



## HELIUM TANK LOGISTICS CENTER (HUB)

A PROJECT IS IMPLEMENTED  
BY LLC GAZPROM GAZENERGOSET GELIY





# CRYOGENIC TECHNOLOGIES — FOR SOLVING IMPORTANT TASKS



## CRYOGENIC PRODUCTS

**Helium Tank Logistics Center (HUB)** will be located in Primorsky Territory in a Territory of Advanced Socio-Economic Development (TASED Nadezhdinskaya).

The objective is to provide commercial helium logistics from Amur GPP to ports of Primorsky Territory.

LLC Gazprom Gazenergoset Geliy provides design, construction, commissioning and subsequent operation of Helium Tank Logistics Center (HUB), and also creates service points and purchases required vehicles.

HUB is a complex of engineering facilities, which will provide the maintenance of liquid helium-filled tanks before loading at the ports of Primorsky Territory, and also empty tanks before filling at the Amur GPP. HUB throughput capacity, by the time of Amur GPP design capacity achievement in 2025, will reach more than 4 000 containers per year. The Logistics Center will occupy 16 ha.



### HUB WILL INCLUDE:

- 2 helium liquefaction plants (500 l/h each);
- air separation plant, producing nitrogen from atmospheric air and providing nitrogen liquefaction and storage.

### DESIGNED CAPACITY:

- helium – 60 mln nm<sup>3</sup>/yr in gaseous helium equivalent;
- gaseous helium (compressed) – 150 000 st.m<sup>3</sup>/yr;
- liquid helium in Dewar vessels – 150 000 l/yr;
- liquid nitrogen – 1,2 t/h;
- liquid oxygen – 0,4 t/h.

## FOR HIGH TECHNOLOGY DEVELOPMENT



# Oxygen

liquid oxygen



**AIR SEPARATION PLANT** is a part of technologic complex of Helium Tank Logistics Center. The facility is designed for liquid nitrogen producing. Liquid nitrogen is used for helium liquefaction and tank cooldown.

## FOR HIGH TECHNOLOGY DEVELOPMENT



# Oxygen

liquid oxygen

**LIQUID OXYGEN** — is an additional product, obtained by air separation.  
**LIQUID OXYGEN** has a boiling point of **-183°C**.

### LIQUID OXYGEN scopes of application

- welding mixtures
- rocket fuel
- catalyst for the oxidative reactions in chemical industry and metallurgy
- waste-water treatment
- medical breathing gases
- component of pharmaceutical products





CRYOGENIC PRODUCTS

 **Helium**  
liquid helium

 **Oxygen**  
liquid oxygen



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