' to the above, please provide detail to which climate-related risks are tackled. *(text box)*
- Is more than 25% of the population in the city under consideration exposed to the specific risks that the project seeks to mitigate? *(sliding scale 1-10)*
- Are other risk-mitigating initiatives available or ongoing? *(sliding scale 1-10)*

Impact – Co-benefits

- Public Health: Does the project improve air quality in the region of implementation? *(sliding scale 1-10)*
- Public Health: Does the project reduce noise pollution within the city and suburban areas? *(sliding scale 1-10)*
- Public Health: Does the project improve physical and/or mental wellbeing of citizens? *(sliding scale 1-10)*
- Inclusion & Innovation: Does the project improve affordability of housing and energy for citizens? *(sliding scale 1-10)*
- Inclusion & Innovation: Is the project replicable in other districts, cities and geographies? *(sliding scale 1-10)*
- Inclusion & Innovation: Does the project strengthen institutional and implementation capacity? *(sliding scale 1-10)*
- Inclusion & Innovation: Does the project support an increase in skills, awareness and education? *(sliding scale 1-10)*
- Inclusion & Innovation: Does the project support or improve the circumstances for underprivileged groups within the city? *(sliding scale 1-10)*

- Economy: Does the project lead to long-term economic benefits to the area it looks to service by supporting new markets and business activities to develop? *(sliding scale 1-10)*
- Economy: Does the project support the creation of new sustainable jobs? *(sliding scale 1-10)*
- Economy: Does the project facilitate or encourage investment into R&D for climate action and projects? *(sliding scale 1-10)*
- Finance & Investment: Does the project facilitate an increase in private capital invested into climate actions? *(sliding scale 1-10)*
- Resource: Does the project reduce urban waste and increase biowaste recovery? *(sliding scale 1-10)*
- Resource: Does the project lead to a decrease in energy intensity of buildings, cities, industries and appliances? *(sliding scale 1-10)*
- Resource: Does the project lead to a decrease in water consumption of buildings, cities, industries and appliances? *(sliding scale 1-10)*
- Resource: Does the project drive greater energy security? *(sliding scale 1-10)*
- Resource: Does the project improve land use management practices? (e.g. urban greening, improved soil health) *(sliding scale 1-10)*
- Biodiversity: Does the project improve the number of species of birds and pollinators in urban environments? *(sliding scale 1-10)*

Monitoring

- Does the project have a monitoring and evaluation plan? *(yes/no)*
- If answer to the above is 'yes' please attach here. *(document upload)*
- Is there a mechanism for sharing lessons learnt so that they can be incorporated into other projects? *(yes/no)*
- Does the project lead to measurable changes in sustainability metrics? *(sliding scale 1-10)*

Enabling Environment

- Does the project aim to contribute towards a recognised sustainability objective of the city, district, state or country? *(yes/no)*
- If the answer to above is 'yes', please explain which objective the project will support. *(text box)*
- Are there established regulatory policies that seek to support the project being planned? *(yes/no)*
- If the answer to above is 'yes', please explain which policies will support the project. *(text box)*
- Is there a track record of similar projects being constructed in the city, district, state or country? *(yes/no)*
- If the answer to above is 'yes', please outline which similar projects have been completed and provide any details. *(text box)*
- Has the project proposal been developed in collaboration with the following stakeholders? (select all that apply) *(multiple choice)*

Financial Efficiency (Project Intake Form)

- Total project cost: *(numeric input)*
- Target leverage: *(numeric input)*
- Proposed cost of debt: *(numeric input)*
- Loan tenor: *(numeric input)*
- Annual revenues *(numeric input)*
- Project life: *(numeric input)*

- Tax rate: *(numeric input)*
- Annual operating costs: *(numeric input)*

Finance Gap

- Capex: Please outline which of the following stakeholders have been identified to provide financing? *(multiple choice)*
- Please indicate the capex requirement for the municipality in EURm. *(numeric input)*
- Please indicate the capex requirement for municipally-owned companies in EURm. *(numeric input)*
- Please indicate the capex requirement for national funds in EURm. *(numeric input)*
- Please indicate the capex requirement for utility providers in EURm. *(numeric input)*
- Please indicate the capex requirement for private corporations in EURm. *(numeric input)*
- Please indicate the capex requirement for the EIB in EURm. *(numeric input)*
- Please indicate the capex requirement for commercial banks in EURm. *(numeric input)*
- Please indicate the capex requirement for 'other' in EURm. *(numeric input)*
- Please indicate the percentage of funding already secured from the municipality (e.g. 10% secured). *(numeric input)*
- Please indicate the percentage of funding already secured from the municipality (e.g. 10% secured). *(numeric input)*
- Please indicate the percentage of funding already secured from municipally-owned companies (e.g. 10% secured). *(numeric input)*
- Please indicate the percentage of funding already secured from national funds (e.g. 10% secured). *(numeric input)*
- Please indicate the percentage of funding already secured from utility providers (e.g. 10% secured). *(numeric input)*
- Please indicate the percentage of funding already secured from private corporations (e.g. 10% secured). *(numeric input)*
- Please indicate the percentage of funding already secured from the EIB (e.g. 10% secured). *(numeric input)*
- Please indicate the percentage of funding already secured from commercial banks (e.g. 10% secured). *(numeric input)*
- Please indicate the percentage of funding already secured from 'other' (e.g. 10% secured). *(numeric input)*
- Opex: Please outline which of the following stakeholders have been identified to provide operational funds? *(multiple choice)*

Project Development

- Please outline the project's aims and objectives. *(text box)*
- Please outline the scope and size of the project and the timeline for implementation. *(text box)*
- Please provide any other relevant information that should be known about the project (e.g. phase 2 of existing project). *(text box)*
- What stages of the project development have been completed for this project? (select all that apply) *(multiple choice)*
- Is the project linked with relevant strategic frameworks? (select all that apply) *(multiple choice)*
- Is this project tied to an existing EU consortium or project? *(yes/no)*
- What type of support are the city seeking from the Capital Hub for this project? *(multiple choice)*
- Name of project developer: *(text box)*

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- Name of lead contact: *(text box)*
- Lead contact e-mail address: *(text box)*

Supporting Documentation

- Upload: Project Plan *(document upload)*
- Upload: Pitch Deck *(document upload)*
- Upload: Feasibility Study *(document upload)*
- Supporting Documents *(document upload)*

Input Options

Text Box: Users are able to type text to answer the question.

Multiple Choice: Users are provided with a number of options from which they can select a response.

Sliding Scale 1-10: Users indicate the answer on a scale from 1 (unlikely) to 10 (extremely likely).

Yes/No: Users are provided 'yes' and 'no' options to select, with an additional option for 'unsure'.

Document Upload: Users are provided the opportunity to upload supplementary documentation.

Numeric Input: Users must indicate a response using a numerical value.