

Bijlage 1: overzicht van de noden energiesector Oekraïne

General emergency repair needs

Among the needs, the following basic energy equipment can be singled out:

1. Autotransformers 110 kV, 330 kV
2. High-class power transformers with a voltage of 110 kV and above
3. Power transformers of low voltage class 6 kV, 10 kV
4. Current and voltage measuring transformers of class 150, 220, 330 kV
5. High-voltage load switches (electric and gas) 110-330 kV
6. Low voltage load switches 6.10 kV
7. Insulators for the repair of overhead power lines and substations
8. Complete transformer substations and distribution points
9. 750 kV electric and gas switches
10. 750 kV electric and gas current transformers
11. Electric and gas transformers with a voltage of 750 kV
12. Disconnectors 750 kV
13. Reclosers 10, 35 kV
14. Pipes of various diameters
15. Equipment for turbine and generator restoration (sets of materials)

Gas sector equipment Needs

Control & Electrical Systems:

1. Gas pumping unit based on a piston compressor driven by a gas piston engine for the facility – 23 pcs.
2. Set of gas pumping units based on a piston compressor driven by a gas piston engine – 24 pcs.
3. Maintenance of the gas pumping unit and its key components (engine, compressor, etc.) during the first two years of operation (in accordance with the manufacturers' requirements)
4. Control cabinets – 4 pcs
5. Siemens controllers & programmer – 3 pcs
6. Operator workstations – 5 pcs
7. Modular operating room – 1 pc

Pipelines & Valves:

1. Anti-pumping valves – 4 pcs
2. Ground installation cranes – 2,906 pcs
3. Non-return & control valves – 2,375 pcs
4. Pipes & fittings – 1,268 m + 409 pcs

Gas Processing & Filtration:

1. Inlet filters & separators – 101 pcs
2. Air cooling devices – 4 kits
3. Condensate tanks – 3 pcs

Compressed Air & Safety:

1. Air compressor (with drying unit) – 1 pc
2. Firefighting equipment – 37 pcs
3. Cables & wiring – 231,856 m

Emergency Recovery Equipment:

1. Well repair & cementing units – 8 pcs
2. Fire trucks & heavy machinery – 66 pcs

Equipment needs according to AidEnergy

Ukraine's energy sector is under severe strain due to escalating attacks, requiring immediate support to stabilize power generation, distribution, and infrastructure restoration.

Key Equipment & Materials Needed:

1. Modular cogeneration units, gas turbines and gas piston units.

2. Transformers: High-, medium-, and low-voltage – 3,000+ units.
3. Load switches & measuring transformers – 55,000+ units.
4. Power substations & distribution points – 500+ units.
5. Grid restoration materials: Insulators, cables, fittings, poles – millions of units.
6. Critical resources: Transformer oils, fuel, vehicles, and industrial heaters.

Other needs

As of April 16, 2025, the following energy sector needs have been identified:

1. Backup power generation units (diesel/gas generators) with a capacity of 5–2500 kVA – over 1,700 units
2. High-voltage power transformers (110 kV and above) – approximately 100 units
3. Medium-voltage power transformers (10–40 kV) – approximately 1,400 units
4. Low-voltage distribution transformers (below 6 kV) – approximately 130 units
5. High-voltage instrument transformers (current and voltage) – over 900 units
6. Low- and medium-voltage instrument transformers (current and voltage) – approximately 5,600 units
7. High-voltage circuit breakers (SF₆ gas-insulated), 110–750 kV – 400 sets
8. Medium-voltage circuit breakers (10–40 kV) – approximately 2,100 units
9. Low-voltage circuit breakers – approximately 46,000 units
10. Insulators for the repair of overhead transmission lines and substations – approximately 116,200 units
11. Power cables for transmission line restoration – approximately 6,700 km
12. Line hardware (fittings) for overhead transmission line repair – approximately 976.7 million units
13. Reinforced concrete utility poles for transmission line restoration – approximately 37,200 units
14. Cable joints (splices and terminations) for underground cable repair – approximately 29,800 units
15. Compact transformer substations and distribution switchgear – over 500 units
16. Transformer and engine oils – over 1,200 metric tons
17. Utility and specialized service vehicles – approximately 3,800 units
18. Fuel (gasoline/diesel) – over 9,000 metric tons
19. Industrial and residential convection and infrared heaters – over 400 units