

# The explanatory note

v.05

1. **Altay territory** is the only sugar beet zone from the Urals up to the Far East, 6000 km long, with the population 30 million people. Altay locates in the center of this area. There are three sugar factories in Altay region-Aleysk, Biysk and Cheremnovskiy. These three factories were built in the middle of last century. The only working sugar plant in the area is Cheremnovskiy («Dominant» group), capacity 4 500 tons of sugar beet per day. Biysk sugar factory now is at bankruptcy stage. On Aleysk sugar factory, we are developing a reconstruction project.
2. **The sugar beet yield** - sugar beet yield record for the whole Altay region was in 1990, it gave 750 thousand tons of sugar beet with the average yield from 2 to 6 tons per hectare. Today the average yield in the Altay region 33 tons per hectare, a record 60 tons per hectare with the sugar content 17.8%. That mean, for the same area of cultivation the average yield can amount to more than 3 million tons of sugar beet.
3. **Project peculiarities:**
  - Production on sugar beet - up to 280 days per year,
  - Lack of competition for raw materials,
  - Advantageous geographical trading position for export to Kazakhstan, Mongolia, China.
4. **Aleysk sugar factory - «brown field»**

This is a new construction on the old site with all communications, industrial infrastructure and labor personnel. A number of existing production facilities are suitable for subsequent use.
5. **Marketing:**

**Sugar** - closest to Altay region sugar factory is locates at a distance of about 2 thousand km. Transport capacity (competitive advantage) about 3 rubles per kilogram of sugar. Estimated consumption of sugar beyond the Ural - 1.2 million tons. The planned capacity 400 thousand tons.

**Sugar beet pulp** - food for cattle breeding, due to the fact, that there are no delivers from Ural due to significant transport component. Demand for animal feed in the surrounding regions of the Siberian Altay is not limited due to the developing cattle breeding.

**Sugar beet molasses** - feed additive, a valuable raw material for betaine production.

**Betaine (the crude product)** - a raw material component for future production of refined betaine, import substitution product, in demand for exports.
6. **Payback:** project payback is guaranteed during the settlement period, within the framework of plant capacity according to the marketing research of the Institute for Agricultural Market (IKAR) and competitive advantages of the project.
7. **Government support programs:** the project is included in the priority sectors of Russia, locates in the Aleysk monocity, and meets the essential directions of the Altay Territory development.
8. **Risks:**
  - a) Poor technical equipment of sugar beet farmers in parts of sugar beet harvesters,
  - b) Possible lack of liquidity in bringing the project to the basic idea of BIO-complex.
9. **Current stage:**
  - ✓ Business Plan,
  - ✓ Basic conceptual project - the German company BMA-AG,
  - ✓ Marketing Research - Institute for Agricultural Market Studies, Moscow,
  - ✓ Environmental impact statements - "Ekoaudit", Barnaul city,
  - ✓ Financial Plan - "Magistr", Barnaul city,
  - ✓ Preliminary Agreements of Intentions (builders, suppliers, customers, etc.),
  - ✓ Complete package of documents for funding under the requirements of Vnesheconombank.
10. **Primary Competitive Advantages:**
  - a. Availability of sufficient raw material base for sugar beet, lime, water and energy resources, relatively to European plants which lack of raw materials,
  - b. Climatic conditions enable us to apply North American raw materials storage technology of sugar beet in the Altay Territory, which will increase the life expectancy of the plant up to 280 days per year,
  - c. The content of sugar in sugar beet in the Altay region higher than the average sugar content in the whole Russia by 1%, thus significantly reduce the plant costs for sugar obtaining,
  - d. Sugar factory operation in the complex with workshop for production of betaine, bio-humus, fodder for cattle provide increased stability and conjunctival independence of the plant,
  - e. The climate conditions of the Altay Territory allow guaranteed to cultivate sugar beets to maturity even if weather conditions not favorable,
  - f. The geographical location of the project is reliably protected against the risks of transport component of Russia's entry into the WTO and the gradual decline after 2020 the duty level of protection against imports of sugar and sugar-containing products on the planned markets.