

# STRATEGY OF THE ENERGY DISTRIBUTION OPERATOR FOR 2030





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Lietuvos energija

### Management



"We believe in the vision of a reliable and intelligent grid that delivers positive customer experience. In all we do every day, across the entire ESO value chain, we will abide by the principle of 'better than yesterday'. We will develop intelligent infrastructure services, aligning our customers' and other stakeholders' expectations with the market trends and technological progress in the energy sector."

MINDAUGAS KEIZERIS
Chairman of the Board
CEO

Strategies and Management area



"With the rapid expansion of renewable energy and the development of digital technologies, operators of electricity infrastructure must also prepare for significant change. ESO's activities are inseparable from regulation. What's especially important is to actively discuss planned changes with the regulatory authorities which enable change, ensuring a proper regulatory environment and a long-term and sustainable business model for the infrastructure operator."

AUGUSTAS DRAGŪNAS

Member of the Board

Finance and Administration area



"We seek to become a nextgeneration distribution operator. We want to make business processes as efficient as possible by integrating smart solutions for effectively managing both activities and investments. We are not afraid to take responsibility and want to not only to implement but also create innovation, which we believe will enable effective and rapid network development."

OVIDIJUS MARTINONIS

Member of the Board

Network development area



"Increasing the reliability and resilience of the network, in keeping with solutions for its smartification, is our most important task. We must ensure both efficient everyday operation of the network and its rapid recovery and development, making use in our work of the latest technological innovations and smart, integrated approaches."

VIRGILIJUS ŽUKAUSKAS

Member of the Board

Network operations area



"One of the top priorities for the distribution operator is the creation of an open and neutral platform enabling the development and deployment of smart products and services. That and the review of customer service processes creates value for ESO and increases customer satisfaction. Improving customer experience is one of ESO's strategic directions and serves as the basis for customer service."

RENALDAS RADVILA

Member of the Board

Customer experience and Services area

### A Word from the Board

The energy sector, the energy distribution system and the market have all been changing rapidly. The system's participants are becoming increasingly integrated, and new solutions and complex services are emerging. Electricity network customers, becoming both users and generators, value individual solutions for the network reliability, intelligence, quality, derivatives, possibilities and efficiency that are important for them.

These aspects taken together form the essence of a customer's experience, and customer expectations and behavior will increasing shape the future of the entire network.

Changes in the distribution system must target the reliability and intelligence of the network, a balanced response to stakeholders' expectations, with effective and consistent management, enabling the market to compete and deliver positive customer experience.

The ESO team will pursue the vision of "a reliable and intelligent grid that delivers positive customer experience" via the following strategic directions: enhancing network reliability; implementing automated and intelligent solutions; creating market facilitation platforms and tools; and improving customer experience throughout the value chain by means of efficient operation of the company and targeted investments.

We are confident that ESO people's meaningful work to create solutions for putting the strategy into effect and for the energy of the future, along with continuous improvement and a unified organizational culture that is enabling, engaging and open to change, will ensure successful implementation of the strategy. We consider improvement of the quality of the network and the implementation of technological and smart solutions, including remote and automated management and supervision of the network and its load, to be priorities for the successful implementation of the strategy in the area of reliability.

Implementing smart metering is a priority for the transition to a smart grid, as is the development and deployment of solutions for generation and load, distributed generation, battery management, micro-isles and micro-networks, and other smart solutions.

The priority market facilitation measure is the creation of a Data hub – an open and neutral market for participants – to enable exchanges between generating consumers for better regional market integrity and growth in the share of active consumers.

Efficient everyday operations, continuous improvement of processes, the integrity of internal systems, reliable data, speed and flexibility are the internal sources for achieving the strategy's results.

The integrated implementation of all strategic directions aims to create value for customers, in terms of great experience, at every point of contact.

Mindaugas Keizeris Chairman of the Board of ESO







### LE STRATEGY 2030: ESO's role in the LE Group strategy for 2030

#### Role of green energy

Source of new sustainable generation Engine for growth

To invest / to consolidate / to learn / to optimize to create stable and profitable 3GW capacities

Regional



Global

- High CAPEX
- Low risk
- Average return

#### **ESO** role

Strategic infrastructure of the country Empowerer of new businesses

Market maker = no direct engagement in commercial activities

Smart / efficient infrastructure

Open to competition, promoting innovation

Digitalized

Local (LT)

- High CAPEX
- Low risk
- Average return

#### Role of strategic energy

Strategic infrastructure of the country, guarantee of stability of capacities

To protect / to optimize / to effectively invest / to strategically plan and invest

Local



Regional

- High CAPEX
- Low risk
- Average return

#### Role of group service center

**Empowerer of speed and efficiency** 

Local



Global

Cost center

#### Role of innovation center

Source of competitive advantage in global knowledge and competencies

Global

Cost center

## Role of commercial organization

Point of contact between market and society

Free market champion

Vanguard for international growth

Customer-focused

Positive customer experience

Strong sales and marketing

New business models

Competitor in new markets

Fast and digitalized

ocal 🖒 Global

- Low CAPEX
- Average risk
- Average return





### **ESO 2030**

Strategy: creation of value for customers by providing reliable, advanced and standardized infrastructure services



A reliable and smart
grid that delivers an
exceptional customer
experience



Continuous improvement of distribution service
 quality: smart grid solutions and market facilitation

ACTIVITIES AND SERVICES:



We develop and implement advanced technological solutions, forming a unified organizational culture for continuous improvement.

Standardized, open and neutral infrastructure services and platforms will enable market participants to compete effectively in creating value for customers.

These elements are considered essential conditions for delivering an positive customer experience, meeting stakeholders' expectations and enhancing the value of the company.





### **ESO STRATEGIC DIRECTIONS FOR 2030**



**STRATEGIC DIRECTIONS** 



**NETWORK RELIABILITY** 





**SMART GRID** 





**MARKET FACILITATION** 





**CUSTOMER EXPERIENCE** 





**OPERATIONAL EXCELLENCE** 



PEOPLE AND CULTURE

**PERSPECTIVES** 

REGULATORY AND FINANCE ENVIRONMENT







### Strategic direction: Network reliability



#### Goal

to maintain high NG reliability indicators and **to double** the reliability and resistance of the EP system in the manner that is economically and technologically **most effective**.

#### **Priorities**

dynamic planning, implementation and control of investments and maintenance in order to significantly increase network resilience to high impact events and the ability to adapt with maximum flexibility in order to rapidly restore the network with optimal resources.

#### **Success factors**

rapid response to disruptions and improved reliability of rational investment by using accumulated knowledge and expanded data flows and by applying advanced technological solutions.



### **Network reliability. Priorities**

-

- preparation: decisions, planning



- implementation, results and value for customers

Put in place long-term planning principles aimed at making network maintenance more effective in the long term

Prepare strategy for the development of a self-healing network as an integral part of the network's technological development standard

Implement innovative and advanced automated network inspection solutions

Create and apply predictive maintenance solutions

Implement an advanced technology asset management system

Implement solutions for real-time network load monitoring and forecasting

Electricity and natural gas networks resilient to high impact events

Voltage quality meets the requirements of the standards throughout the network

Prepare technology strategy for voltage quality and natural gas pressure management as integral part of network's technological development standard Ability to forecast longterm network load with accuracy of 90 percent

Well-developed selfhealing networks (>10 kV) covering >50 percent of customers

2020 2025 2030





### **Network reliability. Strategic goals**



To double EP and to maintain the reliability and resilience of the NG system



CAIDI with mass failures on the network, = 1.3 x the CAIDI of the entire network



Assurance of 100% voltage quality according to the standard



Self-healing 10 kV networks covering 50% of customers



Increase of 0 MW transformer power in the network at the DP level



Fully digitalized and automated processes for finding defects in overhead lines

	2020	2025	2030
EP SAIDI * (min)	100	85	70
EP SAIFI * (times)	1	0,83	0,66
NG SAIDI (min)	0,94	0,94	0,94
NG SAIFI (times)	0,062	0,062	0,062
CAIDI with mass failures on the network (min)	180	150	130

\* Goals set by NEIS (unplanned disconnections): reference point in 2017 (EP SAIDI 138 min; EP SAIFI 1.32 times).



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## Strategic direction: Smart grid



#### Goal

implementation of a smart metering system, automated real-time network control and use of innovative digital technologies and data-based solutions in the control of network activities.

#### **Priorities**

to implement solutions ensuring real-time system control; to develop Big Data architecture solutions to improve network reliability, predictability and management; to engage in rational development of micronetworks and micro-isles; and to ensure smooth and optimal integration of RES, GU and AC. Also, to ensure proper cyber security.

#### **Success factors**

use of leading digital solutions in operations while also attracting, developing and retaining the competencies that are needed.



### **Smart grid. Priorities**

- preparation: decisions, planning



- implementation, results and value for customers

Strategy for network automation and introduction of physical monitoring (smartification) as an integral part of the network's technological development standard Rollout of smart meters (in 2023)

Prepare concept for the development of microisles to resolve problems related to network expansion and reliability

> Prepare technological strategy for the integration of distributed generation, including micro-networks and EV charging stations

Fully functioning active system management for distributed generation, batteries and load

Development and expansion of a distribution management system (DMS) which also includes active system management

Digitalization and automation of business processes related to network maintenance Well-developed technical plan and concept for micro-networks

2020 2025 2030





### Smart grid. Strategic goals



Replacement of customer meters with smart meters



Remotely controlled TS/DP network



Reduction of risk of loss of information, unauthorized disclosure and cyber attacks to an acceptable level \*\*



Digitalization and automation of business processes related to network maintenance



Fully functioning active system power management model



Competitiveness of distribution services (EU-wide)

	2020	2025	2030
Share of remotely controlled 10 kV line customers, %	25%	40%	75%
Remotely controlled electricity TS/DP, %	67%	72%	100%
Smart meters installed for customers, * %	15%	90%	100%

\* By 2023, smart meters will be installed for all household electricity customers who use and declare more than 1 kwh per year (i.e., 90% of all consumers) and for all business customers (100%) regardless of consumption. Later they will be installed for all customers.

\*\* The risk of cyberattack is managed through centralized resources of the Lietuvos Energija Group.





## **Strategic direction: Market facilitation**



#### Goal

to ensure efficient functioning of the retail energy market through measures that are transparent and neutral.

#### **Priorities**

drawing on the experience of the Nordic countries, to introduce a *supplier centric* market model, using the latest solutions for data management and sharing in order to provide equivalent conditions for all market participants; to adopt EU best practices in terms of empowering the development of the electricity market and promoting the emergence of a flexibility services market.

#### Success factors

smooth functioning of flexibility services trade and of the retail energy market, ensuring equivalent conditions for all market participants to take part in the market directly or through service providers.



### Market facilitation. Priorities

Initiate links to the development of a regional platform for flexibility services trade and exchange

Development and basic deployment of Data hub

Active participation by ESO in international organizations

Install common Data hub in the electricity (2023) and natural gas sectors

Start Data hub introduction

> Create conditions for generating consumers to exchange the electricity they generate with other consumers in Lithuania

Prepare and implement a market facilitation plan based on EU countries' best practices

Create the technical conditions and launch a common Nordic-Baltic retail electricity market (integrated Data hub)

- preparation: decisions, planning

- implementation, results and value for customers

- development of competencies and appropriation of know-how

Data hub forms the basis for the work of a supplier centric market model.\* Ongoing development with neighbouring countries

Meet the established criteria for ESO to become an active registered EU STO entity member

Residents of Lithuania can access all information on their utilities consumption

via a unified Data hub

Active electricity consumers account for 30 percent of all consumers

Flexibility services are traded on a common regional platform and are used in daily electricity network management

2020 2025 2030



### Market facilitation. Strategic goals



Shorten the time it takes to change suppliers to 24 hours



Align the supplier change coefficient in Lithuania with the EU average



Make significant contributions to international projects and initiatives



Standardize and digitalize retail electricity market business processes



Enable generating consumers exchange the electricity they generate on the domestic market



Increase the share of active or generating consumers of electricity to 30%

	2020	2025	2030
Data hub platform	Installation	EP and NG	Regional
Length of supplier change procedure, days	21	3	1
Supplier change coefficient for household consumers *	0%	7%	9%
Share of active electricity consumers	<2%	15%	30%
Platform for flexibility services trade and exchange	Pilot	Standard	Everyday activity

\* According to the CEER (Council of European Energy Regulators ), the EU average was 6.4% in 2017.







### **Strategic direction: Customer experience**

#### Goal

to make every contact that a customer has with ESO or its partners a pleasant experience.

#### **Priorities**

to create a customer-experience management model based on best practices and implement it innovatively throughout the ESO value chain: with regard to the customer, to aligning mutual expectations and to providing an positive customer experience.

#### **Success factors**

digitalization of systems and improvement of E2E processes together with the implementation of innovative solutions; targeted and consistent prioritization of improving the customer experience.



### **Customer experience. Priorities**

- preparation: decisions, planning



- implementation, results and value for customers

Refine operating model for ESO's interactions with independent suppliers and customers Update standards for customer service in the ESO value chain (E2E), with a focus on managing the customer experience

Introduce tools for customer service processes (chatbots, artificial intelligence)

Automation of customers service processes with chatbots, AI and other innovative solutions

Update the automated one-click service order principle for introduction of electricity and natural gas

Conduct FEZ development projects to enable even large investors to connect within 12 months.

Customer service provided remotely (customer visits in exceptional cases only)

Deploy order management platform for managing customer orders and creating services (2022) Link data ESO has to customer experience with the goal of providing value for customers

Introduce customer experience management model into the ESO value chain (E2E) Active offers to customers based on results of Big data analysis

2020

2025

2030



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### Customer experience. Strategic goals



Give customers fast quality services on the terms that have been agreed



To contribute to increasing the country's competitiveness



Automated ordering of services (one-click rule)



Digitalized customer processes



To meet and exceed customer expectations



Proactive and timely information

	2020	2025	2030
Time it takes to connect new electricity users, cal. days	42	33	25
Time it takes to connect new natural gas customers, cal. days	80	45	35
Net Promotor Score (NPS) for ESO services	50	55	60
DB Getting Electricity rank *	20	10	10

\* In the Doing Business Getting Electricity rating for 2018, Lithuania ranked 26th (in 2017 it was 33rd and in 2016 it was 55th).





### Strategic direction: Operational excellence

#### Goal

to ensure sustainable and efficient growth of the organization: high-quality and competitive services, rapid adoption of innovation, flexibility in the face of market changes, and continuous improvement across the entire value chain.

#### **Priorities**

systems continuity, accessibility and integrity; high-quality data and customer-focused processes.

#### **Success factors**

speed and flexibility in the transformation of processes, and the systematic nature of changes.





### **Operational excellence. Priorities**

- preparation: decisions, planning

- implementation, results and value for customers

Integration of KPIs (single point of truth) and structured data (DWH)

Automated and integrated business planning and management tools/systems

Compile an overall map of (macro) processes and review them E2E

Integrate RPA, Lean, data analysis, and other tools and principles

Review business model after refining operations focusing on standard infrastructure services Transformation of E2E processes with external participants: planning and pilot projects

E2E process transformation with external participants

Proactive, flexible, automated management of IT/OT systems (as per LE Group's IT strategy) Reach efficiency/saving goals in key (macro) processes

Principles of business efficiency and continuous improvement as a part of everyday operations

2020 2025 2030





### Operational excellence. Strategic goals



Transformation of processes on
 an E2E basis for efficiency and
 the creation of value for customers



Flexible, non-limiting, integrated IT systems that connect all operations



Decision-making based on the principles of operational excellence, efficiency tools (RPA, DIG, etc.) and integrated data

	2020	2025	2030
Impact of OPEX efficiency * (accumulated), mEUR	2	39	139
Impact of CAPEX efficiency ** (accumulated), mEUR	3	28	73
Effective operating model	Improving indicators of efficiency throughout the entire value chain		

- \* Operational excellence measures (process review, robotization, enhancements) and other measures.
- \*\* Data-based solutions and more targeted/efficient investments in the launch of smart metering, savings on purchases of equipment and materials, etc.







### Perspectives: People and culture

#### Goal

we are all **empowered** to act: organizational structures do not hold us back when we passionately seek results, do work that is meaningful, and create innovations.

#### **Priorities**

we're introducing advanced forms of teamwork, putting all our competences to work, and learning everywhere, always and fast; we look employees' insights for improvement. We abide by strict principles of social partnership and transparency.

#### **Success factors**

we see meaning in our work to create the energy sector of the future, making it easy, invisible and green.





### People and culture. Priorities 2020



Technical solutions: tools and platforms for managing the training process, with content that employees themselves can create in addition to that we provide.



Supporting infrastructure: all-around encouragement of a learning culture, with time for one's development as part of the working day and growth as part of goals and incentives.



Knowledge and collaboration: a system for auditing competences throughout the organization, with plans for use them and for re-training.



Compatibility and calibration of goals among teams and companies.

Enlargement of the scope of team goals. Considering the full process, not separate stages, as the goal.



Agile teams: creation of team structure, with more flexible planning as regards both tools and budget.



Spending the majority of time working on projects (change activities).



Easy processes: killing useless processes, digitalizing others, creating self-service opportunities in keeping with the principles of trust, simplicity and empowerment.



Image as an employer: the best Lithuaniancapital employer, "a good place to work" – create a system of wages and additional benefits. Deep commitment to the principles of social partnership and transparency.





### People and culture. Strategic goals

**eNPS** 

Ensure an outstanding employee experience at all stages of the person's journey in the organization

Increase of the eNPS (Employee net promoter score)

**AGILITY** 

Implement a new, agile, form of teamwork in the organization as a way to create competitive advantage

Rising customer experience index and / or decreasing time to market while ensuring high quality

**NPS** 

Create a learning ecosystem
which lets employees
develop the competences the
organization needs at the
right speed and which allows
all employees to experience
personal growth

Increase of the employee learning NPS







### **Work safety**



#### Goal

a safety culture that includes safe workplaces, the knowledge necessary for safe work, provision of ergonomic equipment, and mature behaviour on the part of employees, contractors and residents.

#### **Priorities**

continuous improvement of the safety and reduction of the accident rate (reducing number of safety incidents in order to ensure 0 accidents).

#### **Success factors**

seeing safety as part of the DNA of each employee of the organization and something to be assessed in all potentially risky processes.



### **Work safety. Priorities**

- preparation: decisions, planning



- development of competences and of a culture of safety

Practical knowledge about work safety acquired at a practical training center and in virtual reality, theoretical knowledge acquired on etraining platforms only

Standardization of practical experiences for work safety

Install safety management system based on data linked to processes

Identification of relevant unsafe behaviours, development of safe behaviour habits

Review of contractor rating methodology to strengthen the part regarding work safety Automated processes for employee health protection and occupational risk

Uniform safety standards inside the organization and for contractors

Introduce smart technologies for interactive safety improvement

Become a recognized center of excellence in safety at work and share experience with other organizations in Lithuania and abroad

2020 2025 2030





### Work safety. Strategic goals









Decreasing number of fatal, severe and light accidents









### Perspectives: Regulatory environment

a sustainable regulatory environment in line with requirements of the evolving context.

Goal

#### **Priorities**

a regulatory environment that's open to innovation and current needs. A minimized administrative regulatory **burden** (regulator <->ESO). A **long-term** regulatory model. Price stability, and on optimal price-value ratio for society.

#### **Success factors**

proactive collaboration. Alignment of stakeholders' expectations. Dissemination of knowledge and competences. Reliable data for decision-making.





### Regulatory environment. Priorities

- preparation: decisions, planning



- implementation, results and value for customers

Creation of a regulatory environment to enable the development and functioning of smart meters and a Data hub

> Establish conditions and processes for earlier / prospective approval of investments

Creation of conditions for information sharing among market participants (customers, the operator, suppliers) An effective and welldeveloped long-term regulatory incentive mechanism.

A refined regulatory model which ensures sustainable and long-term financing of activities\*

> A regulatory environment that purposefully promotes innovation and digitalisation

Create a regulatory environment that empowers renewable and distributed generation

A regulatory mechanism that integrates decentralized generation

A unified and reliable source of data and information for cooperation between the regulator and ESO Personalized pricing / dynamic tariff based on actual consumption data

Automated and smart application of regulatory principles

Regulation that empowers the international / regional market

2020 2025 2030



\* By nature, most network maintenance and operating costs are fixed, so for purposes of compatibility and consistency of revenues and costs, increase of the fixed part of the tariff will be pursued by reducing the variable tariff component in the future. Thus the revenue structure will be aligned with the nature of the costs.





## Perspectives: Finances

#### Goal

the creation of long-term value for shareholders.

#### **Priorities**

optimal use of financial resources; stable return on equity; consistent implementation of dividend policy.

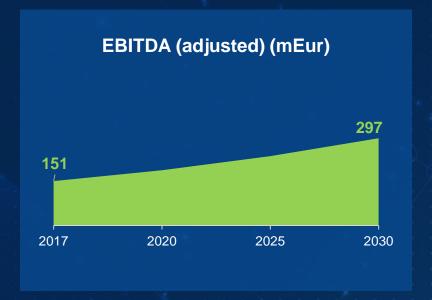
#### **Success factors**

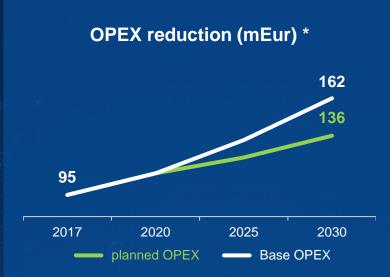
stable, long-term regulation; efficient operations and investments; reliable data for timely decision-making.





### **EBITDA 2030**







Sustainable change in EBITDA as a result of efficient operations and consistent growth in regulated asset value.

- \* Base OPEX is calculated according to market forecasts for macroeconomic assumptions (wage growth and inflation)
- \*\* Investments are planned according to long-term investment plans, assuming growth of the asset base on an LRAIC basis.





### Planned financial indicators

### Efficient use of capital:





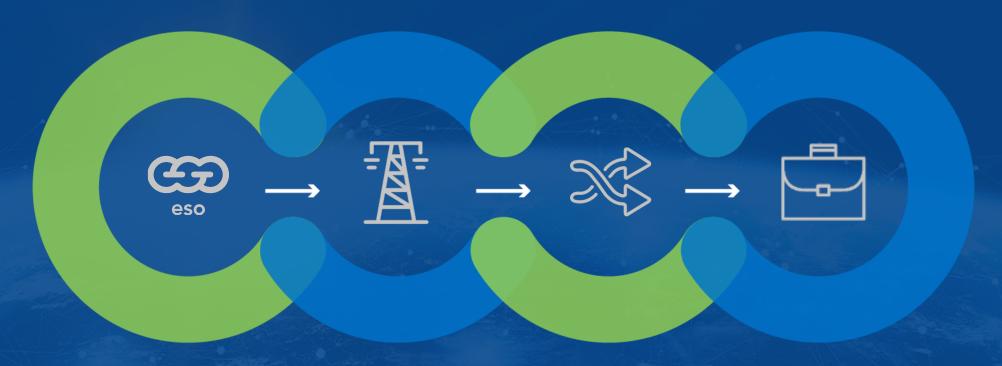
	2020	2025	2030
EBITDA adjusted, mEUR	188	234	297
Net debt * / EBITDA	4,4	5,0	5,1
ROE, %	9	9	10
OPEX accumulated, mEUR	213	788	1 436
CAPEX accumulated, mEUR	334	1 390	2 617

<sup>\*</sup> Cash flows management and borrowing are handled centrally in the Lietuvos Energija Group.





### **Brief overview**



#### **Beginning**

AB Energijos Skirstymo Operatorius began operating on 1 January 2016 with the merger of AB LESTO and AB Lietuvos Dujos.

#### **Activities**

125 000 km of electricity lines, of which 71% are overhead and 29% cable, and nearly 9 000 km of natural gas distribution pipelines.

#### **Purpose**

EP and NG: distribution, network operation, maintenance, management, development, assurance of security and reliability.

#### **Shareholders**

Lietuvos Energija UAB owns 94.98% of ESO's shares and minority shareholders own the remaining 5.02%.





### Key financial and performance indicators

		2016	2017	△, +/-	∆,%
Electricity					
Power distributed via medium and low-voltage networks, etc.	TWh	8,98	9,22	0,24	3%
Guarantee supply	TWh	0,41	0,41	0,00	0%
Number of newly connected users	thousands	29,335	29,640	0,305	1%
Average time to connect new users	calendar days	58,5	45,9	-12,56	-21%
Electricity supply quality indicators					
SAIDI, min. (including force majeure)	min.	111,99	125,989	14,002	13%
SAIFI, number (including force majeure)	units	1,11	1,227	0,114	10%
Technological costs in the power distribution network	%	6,49%	6,14%	-0,35%	-5%
Natural gas					
Volume of natural gas distributed	TWh	7,39	7,37	-0,02	0%
Number of newly connected users	thousands	5,288	12,53	7,242	137%
Average time to connect new users	calendar days	162,4	146,2	-16,18	-10%
Natural gas supply quality indicators					
SAIDI, min. (including force majeure)	min.	0,529	1,161	0,632	119%
SAIFI, number (including force majeure)	units	0,006	0,007	0,001042	17%
Technological costs in the natural gas distribution network	%	2,25%	2,13%	-0,12%	-5%

#### Audited data for 2017

Sales revenue	Operating expenses (OPEX)
612,3	94,7
Net profit	EBITDA (adjusted)
77,6	150,9
Assets	Number of employees
1277,8	2503
ROE,%	CAPEX
12,6	226,2





Analysis of environmental factors

**External** factors





## Trends in the development of the global energy sector affecting distribution network operations and investments and creating the need, conditions and risks for transformation

**YESTERDAY** 



Centralized generation



One-way energy flow



**Passive** users



Reactive network monitoring and management



Non-flexible systems and solutions

NOW / **TOMORROW** 



Decentralized generation



Two-way energy flow



Active users



Proactive and realtime network monitoring and management



Flexible systems and solutions



Lietuvos energija

## Trends in the development of the Lithuanian energy sector

Distribution network development directions specified in the National Energy Independence Strategy which are reflected in ESO activities and related investments that this strategy provides for







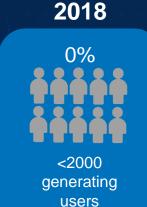


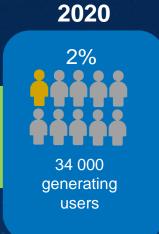


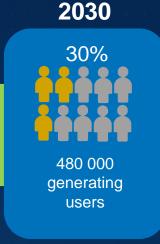
# Trends in the development of the Lithuanian energy sector. Generating users

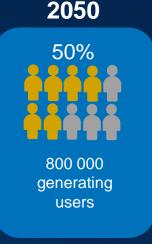
Distribution network development directions specified in the National Energy Independence Strategy

Generating users









As per EU trends, more than 90% of distributed generation is connected to the distribution network

or 5%
of Lithuanian
electricity generation
power is installed in
the STO network

 $0,4_{\text{GW}}$ 

or 12%
of Lithuanian
electricity generation
power is installed in
the STO network

 $3,5_{\text{GW}}$ 

or 57%
of Lithuanian
electricity generation
power is installed in
the STO network

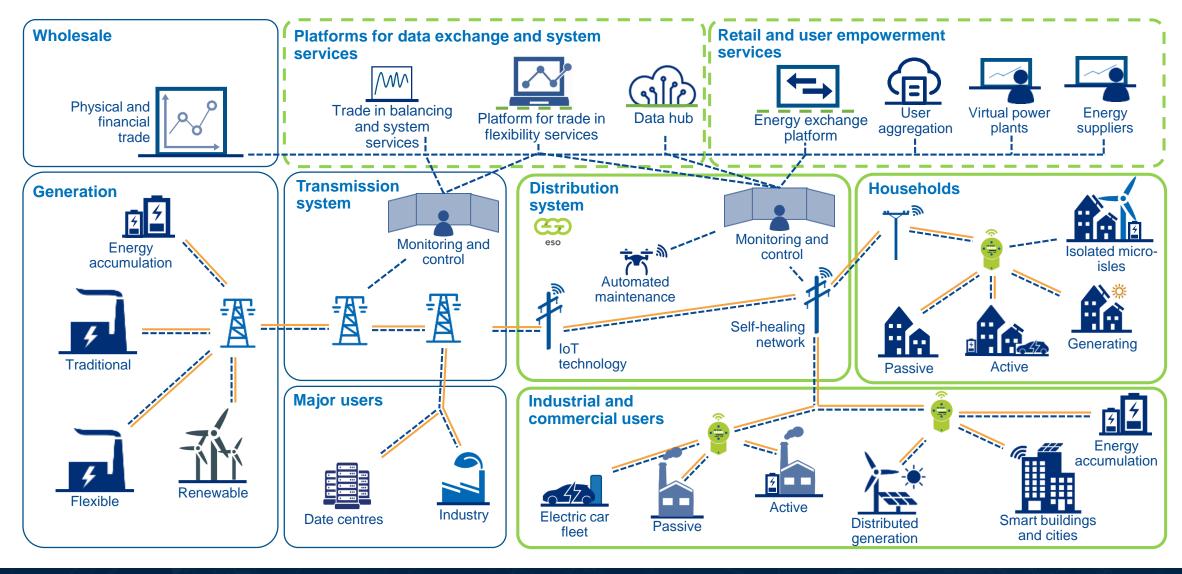
5,8<sub>GW</sub>

or 68%
of Lithuanian
electricity generation
power is installed in
the STO network



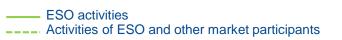


## Structure of the Lithuanian electricity system in 2030









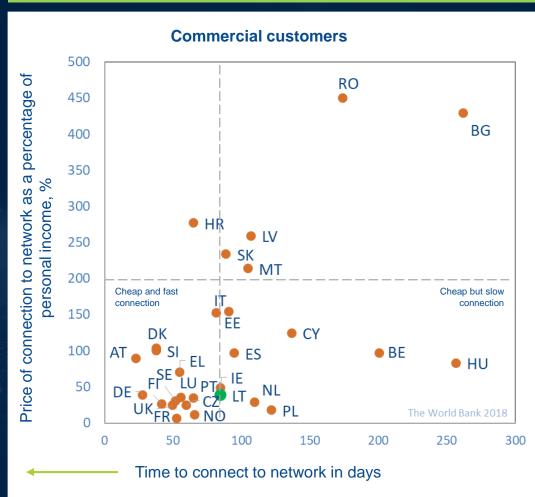


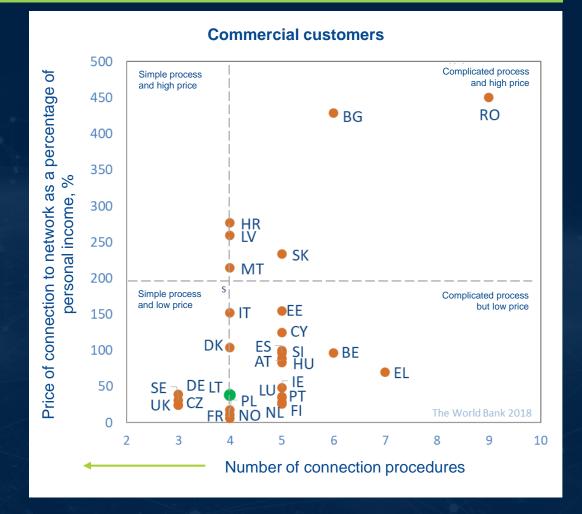


## **Comparative analysis**

**ESO** activities that affect Lithuania's competitive environment

Time it takes to connect to electricity network and number of procedures relative to the price of connection (commercial users)







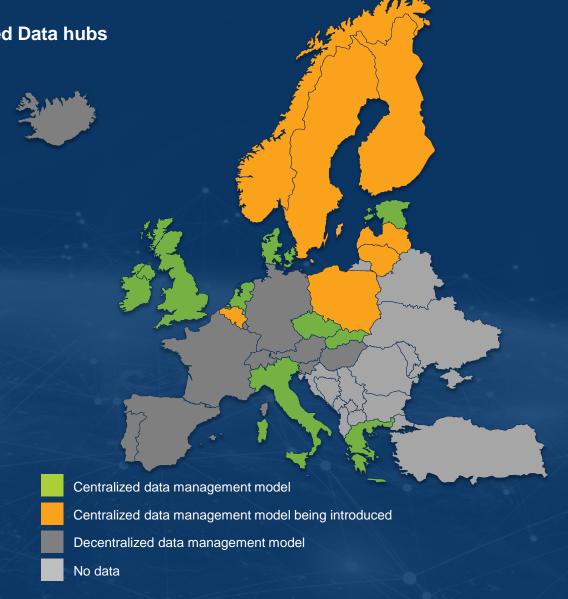


## **Comparative analysis**

Creation of a regional retail electricity market on the basis of centralized Data hubs

Introduction of a centralized Data hub in the Nordic-Baltic region to promote competition:

- Assurance of uniform conditions for all market participants
- By standardizing retail market processes and data access
- Reducing entry barriers for market suppliers
- Creating a unified system to ensure the process of change of suppliers
- Clearly distinguishing and defining network operator and supply activities and roles







## **Analysis of stakeholders**

ESO's goal is to come to understand stakeholders' diverse expectations and adapt maturely on the basis of overall expectations

Energy Shareholders Customers Society Contractors **Employees** sector **Expectations of ESO stakeholders** Uninterrupted energy supply and fast restoration of supply after storms **Quality supply of electricity** Energy efficiency and sustainable use Security of network equipment and invisible network **ESO** performance efficiency Accurate bills and simple payment procedure **Development of renewable energy sources** Convenient services Strategic directions Customer **Performance Network reliability Smart grid Market facilitation** experiences efficiency





## **Compliance with NEIS (1)**

ESO's 2030 strategy contributes to the implementation of 4 key NEIS strategic directions



#### Competitiveness

We will contribute to competitiveness goals by:

- Speeding up the connection of users to electricity and natural gas networks and reducing the administrative burden of the related processes (thereby also improving the country's "Doing Business" rating);
- Installing smart electricity meters for electricity and natural gas users;
- Ensuring the proper and timely sharing of information with electricity users in order to involve them in the management of the electricity network and encourage them to become active market players.



#### Reliability

We will contribute to reliability goals by improving SAIDI/SAIFI network reliability indicators and by:

- Replacing deteriorated overhead lines in the electricity distribution network with cable lines, giving priority to lines that are older, fail more, and are in woody or economically active areas;
- Modernizing and expanding electricity and natural gas distribution infrastructure;
- Improving and ensuring the reliability of electricity supply to industrial users in the defined industrial zones (FEZ);
- Installing smart solutions for remote management, identification of defects, and fast and reliable network restoration.

## **Compliance NEIS (2)**



#### **Reducing environmental pollution**

We will contribute to environmental pollution reduction goals by:

- Implementing energy-saving agreements (ENEF market promotion measures);
- Creating good conditions to introduce and develop infrastructure for electricity-powered vehicles (including electric cars) in cities and municipalities.



## Implementing innovations in pursuit of energy progress

We will contribute to bringing about Lithuanian energy innovations by:

- Creating and installing a common Data hub;
- Standardizing and digitalizing retail electricity market business processes, shortening supplier change procedures, and thus empowering generating users;
- Promoting experimental and industrial development of the most promising energy technologies as well as innovation incubators and research into digital solutions for energy;
- Promoting changes in the regulatory environment to make conditions for financing innovation in distribution activities more favourable.





## PESTEL analysis \* (1)

Factors	Direction of impact	Measures for impact control
Political factors		
Changing energy policy / priorities due to political changes		Active communication to all stakeholders and society, ensuring consistent ongoing implementation of solutions that have been added to the solutions of solutions and society and society and society and society and society.
Incompatibility / inconsistency in the regulatory environment and other regulation	Negative / Positive	adopted / agreed. Seek to coordinate strategic decisions of particular importance with stakeholders and enshrine them in legal acts or strategic documents in a timely, long-term manner.
Long legal / political decision-making process	Negative	<ul> <li>Respond proactively and rapidly to changed or new opportunities.</li> <li>Proactively participate in legal / legislative discussions and involve supporting partners.</li> </ul>
Impact of national and international political agreements on key projects of the Grou	p Positive/ Negative	<ul> <li>Active participation in discussions, preparation of the necessary materials for decision makers; communication of the possible impact of planned decisions on the LE Group and/or ESO as a company.</li> <li>Proactively and periodically inform decision-makers about the group's operational challenges and the progress of projects; if possible, develop alternative action plans (for use in case of unfavourable decisions).</li> </ul>
Economic / financial factors		
Impact of business cycles on changes in energy demand and financial results	Positive / Negative	<ul> <li>Regularly update natural gas and power demand forecasts and price dynamics for Lithuania, and integrate into operations planning.</li> <li>Communicate the historical dynamics of energy resource prices, flows and volumes along with the relevant reasons and trends.</li> </ul>
Lack of competition among contractors. Rising prices.	Negative	<ul> <li>Promote competition.</li> <li>Seek to attract new / foreign contractors.</li> <li>Balance requirements for the quality and terms of contractor work with their impact on price.</li> </ul>
Volatility in the prices of raw materials and imported electricity and natural gas	Negative	<ul> <li>Analyze and communicate resource price dynamics and forecasts. Integrate them into short-term and long-term business plans.</li> <li>Diversification of the electricity and gas portfolio over time.</li> </ul>
Social factors		
Relatively slow growth of purchasing power in the country and sensitivity to price increases; expectations of falling energy prices.	Negative	Proactively, periodically and understandably communicate the reasons for price changes, pointing out what depends on the actions of ESO as a SNO.
Remaining need for the safety of employees / contractors / residents	Positive	Develop an effective concept of the culture of safety which includes the safety of residents, contractors and ESO employees.
Increasing public support for the use of new technologies	Positive / Negative	Promote public interest in energy sector advances.
Growing expectations in society for technological solutions	1 ostave / Negative	Seek to meet society's expectations for the use of technology and innovative solutions.





## PESTEL analysis (2)

Factors	Direction of impact	Measures for impact control
Technological factors		
Reduced natural gas consumption, i.e. increasing costs of infrastructure (EUR/ m³/ user)	Negative	<ul> <li>Maintain or promote natural gas consumption in promising areas: through service quality and reliability, optimizing the costs of infrastructure maintenance.</li> <li>Pursue long-term regulatory stability and clarity of pricing components.</li> </ul>
Necessity of digital technologies and complex modern solutions (cloud, IoT, etc.) for competitiveness  A sub-optimal and little-automated distribution network	Positive / Negative	<ul> <li>Implement programmes for digitization and transformation of ESO activities (complex measures) giving them high priority.</li> <li>Seek long-term regulatory stability for ongoing investment in smart grid development, data analytics, other smart solutions.</li> <li>Use cloud solutions to modernize critical systems where that is compatible with ITT safety.</li> <li>Exploit IoT technologies to handle network management tasks.</li> <li>Implement globally proven innovative solutions (through partnership with experienced global players / an innovation model).</li> </ul>
Increasing risk of cyber threats	Negative	Proactive deployment and continuous review of cyber security measures, managing these efforts from the Group's cyber security competence center.
Environmental factors		
Stricter environmental requirements requiring additional investment	Negative / Positive	<ul> <li>Assess compliance with environmental requirements when planning business operations.</li> <li>Treat environmentally friendly actions as the rule for everyday operations.</li> </ul>
Lack of a clear, long-term global environmental policy that is stable / uniform complicates implementing long-term solutions.	Negative	<ul> <li>Assess environmental protection trends when planning and adopting long-term decisions.</li> <li>Consider possible additional investment needs for changes in environmental requirements when undertaking investments or activities.</li> </ul>
Legal factors		
Complex (extremely detailed / overly abstract), changing, and ambiguous legal regulation. Insufficient legal and regulatory clarity and stability / consistency with regard to regulated activities.	Negative	<ul> <li>For any regulatory loopholes/uncertainties, proactively seek to clarify the significant aspects with decision makers (requesting written explanations, commentaries, etc.).</li> <li>Where possible, seek to initiate the adoption or amendment of legislation, explaining the need for clarity as well as long-term regulatory stability.</li> <li>Regularly review the legislative framework to check and ensure compliance with legal requirements (personal data, anti-corruption, transparency, purchasing, regulation of core business, etc.)</li> <li>Promote stable and clear application of the principles of incentive regulation.</li> </ul>
Slow adaptation of the legal environment to evolving markets and technologies	Negative	Proactively promote changes in legislation.





Analysis of environmental factors

**Internal factors** 





## **SWOT** analysis



- A service system that meets customer expectations over a broad base of customer contacts. Mature perception of the need and opportunities for continuous improvement of customer experience.
- An SOE of strategic importance able to provide reasoned arguments and comments to draft legal acts and to stakeholders, thus contributing to the regulatory and legal environment for the benefit of society.
- As part of the LE Group, have access to specific group-wide competences and share in group-wide best practices.
- Financial stability (ESO shares are listed on Nasdaq Baltic Stock Exchange. The Company meets high standards of transparency and good governance).



- Limited and inflexible opportunities for use of critical IT systems are an obstacle to rapid improvement of service quality and efficiency as well as to the integral implementation of IT system changes.
- Inefficient processes that are late to meet customer and stakeholder expectations, due to changes in external regulation, market changes and trends, changes in the LE Group and internal ESO reasons.
- Lack of specific competences and empowerment in assuming responsibility for the systematic change of processes in creating value throughout the ESO value chain.
- Extremely complex processes involving the entire organization; accordingly, their transformation is long and complicated, with fewer quick results.
- Disorderly data in parts of the ESO value chain: duplication, discrepancies, lack of data, non-digitized information, incomparability, etc.



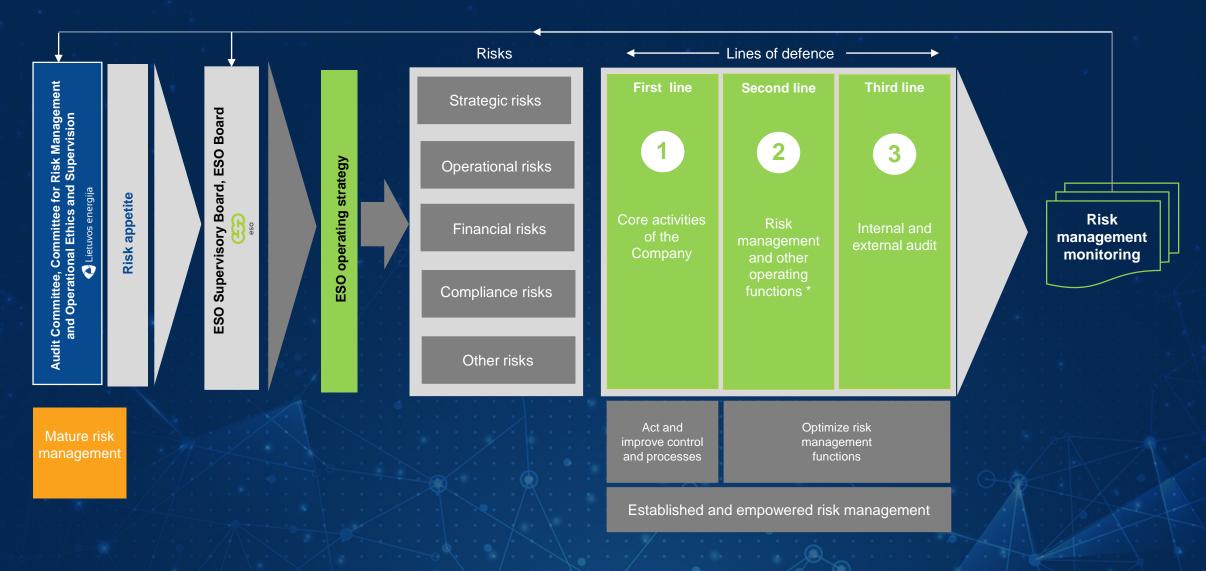
- Regulations promoting innovation allow us to be the first to introduce the most technologically advanced network management solutions.
- The decreasing price of technology (network, storage, response, control, etc.) offers an opportunity to economically justify and digitalize the network, or to implement specific advanced solutions.
- The introduction of smart metering provides an opportunity for new standardized infrastructure products and services.
- Having refined activities (separated off public supply) to focus on duties as a network operator, there are preconditions to provide neutral market facilitation and promotion services or solutions.
- Application of the principle of customer experience and meeting customer expectations will allow us to concentrate all value chain elements (customer relationship, direct services, network management, internal/service processes, operational excellence and organizational culture) on a single direction/goal.



- An unstable regulatory environment not in line with the company's evolving needs or the expectations place on it the company by other legislation or national strategies, or prevents meeting the changing needs of customers/legal acts.
- Cyber security: digitalizing the network increases the risk of cyber incidents having an impact in terms of negative consequences.
- Incompatibility of diverse stakeholders' expectation and/or uncoordinated regulation may delay/fail to create preconditions for timely implementation of change.
- Lack of qualified specialists and contractors for the use of new and existing technologies and implementation of change, and lack of competition among contractors, all limit, delay and increase the cost of implementing change.
- Pursuit of price stability can slow down investments in increasing network intelligence and digitalization.



## Risk management model







## Risk factors and their management



#### **Network reliability**

#### Lack of consistency of priorities.

 Justify all investments with a focus on SAIDI/SAIFI and other network reliability priorities.

#### Risk of inconsistency of direction.

 Coordinate goals of network reliability with the changing market: power demand, generating users, loads, auto stations and other external needs.



#### **Smart grid**

## Appeals of procurement procedures delaying decisions.

 Maximum transparency, compliance with advance notice percentage.

#### Lack of competences/ resources.

• Search for ways to obtain the necessary competences.

#### Risk of diversity of solutions.

 Set a rational number of relevant priorities and pursuing them.



#### **Market facilitation**

### Risk of environmental pressure due to time constraints and costs.

 Consistent communication and management of stakeholders' expectations.

### Risk of creation of a single market vs. Integration solutions.

 Consistent position, involvement of decision-makers from the very beginning.

## Risk of failure to ensure GDPR, competition, cyber security.

• Give due attention to ensuring reliability and neutrality.



#### **Customer experience**

## Complicated processes which clients cannot understand.

 Identify and understand all customer contacts in ESO processes and make targeted changes to them.

### Matching expectations of different generations.

- Adapt services, tolerating mismatches of some expectations.
- Balance the optimal value to price ratio for the public.



#### **Operational excellence**

## Risk of the lack of integrity in the transformation of E2E processes.

 Complex review covering OE, data, RPA, DIG and content change.

### Quality and length of IT system integrations.

 Interactive principle creating and digitalizing small change, if significant change is not possible.

#### Lack of data quality.

Data reliability, source, consistency

Risk of stability of financing

Risk of instability / inconsistency of regulatory environment

Risk of a lack of competences and resources

Consistent long-term plans and priorities

An open, consistent dialogue in pursuit of a rational, clear and sustainable regulatory environment

Give priority to competences and match them with the result. Find good ways and forms to attract competences





Lietuvos energija

## **Integrated planning system**



The ESO 2030 strategy is an integral part of the LE Group's planning system and has been prepared in order to ensure the implementation of long-term goals provided for in the LE 2030 strategy and the strategies of LE's functional activities, in order to plan the activities and investments necessary therefor.





## Key performance indicators for 2030 strategic goals



Double the reliability
of the electricity
system and maintain
that of the natural gas
system



Implementation of solutions for a smart grid



A functioning supplier centric market model



Services that provide a great customer experience



Efficient ESO
operations and
financial sustainability



An organization without accidents

	2020	2025	2030
EP SAIDI	100	85	70
EP SAIFI	1	0,83	0,66
Smart meters installed for customers, %	15	90	100
Data hub	Installation	EP and NG	Regional
Time to connect new electricity customers, calendar days	42	33	25
Time to connect new natural gas customers, calendar days	80	45	35
NPS for of ESO services	50	55	60
OPEX (accumulated), mEUR	213	788	1 436
CAPEX (accumulated), mEUR	334	1 390	2 617
Number of accidents	0	0	0





ESO's strategy sets goals in line with the priorities of the Lietuvos Energija Group. With this document, however, the company offers no guarantees for the implementation of the measures or goals set out, their terms or other actions.

#### Please note that:

- the goals set out in the document (including the scope, time, method of financing and other aspects) will depend on specific external and internal economic, legal and other factors. The identified reasons can affect decision-making and their effective implementation, focusing on successful business results and the creation of value for all stakeholders:
- activity guidelines of the Company (including possible projects, development opportunities and alternatives) cannot be considered a commitment or another final decision, or a proposal to invest, conclude transactions or carry out other actions;
- all specific decisions will be taken only having assessed all the material circumstances, in observance of legislative requirements and procedures, including, if applicable, the duty to receive the necessary permits or another approval of decisions with competent authorities or stakeholders;

- information on specific decisions, if they must be disclosed, shall be disclosed in accordance with legal acts governing public disclosure of such information and ensuring the necessary and comprehensive information of stakeholders and the implementation of transparency principles;
- information presented in this document cannot be considered investment or another recommendation related to trade or activities in respective markets, or another aim to exert influence on participants of respective markets, or other potentially interested persons;
- information contained in this document has been prepared in observance of the circumstances known at the time of its preparation and may change in the future;

- the Company is not liable for any conclusions, which persons having read the document may make, and does not assume any liability for any loss that would result from the interpretation of the content of this document or acting in observance thereof in decision-making;
- the Company follows the principle of legitimacy of its activities, therefore any goals, plans, statements, concepts and other information contained in this document cannot be interpreted in contradiction to the law;
- all actions are conducted and decisions are made in the Company in observance of the requirements of fair competition, separation of energy activities, transparent sale of energy products and financial instruments as well as requirements of legal acts applied to activities of the Group by other companies.

## **Abbreviations**

AC Active customer - means a customer or a group of jointly acting customers who

consume, store or sell electricity generated on their premises, including through aggregators, or participate in demand response or energy efficiency schemes

provided that these activities do not constitute their primary commercial or

professional activity

BD Big data

CEER Council of European energy regulators
CAPEX Investments / Capital investments

CAIDI Customer Average Interruption Duration Index (SAIDI/SAIFI)

DATA HUB Data collection and exchange platform

DIG Digitalization

DP Distribution point DWH Data warehouse

EBITDA Earnings before depreciation, amortization, interest expense and income tax

EP Electric Power
ES European Union

E2E End-to-end process review ENEF Energy efficiency fund

EV Electric vehicle

eNPS Employee Net Promoter Score - methodology to answer the question: How likely

would you be to recommend your employer to a friend or acquaintance?

FEZ Free economical zone

GDPR EU General Data Protection Regulation

GU Generating user– prosumer

GW/MW Gigawatts / Megawatts – a unit of measure of power

IT Information Technology

IT/OT Information Technology / Operational Technology kV kilovolt – a unit of measure of electric voltage

Flexibility Demand response or distributed production services used by grid operators services in order to use the flexibility of users for network management through the

possibility for the consumer or prosumer to respond and change their consumption and / or production profile independently or through persons

representing them

LE/ LE Group Lietuvos Energija, UAB, Lietuvos Energija, UAB, Group

FEZ Free Economic Zone

mEUR Million euro

NB-IoT Narrowband Internet of Things

NEIS National Energy Independence Strategy

NG Natural gas

NGV/m New generating users per year

NPS Net promoter score OCS One-click story

OPEX Operating expenses

PSO Transmission system operator RES Renewable energy sources

ROE Return on Equity

RPA Robotic Process Automation

SAIDI/SAIFI Average duration of unplanned interruptions/ average number of

unplanned long interruptions per user

SNO System network operator

Supplier centric A model based whereon the key consumer contact person on all energy-

related matters is a client's energy supplier. A distribution network operator

contacts customers only when dealing with network-related problems

TOTEX CAPEX + OPEX

TS Transformer substation

TS/DP Transformer substation / Distribution point

TWh/KWh Terawatt-hour / kilowatt-hour – a unit of measure of energy amount

SOE State-owned enterprise









**Green | Smart | Global** 

