

## EUROPEAN LEVEL

### 2020 CLIMATE & ENERGY PACKAGE

In December 2008, the European Union agreed upon the 2020 Climate and Energy Package defining specific targets for climate protection and energy consumptions. The package sets three key targets: 20% cut in greenhouse gas emissions (from 1990 levels), 20% of EU energy from renewables, 20% improvement in energy efficiency.

### 2030 CLIMATE & ENERGY FRAMEWORK

The updated 2030 Climate and Energy Framework adjusts the three objectives for the upcoming period 2021-2030 and aims to: reduce at least 40% of greenhouse gas emissions; increase up to 32% share for renewable energy; improve energy efficiency to 32.5%.

### 2050 CLIMATE & ENERGY FRAMEWORK

The European Union's long term strategy meets the vision of a prosperous, modern, competitive and climate-neutral economy by 2050. The strategy shows how Europe can lead the way to climate neutrality by investing into realistic technological solutions, empowering citizens and ensuring social fairness for a just transition.

## NATIONAL LEVEL

### NATIONAL ENERGY CONCEPT

The in September 2010 formulated guidelines for an environmental-friendly, reliable and affordable energy supply constituted the foundation of Germany's Energy Policy, paving the way to a timely withdrawal from nuclear energy and coal power and a new age of renewable energy and energy-efficient buildings and infrastructure.

### NATIONAL ACTION PLAN ON ENERGY-EFFICIENCY (NAPE)

NAPE is an essential building block of the Federal Government's National Energy Concept and instrumental in achieving the targets set out on European and National level. In terms of Germany's ambitious energy transition, energy efficiency constitutes the twin pillar next to renewable energy. Its three cornerstones are

- stepping up energy efficiency in the building sector as buildings are responsible for 35 % of Germany's total energy consumption
- establishing energy efficiency as an investment and business model by e.g. facilitating Public-Private Partnerships
- increasing individual responsibility for energy efficiency by educating the general public

### ENERGY-EFFICIENCY STRATEGY FOR BUILDINGS

The Strategy is based on the goal of achieving a virtually climate-neutral building stock by 2050 in line with the Federal Government's Government's Energy Concept. Embedded with the NAPE, the strategy paper specifies measures for a smooth energy transition in the buildings sector and addresses both technical and energy aspects.

### CLIMATE ACTION PLAN 2030

Adopted in 2016, Germany submitted its long-term greenhouse gas emission development strategy, outlining its target to become extensively greenhouse gas-neutral by 2050. For the medium-run, the plan lays down 2030 targets for individual sectors, describing necessary development pathways for them, lists initial measures for implementation and establishes a process for monitoring and updating policies and measures.

**NATIONAL ENERGY & CLIMATE PLAN**  
NEPC is a planning and monitoring tool pursuant to EU's Governance Directive EU/2018/1999: overview of German policy regarding energy and the climate

### ENERGY PERFORMANCE OF BUILDINGS DIRECTIVE 2018/844

In 2018 as part of the Clean energy for all Europeans package, the EPBD was updated to accelerate the rate of building renovation and strengthen the energy performance of new buildings. Decarbonizing the existing, highly inefficient European building stock is one of its long-term goals. It promotes cost-effective renovation work, introduces a smartness indicator for buildings, simplifies the inspections of heating and air conditioning systems and promotes electro-mobility by setting up a framework for parking spaces for electric vehicles.

### ENERGY EFFICIENCY DIRECTIVE 2018/2002

In 2018 as part of the Clean energy for all Europeans package, the amended Directive updated the policy framework in view of 2030 aiming towards the new energy efficiency target of at least 32.5%. This means that EU energy consumption should be no more than 1273 Mtoe of primary energy. EU countries will have to achieve new energy savings of 0.8% each year of final energy consumption for the 2021-2030 period.

### ENERGY SAVING ACT (ENEG)

The Energy Saving Act (EnEG) is an important instrument of the Federal Government's energy efficiency policy and gives the Energy Saving Ordinance a legislative foundation for continuous revision according to the European Energy Performance of Buildings Directive.

### ENERGY SAVING ORDINANCE (ENEV)

The Energy Saving Ordinance (EnEV) is based on the EnEG and was revised in 2014 to ensure continuous updating of the energy-saving requirements for buildings orientated towards the state of the art and economic efficiency which is an important contribution towards energy savings.

Consolidation of EnEG, EnEV and EEWärmeG into new GEG law

### BUILDING ENERGY LAW (GEG)

The Federal Government is currently reviewing a draft on the future Building Energy Law. It is expected to be adopted by the end of 2019. The latest draft (28. May 2019) includes new provisions on an energy standard of Low-Energy Buildings and aims to consolidate regulations of EnEV und EEWärmeG to avoid discrepancies between national legislation.

### RENEWABLE ENERGIES HEAT ACT (EEWÄRMEG)

The Renewable Energies Heat Act (EEWärmeG) obliges owners to cover part of the heat demand of new buildings from renewable energy. In view of its exemplary function, the public sector is obliged to use renewable energy also in full-scale renovation projects for its building stock.

### RENEWABLE ENERGY SOURCES ACT (EEG)

The revised EEG (2017) has set a goal of generating 35% of electricity supply from renewable energy resources by 2020. Its recent revision introduced new features: introduction of an auction system for nearly all renewable energy sources; existing auction scheme will be extended to cover rooftop plants and installations; onshore wind will be auctioned and "central "Danish" target model" will be introduced in terms of offshore wind parks.

### HEATING COST ORDINANCE

The Heating Cost Ordinance is part of energy saving legislation and regulates the metering, distribution and accounting of heating costs and hot water between tenants and landlords. It has contributed towards an average reduction in energy consumption of around 15%.

### EU ENERGY EFFICIENCY AWARD

The European Energy Award (eea) is a quality management and awarding system for municipalities and regions supporting local authorities in establishing interdisciplinary planning approaches and implementing effective energy and climate policy measures through the increased use of renewable energies.

### EUROPEAN ENERGY EFFICIENCY FUND

The EEEF aims to provide market-based financing for commercially viable public energy efficiency, renewable energy and clean urban transport projects related to public sector activities in the 28 EU member countries. It contributes with a layered risk/return structure to enhance energy efficiency and foster renewable energy in the form of a public private partnership (PPP).

### HORIZON 2020

2020 is the EU's largest research and innovation initiative backed with more than 80 billion EUR funding over a period of seven years (2014-2020). Its main objective focuses on enabling research on science and technologies that somehow affect, shape or influence today's societal challenges within the EU. Among the numerous research areas, Energy plays a pivot role in satisfying the constantly increasing energy needs while acknowledging the ecological ceiling and environmental limitations, particularly with regard to the progressing climate change. In that realm, Horizon 2020 facilitates a multitude of funding programs (via a platform that also displays tenders) supporting the decarbonization, digitalization of and energy efficiency measures in existing and new buildings..

### INCENTIVES

**Advice**  
Provision of reliable information and consulting services regarding energy efficiency and renewable energies for private households, companies and public institutions

- Energy consulting services provided through subsidized programs: *On-Side Energy Consulting* (funded by BMWi); *Energy Efficiency Campaign* by Dena; *Stromspar-Check PLUS*; *Energy Consulting for SMEs*, etc.

#### CO<sub>2</sub> Building Renovation Programme

funding takes the form of grants, low-interest loans or alternatively investment grants that may be combined with loan-repayment grants. As a rule, financial incentives rise with the level of energy efficiency achieved.

#### Market Incentive Programme for Renewable Energies (MAP)

promoting investments in renewable energy used largely in existing buildings, heating grids and storage facilities supplied from renewable energies

#### Energy Efficiency Incentive Programme (APEE)

funding will be provided for the modernization of heating and ventilation systems and aims to create a stimulus for innovation and investment

### KFW

KfW is a German state-owned development bank, supporting private households, SMEs and public actors in financing sustainable investments in energy efficiency and renewable energy projects.

- Loans and Grants with low interest rates and often co-funded by Federal Ministries
- e.g. Energy Efficient Building Refurbishment (No. 151/152); Energy Efficient Building Construction (No. 153); KfW-Programme Renewable Energy "Standard" (No. 270) etc.

### AWARDS

#### Energy Efficiency Award 2018

German Energy Agency (dena) has presented the prestigious award to private and public companies that have achieved outstanding achievements in increasing energy efficiency. The internationally announced award is endowed with prize money totalling 30,000 €.

#### KfW Award for Construction

The KfW awards every year building owners with the KfW Construction Award to promote private investment in sustainable buildings and future-oriented technologies.

### OTHER MECHANISM

**Energy Tax Act and Electricity Tax Act**  
tax relief is only granted as part of tax capping if the enterprises concerned operate an energy or environmental management system

**Renewable Energy Source Act**  
special compensation arrangement is contingent on implementation of energy-related provisions

#### Tendering Scheme

With the introduction of the Competitive Tendering Scheme for Energy Efficiency, Germany will spearhead a new approach for promoting close-to-market and cost-effective energy efficiency solution.

- Pilot Project STEP up!**  
aims at reducing electricity consumption by promoting electricity-related measures across technologies, actors and sectors (open tender) with planned funding 150 mio EUR in 2018