European Countries Carbon Reduction Target and Incentive Actions-2025

The following collection and summary of carbon reduction target and policies are collected by:
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1. Albania - 阿尔巴尼亚

Target:

Albania aims to reduce greenhouse gas emissions by 20.9% below business as usual (BAU) by 2030, as outlined in its revised Nationally Determined Contribution (NDC), and is also working towards a 100% renewable energy economy by 2030.

Albania aims to enhance energy efficiency and reduce CO_2 emissions by 11.5% by 2030, as part of its commitments under the Paris Agreement, and to increase the share of renewable energy in its energy mix.

Incentive Policies:

Albania offers financial incentives for energy-efficient renovations and new constructions under EU sustainability programs.

Resources: https://vacuumglazingeu.com/vacuum-glazing-albania

2. Andorra - 安道尔

Target:

Andorra aims to reduce greenhouse gas (GHG) emissions by a minimum of 37% compared to a business-as-usual scenario by 2030 and achieve carbon neutrality by 2050, as outlined in its updated National Energy Strategy Against Climate Change.

Incentive Policies:

Andorra has implemented a Renova program with subsidies for energy efficiency improvements, including windows and glass. The Renova + programme has been created, to improve the overall performance of building in order to obtain energy A or B certifications. Renova + will promote actions that have an impact on entire buildings, thereby increasing subsidy ceilings that can be granted to actions improving energy certifications. If an A rating is reached, the subsidy ceiling is increased to 125.000 euros, with a subsidy rate of 30%, and when a B rating is reached, the ceiling will be 100.000 euros, with a rate of 25%.

Resources :

https://www.andorrabusiness.com/en/actualitat/andorra-increases-subsidies-to-make-buildings-more-energy-efficient/

3. Armenia - 亚美尼亚

Target:

Armenia has set a goal to reduce its greenhouse gas emissions by 40% below 1990 levels by 2030, and aims for net-zero emissions by 2050, with a focus on renewable energy and energy efficiency. Armenia's NDC, updated in 2021, sets a target of a 40% reduction in greenhouse gas emissions below 1990 levels by 2030.

Armenia aims to enhance energy efficiency and increase the share of renewable energy, with a goal of reaching 66% renewable energy in the power generation mix by 2036, including small hydro, wind, and solar PV. They also plan to reduce greenhouse gas emissions to 2.07 tons of CO2 equivalent per capita by 2050.

Incentive Policies:

To finance renovations aimed at improving home energy efficiency, residents can apply for a loan under the state program aptly named "Energy-Efficient Renovation of Apartments and Individual Residential Homes."

Since 2022, the program has subsidized loan interest rates depending on the applicant's place of residence. Subsidies are set at 14% for those living in border and highland settlements, 12% for non-border rural areas, 11% for non-border urban areas, and 9% for Yerevan.

"The program initially anticipated between 400 and 2,000 beneficiaries. However, as of October, the number has already reached 17,000," the Energy Management Department of the Ministry of Territorial Administration and Infrastructure reported.

In 2023, most loan applications came from the Ararat (1,299 people) and Kotayk (1,298) regions, followed by Armavir (845).

Resources :

https://jam-news.net/energy-efficiency-programs-in-armenia-supporting-residents-benefiting-nation/

4. Austria - 奥地利

Target:

Austria aims to achieve climate neutrality by 2040, 10 years ahead of the EU's net-zero target, with a goal of reducing greenhouse gas emissions by 48% compared to 2005 levels by 2030.

Incentive Policies:

1) Sanierungsbonus

In Austria, subsidies for energy-efficient windows and glass are available through programs like "Sanierungsbonus" offering financial support for renovations and transitioning to sustainable heating systems.

This program incentivizes energy-efficient renovations, including window replacements, and offers subsidies of up to 50% of eligible renovation costs, with higher rates for low-income households

2) Funding for Climate-Ready Culture Businesses

Subsidies are available to preserve cultural infrastructure and enable medium-term energy efficiency measures, with grants of up to €250,000 per applicant.

3) Energy Investment Deduction (EIA):

Business customers can benefit from a tax benefit of up to 300 euros per m² for investments in sustainable technologies, such as energy-efficient windows, with a minimum investment of 2,500 euros.

Resources :

https://resourcehub.bakermckenzie.com/en/resources/global-sustainable-buildings/europe-middle-east-and-africa/austria/topics/incentives-for-green-retrofit

5. Azerbaijan - 阿塞拜疆

Target:

Azerbaijan aims to reduce greenhouse gas emissions by 40% compared to 1990 levels by 2050, with a focus on decarbonizing its oil and gas sector and increasing renewable energy capacity.

Energy efficiency will also be a key tool for Azerbaijan to keep rising greenhouse gas (GHG) emissions in check, especially considering the Government of Azerbaijan's pledge to reduce GHG emissions 35% from 1990 to 2030 under the Paris Agreement. At COP26, Azerbaijan also announced new goals to reduce greenhouse gas emissions by 40% by 2050 and to create a regional net zero emission zone

Existing buildings:

Azerbaijan has nearly 1.6 million residential buildings covering approximately 109 million m2. Of these, 65% are single-family homes (SFHs) and the remainder are multi-apartment buildings (MABs). More than half of these dwellings were built in the pre-1980 Soviet era when few or no building efficiency codes were in place. Within the region, Azerbaijan has among the smallest floor space and lowest housing stock per capita. On average, each Azerbaijani citizen has less than 15 m2 of floor space, with 200 dwellings serving 1 000 inhabitants. In comparison, the EU average is approximately 35 m2 of floor space per person and over 450 dwellings per 1 000 inhabitants.

This level of density might suggest more efficient energy use in Azerbaijan's buildings, since each unit of energy serves more building dwellers than in, for example, the European Union. However, Azerbaijan's residential buildings still have considerable energy efficiency potential, as they are the country's single largest consumers of energy, accounting for 39% of TFEC in 2022. Based on available data and estimates, the average energy intensity of residential buildings in Azerbaijan is 250 - 280 kWh/m2 per year, compared with an EU average of approximately 160 kWh/m2.

Estimates suggest that energy savings of 50% are possible, notably in MABs. In addition, while Azerbaijan's residential building consumption has grown at a modest annual rate of 1.2% since 2008, demographic and economic growth are expected to drive increasing demand for energy and floor space.

Resources :

https://www.iea.org/reports/energy-efficiency-policy-in-azerbaijan-a-roadmap/setting-the-scene-energy-efficiency-in-azerbaijan

6. Belarus - 白俄罗斯

Target:

the Republic of Belarus committed to reduce greenhouse gas emissions by at least 28 per cent by 2030 as compared to the 1990 level, excluding the Land Use, Land-Use Change and Forestry sector (hereinafter referred to as "LULUCF") and without any additional conditions

Incentive Policies:

Belarus offers financial incentives for energy-efficient renovations and new constructions under EU sustainability programs.

Resources: https://vacuumglazingeu.com/vacuum-glazing-belarus

7. Belgium - 比利时

Target:

Belgium aims to achieve climate neutrality by 2050, with interim targets of reducing greenhouse gas emissions by at least 55% by 2030 and 80-95% by 2050 compared to 1990 levels.

In Belgium, the majority of insulating glass units installed prior to 2000 are likely to be inefficient.

Incentive Policies:

In Belgium, homeowners can receive subsidies for installing energy-efficient windows and glass, with schemes like "My Renovation Premium" and "RENOLUTION" offering financial support for renovations, including window replacements

1) My Renovation Premium

This scheme, applicable to houses, flats, and other buildings in the Flemish Region, offers premiums for renovation and energy-saving investments.

Resources: https://be.fi-group.com/en/grants/my-renovation-premium/

2) RENOLUTION

This scheme, reformed from previous grants in the Brussels-Capital Region, provides financial support for energy-efficient renovations, including window and door replacements.

With RENOLUTION grants for your doors and windows, you can generally receive 50% reimbursement for your project. Insulation and Renovation Grantsare calculated depending on your income (types I, II and III) and donotinfluence the property's cadastral income.

- Wooden frames and front doors: you can receive €100-€140 per m2. You can receive an extra €100 if you use wood with FSC or PEFC certifications.
- PVC or aluminium frames: you can receive €40-€55 per m2.
- Soundproofing grant: you can receive €35 per m2 providing that the acoustic properties of the glass meets the following requirement: Rw + Ctr ⩾ 34 dB(A).

Resources: https://abihome.be/en/renolution-grant-insulating-your-frames-and-frontdoors#comment

3) ECORENO

The Brussels region also offers the "ECORENO" loan for renovations, including energy-saving ones, with financing at 0% or 1% interest.

Resources: https://www.ing.be/en/individuals/my-life/housing/subsidy-high-efficiency-glass

8. Bosnia and Herzegovina - 波士尼亚和黑塞哥维那

Target:

Bosnia and Herzegovina aims to reduce greenhouse gas emissions by 33.2% below 1990 levels by 2030 (unconditional) and 36.8% (conditional), with long-term targets of 61.7% (unconditional) and 65.6% (conditional) below 1990 levels by 2050.

Bosnia and Herzegovina aims to significantly increase its share of renewable energy in final energy consumption, aiming for 43.6% by 2030, with specific targets for electricity, heating/cooling, and transport.

Incentive Policies:

The European Bank for Reconstruction and Development (EBRD) has supported over € 1.1 million worth of green technology investments through Green Economy Financing Facility (GEFF) in Bosnia and Herzegovina.

GEFF aims to decrease energy consumption in the housing sector, reduce air pollution and improve the comfort of living. Since the launch of the programme in Bosnia and Herzegovina more than 300 families have improved their energy efficiency and reduced energy bills by investing in green technologies through the GEFF program. Citizens of Bosnia and Herzegovina mostly invest in PVC windows and doors, biomass boilers and thermal façade.

The European Union (EU) has provided a grant for users of the GEFF programme in the amount of 15% to 20% of the loan amount through the partnering financial institutions: UniCredit bank Mostar, UniCredit bank Banja Luka, Sparkasse bank and MKF Partner.

The GEFF program has developed the Technology Selector, an on-line catalogue of the pre-approved energy-efficient products such as insulation, windows and doors, boilers, heat pumps, solar collectors/solar water heaters, photovoltaic systems, lighting, ventilation, air conditioning, refrigerators and freezers, storage boilers for hot water.

Since the beginning of its operations in Bosnia and Herzegovina the EBRD has invested €2.1 billion in almost 150 projects in the country. The Bank focuses on supporting the restructuring and expansion of the local private sector, forging closer links with wider regional markets and promoting a more efficient and sustainable use of energy and resources.

9. Bulgaria - 保加利亚

Target:

Bulgaria aims to align with the EU's climate targets, committing to a 55% reduction in greenhouse gas (GHG) emissions by 2030 and achieving net carbon neutrality by 2050, with a specific target of a 40% decline in GHG emissions from electricity production by 2025.

Incentive Policies:

1) REECL

Each household or association of home owners that get loans under the REECL programme has the right to a 20% or 30% grant (when the renovation of the multi-family building is collective) of the cost of the energy saving project funding, but only after it is successfully completed and all the requirements of the programme are fulfilled.

In 2016, REECL is expected to give loans and subsidies up to 20% for mortgage loans for the construction of residential multi-family buildings and single family houses as well as for the renovation of buildings in order to achieve higher energy classes: B or A. The loans will be lent by commercial banks while subsidies will be provided by the updated REECL programme for energy efficiency through the Kozloduy fund. The construction of zero-energy buildings or buildings with a high energy performance (class A or A+) will be encouraged. Projects aiming to reach the highest levels of energy savings, A or A+, are expected to receive a higher percentage of subsidy.

Resources :

https://www.bpie.eu/wp-content/uploads/2016/05/Accelerating-the-renovation-of-the-Bulgarian-building-stock_EN.pdf

2) Bulgaria is investing EUR 1.1 billion in energy renovation projects for residential and public buildings, with support from European funds. The government is establishing one-stop shops in each district to provide information and support to those involved in these renovations. The funding is part of the EU's NextGenerationEU program and will focus on improving energy efficiency through structural reinforcement, updated heating and cooling systems, renewable energy integration, and building digitalization. The goal is to increase awareness and overcome administrative barriers to encourage private investment in energy efficiency.

Resources :

https://balkangreenenergynews.com/bulgaria-has-eur-1-1-billion-for-energy-renovation-of-residential-public-buildings/

10. Croatia - 克罗地亚

Target:

Croatia aims to reduce its greenhouse gas emissions by 45% by 2030 and achieve carbon neutrality by 2050, with a 36.4% share of renewable energy by 2030, as outlined in its 2030 National Energy and Climate Plan.

Incentive Policies:

1) Croatia's Environmental Protection and Energy Efficiency Fund will start receiving applications for grants to support the energy renovation of family houses.

Individual applicants can receive up to EUR 27,000 to cover up to 60% of the costs of investments aimed at improving the thermal insulation of family houses, including all necessary equipment and works for the insulation of external walls, ceilings, floors, and roofs, as well as for waterproofing and the replacement of

elements of the roof frame. The grants will also go towards replacing windows and doors as well as installing renewable energy systems, such as photovoltaic (PV) systems and pellet boilers. About EUR 4.25 million of the overall budget is earmarked for households in danger of energy poverty, and their energy renovation projects will be financed in full.

Resources：
https://balkangreenenergynews.com/croatia-offers-eur-27-million-in-grants-for-energy-renovation-of-family-houses/

2) The Croatian government plans to disburse EUR 651.8 million (USD 675.1m) in grants to support green transition projects in 2025, including renewables and energy storage.

The Balkan country's Ministry of Environmental Protection and Green Transition announced that the amount will be distributed through public tenders. The grant financing will back projects envisaging the construction of new waste management infrastructure, the generation of power from renewable energy plants for public water service providers and public waste collection service providers and the installation of energy storage capacity. Initiatives related to improving energy efficiency in homes and the installation of photovoltaic (PV) arrays and heat pumps will be financed, as well.

Resources：
https://renewablesnow.com/news/croatia-to-provide-eur-652m-in-green-project-grants-1268911/

11. Cyprus - 塞浦路斯

Target:

Cyprus aims to reduce greenhouse gas (GHG) emissions by 32% by 2030 compared to 2005 levels, with a long-term goal of achieving net-zero emissions by 2050

Incentive Policies:

1) Homeowners can receive grants covering up to 60% of the renovation costs, while vulnerable households and mountain residents are eligible for up to 80% of the cost. The total budget available is 35 million euros, with a maximum grant amount of €32,000, depending on the type of renovation and other factors.

Resources: https://cyprushouserenovations.com/renovations-for-energy-efficiency-in-cyprus/

2) The Scheme for Promoting Saving and Upgrading Residences is co-financed by the Republic of Cyprus and the European Regional Development Fund, with €30 million allocated as part of the Sustainable Development plan for Cyprus.

The scheme will offer incentives for energy efficient upgrades to existing homes, including but not limited to consulting services from experts, insulation, double glazing, the installation and/or replacement of solar and photovoltaic systems, air conditioners etc. Grants worth between €22,000 and €32,000 will be offered, covering up to 60 per cent of works or 80 per cent for vulnerable individuals.

Resources: https://cyprus-mail.com/2021/03/09/green-scheme-for-homes-launches

12. Czech Republic - 捷克共和国

Target:

The Czech Republic aims to align with the EU's goal of net-zero greenhouse gas emissions by 2050, with a National Energy and Climate Plan (NECP) outlining ambitious targets, including an 80% reduction from 1990 levels by 2050.

Incentive Policies:

1) Subsidies for reducing the energy performance of buildings and energy savings in enterprises

The amount of total eligible expenditure must be at least CZK 625 000. The maximum amount of eligible costs is CZK 2 billion. The maximum amount of support is EUR 30 million per project and there is no limit to the number of applications for support per applicant.

The rate of aid ranges from 30-80 % of the total eligible expenditure and depends on the size of the company, the type of activity supported and the area in which the company operates (regional aid map).

Resources : https://www.midaconsulting.cz/en/news/subsidies-for-reducing-the-energy-performance-of-buildings-and-energy-savings-in-enterprises/

2) New Green Savings Programme (NGSP)

The New Green Savings Programme (NGSP) is the subsidy programme of the Ministry of the Environment jointly administered with the State Environmental Fund of the Czech Republic (SEF CR), which is focused on energy savings in buildings, especially in family houses and apartment buildings.

The amount of subsidies depends on the type of measure implemented and the energy savings achieved. Depending on the real energy savings, you can save up to 50% of the total eligible expenses (up to 60% if combined with "boiler subsidies" for lower income households).

Resources: https://www.sfzp.cz/en/administered-programmes/new-green-savings-programme/

3) EFEKT III

The Czech Ministry of Industry and Trade runs the EFEKT III, a national program established for the period from 2022 to 2027, which is intended to fund energy saving and use of renewable energy resources. Based on the information published by the ministry, the program prioritizes the preparation phase, providing partial funding for project development, advisory and designing energy management systems. The relevant application conditions and available funds are specified each year.

Resources : https://resourcehub.bakermckenzie.com/pl-pl/resources/global-sustainable-buildings/europe-middle-east-and-africa/czech-republic/topics/incentives-for-green-retrofit

13. Denmark - 丹麦

Target:

Denmark has ambitious climate goals, aiming to reduce greenhouse gas emissions by 70% by 2030 (compared

to 1990 levels) and achieve net-zero emissions by 2050, with a potential target of 110% reduction by 2050.

Incentive Policies:

1) Business Pool subsidies

The Business Pool administered by the Danish Energy Agency provides subsidies to companies in Denmark to help finance energy and carbon dioxide saving projects. The grant covers up to 50% of the cost of an eligible project. Examples of projects that can receive grants include the replacement of boilers with heat pumps or district heating, the establishment of heat recovery systems, and replacement of lighting by LED.

2) Since 1977, successive Danish governments have been using energy taxes to encourage energy efficiency and as a means of raising revenue. Energy taxation is part of a trend where taxes are put on consumption rather than on income. Over the years, the scope of energy taxation has been widened and rates have gone up. All along, Danish energy tax rates have been among the highest in the world.

This shows examples of present energy tax levels in Denmark and three other industrialized countries (US, Japan and Germany). Taxes on electricity are particularly high, reflecting the fact that one extra kWh of electricity often requires 2–3 kWh's of primary energy. The average Danish consumer price per kWh is almost 0.30 EUR, of which 0.17 EUR is taxes.

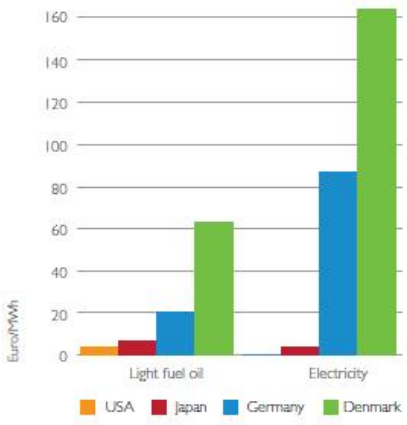

Figure 2. Present taxes (first quarter of 2012) in Euro on fuel for heating and on electricity in United States, Japan, Germany and Denmark. Tax on electricity is not available for the United States. Source: "Energy Prices and Taxes. Quarterly Statistics. First quarter 2012", International Energy Agency 2012.

Resources: https://ens.dk/media/5622/download

3) Copenhagen Green Policy: https://www.greencitytimes.com/copenhagen/

14. Estonia - 爱沙尼亚

Target:

Estonia aims to achieve climate neutrality by 2050, with an interim target of reducing greenhouse gas emissions by 80% compared to 1990 levels by 2035, and to cover 100% of its electricity demand with renewables by 2030.

Incentive Policies:

1) Reconstruction Grant 2022-2027

For the 2022-2027 period, the state has allocated 330 million euros from the European Union Structural Funds for apartment building reconstruction grants. We opened the second application round for the grant on October 28, 2024, at 10:00. The available funds for the round total 170 million euros, which are divided into budgets for counties, reconstruction using prefabricated elements, heritage and environmentally valuable apartment buildings, neighborhood-based reconstructions, and large apartment buildings. (Ministerial regulation)

The grant funds both the comprehensive reconstruction of apartment buildings and, as a separate activity, the replacement of gas, stove, or electric heating systems in apartment buildings with heating devices using renewable energy sources or the connection of these apartment buildings to the district heating network. The supported activities enable energy efficiency improvements for apartment buildings and promote the use of renewable energy.

Resources: https://ieecp.org/wp-content/uploads/2025/03/4_Estonia_fullREER_Kaapa8_eng_RENOVERTY.pdf

2) Subsidy II (reconstruction grant for small residences)

Investment is given to support renovation and a variety of energy efficiency-related activities in small private residences buildings that have been built before the year 2000. The goals of the measure are to increase energy efficiency and better indoor climate of small residences, facilitate deployment of renewable energy and bring down costs for the owners as well as reduce emissions.

Generally, the proportion of the grant is 30% of eligible expenses, with a maximum amount of support EUR 20,000 per small residence. For a thorough construction, the subsidy is either 30% (with a maximum support of EUR 30,000); 40% (and max EUR 40,000); or 50% (and max EUR 50,000) of the eligible costs of reconstruction works and activities. The share of the subsidy allocated depends on the location of the small residence, with buildings in the two largest towns (Tallinn and Tartu) eligible for the lowest share (30%) and more rural areas eligible for a higher share of support (Art 9 Small residences' EE improvement conditions).

Resources: https://clean-energy-islands.ec.europa.eu/countries/estonia/legal/res-heating-and-cooling/subsidy-ii-reconstruction-grant-small-residences

15. Finland - 芬兰

Target:

Finland aims to achieve carbon neutrality by 2035 and reduce greenhouse gas emissions by 60% by 2030, 80% by 2040, and 90-95% by 2050, compared to 1990 levels, excluding land use, land-use change, and forestry.

In Finland, the majority of insulating glass units installed prior to the 1990s are likely to be inefficient.

Incentive Policies:

Energy Aid

may be granted for the investment and investigation audit projects of companies and organizations that promote energy savings or more efficient production or utilization of energy, while transforming the energy system into a low-carbon one in the long term. In renewable energy projects, the aid may be only granted for new technology. The aid must have a significant impact on launching the project.

The energy aid is paid based on the actual costs reported by the organization. The investment costs of the project must be at least EUR 10,000 (energy efficiency) or EUR 30,000 (renewable energy, new technology) but they must not exceed EUR 5,000,000. The funding is provided as aid; you do not have to repay it. Aid is not granted for projects launched before the aid decision is made. The aid may be granted to cover costs arising as of the date of the funding decision at the earliest.

Resources: https://www.businessfinland.fi/en/for-finnish-customers/services/funding/energy-aid#stored

16. France - 法国

Target:

France aims to reduce its greenhouse gas (GHG) emissions by 50% by 2030 compared to 1990 levels and achieve carbon neutrality by 2050, aligning with the EU's "Fit for 55" package and the Paris Agreement goals.

In France, according to données Nationales de batiment (BDNB) in France more than 30% of existing building are equipped with old generation double glazing (uncoated) (UFME paper February 2023). The majority of insulating glass units installed prior to 2000 are likely to be inefficient.

Incentive Policies:

1) Ma Prime Rénov'

Until the end of 2019, the main form of financial assistance for home energy conservation was a tax credit called the *Crédit d'Impôt de la Transition Énergétique - CITE.* Since 2019, this tax credit was phased out, and replaced by a grants system called *MaPrimeRénov.* It is also known as *prime à la transition énergétique*.

One of the major changes is that the grant is paid at the end of the works, and not later following submission of your income tax return. It is also possible to obtain an advance payment of up to 50% of the grant.

The maximum total grant depends on your income and the gain in energy efficiency. Most grant levels have been reduced significantly since 2023.

Resources: https://www.french-property.com/guides/france/building/renovation/energy-conservation

2) eco-PTZ

France offers a zero-interest loan called eco-PTZ to improve a property's energy performance. You can also combine a loan with a MaPrimeRénov' grant.

Resources: https://www.britline.com/articles/green-renovation-project-benefits-grants-and-tools

17. Georgia - 格鲁吉亚

Target:

Georgia has set ambitious goals to reduce greenhouse gas (GHG) emissions, aiming for a 35% reduction by 2030 compared to 1990 levels, with a conditional target of 50-57% reduction, and a long-term goal of becoming carbon-neutral by 2050.

Incentive Policies:

Georgia's Home Energy Rebates

provide households with incentives on the purchase and installation of electric appliances, insulation, air sealing, HVAC, and other home improvement measures. Eligible households can get up to $16,000 in savings. For HER, your incentive amount(s) are determined by your household income relative to your county's area median income (AMI) and your total expected energy savings. A program-approved contractor will work with you to create a project (scope of work) that will help improve the comfort of your home.

Resources: https://energyrebates.georgia.gov/home-efficiency-rebates

18. Germany - 德国

Target:

Germany aims to achieve net-zero greenhouse gas emissions by 2045, with interim targets of cutting emissions by at least 65% by 2030 and 88% by 2040 compared to 1990 levels.

In Germany, 1995 is the date of the 3rd thermal insulation regulation (Wärmeschutzverordnung) in Germany. The majority of insulating glass units installed prior to 1995 are likely to be inefficient.

Incentive Policies:

1) Federal Funding for Efficient Buildings (BEG):

The Federal Subsidy for Efficient Buildings (BEG) operated by the German development bank KfW is a tool derivated from the Climate Action Programme 2030 aiming to promote building renovation across the country. The BEG consists of three sub-programs:

- Federal funding for efficient buildings - residential buildings (BEG WG)
- Federal funding for efficient buildings - non-residential buildings (BEG NWG)
- Federal funding for efficient buildings - individual measures (BEG EM)

The essentials of this programme are the following:

- Promotional loan from 0.64% (Annual percentage rate for renovation, new construction and purchase).
- Up to EUR 150 000 credit per residential unit for an efficient house
- Up to EUR 60 000 credit per residential unit for individual measures
- Pay back less: between 15% and 50% repayment bonus
- Additional funding possible, e.g. B. for construction supervision

Resources: https://www.iea.org/policies/14957-federal-subsidy-for-efficient-buildings-beg-by-kfw

2) KfW Programs:

Energy-efficient Refurbishment (Energieeffizient Sanieren):

- Focuses on energy efficiency measures in existing buildings, including window replacements.

- Energy-efficient refurbishment (grants or loans): grants or loans are available for complete refurbishments or single measures. Projects qualify if after refurbishment they meet at least the energy consumption standard of a comparable new house as set out in the EnEV. In order to meet the high energy standard of a KfW Efficiency House, extensive investments such as the renewal of heating systems, thermal insulation and replacement of windows, are usually required. Projects can apply for receive grant financing from KfW, or loans with a repayment bonus from a local bank.

Energy-efficient Construction (Energieeffizient Bauen):

- Supports the construction of new energy-efficient buildings.
- Energy-efficient construction (loans): Loans of EUR 120,000 per housing unit are available from commercial banks for newly constructed buildings that exceed the energy efficiency standards (Energy Conservation Ordinance/ Energieeinsparverordnung EnEV). A repayment bonus between EUR 18.000 and EUR 30.000 is awarded, according to the energy consumption achieved. The highest bonus is awarded to buildings that consume less than 40% of the energy consumption of the reference building of the standard, and include solar power generation and a ventilation system with heat recovery

Resources :

https://globalabc.org/sites/default/files/2020-09/Germany_GlobalABC%20WA%20Finance_Stimulus_0.pdf

19. Greece - 希腊

Target:

Greece aims to reduce greenhouse gas emissions by 58% by 2030, 80% by 2040, and achieve net-zero emissions by 2050, as outlined in its revised National Energy and Climate Plan (NECP).

Incentive Policies:

Greece 2.0

The Loan component of the National Recovery and Resilience Plan "Greece 2.0," which is aimed at individuals, provides loans under favorable terms to support the purchase of a first home and the improvement of energy efficiency in existing residences.

A total of €2.4 billion (€1.3 billion of Recovery Facility loan resources and €1.1 billion of bank capital) is being allocated through two loan programs:

1) My Home II

The "My Home II" program offers financing of up to €190,000 for the acquisition of a first home up to 150 m^2, to individuals aged 25-50 who meet specific income criteria.

The financing is structured as follows:

- 50% of the loan is interest-free, provided by RRF
- The remaining 50% is provided by banks at a low interest rate.

Additionally, a 50% interest subsidy is available for the interest-bearing part of the loan to:

- Families with three or more children.
- Families with two children who acquire their first home in the municipalities of Orestiada, Didymoteicho,

or Soufli, in the Evros Regional Unit.

The loan can cover up to 90% of the purchase contract value, with a repayment term ranging from 3 to 30 years.

2) Upgrade my home

This program provides loans ranging from €5,000 to €25,000, with full interest subsidies, for energy efficiency improvement of existing homes.

Eligible applicants are individuals who hold legal ownership (full ownership, usufruct, or bare ownership) in a main or non-leased secondary residence, provided they have not benefited from any other EU-funded energy upgrade program since January 1, 2020.

Resources: https://greece20.gov.gr/en/home-loans/

20. Hungary - 匈牙利

Target:

The Hungarian climate law (Act XLIV 2020 on Climate Protection), adopted in June 2020, commits the country to reaching climate neutrality by 2050 and reducing its GHG emissions by 40 % by 2030 compared with 1990 levels. The 2030 target was reached as early as 2023, with a 43 % reduction.

Incentive Policies:

The government will offer homeowners who contribute HUF 1 mln to project costs up to HUF 6 mln of support, of which half will be interest-free credit and the other half grant money, Steiner said. The subsidies may be used to replace windows and doors, upgrade water heating systems, replace furnaces, and add insulation, he added. Homes must be connected to the gas network to avail of the subsidies.

The 50%-50% ratio of subsidised credit and grant money may vary depending on the level of development in the area where the applicant's home is located, but the grant money may not exceed HUF 3.5 mln. In line with European Union rules, subsidized investments must produce energy savings of 30% or more, a level that must be certified.

Resources :

https://bbj.hu/business/real-estate/residential/gov-t-announces-huf-108-bln-scheme-for-home-energy-efficiency-upgrades/

https://trademagazin.hu/en/magyarorszagon-meg-mindig-kevesen-gondolkoznak-kifejezetten-energiahatekonysagi-celu-fejlesztesekben/

21. Iceland - 冰岛

Target:

Iceland aims to achieve carbon neutrality by 2040 and reduce greenhouse gas emissions by 55% by 2030 (compared to 1990 levels), with a Climate Action Plan outlining 150 actions to reach these goals.

Incentive Policies:

Iceland has introduced new tax incentives for green investments.

The incentive equals a 5% discount on the purchase price of sustainable and environmentally friendly movable assets such as industrial and construction machinery or equipment, cars, transport equipment, and vessels.

The new green incentives are intended to encourage private investments to speed up the economic recovery while promoting environmentally sustainable solutions. Indeed, this is an opportune time for government policy-making to alleviate the adverse effects of COVID-19 while supporting an environmentally friendly agenda for a more resilient Iceland.

The incentive applies to investments made from 2021 to 2025 that are environmentally friendly, promote sustainable development, and fall under one of the following categories:

- Eco-friendly transport
- Renewable energy
- Sewage treatment and waste recycling
- Sustainable and environmentally friendly management of natural resources and land use

Resources: https://www.datacentersbyiceland.com/incentivesfor-greeninvestments/

22. Ireland - 爱尔兰

Target:

Ireland has legally binding targets to reduce greenhouse gas emissions by 51% by 2030 compared to 2018 levels and achieve net-zero emissions by 2050, with a framework of carbon budgets and Climate Action Plans.

In UK, a change in building regulations in 2002 resulted in low emissivity glass effectively becoming mandatory from that point. The majority of insulating glass units installed prior to 2002 are likely to be inefficient.

Incentive Policies:

1) National Home Energy Upgrade Scheme:

This scheme, administered by SEAI, provides grants to upgrade the energy efficiency of your property, with a target energy efficiency rating of B2 or above.

The grant amounts for approved housing bodies (AHBs) are different to those for homeowners and landlords. The amount you get for each upgrade can also depend on the type of property you have.

Resources: https://www.citizensinformation.ie/en/housing/housing-grants-and-schemes/grants-for-home-renovations-and-improvements/grants-for-a-home-energy-upgrade/#:~:text=How%20to%20apply-,Introduction,upgrade%20grant%20from%20the%20SEAI.

2) Better Energy Warmer Homes Scheme:

This scheme provides free home energy upgrades to homeowners who receive certain social welfare payments, including upgrades to windows and doors.

Resources : https://selectra.ie/energy/guides/schemes/grant-windows-doors-ireland#:~:text=Doors%20Grants%20FAQs-,What%20SEAI%20Grants%20for%20Windows%20and%20Doors%20Are%20There?,The%20Energy%20Efficiency%20Obligation%20Scheme

3) Energy Efficiency Obligation Scheme

This scheme requires obligated parties (energy suppliers with sales greater than 600 GWh per year) to provide support to homeowners for energy efficiency projects, such as certain home improvements.

Under this scheme, you may be able to get a grant for full window and external door replacements.

Resources : https://selectra.ie/energy/guides/schemes/grant-windows-doors-ireland#:~:text=Doors%20Grants%20FAQs-,What%20SEAI%20Grants%20for%20Windows%20and%20Doors%20Are%20There?,The%20Energy%20Efficiency%20Obligation%20Scheme

23. Italy - 意大利

Target:

Italy aims to achieve climate neutrality by 2050, with a target of reducing greenhouse gas emissions by 38% below 2005 levels by 2030, and has seen a net emissions reduction of 34.8% from 2005 to 2023.

24. Kazakhstan - 哈萨克斯坦

Target:

Kazakhstan aims to achieve carbon neutrality by 2060 and has set a goal to reduce greenhouse gas emissions by 25% by 2030, compared to 1990 levels, with a conditional target of 25% reduction with international support.

25. Kosovo - 科索沃

Target:

Kosovo aims to reduce greenhouse gas emissions by 49% by 2030 compared to 2016 levels, and increase the share of renewable energy in its energy mix to at least 35% by 2030.

Incentive Policies:

The application for the comprehensive subsidy package was officially opened on August 18, 2023. Kosovo's Ministry of Economy announced this subsidy package for families willing to invest in energy-efficient home appliances and solar water heating systems.

Citizens could apply for subsidies that cover up to 45% of the cost of external wall insulation, roof insulation, and the replacement of exterior doors and windows, capped at 5,500 euros. This initiative represents the first-ever energy efficiency scheme specifically designed for the residential sector by the institutions of the Republic of Kosovo. The program is administered by Kosovo's Fund for Energy Efficiency.

Resources: https://www.europehouse-kosovo.com/a-new-era-of-energy-efficiency-subsidies/

26. Latvia - 拉脱维亚

Target:

Latvia aims to achieve climate neutrality by 2050, with intermediate targets of reducing greenhouse gas (GHG) emissions by 65% by 2030 and 85% by 2040 compared to 1990 levels.

27. Lithuania - 立陶宛

Target:

Lithuania aims to achieve climate neutrality by 2050, with a target of reducing greenhouse gas emissions by at least 70% below 1990 levels by 2030, and to achieve 100% renewable electricity supply by 2030.

28. Luxembourg - 卢森堡

Target:

Luxembourg aims to reduce greenhouse gas (GHG) emissions by 55% by 2030 compared to 2005 levels, and achieve net-zero emissions by 2050, exceeding the EU-wide goal of a 55% reduction by 2030.

Incentive Policies:

1) Interest subsidy on climate loans

The interest subsidy on climate mortgages is designed to encourage sustainable renovation of homes that are over 10 years old by offering loans that meet the criteria for subsidised renovation work. BGL BNP Paribas is one of the contracted banks that can extend this type of loan.

The terms of the interest subsidy granted by the State include:

- a reduced rate: limited to 1.5% (without exceeding the effective rate of the loan);
- a maximum loan amount used in its calculation: €100,000;
- a term: 15 years (from when the first tranche of the interest subsidy is paid);
- The total interest subsidy amount may not exceed 10% of the loan principal or the portion of the loan taken out to pay for work.

2) Energy retrofitting grants (Klimabonus)

In addition to climate loans, the State offers a Klimabonus for sustainable energy retrofitting of a residential building over 10 years old located in Luxembourg and for the use of renewable energy sources.

3) Financial Aid for an Energy Consultation

To be eligible for a Klimabonus grant, you must have an energy consultation with a consultant approved by the Ministry of the Environment, Climate and Sustainable Development. A subsidy for the energy consultation may be granted by the State.

4) Reduced VAT For Energy Retrofitting

The Luxembourg State applies a reduced VAT rate of 3% rather than 17% to renovations of properties intended as a primary place of residence. However, this tax concession cannot exceed EUR 50,000 per dwelling.

Resources: https://www.bgl.lu/en/individuals/renovation-project/energy-retrofitting-subsidies.html

29. Malta - 马尔他

Target:

Malta aims to reduce greenhouse gas (GHG) emissions by 41% compared to 2005 levels by 2030, and is committed to achieving climate neutrality by 2050, with indicative targets of 60% reduction by 2040 and 80% by 2050.

Incentive Policies:

In 2023 the government is doubling its investment in this scheme to €1 million, to continue supporting more efficient use of energy in homes in Malta and Gozo. The Roof Insulation – Double Glazing (RIDG) Scheme was first issued last year with an allocation of €500,000 and was immediately taken up with 577 applications in just over a month.

The RIDG Scheme, which is administered by the Regulator for Energy and Water Services (REWS), is also open to voluntary organizations that do not have any commercial activities.

The grant funds 50% of the total eligible costs of roof insulation and double-glazed doors and windows, up to a maximum of €1,000, including VAT.

In 2024, the popular grant for the installation of PV panels and battery systems in family homes will be extended with another €4.8 million.

Resources: https://www.gov.mt/en/Government/DOI/Press%20Releases/Pages/2023/11/10/pr231763en.aspx

30. Moldova - 摩尔多瓦

Target:

Moldova has committed to reducing its greenhouse gas (GHG) emissions by 70% below 1990 levels by 2030, with a potential increase to 88% if international financial and technological support is secured.

Incentive Policies:

Resources: https://ceenergynews.com/renewables/moldova-to-launch-residential-energy-efficiency-fund/

31. Monaco - 摩纳哥

Target:

Moldova has committed to reducing its greenhouse gas (GHG) emissions by 70% below 1990 levels by 2030, with a potential increase to 88% if international financial and technological support is secured.

32. Montenegro - 黑山

Target:

Montenegro aims to reduce greenhouse gas (GHG) emissions by at least 55% by 2030 and 60% by 2035 compared to 1990 levels, as part of its commitment to the Paris Agreement and transitioning to a low-carbon economy by 2050.

33. Netherlands - 荷兰

Target:

The Netherlands aims to reduce its greenhouse gas emissions by 49% by 2030 and 95% by 2050, compared to 1990 levels, as outlined in the Climate Act and supported by various plans like the National Energy and Climate Plan (NECP) and the National Climate Agreement.

In Netherlands, the majority of insulating glass units installed prior to 2000 are likely to be inefficient.

Incentive Policies:

In the Netherlands, homeowners can receive subsidies for replacing windows and glass with energy-efficient options through the Sustainable Energy and Energy Saving Investment Subsidy (ISDE) scheme

1) The subsidy amount for triple glazing will increase from €65.50 to €111 per m2.

2) The subsidy amount for HR++ glass will increase from €23 to €25 per m2.

3) The subsidy amount for HR++ glass for monuments will increase from €42.50 to €46 per m2.

4) The subsidy amounts for cavity wall, façade, and roof insulation will increase by €1.25 per m2. With this change, the government is addressing the costs homeowners incur for nature-friendly insulation. With the national approach to nature-friendly insulation announced in May 2024, nature-friendly insulation will become the standard.

34. North Macedonia - 北马其顿

Target:

North Macedonia aims to reduce greenhouse gas (GHG) emissions by 51% by 2030 compared to 1990 levels and achieve an 82% reduction in net emissions by 2030, with a long-term vision of a low-carbon economy by 2050.

Incentive Policies:

This flagship initiative, a partnership between the UN system and the Government, is estimated at US$ 46.5 million, and provides affordable financing to small and medium-sized enterprises (SMEs) and underserved households, particularly those led by women, single parents, individuals with disabilities, Roma communities, returning migrants, and remittance recipients. By targeting those with limited access to financial support, the programme delivers additional benefits. SMEs and households receive technical assistance and financial incentives: up to 10% of the original loan amount for SMEs and up to 30% of the loan principal for households, provided as performance-based payments upon completion and verification of renewable energy and energy efficiency projects.

Resources: https://jointsdgfund.org/article/north-macedonias-path-cleaner-energy-and-air-quality

35. Norway - 挪威

Target:

Norway aims to reduce greenhouse gas emissions by at least 55% below 1990 levels by 2030 and by 90-95% by 2050, transitioning to a low-emission society, as outlined in the Climate Change Act and its policies.

36. Poland - 波兰

Target:

Poland aims to reduce greenhouse gas (GHG) emissions by at least 55% by 2030, with a target of 56% renewable power in its electricity mix, and aims for a net-zero emissions economy by 2050, while also transitioning away from coal-based energy.

In Poland, the majority of insulating glass units installed prior to 2005 are likely to be inefficient. Since 2021 new windows must meet very high energy performance standards. Because of climate conditions also some insulating glass units installed 2005 – 2020 are likely to be inefficient.

Incentive Policies:

1) Clean Air Plus programme

The Polish government implemented mid-July 2022 a new instalment of its Clean Air Plus program will start. Households engaged in energy-efficient home retrofits or upgrading their heating systems to higher energy standards (notably through the installation of heat pumps) are entitled to a subsidy capped at PLN 79 000, that may cover up to 90% of the project costs.

Resources: https://www.iea.org/policies/16518-2022-clean-air-plus-programme-extension

2) Warm Housing (*Ciepłe Mieszkanie*) Scheme

While the Clean Air programme is aimed at single-family houses, the Warm Housing scheme is for buildings that contain multiple dwellings. The latest edition has been expanded to include tenants of communal housing (for example, social housing) and small housing communities comprised of thre to seven dwellings.

The funds under the programme can be used to replace old coal-fired boilers with cleaner energy sources – such as heat pumps, condensing gas furnaces or pellet heaters – to connect housing units to a common efficient heat source, and to replace windows and doors with better-insulated replacements.

Under the new edition of the programme, individuals can receive up to 43,900 zloty in funding, while housing associations can apply for as much as 375,000 zloty. However, in order for residents to benefit from the funding, local municipalities must first apply to the programme.

Resources :

https://notesfrompoland.com/2023/09/23/poland-expands-subsidies-for-improving-energy-efficiency-in-homes-to-fight-pollution-and-lower-bills/

37. Portugal - 葡萄牙

Target:

Portugal aims for climate neutrality by 2045, with ambitious targets to reduce greenhouse gas emissions by at least 55% by 2030 and 85% by 2050, compared to 2005 levels, excluding the land use, land use change, and forestry sector.

Incentive Policies:

Programa de Apoio a Edifícios Mais Sustentáveis

In 2023, the Portuguese government announced a program meant to encourage people to start energetic renovations on their property (Programa de Apoio a Edifícios Mais Sustentáveis) – financing up to 85% of the entire project. Some of the renovation services applicable for the partial refund are the instalment of A+ energy class windows, solar panels and air conditioning. Anybody who's an owner, co-owner or permanent tenant in Portugal can apply.

The reimbursement rate for projects and equipment eligible for government support is set at 85%, whereas for projects involving floors, walls, and roofs, it's at a rate of 65%. However, these support ceilings mentioned do not incorporate VAT and can vary depending on the nature of the interventions or the needed equipment.

Resources: https://www.pearlsofportugal.com/our-services/energetic-renovations-portugal/
https://www.fundoambiental.pt/apoios-prr/c13-eficiencia-energetica-em-edificios/05c13-i012023-paes-2023-1-aviso.aspx

38. Romania - 罗马尼亚

Target:

Romania aims for climate neutrality by 2050, with a target of 99% net emission reduction compared to 1990 levels, and has a 2030 target of reducing emissions by 40% compared to 1990 levels.

39. Russia - 俄罗斯

Target:

Russia has committed to limiting greenhouse gas emissions to 70-75% of 1990 levels by 2030 and aims for carbon neutrality by 2060, focusing on improving energy efficiency, preserving forests, and transitioning to cleaner energy sources.

40. San Marino - 圣马力诺

Target:

San Marino aims to reduce its greenhouse gas emissions by 20% below 2005 levels by 2030, focusing on improving energy efficiency and installing solar power generation infrastructure.

41. Serbia - 塞尔维亚

Target:

Serbia aims to reduce greenhouse gas (GHG) emissions by 13.2% below 2010 levels by 2030, equivalent to a 33.3% reduction compared to 1990 levels, and has a broader goal of achieving a low-carbon and climate-resilient society by 2050.

Incentive Policies:

1) The Ministry of Mining and Energy will provide EUR 230 million for subsidies for energy efficiency measures and installation of solar panels

The average household would receive a EUR 2,000 subsidy for installing a 5 kW solar panel or 50 percent of the eligible costs. The investment pays off in four years, after which the consumer pays only a fixed fee per month, Mihajlović added.

Resources :

https://balkangreenenergynews.com/serbia-to-subsidize-citizens-with-eur-230-million-in-2022-for-energy-efficiency-solar-panels/

2) Serbia sets EUR 70 million in subsidies for households for energy efficiency. The public call for subsidies for households to implement energy efficiency measures has been launched by the Ministry of Mining and Energy of Serbia. The Ministry has secured EUR 70 million of subsidies and it is part of the National Energy Rehabilitation Program.

The energy efficiency measures will include: thermal insulation of walls, roofs and ceilings, installation of new windows and doors, replacement of boilers with more efficient ones, installation of heat pumps, solar collectors and solar power panels.

Resources :

https://build-up.ec.europa.eu/en/news-and-events/news/70-million-subsidies-serbian-households-energy-efficiency-measures-and

42. Slovakia - 斯洛伐克

Target:

Slovakia aims to achieve climate neutrality by 2050 and has set targets to reduce greenhouse gas emissions by 43% in the EU Emissions Trading System (ETS) sectors and at least 20% in non-ETS sectors, compared to 2005 levels.

43. Slovenia - 斯洛文尼亚

Target:

Slovenia aims to achieve climate neutrality by 2050, aligning with the EU's goals, and has set targets for reducing greenhouse gas emissions, including a 27% reduction in non-EU ETS sectors by 2030, and an 80-90% reduction from 2005 levels by 2050.

Incentive Policies:

EU Eco Fund

Many property owners are not aware of the EU ecological funds which are available for improvements to energy efficiency of their home in Slovenia.

EU Eco funds can cover as much as 20% and can be more in cases where you are applying for 3 or more subsidies.

The households will be able to receive incentives of up to EUR 18,000 each for various measures including thermal insulation of roofs and facades, installation of energy-efficient windows and replacement of old heating

devices with new ones on wood biomass.

Resources:

https://www.thinkslovenia.com/build-renovate/eu-eco-fund-applications

https://balkangreenenergynews.com/slovenia-adopts-action-plan-to-halve-energy-poverty/

44. Spain – 西班牙

Target:

Spain aims for a 32% reduction in net greenhouse gas emissions by 2030 compared to 1990 levels and net-zero emissions by 2050, with a focus on increasing renewable energy and improving energy efficiency.

Incentive Policies:

Spain's 2022–2025 State Housing Plan.

This program deals with funding measures to reduce energy demand in homes and buildings, in terms of both heating and cooling, reducing the consumption of non-renewable primary energy and replacing exterior elements (thermal insulation, changing windows). Grants will cover 40% of procedure costs, with a limit of € 3,000 per home. An essential requirement for this is that the home in question must be a primary and permanent residence.

Resources :

https://openroom.fundacionrepsol.com/en/contents/subsidies-available-fund-energy-transition/#:~:text=Energy%20efficiency,-One%20of%20the&text=The%20aim%20of%20this%20is,accepted%20until%20December%2031st%2C%202023.