



Sofia Event Center

**June 20-22, 9:00 am**

**The Largest Forum on  
Green Transition in  
Central and Eastern Europe**

DAY I:

**ENERGY CONNECTIVITY  
& THE TRANSFORMATION  
OF BASIC ENERGY  
CAPACITIES**

**Costas G. Theofylaktos**  
Sec. Gen. IENE

**Sofia, 20/6/23**

# INSTITUTE OF ENERGY OF SOUTH-EAST EUROPE – IENE

The Institute of Energy for South-East Europe (IENE) was founded in 2003, by a small group of independent professionals and business executives active in the Energy sector of the region. From 2019, the Institute has a partner in each SE European country. The Institute, which has its headquarters in Athens, Greece, is a nongovernmental and nonprofit organization.

IENE's Mission is to **promote a broader understanding** of the key energy issues in the region and provide a suitable platform for the exchange of views and information, open to professionals, companies, stakeholders and others who are actively involved in the energy sector.

The Institute publishes in regular basis fact sheets/studies/working papers -180 per year - and two conferences as the SE Europe Energy Dialogue with speakers from IEA, EU, Energy Institute, Energy Community, Eurogas, BPIE, ROEC, etc.

**Every three years IENE publishes: “SEE Energy Outlook 2021/22”, a 1450p comprehensive study of the energy situation of all SEE countries.**

<https://www.iene.eu/south-east-europe-energy-outlook-2021-2022-p6560.html>

As of January 2021, IENE was confirmed by the Climate Bonds Standard Board, as an Approved Verifier, under the Climate Bonds Standard.

[www.iene.eu](http://www.iene.eu)

# South East Europe Energy Outlook **2021/2022**

Presentation in Sofia, Bulgaria

*March 8, 2022*

Energy Efficiency, CHP and RES in SEE

By **Costas Theofylaktos**

Gen. Secretary of IENE/Chairman of EE Committee





Let's discuss the title of our Session: *"Energy Connectivity and the transformation of basic energy capacities"*

Two intriguing concepts in this title, suitable to star the discussion:

1. Energy connectivity
2. Transformation

Are these concepts connected and if YES how?

We, at IENE, believe that YES there is a **strong** connection, which is called

**"Energy Efficiency"**

and this presentation is dealing with its role in forthcoming **Green Transition!**

**Energy Efficiency, EE**, is an easy, reliable, common and cost-efficient way to decarbonize our building stock, our industries, our transportations!

**EE** can deliver economic gains immediately, but while efficiency measures often seem mature, there remains tremendous untapped potential for EE.

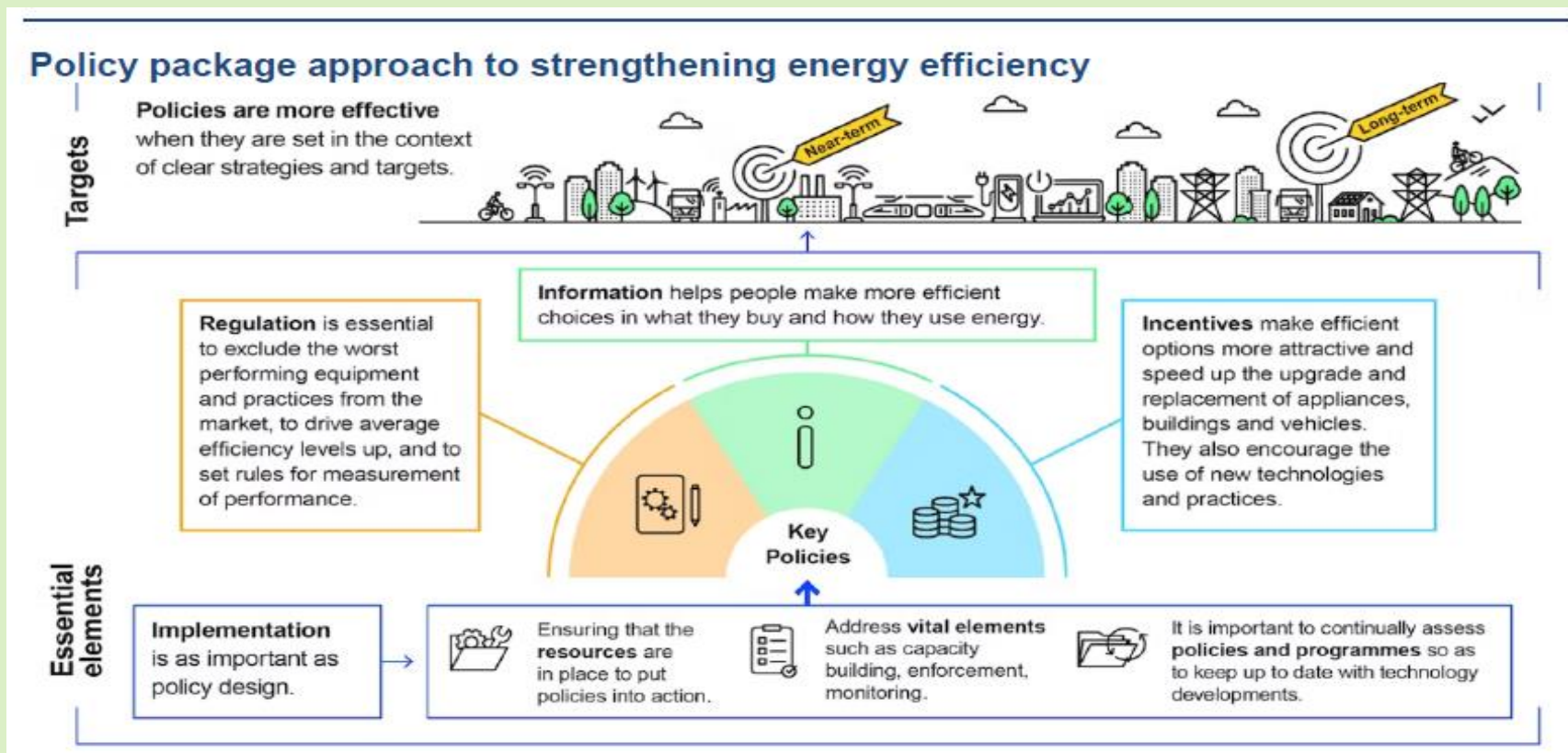
- ❑ The SE European region is characterized by distinctly different (in terms of structure and operation) and frequently segregated energy markets in various stages of EE & RES development:
- ❑ The EU M-S (Greece, Romania, Cyprus, Bulgaria, Croatia and Slovenia) have implemented several steps toward the smooth adaptation of EU energy and environmental policies and directives. Among them only Greece, Cyprus and Slovenia belong to Eurozone.
- ❑ The West Balkan countries (Albania, Serbia, Bosnia & Herzegovina, Montenegro, Kosovo, N. Macedonia) are in a transition process within the Energy Community framework
- ❑ All states in the Region have transposed the EU legislation on Energy Efficiency, EE, (EED – Green Deal, etc.)
- ❑ The Outlook analyses the NEEAP and NECP of each SE European M-S, as EU requested each Member State, M-S, to set their own indicative national EE target, to prepare and publish a three-year National EE Action Plan, NEEAP, as well as to prepare an annual progress report.
- ❑ The Outlook presents the incentives/plans for the promotion of EE and EE Programmes funded by EU & IFIs.

Country	In compliance with EED	Targets by 2030
Bulgaria	√	PEC 17.46 Mtoe – FEC 10.32 Mtoe
Croatia	√	PEC 8.3 Mtoe – FEC 6.89 Mtoe
Cyprus	√	PEC 2.4 Mtoe – FEC 2.00 Mtoe
Greece	√	PEC up to 21.0 Mtoe – FEC 16.5 Mtoe ambitious twice revised
Hungary	√	FEC up to 18.75 Mtoe (2005), meaning steady annual saving 0.17 Mtoe or 0.8% annual saving
Romania	√	PEC: BAU=58.7 Mtoe to 32.3 Mtoe (-45.1%) FEC: BAU=43.2 Mtoe to 25.7 Mtoe (-40.4%)
Slovenia	√	Up to PEC 6.35 Mtoe and FEC : 4.72 Mtoe
Israel	√	PEC: BAU = 8.25 Mtoe to 6.88 Mtoe (-16.7%)
Turkey	√	-23.9 Mtoe of PEC
Albania – B & H – Kosovo-Montenegro - N. Macedonia	NECPs expected in late 2021	

Country	Actions
Bulgaria	DESIREE Programme grant 10.9 m€ for gasification 10,000 households Important role of European Structural Fund, ESF
Croatia	EE of Family Houses (2014-20) 26.7m€ - Renovation of Public/Apartment buildings 211 m€ + 25 m€ loan from IFIs
Cyprus	ESF: 8.7 m€ for SME – 18.4 m€ for households – 20 m€ for Public buildings – 1.17 m€ for pilot HECHP (hospitals, etc)
Greece	Envisaged National EE Fund (lending & guarantee fund) +role of ESCOs – Important role of EE in households of EXOIKONOMO -3 <sup>rd</sup> phase (500+ m€)
Hungary	EU- Operational Programmes/ESF for EE actions in households/SMEs
Slovenia	EE in households via subsidies/soft loans (100% for weak households) – ESF
Israel	145m\$ for qualified EE projects via tender
Serbia	Funds for EE in all sectors by EU – JICA - UNDP
Turkey	Actions for EE through incentives – Loans from IFIs (WB, etc.)
Albania - B & H - Kosovo- Montenegro - N. Macedonia	Critical the role of IFIs (EU/WB/UNDP/etc) and International Funds

**The anticipated Energy investment for EE in SEE is 88,700 m€**

- In 2022, the IEA held its 7th Annual Global Conference on EE in Denmark, and IENE was invited; the largest ever gathering of ministers from around the world to specifically discuss the value of stronger action on EE, who issued a joint statement *“calling on all governments, industry, enterprises and stakeholders to strengthen their action on EE and welcoming the Sønderborg Action Plan on EE”* which gives attention to the importance of new technologies and why **Intelligence Efficiency** is important.





Information and communication technologies (ICT) and their enabling technologies are responsible for a significant portion of EE improvements in the past decades. Sensors and controls, the internet, and semiconductor technologies have already changed the way we use energy and interact with other people: how we work, shop, and have fun. But that is only the start. As highly efficient technologies begin to interact with each other and respond in real time to their environment, there will be a structural change in how we use energy – BAS, IoT, EMIS, cloud, etc.

ACEEE ESL-IE-12-05-12

## *People-Centered Efficiency*

Providing real-time information and management tools that enable users to lower energy consumption in response to changing information

## *Technology-Centered Efficiency*

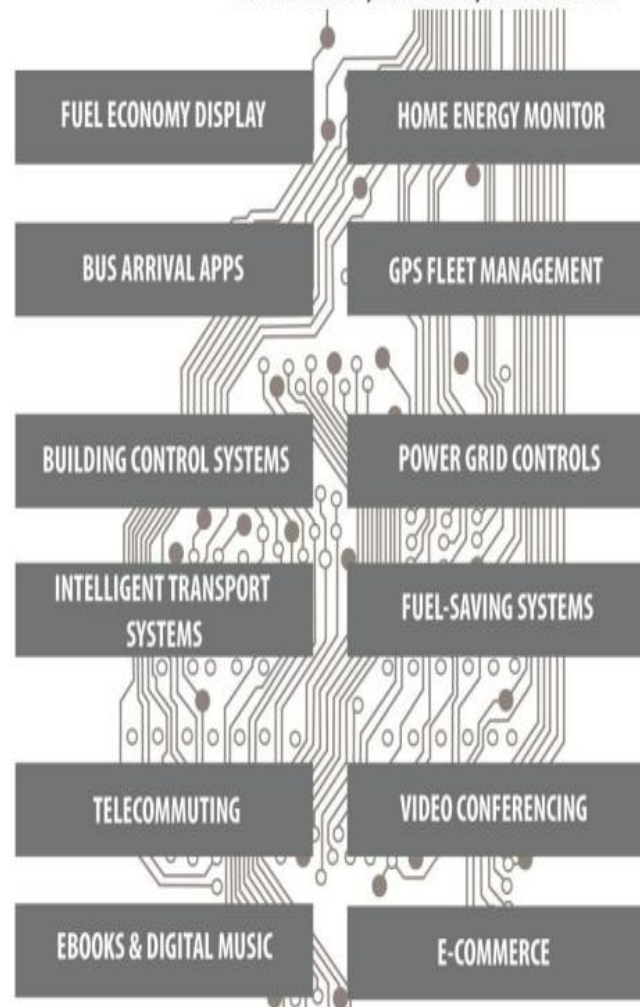
Using sensors, controls, and software to automate and optimize energy use

## *Service-Oriented Efficiency*

Shifting behavior and organizational structures to reduce energy-intensive activities

# Intelligent Efficiency

INTEGRATED, RELIABLE, and SMART.



- **The potential EU climate-neutrality target for 2050 is unprecedentedly ambitious, especially for the SEE region.** While all EU M-S will face challenges in delivering the required transformational changes under the European Green Deal, it would do well for the EU to continue paying special attention to the SEE region. Given the different starting points of these countries, the state of the market and their political discourses, actual and practical solutions are needed in overcoming the existing barriers.
- **ESF and Directives (EED recast, RED, EBRD are highly beneficial instruments** for all states in the Region for **promoting EE** in all sectors (buildings, transportation, SMEs/industry)
- New investments in Energy Efficiency, in new technologies, as intelligence Efficiency are required immediately, in order to catch up. The region is lagging, so EU, the governments of the Region, the stakeholders should work closely and dynamically to move the Region to the new situation.



Thank you for your attention!