What does IFC do in Chemicals?

CHEMICALS

IFC chemicals and fertilizers clients include a diverse range of local companies as well as multinationals. We tailor our products to meet a wide variety of client needs: greenfield and expansion projects, modernization programs, energy efficiency, acquisitions, financial restructuring, and improvements in environmental, health, and safety performance.

Committed IFC portfolio $1.8 billion in 63 projects (as of July 2012)
Catalyzed over $17 billion in project investments

KUYBYSHEV AZOT (KUAZ)

Kuybyhev Azot (KuAz) is one of Russia’s top chemical and fertilizer producers. The company's two major products are:
- Ammonia and nitrogen fertilizers.
- Caprolactam and its derived products (PA-6, high tenacity yarns, cord fabric, engineering plastics);

In 2010, KuAz produced 520.4 thousand tons of ammonia and 174.6 thousand tons of caprolactam, bringing total sales to near $0.7 billion.

KuAz is a long-standing IFC client, and has progressively reduced its operating costs and improved environmental performance in the course of the 8 years relationship with IFC.

IFC INVESTMENT COUPLED WITH ADVISORY SERVICES

In early 2009, in the midst of the financial and economic crisis, IFC approached KuAz for supporting the company in its cost cutting measures and adopting more efficient energy use practices to not only reduce costs, but also increase competitiveness, and improve environmental performance. With IFC’s guidance, KuAz developed a modernization investment plan to be financed by IFC.

IDENTIFICATION OF INVESTMENT OPPORTUNITIES

IFC Sustainable Business Advisory’s internal expertise was used to review the investment program and in cooperation with the client identified five high-priority cost-effective and environmentally-beneficial opportunities to reduce client’s operating expenses. In particular the following opportunities were identified:
- Modernization of a distillation and evaporation unit of caprolactam production to increase distillation and evaporation capacity as well as to reduce steam consumption
- Installation of a new wastewater treatment unit at the ammonium nitrate plant to recover more than 1,000 tons of ammonium nitrate per year from liquid wastes
- Construction of a steam boiler to recover heat from waste burning, covering over 8% of annual demand for steam
- Installation of a 6 MW steam turbine to generate electricity utilizing 13 bar steam
- Modernization of the cooling tower to increase operational efficiency of the water re-circulating system and to increase caprolactam production capacity and the quality of the final product
FINANCING
Based on the identified investment opportunities, IFC Investment Department extended a $20 million loan to finance KuAz’s energy efficiency/environmental upgrade program, with a total cost of $40 million.

ADDITIONAL FINANCING
Following the successful 2009 project implementation, in FY12 the IFC investment team discussed with KuAz additional resource efficiency financing package. In partnership with IFC Sustainable Business Advisory the team appraised the new investment program. The identified investments included:

- Replacement of an old alkaline waste incinerator, with a new unit with modern air pollution control equipment, and heat recovery equipment
- Replacement of steam reducing valves by steam turbo-generators; and
- Modernization of several old low-concentration nitric acid production lines, with a new energy efficient unit

IFC signed a Cleaner Production Lending Facility (CPLF) loan of $10 million to finance the above measures in June 2012. The total project cost is $54 million.

OVERALL RESULTS AND IMPACT ACHIEVED

- $9 million in costs savings per year
- 470.3 GWh/year of energy use savings
- 115,000 metric tons/year of greenhouse gas savings - equivalent to taking 23,000 cars off the road every year

It is expected that the additional financing project will result in additional:

- $15.8 million in costs savings per year
- 444.4 GWh/year of energy use savings
- 114,205 metric tons/year of greenhouse gas savings - equivalent to taking 22,800 cars off the road every year

QUOTE FROM THE CLIENT

“IFC is an important partner in helping us strengthen our competitiveness by reducing energy consumption and minimizing our environmental footprint. With IFC’s support, we are also expanding into higher-margin products, while lowering our costs by modernizing our production facilities.”

Anatoly Ogarkov,
Chief engineer at Kuibyshev Azot, a leading Russian chemical company

WHAT OTHER SERVICES DOES SUSTAINABLE BUSINESS ADVISORY – RESOURCE EFFICIENCY OFFER?

- Assessing energy, water, and material efficiency at the firm level
- Developing and undertaking sector benchmarking of resource efficiency indicators for certain energy-intensive sectors to overcome knowledge gaps
- Collaborating with financial institutions, industry groups, and other market aggregators to scale up investment in resource efficiency technologies and methods.
- Promoting resource-efficient best practices and standards such as green buildings standards
- Analyzing and supporting policy and regulatory needs on energy/water efficiency and waste prevention / recycling

CONTACTS

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