

## Grid Connection

It is quite difficult to assess the share of the grid connection market taken by JSC IDGC of the North-West. There are a number of territorial grid companies that render grid connection services in the regions where JSC IDGC of the North-West operates. They are main competitors of JSC IDGC of the North-West for grid connection services.

Based on expert assessments of Company management, the share of JSC IDGC of the North-West on the grid connection market in the Northwestern Federal District varies based on the region and voltage level in the grids to which connection is made.

For all regions within the area of responsibility of JSC IDGC of the North-West, the market share with regard to a voltage level of 35 kV and more is almost 100%.

As for voltages of 0.4 kV to 20 kV, the market share is different and varies from 100% at Pskovenergo to 3% at Kolenergo. The market share at this voltage is distributed as follows: Karelenergo — 80 %, Komienenergo — 80 %, Arkhenergo — 70 %, Novgorodenergo — 62%, and Vologdaenergo — approximately 58 %.

Such difference by region is related to the established ownership of grids of each level of voltage. There are almost no 0.4 and 10 kV grids on the balance sheet of Kolenergo, therefore, this branch made very few grid connections at this voltage level. Pskovenergo owns most of the grids of this voltage level in the Pskov Region.

### The number of grid connection requests in 2010–2014 by voltage range (excluding electricity generation facilities)

Period	0.4 kV		6–20 kV		At least 35 kV	
	units	for total power, MW	units	for total power, MW	units	for total power (N), MW
2010	17,845	454.11	713	358.93	16	152
2011	24,400	401.53	1,063	408.07	13	142
2012	30,045	484.55	1,044	527.26	27	244
2013	32,336	578.91	1,161	690.84	34	314
2014	30,824	551	1,148	706	38	340

Before 2014, there was a trend towards an increase in the number of submitted grid connection requests for all voltage levels. However the number of requests for voltage 0.4 kW submitted in 2014 decreased. The reduction was caused by amendments to current legislation pertaining to grid connection. Thus, since October 25, 2013, the applicant has had the right to connect to its grids electricity receivers for a grid connection fee not exceeding RUB 550 no oftener than once during three years in municipal districts, urban districts, and intra-city areas of federal cities. This amendment contributed to a significant reduction of the number of requests submitted by an applicant.

### The number of grid connection requests submitted in 2014 by voltage range (excluding electricity generation facilities)

Branch/IDGC	0.4 kV		6–20 kV		At least 35 kV	
	units	for total power, MW	units	for total power, MW	units	for total power (N), MW
Arkhenergo	3,881	91	282	144	9	21
Vologdaenergo	6,398	80	147	111	2	3
Karelenergo	2,699	41	98	43	9	40
Kolenergo	266	13	159	103	6	85
Komienenergo	4,357	106	117	60	8	102
Novgorodenergo	6,621	83	176	129	—	—
Pskovenergo	6,602	137	169	116	4	89
IDGC of the North-West	30,824	551	1,148	706	38	340

Most requests for connection to grids with a voltage level of 0.4 kV are submitted to the branches of Novgorodenergo, Pskovenergo, and Vologdaenergo in the regions where cottage and private house construction is in full swing.

