

# Monitoring, Verification and Enforcement – Improving compliance with Energy Efficiency Policies for Appliances and Equipment

*27th ENERGY EFFICIENCY COORDINATION  
GROUP MEETING AND WORKSHOP*

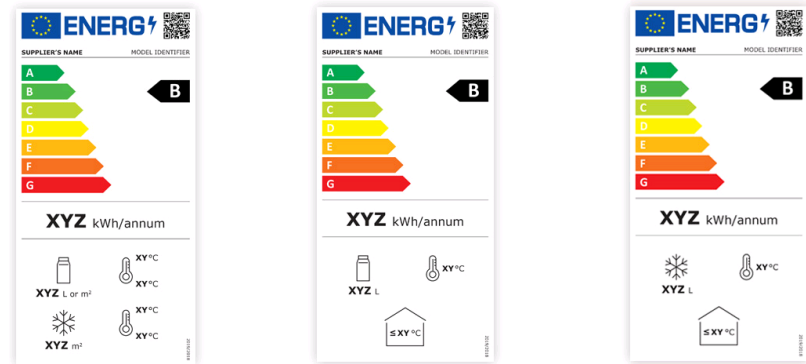
Juraj Krivošík, SEVEn, The Energy Efficiency Center  
17 November 2021



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# Energy labels and ecodesign in EU

- *Energy labels – consumer choice = 15 product groups*



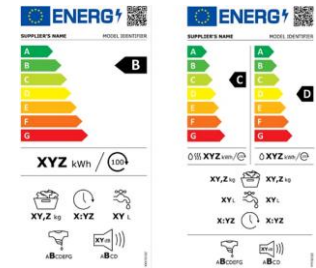
- *Ecodesign – minimum performance = 31 product groups*



# New energy labels in 2021

- New energy labels in the EU since March 2021:

Household refrigerators and freezers  
Washing machines and washer-dryers  
Dishwashers  
TVs and electronic displays



- New energy labels since September 2021:

Light Sources

- *New figures, new icons plus the QR code and new test procedures*

- *More to come later:*



# How much energy and value lost due to non-compliance?



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*Studies consistently show the scope economic losses due to non-compliance*

Economic loss estimate if just 6% energy is lost due to noncompliance (2009):

Estimated 10% of energy lost in the EU due to non-compliance (2014):

Table 2.1: Indicative Savings Potential from EE S&L in CIS Countries

Country	Indicative projections of EE S&L savings	
	Annual electricity savings	Annual monetary savings
Armenia	250 GWh	\$25 million
Azerbaijan	1100 GWh	\$110 million
Belarus	1,700 GWh	\$170 million
Georgia	370 GWh	\$37 million
Kazakhstan	2,200 GWh	\$220 million
Kyrgyzstan	560 GWh	\$56 million
Moldova	300 GWh	\$30 million
Mongolia	160 GWh	\$16 million
Russian Federation	33,000 GWh	\$3,300 million
Tajikistan	880 GWh	\$88 million
Turkmenistan	380 GWh	\$38 million
Ukraine	7,400 GWh	\$740 million
Uzbekistan	2,400 GWh	\$240 million
<b>TOTAL</b>	<b>50,700 GWh</b>	

~EUR 5 bn

Non-compliance	Note	Source
25 – 50%	Global estimate of non-compliant products	Ellis, 2012
10 – 20%	Ecodesign related non-compliant products	CSES, 2012
10%	Value of energy lost, global	Waide, et.al., 2011
15%	Label and ecodesign non-compliant products	Defra, 2009
25%	Non-compliant products concerning missing label declarations at sales points	Defra, 2009
21% 54%	Refrigerators, products non-compliant, - energy class declaration - some requirement	ATLETE, 2011
33 – 38% 11-14%	Products offered for sale without label display Products with partial or incorrect label display	Come On Labels, 2013 b
0 – 60%	Denmark, non-compliant products based on tests of various product groups.	DEA, 2012; Atlete, 2011; Atlete II, 2013b
20 – 73%	UK, non-compliant products based on tests of various product groups	IEA, 2010; Atlete, 2011; Culling, 2010; Waide et.al., 201; CLASP, 2010
0 – 27%	Netherlands, non-compliant products based on tests of various product groups	Presutto, 2013b
25%	Spain, non-compliant products based on RENOVE plan subsidy scheme	Waide, et.al., 2011

=> It is cost effective for societies to ensure market surveillance

=> Impacts can be broadened by targeted actions, trainings, intl. cooperation, etc.

# Existing S&L legislation & regulations



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	Framework regulation	Lighting	Space heaters	Fridges and freezers	Vacuum cleaners	Washing Machines & driers	Air-co and fans	Televisions	Dishwashers	Ovens & range hoods	Standby	Motors	Pumps	Tyres
ALB	Lighting	Labelling & Ecodesign	None	Labelling & Ecodesign	None	Labelling & Ecodesign	Labelling & Ecodesign	None	None	Labelling & Ecodesign	None	None	None	None
BIH	Lighting	Labelling & Ecodesign	None	Labelling & Ecodesign	None	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	None	None	None	None
GEO	Lighting	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	None	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	None	None	None	None
KOS	Lighting	Labelling & Ecodesign	None	Labelling & Ecodesign	None	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	None	None	None	None
MDA	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign
MNE	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign
MKD	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	None	None	None	None
SRB	Lighting	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	None	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	None	None	None	None
UKR	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	Labelling & Ecodesign	None

KEY	Framework Regulation	Products
	Labelling & Ecodesign	Labelling & Ecodesign
	Labelling	Ecodesign only
	None	Labelling only

Source: Project survey 12/2020 – 1/2021 and EnCS input

# Summary of feedback received



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- Most countries align their legislation with the **EU** and are aware of the upcoming changes to the new labels
- No **product testing** in the region at all
- No local **laboratories** available and no testing abroad (due to costs, procurement rules, unavailable legislation)
- Very limited **store surveys**
- Varied **staff** resources
- Interest to **communicate** with stakeholders

## Possible focus of regional activities:

- A. Guidelines for suppliers and retailers
- B. Networking facility / communication platform
- C. MVE support tools
- D. Adoption of legislation
- E. Technical capacity training and implementation

# Examples of some opportunities:



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**A. Guidelines for suppliers and retailers**

**B. Networking facility / communication platform**



# Guidelines for suppliers and retailers

- Guides to explain proper energy label display in online and physical stores – practical explanation of (EU) legal requirements
- To be translated into local languages and adapted
- Distribute with business associations
- Prevent noncompliance at retailer stores
- Very impactful and cost-effective measure

# Networking facility / communication platform



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- MSA Working group
- Online meetings 2x/year
- Opportunities to discuss (EU) legislation and specific cases,
- share experience,
- communicate with EU counterparts,
- consider common actions

# Summary of findings



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- New summary document by the EBRD and ENCs
- Overview of market surveillance and product compliance benefits
- Selected key tips for practical actions
- Suitable for further use and disseminations

## Monitoring, Verification and Enforcement – Improving Compliance with Energy Efficiency Product Policies



November 2023

Energy efficiency standards and labelling programmes for appliances and equipment are some of the most effective and popular policy tools worldwide. The first such policies date from the 1970s and nowadays they operate in more than 120 countries around the world. They are key for many national energy efficiency and climate change mitigation programmes, contributing to reduced power consumption, cost savings for consumers, and lower carbon emissions.

### Key benefits of energy efficiency standards and labels

- Energy efficiency standards and labelling programmes are increasingly important for countries' nationally determined contributions (NDCs) and for contributing to countries' net-zero carbon goals.
- The energy efficiency standards and labels are fully uniform across markets. In Europe, the legislation originates from the EU legal and technical requirements, which are uniform across the region.
- Markets benefit from supply of more energy efficient product models (minimum efficiency defined by ecodesign) and increased demand for such models by the customers (product ranking by energy labelling).
- End-customers can choose appliances and products that will help them save on energy bills.
- In the context of Covid-19 recovery, energy efficiency programmes stimulate economic activity by fostering innovation among manufacturers and creating new job opportunities in wholesale, retail and maintenance.
- Ecodesign is also important in the circular economy context, by promoting durability, reparability and recyclability of products, and increasing their energy and resource efficiency.

### Compliance and market verification

Effective governance arrangements for implementing energy efficiency policies are fundamentally important, and can often be the defining factor that determines whether a policy or a finance mechanism is a success or a failure.

Prevention of product non-compliance has multiple economic, social and environmental benefits – both for the individual consumers and for the whole society.

**Energy labels** show standard product information regarding energy efficiency, the consumption of energy and of other resources by products during use, thereby enabling customers to choose more efficient products and to reduce their energy consumption. Some 33 product categories are covered by energy efficiency labels under the EU law.



**Ecodesign requirements** set the minimum efficiency and performance requirements for energy-related products allowed on the market. Some 33 product groups are subject to the ecodesign requirements under the EU law.

**Authorities** can increase the success of their market surveillance activities (i.e. to verify whether products follow the ecodesign and energy labelling requirements) also by communicating with businesses, informing them in due time on their responsibilities on what information to provide and in what format and state, and explaining specific requirements and duties. A well-functioning governance for compliance can contribute to annual energy savings worth millions of Euros, and can protect consumers, producers, and the environment – making it a very efficient policy measure.

Year	2018	2019	2020	2021	2022	2023
Labels	100%	100%	100%	100%	100%	100%
Market	100%	100%	100%	100%	100%	100%

For Bosnia and Herzegovina the status reflects only to the entry of Republic of Srpska. The regulations are under change in the system are being executed in other forms, with new products being covered and the coverage of appliances requires more product categories, also also in the field of Energy Labels. The energy labels will be available for specific product categories.

Energy labels and ecodesign are known to be effective policy tools with positive economic impacts. The estimated energy savings achieved through energy label compliance and market surveillance policies and activities could reach as much as 13.8 billion, or 152.8 GWh of electric energy within the region. This means that compliant products, accurate information provided and a proper display of energy labels could save the equivalent of 6% of Montenegro's residential final energy consumption.

The direct costs of market surveillance activities operate mainly of staff costs and product testing. They represent a small proportion of the potential economic savings, which defines energy efficiency standards and labelling programmes among the most cost-effective policy measures.

At an average price of € 0.15/kWh, the value of these energy savings would be € 23 million per year within the region for the benefit of consumers.

### Product compliance

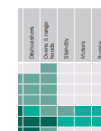
Monitoring the presence of energy labels in shops.

Product suppliers make product declarations and provide performance data on the energy labels, therefore, it is their responsibility to ensure accuracy of information.

Wholesalers and distributors ensure availability and full visibility at forms of the points of sale.



### Product compliance in end ecodesign countries



### Situation in the Energy Community Contracting Parties



All Energy Community Contracting Parties have energy labelling national legislation in place (adopted by respective ENC Ministerial Council Decisions), following the EU legislation. The EU ecodesign regulations are adopted mostly on a voluntary basis.

The table left shows the overview of product categories being covered by specific regulations (as of 2023).

Source: September 2023 (EU – 2023) and ENC Secretariat

Annual savings: € 23,000,000  
153 GWh



"Engaging in monitoring, verification and enforcement of energy labels brings savings to consumers, level playing field to business, and improved public services."

Jai Jadhava, Associate Director, EBRD



"Energy labels play vital part in supporting countries' energy efficiency policies and we therefore support a full scope implementation of all related policy measures."

Viktors Kogalnicans, Head of Infrastructure and Energy Efficiency Unit, Energy Community Secretariat



**EBRD - European Bank for Reconstruction and Development**  
The EBRD has a demonstrated track record in working with governments and relevant institutions to put in place legislation and standards for energy efficiency. Scaling up EE policy and instruments requires further support to improve compliance – e.g. by strengthening monitoring, verification and enforcement (MVE) frameworks and capacities in its countries of operation. This is explicitly noted under the Bank's GEC 2.1 Strategy: "Such MVE is needed to close the policy cycle ensuring that the policy is followed by effective implementation."

**ENCS - Energy Community Secretariat**  
ENCS supports implementation of the energy related aspects in the nine Contracting Parties (Albania, Bosnia and Herzegovina, Kosovo\*, North Macedonia, Georgia, Moldova, Montenegro, Serbia and Ukraine). Within the ENC Energy Efficiency Coordination Group (EECG) it provides a platform for cooperation and coordination on the implementation of the energy efficiency directives, including the energy efficiency product regulation.

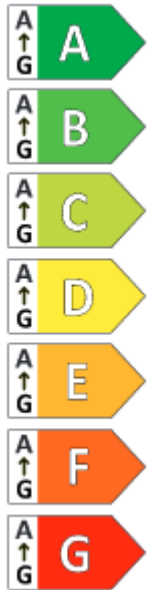
**SEVEN, The Energy Efficiency Centre**  
SEVEN Energy has been established in 2010 with the mission to protect the environment and promote economic development through more efficient use of energy. SEVEN organises multiple projects in the field of energy labels, ranging from consumer awareness communication, through market surveillance and compliance verification related activities, to policy and capacity support actions.

Disclaimer: This publication is prepared by Jai Jadhava, SEVEN, The Energy Efficiency Centre, Coast Road, North Hill, Madhav Nagar, Bangalore, under an assignment funded by the EBRD and in close collaboration with the Energy Community Secretariat. The EBRD and ENCS are not responsible for any use that may be made of the information contained therein.

Thank you



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## Improving Compliance with Energy Efficiency Policies and Programs for Appliances and Equipment

Juraj Krivošík



[juraj.krivosik@svn.cz](mailto:juraj.krivosik@svn.cz)

**Disclaimer:** The content of this presentation results from a project organised with the support of EBRD but it takes no responsibility on the usage data and is not responsible for adaption of any recommendations that may be made of the information contained in it.

SEVEn, The Energy Efficiency Center – [www.svn.cz](http://www.svn.cz)

Independent not-for-profit consultancy focusing on energy efficiency.

Established in 1990 with the mission of protecting the environment and promoting economic development through more efficient use of energy.

Long term engagement in:

- Energy efficiency and labelling of products, including market surveillance
- Policies, legislative updates, analysis & technical reports, energy audits, energy performance contracting, etc,
- Active in the Czech republic, as well as in international projects with a focus on Central and Eastern Europe