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FORTY MAIN GAS PIPELINES
(USSR)

[Translation]

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FOREWORD

This publication was prepared under contract by the UNITED STATES JOINT PUBLICATIONS RESEARCH SERVICE, a federal government organization established to service the translation and research needs of the various government departments.
"The Seven-Year Plan is devoting considerable attention to gas pipelines and the expansion of the gas industry. Can you tell us something of the use of gas in the national economy?" Mikhail Ostroumov, turner at the Kirov Plant in Leningrad.

We would like to start our talk on the future of one of the youngest industries, the gas industry, by turning directly to the map.

Look at the European section of our country: cutting across water, railroad and highway arteries broad bands stretch out in straight arrows. They fear no obstacles, neither swamps, nor rivers, nor railroads. These are the courses of the new gas pipelines which the country will have by 1965.

This map does not show existing pipelines, only those that are to be: 40 new gas trunk lines stretching out for 26,000 kilometers.

Natural gas from the very rich Dashava and Stavropol fields will come to the Baltic Sea. You see gas lines reaching from the southeast and southwest coming together in a gigantic junction at Leningrad. Along the way they will furnish gas to tens of large and small cities, hundreds of large and small villages. At Minsk a branch will lead off to the Baltic Region. This "tributary of the river of gas" will bring the bright blue flame to the inhabitants of Lithuania and Latvia.

Along the course of the Stavropol-Leningrad line lies the ring around Moscow. The first string of the Stavropol pipeline went into operation in 1956, as we know. The second string will furnish gas for the area around Moscow.
In ending our talk on the Northern Caucasus fields we must mention another pipeline to the Crimea, to Groznyy and Sochi.

Beyond the Caucasus extensive use will be made of casinghead gas. On the map you see a line from Tiflis and Erivan to Baku.

And how many cities have received and will receive gas in the Ukraine! There is Stalino and Dnepropetrovsk, Zhitomir and Kremenchug.

Now let's shift to another part of the country. Gas from Saratov will reach not only Gor'kii but even Yaroslavl and Cherepovets. From there, on the shores of the Volga, the gas pipeline will stretch out to Zlatoust. Here the Volga gas will meet gas from Bukhara.

Bukhara! This place needs a few special words. Just a year or two ago very few people had ever heard or knew about this very rich field, located in Central Asia. But today on the national gas distribution map we see lines running out from Bukhara to the capitals of the Central Asiatic Republics and to the north, up and up along the Urals to Sverdlovsk.

We have named only the more important arteries which will be supplying natural gas. We have as yet said nothing about the other types of raw material employed by the gas industry, such as shale, coal, and peat which will be of considerable value to the national economy.

The transportation of solid fuel over long distances is not economical. At the same time it is very convenient to use it to produce gas. This gas can be used to supply towns and districts lying far from the main gas pipelines and the methane fields. At present problems are being solved in the construction of gas plants operating on local brown coals which can be mined by the open-pit method in Siberia. Two or three such plants would suffice for a centralized gas supply for Novosibirsk, Krasnoyarsk and other cities.

There is also increased use of blast furnace gas, coke gas from coking plants and casinghead gas from oil fields and oil refineries. In 1957 work started in the Soviet Union on supplying gas from coke chemical plants to cities located near the metallurgical centers: Kemerovo, Nizhni Tagil, Chelyabinsk, Cherepovets, Krivoi Rog and Yenakiyevo.

In the next few years' large gas-gasoline plants will be going into operation. Their production of liquified gases - propane and butane - will exceed 900,000 tons per year and will increase by 1965 to 70 times the production of 1955. More than half of these gases will go to supply cities and for automobile fuel. Liquid gases are particularly handy to
use in rural areas and in suburban areas which lack city gas networks. One 25-liter tank of liquid gas will supply gas for a month to a family of 5 or 6.

The use of natural gas and gas obtained from other sources will make it possible to increase production in our country to approximately five times the 1958 level. This means that 150 billion cubic meters of gas will be produced per year!

We must point out that such a rate of development in the gas industry is without equal in the world.

The shift to gas fuel will make it possible to save 125 billion rubles. This will also be of great advantage to the public. By using gas the residents of three cities alone, Moscow, Leningrad and Kiev, will save yearly more than 350,000,000 rubles. For to boil one liter of water one has to use 10-11 kopecks worth of wood, 5 - 6 kopecks worth of kerosene, but only 0.9 kopecks worth of natural gas.

And what a savings in transportation!

Today, however, gas is not only a fuel but a valuable raw material for the production of various chemical products, with the synthetics in first place. A large amount of grain, fat and potatoes will be saved for public consumption. For instance to produce one ton of synthetic rubber it takes 8.8 tons of grain, 22 tons of potatoes, 25-40 tons of sugar beets but only 4.5 tons of natural gas. By 1965 there will no longer be any edible raw materials used in the production of rubber.

The gas industry has started on a great expansion. Its long-range goal is a 13 fold increase in production in our country in the next 15 years.