

Energy Costs: The Trend Is Reductions

IN TODAY'S WORLD, ENERGY SAVING AND, AS THE CONSEQUENCE, THE REQUIREMENTS TO INCREASE ENERGY EFFICIENCY OF OPERATIONS BECAME THE STRATEGIC OBJECTIVES OF TECHNOLOGICAL DEVELOPMENT OF ANY COMPANY, INCLUDING THE CPC THAT IS WORKING ON SIMILAR PROJECTS.



Elena Glybina

integrate data from the SCADA and ASP on the consumption of electricity by the CPC facilities, as well as to obtain the necessary parameters of the pipeline operation," says the Chief Power Engineer of CPC Elena Glybina.

BENEFITS OF PLANNING

From the beginning of 2017, the CPC-R, JSC, started to acquire electricity on the wholesale market through an independent energy sales company. The results of the first quarter of 2017 indicated that the economic effect of these measures was 27 million rubles, or 7% of the total cost of electricity. And it is not the limit yet. As the specialists of the Consortium note, the maximal economic effect of entering the wholesale market depends on the accuracy of electricity

consumption planning. For example, in the first quarter of 2017, there was a difference between the actual and planned amount of electricity consumed, which lead to the increase in expenses on electricity by 11.5 million rubles, or 4 % of the total expenses on the purchase of electricity and capacity.

Therefore, to achieve the projected electricity consumption level, the CPC specialists have designed and now are gradually implementing a certain set of measures. The latter provide for the monitoring of information on the mainstream and integrated energy efficiency indicators and timely exchange of information between the Commercial Department, the Technology Calculation Group and the Dispatching Service on the actual and planned modes of oil transportation.

THE GOAL IS TO MINIMIZE EXPENSES

"Another measures for the minimization of expenses by CPC-R on the purchase of electricity include the introduction of an automated system for the integrated accounting of energy resources to optimize the planning for electricity and natural gas. Before accomplishing the abovementioned measure, there will be an implementation of a software package for checking the accuracy of billing by the energy suppliers and mutual settlements in the wholesale electricity market," explains Elena Glybina.



GOING FOR THE WHOLESALE MARKET

One of the key elements of energy efficiency program being developed at CPC is the minimization of expenses on the purchase of electricity and conservation of energy resources. The first step towards this goal was the development and implementation of an automated measuring and information system for electric power fiscal accounting (AIIS KUE) introduced at the sites of CPC-R and the Consortium's entering the wholesale electricity market of the Russian Federation.

"In 2017, specialists of CPC-R developed and implemented specialized software systems like an automated planning system (ASP), designed for gathering, processing, and analyzing the planned and actual volumes of consumption of electricity; an automated data collection system (ASSD), which allows us to

Of course, similar measures for improving the energy efficiency are being developed for the facilities of the CPC-K. To minimize the cost of the purchase of electricity, there will be a change for them in the process of buying electricity. It will be implemented by entering the wholesale electricity market of the Republic of Kazakhstan. Here we are talking about the facilities that meet the requirements of the wholesale market. As for the rest of the facilities, they will be serviced by a different energy supply organization that could offer the most favorable electricity tariff.

In line with the energy consumption minimization process, in the coming years there will be an upgrade of the AIIS KUE system at the sites of CPC-K to provide data transfer to the server installed at the Marine Terminal of the Consortium. Besides that, there will be implementation of an automated system for integrated accounting of energy resources, necessary for the optimization of the planning process.

ACCORDING TO INTERNATIONAL STANDARDS

Transportation of oil by the CPC facilities requires not only the use of electricity, but also a natural gas. For that reason, the Consortium



specialists have been developing measures to reduce the costs of its purchase on the territory of the Russian Federation and the Republic of Kazakhstan.

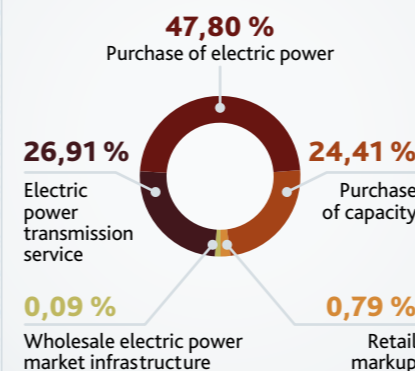
"In 2017, the Consortium will conduct an energy survey of the CPC facilities and will develop an Energy Efficiency Program of the CPC, for 2018–2022. It will be done to determine the priority areas for the increase in energy efficiency. In 2018, the CPC is planning to introduce an energy management system in accordance with the requirements of the international standard ISO 50001:2011," summarizes Elena Glybina.

It is also worth noting that the Consortium's success in the field of energy saving and efficiency has already been highly appreciated by

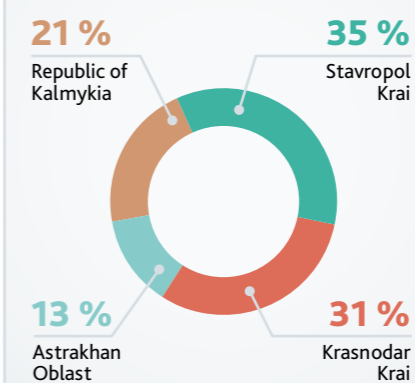
international experts and colleagues from other countries. For example, the International Association of Oil Transporters (IAOT), which has the CPC as an observer, awarded the Consortium the third place for energy efficiency among the IAOT member companies in 2016. Within the IAOT, a permanent expert group developed and implemented a methodology for assessing the energy efficiency of member companies (the Method for Energy Efficiency Benchmarking), which allows not only to assess how efficiently the energy is used by a company, but also to give valuable recommendations on improving energy efficiency in its activities, as well as familiarize oneself with the implementation of the proposed recommendations in other companies. ■

by Pavel Kretov

ELECTRIC POWER COST DRIVERS IN 1Q2017



CPC-R CAPACITY CONSUMPTION BREAKDOWN IN 1Q2017



CPC-R ELECTRIC POWER CONSUMPTION BREAKDOWN IN 1Q2017

