

Boguchansk Energy and Metals Complex (BEMO): Flagship Project in Siberia



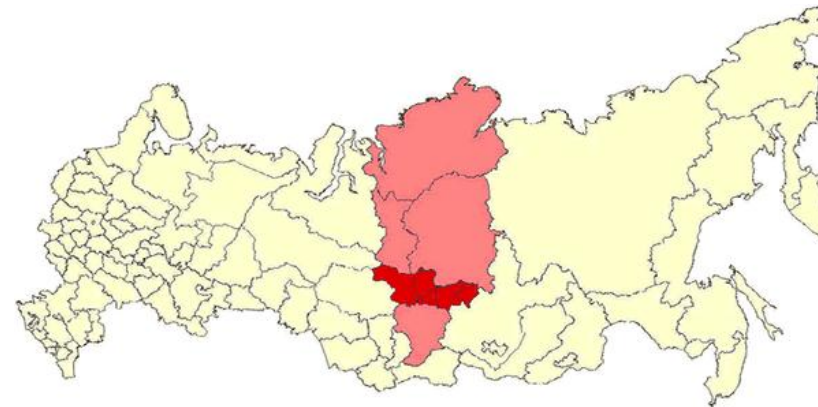
15 April 2011

BEMO . key project in Lower Angara development programme



Lower Angara region resources:

- Hydroelectric potential
- Forest resources (~30 million hectar)
- Bauxite, iron ore, gold, magnesite, niobium, lead,



The complex development programme for the Lower Angara territories includes development of transport and energy infrastructure, natural resources development and construction of production facilities based on cooperation and partnership between the Government and the private sector

BEMO is the key element of the Lower Angara development programme as it creates the power base needed for further natural resources development.

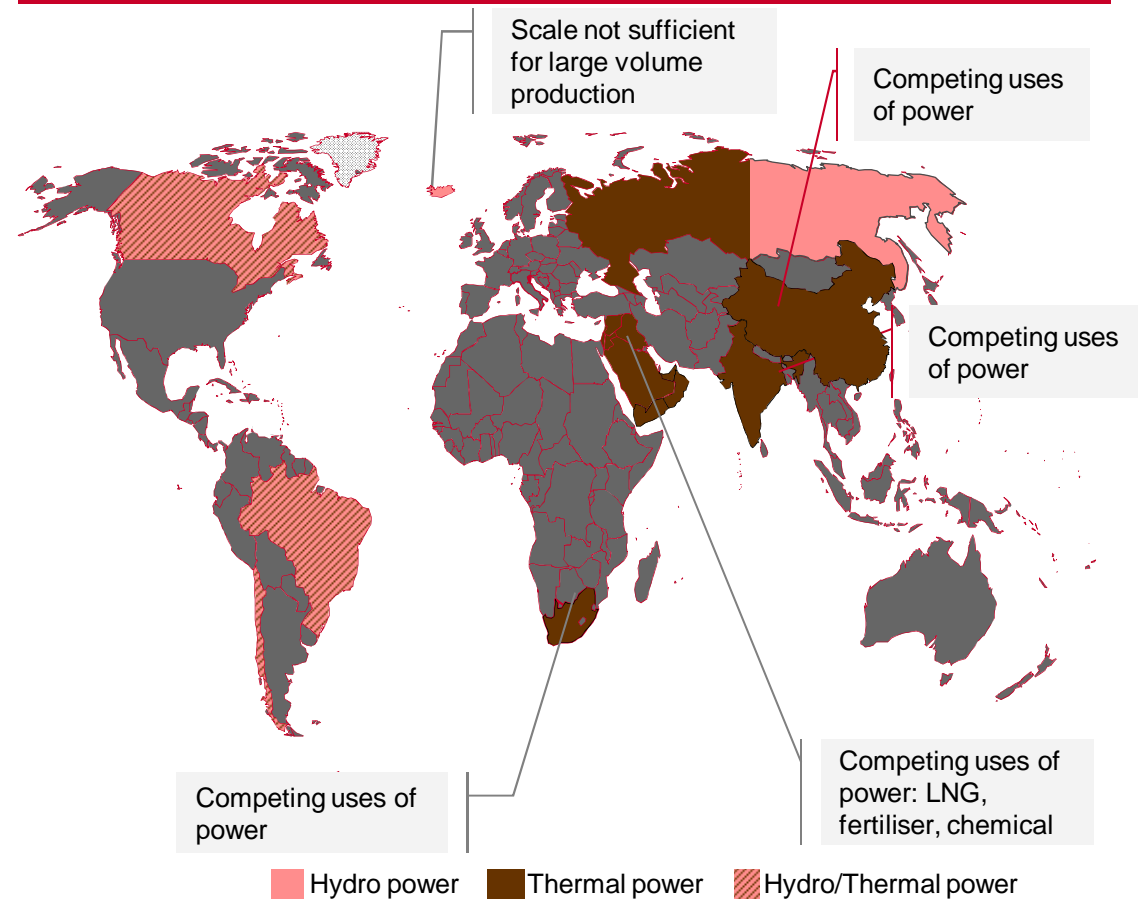
Power generation in Russia



Russian advantages

- As an energy-rich region, Russia is fundamentally one of the most attractive long-term locations for the aluminium industry
- Low-cost power generation base with largest energy infrastructure globally
- Abundant fuel reserves and hydro resources

Attractive locations for power-intensive industries



Low-cost power generation places Russia firmly ahead of other aluminium producing regions

UC RUSAL's energy strategy



- Development as a energy and metals corporation
- Building proprietary power generation facilities
- Long-term contracts for energy supply
- Construction of new smelter in conjunction with power supply sources

BEMO will become the unique energy and metals complex combining low-cost and eco friendly power generation and high efficient aluminium production facilities



BEMO project: history



- The construction of the Boguchansk Hydro Power Plant started in 1974.
- In 1987 a concrete dam with a temporary penstock enclosed the Angara.
- From 1994 to 2005 due to the economic slowdown and shrinking power consumption the site was run at a slow pace.
- In 2006 RUSAL and RusHydro (HydroOGK) agreed to carry out a joint project to construct the Boguchanskoye Energy and Metals Complex (BEMO).



BEMO project: overview



- The BEMO project includes completing the construction of the 3,000 MW Boguchansk Hydro Power Plant (HPP) across the Angara river and a 600,000 tpa Boguchansk Aluminium Smelter.
- The total cost of BEMO project is estimated at USD 5 billion (excluding the costs needed to build infrastructure and to clear the bed of the water reservoir). The project is financed from internal sources and funds raised by RusHydro and UC RUSAL.

Boguchansk HPP

- 3,000 MW
- Annual average output - 17.6 billion kWh
- 9 hydraulic turbines producing 333 MW each
- Total length of the HPP building including the mounting pad - 331 m
- Coping - 214 m
- The total upstream face - 2,587 m
- Water reservoir with an area of 2,326 km² and a total volume of 58.2 m³

Boguchansk Aluminium Smelter

- 600 000 tons per year
- energy efficient RA 300 kA technology - a proprietary design of UC RUSAL
- will employ 3,000 people
- the main consumer of HPP energy

BEMO project: scale



- Construction of BEMO is the largest power and metals project worldwide
- The program for the development of the Lower Angara region, with BEMO as its core element, has become the largest investment project in Russia in the past quarter of a century.
- BEMO project is the first example of a successful public private partnership.
- The investment project will create over 10,000 jobs and produce extra tax revenues for various levels of government.



HPP: continuing progress



BEMO HPP status

- 7 turbines out of 9 delivered on site, 3 turbines already installed
- 93% of the concrete placing and assembly of pre-cast reinforced concrete has occurred
- 89% of the hydromechanical equipment and metal structures and 62% of the cranes have been assembled
- 25% of the hydraulic power equipment has been assembled
- 100% of the earth, rock excavation and asphalt concrete have been carried out
- 95% of the cement injection has occurred

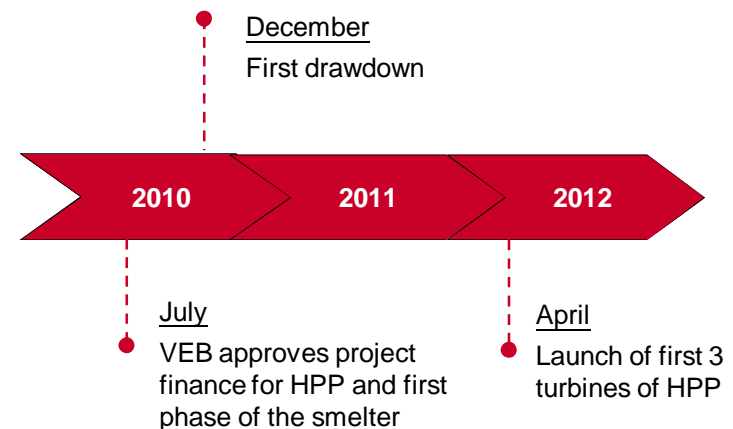
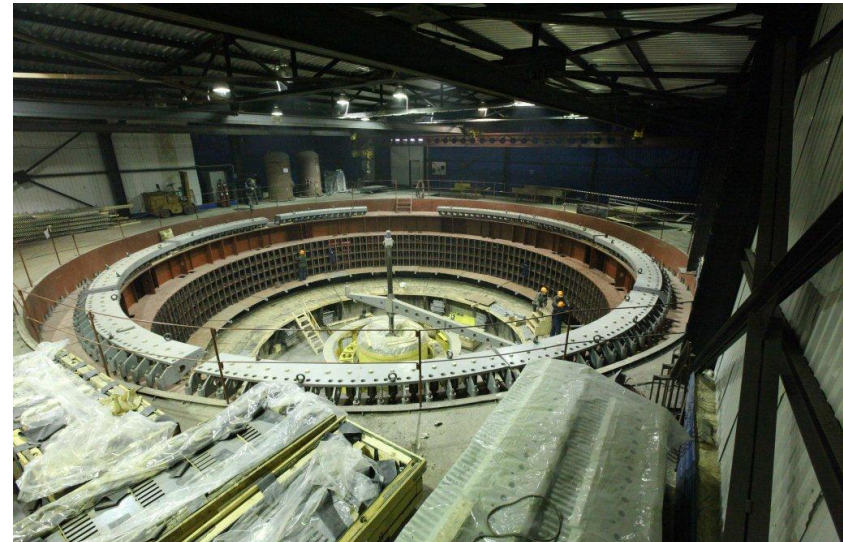
BEMO HPP capex ⁽¹⁾

▪ Existing partner	RusHydro (50%)
▪ Project finance	RUR 28.1bn (~US\$0.9bn)
▪ Loan maturity	16 years
▪ Total capex	US\$1,769m
▪ Capex spent	US\$1,263m
▪ Remaining capex	US\$506m

Note:

(1) Capex is presented on 100% basis excluding VAT. Capex since 2006

Assembly works



HPP: milestones



- Concrete dam waterfront will be raised up to 196.00 m in April which ensures a level of a dam pond required for a start-up of the first three hydroelectric units. Eight concrete sections have reached a design level of 214 m
- Major construction works have been completed and a heat profile of the first start-up complex has been formed. This makes it possible to assemble hydroelectric units of the start-up complex in all weather conditions

Next steps to be done

- Completion of construction works (start-up complex) . December 2011
- Filling of the dam pond up to 185 m . March 2012



Aluminium Smelter: continuing progress



BEMO smelter status

- Earth works comprising 9,014 thousand cubic meters of ground excavation has occurred . 93%
- 29.7 thousand cubic meters of cast-in-place reinforced concrete structures have been erected . 41%
- 2.7 thousand tonnes of metal structures have been constructed . 8%
- Start up complex . 25-30% ready

Production area



BEMO smelter capex ⁽¹⁾

▪ Existing partner	RusHydro (50%)
▪ Project finance ⁽²⁾	RUR 21.9bn (~US\$0.7bn)
▪ Loan maturity	14 years
▪ Total capex	US\$826m
▪ Capex spent	US\$296m
▪ Remaining capex	US\$530m

Note:

- (1) Capex is presented on 100% basis for Phase 1 of the smelter only excluding VAT. Capex since 2006
- (2) Including costs of financing and investments in the related infrastructure for Phase 1 of the Smelter. Financing on non-recourse basis

