




Revision of the Energy Performance of Buildings Directive (EPBD)

Gordon Sutherland
European Commission- EASME H2020 Energy Unit

Clean Energy for All Europeans Package

THE RIGHT REGULATORY FRAMEWORK FOR POST – 2020

Energy Union Governance

Energy Efficiency
(Energy Efficiency Directive, European Performance of Buildings Directive)

Renewables
(Revised Renewable Energy Directive)

New Electricity Market Design
(including Risk Preparedness)

Energy prices and costs report

Energy Efficiency Directive

- Energy efficiency target for 2030;

Ecodesign Working Plan 2016-2019

- List of new product groups;
- Contribution to circular economy objectives;

Energy Performance of Buildings

- Supportive of renovation;
- Smarter – ICT, smart buildings;
- Simpler;

EPBD review: focus on buildings – for good reasons

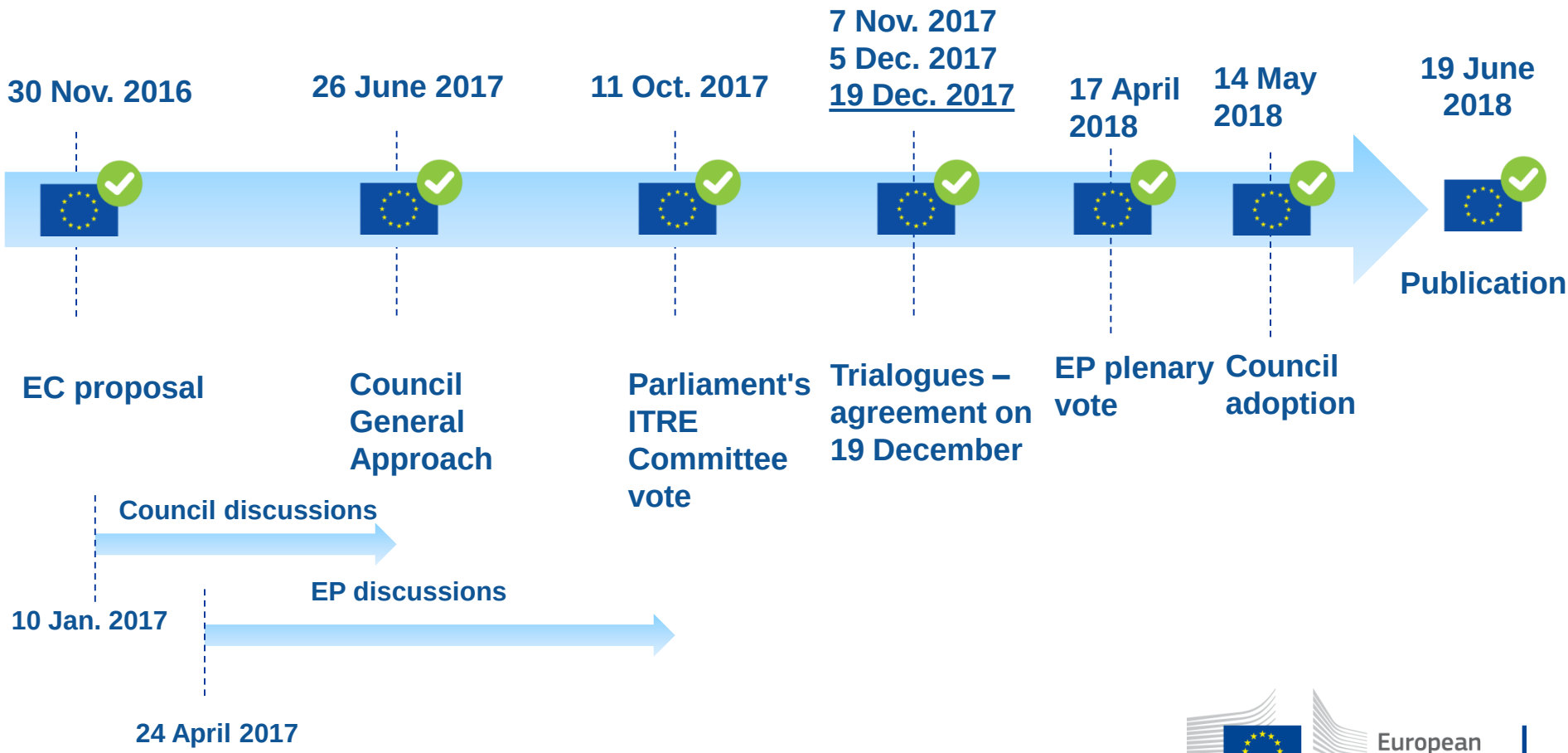
FACTS

- 75% of the housing stock is energy inefficient, missing the benefits of increased renovation.
- Renovation rates are too low and renovation depth is too shallow.
- Need to accelerate and finance building renovation investments.
- Tapping the potential of smart building technologies.

.

EPBD review: the process

FROM EC PROPOSAL TO PUBLICATION



European Commission

Main outcomes of the revision

A STRENGTHENED DIRECTIVE

- Stronger **long term renovation strategies** for Member States, aiming at decarbonisation by 2050 and with a solid financial component.
- A **Smart Readiness Indicator** for buildings.
- Targeted support to **e-mobility** infrastructure deployment in buildings' car parks.
- Enhanced **transparency** of national building energy performance calculation methodologies.
- Reinforcement of **building automation**: additional requirements on room temperature level controls, building automation and controls and enhanced consideration of typical operating conditions.

Focus on long-term renovation strategies

A MAJOR INSTRUMENT FOR RENOVATION IN THE EU

Long term building renovation strategies (Article 2a)

Stronger reference to **energy poverty** and **solid financial component** (effective use of public funding; aggregation; de-risking).

Requirement for Member States to:

- Establish comprehensive strategies aiming at a highly efficient and **decarbonised building stock** by **2050** and at a cost-effective transformation of existing buildings into **nearly zero-energy buildings**.
- Set up a roadmap with measures, **measurable** progress indicators and indicative milestones for **2030, 2040** and **2050**.
- Carry out a **public consultation** on the strategies prior to submission to the Commission, and consultation in an inclusive way during implementation.

Focus on electro-mobility

AN IMPORTANT CONTRIBUTION TO TRANSPORT DECARBONIZATION

Additional provisions to support the deployment of the EU infrastructure for electro-mobility (Article 8)

- By **2025**, Member States will set **requirements** for a **minimum number of charging points** in **all** non-residential buildings with more than 20 parking spaces.
- **Simplification** of the deployment of recharging points (including - permitting procedure).
- Requirement for the installation of ducting infrastructure in new and major renovated buildings with more than 10 parking spaces
  - 1 in every 5 parking spaces for non-residential buildings.
  - Every parking space in residential buildings.
- Requirement of at least 1 charging point per building for new and major renovated non-residential buildings with more than 10 parking spaces
- Targeted **exemptions** (e.g. for SMEs).

Focus on inspections & building automation

A GREATER ROLE FOR AUTOMATION

Inspections on heating & air-conditioning systems are updated (Articles 14 and 15) – new provisions on self-regulating devices (Article 8(1))

- **Thresholds** for inspections are set up at **70 kW** for both heating and air-conditioning systems.
- **Alternative measures** to mandatory inspections based on advice are kept, with reporting to the Commission.
- installation of **building automation and control systems** in large non-residential buildings by **2025**
- Additional requirements on the installation of **self-regulating devices** for room temperature level control in new buildings or when heat generators are replaced.

Focus on building data collection

TOWARDS BETTER DATA

Steps towards better data both in existing databases for Energy Performance Certificates (Article 10) and on Technical Building Systems performance documentation (Article 8(9))

- Requirement for EPC databases to allow gathering data for the (measured or calculated) **energy consumption** of buildings.
- This data shall be **made available** to building owners and for statistical and research purposes.
- Requirement to **assess and document the performance** of technical building systems when they are installed, replaced or upgraded.
- Strong complementary with initiatives launched by the Commission to support the collection of data on the EU building stock.
  See e.g. EU Building Stock Observatory:
  https://ec.europa.eu/energy/en/eubuildings

Smart Readiness Indicator for buildings

BUILDING-LEVEL SMARTNESS

- The **SRI** will be an optional common Union scheme for rating the **smart readiness** of buildings.

- The SRI will be established through two legal acts: delegated act for the **definition** and **calculation methodology**; implementing act for the technical modalities of **implementation**. By 31 Dec. 2019.

- **Motivation**: recognition of progress towards smart building systems and their added value for for building users, energy consumers and energy grids.

The "Smart Finance for Smart building" Initiative

A GREATER MOBILIZATION OF INVESTMENTS

Smart Finance for Smart Building Initiative aims at **unlocking investments and private financing** through:

- Aggregation of projects
- De-risking
- Effective use of public funding

Financing Initiatives:

- **European Local Energy Assistance** (ELENA) - Technical assistance to develop large-scale projects

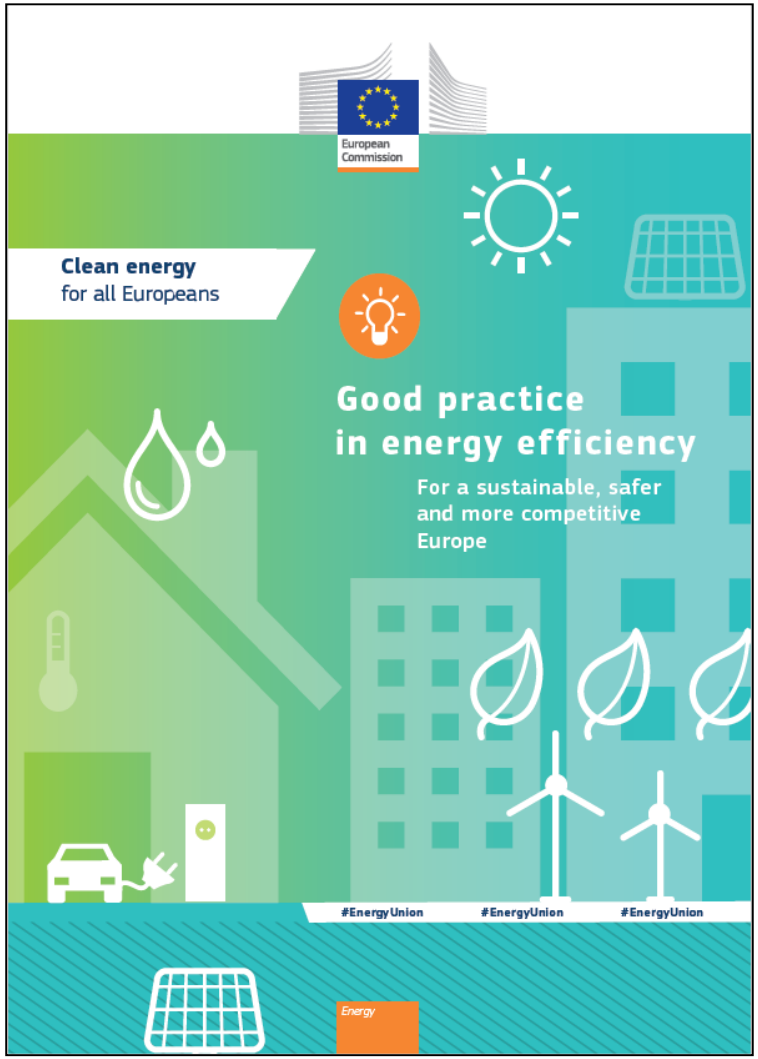
- **De-risking Energy Platform** (DEEP) - database aiming at de-risking energy efficiency investments

- **EFFIG Underwriting toolkit** - guide which aims to assist financial institutions to scale up their deployment of capital into energy efficiency.

The EASME H2020 Energy Team

SUPPORTING POLICY IMPLEMENTATION THROUGH HORIZON 2020

European Commission

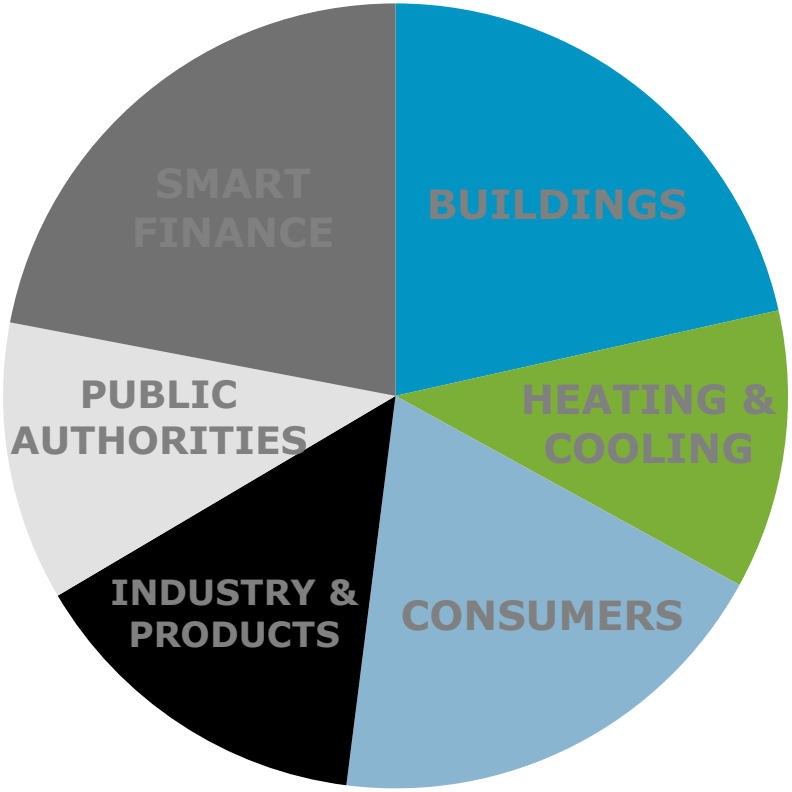


SUPPORTING ENERGY POLICIES

- Assisting **DG ENER** with the **Clean Energy Package**:
  - Preparation (e.g. good practices)
  - Negotiation (e.g. inputs for trilogues)
  - Implementation (e.g. smart finance)
- Liaising with **DG GROW** on:
  - Market surveillance
  - Construction skills

Horizon 2020 Programme Implementation: Energy Efficiency

OVER 200 HORIZON 2020 PROJECTS



European Commission

Example Horizon 2020 Energy Efficiency Project

MAKE NET ZERO REFURBISHMENTS FOR HOUSES A MASS MARKET REALITY

- Standardised, affordable, mass produced passive house retrofits with minimal tenant disturbance
- Dutch 'Energiesprong' model scaled-up and applied in France & the UK
  - 20,000 renovations in project
- Market collaboration between social housing associations, suppliers and financiers

Expected impacts
Energy savings: 430 GWh/yr
Investment triggered: €800k

TRANSITION ZERO
(Horizon 2020 project 696186)

http://transition-zero.eu/







Thank you!

Gordon Sutherland
H2020 Energy Unit
European Commission - EASME

gordon.sutherland@ec.europa.eu