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The Ministry of Industry and Trade (MIT) is aware of the importance of improving the energy performance of industry, transportation and buildings, and the related reduction in emissions produced through human activity. The Czech Republic is a country with one of the highest shares of industry in gross value added, at around 25% (the EU average is around 15%). This has a fundamental influence on the energy performance of the whole national economy of the Czech Republic. Hence the MIT, in cooperation with other ministries, is also working to reduce energy consumption in this country.

In this connection the MIT is preparing the National Action Plan for Clean Mobility (NAP) in cooperation with other ministries, domestic vehicle manufacturers, energy and gas companies, and other entities. It should provide an estimate of the envisaged number of vehicles running on alternative fuels in the Czech Republic in 2020 and the related infrastructure constructed.

The NAP will also be based around a requirement in the Directive on the Deployment of Alternative Fuels Infrastructure approved this year by the European Parliament. This requires that within two years EU Member States, including therefore the Czech Republic, prepare the relevant plans, including the stipulation of specific targets in terms of the number of filling stations and the wording of the main national legal regulations they will adopt. The exact numbers of vehicles can be estimated using the current trends in vehicle registrations and the advised offer of vehicles running on alternative fuels.

In the Czech Republic over seven million motor vehicles are currently registered, of which around 4.8 million are passenger cars. The sales volumes of electric and gas-powered vehicles remain very low, mainly as a consequence of the high acquisition prices, infrastructure availability, and the range of electric vehicles. In recent years the number of CNG filling stations has increased significantly, and vehicles running on this fuel are also finding more owners thanks to their lower operating costs. This year transport companies from selected regions will be able to draw down CZK 1 billion from a subsidy programme of the Ministry of the Environment to purchase new CNG-powered buses.

In connection with support for the development of CNG, a contract was signed between the MIT and gas companies in 2005. This was based on Resolution of the Government of the Czech Republic No 563 of 2005, which approved a programme to support natural gas as an alternative fuel in transportation. The excise duty on compressed natural gas (CNG) and liquefied natural gas (LNG) for transportation is at the minimum excise duty level stipulated through EU directives, and will remain so until 2020. A working group focusing on the possibilities for supporting CNG in the Czech Republic has also been established by the MIT.

According to current sales of gas-powered vehicles, the Czech Republic will fulfil the requirements of Directive of the European Parliament and of the Council on the Deployment of Alternative Fuels Infrastructure relating to vehicles running on this fuel type. In terms of electric vehicles, the numbers of charging stations are also increasing, yet vehicle sales remain under the estimates for both this country and abroad. We anticipate that electric mobility will take off in the Czech Republic only after

2020, when manufacturers will have to comply with  $CO_2$  emissions limits for new passenger cars that will lead to a significant representation of hybrid vehicles.

We are also introducing the National Action Plan for Smart Grids. Its objective is to stipulate locations in the Czech Republic that will be able to demand security of electricity supplies, or purchases from producers, without local grid stability being threatened. Recently there has been a significant increase in the share of renewables in the electricity grid, in particular in the form of distributed (decentralised) sources, and this is anticipated to increase further in the future. In the majority these are so-called intermittent sources, meaning sources with a character of production that is unreliable and often difficult to predict over the long term, with consequent unfavourable influences on the operation and stability of the grid.

Here we would also like to mention the area of research and development. Czech universities are cooperating with companies to test new materials that will help improve the energy performance of buildings. There is also, for example, the Centre of Vehicles for Sustainable Mobility, which researches new solutions and optimisations for piston engines for both vehicles and the energy sector. In addition, power plants for cars, including electric and hybrid, with the goal of helping improve the competitiveness of domestic companies and reduce the impacts of road transport in particular on the environment. The Czech Republic is the fifth-largest manufacturer of motor vehicles in the European Union. Many companies have constructed research and development capacities here. The results of this activity are then used not only within the framework of manufacturing in this country, but also abroad, and thereby help to improve the prestige of the Czech Republic. As part of the preparations for the operational programmes for the 2014 to 2020 period, the MIT cooperated with other ministries to support the development of clean mobility, energy infrastructure, and the introduction of new technologies in the area of energy management.

Using renewables, improving the energy performance of buildings, and supporting low-carbon technologies in industry and in transportation are, according to the long-term conceptual policy of the MIT, the right way to help improve the environment in this country and to maintain the sustainable development of society.