

# COSTA RICA

## 1. CONTEXT OF THE BUILT ENVIRONMENT

### Urban population

Total population	Functional Urban Area population*	Share of urban population	Average urban growth
5.131 million (2020)	2.927 million (2020)	38% (2020)	14.4% (2015-2020)

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

### Building data

	Building stock	Built before	Annual construction	Annual construction rate
Residential	N/A thousand dwellings	N/A	23.8 thousand dwellings (2022)	N/A
Non-residential	N/A million m <sup>2</sup>		1.22 million m <sup>2</sup> (2023)	N/A

### Energy & emissions data

Residential buildings**	1990	2021	+/- rate	Non-residential buildings	2022
Final energy consumption (PJ/year)	13.5	21.6	60%	Final energy consumption (PJ/year)	23.1
	1990	2021	+/- rate		2022
GHG emissions (MtCO <sub>2</sub> /year)	0.05	0.24	436%	GHG emissions (MtCO <sub>2</sub> /year)	0.25

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

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

N/A

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

0

Degree (°C) Days (2020)

Reference degree day: 16 degree (°C)

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

519.4

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 and Energy (MINAE)	<b>B</b> Ministry of Housing and Human Settlements (MIVAH)	<b>C</b> Local Governments	<b>D</b> Climate Change Directorate (DCC)	<b>E</b> National Forest Financing Fund (FONAFIFO)
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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
A B <b>C</b> D E	<b>A</b> B C <b>D</b> E	<b>A</b> <b>B</b> C <b>D</b> E	A B C D <b>E</b>	<b>A</b> B C D E
BEE standard	Act/law for BEE regulation	Whole life carbon	Energy policy in general	NDC
<b>A</b> B C D E	<b>A</b> B C D E	<b>A</b> B C D E	<b>A</b> B C D E	<b>A</b> B C <b>D</b> E

#### Local governments' authority to customise BEE standards<sup>4</sup>

<input checked="" type="checkbox"/>	<b>Local governments can customise national standards.</b>
<input type="checkbox"/>	Local governments cannot adjust national standards, but the standards differ across regions depending on the local climate.
<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 checked="" type="checkbox"/>	<b>The national government is tracking progress on decarbonisation efforts at the local level</b>
<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 CO <sub>2</sub> of buildings	<input type="checkbox"/>	Other	<input checked="" type="checkbox"/>

**Actions undertaken by the national government to support local governments for BEE policy implementation<sup>5</sup>**









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

### 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**

 <b>Fossil fuel-free buildings</b>	 <b>District heating/cooling</b>
 <b>Insulation</b>	 <b>Heat pumps</b>
 <b>Rooftop PVs</b>	 <b>Solar heating of water</b>
 <b>Other renewable energy</b>	 <b>Other</b>

## Policy focus for decarbonising buildings (Top 3)

### Current focus

Passive design to reduce heating demand	<input type="radio"/>
Energy efficiency on heating	<input type="radio"/>
Passive design to reduce cooling demand	<input checked="" 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 checked="" type="radio"/>
Energy efficiency on cooling	<input 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 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 checked="" type="checkbox"/>
Financial support to renovate their homes to zero-energy/emission	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" 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 type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Energy bill coupon	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Energy coach/consultation	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" 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 checked="" type="radio"/>

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

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

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

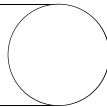
Insulation/heat transmission coefficient	<input type="checkbox"/>
Primary energy consumption	<input type="checkbox"/>
Primary fossil-fuel energy consumption	<input type="checkbox"/>
Energy efficiency of equipment	<input checked="" type="checkbox"/>
Operational carbon reduction	<input checked="" type="checkbox"/>
Whole life cycle carbon	<input type="checkbox"/>
Comprehensive green building assessment	<input checked="" type="checkbox"/>
Other	<input checked="" 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 type="checkbox"/>
Energy labelling on passive house	<input checked="" type="checkbox"/>
Energy labelling on annual energy consumption	<input type="checkbox"/>
Comprehensive built environment certification	<input checked="" type="checkbox"/>
Labeling for whole life carbon emissions	<input type="checkbox"/>

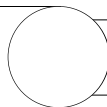
**Target for Mandatory EPC**

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

**Standardised calculation methods for embodied carbon/LCA**


Database of CFP/EPD	<input checked="" type="checkbox"/>	<input checked="" 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 checked="" 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


 All buildings  Residential (rent)  Residential (sale)  
 Office (rent/sale)  Public buildings  Other

## Climate resilience

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

Strategic orientation of main building facades	<input checked="" type="checkbox"/>	<input type="checkbox"/> Regulations	<input type="checkbox"/> Financial incentives
Light coloured and reflective materials	<input checked="" type="checkbox"/>	<input type="checkbox"/> Regulations	<input type="checkbox"/> Financial incentives
Green roof	<input checked="" type="checkbox"/>	<input type="checkbox"/> Regulations	<input type="checkbox"/> Financial incentives
Green facades	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/> Regulations	<input type="checkbox"/> Financial incentives
Roof drainage system	<input checked="" type="checkbox"/>	<input type="checkbox"/> Regulations	<input type="checkbox"/> Financial incentives
Hip-roof	<input checked="" 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 checked="" 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 checked="" type="checkbox"/>
Heat wave	<input checked="" type="checkbox"/>
Storm	<input type="checkbox"/>
Wild fire	<input checked="" 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 checked="" type="checkbox"/>

This survey is designed for national governments.