

ГОРЯЧАЯ ЛИНИЯ ДЛЯ СООБЩЕНИЙ О НАРУШЕНИЯХ

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In an interview with sibgenco.online, Anton Danilov, Energy Markets Director of Siberian Generating Company, spoke about what causes the growth in demand for electricity, explained the purpose of surplus capacity in the Russian region of Siberia.

- According to Kommersant newspaper, the demand for electricity in Russia has changed from growth to a steady decline. Do you agree?

- I would not say that. In the European part of Russia, electricity consumption in 1H 2022 grew 0.5% year-on-year, and in Siberia the growth was 3%. There is no decline, but a variety of trends across a number of industries. For example, the oil and gas sector started 2022 with a significant increase, but by March dropped to the previous year's levels due to well-known events, and it is still there. The situation in the regions is just as ambiguous. The Irkutsk energy system added 9%, including because of the commissioned Taishet Aluminium Smelter (phase 1) and increased cryptocurrency mining, whereas the Kuzbass system shrank by 3%, including due to own commissioned generation facilities by some of the consumers.

- How has the shutdown of production, in particular the automotive industry, affected consumption?

- Of course, energy-intensive industries and their shutdown have an impact on electricity consumption, but not as significant as the oil and gas sector. I cannot say that the shutdown of any car production line, or even several ones, had catastrophic consequences. Discontinued electricity exports to Ukraine, the Baltic states and Europe have a much greater impact. However, this factor cannot ruin our energy system either.

- How do electricity prices perform in the wholesale electricity market?

- Since the beginning of the year, we have been witnessing growing DAM (day-ahead market) prices, both in Price Zone 1 (European Russia and the Urals) and 2 (Siberia). With that, in Siberia, the increase in DAM prices exceeded 20% in some months.

Talking about the dynamics, indeed, in Price Zone 1, as compared to 2021, there was a steady increase (6-9% in January-May), which transformed into a 3% decline in June. For Siberia, the upward trend in DAM prices continued and reached 24% year-on-year in June.

- Can you explain what is the reason for such a price increase in Siberia?

- A significant factor was the contracting hydro generation. The Yenisei hydropower cascade saw a serious reduction in energy production in May and June. For example, the Sayano-Shushenskaya HPP reduced its output by 58%. This is because of extremely low water levels in this cascade. The price growth was also affected by major and lengthy repairs of networks between the Irkutsk and Krasnoyarsk energy systems that locked the cheap hydraulic power from the Angara hydropower cascade.

Moreover, it is important to look at present or absent network restrictions. Last year, there were more restrictions in Price Zone 2, and they concerned both transit between Siberian regions and electricity flows between the Urals and Kazakhstan, which caused a sharp drop in Siberian prices, sometimes to zero. This year, network restrictions are much less frequent, including due to the advanced analysis mechanisms introduced by the System Operator (stability factor monitoring system), which require no serious and expensive technical measures to boost the transmission capacity of power grids without taking elevated risks of system accidents.

- Are network restrictions caused by objective reasons related to capacity decommissioning or grid repairs?

- Network restrictions are associated with the maximum allowable power flows. The regulator (system operator) sets the levels of such flows, taking into account grid repairs, decommissioned control equipment, power balance situation, etc. This is a fairly formal procedure. This year, there are much fewer network restrictions, and we can say that the system has become more balanced, and, accordingly, the price is fairer. When network restrictions are imposed, the system is automatically divided into some local zones: with a generation surplus (significantly falling pricing) and deficit (rising prices). Last year, the Siberian energy system was more restricted and had a surplus; despite connecting Siberian generation facilities, the System Operator could not transfer all its capacity to the regions included in the Price Zone 1. Accordingly, DAM prices were significantly below the normal level, and this year they are closer to the norm.

- So we can say that the growing electricity consumption in Siberia and loaded heat generation is the answer to the question 'Why do we need spare capacity?', right?

- I think, yes. The entire spare capacity in Price Zone 2 is needed for long-term repairs, major accidents and low water levels, which limit HPP generation. This year, the share of hydrogeneration is 52%, while last year it stood at 56%. Therefore, to

cover the increased consumption, a lot of backup and not very efficient equipment is now on. Heat generation is operating in the mode of intense balance regulation with regard to the energy system of Siberia: up to 10 turbine units can turn on and then off the next day, while standby reserves in the energy system of Siberia are now at a minimum. Therefore, before abandoning reserve generating capacities, we need to look at the current and prospective modes, and think twice, or better three times, because restoring reserves is ten times more expensive than maintaining them.

- *What is your forecast for the summer? Will the wholesale electricity market prices continue to rise?*

- The economic situation is volatile, so it is rather problematic to build long-term forecasts. However, the dynamics from March through to July suggests that consumption will not fall significantly.

As for the European part of Russia, the consumption associated with the air conditioning load is already peaking in the southern regions of the country. The two hottest summer months are ahead, which means that the trend will persist, and we will generate and supply more energy.

In Siberia, natural limitations imposed on hydroelectric power plants will remain, and the stations will switch to water accumulation mode in order to reach normal levels by autumn. More load will be placed on Siberian heat generation.

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