



ENERGY SAVING AGREEMENTS IN LITHUANIA

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LEGAL FRAMEWORK TOUCHING LEA ACTIVITIES

GREEN DEAL:
GHG EMISSIONS -55% by 2030

ENERGY EFFICIENCY
DIRECTIVE

ENERGY PERFORMANCE
OF BUILDINGS

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1 EU DIRECTIVE

NATIONAL ENERGY AND CLIMATE ACTION PLAN

NATIONAL ENERGY INDEPENDENCE STRATEGY

2 STRATEGIES

Law of Energy

Law of Energy Efficiency

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2 LAWS

Bylaw for energy auditors attestation and performing the energy audits

Bylaw for duties for large enterprises

Bylaw on Methodology of energy audits in technological processes

10 BYLAWS

Bylaw for public building modernisation program

Bylaw on Methodology of energy audits in buildings

Bylaw on Methodology of energy audits in Transport



Bylaw for efficient energy consumption monitoring

Bylaw for energy saving calculations

Bylaw for EU structural funds implementation

Bylaw of saved energy monitoring

ENERGY EFFICIENCY TARGETS FOR LITHUANIA

Year	Energy Saving Targets, TWh	Energy Saving Achieved, TWh	FEC, Mtoe	PEC, Mtoe
2020	11,67	12,96	4,30	6,50
2030	39,35	7,58 (2021 until 2030)	4,20	5,20

Policy Measures	Impact, %
Multiapartment building renovation	21,4
Excises and taxes on road fuels	22,0
Energy saving agreements	16,5
Measures from energy audits in industry, transport and et.	13,1
Replacement of boilers in households	19,3
Individual house renovation	4,5
Public building renovation	1,8
Non-residential building renovation	1,4



LITHUANIAN ENERGY AGENCY FUNCTIONS RELATED WITH ENERGY SAVING AGREEMENTS



Evaluates the calculations for implemented energy efficiency measures and verifies the supporting documentation.



Reports energy savings findings to the Ministry of Energy.



Recommends improvements if energy savings fall short of Lithuania's goals.

ENERGY SAVING AGREEMENTS

Energy Efficiency Obligations (EEOs)

MANDATORY – State owned electricity and gas operators

VOLUNTARY – Other energy suppliers, state and municipal enterprises

INPUT of member: technical and financial contribution in energy efficiency measures



Agreements signed 33



HARD measures to improve energy efficiency

Education and Consulting Agreements (ECAs)

MANDATORY – All energy suppliers (electricity, heat, gas)

INPUT of member: educational and consulting activities to implement energy efficiency measures



Agreements signed 61



SOFT measures to improve energy efficiency

All

Verify $\geq 20\%$ of measures

Implementation costs

Calculation methods

Energy savings

achieved



Evaluation of calculations



Verification of documents



Analysis and reporting of



All

Verify $\geq 20\%$ of measures

Types of measures

Number of affected consumers (by groups)

Resulting energy savings

ENERGY EFFICIENCY OBLIGATIONS PLANNED MEASURES

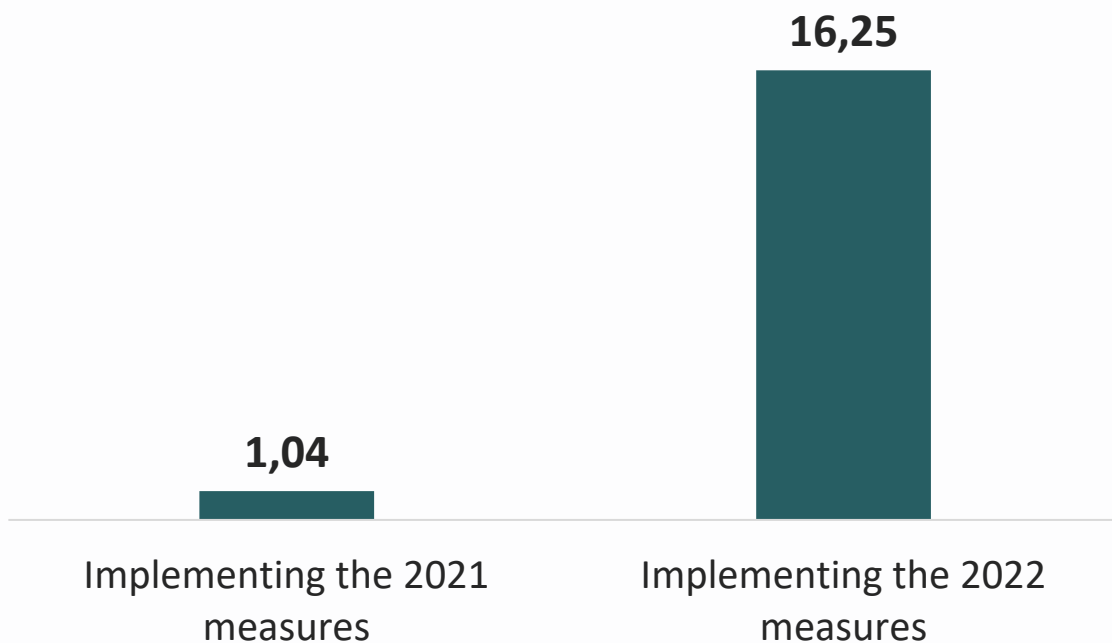
Energy Saving Agreements in Lithuania

Over **100 energy efficiency improvement measures** are planned by enterprises until 2030

Frequency (Precent)	Measure
27	Lighting modernization (LED technology)
17	Building automation and control systems
12	Renewal of the vehicle fleet
11	Buildings modernization
10	Reconstruction of heat points/Modernization of boilers
9	Modernization of ventilation systems/air conditioning systems/heating systems
8	Temperature reduction in the rooms
6	Replacement of electric motors/frequency converters

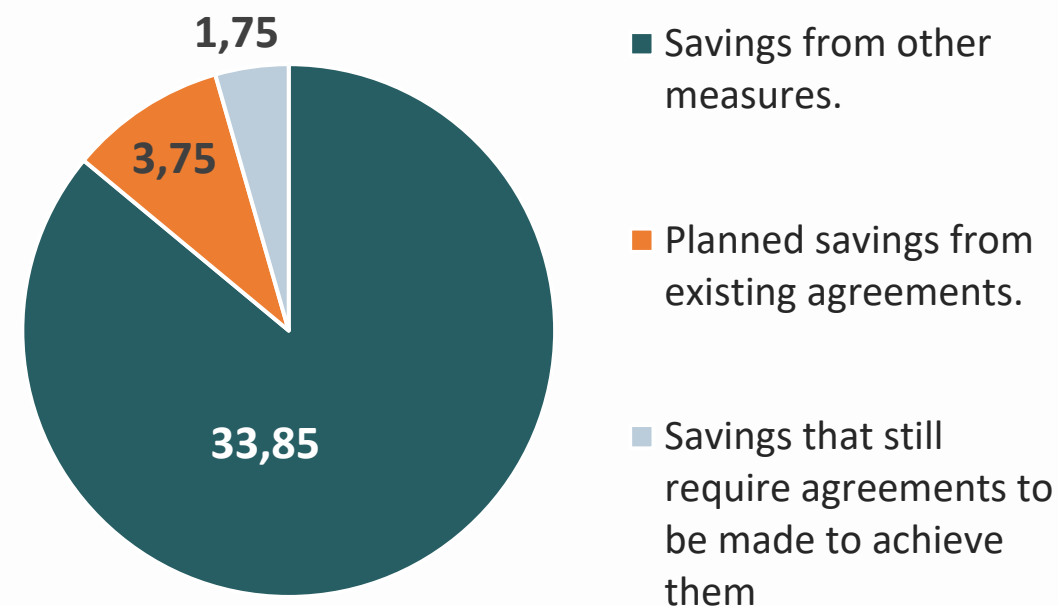
ENERGY EFFICIENCY OBLIGATIONS CURRENT SITUATION

Accumulated energy savings for 2030 from previous savings, GWh



- In **2021** – the total amount of energy saved until **2030** will reach **1,04 GWh**.
- In **2022** – the total amount of energy saved until **2030** will reach **16,25 GWh**.

Energy savings for 2030 according to National Energy and Climate Action Plan, TWh



- In the National Energy and Climate Action Plan **2021-2030** a total of **39,35 TWh** of energy savings is planned, of which **5,5 TWh** is due to energy efficiency obligations (EEOs).

SUGGESTED CALCULATION METHODS FOR CALCULATING SAVINGS OF EEOs

National activity in ENSMOV plus – Meeting with EEOs on March 4, 2024, discussed about:

- inaccuracies in the implementation and declaration of measures;
- how to fill in annual report and other documents of implemented measures correctly;
- LEA suggested 6 calculation methods for calculating energy savings (some of them from StreamSAVE project).



CHANGE OF LIGHTING EQUIPMENT



BUILDINGS MODERNIZATION



REPLACEMENT OF ELECTRIC MOTORS



ACQUISITION OF ELECTRIC VEHICLES



INSTALLATION OF BUILDING AUTOMATION AND CONTROL SYSTEMS



REPLACEMENT OF THE HEAT GENERATION UNIT

EDUCATION AND CONSULTING AGREEMENTS MEASURES

ECA measure energy saving calculation:

$$S(\text{MWh}) = G_v(\text{MWh}) * d(\%) * k(q)$$

S – total energy saving of measure, MWh

G_v – the energy supplier's total amount of energy supplied (sold) to its consumers during the reporting year

d – percentage of consumption of the consumer target group (the number of users to whom the specific measure was applied) as a percentage of G_v

k – energy saving coefficient (as shown in the table)

Popular Measures (heat/electricity/gas suppliers)

Publication of information on the website

Publication of information in the press or publication of information on television

Providing **consumer group benchmarking** along with energy saving tips in print

A **public event** involving increasing energy efficiency

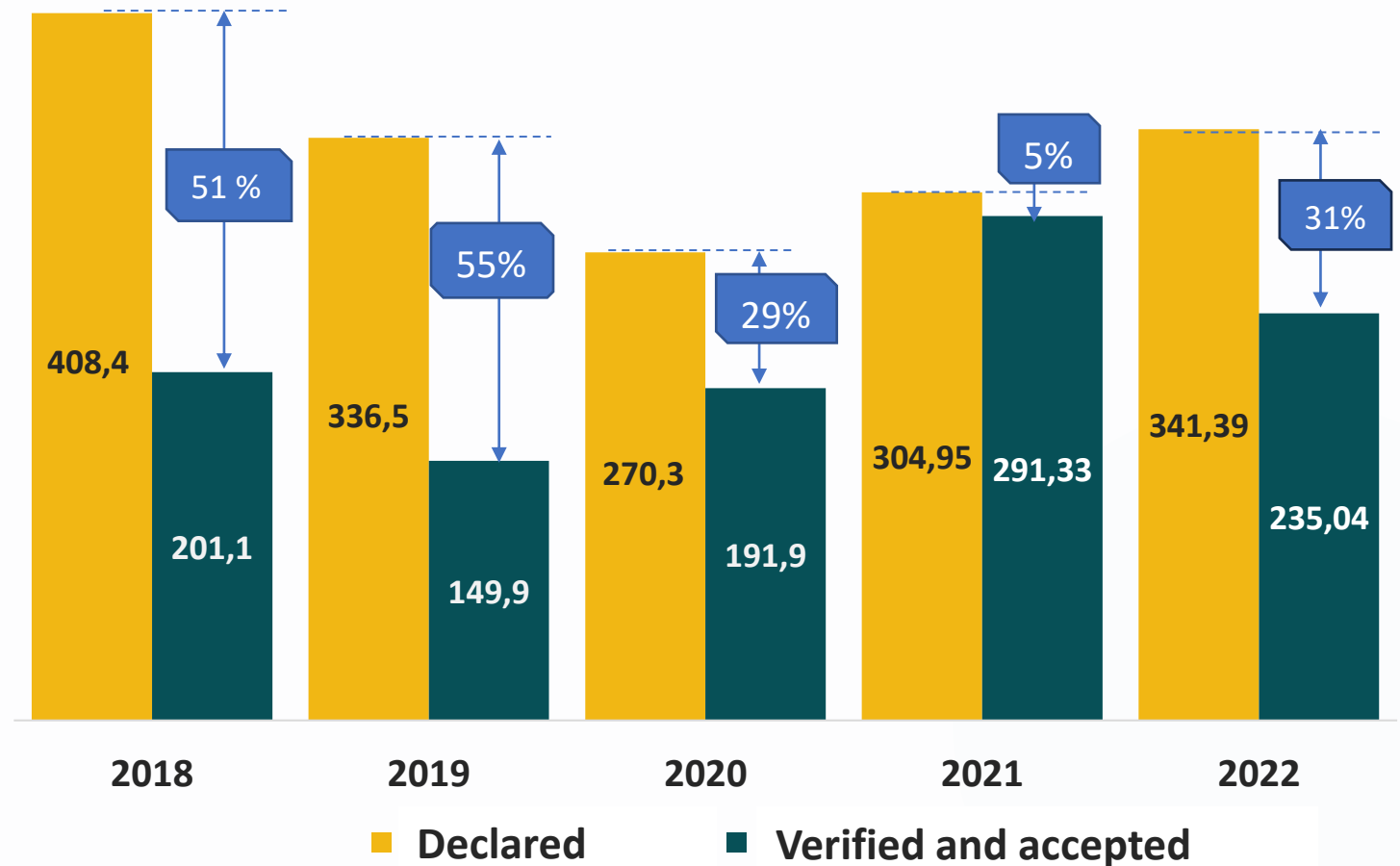
Consultations by e-mail, directly on the Internet or by phone **upon receipt of the user's request**

Consultations upon arrival at the user

EDUCATION AND CONSULTING AGREEMENTS: RESULTS

- In 2018-2019, 100% of the submitted documents by all energy suppliers were verified. Main problems: the supporting documents were submitted with errors or were not submitted at all.
- 2020, 70 % of the submitted documents by all energy suppliers were verified. Main problems: in many cases energy suppliers provided duplicated information.
- 2021, 43 % of the submitted documents by all energy suppliers were verified. No major problems. Lessons learned.
- 2022, 30 % of the submitted documents by all energy suppliers were verified. Main problems: one energy supplier declared 10 times bigger savings than it was.

Declared and accepted energy saving by year, GWh



SURVEY ON RESIDENTS' ENERGY CONSUMPTION



Survey goals:

- To study the energy consumption habits of the Lithuanian residents’;
- Assess the availability of information from energy suppliers and the residents’ openness to this information;
- Evaluate the results obtained from the application of energy-saving tips.



Research target group:

- All residents of the Republic of Lithuania aged 18-75.



Sample size:

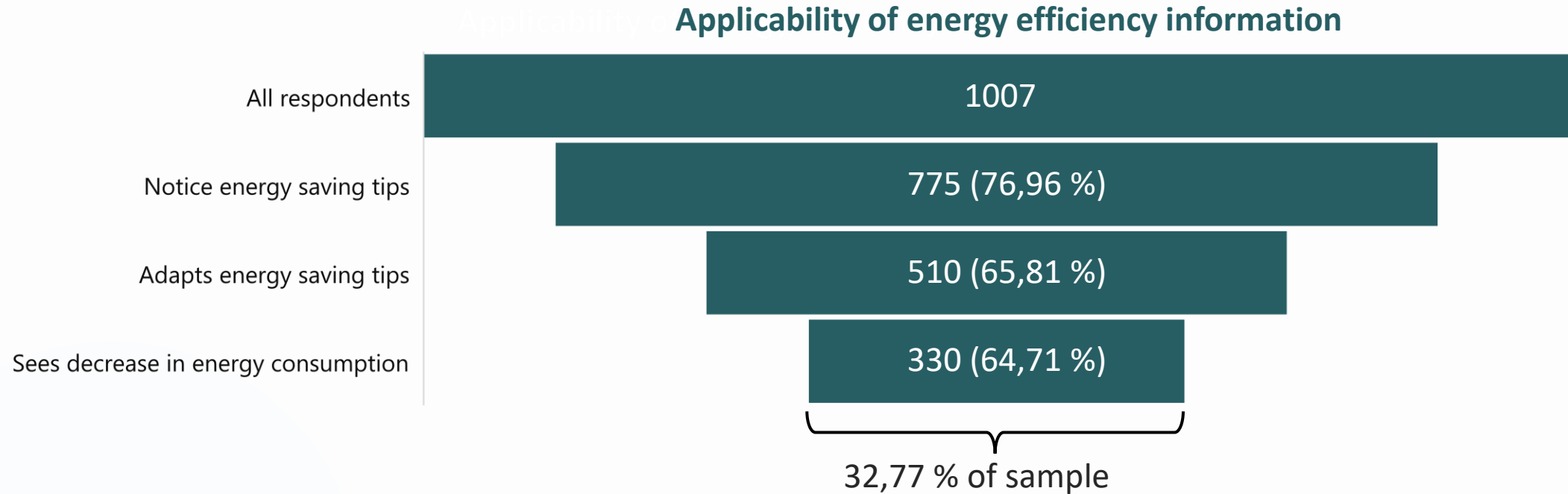
- 1007 respondents.



Survey was conducted:

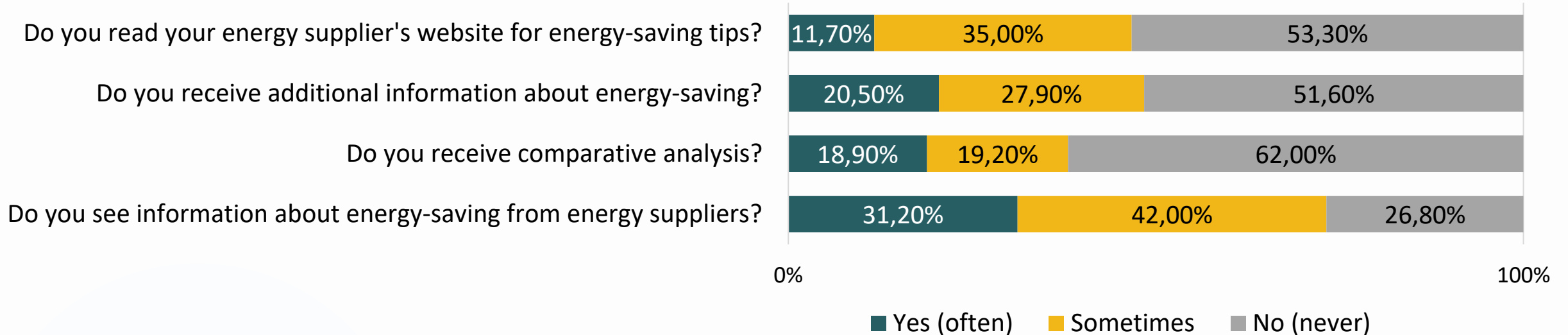
- In January 2023.

INFORMATION ON ENERGY SAVING TIPS VISIBILITY, APPLICABILITY AND ENERGY CONSUMPTION REDUCTION



- **76,96 %** of respondents **said they heard/saw information** about energy saving tips.
- **65,81 %** of those who saw the information claim to **adapted and used tips to save energy**.
- **64,71 %** respondents who adapted energy saving tips **saw a reduction in energy consumption**.

DO ENERGY SUPPLIERS COMMUNICATE WITH CONSUMERS EFFECTIVELY?



- Energy suppliers' inform consumers most effectively through advertisements – **73,2 %** of respondents **often or sometimes saw information**.
- The energy suppliers' makes little use of other communication channels. **62 % did not receive comparative analysis**. More than half of respondents did not read the information on suppliers' websites nor receive additional information about energy saving.

Energy Saving Agreements in Lithuania

THANK YOU FOR
YOUR ATTENTION !



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