

# GREECE

## 1. CONTEXT OF THE BUILT ENVIRONMENT

### Urban population

Total population	Functional Urban Area population*	Share of urban population	Average urban growth
10.441 million (2020)	5.732 million (2020)	55% (2020)	-3% (2015-2020)

\*Data source: European Commission (2023), FUA and eFUA methodology: OECD/European Commission (2020)<sup>1</sup>

### Building data

	Building stock	Built before 1980	Annual construction	Annual construction rate
Residential	4,100 thousand dwellings (2019)	55.9%	N/A thousand dwellings	N/A
Non-residential	N/A million m <sup>2</sup>		N/A million m <sup>2</sup>	N/A

### Energy & emissions data

Residential buildings**	1990	2021	+/- rate
Final energy consumption (PJ/year)	127	175	37%
	1990	2021	+/- rate
GHG emissions (MtCO <sub>2</sub> /year)	4.64	4.68	0.8%

\*\*Data source: IEA Countries & Regions<sup>2</sup>

#### Energy consumption by end-use (Residential)

N/A

#### Non-residential buildings

Final energy consumption (PJ/year)	N/A
GHG emissions (MtCO <sub>2</sub> /year)	N/A

#### Heating degree days\*\*\*

921.9

Degree (°C) Days (2020)

Reference degree day: 16 degree (°C)

#### Cooling degree days\*\*\*

496.6

Degree (°C) Days (2020)

Reference degree day: 21 degree (°C)

\*\*\*Data source: IEA Weather, Climate and Energy Tracker<sup>3</sup>

<sup>1</sup> <http://data.europa.eu/89h/2ff68a52-5b5b-4a22-8f40-c41da8332cfe>, <https://doi.org/10.1787/d58cb34d-en>

<sup>2</sup> <https://www.iea.org/countries>

<sup>3</sup> <https://www.iea.org/data-and-statistics/data-tools/weather-climate-and-energy-tracker>

## 2. GOVERNANCE AND CAPACITY BUILDING

### Who does what

#### Ministries/Agencies responsible for BEE (building energy efficiency) and related policies

<b>A</b> Ministry of Environment & Energy	<b>B</b> Ministry of Finance	<b>C</b>	<b>D</b>	<b>E</b>
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#### Ministries/Agencies responsible for each policy area

Building code	Governmental buildings	Housing policy in general	Financial incentives for BEE	Behaviour change for BEE
<b>A</b> <b>B</b> <b>C</b> <b>D</b> <b>E</b>	<b>A</b> <b>B</b> <b>C</b> <b>D</b> <b>E</b>	<b>A</b> <b>B</b> <b>C</b> <b>D</b> <b>E</b>	<b>A</b> <b>B</b> <b>C</b> <b>D</b> <b>E</b>	<b>A</b> <b>B</b> <b>C</b> <b>D</b> <b>E</b>
BEE standard	Act/law for BEE regulation	Whole life carbon	Energy policy in general	NDC
<b>A</b> <b>B</b> <b>C</b> <b>D</b> <b>E</b>	<b>A</b> <b>B</b> <b>C</b> <b>D</b> <b>E</b>	<b>A</b> <b>B</b> <b>C</b> <b>D</b> <b>E</b>	<b>A</b> <b>B</b> <b>C</b> <b>D</b> <b>E</b>	<b>A</b> <b>B</b> <b>C</b> <b>D</b> <b>E</b>

#### Local governments' authority to customise BEE standards

<input type="checkbox"/>	Local governments can customise national standards.
<input checked="" type="checkbox"/>	<b>Local governments cannot adjust national standards, but the standards differ across regions depending on the local climate.</b>
<input type="checkbox"/>	Local governments cannot adjust national standards. All building codes, standards or requirements are uniform across the entire country.
<input type="checkbox"/>	Neighbourhood level approach/planning
<input type="checkbox"/>	The national government is tracking progress on decarbonisation efforts at the local level
<input type="checkbox"/>	More ambitious policy instrument by local governments

### Capacity building

#### Government funding programmes to train/enhance skills for SMEs

Designing for ZEB	<input type="checkbox"/>	Insulation	<input type="checkbox"/>
Calculation for energy performance of buildings	<input type="checkbox"/>	Installation of energy efficient equipment	<input type="checkbox"/>
Calculation for life cycle CO2 of buildings	<input type="checkbox"/>	Other	<input type="checkbox"/>

**Actions undertaken by the national government to support local governments for BEE policy implementation**

Co-ordinating regional networks for knowledge exchange and support	<input type="checkbox"/>
Providing funding for training	<input type="checkbox"/>
Distributing toolkits and guidelines	<input type="checkbox"/>
Developing online platforms to share best practices	<input type="checkbox"/>
Hosting annual conferences focused on BEE policy implementation	<input type="checkbox"/>
Offering grants to hire consultants	<input type="checkbox"/>
Collaborating with research institutes offering specialised courses on BEE practices	<input type="checkbox"/>
Creating incentive programmes to reward local governments	<input type="checkbox"/>
Supporting the Implementation of local regulations	<input type="checkbox"/>
Establishing mentorship programmes	<input type="checkbox"/>
Other	<input type="checkbox"/>

### 3. GOALS AND POLICY FOCUS

**Policy areas covered in the goals and existing commitments**

	Zero emission for new buildings	Zero emission for existing buildings	Renewable energy for new buildings	Renewable energy for existing buildings	Whole-life cycle carbon reduction
NDC	–	–	–	–	–
LT-LEDS	–	–	–	–	–
Ministerial plan	✓	✓	✓	✓	–

**Quantitative targets included in long-term goals**

Fossil fuel-free buildings	District heating/cooling
Insulation	<b>Heat pumps</b> 46% penetration until 2030
Rooftop PVs	<b>Solar heating of water</b> Solar heating of water for every building
Other renewable energy	Other

## Policy focus for decarbonising buildings (Top 3)

### Current focus

Passive design to reduce heating demand	<input type="radio"/>
Energy efficiency on heating	<input checked="" type="radio"/>
Passive design to reduce cooling demand	<input type="radio"/>
Energy efficiency on cooling	<input checked="" type="radio"/>
Switching energy to sustainable energy	<input type="radio"/>
Renewable energy	<input checked="" type="radio"/>
Embodied carbon	<input type="radio"/>
Circularity of building materials	<input type="radio"/>



### Future priorities

Passive design to reduce heating demand	<input type="radio"/>
Energy efficiency on heating	<input type="radio"/>
Passive design to reduce cooling demand	<input type="radio"/>
Energy efficiency on cooling	<input type="radio"/>
Switching energy to sustainable energy	<input checked="" type="radio"/>
Renewable energy	<input type="radio"/>
Embodied carbon	<input type="radio"/>
Circularity of building materials	<input checked="" type="radio"/>

## Energy poverty

### Strategies to reduce poverty and inequality via decarbonising buildings



Stronger financial support for decarbonising public housing for low-income people	<input type="checkbox"/>
Financial support to buy zero-energy/emission homes	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Financial support to renovate their homes to zero-energy/emission	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Allowing partial retrofits to ease financial burden on upfront cost	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Provide energy efficient appliances (e.g. LED)	<input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Energy bill coupon	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Energy coach/consultation	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Other	<input type="checkbox"/>

Note: Policies targeting specific households  Low-income  Elderly  Households with more than 3 children  Other

## 4. DEVELOPMENT OF POLICY INSTRUMENTS

### Standards and regulations for decarbonising buildings

Building codes	National level	<input checked="" type="radio"/>
	State level	<input type="radio"/>
	Local level	<input type="radio"/>

#### Type of buildings covered by the mandatory energy efficiency code

Residential buildings		
New	<input type="checkbox"/> All	<input type="checkbox"/> Only large units
Renovated	<input checked="" type="checkbox"/> All	<input type="checkbox"/> Only large units
Non-residential buildings		
New	<input type="checkbox"/> All	<input type="checkbox"/> Only large units
Renovated	<input checked="" type="checkbox"/> All	<input type="checkbox"/> Only large units

#### Elements of building codes (new buildings)

Insulation/heat transmission coefficient	<input checked="" type="checkbox"/>
Primary energy consumption	<input type="checkbox"/>
Primary fossil-fuel energy consumption	<input type="checkbox"/>
Energy efficiency of equipment	<input checked="" type="checkbox"/>
Operational carbon reduction	<input type="checkbox"/>
Whole life cycle carbon	<input type="checkbox"/>
Comprehensive green building assessment	<input type="checkbox"/>
Other	<input type="checkbox"/>

**Stricter standards for public buildings than private buildings**

For new construction For renovation

	Public buildings	Public housing
Energy efficiency	– –	– –
Zero energy/emission	– –	– –
Renewable energy	– –	– –
Embodied carbon/life cycle	– –	– –
Locally sourced & recycled materials	– –	– –

**Certificates/labeling programme for built environment**

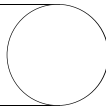
**Types of certificates/programme**

Energy Performance Certificate (EPC)	<input checked="" type="checkbox"/>
Energy labelling on passive house	<input type="checkbox"/>
Energy labelling on annual energy consumption	<input type="checkbox"/>
Comprehensive built environment certification	<input type="checkbox"/>
Labeling for whole life carbon emissions	<input type="checkbox"/>

**Target for Mandatory EPC**

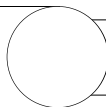
New buildings (residential)	<input checked="" type="checkbox"/>
New buildings (non-residential)	<input checked="" type="checkbox"/>
Existing buildings for renovation	<input type="checkbox"/>
Existing buildings for sales/rent	<input checked="" type="checkbox"/>

## Standardised calculation methods for embodied carbon/LCA



Database of CFP/EPD	<input type="checkbox"/>	<input type="checkbox"/> Governmental	<input type="checkbox"/> Non-governmental
Grant for using the following materials	<input type="checkbox"/>	<input type="checkbox"/> Low-carbon	<input type="checkbox"/> Bio-based <input type="checkbox"/> Reused
Policy tools for reusing building materials	<input type="checkbox"/>		
Mandatory declaration	<input type="checkbox"/>	<input type="checkbox"/> Public	<input type="checkbox"/> Residential <input type="checkbox"/> Non-residential
Limit value on CO2 emissions	<input type="checkbox"/>	<input type="checkbox"/> Public	<input type="checkbox"/> Residential <input type="checkbox"/> Non-residential

## Minimum energy performance standards (MEPS) regulation for existing buildings



<input type="checkbox"/> All buildings	<input type="checkbox"/> Residential (rent)	<input type="checkbox"/> Residential (sale)
<input type="checkbox"/> Office (rent/sale)	<input type="checkbox"/> Public buildings	<input type="checkbox"/> Other

## Climate resilience

**Extreme heat** adaptation measures implemented in the building sector

Strategic orientation of main building facades	<input type="checkbox"/>	<input type="checkbox"/> Regulations	<input type="checkbox"/> Financial incentives
Light coloured and reflective materials	<input type="checkbox"/>	<input type="checkbox"/> Regulations	<input type="checkbox"/> Financial incentives
Green roof	<input type="checkbox"/>	<input type="checkbox"/> Regulations	<input type="checkbox"/> Financial incentives
Green facades	<input type="checkbox"/>	<input type="checkbox"/> Regulations	<input type="checkbox"/> Financial incentives
Other	<input type="checkbox"/>		

**Floods/storms** adaptation measures implemented in the building sector

Lowest liveable floor above ground level	<input type="checkbox"/>	<input type="checkbox"/> Regulations	<input type="checkbox"/> Financial incentives
Roof drainage system	<input type="checkbox"/>	<input type="checkbox"/> Regulations	<input type="checkbox"/> Financial incentives
Hip-roof	<input type="checkbox"/>	<input type="checkbox"/> Regulations	<input type="checkbox"/> Financial incentives
Hurricane straps	<input type="checkbox"/>	<input type="checkbox"/> Regulations	<input type="checkbox"/> Financial incentives
Impact-resistant glass	<input type="checkbox"/>	<input type="checkbox"/> Regulations	<input type="checkbox"/> Financial incentives
Backup generators	<input type="checkbox"/>	<input type="checkbox"/> Regulations	<input type="checkbox"/> Financial incentives
Microgrids	<input type="checkbox"/>	<input type="checkbox"/> Regulations	<input type="checkbox"/> Financial incentives

**Publicly available geographic database with climate risk information**

Flood risk	<input type="checkbox"/>
Heat wave	<input type="checkbox"/>
Storm	<input type="checkbox"/>
Wild fire	<input type="checkbox"/>
Other	<input type="checkbox"/>

**Building certificate system on climate resilience**

Resilience to flood risk	<input type="checkbox"/>
Resilience to heat	<input type="checkbox"/>
Other	<input type="checkbox"/>

This survey is designed for national governments.