

Climate Action Plan of the City of Lausanne

Approaches used to estimating the greenhouse gas emissions of the city and of specific public services

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147'000 inhabitants (Lausanne City)

- \rightarrow 4th Swiss City
- \rightarrow 1/6th of the Canton de Vaud

427'000 inhabitants (greater Lausanne area) $\rightarrow \frac{1}{2}$ of the Canton de Vaud

>5000 employees in the municipal administration

Organisation

Culture and urban development	Finance and mobility	Industrial services	
Housing, environment and architecture	Youth and neighborhood	Security and economy	- Internal departments
Sport and social cohesion			
Regional public transport	Regional waste incineration plant	Regional waste water plant	External companies with a participation
Pension fund	Renewable energy		of the City of Lausanne

A Climate Action Plan for the city of Lausanne

- Long tradition of sustainability projects at the City of Lausanne
- A strong will of the City's executive power
- Pressure of the street
- Parliamentary motions

- Development of the Climate Action Plan, a strategic document, accepted by the Parliament on May 25th, 2021
 - Based on an assessment of the GHG emissions of the city

Assessing the GHG emissions of the city

Two perimeters

Administration



- → Including public services provided to its companies and inhabitants
 - \rightarrow Eg. Public lighting

Territory



Incl. inhabitants, companies, visitors, etc.

Comprehensive approach

Direct + indirect emissions

Methodological standard

Selection of the GHG protocol, as it offers a dedicated framework for each perimeter





A few words about the GHG protocol – community scale, designed for cities

Emissions from sources located within the city boundary



Emissions that occur outside the city boundary as a results of activities taking place within the city boundary

Challenge: access to the data

For example in the sector of transportation on the territorial perimeter

- Subcategories
 - On-road, railways, water-transport, aviation, off-road transportation
- Accurate data about mobility is generally unavailable at the city level
 - Necessity to build a model to estimate emissions
 - Exception: public transport





Challenge : defining the scope of some activities performed by the city's administration for other communities

As a central city, Lausanne provides several public services to other communities



Natural gas delivery



Water supply



Water treatment

Public lighting



Solid waste

treatment



Culture



GHG emissions in Lausanne (territory), 2019

Direct emissions : 25%

Indirect emissions : 75%



13.9 (total) – 3.3 (direct) tons CO₂-eq/inhabitant

Advantages of the GHG emissions inventories

 Provides the whole picture of the GHG emissions of the city (territory) and the administration

- Allows to set targets to guide the administration to define and implement its action plan
 - Zero direct emissions in mobility (territorial perimeter) by 2030
 - Zero direct emissions (territorial perimeter) by 2050

 Increases the knowledge and interest of the administration's departments about GHG

Use the carbon footprinting methodology to assess emissions of specific public services delivered by the administration

Public lighting (industrial services)

- Available as such in the GHG inventory of the administration
- Follow-up of emissions on a yearly basis
- Objective: -25% reduction in 10 years
- Methodology: assessment as a whole (growing public service) and per light point (fixed functional unit)



Subsidies of transport public (social department)

- Need to assess the success of the program
- Multi-criteria assessment with a quick GHG assessment (no standard needed)



Maintenance of the drinking water network (water department)

- Comparative assessment of various technologies to replace pipes
- Methodology: ISO 14044, as any other "product footprint"



Conclusions

- Help to define reduction targets and to steer public policies
- Increase the visibility of carbon footprint and LCA among other departments
- Methods and standards depends on each specific case. Good availability of standards. Pragmatism remains important.
- Dematerialized public services (e.g. social services) are less concerned