



# Indian Oil Corporation Limited

## Managing Energy Responsibly

### CASE STUDY



Figure 1: IndianOil Refinery in Gujarat



Figure 2: IndianOil Refinery in Digboi

### Summary

As a part of our continued efforts towards energy conservation, Indian Oil has been incorporating energy efficiency measures since the very beginning. However, a structured approach with dedicated ENCON measures has been undertaken at refineries since the year 2003–04. During the past decade, ENCON measures have not only helped in improving the overall product and operational efficiency but have also helped in generating savings for the organization in terms of SRFTs (Standard Refinery Fuel in Tonne). Apart from this, water and waste recycling is undertaken at all locations to further reduce the footprint of the organization.

### Objective of Intervention

Indian Oil maintains continuous thrust on energy conservation at all its refineries and units through extensive performance monitoring and by keeping abreast of the latest technological developments and global best practices. Indian Oil is committed to conduct its business with strong environment conscience,



ensuring sustainable development and enriching the quality of life of its employees, customers, stakeholders, and the community at large.

### **Type of Intervention and Location**

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Energy Conservation measures - ENCON measures implemented at eight Indian Oil refineries

### **Description of Intervention**

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ENCON (Energy Conservation) remains one of our major initiatives within the refineries division. ENCON measures include replacement of high energy low efficiency equipment with energy efficient alternatives. Many units of DHDT, hydrogen processing units have been stopped. Pre-heating of fuels has been introduced across refineries to reduce the energy need in boiler significantly. Many of the boilers heated by oil have been replaced with gas turbines. Heat is recovered from all possible areas and re-used for heating purposes. Alternate fuels including solar-based electricity, light pipes are also being taken up to reduce the refinery load. Recently, Indian Oil has also undertaken a global benchmarking study through M/s Solomon Associates, to identify best practices on improving operational efficiency, in an attempt to be amongst the most efficient refineries in the world.

### **Intangible or Tangible Benefit**

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ENCON projects worth nearly Rs. 3000 Cr have been implemented over the past decade. These projects have resulted in fuel savings to the tune of 50,000-100,000 tonnes every year. In the past 3 years alone, projects under ENCON scheme of Indian Oil have resulted in emission savings to the tune of 50,000 tonnes of CO<sub>2</sub>e. Efforts are afoot to undertake massive reduction in refineries footprint, by more than 15% by 2020 from 2012-levels.

ENCON projects implemented during the year 2012-13 resulted in savings of 120,000 SRFT valued at around Rs 450 Crores, savings of 102,800 SRFT valued at around Rs 420 Crores during the year 2013-14 and savings of 107,000 SRFT valued at around Rs 400 Crores during the year 2014-15.

### **About IndianOil**

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Indian Oil Corporation (IndianOil) is India's largest commercial enterprise, with a sales turnover of ` 4,50,756 crore (US\$ 73.7 billion) and profits of 5,273 crore for the year 2014-15. It is also the leading Indian corporate in Fortune's prestigious 'Global 500' listing of the world's largest corporates, ranked at the 119th position currently. As India's flagship national Oil Company, with a 33000-strong work-force. Currently, IndianOil has been meeting India's energy demands for over half a century.



With a corporate vision to be 'The Energy of India' and to become 'A Globally Admired Company,' IndianOil's business interests straddle the entire hydrocarbon value-chain - from refining, pipeline transportation and marketing of petroleum products to exploration & production of crude oil & gas, marketing of natural gas and petrochemicals, besides forays into alternative energy and globalisation of downstream operations. The IndianOil Group comprises 9 subsidiaries and 17 joint ventures with reputed business partners to pursue diverse business interests in India and abroad.