

Interview with Andrey Murov First Deputy General Director – Executive Director, Rosseti PJSC

1) What are the key tasks for the development of transmission grids and the Russian energy sector as a whole necessary to ensure sustainable power supply to consumers?

Today, Russia is witnessing implementation of multiple macroprojects aimed at promoting social and economic growth of the regions, launching new mining and processing enterprises, increasing the throughput capacity of the North-South and West-East international transport corridors, including the Trans-Siberian and Baikal-Amur railways. To address these issues, the government has developed a comprehensive plan for upgrading and expanding the infrastructure. As Rosseti FGC UES (the Federal Grid Company – part of Rosseti Group) makes a substantial contribution to this campaign, this is our absolute priority for the upcoming years. Eventually, we are determined to ensure the guaranteed supply of affordable electricity to consumers.

We have already completed some of the projects. For example, in 2019, we commissioned two new power hubs in Eastern Siberia making it possible to close the 3.3 thousand km long energy ring. The project involved energy, industrial and transport companies. Thus, Rosseti FGC UES commissioned a total of 918 MVA of capacity and 791 km of transmission lines. All these efforts provided favorable conditions for the development of regions, launch of new petrochemical, gold mining and gas production facilities, as well as enabled improving the reliability of power supply to railway facilities and the Eastern Siberia–Pacific Ocean oil export pipeline.

Like many other countries, Russia is becoming increasingly environmentally conscious, which stimulates the development of renewable energy generation and related technologies. These processes have not changed the market very much so far, but still there is some progress that cannot be ignored. Specifically, within the previous investment cycle, Rosseti FGC UES focused on building a network infrastructure for the delivery of power from thermal, nuclear and hydroelectric power plants, whereas our plans for the next five years include many projects related to connecting renewable energy facilities to backbone grids in various regions up to the Far North.

We are committed to securing reliable power supply and optimizing costs, which allows us to keep our services competitive. Digital transformation is the key element of our strategy. We expect it to pay off in the short run by improving the quality of electricity supply while reducing the operating costs. In this area, as far as transmission grids are concerned, our priority is to increase the proportion of low-maintenance, yet resilient digital energy facilities. By 2025, we plan to implement more than 30 complex digital projects (substations) and bring over 100 substations under remote control. By then, the infrastructure of the Unified National Power Grid will be 100% digitally accessible, and all energy facilities will be monitored remotely from single control centers.

In addition, we have a number of initiatives to reduce the environmental impact of the fuel and energy complex. One of them is the “Energy-Efficient Substation” project that we have developed and are now introducing. It provides for the implementation of technical solutions that will enable reducing internal energy consumption up to 50% at the existing energy facilities.

2) Looking into the future, how do you see the industry in the mid-century? What new technologies do you think will be used?

As I have already said, today we see the prerequisites for a change in the structure of generation, such as the lowering cost of energy from renewable sources, and the new emerging class of consumer producers, prosumers, who themselves become part of generating capacities. The emergence of effective energy storage systems will further enhance these processes.

This raises a question: what will happen to centralized power supply systems? Are they likely to ‘scatter’ into dozens or even hundreds of microsystems that are ‘bound’ to specific consumers?

I don’t think that such a scenario would be the best option for Russia, a vast and geographically diverse country with a robust nuclear and hydro power generation, and numerous energy consumers of epic proportions, such as megacities, industrial clusters, and transport hubs. A compromise development model is most likely to be worked out, with the new generation models and accumulation systems phased into the existing power supply system wherever reasonable. This process can be optimized by introducing smart meters, digitalizing power management systems, and boosting the capacity of communication channels.

3) What about your human resources strategy? Any changes?

We have always considered professional development to be one of the top priorities. Today, its importance is greater than ever, because there’s a growing need for multidisciplinary specialists, I mean, power engineers, who also possess expertise in IT, communications, cybersecurity, and a good command of foreign languages to adopt the world’s cutting-edge practices.

The company has been developing new training programs and upgrading its own training facilities to keep pace with the latest digital technologies and equipment. Besides, we offer our employees retraining courses to acquire new professional competencies.

Moreover, we have been willingly taking part in staff training for the future energy industry, while enhancing the cooperation with other energy companies, universities and the international industry community. The Rosseti company teams up with industry-specific universities and colleges to design the new and update the existing curriculums, as well as to arrange training labs and digital equipment testing facilities. We give much emphasis to engaging undergraduates and postgraduates in research activities, and to carrying out the Young Professional program allowing the young talents to harness their potential, together with RNC CIGRE Youth Section.

4) How can CIGRE contribute?

The main advantage of participating in the CIGRE activities is making the international expertise and mechanisms for forming the power industry regulatory framework accessible to Russian specialists. By scaling up scientific and technical collaboration, we more than strengthen the reliability and add to the efficiency of national energy sector – we open up new opportunities for international cooperation. To illustrate the point, we have the agreements signed on the sidelines of the 47th CIGRE Session: on the transfer of innovative technologies from Russia to India and Portugal; on the implementation of joint projects with our partners in the United States and the Netherlands; on cooperation with our Chinese colleagues in the field of certification of product compliance with IEC and other regulatory documents.

Besides, as I have already noted, we have been keenly engaged in the RNC CIGRE Youth Section activities. This is where Russia plays a leading role, by having arranged the world's largest agenda of youth events that involved about 7 thousand people in 2019 alone. Apart from enthusiastic participation in global scientific cooperation, the young bloods of Russian power engineers become inspired protagonists of the new ideas in international projects. This paves a promising way for the industry to keep evolving further, well into the future.

Rosseti FGC UES – company profile

Rosseti is one of the world's largest power transmission system operators. It runs 2.37 mn km of power lines, 517 thousand substations with a total transformer capacity of over 802 GVA. In 2019, the company supplied 763 bn kWh of usable energy to end consumers.

Rosseti is the parent company of 88 subsidiaries that are active in 80 regions of Russia. The group incorporates, among others, Rosseti FGC UES that operates a transmission system comprising 148.3 thousand km of power lines, 951 substations with a total capacity of 352.9 GVA.

Andrey Murov – career profile

Doctor of Economics, Andrey Murov began his career in the electric power industry in 2012 as Deputy General Director of IDGC Holding JSC (currently Rosseti PJSC). Previously, he worked in telecommunications and pharmaceutical industries. For a few years, he was in charge of one of the Russia's largest international airports, Pulkovo in St. Petersburg. In 2013, Andrey Murov took over as Chairman of the Management Board of FGC UES, PJSC and in 2015 he headed the Russian National Committee of CIGRE. In 2020, Andrey Murov was appointed to the post of First Deputy General Director – Executive Director of Rosseti PJSC. Within his new métier, he coordinates the holding's operations, including those of Rosseti FGC UES.