



Climate budgeting: approaches to action assessments

Kim Tatum, HafenCity University Hamburg

Module 4 of the Climate Budget Training Course, 07 May 2026

Climate Budgeting Training: Recap

➤ Previous Sessions:

- We presented climate budgeting concepts and formal/informal approaches, in real-world city cases.
- We reviewed current examples of emissions calculations processes, e.g. the Danish national collaboration model, and methodologies as carried out in the C4C pilot cities.

➤ **Today:** We turn to financial aspects and cost-benefit analyses.

➤ **Following the logic of climate budgeting:** We consider how to best support decision-makers with information about both the financial and climate impacts of municipal actions.

Climate Action Decision Support (CADS) Tool

Combining climate and financial concerns

- Cost projections
- Savings or benefits projections
- Timelines of expenses or investments (for outlays and for returns)
- Cost-efficiency
- Etc...

More detail to follow

Type	Name	Included in scenario	Total impact 2010-2040	Annual impact 2040	Net cost 2010-2040	Cost efficiency
Transportation (Organizational)	Electrify Light Work Machines	<input checked="" type="checkbox"/>	-156 t	-10 t/yr	-1,130 kSEK	-7 kSEK/t
Transportation (Organizational)	Fossil-Free Car Rental Agreement	<input checked="" type="checkbox"/>	-51 t	-3 t/yr	0 kSEK	0 kSEK/t
Transportation (Organizational)	Offset Flight Emissions with Green Aviation Fuel	<input checked="" type="checkbox"/>	-1,090 t	-68 t/yr	4,700 kSEK	4 kSEK/t
Transportation (Organizational)	Phase out Private Cars in Service	<input checked="" type="checkbox"/>	-624 t	-39 t/yr	-14,500 kSEK	-23 kSEK/t
Transportation (Organizational)	Procure 100% Renewable Energy in Direct Machine Services	<input checked="" type="checkbox"/>	-1,020 t	-56 t/yr	0 kSEK	0 kSEK/t
Transportation (Organizational)	Procure 100% Renewable Energy in Direct Transport Services	<input checked="" type="checkbox"/>	-800 t	-50 t/yr	0 kSEK	0 kSEK/t
Transportation (Organizational)	Replace City Fleet with Electric Vehicles	<input checked="" type="checkbox"/>	-3,540 t	-223 t/yr	-6,160 kSEK	-2 kSEK/t
Transportation (Organizational)	Replace Diesel with HVO100 in M/S Thomée	<input checked="" type="checkbox"/>	-308 t	-18 t/yr	654 kSEK	2 kSEK/t
Stationary (Organizational)	Replace Fuel Oil Heating with HVO100	<input checked="" type="checkbox"/>	-2,030 t	-127 t/yr	2,360 kSEK	1 kSEK/t
Stationary (Organizational)	Zero-Emission Factor for District Heating	<input checked="" type="checkbox"/>	-1,710 t	-107 t/yr	0 kSEK	0 kSEK/t



Key Step: Definition of purpose and objectives

Preliminary Deliberations

What to assess and in what detail?

- **Determining what information is valuable to the target audience:**
 - Who is the target decision-making group and what is their main concern?
 - What type of decision is to be made: A single big investment? Recurring projects over time? Or, rather, the design of an action or its intensity?
- **Factors influencing what is possible:**
 - Data collection
 - Resources for financial modelling
 - Concerns with precision

Climate Budgeting Approaches

Operationalizing Approach

- **Negotiations to concretize mitigation strategies into measures:**
 - Financial and climate impact concerns are part of an action development process, which involves multiple assessment considerations early-on
- **Consistent framing within the annual municipal budget:**
 - Individual action level assessment, increasing the number of assessments year-to-year
 - Time-limited and amount-limited determinations: A certain goal is set for the funding period
- **Impact assessment modelling is directly connected to monitoring:**
 - Assumptions made for the original assessment, e.g. # of units installed, are connected via reporting indicators back into the climate budgeting annual process
 - Transparency of the method and consistency for the future assessments

Climate Budgeting Approaches

Facilitating Prioritization Approach

- **Concrete climate actions from CAP receive additional financial assessment:**
 - Comparability of assessment assumptions across various CAP measures and sectors is important, e.g. energy cost factors.
- **Stronger influence of financial departments in decisions:**
 - Financial aspects of existing planned actions are considered as a method of prioritization

Climate Budgeting Approaches

Target and Assess Approach

- **Specific major or large investments are assessed:**
 - Potential for high level of detail, depending on status of investment planning
- **Design and other investment choices can be influenced:**
 - Multiple scenario models for individual investments can make design choices, e.g. energy efficiency, comparable
- **Alignment of long-term capital programs is a key concern:**
 - Less explicit connection to annual budget or CAP, but strategically implemented to increase capital program consistency with these goals

Key Takeaways

Getting ready for analysis

- **As with emissions assessments, begin with the level of detail and scope of assessment that suits the available resources and the specific funding decisions to be made.** Both detail and scope can be further expanded over time.
- **What is the output information that the decision-makers need?** Find out what resonates with them, for example, cost efficiency, break even point, etc.
- **Are there basic financially-relevant assumptions in your Business-As-Usual scenario?** Don't forget to account for financial assumptions that may influence impact assessments, e.g. changes to energy mix and associated cost, interest rates, etc., in order to maintain consistency with other processes.



Thank you!

Kim Tatum, HafenCity University Hamburg

Kim.tatum@hcu-hamburg.de