

ICELAND

1. CONTEXT OF THE BUILT ENVIRONMENT

Urban population

Total population	Functional Urban Area population*	Share of urban population	Average urban growth
0.355 million (2020)	0.229 million (2020)	64% (2020)	11.9% (2015-2020)

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

Building data

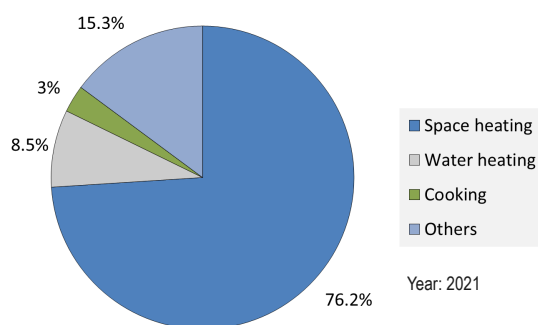
	Building stock	Built before 1980	Annual construction	Annual construction rate
Residential	158 thousand dwellings (2023)	15%	2.8 thousand dwellings (2022)	1.8%
Non-residential	13.9 million m ² (2023)		0.2 million m ² (2022)	1.4%

Energy & emissions data

Residential buildings**	1990	2021	+/- rate	Non-residential buildings	2022
Final energy consumption (PJ/year)	12	21	78%	Final energy consumption (PJ/year)	12.1
	1990	2021	+/- rate		2020
GHG emissions (MtCO ₂ /year)	0.05	0.01	-89%	GHG emissions (MtCO ₂ /year)	0.036

**Data source: IEA Countries & Regions²

Energy consumption by end-use (Residential)



Heating degree days***

4,451.1

Degree (°C) Days (2020)

Reference degree day: 16 degree (°C)

Cooling degree days***

0

Degree (°C) Days (2020)

Reference degree day: 21 degree (°C)

***Data source: IEA Weather, Climate and Energy Tracker³

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

² <https://www.iea.org/countries>

³ <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

A Ministry of Infrastructure	B Ministry of the Environment, Energy and Climate	C The Environment Agency	D Housing and Construction Authority	E The Energy Regulatory Authority
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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 C D E	A B C D E	A B C D E	A B C D E	A B C D E
BEE standard	Act/law for BEE regulation	Whole life carbon	Energy policy in general	NDC
A B C D E	A B C D E	A B C D E	A B C D E	A B C D E

Local governments' authority to customise BEE standards

—	Local governments can customise national standards.
—	Local governments cannot adjust national standards, but the standards differ across regions depending on the local climate.
✓	Local governments cannot adjust national standards. All building codes, standards or requirements are uniform across the entire country.
✓	Neighbourhood level approach/planning Gardabaer municipality have planned Breeam certified neighbourhoods (Urriðaholt and Vífilstaðir).
✓	The national government is tracking progress on decarbonisation efforts at the local level
✓	More ambitious policy instrument by local governments Some local municipalities have their own policies and actions toward a more sustainable construction industry. Reykjavik city has a project that involves collaboration on five plots to support the development of more environmentally friendly buildings that reduce negative impacts on the climate and the environment. The project is a part of Reykjavik's Green Plan and is based on the Municipal Plan and climate policy, which focuses on economic, social and environmental sustainability in a holistic way.

Capacity building

Government funding programmes to train/enhance skills for SMEs

Designing for ZEB	—	Insulation	—
Calculation for energy performance of buildings	—	Installation of energy efficient equipment	—
Calculation for life cycle CO2 of buildings	—	Other	—

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 checked="" type="checkbox"/>
Developing online platforms to share best practices	Priority <input checked="" type="checkbox"/>
Hosting annual conferences focused on BEE policy implementation	Priority <input checked="" 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	Heat pumps
Rooftop PVs	Solar heating of water
Other renewable energy	Other Residential energy is 98% fossil fuel free, but energy efficiency measures are still encouraged

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 type="radio"/>
Switching energy to sustainable energy	<input type="radio"/>
Renewable energy	<input type="radio"/>
Embodied carbon	<input checked="" type="radio"/>
Circularity of building materials	<input checked="" type="radio"/>

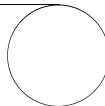


Future priorities

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 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 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 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 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)

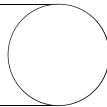
Insulation/heat transmission coefficient	<input checked="" type="checkbox"/>
Primary energy consumption	<input checked="" type="checkbox"/>
Primary fossil-fuel energy consumption	<input type="checkbox"/>
Energy efficiency of equipment	<input type="checkbox"/>
Operational carbon reduction	<input type="checkbox"/>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

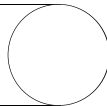

Types of certificates/programme

Energy Performance Certificate (EPC)	<input type="checkbox"/>
Energy labelling on passive house	<input 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

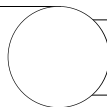
New buildings (residential)	<input type="checkbox"/>
New buildings (non-residential)	<input type="checkbox"/>
Existing buildings for renovation	<input type="checkbox"/>
Existing buildings for sales/rent	<input type="checkbox"/>

Standardised calculation methods for embodied carbon/LCA



Database of CFP/EPD	<input 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 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



<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.