

DECLARATION OF CLIMATE EMERGENCY OF THE BARCELONA METROPOLITAN AREA (AMB)

1. The background of climate emergency

In 2019, some countries and numerous local governments declared a climate emergency in their territories. The first was the United Kingdom, followed by other countries such as France, Canada and Ireland. The European Parliament did so in November of the same year with its commitment to reach carbon neutrality by 2050. At the same time, many cities around the world declared a climate emergency (Sydney, Ottawa and Prague, among others).

In May of the same year, the Government of Catalonia formally declared a climate emergency in order to achieve the mitigation goals stipulated by the Climate Change Law. More recently (on 15 January 2020), the Barcelona City Council also decreed a climate emergency, a declaration that includes an action plan for 2020-2030 that contains 100 urgent, forceful and effective measures that were the result of an intensive participatory process. There is no doubt that the city of Barcelona's climate declaration will be effective to the fullest extent if it takes into account the city's real dimension, the metropolitan dimension.

Within the framework of the Sustainable Development Goals (SDGs) —which guide implementation of the United Nations' 2030 Agenda— and the Paris Agreement —in which European governments have established a series of measures aimed at lowering greenhouse gases by 55 % by 2030— climate emergency declarations arise from the acknowledgement that it will be hard to meet these goals and that climate impacts will be increasingly harsh unless we start acting now as quickly as possible. We know what the ecological and social consequences of climate change are, but the different actors (governments and public administrations, businesses, entities and citizens) are not dealing with the seriousness of the problem the way we should.

The scientific community and climate justice movements are demanding that public administrations act quickly and effectively to deal with this situation with public responsibility and solidarity.

The minor decline in CO₂ emissions caused by the COVID-19 pandemic will not make any significant difference in the long-term evolution of climate change. The world is still heading towards a catastrophic global temperature increase, over 3 °C by the end of this century, far above what was stipulated in the Paris Agreement, which sought to limit global warming below 2 °C and not to exceed 1.5 °C. Only if we use green, sustainable solutions after the pandemic will we be able to work towards a maximum 2 °C increase this century. In this sense, the incorporation and consolidation of remote work as a new model for managing work and using time can help to drive this gradual transition towards decarbonisation.

According to the United Nations, countries need to aim for an economic, social and environmental recovery that includes energy decarbonisation (*Emissions Gap Report*, 2020).

In the metropolitan area of Barcelona, for some years now we have been observing all kinds of extreme weather phenomena (heat waves, torrential downpours, droughts, etc.), and we know that if we do not meet the goals of lowering emissions and the energy transition, the average annual temperature could increase by 1.9 °C in a moderate scenario and up to 4 °C in the most pessimistic scenario by the end of the 21st century (between 2070 and 2100).

So we are at a time when we cannot allow temperatures to rise, because despite the agreements and international goals, emissions are increasing, and we know that the climate impacts will be greater every day if we do not act as quickly as possible.

As a supramunicipal local body, the Barcelona Metropolitan Area (AMB) has a significant capacity for action and plays an essential role in leading and helping to build a supralocal response that encompasses the entire metropolitan area. Local town councils also play a fundamental role in local climate action and are unquestionably the driving force in ensuring that supramunicipal institutions take the appropriate local approach in response to the climate emergency.

In fact, 25 of the 36 municipalities within the AMB have already issued climate emergency declarations with different reduction and neutrality goals and different proposed actions.

In this sense, within the current context, the AMB's recognition of a climate emergency is highly appropriate and necessary, as we must clearly outline what we are doing and what would need to be done to lower the climate risks for the metropolitan territory and its inhabitants. The use of the term *emergency* is a way of conveying the need to go beyond the usual way of doing things, that is, the fact that large-scale actions are required. We must respond quickly and effectively with specific commitments to combat climate change.

2. Key role of the AMB Climate and Energy Panel

The Climate and Energy Panel will be renewed with the aim of coordinating the stakeholders responsible for monitoring the AMB's Climate and Energy Plan. This panel will be supported by an internal technical committee made up of technical staff from the different departments within the AMB. The panel must have a very broad, cross-cutting vision in order to define a climate vision that encompasses all the competencies held by the AMB.

The panel will receive expert advice from an advisory council on ecology in which scientists working on climate change in different fields (environmental sciences, sociology, economics, geography, etc.) will participate.

3. Principles of the AMB Climate Emergency Declaration

The current context means that a climate emergency declaration must also take into account the risks arising from COVID-19, which, in fact, have made the need for an urgent ecological transition even more pressing. This is specified in the following principles, which have to be considered transversally in metropolitan plans and programmes:

- The **energy transition** towards a renewable and decarbonised model, as well as **more socially just** one, meaning a gradual shift from fossil fuels to renewable and local energy, coupled with a change in the way energy is produced, distributed, managed and consumed. The incorporation of remote work and the digitalisation of processes as new models for using and managing time and space could be the key to accelerating the decarbonisation of the current productive system.
- **Holistic mobility** on a metropolitan scale, which facilitates intermunicipal flows and intermodal connections in order to lower the use of private vehicles and boost the use of public transport.

- An appeal to the responsibility of the **private, business and industrial sectors** to lower emissions and adopt ambitious decarbonisation commitments.
- **Generating economic activity and green jobs** linked to all stimulus and investment programmes beyond the short term, and as structural programmes.
- The shift to a **circular economy**, which is crucial because it systematically lowers emissions (by preventing new materials from entering the production system), distributes the value of products and services to other sectors of the economy and promotes innovation.
- The contribution to a **food system** in which not only is the necessary food produced and access to it guaranteed, but this is done with more sustainable production, distribution and consumption systems that adapt to low water availability.
- The **preservation of health**, taking into account the increase in the intensity and frequency of heat waves, the reduction in water resources and air pollution, among other factors.
- The spread of the **culture of sustainability** as a **transformative action** undertaken by citizens, both individually and collectively, to deal with socio-environmental problems and defend people's basic rights within the planet's ecological limits through responsibility, critical analysis and creativity.
- **Climate justice**, that is, the understanding that the impacts of climate change will affect people in different ways according to their economic level, gender, age, etc. Therefore, any decision and action must seek to avoid inequalities.

4. Climate and Energy Plan 2030: Emissions reduction and adaptation

The AMB's commitment and ambition to tackle the climate crisis takes shape in the Climate and Energy Plan 2030 (henceforth, PCE30), and this declaration is a summary of its key commitments.

This plan (approved by the AMB's Metropolitan Council on 25 September 2018) is the metropolitan energy transition and climate change strategy for 2030 with the aim of moving towards carbon neutrality in the metropolitan area and integrating the goals of energy sovereignty, the promotion of renewable energies, energy efficiency and conservation, a reduction in greenhouse gases and adaptation to climate change.

Having said that, the PCE30 aims to be a viable plan that fits the metropolitan area's reality and needs. For this reason, the actions taken and their priority will constantly be updated and reviewed. For example, the first revision and outline was contained in the Framework Energy and Climate Programme (PMEC) approved by the Metropolitan Council on 24 November 2020.

Goals

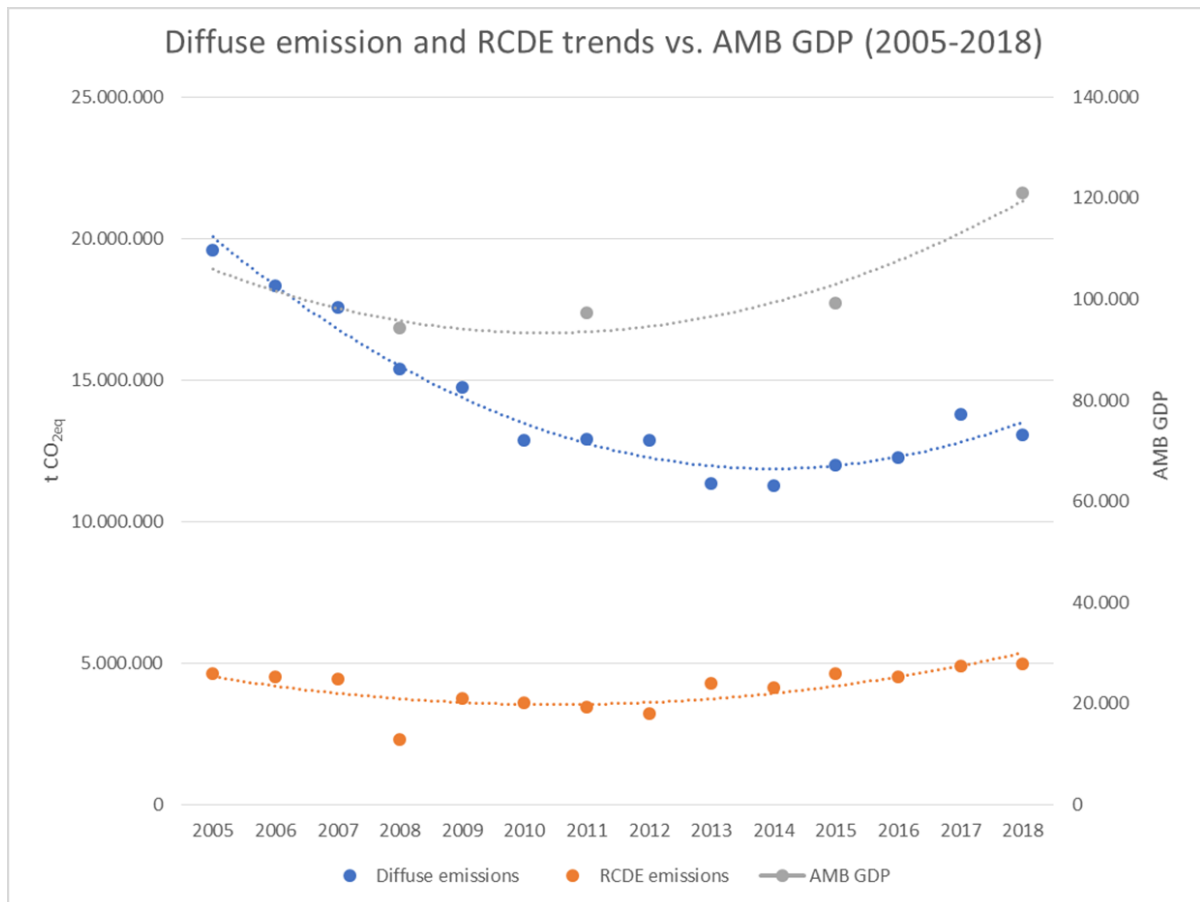
The AMB accepts the EU's objective of lowering greenhouse gas emissions by at least 55 % by 2030. With regard to its energy efficiency and renewable energy goals, the AMB will accept the EU's future commitments, slated for June 2021 (Climate and Energy Framework 2030, EC; European Green Deal, EC).

These goals must be achieved quickly, and therefore collaboration with the metropolitan councils is essential, but so is coordination with all the administrations that act in the area and with the private sector.

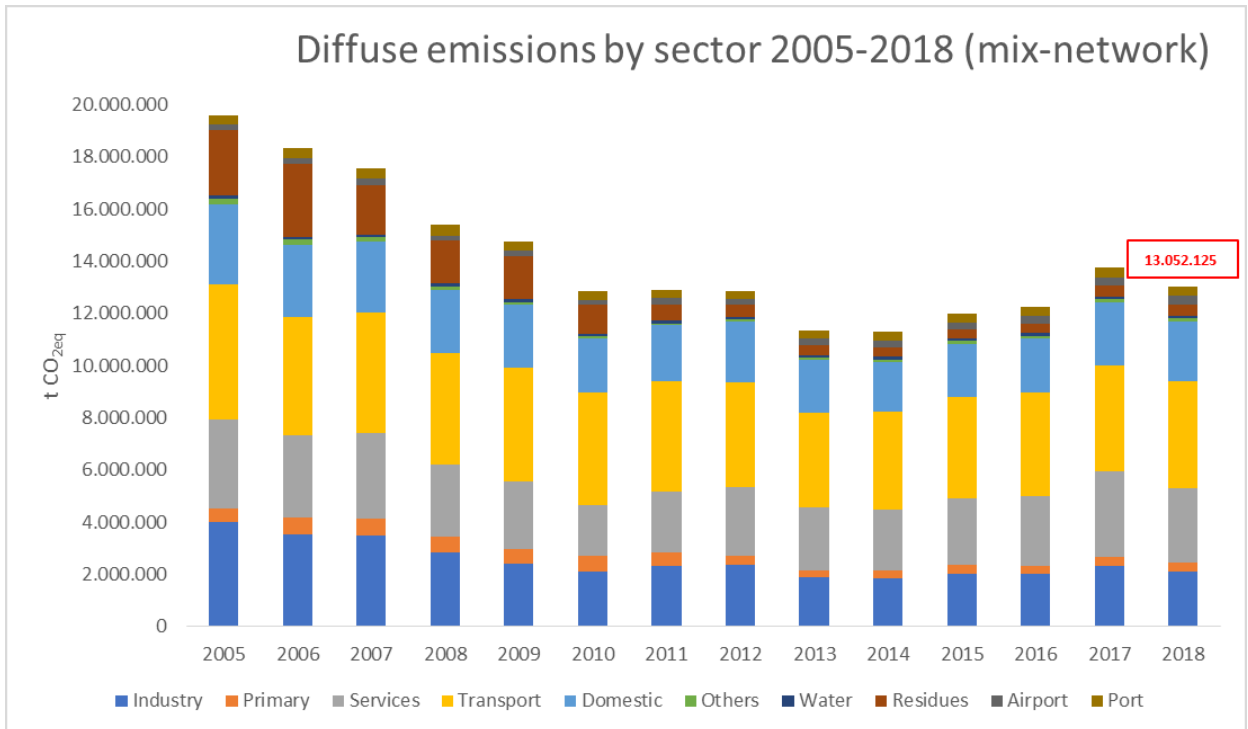
Joint action should help us achieve carbon neutrality in the metropolitan area by 2050 at the latest.

The analysis conducted indicates that emissions are strongly linked to the economic growth, and that it is essential to lower the energy demand and use resources (such as water) more efficiently:

Diffuse emission trends, the emissions rights trading system (RCDE) and their relationship with the GDP



Emissions by sector and year



All sectors must get involved in lowering emissions, and the AMB's role in lowering what are called *diffuse emissions* (stemming from waste and water management, mobility, etc.) is particularly important, either by acting directly or influencing them indirectly via metropolitan policies, plans and programmes.

In order to reduce emissions by 55 % by 2030 and deal with climate change, the priority actions to be taken are:

1. To decarbonise the energy demand in all sectors, while investing in renewable energies to cover this demand at a local level.
2. To promote a modal shift in the transport sector, to facilitate connections in inter-municipal flows and to optimise the urban distribution of goods.
3. To promote the refurbishment of residential and tertiary buildings using energy efficiency criteria.

The metropolitan area has to prepare itself to deal with current and future impacts of climate change and take the actions needed to minimise the damage or even take advantage of the opportunities that may arise. As stated by the EU, a focus on what is called *preventive adaptation* is necessary to lower the health impacts and economic costs.

5. Key challenges in dealing with the climate emergency

In order to meet the goals set out and remain under the recommended temperature increase, five key points in relation to the AMB's competencies have been defined, which include a series of priority actions to be implemented or promoted.

Energy transition: Decarbonisation and renewable energies generated locally, fairly and efficiently

The goal is an effective energy transition to a decarbonised economic model, which implies a switch to renewable and local energy sources and a significant increase in energy efficiency based on a drastic reduction in demand. It is also essential to promote the efficient use of the surplus renewable energy produced and to optimise the relationship between energy supply and demand by developing and digitalising the grid infrastructure.

The AMB is committed to lowering energy poverty and facilitating fair access to energy. Therefore, introducing climate emergency criteria that will determine allocations to the metropolitan subsidy programmes - housing, industrial estates, energy poverty - is a priority.

In order to rise to this challenge, it is essential to exponentially increase investments in energy transition projects, which necessarily involves using private capital. In this sense, the P MEC has defined two strategic lines:

- 100 % renewable town councils by 2030: to install local solar energy systems with a generation capacity of 100 MWp on the roofs of municipal buildings or on the ground, within the metropolitan area or in its immediate surroundings, in order to generate the energy needed to cover municipal needs (buildings and lighting).
 - a. New financing instruments will have to be developed, including ESCO models, mixed-economy companies and local pooled funding.
 - b. Actions must be conducted to lower the energy demand in these buildings in order to guarantee that the goal is reached, with projects like ESCO in public facilities.
- Energy communities: to stimulate the creation of 300 solar energy communities that promote the installation of solar energy systems with a generation capacity of 55 MWp. Until the AMB has public and private financing instruments, it is important for it to encourage and allow citizens to invest in solar energy on the land of single-family homes, in multi-family housing communities or on third-party roofs, such as industries and other tertiary buildings.

Efficient use and management of water resources

Water is a vital and fundamental resource for human wellbeing and economic growth and development, as well as an essential element in the functioning of ecosystems. Therefore, one of the key points in the climate emergency is to ensure more efficient water use and management, in accordance with the Comprehensive Water Cycle Strategic Master Plan (PDECIA):

- To improve the quality of water at origin so it can be more efficiently treated. Water salinity is one of the main problems, especially in the water that comes from the Llobregat River basin.
- To improve the management of reclaimed water resources and aquifers: to coordinate actions, set protocols and monitor the quality and quantity of water available.
- To promote the use of reclaimed water, regardless of its origin.
- To improve awareness of domestic consumption and continue to encourage lower consumption.
- To stop using drinking water in activities that do not require high water quality.
- To give visibility to the problem of hydrovulnerability or water poverty, and to work to minimise the impact it can have on people.

Water must be managed with a view of the natural water cycle, going beyond what is known as the *urban cycle* view. This comprehensive management involves:

- Identifying the measures and actions where progress to promote efficient water use can be made, such as sustainable urban drainage systems (SUDS), improvements in sanitation management, integrated coastal management, etc.
- To make restrictions in water use in public spaces compatible with the needs for more water points during heat waves, yet also a refuge and way of cooling down in more extreme temperatures.

Electrified, efficient, intermodal and flexible mobility

Lowering the emissions generated by the transport sector (the main consumer of fossil fuels and therefore the main emitter of pollutants into the atmosphere) is one of the most vital aspects of climate change.

In fact, there are already solutions aimed at more efficient mobility (delimiting and implementing low-emission zones; promoting electric vehicles, including public buses; electric vehicle charging stations; promoting the use of bicycles by increasing the number of bicycle lanes; subsidies; etc.), but these measures do not seem to have been sufficient or convincing enough to lower emissions related to this sector.

In order to achieve the goals, the measures already foreseen in the PMMU 2019-2024 and in the environmental documentation of the PDU must be implemented:

- To improve public transport outside the urban continuum of Barcelona: to articulate high-capacity public transport axes which organise metropolitan mobility to foster intermodality among municipalities, and to increase the interurban and intermunicipal buses in order to facilitate mobility flows for work and personal reasons.
- To reinforce the railway line as the backbone of metropolitan mobility by completing it with new lines, interconnecting it and keeping it radial. To complete the tram network.
 - To expand and improve rail infrastructures for passenger transport, specifically the suburban railway network operated by Renfe (to carry out the actions in the Suburban Railway Plan 2008-2015).

- To monitor the maintenance actions of the railway networks (FGC and Renfe Suburban Railway).
- To balance the job supply with the resident working population in order to reinforce labour self-containment and lower commuting distances.
 - To introduce new parking criteria into the metropolitan urban planning.
 - To promote logistics areas and their associated needs.
 - To offer support in mobility planning and management at the workplace and centres that generate mobility.
- To lower the need for compulsory mobility by promoting remote working and the use of digital methods such as teleconferencing.
- To optimise the logistics system of goods transports and the urban distribution of goods (UDG) to increase their efficiency and lower their impact.
 - To build new road and rail infrastructures for goods transports.
 - To identify and regulate routes for vehicles transporting goods.
 - To regulate parking places for heavy vehicles.
 - To develop a metropolitan digital platform to manage the urban distribution of goods.
 - To create new points where goods can be collected and returned.
 - To encourage and regulate the urban distribution of goods at night and during off-peak hours.
 - To promote reverse logistics solutions.
 - To promote new micro-platforms for the urban distribution of goods.
- To lower the impact of the port and the airport. The following actions are proposed:
 - To ask them to develop and execute plans to lower emissions and to incorporate them into their respective action plans.
 - To accelerate the construction of rail access to the port (including the Mediterranean corridor) to double the transport of goods by train and lower lorry traffic. To ensure that electricity is produced from renewable sources.
 - To encourage the use of railway modes to the airport, to lower parking for private vehicles and to promote bus fleets and electric taxis to serve the airport and the cruise port.
 - To gradually electrify the port and airport of Barcelona, including ships, companies, in-house activities, ground fleets and auxiliary units, and to contract 100 % renewable energy.
 - To replace short air routes with alternative railway transport routes.

Planning for more resilient and sustainable cities and urban environments

The challenge is to plan more resilient and sustainable cities and urban environments, which requires a holistic approach to enhance the values of biophysical matrix in the

planning and management of urban policies and governance. To achieve this goal through the metropolitan PDU, the following are essential and should be top priority:

- To protect and enhance the role of ecosystem services in climate change resilience in urban areas, such as supply services, regulation, support, and cultural and human health benefits.
- To renaturalise the territory. In this sense, green and blue infrastructures should guarantee the provision of quality ecosystem services to the entire metropolitan area and thus achieve cooler cities which are therefore less vulnerable to the effects of heat waves, as well as healthier environments.
- To establish, facilitate and reinforce the guidelines needed to create more adapted metropolitan cities, and to make better use of the existing spaces and infrastructures considering the efficiency of the urban metabolism, building rehabilitation, the recovery of road space, prioritisation of the biophysical matrix, etc.
- To balance the supply of jobs with the resident working population in order to reinforce the municipalities' capacity to retain this population and lower commuting distances, as also cited in the challenge of improving mobility.
- To guarantee that all the cities and towns within the AMB have climate shelters with the resources to operate, promoting the versatility of public and private facilities and green spaces. At present, there is a potential 82 % coverage to accommodate the most vulnerable metropolitan population during heat waves.

Waste as a resource, circular economy and changes in production and consumption models

The challenge is to lower municipal waste and achieve carbon neutrality in the metropolitan waste treatment system, as well as to promote a change in the production model towards a circular economy model.

To achieve this, the Metropolitan Municipal Resource and Waste Prevention and Management Programme 2019-2025 (PREMET25) proposes:

- Towards the circular economy:
 - To promote a change in resource consumption and waste management that prioritises the prevention and evolution of metropolitan waste collection and treatment systems not only to meet European objectives but also to incorporate a new logic in the way natural resources are used and waste is managed.
 - To lower GHG emissions and achieve carbon neutrality in the metropolitan waste management system.
- To achieve the target of 55 % waste sorting by 2025 and 60 % by 2030, as established by the European targets for waste and resource management. This objective will be met by waste sorting systems which will work towards waste individualisation. Door-to-door collection and containers with electronic access controls are the two systems that should allow this goal to be reached.

Within the metropolitan area, the Metropolitan Zero Waste Agreement boosts the spirit of collaboration and mutual support among the different administrations, in accordance with the PREMETS5. However, it is also important for all the stakeholders (the city,

organisations and administrations) and the productive sectors to be involved in all stages in the product life cycle.

As has become evident, the current production and consumption model is environmentally unsustainable. The private and public sectors have to align and adopt measures that entail a steadfast commitment to lower emissions and attain the EU goal, as well as to foster a change in the productive model to foster the circular economy. For this reason, the following are proposed:

- To promote a circular economy strategy and company clusters in the renewable energy sector.
- To define public procurement conditions with low-carbon criteria, incorporating the obligation for companies providing metropolitan services to lower emissions as they execute contracts or concessions.
- To apply climate taxation measures: to generate economic incentives for the most sustainable activities and apply a CO₂ tax for those that generate more emissions.
- To encourage the decarbonisation of large industries in the emissions rights trading system (RCDE): decarbonisation plans for the cement industry, CSR reports, additional requirements in the environmental authorisations in the companies in Annexe 1 according to Law 20/2009, dated 4 December 2009, on the prevention and environmental control of activities (PCAA), etc.
- To encourage large companies to join the Voluntary Agreements to Lower GHG Emissions Programme.

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Metropolitan Council