



City Profile

Genoa

Introduction

General information

The City of Genoa is the capital of Liguria, a coastal region in northwest Italy. Genoa is “sandwiched” between the coast and mountain chains rising almost straight out of the sea and occupying 70% of the territory. This unique location has strongly influenced the city’s urban development and infrastructure. Genoa counts 611,171 inhabitants in an area of 244 km² between the coast and the Apennine Mountains. The city consists of nine city boroughs with 31 districts.

Organization of energy and climate policies

Climate and energy politics in Genoa are coordinated by (5 employees of) the Energy Environment Department. Another 14 people from the Mobility Department, the Urban Planning and the Strategic Department are involved into the process. A cooperation between the Departments Urban Planning, Strategic Planning and Energy Environment has been established to support collaboration and exchange on climate-related issues.

Relevant stakeholders

In addition to the administrative units, there are several actors and stakeholders engaged in the city’s local energy politics, e.g.

- the chamber of commerce,
- professional associations,
- environmental organisations,
- consumer associations,
- universities,
- suppliers
- citizens.

The Regional Energy Agency, for example, (A.R.E. Liguria) as one involved actor, provides technical support to the Region and to local administrations with regard to energy planning and the development of activities connected with the energy sector. The agency is an active member of FEDARENE and of RENAEL, the Italian network of energy agencies.

Another group is the “Urban Lab”, which is promoted by the Municipality of Genoa and is located in the old harbour of Genoa. Its mission is to provide solutions to design, build and operate the infrastructure in accordance with the goals of sustaining society, environment and infrastructure. The team of Urban Lab comprises members of Genoa’s mapping department, young architects and engineers from leading universities.

In terms of participatory structures for energy and climate policies, several working groups have been established too, such as

- the Energy Observatory giving advice to the administration on possible energy saving measures,
- the Health Environment Observatory working on the effects of



environment on human health,

- and the Energy Consultancy giving advice to the administration on possible energy efficiency measures.
- Finally, there is an Energy Consultation initiating meetings and discussions on possible strategies for the reduction of energy consumption.

The City of Genoa has committed to a reduction target of 23,7% of its CO₂ emissions by 2020 compared to 2005. In 2009, Genoa signed the “Covenant of Mayors” and submitted its “Sustainable Energy Action Plan” (SEAP) in 2010. It also elaborated some strategic documents addressing local energy policies. The programme PUM (Piano Urbano della Mobilità) and PUT focus the transport sector, and the Municipal Urban Plan PUC (Piano Urbanistico Comunale) focuses buildings and transport. The local building regulation does not only concern buildings but renewable energies as well.

Targets and programmes

Context

Genoa, as every other city, is embedded into international, national and regional legislation and regulation. Within this legal framework Genoa

European, national and regional framework

- complies with the rules for the rational use of energy and for the development of renewable sources,
- observes the limits established by law for air quality, monitoring the main pollutants,
- and is in the position to improve the national and regional provisions within the local building regulation.

European, national and regional funds support the implementation of local climate policies.

Another supportive factor is the citizen’s environmental awareness. However, public awareness does not generally lead to more sustainable behaviour and lifestyles.

Energy Efficient Buildings and Districts

Genoa’s main measures regarding energy efficient buildings and districts focus especially on the public sector. The municipality intends to increase energy savings in public buildings, to install solar panels on the roofs, to convert fuel oil plants and to replace old light bulbs by efficient light products in public lightning. With regard to the residential sector, Genoa intends to increase the energetic performance of the building stock with respect to national legislation.

Main measures

National legislation and a good cooperation between departments and existing funds are mentioned as supportive factors for local energy and climate policy.

Supports and obstacles



Renewable Energy Sources and Distributed Generation

Main measures

Currently, Genoa is preparing studies for a wind park and micro systems of Combined Heat and Power (CHP). In 2010/11 Genoa has implemented a programme to provide roofs of municipal buildings for the installation of photovoltaic.

Supports and obstacles

Generally, legal obligations and incentives are regarded as supportive factors for renewable energies. The public environmental consciousness is mentioned as supportive as well.

Relevant hindering factors are

- wind energy: landscape constraints and financial issues,
- photovoltaic: historical constraints and missing incentive for innovative technologies
- CHP: need for improvement of technological knowledge
- biogas: difficulty to find sites for the necessary structures and financial issues.

Energy in Urban Transport

Main measures

The transport sector is the most supported sector in financial terms (see chapter “Financing”). The main measures in this section are:

- Rationalisation and renewal of municipal fleet
- Upgrading the rail system to improve public transport
- Introduction of a charging system for private and commercial transportation as well as environmental and the establishment of environmental zones
- Improvement of soft mobility by allocating cycling facilities

These measures have been implemented between 2010 and 2011.

Financing

The financial resources for energy and climate policies in Genoa have been estimated at 5% of the city's total budget. From 2008 to 2010, this equates to 13.39 million € in total and to 4.68 million € between 2011 and 2014. With regard to the three thematic sectors of the CASCADE project (buildings, renewables, transport) the largest part of the budget was dedicated to the transport sector with 90% in the first and 60% in the second period.

Emission Inventories and Monitoring

The City of Genoa generated a CO₂ inventory in 2005. This inventory is based on the final energy consumption related to the municipal territory. The city included direct and indirect emissions. The following sectors have been classified:

CO₂ inventory

- Buildings, municipal facilities/equipment
- Buildings, equipment/tertiary plants (municipal)
- Residential buildings
- Communal lighting
- Municipal vehicles
- Public transport
- Private transport and freight transport

In total, the CO₂ emissions in Genoa amounted to 2.27 million tons in 2005:

private households	972, 012 t
service sector and SME	804,368 t
transport	495,533 t

With regard to the baseline scenario, Genoa will emit 1.73 million tons of CO₂ in 2020, a CO₂ reduction of about 540,000 t per year from 2005 to 2020.

During the preparation of the Sustainable Energy Action Plan, specific indicators for each action have been identified to monitor the state of implementation of measures.

Future Visions and Expectations

Genoa wants to identify new sources of funding to increase the budget for the implementation of climate policies. The idea is to use European funds as well as to address private investors. Concerning the private sector, Genoa aims to create strong partnerships.





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CASCADE

Cities exchanging on
local energy leadership



CASCADE is a EU-funded project coordinated by EUROCITIES which aims to design and deliver large-scale networking and mutual learning actions on local energy leadership among members of the EUROCITIES network. The CASCADE consortium is composed of: EUROCITIES, Wuppertal Institut, Koucky & Partners and the following cities: Amaroussion, Amsterdam, Birmingham, Burgas, Edinburgh, Eindhoven, Gateshead, Genoa, Gijon, Malmo, Mannheim, Milan, Nantes, Stockholm, Sunderland, Tampere, Terrassa, Venice and Warsaw.

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