

2022 PERFORMANCE RESULTS

OPERATIONAL RESULTS

Network Exploitation

Indicator	2020	2021	2022	2022/2021, %
Substations, pcs	38,279	39,277	38,141	-2.9%
Substation capacity, MVA thousand	34.8	34.5	34.9	+1.2%
Power lines (circuits), km	154,531	156,676	153,398	-2.1%

Decrease in core production assets during 2022 was due to cancellation of the contract on the lease of OOO AES Invest's grid facilities (6 substations and 1,745 transformer substations with capacity of 669 MVA, 4,957 km of power lines). Increase of substations' installed capacity was due to the conclusion of the contract on the lease of PAO Uralkali's grid assets (12 110 kV substations with capacity of 844 MVA).

Repairs in 2020-2022

The Company's repair and maintenance target for 2022 totaled RUB 4,631 million, real expenses in 2022 totaled RUB 4,829 million or 104%.

Repair program in 2022 in branches, RUB million

Branch	Target	Actual	% of completion
Permenergo	1,572	1,767	112%
Sverdlovenergo	1,582	1,663	105%
Chelyabenergo	1,470	1,388	94%
IDGC of Urals (incl. HQ)	4,631	4,829	104%

The overrun was mainly due to recovery and unscheduled works. Partial underperformance of the target repair program by Chelyabenergo was due to cancellation of the contract on the lease of OOO AES Invest's grid facilities (target repair and maintenance expenses: RUB 75.6 million). Total costs of the branches spent on outsourcing repair works totaled RUB 695 million or 14%, with RUB 4,134 million or 86% spent on in-house repair works.

The Company's repair program in 2020-2022

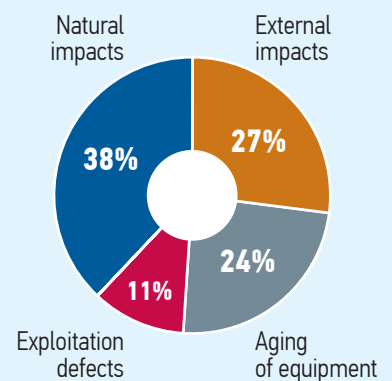
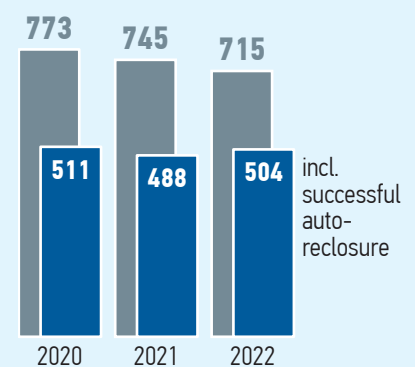
Works	2020 real values	2021 real values	2022 target values	2022 real values	% of completion
Power line corridor clearing, ha	9,426	10,258	9,954	10,387	104%
Groundwire replacement, km	291	209	243	258	106%
Insulator replacement, pcs	126,840	121,167	101,343	111,431	110%
Transformer overhaul, pcs	35	28	41	44	107%
Switch overhaul, pcs	1,726	1,712	1,527	1,605	105%
Overhaul of isolating switches, short circuitors, disconnecting switches, pcs	1,394	1,660	1,821	1,838	101%
Total repair costs, RUB mln	4,179	4,339	4,631	4,829	104%

Changes in repair volumes are attributable to natural fluctuations coming from repair periodicity. The repair program for 2023 totals RUB 5,807 million or +20%YoY, with RUB 5,007 million or 86% to be spent on in-house works and RUB 800 million or 14% to be spent on outsourcing works.

Description of incidents on network facilities in 2020-2022, incl. primary incident factors

A decline in the number of incidents on 110kV+ networks of the Company's branches totaled 4% on 2021 and 7.5% on 2020.

Incidents on 110kV+ networks, pcs



Primary factors of incidents on 110kV+ networks in 2022 are natural impacts, external impacts, aging of equipment, exploitation defects. In 2022, all branches of the Company achieved long-term reliability targets, set by the regional regulators, Permenergo and Chelyabenergo showed significant outperformance of the targets. Sverdlovenergo achieved the set target with allowances made for permissible variation coefficient of 30%, stipulated by the Guidelines⁹.

Reliability indicators

Branch	Isaidi, hour		Isaifi, pcs	
	Approved by the REC	2022 actual value	Approved by the REC	2022 actual value
Permenergo	2.8813	0.8002	1.4896	0.8398
Chelyabenergo	2.8813	1.7671	1.8737	1.0838
	ladiept, hours			
	Approved by the REC	2022 actual value		
Sverdlovenergo	0.0164	0.0170		

In 2022, to enforce reliable grid performance, the Company has approved a set of special-purpose programs on technical development¹⁰: programs on reduction of incident rate and enhancement of equipment reliability, maintenance and repairs, service checks, upgrade (retrofitting) of grid facilities, enhancement of fire safety, environmental safety, compliance with industrial safety requirements and enhancement of reliability of equipment, used at dangerous production facilities, equipment of special-purpose vehicles and transport with state-of-the-art security tools, lifting facilities, purchases of electric supply reserves. The primary expected effect from the special-purpose, repair and investment programs lies in the control of the level of incident rates and creation of conditions for achieving the reliability targets set by the regulators.

Consolidation of grid assets

OA IDGC of Urals (jointly with AO EESK) consolidates grid assets to shape a unified network area on the territory of the Company's operations helping create a single point of responsibility for reliable and high-quality electricity supply and providing additional possibility to connect new consumers to the consolidated networks.

Primary means of consolidation were:

- Lease of grid facilities. As of 01.01.2023 the volume of rented facilities and facilities with temporary right of ownership and use totaled 75,917 c.u.;
- Acquisition (the volume of grid facilities acquired under PSA totaled 1,733 c.u.);
- Uncompensated retrieval of grid facilities. We created hassle-free conditions for the transfer of grid facilities for any applicant. Applications on the transfer of grid facilities can be submitted through the corporate web site.

Consolidation of grid assets

Type of consolidation	2020			2021			2022		
	MVA	km	c.u.	MVA	km	c.u.	MVA	km	c.u.
IDGC of Urals' total	3,267	13,003	65,856	2,621	13,639	63,567	2,900	5,737	46,834
Acquisition of grid facilities	69	228	1,058	0	0	0	56	358	1,721
Rented grid facilities	3,180	12,736	64,654	2,603	13,501	63,106	2,824	5,221	44,632
Other (permanent rights of ownership and use)	17	29	114	11	61	256	13	82	274
Other (temporary rights of ownership and use)	1	10	30	7	77	205	7	76	207
AO EESK's total	550	1,300	7,913	585	1,328	8,397	1,266	9,356	31,317
Acquisition of grid facilities	0	0	0	0	0	0	0	0	12
Rented grid facilities	530	1,299	7,654	538	1,328	7,837	1,247	9,356	31,078
Other (permanent rights of ownership and use)	20	1	259	47	0	560	19	0	227
Other (temporary rights of ownership and use)	0	0	0	0	0	0	0	0	0

