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EU4ENERGY PHASE II

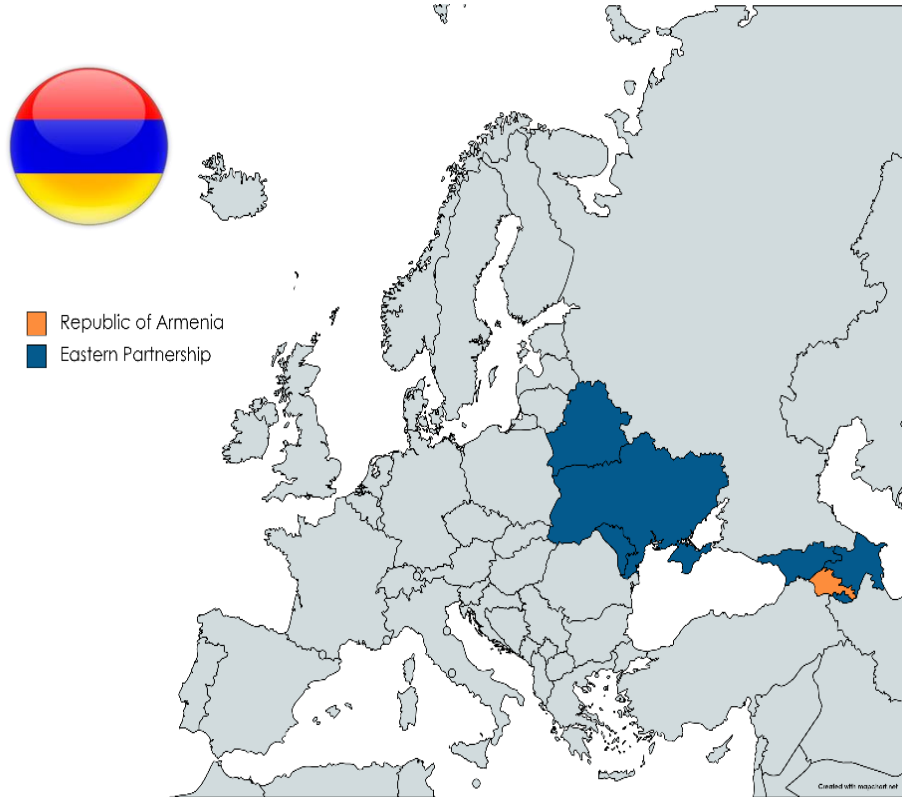
DSO RULES AND REGULATIONS IN ARMENIA





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General information



REPUBLIC OF ARMENIA

Population: 3.0 million

Capital: Yerevan

GDP: 19.5 billion USD

GDP per capita: 6 570 USD

Economic activity indicator: 109.7%

Electricity produced in 2023: 8.3 billion kwth

Electricity consumed in 2023: 6.5 billion kwth

1 DSO (private owned)

1 TSO (state owned)

1 System Operator (state owned)

1 Market operator (state owned)





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Main tasks of DSO

DSO's main tasks are stipulated in Law on Energy and license conditions

- distribution of electric energy (power) to wholesale and retail market participants, including vulnerable consumers,
- Construction (reconstruction) of the distribution network, maintenance, operation, management, improvement of the distribution network in an efficient, economically based and systematic way to ensure uninterrupted electricity supply to consumers with minimum costs in the long term,
- connection of new or reconstructed consumption system or station to the distribution network under non-discriminatory conditions,
- Ensuring non-discriminatory access of any person to the distribution network in accordance with Market rules,
- accounting and billing in accordance with Market rules





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Technical data of DSO

- 110 kV substations – 102 units, total installed capacity 4478 MVA
- 35 kV substations – 224 units, total installed capacity 1736 MVA
- 110 kV overhead lines – 2778.3 km
- 35 kV overhead lines – 2307.12 km
- 35 kV underground cables – 67.67 km
- 6(10) kV distribution points – 261 units
- 6(10) kV transformer substations – 7992 units, total installed capacity 3200.146 MVA
- 6(10) kV overhead lines – 9634.64 km
- 6(10) kV underground cables – 3698.16 km
- 0.4 kV overhead lines – 14225.47 km
- 0.4 kV underground cables – 2743.7 km





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Role of DSO in energy transition

- Connection procedures, including issuance of connection availability references and technical conditions
- Net metering process with prosumers, including group net metering and metering at different locations
- Storages and E-mobility in process





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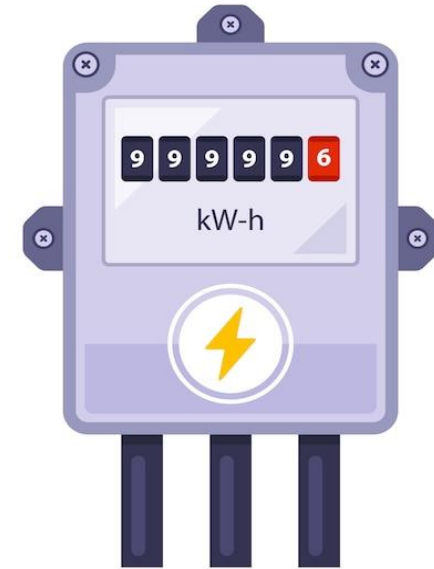
Smart metering and data monitoring

Smart meters allocation:

- Around 620 000 meters out of 1 100 000 are connected to the unified system,
- More than 5000 substations are connected to the unified system,
- The rollout of smart meters will be completed by 2025.

System functions:

- Receiving data at 30-minute intervals,
- Conducting detailed analysis of imbalances within a selected group of meters,
- Remotely disconnecting metering devices for non-payment,
- Providing consumers with online access to view electricity consumption via computers or mobile devices

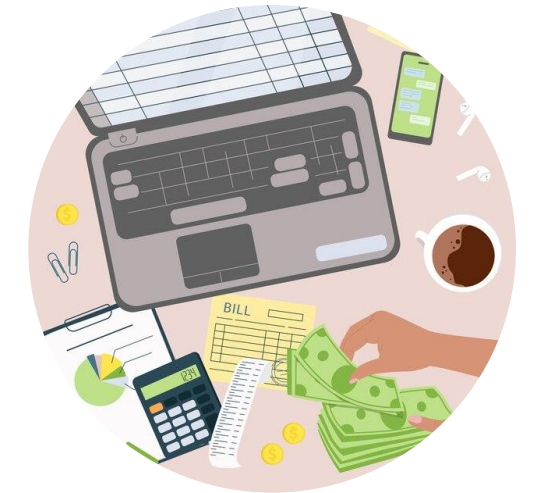




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DSO investment plan and tariff structure

- The tariff structure established for the DSO is formulated in accordance with requisite income provisions. These provisions encompass essential financial considerations such as operational expenditures, capital investments in infrastructure, depreciation and amortization of assets, as well as the stipulation of a reasonable profit margin. This approach ensures that tariff rates are strategically aligned to sustain the DSO's operational integrity and financial stability, while concurrently meeting regulatory requirements and ensuring adequate returns on invested capital.

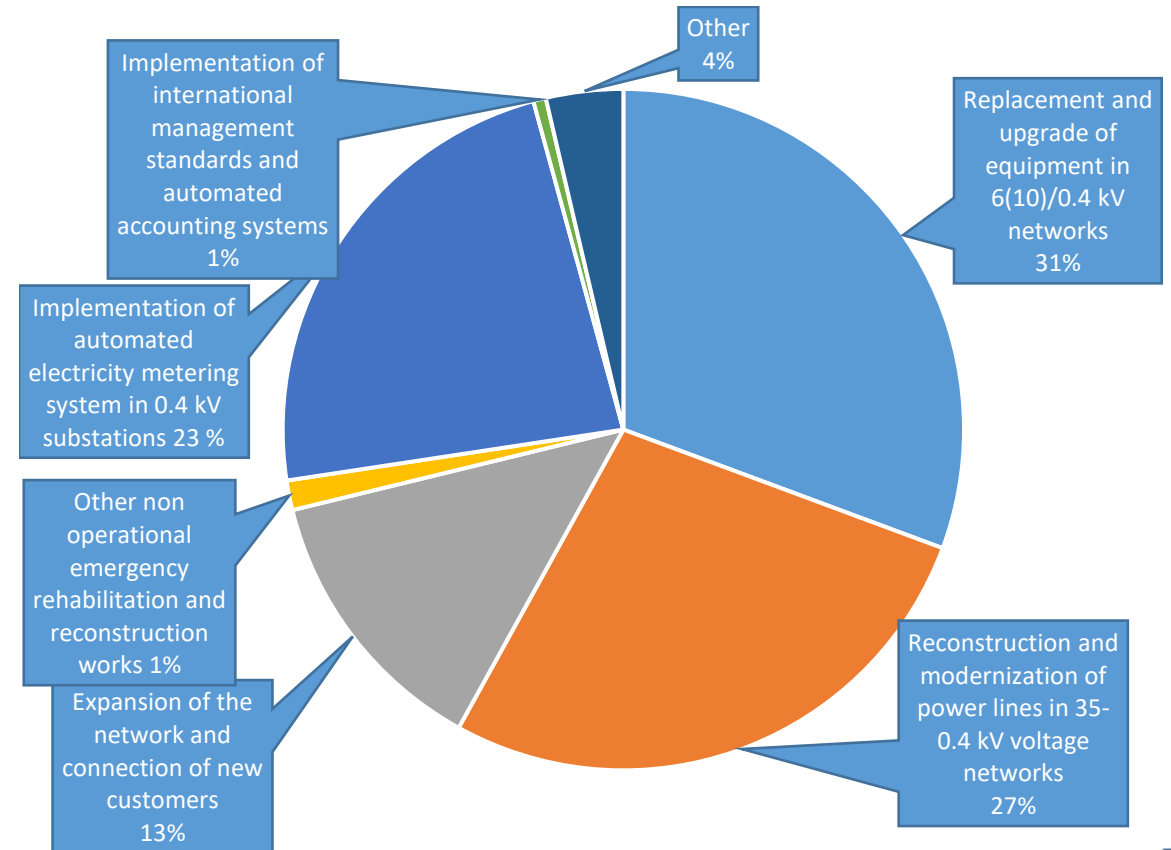




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2016-2027 investment plan

- 2016-2027 Investment plan in amount of 850 million Euro,
- SAIDI SAIFI reduction by 25% in 2025 and by 45% in 2027,
- Voltage fluctuations rate reduction by 50% in 2025 and by 100% in 2027,
- Optimization of staffing levels, reduction of expenditure on material costs through optimization and reduction of other costs by 10 10% in 2025 and 2027,
- Distribution system losses will be set 7% in 2025 and 6.5% in 2027.





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Recent regulations on distribution system

- Issuing production license only if the applicant agrees to follow grid restriction rules,
- These rules are:
 - During the period from March 1 to October 31, the system operator has the right, in case of violation of the reliability and security indicators of system or in case of danger, to impose a temporary restriction on the electricity generation, not exceeding 1080 hours in total, but no more than eight hours per day.
 - If the generator fails to obey system operator's instruction, the last can disable generation unit by remote control equipment, ensuring compliance with operational regulations





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Upcoming regulations

- New Laws on Electricity and Renewable Energy and Energy Saving,
- Energy storages and E-mobility,
- Electricity market full liberalization ,
- Flexibility and demand response,
- RES share in total electricity production shall form 30% by 2030.



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Thank you for you attention



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