

## **Gas-powered and Electric Vehicles in Russia: Possible Development Rates and Strategies**

### **KEY CONCLUSIONS**

#### **Switching vehicles to alternative fuels is a component for solving environmental problems**

“Motor transport is going through an era of substantial growth – 5% per year according to our estimates. By 2025, we expect there to be 450 vehicles per 1,000 people and motor vehicles to account for roughly 45% of gross emissions”, Russian First Deputy Minister of Natural Resources and Environment Denis Khramov said.

“We need to reduce cumulative emissions by 20% in the most polluted cities of Russia. This figure was given in the presidential decree”, Khramov said.

#### **NGV fuel is cheaper**

“The main component for increasing NGV fuel consumption is to maintain a substantial price difference between it and conventional fuel in the form of petrol and diesel”, Head of the Department of Automotive Industry and Railway Machinery at the Russian Ministry of Industry and Trade Denis Pak said.

#### **Infrastructure is fundamental for users**

“The more we build infrastructure, the more each unit that is built starts to be utilized. If you don’t have an opportunity to fill up your vehicle, you will never buy the right car”, Russian Deputy Minister of Energy Anton Inyutsyn said.

“The State Company Russian Highways has been developing multifunctional zones since 2010. This includes multi-fuel filling stations, including gas”, Deputy Chairman of the Board for Operation and Road Safety at the State Company Russian Highways Yury Bayramov said.

#### **Municipal transport is becoming a driver for switching to alternative fuels**

“We chose the location of our multi-fuel CNG filling stations in close proximity to bus fleet parking lots in Moscow and the Moscow Region since we expect the vehicles in these areas to switch to compressed natural gas. They are the ones that can give the first impetus to the avalanche that will then undoubtedly sweep over the whole country”, Neftmagistral Deputy General Director Kirill Malinin said.

### **Automakers are ready to meet demand**

“Our automakers are currently ready to increase production [of NGV vehicles and electric vehicles] by several times. It all depends on the willingness of the regions to purchase such equipment”, Denis Pak said.

## PROBLEMS

### **Russia is lagging behind in the introduction of NGV fuel**

“NGV fuel is growing at a pace of 25–30% per year around the world. Yet our country, which has, according to some estimates, the second or third biggest gas reserves in the world, of course, has an unacceptably small share of NGVs. We currently rank 114th in the world”, Denis Khramov said.

“Our vehicles are cut off from the European market today due to technical and environmental requirements. We can’t compete with them”, Deputy CEO for Strategic Development at the Central Research and Development Automobile and Engine Institute (NAMI) Alexey Gogenko said.

## SOLUTIONS

### **Increase investment in clean technologies**

“The Ecology national project was approved a week ago. It consists of several federal projects, one of which we called ‘Clean Air’. It provides funding, which we will protect. At present, according to our estimates, there are roughly RUB 110 billion in the consolidated budget, but mainly in the budget of the Russian Federation – roughly RUB 102.6 billion – earmarked for the implementation of measures associated with air purification”, Denis Khramov said.

“The bulk of funding for reducing emissions is from private sources. Extra-budgetary sources amount to roughly RUB 371 billion, according to our most conservative estimates”, Khramov said.

### **State support for the introduction of alternative modes of transport**

“The measures that we need to develop electric vehicles can also be used for NGV fuel. This includes subsidies for the development of this type of transport. We advocate abolishing import duties on electric cars, letting traffic drive in carpool lanes, free traffic on toll roads, and free parking. VAT subsidies are in place in several regions of Russia”, Chairperson of the Association for the Development of Electric, Unmanned, and Connected Transport and Infrastructure (AETI) Iya Gordeyeva said.

“If you want to increase the infrastructure network by several times in the near future and thus create demand for transport [using the new fuels], we need to subsidize this process. We will come to the government with an initiative to subsidize up to 25–35% of capital costs for every filling station”, Anton Inyutsyn said.

“We are transferring about 30 hectares of land fully equipped with infrastructure to anyone who comes to Tatarstan to build CNG stations”, Deputy Prime Minister of the Republic of Tatarstan and Chief of Staff of the Republic’s Cabinet of Ministers Shamil Gafarov said.

“We have converted about 2,000 units of equipment and made them run on gas. We have adopted a special programme in the republic to subsidize and convert vehicles to compressed natural gas”, Shamil Gafarov said.

“We are studying the issue of converting technology to a gas-diesel mode because it is now possible, quite cheap, and, most importantly, it is for the environment”, CEO of Green Auto Service and a Member of the Working Group of the Ministry of Energy of the Republic of Kazakhstan for the Development of the NGV Fuel Market in Kazakhstan Yerlan Nurpeissoov said.

### **Drafting of the appropriate legislative and technical regulation**

“We need clear regulation – legislative, first and foremost – for the process of converting municipal and state enterprises to compressed natural gas”, Kirill Malinin said.

“Technical regulation in all countries is an incentive for the development of new technologies”, Denis Pak said.

### **Incentivizing the development of new engines**

“One key thing is to incentivize new engine development. This will enable reducing costs and significantly increasing efficiency”, Anton Inyutsyn said.