Enefirst Plus: CROATIA

Status of EE1st implementation and pilot case study

Friday 18 October 2024 | Warsaw

Info session of the Concerted Action EED

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What do we have now?

Current position of EE1st in national policy and legal framework

Policy review (updated NECP): by others

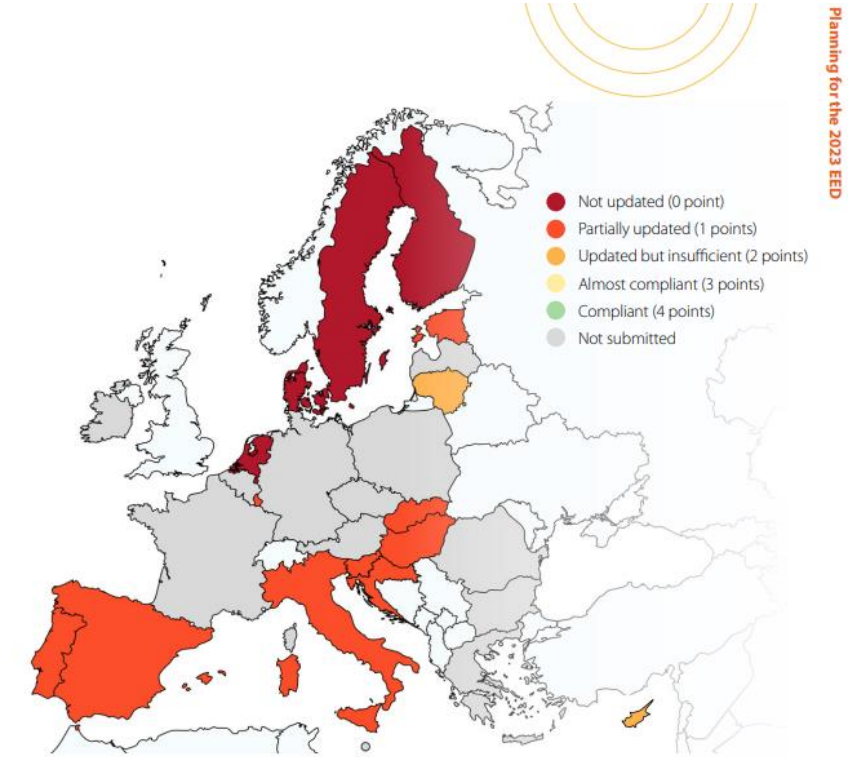
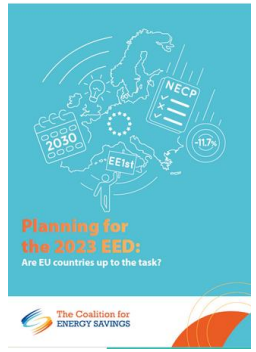


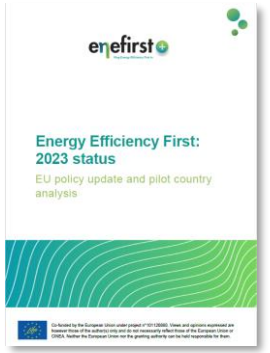
Figure 3: Assessment of compliance of draft NECP updates with the energy efficiency first principle



Energy Efficiency First principle	Use as an overarching principle in the NECP	Croatia mentions the Energy Efficiency First (EE1st) principle, namely in the context of the building sector (see policy measure ENU-2, *Promotion of decarbonisation and the application of the "energy efficiency first" principle in building*).	The EE1st principle is only acknowledged but not used as an overarching principle in the drafting of the NECP.	Insufficient
	Concrete measures to systemize the EE1st principle	Missing.	Croatia does not specify any policies or measures to increase the application of the EE1st principle or to comply with the new obligations under Art.3.	Not updated

Source: https://energycoalition.eu/latest/planning-for-the-2023-eed-2/
October, 2023

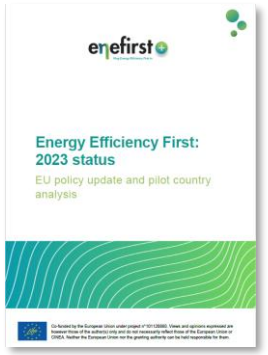
Policy review (updated NECP): by us



- Future energy scenarios
  - Demand side – EE measures taken into account
  - Supply side – better efficiency of energy transformation (CHP, RES)
  - Transmission/distribution – reduction of grid losses
  - Flexibility measure taken into account to some extent (battery storage at grid level)
- Buildings
  - A new measure in updated NECP “Promotion of decarbonization and application of the “energy efficiency first” principle in the building sector”
  - Building energy renovation programmes - inherently align with the EE1st, since they are all based firstly on the reduction of the energy needs of a building and only then on the replacement of the existing building energy systems with RES-based and more efficient systems dimensioned for this new reduced energy demand

Source: https://ieecp.org/2024/04/17/whats-new-in-the-eu-on-energy-efficiency-first-ee1st/
April, 2024

Legislation review: by us



- EE1st in Act on Energy Efficiency :
  - principle can be understood as taking into account the potential for energy savings, whilst achieving the main targets of the analyzed action
  - in the design of sectoral policy measures, where applicable, the EE1st principle shall be applied
- Act on Renewable Energy Sources and High Efficient Cogeneration
  - when passing the relevant regulations and by-laws, it will be ensured that the approvals and permitting procedures applied contribute to the implementation of the EE1st principle

Source: https://ieecp.org/2024/04/17/whats-new-in-the-eu-on-energy-efficiency-first-ee1st/
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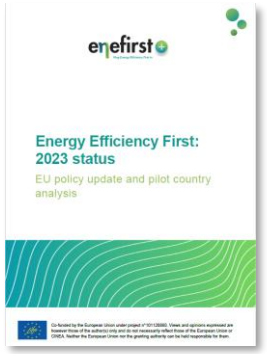
Legislation review: by us



- Electricity Market Act:
  - producer of electricity is obliged to create and publicly disclose a program of measures for energy efficiency improvement, along with annual reporting on the results of its application
  - DSO and TSO have an obligation to include energy efficiency measures in their 10-year grid development plans and to report to the Regulatory Energy Agency on the implementation on energy efficiency measures

Source: https://ieecp.org/2024/04/17/whats-new-in-the-eu-on-energy-efficiency-first-ee1st/
April, 2024

How to transpose art 3. into national legislation?

Just first thoughts…

Integrating EE1st in other policy areas

Planning

- **NECP**; **10Y** plans of TSO & DSO, transport planning, local planning

→

- **Strategic planning and development management!**
- Energy planning – NECP & grid plans
- Local energy planning (EE, H&C, SECAPs, SUMPs)

Policies

- Financing schemes, taxes, regulation

→

- Climate policy and regulation (funds from ETS)
- Environmental Protection and Energy Efficiency Fund
- Public procurement

Investments (individual projects)

- Grid infrastructure, power plants hydrogen production, energy storage, buildings, roads, airports…

→

- CBA methodology (energy projects -> energy approval; strategic investment projects)
- **Public investment projects (>20 M€)!**
- Public procurement

Croatian pilot case within ENEFIRST+: transmission grid

10Y planning process and CBA for investments in transmission grid

EE1st in transmission grid planning

- ENEFIRST+ survey results

Dominant practices would not consider alternatives in terms of energy efficiency or demand-response when preparing investment plans, which would not be systematically checked by National Regulatory Authorities either. This confirms the relevance of the new provisions added in Article 27 of the new EED to strengthen the implementation of EE1st in this field.

Security of supply will remain the top priority of network operators: energy efficiency should not contradict this.

Among the key challenges, network operators might **not see energy efficiency in end-uses or demand-side flexibility, as part of their jurisdiction** or business model. Whereas they may more easily consider efficiency in transmission/distribution to reduce losses.

EE1st in transmission grid planning

- In-depth analysis of 10Y plan for the development of the transmission system grid
  - Inputs: supply-side and demand-side scenarios (strong relation with NECP!)
  - Specifically interesting areas:
    - Supply-side – storage, P2H, P2X
    - Demand-side – grid flexibility services
  - Identification of EE1st aspects not covered in current practice (if any)

- CBA of selected transmission grid project
  - ENTSO-E methodology currently in use
  - Revitalization of 220 kV transmission line (HR – B&H)
  - Re-doing CBA for selected project with integrated EE1st aspects

Pilot cases:

Croatia (EIHP)

EE1st in **transmission grid** planning

Greece (CRES)

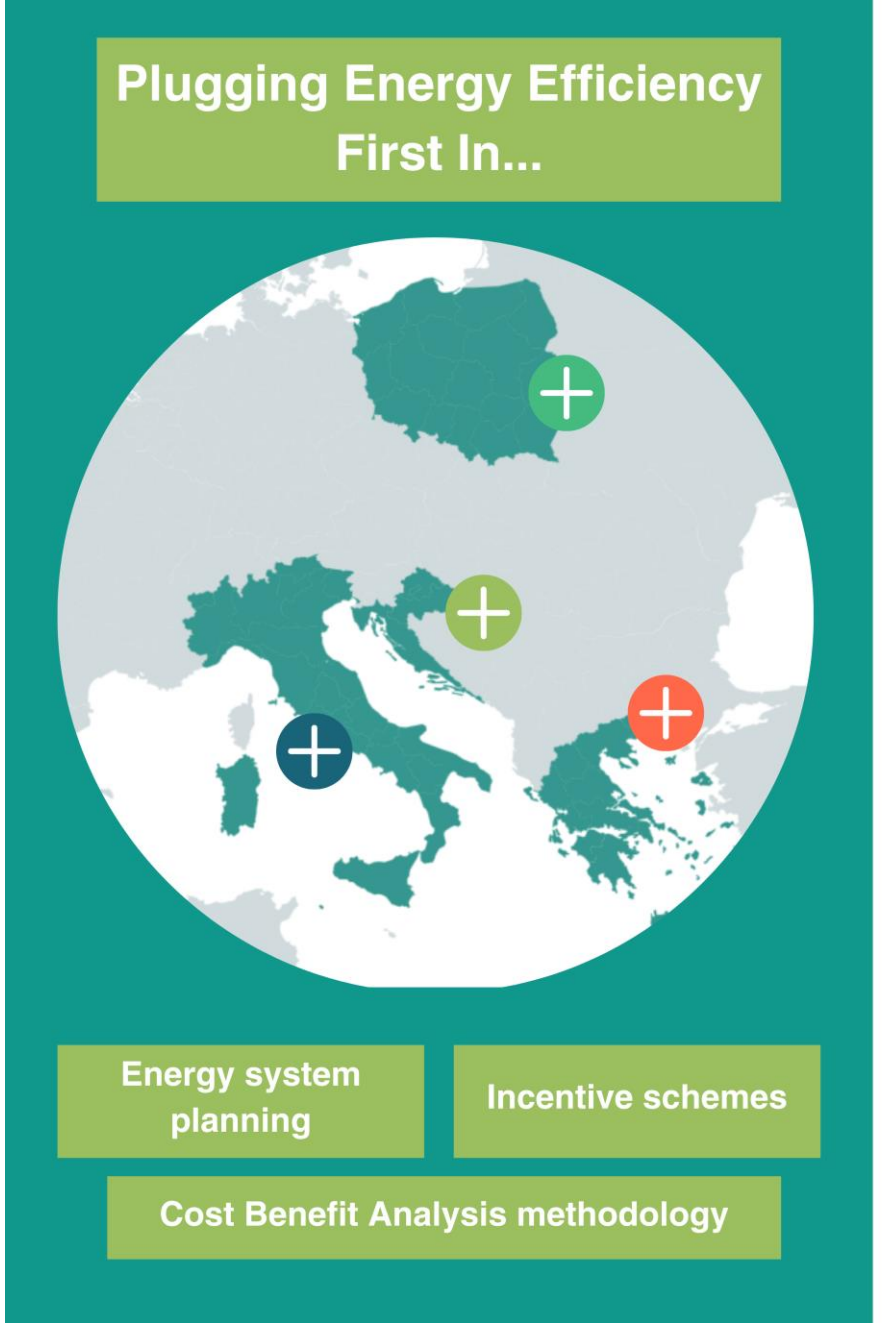
EE1st in **heating & cooling plan**

Italy (ENEA)

EE1st in **SECAPs**

Poland (KAPE)

EE1st in **integration of Decentralized Energy Resources**



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Plug Energy Efficiency First In

EIHP ENERGY INSTITUTE HRVOJE POŽAR

ΚΑΠΕ CRES

ENEA Italian National Agency for New Technologies, Energy and Sustainable Economic Development

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