

## Digitalization of Energy: From Local Solutions to Industry Transformation

### KEY FINDINGS

#### **The digitization of energy is the key to its successful development and security**

“Digitization is an incredible challenge and an incredible opportunity for all of humanity. It is relevant to all areas, not least energy, given that energy is a very modern industry; by that I mean electricity, oil, gas, and coal,” Alexey Teksler, First Deputy Minister of Energy of the Russian Federation.

“It is interesting that the word ‘security’ has never been mentioned in this panel, when digital transformation, in my view, can produce fundamental effects in terms of predictive analytics of accidents, and creates the possibility of simply eliminating human involvement from the most dangerous chains in the production process,” Andrei Belevtsev, Director of Digital Transformation, Gazprom Neft PJSC.

#### **The state plays a key role in the process of the digitalization of industry**

“The state is a regulator on the market, and it sets the main parameters of its architecture. If we believe that digitalization is a manifestation of the impending industrial revolution, then we understand that in addition to shifting technology packages that we use in production, we will have to change the architecture of the market, the positions of participants, and corporate organization,” Vladimir Knyagin, Vice-President, Centre for Strategic Research.

“The place and role of the state is extremely important, especially in those areas that are regulated, and the new opportunities that appear in the state can also either give this process significant momentum, or slow down the process. Here we need correct, considered decisions,” Alexey Teksler, First Deputy Minister of Energy of the Russian Federation.

## PROBLEMS

### **Impossibility of making accurate forecasts**

“The biggest problem right now is that we are not able to give a forecast of consumption. We do not know whether the digital economy increases energy consumption or reduces it,” Dmitry Peskov, Special Representative of the President of the Russian Federation on Digital and Technological Development.

### **Data breaches**

“Any data ownership raises the question of how this data is protected. As soon as each corporation, even a large one, builds its isolated data storage and management system, it must protect every section of its perimeter,” Kirill Komarov, First Deputy General Director for Corporate Development and International Business, Rosatom State Atomic Energy Corporation.

## SOLUTIONS

### **Scaling up successful practices**

“A fundamentally important thing is the movement of small companies, that, with large players, are carrying out experiments within the framework of the ‘EnergyNet’ roadmap, and testing these solutions; this is the route from the bottom. There are already a fair number of experiments; conclusions can be drawn, and the time has come to scale up these decisions,” Dmitry Peskov, Special Representative of the President of the Russian Federation on Digital and Technological Development.

### **Permanent development and training**

“As soon as you give yourself a clear definition, you are limiting your development. In today’s world, when we have all the innovations readily available, the definitions of many things do not need to be given. We must grab hold of the trend and live in it. Understand that it allows one to get more comfortable market positions, increase one’s productivity and efficiency and move around in it,” Pavel Livinsky, General Director, Rosseti PJSC.

“We began to focus on creating a platform for creating large R&D IT centres. In order to do this, we not only changed our regulatory framework, introduced new terminology and therefore made it possible to do this, we also connected our Skoltech to this,” Oleg Dubnov, Vice-President and Executive Director of the Energy Efficiency Cluster, Skolkovo Foundation.

### **Cooperation between market players**

“No company, even one as large as ours, is unlikely to be able to independently create a completely isolated system that would collect, store, distribute, and process such data and maintain this entire system at a respectable level technologically, especially with an eye to the future,” Kirill Komarov, First Deputy General Director for Corporate Development and International Business, Rosatom State Atomic Energy Corporation.

### **Focus on reliability and security of new digital solutions**

“When effecting the transformation, it is very important to carry it out in such a way that during the transformation, one doesn’t make a mess of things, because any innovations that will be carried out cannot be implemented without investments. The question is the scale of these investments,” Boris Ayuyev, Chairman of the Board, JSC System Operator of the Unified Energy System.