

Investment Activity



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Deputy Director General for Investment

"In 2016, the Company Investment Program was successfully implemented in the following areas:

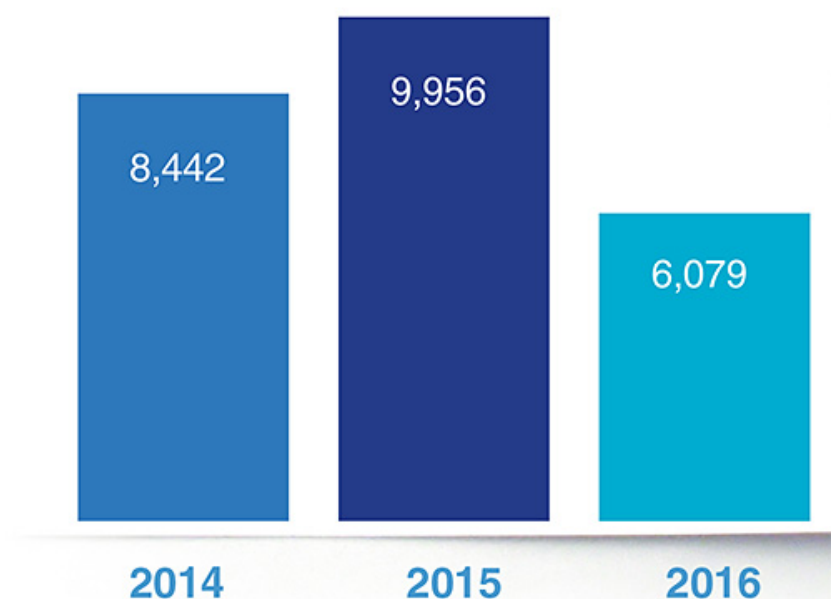
- use of capital investments in the amount of RUB 4,913.1 mln (excluding VAT) or 109% of the plan;
- deployment of fixed assets in the amount of RUB 3,602.0 mln (excluding VAT), or 108% of the plan, including 1,149.9 km of power transmission lines (125 % of the plan), 277.7 MVA of substations transformer capacity (129% of the plan);
- actual amount of finance totaled to RUB 6,078.7 mln (including VAT), or 100.5% of the plan in the reporting period."

In the reporting year, Kubanenergo PJSC investment activity was conducted within the implementation of the Investment Program for 2016 approved by Order of the Russian Ministry of Energy No. 1388 of 12/22/2016.

Main Results of the Company Investment Activity in 2016

Capital Investments	Deployment of Fixed Assets	Financing	Capacity Commissioning	
RUB mln, excluding VAT	RUB mln, excluding VAT	RUB mln, incl. VAT	MVA	km
4,913	3,602	6,079	277.7	1,149.7

Dynamics of Capital Investments of Kubanenergo PJSC in 2014–2016, RUB mln, including VAT:



In 2016, actual capital investments totaled to RUB 6,079 mln, which is 28% and 39% less than in 2014 and 2015, respectively.

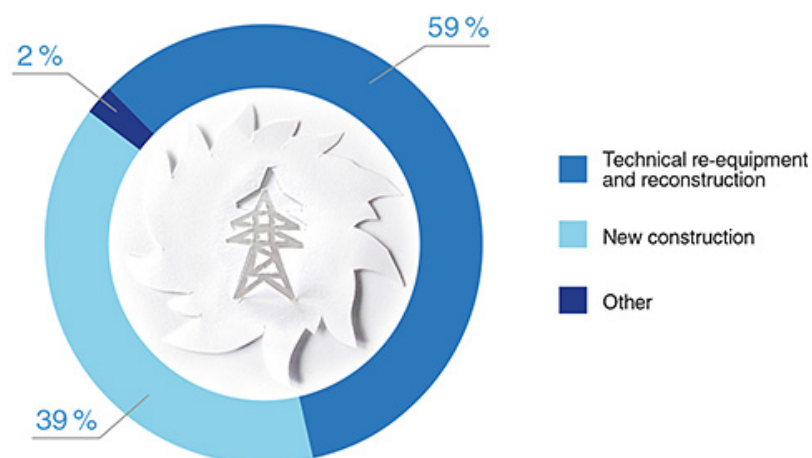
This decrease is due to the completion of works under the contracts for technological connection of state facilities required for energy supply of compressor stations at LLC Gazprom Invest, works on removal (reconstruction) of OHL 110 kV from Adler-Alpika Service Ski Resort road and railway construction area.

Areas and Financing Structure of Capital Investments

Main implementation areas of Kubanenergo PJSC Investment Program for 2016 are capital investments in technical re-equipment and reconstruction totaling to RUB 3,617 mln including VAT (59%). In the reporting year, capital investments in new construction totaled to RUB 2,364 mln including VAT (39%). Capital investments in other facilities (capital investments in intangible assets, fixed assets acquisition, research and development activities) amounted to RUB 98 mln including VAT (2%).

In 2015, the capital investments in technical re-equipment and reconstruction amounted to RUB 5,797 mln including VAT, which is 38% more than in 2016 and 12% less than in 2014.

Financing Structure of Capital Investments, RUB mln, incl. VAT



Investment projects	2014	2015	2016
Total	8,442	9,956	6,079
Principal projects, including:	473	1,063	1,490
Technical re-equipment and reconstruction	341	500	919
New construction	132	563	571
Programs of particular importance, including:	4,772	0	0
Technical re-equipment and reconstruction	4,342	0	0
New construction	430	0	0
Programs, including:	509	3,616	901
Technical re-equipment and reconstruction	508	3,604	830
New construction	1	12	71
Technological connection, including:	1,249	4,563	3,268
Facilities for technological connection with the capacity over 670 kW (HV, MV1)	270	2,661	650
Facilities for technological connection with the capacity of 150–670 kW (MV2)	71	88	94
Facilities for technological connection with the capacity of 15–150 kW	36	95	53
Facilities for technological connection with the capacity under 15 kW	872	1,719	2,471
Generation	-	-	-
Power distribution grids, including:	252	334	81
Technical re-equipment and reconstruction	252	331	81
New construction	0	3	0
Technological control automation (except for AEPCAS)	156	35	28
Electric power accounting and control tools	11	12	46
Safety programs	73	4	4
Acquisition of grid assets, plots of land and other facilities	0	0	80
Other programs and activities	947	329	180
Total	8,442	9,956	6,079
Technical re-equipment and reconstruction	6,518	5,797	3,617
New construction	1,913	4,153	2,364
Other	11	6	98

No investment projects were implemented using federal funds in the reporting year.

In the reporting year, a priority facility of Kubanenergo PJSC investment program, i. e. “Construction of Adygeyskaya SS 110/35/10 kV with installation of transformers having capacity 2x16 MVA with 110 kV overhead line approaches from 110 kV Shenji-Martanskaya OHL (2x0.5 km) and 35 kV Adygeyskaya PS-15 SS” totaling to RUB 465 mln, excluding VAT. Commissioning of this facility ensured growth of loads of Adygeysk as well as a possibility of connecting new power consumers.

Results of Investment Program Implementation for 2016

1. Implementation of measures on reduction of specific investment costs:

With the planned reduction of investment costs in the amount of RUB 265 mln, excluding VAT (22.5%), the actual reduction of costs at the year end 2016 amounted to RUB 381 mln, excluding VAT, that makes up 32%.

Reduction of construction (reconstruction) specific costs in the reporting year when compared to 2012 was:

Grid facilities	Actual in 2012	Actual specific indicator for 2016 measured in prices of 2012	Reduction of specific costs in 2016 against 2012
OHL	RUB 1,971 thou/km	RUB 864 thou/km	-56%
CL	RUB 10,578 thou/km	RUB 2,860 thou/km	-73%
SS	RUB 3,471 thou/MVA	RUB 3,099 thou/MVA	-11%

2. Performance of Agreements for technological connection in 2016:

Executed Agreements for technological connection	Total, pcs/MW	including privileged consumers categories
Total	36,258 / 617.89	31,421 / 333.45
including investment component	8,095 / 120.15	8,020 / 93.65

3. Actual level of power losses in 2016 amounted to 2,945.6 mln kWh or 12.96%.

4. Company capacity utilization amounted to 54.5% as of 12/31/2016, no open main substations growth was shown.

5. Company grid facilities wear level in 2016 was as follows:

- equipment – 83.17%,
- electric transmission lines – 75.5%.

6. Portion of the facilities with excessive service life in 2016 was as follows:

- cable lines – 48.75%,
- overhead lines – 67.49%,
- equipment – 79.42%,

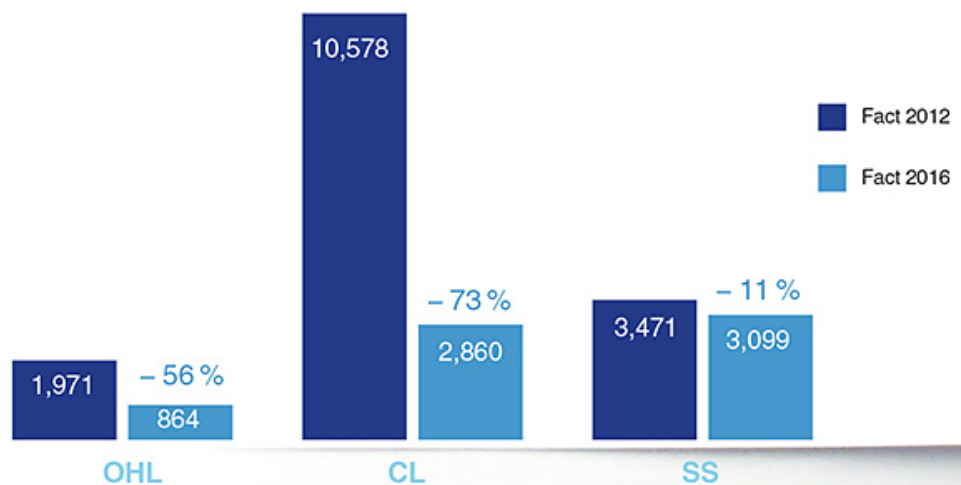
7. Specific accident rate in electric grids of 6 kV and above reduced by 1.6% at the year end 2016 when compared to the previous year (from 3.68 to 3.62 accidents/1000 c.u.).

Decrease of actual specific construction costs for distribution grids

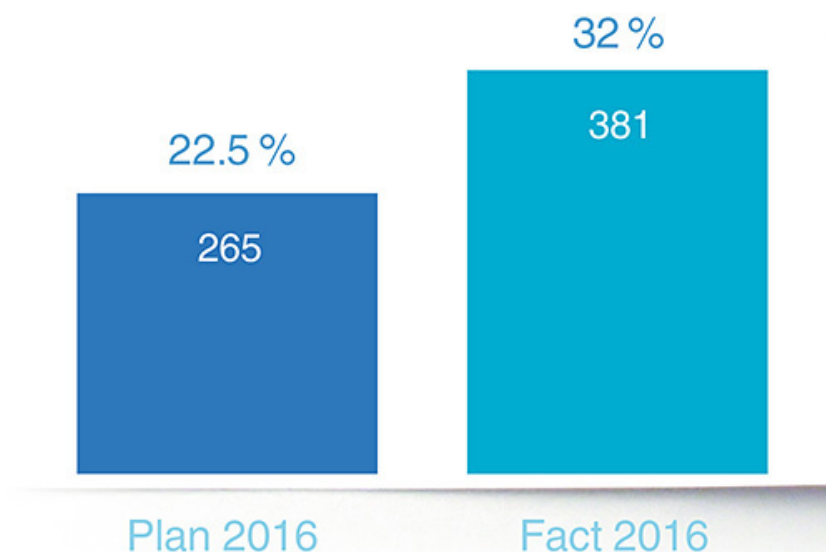
Name	Actual in 2012, RUB thou/(km/MVA)	Actual in 2016				
		Physical parameters, km/MVA	Deployment of fixed assets, RUB thou excluding VAT	Specific indicator, RUB thou/(km/MVA) gr.4/gr.3	Specific indicator measured in prices of 2012, RUB thou/(km/MVA) (gr.5/1.06/1.049/1.143/1.06)	Decrease when compared to 2012, in % (1-gr.6/gr.2)
1	2	3	4	5	6	7
OHL	1,970.68	1,127.58	1,312,011.09	1,163.57	863.69	56%
220 kV OHL (HV)						
110 kV OHL (HV)	27,518.00	12.52	49,434.08	3,947.15	2,929.88	89%
35 kV OHL (MV1)	2,163.00	11.16	29,347.73	2,630.90	1,952.86	10%
1–20 kV OHL (MV2)	1,286.00	85.11	141,443.06	1,661.96	1,233.64	4%
0.4 kV OHL (LV)	1,170.00	1,018.79	1,091,786.21	1,071.65	795.46	32%
CL	10,577.61	22.286	85,873.64	3,853.26	2,860.19	73%

220 kV CL (HV)						
110 kV CL (HV)	134,457.00	0.48	9,853.67	20,528.48	15,237.84	89%
20–35 kV CL (MV1)						
3–10 kV CL (MV2)	5,659.00	17.81	68,614.84	3,852.60	2,859.70	49%
CL under 1 kV (LV)	2,070.00	4.00	7,405.13	1,853.14	1,375.54	34%
SS	3,471.01	277.727	1,159,519.74	4,175.03	3,099.04	11%
SS, input voltage level 110–220 kV HV	3,464.00	32.00	450,367.64	14,073.99	10,446.81	-202%
SS, input voltage level 35 kV MV1	4,734.00	12.60	17,756.13	1,409.22	1,046.03	78%
SS, input voltage level 1–20 kV MV2	3,703.00	233.13	691,395.97	2,965.75	2,201.41	41%

Specific construction cost indicators for distribution grids (RUB thou, excl. VAT; in %):



Effect from investment costs decrease for distribution grids (RUB thou, excl. VAT; in %):



Capital Construction Quality Control

The company carries out construction supervision to verify compliance of works performed during construction and reconstruction of capital facilities with the requirements of the following documents:

- design documentation;
- technical regulations;
- urban land development plan;
- results of engineering surveys.

The Company performs construction supervision.

The Company implements construction supervision in accordance with the Town-Planning Code of the Russian Federation, Decree of the Government of the Russian Federation “On Procedure for Construction Supervision During Construction, Reconstruction and Overhaul of Capital Facilities” No. 468 of 6/21/2010, etc.

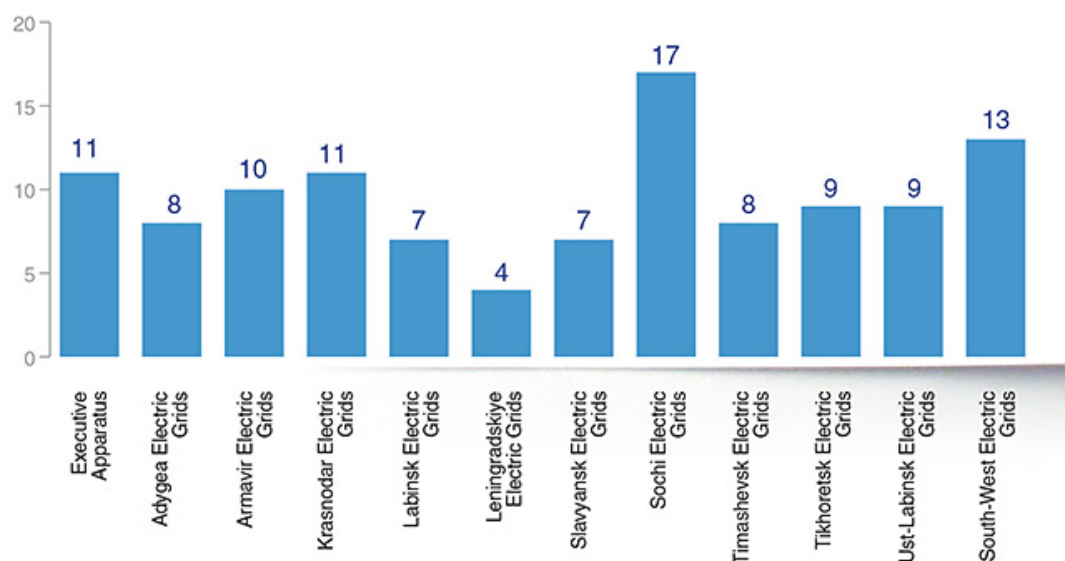
In order to perform quality control and quality management of the capital construction and the construction supervision, the Company applies the following local regulations:

- Order of Kubanenergo PJSC “On Approval of Procedure for Construction Supervision at Facilities of Kubanenergo PJSC Electric Grid Complex” No. 1036 of 12/10/2014;
- Order of Kubanenergo PJSC “On Approval of Methodological Guidelines for Confirmation and Acceptance of Scope and Quality of Installation and Construction Works Performed by Building Contractors at Electric Grid Facilities of Kubanenergo PJSC” No. 1110 of 12/29/2014;
- Order of Kubanenergo PJSC “On Approval of Procedure for Commissioning of Kubanenergo PJSC Completed Facilities” No. 304 of 4/13/2015 (as amended by Order No. 550 of 7/2/2015 and Order No. 1052 of 12/7/2015);
- Order of Kubanenergo PJSC “On Approval of Procedure for Maintenance of As-Built and Acceptance Documents at Facilities of Kubanenergo PJSC Electric Grid Complex” No. 1020 of 11/30/2015;
- Order of Kubanenergo PJSC “On Approval of Procedure for Implementation of Kubanenergo PJSC Investment Projects in Part of Fulfillment of Design and Survey Works, Execution of Initial Permissive Documentation and Performance of Construction and Installation Works” No. 784 of 8/30/2016.

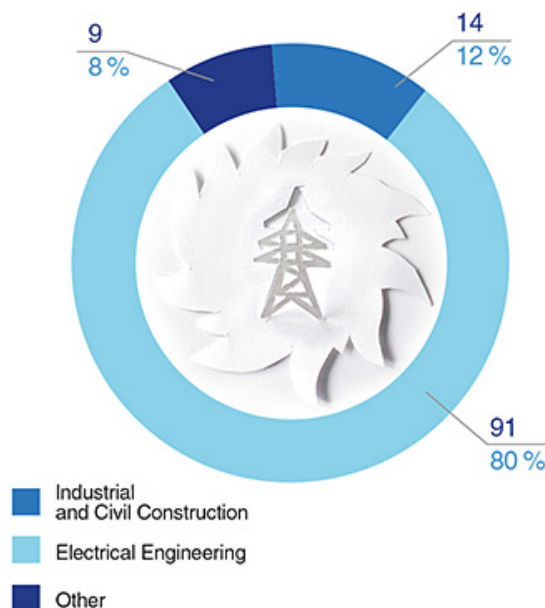
Company’s resources for construction supervision.

The Capital Construction Department is responsible for arrangement and implementation of construction supervision at Kubanenergo PJSC. The Company affiliates perform construction supervision at their facilities under the supervision and with participation of the Capital Construction Department.

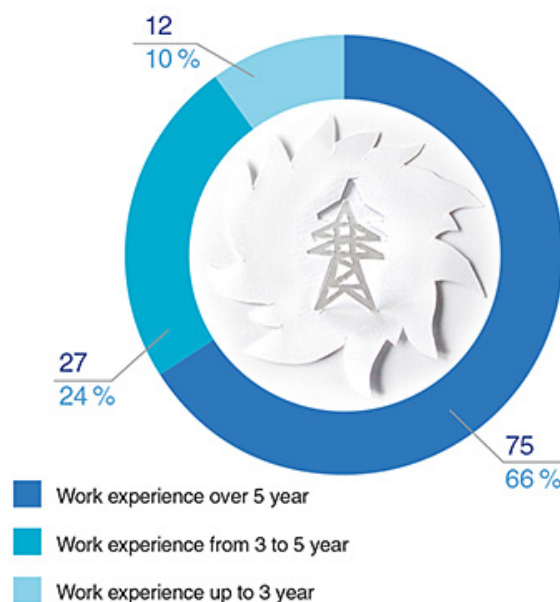
In 2016, 114 specialists of Kubanenergo PJSC were involved in the construction supervision: including the affiliated companies:



Vocational education of the Company's specialists performing the construction supervision in 2016



Work experience in Power Engineering of the Company's specialists performing the construction supervision in 2016



In the reporting year, JSC RDEC IDGC was engaged in performing independent construction supervision in relation to the facility "Construction of two 110 kV Gemete-Pionerskaya CLs with installation of 110 kV cells at 110 kV Gemete SS".

In the reporting year, the portion of facilities covered by the independent construction supervision made up 1.1% of the projects under construction.