



# GRENOBLE

## ALPES METROPOLE

INHABITANTS: 445,516

2020 TARGET: -35% GHG / 2030 TARGET: -50% GHG

SCOPE 3 AVAILABLE

## Metropolis action, the driving force of the transition

### Climate policy governance and integration

Grenoble Alpes Metropole, made of 49 municipalities, was the first French municipality to adopt a Climate-Air-Energy Plan (PAEC) in 2005. A steering committee as well as a [scientific council](#) enables elected representatives and other stakeholders to take part in the plan's follow-up and implementation. Tracking the Climate-Air-Energy Plan is optional but in 2004, the Metropolis put in place the [Climate-Air-Energy Plan Observatory](#) in partnership with Air Auvergne-Rhône-Alpes and the Local Energy Agency (Alec<sup>1</sup>). It tracks energy consumption and renewable energy production, and GHG emissions. The local data is aggregated at the regional level.

The Local Climate Air and Energy Plan (PCAET) adopted in 2019, provides for an investment amounting to +500 million euros between 2020 and 2030, and positions itself as the backbone of all policies. It was intended to be more inclusive than required by the French legislation, with a 4-months-long [public consultation](#). **It must take into account the National Low-Carbon Strategy (SNBC)**, and in a more restrictive way **must be compatible** with the Regional Planning, Sustainable Development and Equality of Territories Scheme (SRADDET) of the [Auvergne-Rhône Alpes region](#). Lastly, its objectives are designed to make the various operational and sectoral variations consistent, such as the [Local Inter-communal Urban Development Plan \(PLUi\)](#), the [Urban Transport Plan \(PDU\)](#) and the [Energy Master Plan \(SDE\)](#).

### Climate policy tracking

**The metropolis reduced its GHG emissions by 25% between 2005 and 2016, reaching 1.87 MtCO<sub>2</sub>eq/year, as well as its final energy consumption of 20%.** The decrease is accounted for by the 27% decrease in consumption of the 20 largest manufacturers (compared to 9% on average in the 20 other sectors), which is largely related to the decline in activity and jobs within them (-28%).

Yet, the [preliminary diagnosis to the PAECT](#) estimates that the programmed measures will not be sufficient to reach the target for cutting GHG levels by half by 2030. Finally, the Metropolis's carbon footprint estimated at 3.67 MtCO<sub>2</sub>eq/year shows that indirect emissions related to consumption (scope 3) are as important as the direct emissions covered by the climate plan.

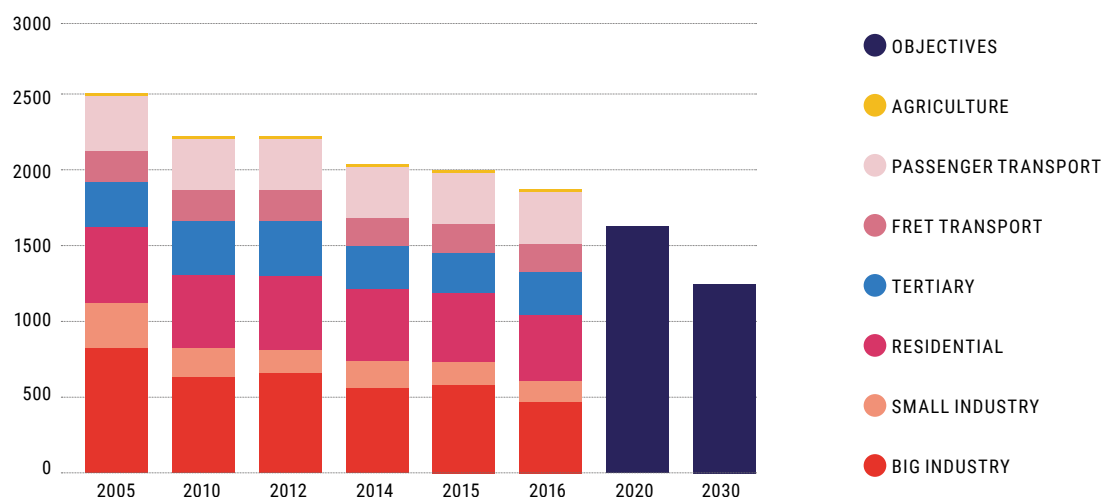
### Buildings – A public service dedicated to energy efficiency

Energy efficiency programmes, designed by the Metropole and led by Alec, tackle the first source of GHG emissions (39%) and of final energy consumption (46%) in 2016. This driver is still barely being used since 2005: emissions fell by 12% and 7% for the housing and tertiary sectors, while their energy consumption remained stable and even increased in the tertiary sector. That is why, the metropole is seeking to implement a Public Service for Energy Efficiency (SPEE) within its services, going beyond the buildings' energy performance.

The "[Mur-Mur II \(2016-2020\)](#)" scheme allows the renovation of nearly 1,500 housing units/year providing funding to co-owners or by co-owner according to income (15 to 20,000 euros) for external renovation projects, and a list of [75 certified companies](#). Besides adding to the 4,500 renovated units during the first phase 2012-2016, Mur-Mur partially meets the objectives of the SDE (2,500 housing units per year). A second "Metro Energy" system offers small and medium-sized companies a free energy diagnosis and personalised advice. The estimated 94 billion euros in construction represent a potential of 1,800 jobs in the region. Also, the municipality of Grenoble stands out for its [many flagship projects](#): the "Presqu'île" neighbourhood benefits from a heat pump system connected to the groundwater enabling buildings to be cooled in the summer. In the "[Flaubert](#)" district, the city is working with social landlords to increase the use of local building materials (wood, straw) expected to account for 25% by 2025.

<sup>1</sup> In line with the European definition, an ALEC is "an independent, autonomous and not-for-profit organisation, created via the initiative of local authorities and of groupings benefitting from local public authorities to provide information, advice and technical assistance to energy consumers."

GHG EMISSIONS OF GRENOBLE METROPOLE 2005-2016 [KTEQCO<sub>2</sub>] - Source data: [PAECT - Diagnostic 2019](#)



## Energy – Local energy companies driving public action

Renewables in 2016 accounted for 18% of final energy consumption and 24% of electricity (2,000 GWh/year), led by hydroelectricity (40%), wood-energy (30%) and recovery energy (28%). However, since 2013 the light rains led to a decrease in production between 2013 of 30% and solar production is still low and stagnant at around 13 GWh/year.

What makes the Metropolis' case very particular is the presence of the two local energy companies "[Gaz et Electricité de Grenoble](#)" (GEG) and "Compagnie de Chauffage" (CCIAG), two mixed economy companies predominantly owned by local authorities:

CCIAG is the second biggest heat network in France after Paris, supplying 46,000 homes. Since 2018, buildings within 150 meters of the grid must be connected to it. This is justified by the quantity of avoided emissions linked to the use of wood instead of gas, and by savings made by households. The "Biomax" cogeneration project should increase rapidly the share of recovery energies in its mix (65%) with 183 GWh of heat (equivalent to the needs of 15-20,000 homes), and 37 GWh of electricity.

GEG distributes energy in 12 other cities in the agglomeration and represents an important lever of action for local energy policy. Its renewable energies sector has developed hydroelectric, solar and wind production units in order to reach the equivalent of Grenoble's consumption by 2022 (400 GWh/year, compared to 147 currently).

## Mobility – A development plan at the basin level

Road transport demand (kilometres travelled) continues to increase since 2005, and actions of the

PDU2030 adopted in 2017 are now in progress to address it:

- The extension of Low-Emissions Zones for Heavy Duty since 2019 to 10 municipalities, with progressive vehicle emission criteria until 2025;
- The restriction of car traffic in several areas where 15,000 people pass by daily
- The "[Chronovélo](#)" 6-million-euro-plan / year for the improvement of infrastructure. Currently 70,000 daily trips are by bike against 1.7 million in total. The only city in Grenoble targets 20% of the modal share by 2020 against 7% in 2016.

Trips within the metropolis remain a crucial challenge accounting for 60% of travelled kilometres and GHG emissions related to road transport ([p16](#), [PDU](#)). The plan provides for a series of actions that take into consideration transport-related precariousness in the connection between peri-urban areas.

## ADAPTATION

### COLLABORATING WITH NEIGHBOURING AREAS

The adaptation strategy is fully imbedded with resources and territorial management in several sectors.

With the regional nature parks and neighbouring municipalities, the metropolis is planning a territorial food project to relocate the food supply of 800,000 people. Moreover, the territorial agricultural policy provides for enhanced land protection for agricultural land, which represents 15% of its territory. The Metropolis intends to halt artificialisation by imposing disartificialisation criteria for the evaluation of public infrastructure projects ([GM](#), 2019; [PLUi](#), 2018).

Lastly, the Climate Plan Observatory will now be integrated with other local observatories related to biodiversity, health, and well-being indicators.