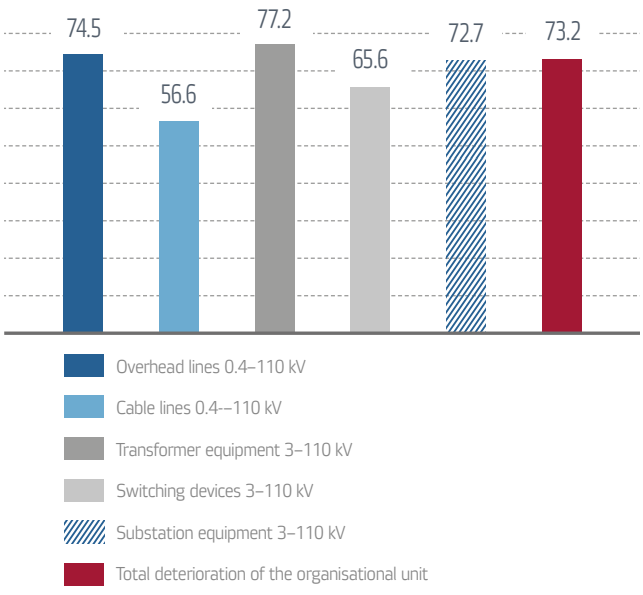
CHARACTERISTICS OF ASSETS

Assets controlled by IDGC of Centre[1]

Asset Name	Unit	2013	2014	2015
Substations, 0.4–110 kV	pcs	96,849	98,288	100,545
Installed capacity	MVA	51,312	52,008	53,674
SS 35-110 kV	pcs	2,359	2,363	2,372
	MVA	33,562	33,936	34,243
SS 6-35/0.4 kV	pcs	94,490	95,925	98,173
	MVA	17,749	18,072	19,431
Transformer substations, 6-10/0.4 kV	pcs	93,793	95,183	97,336
	MVA	17,227	17,592	19,013
Distribution points, 6–10 kV	pcs	697	742	837
	MVA	522	479	418
Overhead lines ROW length, 0.4–110kV	km	378,118	379,144	382,540
Conductors, 110 kV and more	km	21,596	21,601	21,638
Conductors, 35 kV	km	30,378	30,390	30,388
Conductors, 6–10 kV	km	170,645	171,230	171,822
Conductors, 0.4 kV	km	155,498	155,923	158,692
Cable lines length, 0.4–110 kV	km	13,846	14,259	17,156
Cables, 110 kV and above	km	35	36	36
Cables, 35 kV	km	20	26	26
Cables, 6–10 kV	km	7,322	7,552	9,142
Cables, 0.4 kV	km	6,469	6,645	7,952

Wear rate of electric grid facilities of IDGC of Centre,%



The level of deterioration at IDGC of Centre electric grid facilities belonging to IDGC of Centre did not change compared to the previous reporting period and amounted to 73.2% (as at December 31, 2015).

When calculating the assets' deterioration level, the lifespan of the facilities is taken in consideration:

- 25 years for substations and cable lines;
- 35 years for overhead lines.

[1] *Including the lease of and equipment serviced under the contracts.*

Reliability of fixed assets

Item	Unit	2013	2014	2015	Deviation 2015/2014 Abs.	Deviation 2015/2014 %
Errors by employees	pcs	13	8	1	–7	–87.5
Number of repeated trips of transformers of 35–110 kV	pcs	257	199	102	–97	–48.7
Average time of power supply interruptions (for feeders of 6–110 kV)	hours	3.18	1.53	1.72	0.19	12.4

Specific failure rate

Item	Unit	2013	2014	2015	Deviation 2015/2014 Abs.	Deviation 2015/2014 %
Number of process violations	pcs	29,265	20,797	16,736	–4,061	–19.5
Specific failure rate	pcs per 1,000 units of equipment	18.1	12.4	9.7	–2.7	–21.8

To ensure the operational reliability of its power grid facilities, IDGC of Centre has implemented the following actions:

- An Automated Production Assets Management System was deployed and is currently in use (hereinafter, the PAMS). More details on the Assets Management System are shown in the Company's Annual Report for 2014.
- Power capacities are renovated using innovative equipment.
- A multi-year special reliability programme is implemented.
- To minimise the consequences of equipment failures, all of the Company's production facilities were insured.

In addition to ensuring efficient operations, the Company implements its Repair Programme and performs preparatory works for operation during the winter-autumn season.

The technical state of the Company's assets and the quality of the management of power grid facilities influences the reliability of the performance of the power grid complex within the territory where IDGC of Centre's operates, and the quality of the Company's electricity transmission services.

REPAIR PROGRAMME

IDGC of Centre's Repair Programme was developed based on prospective (multi-year) schedules of power grid facilities repair, with consideration for equipment priorities, according to the technical state of the Company's power grid facilities and the consequences of their failure for consumers. The Programme includes the repair of main and auxiliary equipment, including clearing the electricity transmission line right-of-way from trees and bushes, the repair and construction of buildings and motor transportation. The Programme's planned indicators are approved on an annual basis by the Board of Directors, and are outlined in the Company's Business Plan.

In 2015, several of the Programme's activities were carried out in excess of target values due to the provision of additional activities completed for in preparation for the 2015-2016 autumn-winter season, including: the implementation of the supervisory authorities' instructions, and the implementation of emergency and repair works. The Company's specialists performed repairs on up to 18.5 km of power lines, 189 substations and on up to 4.8 transformer substations. The expenses for implementing the Programme amounted to over RUB 2 bn.

1,966.7 RUB mln
Expenses for the implementation of the Repair Programme in 2015

Results of implementing the Repair Programme in 2015

Indicator	Unit	Plan 2015	Actual 2015
Repairing the main equipment			
Power lines 35–110 kV	km	5,695.6	5,791.5
SS 35–110 kV	pcs	189	189
Power lines 0.4–10 kV	km	11,781.3	12,741.3
TS 6–10/0.4 kV	pcs.	4,119	4,760
Right-of-way clearing			
Conductors, 35–110 kV	hectares	6,055.2	6,151.2
Conductors, 0.4–10 kV	hectares	8,375.2	8,511.9
Costs			
Total costs	RUB mln	1,921.6	1,966.7
including main areas:			
Power lines 35–110 kV	RUB mln	112.2	118.2
SS 35–110 kV	RUB mln	299.4	309.0
Grids 0.4–10 kV	RUB mln	864.2	872.3
Right-of-way clearing, 0.4–110 kV	RUB mln	227.0	231.5