



Granules India – Cleaner Production in Pharmaceuticals

Granules is India's largest producer of paracetamol and ibuprofen across the products' entire value chain – starting from Active Pharmaceutical Ingredients (APIs) to finished products in tablet, capsule and caplet form. IFC is helping Granules improve its efficiency and reduce its costs by recovering and recycling more solvents and water during the production of various pharmaceutical drugs as well as by decreasing its energy consumption.



In 2007, IFC bought an 11% stake in Granules and extended a US\$9 million loan, which helped build the company's 12-billion tableting plant near Hyderabad. With a US\$1 million Cleaner Production Loan in 2009, IFC is supporting upgrades in two of the company's API plants.

The improvements will result in enhanced energy and water efficiency, solvent (chemical) recovery and improved product quality. Given the highly competitive nature

of the generic (not protected by patents) pharmaceutical business, in addition to the environmental benefits, these improvements will have a tangible impact on Granules' bottom line.

IFC Role

- Several rounds of earlier investment in support of company expansion: starting with 2007, 11 percent equity investment, followed by \$9 million loan to finance construction of new plant, with a 12 billion pill production capacity, near Hyderabad
- \$1 million Cleaner Production Loan: 2009 project will support upgrades in two of the company's API plants, resulting in enhanced energy and water efficiency, solvent recovery and improved product quality.

Climate change benefits and cost savings

- Heat and water savings through recovery and recycling of condensate;
- Electricity savings through right-sizing motors, use of variable speed drives and cooling tower replacement;
- Significant savings derived through solvent recovery and recycling to provide 1.5 year payback on expenditures related to this improvement;
- Annual savings in coal of about 140 tonnes and electricity of 160,000 kWh, which translate into a reduction of around 360 tonnes of CO₂ p.a.
- Overall annual cost savings of around \$220,000, enhancing the company's competitiveness and allowing for delivery of more affordable drugs.

For further information please contact:

Sabina Cosic 91-22-4230-2400 or scosic@ifc.org, Monique Mrazek 1-202-473-0607 or mmrazek@ifc.org