

# KIRLOSKAR OIL ENGINES LIMITED

CORPORATE SUSTAINABILITY REPORT 2010-11



# THE ENGINE FOR SUSTAINABLE GROWTH



# Statement GRI Application Level Check

GRI hereby states that **Kirloskar Oil Engines Ltd.** has presented its report "The Engine for Sustainable Growth" (2010-2011) to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level A+.

GRI Application Levels communicate the extent to which the content of the G3 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3 Guidelines.

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 11 November 2011

Nelmara Arbex Deputy Chief Executive Global Reporting Initiative



The "+" has been added to this Application Level because **Kirloskar Oil Engines Ltd.** has submitted (part of) this report for external assurance. GRI accepts the reporter's own criteria for choosing the relevant assurance provider.

The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. www.globalreporting.org

**Disclaimer:** Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 30 October 2011. GRI explicitly excludes the statement being applied to any later changes to such material.

# THE ENGINE FOR SUSTAINABLE GROWTH

Kirloskar Oil Engines Ltd has embarked on its sustainability journey by adopting a multipronged approach involving every part of the organisation from employees to operations to research. Working together as one unified machine, we are driving forward the change that we want to see in society.

Engine for Sustainable Growth- our theme for this year's sustainability report, is the visualisation of this very thought. Our management is the spark, the plants channel the fire (the cylinder heads), our people are the driving shafts, with different divisions functioning as the gateway of new ideas and designs that create more fire for growth (valves) – all of which streamlined (lubricant) by the human resources.



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# STATEMENT FROM THE CHAIRMAN & MANAGING DIRECTOR



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#### Dear Reader,

I welcome you to the second edition of our Corporate Sustainability report. Our first Corporate Sustainability report was well received and appreciated by an array of stakeholders within and outside of the industry - employees, customers, suppliers, MIDC officers to name a few.

As we report this year, we are a listed company on the National Stock Exchange and the Bombay Stock Exchange. Sustainability remains a top priority at my office and we recognize that it encompasses every stream of our business. We have continued to make conscious efforts in improving our performance on the triple bottom line and we recorded some encouraging results this year. Before I present our key achievements this year, I would like to introduce the major changes in the business environment we operate in and its impact on our business.

Amongst other things, this year witnessed a steep rise in commodity prices. The consequent increase in the price of raw materials directly impacted our operations. The entry of global multinationals intensified competition in the higher kVA markets for our power generating sets. Chinese products continued to be prime rivals in the low HP agriculture pumpsets market. The tower management business in the telecom sector continued to witness consolidation resulting in lower demand for generating sets; the size of the market reduced by more than 60%. The rising prices coupled with increasing competition and shrinking markets created intense pressure on our margins.

Nevertheless, we managed to register an increase in sales of 6.5% over last year. We have been able to do so by increasing efficiency of our production, aiding us in bringing down costs and keeping abreast of competition through constant innovation driven by market demands. Both these issues feature among the four key material areas of sustainability charted out last year through extensive discussion and prioritizing exercises of our top management. The performance this year only underlines the fact that these issues are not only most important but also most necessary in our move towards sustainable growth. I would like to present some performance highlights in these areas of strategic priorities for us:

## WE ARE NOW LISTED ON



# EMPLOYEE RETENTION AND TALENT MAN-AGEMENT

In our efforts to retain and develop talent, we have introduced many development programs in partnership with renowned institutes in India for employees across different levels. Our training man days have increased by 66% per employee since 2009. We have also introduced many best practices to provide a healthy work life balance for our employees such as flexible work timings and birthday special holiday. Our workplace continues to attract talent from across premier institutes in India. I welcome all the new employees who have joined us in many different roles.

I am pleased to share that KOEL has found place in the Limca Book of Records for having concluded the sixth consecutive wage agreement with our unionized workforce before the date of expiry of the previous agreement, without any loss in man-days.

## PRODUCT INNOVATION

One of our significant achievements this year was the successful completion of the transition of our product portfolio to Bharat Stage III emission standards, while keeping it user friendly and cost effective. This was a challenging task as it required a complete redesign of the engines and technologies used. Our Corporate Research & Application Engineering have successfully applied for a patent for the 'Super Silent' canopy for gensets. In addition to new products such as pump-sets, the Kirloskar Flexi Green sets, engines for firefighting pumpsets (FM/ UL approved) and others, we have upgraded technology of existing versions by moving to Common Rail Injection System, and changing over to 4 valves per cylinder from 2 valves per cylinder.

## ENERGY CONSERVATION

Our ENCON cell remains the primary driver of the energy conservation initiatives at all our facilities. By being signatories to CII's voluntary Code of Ecologically Sustainable Growth, we are committed to increasing our resource efficiency, and enhancing recyclability and reusability of our products. In this regard, during the reporting period, we commissioned a study to estimate our carbon footprint. Using this study, we will develop a road map and set targets to cut down our carbon footprint. Further, our Rajkot plant has been approved for the ISO 14001 & OHSAS 18001 certifications, in line with our other plants. All our facilities are ISO 9001 certified. Our concerted efforts in energy conservation over the last three years has earned us recognition in the form of 'Parivartan Leadership Award for Sustainability' in the Automotive Sector by India Carbon Outlook, New Delhi. Further, our Pune plant was felicitated with the prestigious 11th National Award for Excellence in Energy Management 2010' by Confederation of Indian Industries (CII).

# FOSTER HOLISTIC GROWTH IN COMMUNITIES AROUND US

We have a structured Operating Plan developed year on year by our CSR department specifically for our interventions in the community. This is done based on needs assessed and gathered from the communities we operate in, and our focus areas remain health, education, sustainable livelihoods and environment. We continue to espouse WASH, an initiative by the Kirloskar Foundation. We also support Akanksha centres of learning in our endeavour to make quality education accessible to all. I am pleased to announce the introduction of 'Saakav', a life skill training initiative specifically tailored for adolescent boys and girls.

While these four areas remain important in our strategic plan, they also lay the foundation in achieving our larger goal of sustainability - improving our performance across the triple bottom line and creating value for our stakeholders.

As a company, we have decided to focus closely on our engines business. In doing so, we have decided to separate from our bearings business. With approval from the shareholders, our bearing business has changed hands to KSPG Automotive India Private Limited (a subsidiary of Kolbenschmidt (KS), Germany). The operations will be formally taken over in October next year.

To increase our range of products and the market share in the commercial marine sector, we have signed a license agreement with Daihatsu Diesel Manufacturing Company, based in Japan. These engines will cater to the needs of commercial ships for main propulsion and auxiliary diesel generating sets.

We continue to remain the only Indian manufacturer qualified to supply large capacity diesel generating sets to the Nuclear Power Corporation. We plan to further diversify our product base and expand into defence and gas segments, to address the competition. We are also focusing on developing hybrid power solutions.

## GOING FORWARD

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The Government of India has increased the planned allocation towards infrastructure development from 23.3% of total plan allocation the previous year to 48.5% this year, indicating its focus on growth in this sector. While the Government projects an increase of the share of manufacturing in economy to 25% from 16% over the next 10 years, the recent trends indicate a slowdown in industrial activity. There has been a negative growth witnessed in the capital goods segment lately. Inflation, high commodity prices and crude oil prices are huge risks for an emerging economy such as the Indian economy. We consider these developments and their impact on the industrial climate as challenges going forward for our business.

We will continue to work towards sustainable growth this year as well. Diversifying our product portfolio and customer base by employing value engineering, upgrading manufacturing processes, adopting cost cutting measures, working with suppliers and vendors to develop more efficient processes, while being an environmentally conscious organisation and ensuring that our people and communities prosper along with us. KOEL will be well set to tackle any challenges and will continue to add value to our stakeholders.



Atul Kirloskar Chairman and Managing Director Kirloskar Oil Engines Ltd.

# **ABOUT THE REPORT**

We, at Kirloskar Oil Engines Limited (KOEL), present 'The Engine for Sustainable Growth', our second Corporate Sustainability Report. Through this report, we have attempted to present our performance on the triple bottom line for the period April 2010 to March 2011. We have taken care to cover topics that are material to our stakeholders in detail, while also following up on the status of commitments laid out in our first report covering the period 2009-10.

We have continued to adopt the Global Reporting Initiative's (GRI) sustainability reporting guidelines (G3) and this report meets the application level A+. In addition to providing disclosure on all 49 core indicators as required by GRI for the application level A, we have also reported on a few additional indicators, such as energy aspect indicators and product responsibility indicators that are of relevance to us. Wherever necessary, we have explained the assumptions and/or exceptions while reporting on the GRI indicator protocols.

The report's primary target audiences are our employees, investors, customers and suppliers, regulatory authorities as well as individuals and organizations who would be interested in KOEL's performance on environmental, social and economic aspects. We intend to continue to report annually.

The scope of the report continues to cover all our major operating divisions on engines and bearings - our plants at Pune, Kolhapur, Nashik, Rajkot and Ahmednagar. To cater to the export markets, we have sales teams stationed at Dubai, South Africa, Nigeria, Kenya & Indonesia. In some of these countries, we share office space with the Kirloskar Group companies. Our sales and support teams abroad, joint ventures, associates and subsidiaries are outside of the reporting purview.

We retained Ernst & Young (India) Pvt. Ltd, an independent and professional services firm, to provide assurance to this Corporate Sustainability report. A representative sample of data was made open for scrutiny and verification for their external assurance team. This has been done not only to add credibility to our report but also with an objective to strengthen our approach to sustainability through capacity building of our team.

Readers may kindly address their queries or feedback on the content of the report to sustainability@kirloskar.com.



## THE ENGINE FOR SUSTAINABLE GROWTH

## DISCLAIMER

The terms 'KOEL', 'the Company', 'the organisation', 'we', 'us', refer to Kirloskar Oil Engines Limited and is used purely for the sake of convenience, and are not intended to mislead the reader.

All financial values are expressed in terms of Indian rupees. Large numbers may be expressed in terms called lakhs, crores or millions; these are Indian words commonly used and accepted in the Indian sub-continent.

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# **ABOUT KIRLOSKAR OIL ENGINES**

To be amongst the top ten Global Players in offhighway engines business

## **OUR VALUES**

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## OUR MISSION

"By 2012, we will achieve CII EXIM Business Excellence award status. By 2014, we will be a Rs 5,000 Crores company with 15 % profitability."

We are Kirloskar Oil Engines Limited, India's largest manufacturer of diesel engines, we are also involved in the design & manufacture of generating sets, pumpsets and bearings. Incorporated in 1946 as a part of the Kirloskar Group of Companies, a leading engineering conglomerate, we have grown today to achieve an annual turnover of Rs. 2400 crore. The Demerger became effective in March 2010. In December 2010, equity shares of the Company were permitted for listing and trading on Bombay Stock Exchange (BSE) and National Stock Exchange (NSE). The Group, with a rich heritage of 123 years has passed on its core purpose of 'Enriching Lives' to us at KOEL. In serving the core purpose, our business operations are guided by the principles of Speed, Innovation & Transparency. Our core value system is underscored by the value of integrity. It further translates to specific values in our functions and operations as

- » Quality First
- » Customer Focus
- » Respect for People

We continue to strive towards realising our vision "To be amongst the top ten Global Players in off-highway engines business"

by climbing up 4 places from 2009-10 to emerge at 15 amongst other global players.

Our persistence has brought us closer to achieving our missions of

"By 2012, we will achieve CII EXIM Business Excellence award status. By 2014, we will be a Rs. 5,000 Crores company with 15 % profitability."

In our efforts towards achieving the Business Excellence award status, we have inched closer by gaining a higher score on assessment parameters, particularly in people and strategy categories. Our economic performance has been encouraging as we close this year with increased revenues and revived export markets. This has been discussed in detail in the following sections.



# **STAKEHOLDER ENGAGEMENT & MATERIAL ISSUES**

## OUR KEY STAKEHOLDERS

CUSTOMERS/ CLIENTS EMPLOYEES SUPPLIERS INVESTORS SOCIETY SHAREHOLDERS DEALERS

Stakeholders are essential pillars of our business. The Heads of the different departments weighted the stakeholder groups to identify the stakeholders who have a direct impact on our business. In doing so, they considered parameters such as extent of impact, frequency of interaction, systematic engagement process and identification of common concerns and aspirations.

We interact with each of these groups in many different ways – via meetings, partnerships, newsletters, forums, conferences, etc. The purpose, mode and frequency of the engagement for each of these stakeholder groups have been specified at respective sections throughout the report.

We respect and act upon the messages, suggestions, comments and feedback thus received from our stakeholders. This not only paves the way ahead for our business, it helps us identify areas of improvement and deliver better quality service and an alignment with our customer needs. These elements form the core of the KOEL value system.

The inputs from stakeholders coupled with the vision of our top management and their sensitivity to sectoral issues have allowed us to identify areas of primary importance to us as an organization. It emerged that the top four concerns in relation to sustainability this year are similar as last year. They are:

- » Employee retention and talent management
- » Continuous product innovation to stay ahead of competition
- » Energy conservation and gradual reduction of our environmental footprint
- » Develop community services and foster holistic growth amongst all stakeholders

Each of these issues is given due importance in the report. Performance indicators of relevance on each of these parameters are disclosed in the following performance sections, in a balanced manner, indicating both our successes and improvement areas. Further, this year, we have charted out a roadmap to steer our initiatives with specific targets under each of the triple bottom line over the next three years. Apart from the regular reporting on our material issues, we intend to give specific progress on initiatives based on our sustainability roadmap.





# SUSTAINABILITY ROADMAP



SUSTAINABILITY PILLAF

TIMELINE

# "

Our Sustainability Roadmap 2013-14 shows our strong commitment to improve our triple bottom line performance. Resources are always scarce and it is utmost necessary that we integrate the 'Sustainability' with all the aspects of our business. As a good corporate, we are committed to contribute to the cause of sustainability and we continue our journey on this chosen path.

Sanjay Parande CFO & Executive Vice President

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# **OUR BUSINESS**

We have a market presence in all three sectors of the economy – agriculture, industrial and service sector and we also provide services to various market segments. Our business is broadly divided into engines and bearings business, with further bifurcation into business groups as depicted below. Each of these business groups are discussed in the subsequent sections.

To cater to the specific needs of customers in a better way, all business units are segmented based on the markets served by them. Thus, the products and services are tailored to the market needs of the business group and are delivered to customers through various Original Equipment Manufacturers (OEM) and Dealer Channels.

Our engines and bearings businesses are strongly supported by our corporate functions of Research & Engineering, Quality Assurance, Utilities, Strategic Sourcing, Finance, Information Technology, Secretarial & Legal, Human Resources, Personnel & Industrial Relations, Business Excellence, Corporate Communications divisions and plants. There were no significant changes in operations regarding size, structure or ownership during the year 2010-11. The organizational structure has been depicted in the following page.

While the highlights of each business group and most corporate functions are presented in separate sections, the divisions of Personnel & Industrial Relations and Utilities have overlaps with issues of sustainability reported here in more than one aspect. Hence, though these divisions may not feature a separate section of highlights, these are the backbone to our sustainability initiatives and actions - the highlights of their work form the rest of our second Corporate Sustainability report.





**OUR BUSINESS Contd...** 

## **ORGANISATIONAL STRUCTURE OF KOEL**



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## **CUSTOMERS**

'Customer focus' is one of the core pillars of our value system. We continuously strive to remain the 'preferred choice of the customer'. Our key customer groups include power generation companies (such as cellular infrastructure companies, housing societies, etc), agriculture & off-highway OEMs (like JCB, L&T, Terex, PTL Case), dealers, stationary power plants, marine engines segment and customers who need spares and services for our products.

## ENGAGEMENT WITH CUSTOMERS

We reach out and serve the end-users of our products directly or through OEMs, dealers and distributors. In order to understand and enhance our customer relationships, we conduct a bi-annual customer satisfaction survey (CSS) through a third-party. The survey includes direct interviews with our customers using a structured questionnaire covering aspects of Company image, business support & presales, product, order execution & delivery, packaging, service support and documentation. The results are used to understand the needs and expectations of our customers, and set targets or initiate measures to improve our performance on this front. For FY 09-10, the overall performance CSS Score for the entire organization stands at 80 which is a result of on-time delivery and timely service. All Business Groups have achieved a score band of 80-85 which is considered to be GOOD. The actual scores are not comparable to our scores in preceding surveys due to the restructuring process owing to the demerger last year.

Besides the CSS, we also engage with our customers and clients through random customer perception reviews, business group specific surveys, feedback forms, frequent dialogue and client meets held every quarter.

We use the information to decide the direction for our research activities and be legally compliant. Key topics raised by customers were in regard to ensuring availability of competitive products and services on a long term basis. This year, we introduced a 24x7 helpline for our customers to report any issues with products. This helped us ensure speedy resolution and enhance customer satisfaction. With regard to customer privacy and loss of customer data, we are proud to have had no substantiated complaints of such breaches in the year 2010-11.





AGRICULTURE & OFF HIGHWAY ENGINES BUSINESS GROUP (AOBG)

The AOBG primarily addresses the needs of customers from the agriculture, off highway and marine segments, on a global basis. We cater to the agriculture market with our engines ranging from power ratings 3.5 hp to 20 hp. The market use for these engines are generally as agricultural pumpsets and for agro-industrial applications such as in threshers, flour mills etc. These engines also find application in industries which use compact machinery like handheld compacters, concrete mixers, tower hoists and the like.

We currently enjoy a market share of 21% in the domestic agriculture market, growing from 8% when we started functioning as a separate business unit three years ago. This is in spite of the market itself shrinking by 15% in numbers during the year under review.

The launch of the Varsha pumpset in the portable pumpset category was vastly successful in 2009-10. While we had hoped to achieve sales growth of atleast three times that of last year, we had to hike the price per unit as we were hit by the rise in metal prices in India. In addition, our competitors reduced the price of their offering, challenging our sales targets further in a market that was experiencing a drop in the total volume. Despite this, year 2010-11 saw 30,000 Varsha pumpsets deployed in the field. As remedial measures, we have embarked on a heavy cost reduction program in order to find sustainable cost solutions and are considering moving the product manufacturing location from a relatively expensive production unit. On the brighter side, Varsha units deployed in field have increased from 12,000 to 30,000 this year.

The year 2010-11 also saw the launch of two other lines of products - the pumpsets (AV1 XL - N1 to N5 series) and high head VA & FA pumpsets. 15,000 units of the former are already deployed and we target sales of 45,000 units for the coming year. Besides pumpsets, the FA series will largely cater to the needs of the compact equipment used in industrial and marine main propulsion segments (for out board motor and in board motor).

In off highway segment, we offer engines for over 85 different applications in the power range from 20 hp to 800 hp - all are 'green' products. Research work is underway to further extend this range up till 1200 hp. These engines currently find applications in excavators, loaders, backhoes, forklift trucks, compactors, transit mixers, concrete pumps and so on. We are planning a structured move and expansion into the marine market segment where our engines are mostly used in propulsion motors.

Our market share improved to 55% from 54% last year. At demand / order board level, we successfully de-risked



Off-highway segment. We have been proactive and completed the challenging task of migrating 55 applications to BS III from BS II in time to be compliant when the norms came into force. We also launched engines for global fire pump markets which are U.L (Underwriter's Laboratories) listed and FM (Factory Mutual) approved. A new family of engines R810 for use in compact applications (30-50 hp) was also launched and saw sales in high numbers.

The export markets are not segregated for engines used in agriculture and for off highway equipment. This is because our Overseas Dealership network has evolved over a period of time to handle all products from Kirloskar Group. The customer interactions were managed by the respective local Kirloskar Group offices and we largely participated in supporting these offices. However, restructuring into separate agriculture engines and off highway engines segments has now been initiated and our involvement is now transitioning to a 'driving' role from a support role. The major overseas markets include the African and Middle East Asian markets.

In line with the strategy charted out last year to identify focus markets, we have identified specific markets for engines used in Off-highway equipment within the export markets. For example, we identified that the underground mining sector in South Africa has use for our engines. We made focused efforts to tap into this sector and we have been very successful there. We have also succeeded in vastly deploying dewatering pumpsets in the United Arab Emirates. We hope to leverage our Indian experience to secure OEMs and break into the North American, European, Chinese and Japanese markets.

As the export market has now been revived and is witnessing encouraging 75% growth. We target a growth of close to 57% in this market by 2012. The market intelligence studies and our databases form the basis of our entry and expansion strategy in this sector.

## **GREEN FACT**

N1 Series AV1 XL pump sets were developed to replace old NW2 Series pump sets. The new series has brought down the fuel consumption to 930 ml/hr from 990 ml/ ar and the lubrication oil consumption to 4.65ml/hr as compared to 6.95 ml/hr the previous model.





**Enriching Lives** 

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**POWER GENERATION ENGINES BUSINESS GROUP (PGBG)** 

The market of PGBG is broadly categorized based on the customers as telecommunications and non telecommunications markets. The year 2010-11 saw a shrinking of the telecommunications market. Even in this difficult scenario, our market share grew to 33% from 19%. Our telecommunications customers are looking to decrease their expenses in using diesel sets to meet their own targets for improvements in environmental performance and external pressures. In order to cater to them, we have developed Kirloskar Flexi Green sets - which substantially reduce the operating expenses of the sets.

In the non-telecommunications sector, our performance exceeded targets by 5% and we have continued to maintain our market share.

We have introduced new gensets in the market - DV series, super silent gensets, marine auxiliary gensets and gas gensets. We have also forayed into the green technology market with our gas gensets. Further, we have launched the genset controller - for electronic remote control of the gensets.

The future is Green..Kirloskar Green

In recognition for our endeavour to address our customer needs, we were named the "Most preferred brand in the manufacturing / process industry segment below 250kVA" by Frost & Sullivan.

We have held many activities this year promoting the Kirloskar Green brand - as many as 46 exhibitions, 9 road shows and 16 product seminars. Our Kirloskar Green gensets - 34 numbers of DV 10 engines - provided power (35 MW) for the opening and closing ceremonies of the XIX Commonwealth Games of 2010, hosted by India.

Further, we keep a check on the quality and processes of our Authorised Genset Original Equipment Manufacturers' (AGOEM) plants. Based on their performance, we classify them into green, yellow and red zones. We help AGOEMs move towards green zone by handholding. Nearly three fourths of AGOEMs are now in the green zone, enabling us to reduce warranty costs by 50%. In addition, it helps us ensure a trouble free experience for our customers. Through cumulative purchase from all AGOEMs, we have accrued 3-4% savings on buying. We have also initiated the six sigma program with the AGOEMs.



powered by the Nation's OWN trusted & preferred brand... Kirloskar Green Gensets.

## **CUSTOMER SUPPORT BUSINESS GROUP**

The Customer Support business group caters to the service aspects to our other businesses. All KOEL products come into the service purview as soon as they are sold to the market. Our vision for this business group is to "provide service before customer demands".

This year we have achieved an overall growth of 21% as against last year's performance. The business continued to grow as we took some strategic measures in the market, starting with the strengthening of our service network - 103 service dealers and 338 service outlets pan India. This resulted in an increased market reach. This robust network enables us to respond to customer calls upto 50 km range within 4 hours and beyond 50 km range within 8 hours.

Spare parts sales crossed Rs. 400 crores this year. We have managed to achieve this feat by generating awareness on usage of genuine spare parts - we have worked to educate customers about the benefits of this such as longer product life and higher satisfaction. The customer demand is continuously increasing and we strive to provide good and timely services, while ensuring availability of spares in the market. We have launched a 24X7 toll free multilingual helpline, providing customers direct access to us.

Once a complaint is registered on this system, it is the dealer's responsibility to attend to and resolve the complaint. We continue to monitor the status of the complaint until the customer signs it off as closed. Further, there is a dealer scorecard – a 1000 point audit system for dealership performance. It is a comprehensive rating covering various aspects such as spares, service, waste disposal practices, safe handling of hazardous wastes. Ten complaints based on priority, both commercial (costs/ warranty, etc) and technical, by kind and frequency are taken up with the Executive Director every quarter to form a preventive action plan, in addition to taking corrective actions.

Our corporate customers such as banks, retail chains, Income Tax department, etc are offered the pan India Annual Maintenance Contracts (AMCs) - we provide service at all their locations leveraging our vast service network which is a convenient option for the customers.

This year, we held 296 service camps where free health check up of engines and DG sets was done, reaching out to 7400 engines.

## **DEALERS TRAINING**

To ensure high quality service to customers, we conluct a thorough training and development program or dealerships and their technicians. The Trainng Centre at Pune offers different modules and has ledicated teams to manage different segments of he programs. There are as many as 9 different levels or technician training. The training calendar is announced at the start of the year, so that the dealers can schedule and fulfill their learning needs. On occation, we also take dealers to overseas sites for training and best practices learning. 'Best Performer' Awards are handed out annually based on the scorecard perormance of dealerships. This year, as many as 1177 ield technicians have undergone service training at bour centres.





## LARGE ENGINES BUSINESS GROUP (LEBG)

The LEBG is driven by its growth vision, to provide "Multi products for Multi market segments". Under this business group, diesel engines in the range of 2400 hp to 11000 hp are manufactured and marketed catering to DG sets from 1.7 MW to 7.1 MW for stationary power plants. These engines are manufactured in Nashik under license from MAN Diesel & Turbo SAS, (erstwhile SEMT PIELSTICK, France).

We also manufacture marine propulsion engines and auxiliary DG Sets under license from Daihatsu Diesel Mfg Co Ltd, Japan in the range 800 hp to 3500 hp. Certified under ISO 9001, ISO 14001 and OHSAS 18001, our manufacturing processes meet all norms set by the Lloyds Registrar of Shipping (LRS) and the American Bureau of Shipping (ABS).

This year, we have seen growth by entering the market for emergency diesel generator sets for nuclear power plants, engines for commercial marine market and by launching new products in 170 mm bore range. In order to provide customers with the high quality large engines with low cost of manufacturing, we continue to leverage our manufacturing, engineering and sourcing strengths and form new international alliances. Further, we have upgraded our plant thereby establishing a flexible manufacturing set up.

LEBG attempts to meet global standards for application engineering, manufacturing, testing and after-sales service of engines and DG sets and aims at providing complete satisfaction to the customer through quality, performance and reliability.



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## BEARINGS

Our bearings business, the largest in India, grew 13% from last year and continued to be the leader in the domestic markets with a market share of 42%. We developed as many as 82 new products for various engine models and applications. Bearings are manufactured at our Ahmednagar & Pune plants.

On the management side, we have managed a better control of debtors this year. On the other hand our margins thinned due to inflation in the cost of raw materials. Further, shortage in capacities resulted in higher lead time to service customers.

In order to overcome these challenges, we have taken up the following measures:

- » In house development of high strength material
- » Commercialization of lead free A/T material for half bearings
- » Development of micro-grooved bearings
- » Completely eliminated TCE from bearings
- » To enhance the RM capacity, investment for new Sinter Plant has been planned & sanctioned
- » Machine building and installation of high speed heavy duty grooving and facing machines
- » Increased bushes capacity by upgrading to progressive bush forming from 200 T press
- » Reduced time of new product development from 12 to 9 weeks
- » Achieved a 15% productivity increase to ensure better deliveries

In the coming years, we anticipate that future projects may be impacted by the challenges in new material technologies. As a company, we have decided to focus closely on our engines business. In this regard, we have identified a potential owner for our bearings business in KSPG Automotive India Private Limited, a subsidiary of Kolbenschmidt of Germany. KSPG have been leaders in the bearings business and this transfer of ownership would be of mutual benefit. The bearings production unit and other aspects of this business will be handed over in the next financial year.

Policy	Laws of the land regarding product service, labelling, marketing and customer privacy
Goals	<ul> <li>Warranty Cost 0.6 % Max</li> <li>Increase offerings in economic, energy efficient, environment friendly products</li> <li>Ensure fast and satisfactory complaint resolution</li> </ul>
Performance	<ul> <li>» Improvement of Power to Weight Ratio of products</li> <li>» Compliance of products to emission norms or better</li> <li>» Better fuel economy of products</li> <li>» Promotion of the brand "Kirloskar Green" under which environment friendly gensets are sold</li> <li>» Keeping pace with the global demand for green products, we successfully geared up for the BS-III emission norms now applicable for Construction Equipment Vehicles [CEV], by migrating over 55 applications from BS-II to BS-III.</li> <li>» Initiatives were taken to make majority of our engine suitable for bio-fuel.</li> <li>» Created subsidiary company (KITL) to drive green technology. This dedicated company is working on alternative fuels.</li> </ul>
Training	<ul> <li>» Supplier Training - Various improvement processes / initiatives were driven aggressively to support the end customer needs.</li> <li>» Customer Training - we continued to educate customers about the maintenance process and usage of genuine spare parts through regular product training sessions.</li> <li>» Dealers &amp; Sales representatives - Conducted regular product training sessions on product &amp; fitment practices.</li> </ul>
Organisational Responsibility	<ul> <li>» Vice President, Corporate Research &amp; Engineering</li> <li>» Vice President, Corporate QA, Corporate ME &amp; Projects, Business Excellence</li> <li>» General Manager, Corporate Communication</li> </ul>
Other Information	<ul> <li>» Design challenges for Value added products: Green products Alternate fuels Minimum material consumption &amp; energy efficiency in total product life cycle.</li> <li>» Easy to use and reliable products.</li> <li>» Information and knowledge management and its dissemination</li> <li>» Change management for thorough and fast change implementation</li> <li>» Leveraging state of the art manufacturing technologies to reduce time to market.</li> <li>» Continued product range expansion to cater to existing and new markets.</li> </ul>

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## DISCLOSURE TO MANAGEMENT APPROACH – PRODUCT RESPONSIBILITY



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The mandate of our Corporate Research and Engineering (CRE) and Application Engineering (AE) department is to enhance business growth through technological leadership in research, design and development of engines, and and

CORPORATE RESEARCH & ENGINEERING & APPLICATION ENGINEERING

At the CRE division, we focus on the development of our engine product portfolio to meet our long-term ambitions, market challenges, social trends and regulatory requirements.

customized engineering solutions.

At the AE division, we focus on the development of branded products for global markets, application-specific engine solutions for construction equipment manufacturers in both the domestic and export markets, and customized solutions to markets such as defence, marine, mining, firefighting, etc.

In our constant endeavour to develop efficient and environment friendly products, we typically focus on the following areas -

» Upgrading technology

Improving present designs to reduce the consumption of naturally available fuel and lubricating oil

- » Improving power to weight ratio Reducing raw material required to develop the same power output from the engine
- » Emissions reduction

All our engine series comply with the currently applicable emission norms as per their application. We are in the process of readying our range to become compliant with the next generation of emission norms.

Our development focus is in line with our corporate vision to be a responsible corporate towards nature and society. From April 2011, the Government of India would have enforced new emission norms for construction equipment i.e, Bharat Stage III. These emission norms will supersede the BS II (equivalent to TIER I / EURO I) emission norms. The BS III emission norms are equivalent to TIER III (USA) / EURO III (Europe) and demands more than 50% weighted emission reduction for emission like NOx + HC, CO and PM.

Redesigning our range to be compliant with the new norms presented a challenge to us since it calls for simultaneous reduction in Oxides of Nitrogen (NOx) and Particulate Matter (PM) emissions. In most cases, any engine modification needed to reduce NOx emissions has a tendency to increase PM emissions. We overcame this challenge by optimizing the performance of the fuel injection and air handling systems, thus developing BS III compliant engines without sacrificing fuel economy, reliability and maintainability.

The redesign was a major task involving redesign or upgrade work on most components of an engine viz. Piston Cavity, Injector, Fuel Injection System, Turbocharger, and Exhaust gas Recirculation (EGR) system. We have successfully completed this huge feat of migration of the following engines to the new norms in this year - engine series R1040, R1080, HA & R810. We have already received certification for engines rated from 27.5 hp to 130 hp, our 150 hp to 200 hp range of engines are now ready for BS III certification.

Year 2010-11 saw the following highlights at CRE:

## Power upgradation of DV Series engines

Increasing the range of engines in terms of displacement volume of the engines has been an ongoing activity. This would essentially allow for the engine to deliver higher power for a given cylinder volume. We have improved our design and development capability from 6.6 litre inline engines to 24 litre Vee 12 engines. The existing engine platforms are being upgraded to generate higher peak cylinder pressure, thereby producing higher brake mean effective pressure (BMEP) on a continuous basis. With in-house engineering, we have successfully launched 180 bar peak cylinder pressure engines. CRE is currently developing technology for 200 plus bar peak cylinder pressure engines.

We have also set a new benchmark in the power generation market with the launch of 32 kVA / litre power density engine.

Engine technology migration from 2 valve per cylinder to 4 valve per cylinder

The cylinder head of a direct injection diesel engine has many functions - it introduces charged air to the cylinder, removes exhaust gas while keeping pumping loss to a minimum and maintains other properties such as swirl of the charge air. A 4-valve cylinder head improves the breathing capacity of engine by allowing for the rapid removal of exhaust and rapid recharging as compared to a 2 valve cylinder head. In addition, better air-fuel mixing allows for enhanced efficiency from symmetric combustion. This in turn, helps in reducing exhaust emissions while maintaining the fuel efficiency of the engine. We are in the process of upgrading our 4R1040 engine series to 4 valves per cylinder. This will not only help us in meeting future emission norms, but will also help the engine deliver improved fuel efficiency.

## Indian Registrar of Shipping (IRS) approval for marine engines (rating 130 kW and above)

The engines are used as auxiliary DG sets for main DG sets. These engines need approval from the Automotive Research Association of India (ARAI) for NOx emissions. Our SL90, 4R1040 and HA engines have already received approvals and are ready for field trials. The engines require special components to meet marine application requirements such as jacketed high pressure pipe, fire resistant fuel hoses, etc. For this, we redesigned and revalidated all engine components. Our marine engines have also been certified by Indian Registrar of Shipping (IRS).

# Engines for fire-fighting pumpsets (FM/UL Approved)

We are the first company in Asia to get FM (Factory Mutual standards) & UL (Underwriters Laboratories) approval for engines used in firefighting pumpsets. During FY 2010-11, we have started the manufacture of engines for these pumpsets.

## **Green Technology Cell**

Our management's increasing focus on non conventional fuel has resulted in the creation of a Green Technology Cell. This cell carries out research and development specifically for adapting our current range of engines to run on alternate fuels like bio-diesel, bio-gas, compressed natural gas or straight vegetable oil. Further, gas engines have much lesser exhaust and noise compared to conventional diesel engines.

#### Super Silent Canopy for DG sets

We have successfully developed 'Super Silent' gensets and have made an application to patent the same - it meets the requirement of less than 65 dBA sound pressure level for 15 to 62.5 kVA rating generating sets as per ISO 8528-10. It has use in residences and hospitals and other low noise environments.







## **INFORMATION TECHNOLOGY (IT)**

The Information Technology (IT) division enables us to carry out our work seamlessly day after day. The division maintains our ERP and provides a set up for efficient delivery of services. Our IT strategy, roadmap and investment plan are developed based on our vision, mission and values and is thus aligned with our organizational strategy. Our IT vision is "to provide all the stakeholders a window to KOEL world, through computing devices".

Every year, the IT department's initiatives are driven based on Corporate Objectives, Strategies, goals / initiatives of other departments and feedback from Internal Audit. The objective behind these initiatives is to improve effectiveness and efficiency of processes through simplification, standardization and automation.

IT managers visit various stakeholders at different manufacturing locations to understand their information needs and improvement areas. They also visit reputed companies to benchmark efficiency and effectiveness of IT enabled processes and emerging trends in information technology.

We have an intranet portal called "MyKOEL", where all relevant employee information and services are made available such as leave applications, tour management, medical reimbursement, EHS website to name a few. This year, there have been significant improvements in IT enabled processes through initiatives such as the following:

#### **Development of business intelligence (BI)**

Data is captured in ERP and converted into information critical to business heads through online BI on myKOEL. We have enabled online access of information pertaining to inventory, OM, HR, receivables and payables across all departments to aid our senior managers in taking timely decisions.

## Upgraded network and network performance

Towards reliable and secured network infrastructure This year our CMD's address to the managers was broadcast live on the web, enabling our colleagues to tune in from remote locations

#### **Increased reliability**

To ensure business continuity, we now have a Disaster Recovery method in place

#### Development of business sites on myKOEL

We moved as many as 52 hard processes to electronic processes and enabled them to be paperless this year.



Incorporated in 1946, Kirloskar Oil Engines Limited (KOEL) is a part of the Kirloskar Group. It is one of the leading and largest manufacturers of diesel engines ranging in capacity from 4 hp to 800 hp and

from 2,400 hp to 11,000 hp, with an annual

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Kirloskar Oil Engines Ltd. (KOEL) has entered into a license agreement with Daihatsu Diesel Mfg Co Ltd, Japan for manufacture and supply of diesel engines of Daihatsu FIND YOUR PRODUCT Select country By Product | By Application KOEL Website We have implemented many innovative processes to enable us to deliver higher customer value. Some of the products of innovation at IT are:

Innovative Initiative	Customer Value
Critical Component Traceability	On Line availability of Critical Component Serial number Information linked with Engine Serial Number
Engine Test Bed Results captured in ERP	On Line availability of Engine Test results linked with Engine Serial number
Payment Encryption	Enhanced security for e-Net payments
Receipt Automation	Reduction in manual intervention and work by introducing the process for creating and applying receipts from customer
Enhancements in i-supplier portal	Item revision number, details of invoice/ debit note/ payment details as well as PPM data available to suppliers
Lock of +/- 50 Rs. Tolerance at GRR stage	Has improved bill passing activity ( present average volume is 30,000 invoices per month )
Bar coding of ASN receipts in Kolhapur / Pune	Reduced GRR preparation time
K Drive	Enhanced data security
Cloud computing for internet browsing	Enhanced secured internet access at reduced price

Other measures from IT in driving us towards an efficient and environmentally conscious operation are:

- » Initiation of installation of AC system with VRF technology, facilitating the control of local cooling thus resulting in considerable saving vis a vis conventional AC systems
- » Virtualization of 14 servers, ensuring lesser requirement of physical servers resulting into power savings
- » Introduction of desktop policies that ensure power savings in idle state.
- » Initiation of internal lighting integrated with occupancy sensors at the data centre.
- » Adoption of best practices from ISMS and ITSM
- » Initiation of upgrade to Tier 3 ready data centre, resulting in the implementation of world class best practices related to data and computing equipments

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# **CORPORATE GOVERNANCE**

## ENGAGEMENT WITH SHAREHOLDERS

We engage with our shareholders to foster the growth of our business and increase value for them.



This year, the Ministry of Corporate Affairs (MCA) has permitted companies to dispatch documents such as Annual Reports, Notices of general meetings/ postal ballots, etc. through electronic mode. Accordingly, we sent out annual reports through electronic mode to those shareholders whose email addresses were available. In order to enable other shareholders to participate in this green initiative, we have shared email registration forms along with the Annual Report to the others and have requested them to register for this facility.



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At KOEL, we recognize the importance of an effective Corporate Governance mechanism. The Chairman & Managing Director (CMD) and the Joint Managing Director (JMD) collectively lead the organization. The Executive Director (ED) is responsible for operations and reports to the Joint Managing Director. The ED is assisted by a Steering Committee which comprises of all Business Unit heads and Functional Heads. The steering committee is further subgrouped into 3 committees:

- » Administration Committee
- » Business Development Committee
- » Operations Committee

Guided by the vision of decision makers, these committees are responsible for strategy development, planning and execution of actions to achieve the company's goals.

## **BOARD OF DIRECTORS**

The Board of Directors is the highest decision making body of our organization. For the financial year 2010-11, the Board of Directors comprised of 13 Directors, with 4 Executive Directors and 9 Non-executive Directors. 8 out of 13 directors were Independent Directors.

The Chairman of the Board is also the Chief Executive and the highest officer of the Company. The composition of the Board of Directors is in compliance with the requirements of Clause 49 of the Listing Agreement.

Below is the list of members of the Board of Directors, as on 31 March 2011

#### **Executive Directors**

Atul C. Kirloskar Gautam A. Kulkarni Rahul C. Kirloskar Rajendra R. Deshpande

#### Non Executive and Independent Directors

U. V. Rao Pratap G. Pawar Hemendra M. Kothari R. Srinivasan Dr. Naushad D. Forbes M. Lakshminarayan Anil N. Alawani Dattatraya R. Swar

Non Executive and Non Independent Director Nihal G. Kulkarni

#### **BOARD COMMITTEES**

The Board has representation in two primary committees viz. 'Audit Committee' & 'Share Transfer cum Shareholders'/Investors' Grievances Committee'.

## **Audit Committee**

The Audit Committee comprises of four Non Executive Directors, majority of whom are Independent. The Assistant Company Secretary acts as the Secretary of the Committee. The Executive Directors and the Chief Financial Officer attend the Audit Committee meetings. The terms of reference of the Audit Committee include the matters specified under Clause 49 II of the Listing Agreement entered into with the stock exchanges as well as those in Section 292A of the Companies Act, 1956 and inter-alia includes the following:

- » Oversee the Company's financial reporting process and disclosures of financial information to ensure that the financial statement is sufficient and credible.
- » Recommending to the Board, the appointment, reappointment and, if required, the replacement or removal of the statutory auditor and the fixation of audit fees.
- » Approval of payment to statutory auditors for any other services rendered by the statutory auditors.
- » Reviewing the adequacy of internal audit function, if any, including the structure of the internal audit department, staffing and seniority of the official heading the department, reporting structure coverage and frequency of internal audit.

- » Discussion with internal auditors about any significant findings and follow up there on.
- » Reviewing the findings of any internal investigations by the internal auditors into matters where there is suspected fraud or irregularity or a failure of internal control systems of a material nature and reporting the matter to the board.
- » To look into the reasons for substantial defaults in the payment to the depositors, debenture holders, shareholders (in case of nonpayment of declared dividends) and creditors.

## Share Transfer cum Shareholders' / Investors' Grievance Committee

KOEL has a formal and well structured committee for addressing the stakeholders' grievances, namely, the Share Transfer cum Shareholders' / Investors' Grievance Committee. The committee has been primarily constituted to look into investors' complaints like transfer of shares, non-receipt of Balance Sheet, non-receipt of declared dividends etc. The Committee is chaired by a Non Executive Independent Director. The assistant Company Secretary is the Compliance Officer of the committee, to whom all the correspondences are addressed.

The Company received 21 complaints during the financial year. All complaints have been resolved.

## **REMUNERATION TO DIRECTORS**

The Board of Directors decides the remuneration of the Executive Directors in accordance with the provisions of the Companies Act, 1956, subject to the approval of the shareholders. The Company pays remuneration by way of salary, perquisites and allowances (fixed component) and commission. Commission is variable and dependent upon the profits for the financial year, within the ceilings prescribed under sections 198 and 309 of the Companies Act, 1956.

The remuneration to the Non Executive directors is also decided by the Board of Directors, and is dependent upon the profits of the company in the financial year as well as

their participation in the board meetings. This is in compliance to the sections 349 and 350 of the Companies Act, 1956.

## CORRUPTION

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At KOEL, we have always strived to promote a corruption free work environment and consider it as an important factor in framing our rules and policies. Our Code of Conduct also contains guidelines on corruption which define our expectations from stakeholders.

As part of our policy of business transparency and anticorrupt dealings, we completed the TRACE Background Review Check and were certified as 'Member in Good Standing'. TRACE (Transparent Agents and Contracting Entities) is an international non-profit association which works with multinationals and their commercial intermediaries for due diligence reports, compliance procedures as well as training and sensitization on issues of anti-corruption and anti-bribery. Our certification was renewed this year up till August 31, 2011. The award of TRACE membership certificate provides our regional and global partners with confidence and assurance that our business activities are in full compliance with national anti-bribery standards and international anti-corruption conventions.

## **RISK MANAGEMENT FRAMEWORK**

Risks are certain perceived probable events or issues which could affect the achievement of an organization's long term and short term objectives. At KOEL, we have institutionalized a formal and robust Risk Management Framework to gauge such risks. In compliance with Clause 49, the board members are also informed of the Risk Assessment and Minimization Procedures as laid down by the company.

As reported last year, we have a well structured setup for identification, management and mitigation of risks. Our Internal audit function concentrates on critical entitylevel risks. Each of these risks is discussed threadbare, crystallized and prioritized by the management. Risks are owned by the concerned business unit heads and Risk Indicators are identified in consultation with them. These indicators essentially help in monitoring the health status of risk areas. Risk Status for selected risks gets compiled and analyzed as the data flows from the Risk Owners to the Internal Audit to the Management. For each risk area, the owners implement suitable Risk Management actions whose results are reflected in the Risk Register. This Risk Register is monitored and reviewed every six months and a report is presented to the Audit Committee.



# **MEMBERSHIPS AND ASSOCIATIONS**

We are an active member of the Confederation of Indian Industries (CII). We have often been a proud host to many meetings of CII at our premises. We are also a signatory of the CII Code for Affirmative Action.

Key national/international industry associations / agencies of which we are member:

- » All India Management Association
- » Automotive Component Manufacturers Association of India
- » Bombay Chamber of Commerce and Industry
- » CII Institute of Quality Confederation of Indian Industry
- » Confederation of Indian Industry (Western region)
- » Confederation of Indian Industry
- » Engineering Export Promotion Council
- » Exactus Corporation Limited
- » Federation of Indian Chamber of Commerce & Industry
- » Federation of Indian Export Organisation
- » India-China Chamber of Commerce & Industry
- » Indian Diesel Engine Manufactures Association
- » Indian Earthmoving & Construction Industry Association Ltd
- » Indo American Chamber of Commerce
- » Indo German Chamber of Commerce
- » Indo-African Chamber of Commerce & Industries
- » Maharashtra Chamber of Commerce & Industry
- » Maharashtra Economic Development Council
- » Mahratta Chamber of Commerce Industries and Agriculture
- » National Council of Applied Economic Research
- » Quality Circle Forum of India
- » The Automotive Research Association of India



# **ECONOMIC PERFORMANCE**

One of the major events in this financial year was the listing of our shares on the BSE and NSE in December 2010 after our successful completion of post demerger related activities.

At KOEL, the senior management considers climate change and the consequent risks and opportunities a significant factor in driving forward business. In doing so, our finance function has recognized an opportunity to automate processes which are handled manually and thus mitigate associated risks of manual record keeping. This will allow us to move from data keeping to data analysis and strategise based on the information.

In this endeavour, one of the first steps taken was the implementation of the advanced concept of Economic Value Added (EVA) on a scientific basis in evaluating our financial performance. Further, we worked with the IT department and have now developed online reports on ageing of receivables and over dues, daily reports of plant wise inventory, project wise inventory tracking for LEBG and other virtual solution packs. This has directly helped us in terms of monitoring working capital levels. More than 50% of total customer receipts were covered through Electronic Cash Management system (E-CMS) this year. This ensured speed, paperless working and end to end integrity with banking and RBI system. As much as 60% of payments to suppliers were also effected through E-net resulting in substantial reduction in manual effort. We have taken up a target to virtualize 100% of the receipts by March 2014.

With these measures in process improvement and increased automation, our month and year end reporting can now be done with increased accuracy in shorter times. We have received an approval from the Department of Scientific and Industry Research, for weighted deduction of 200% on eligible R&D expenditure under the Income Tax Act. This resulted in savings of Rs.14 crores in income tax for the financial year 2010-11. Similar to last year, we were eligible for the industrial promotional subsidy to the tune of Rs. 86.74 crores since our Kolhapur facility housed in Kolhapur MIDC has been conferred with the 'Mega Project' status by the Government of Maharashtra. Further, we were also entitled to exports incentive and received Rs. 7.06 crores for the same this year.

The regulatory requirement of adopting the BS III standards from BS II was a regulatory risk in relation to stricter emission norms we faced this year. The costs involved in upgrading infrastructure for testing the BS III compliant engines were around Rs. 6.0 crores. While there were risks and associated costs, we were the first in the industry to move our product portfolio from BS II to BS III compliant engines. We expect the introduction of BS IV emission norms by 2015, and are preparing to be ready in advance so that no time is lost in introducing our products to the market.

Component (in Rs. crores)	2010-11	2009-10
Direct Economic Value Generated » Revenues	2435.37	2269.17
Economic Value Distributed » Operating Cost » Employees Wages & Benefits » Payments to providers of Capital » Payments to Government » Community Investments » Marketing. Administration & Other Expenses	1681.41 178.92 92.26 70.68 2.62 214.88	1569.06 129.39 81.57 95.04 2.24 207.14
Economic Value Retained	190.88	184.74

## **EMPLOYEE BENEFITS**

Our contribution plans for full time employees remain unaltered as mentioned last year. They are -

- » Superannuation schemes
- » Provident Fund scheme
- » Employee State Insurance scheme

The contribution paid / payable under these schemes is recognised during the period in which the employee renders the related service. As for the employee Provident Fund, we make specified monthly contributions to a Company-administered Trust. The Government notifies the minimum interest payable by the trust to the beneficiaries every year. The Company has an obligation to make good the shortfall, if any, between the return from the investments of the trust and the notified interest rate, which is recognised as a cost as and when determined.

Apart from the above defined contribution plans, we provide the following defined benefit schemes:

- » Gratuity Fund scheme
- » Long term compensated absences
- » Pension

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- » Post retirement medical benefit scheme
- » Long term service award

The present value of the obligation under such defined benefit plans is determined based on the actuarial valuation using the Projected Unit Credit Method as of the date of the Balance sheet. In case of funded plans, the fair value of plan asset is reduced from the gross obligation under the defined benefit plans, to recognise the obligation on the net basis.

## COMMUNITY INVESTMENTS

We, at KOEL, firmly believe in extending the benefits to the community as well as to the stakeholders. We have made significant monetary contributions amounting to Rs. 2.61 crores during the last financial year; 8% of which were routed through our CSR initiatives while the rest were donations to institutes and organizations other than non-political parties.

While we operate in the Industrial Development Corporations' designated areas, we continue to remain conscious of the communities around us. For example, in Ahmednagar where we actively participate on the MCCIA's Personnel Executive Forum, we have raised several issues such as the encroachment of land by street vendors on the outgress of plot holders, as it is a safety threat to the vendors owing to its vicinity to flammable material storage areas.

## ENGAGEMENT WITH INVESTORS

We engage with our investors to achieve better and sustained return on investments. We track the share rate along with investor perception and hold regular meetings with them. We also engage with our investors through quarterly board meetings and General Body meetings, where they can raise their concerns or issues. During the financial year 2010-11, we held investor meetings and conducted analyst meets in addition to the Annual General Meeting. The issues raised through these forums are addressed and an update is presented in the subsequent meetings.



## DISCLOSURE TO MANAGEMENT APPROACH - ECONOMIC

Policy	'Steering Committee' formulates KOEL's economic policy & strategy and the Functional Heads formulate the strategies for respective functions so as to meet the Vision, Mission, LRP, and AOP objectives. The LRP and AOP are framed with due regard to stakeholder expectations.
Goals & Performance	<ul> <li>Vision:</li> <li>To be amongst the top ten Global Players in off-highway engines business.</li> <li>Missions: <ul> <li>By 2012, we will achieve CII EXIM Business Excellence award status</li> <li>By 2014, we will be a Rs 5000 Crores company with 15% profitability</li> </ul> </li> <li>Performance measures <ul> <li>Regular tracking of the global production values.</li> <li>Ensure safety and liquidity of funds through effective fund management</li> <li>Ensure comprehensive risk management and maximize returns</li> <li>Achieve cost improvement by eliminating wasteful and non value adding activities</li> <li>To be a debt free company</li> </ul> </li> </ul>
Key successes in economic per- formance in year 2010-11	<ul> <li>» Introduction of new cost effective products</li> <li>» Acquisition of major OEMs to strengthen the market position</li> <li>» Customer consolidation initiatives to promote continued business growth</li> <li>» Productivity improvements and introduction of flexibility in manufacturing to mitigate demand fluctuation risk</li> <li>» Continued investment in cost reduction Initiatives such as Value Engineering &amp; Value Analysis</li> <li>» Sales promotion through export as the export sector showed positive signs</li> <li>» Adherence to loan payment schedules</li> <li>» Introduction of ERP based alert &amp; RMSP Reporting</li> </ul>
Risks & Opportunities	<ul> <li>Market Competition - Global players targeting to enter the Indian Market</li> <li>Auto and tractor manufacturer's entry in DG set market</li> <li>Major off highway OEMs developing their own engines</li> <li>Low Cost Product Entry - Chinese quality products entry into the higher kVA engine segment</li> <li>Infrastructure projects by the Government</li> <li>Increase in power deficit</li> <li>Promotion to nuclear power plant projects by Government (20000 MW by Yr 2020) - Policy changes by Government in near future</li> </ul>
Changes in reporting period	Listing of KOEL on NSE & BSE post demerger

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# STRATEGIC SOURCING

## ENGAGEMENT WITH SUPPLIERS



We strongly believe in maintaining standard quality for the materials we procure from suppliers, and encourage supplier engagements through multiple channels. Health and safety are also given due importance.

Through regular quarterly corporate communication letters (KOEL Communiqué), we keep our supplier partners updated on the happenings at KOEL and our future plans. We actively engage with our suppliers through perception and satisfaction surveys, trainings and supplier quality initiatives. We believe in having strong ties and partnerships with our suppliers and ensure that they grow with us. This year, we have taken up initiatives with our suppliers in the following four areas:

## QUALITY IMPROVEMENT INITIATIVES

We seek to work with our suppliers to ensure and improve quality of our products procured. We provide six sigma green belt training to our suppliers. 22 employees/ owners of our supplier partners are certified as Six Sigma Green Belt.

In November this year, we conducted the second Supplier Quality Improvement Contest (SQIC). Of 72 entries received from our various suppliers, we presented a trophy and a certificate to the top 3 performers.

Due to our various supplier quality initiatives, the percentage of parts below 1000 ppm has crossed 90% mark. Overall ppm has shown continuous improvement for the last four years.

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## COST REDUCTION INITIATIVES

Our sourcing team works closely with preferred partner suppliers through initiatives like VA/VE projects. We have completed as many as 180 cost reduction projects translating into saving of Rs. 16.03 crores. Major areas of cost reduction have been in weight reduction through VA/VE, negotiation and use of alternate materials and process improvement.

We have also started a new initiative called as "the Green Sourcing program".

#### **Objectives of the Green Sourcing Program**

- » Introducing environmental awareness
- » Identifying waste reduction opportunities in energy, water, packaging and transportation
- » Sourcing material with higher recyclable content.

#### Initiatives undertaken

- » Introduction of asbestos free gasket & lagging materials
- » Introduction of skids to eliminate use of wood & corrugated boxes
- » Introduction of returnable crates for transportation.
- » Gaining approval of Maharashtra State Pollution Control board for all plating material suppliers.
- » Reduction in casting weights through the VA/VE initiatives

#### Some of the project outcomes are as follows:

INITIATIVES	STATUS	OUTCOME
Plastic bin for Futura Camshaft	COMPLETED	Elimination of corrugated box
Plastic bin for Futura Connecting Rod	COMPLETED	Elimination of corrugated box
Plastic bin for Futura Gear End Cover	COMPLETED	Elimination of corrugated box
Plastic bin/tray for Varsha Gov.shaft & lever	COMPLETED	Elimination of wooden box & plastic bags
Plastic tray for Varsha gears	COMPLETED	Elimination of corrugated box
Plastic bin for Varsha Pumpshaft	COMPLETED	Elimination of corrugated box
Plastic bin for Varsha small Components	COMPLETED	Elimination of corrugated box
Skid Development for Control Panels	INPROCESS	Elimination of corrugated box
Batteries Without Corrugated Boxes	COMPLETED	Elimination of corrugated box
Reduction in No.of items in Control Panels	COMPLETED	Reduction of transportation cost

## CASE STUDY

At our Pune plant, more than 15 fabricators work in-house for various fabrication and sheet metal work. They perform fabrication jobs for infrastructure modification, production & utilities support. All these fabricators had been using primitive and inefficient arc welding machines for their fabrication activities. During the last year we have taken up the initiative to introduce inverter base welding machines in place of these arc welding machines. The energy consumption in inverter based welding machine is only 60% compared to that of the arc welding ma-<u>chines. They also</u> do not consume energy during idling.

The fabricators, being used to the arc welding machine, opposed the move. We then conducted an awareness program to make the fabricators understand the benefits of the new, inverter based welding machines. Also, numerous trainings were organized that demonstrated the use of these machines. Gradually, the fabricators became satisfied, and in the first phase around 14 machines were replaced with the inverter based welding machines. Implementation of this initiative has resulted in nearly 40% energy savings. In the second phase we intend to replace the remaining arc welding machines.



# **DEALERS & DISTRIBUTORS**

Our products and services are delivered to the customers through various OEM/ dealer channels. Distributors / Dealers are the ambassadors of the Kirloskar brand and bring us closer to customers. They help us in understanding customer needs and expectations enabling us to tailor our product and service offering according to demand. After sales & service is provided to the customers of generating set and off highway applications through a dedicated network of 103 service dealers with 338 service outlets. This after sales network continues to expand every year - with twin objectives - to remain close to the customer and to provide proactive service by ensuring

- » response time is within 4hrs when within 50km of dealership and 8hrs beyond 50km of the network
- » restoration time within 24hrs for minor complaints and 72hrs for major breakdowns

For AOBG engines & pumpsets, the delivery mechanism is through a network of 250 Agri dealers. The spare parts availability is ensured through the 117 authorised parts distributors.

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## ENGAGEMENT WITH DEALERS/ DISTRIBUTORS

The senior management including CMD, ED, Business Heads / Marketing Heads & other senior leaders meet GOEMs, dealers, distributors regularly to understand market conditions and requirements of products and services. The engagement is also aimed at understanding the expectations of the dealers and distributors from KOEL, sharing of needs and experiences, communicating policies, processes and other developments within the company. Further, it gives us an opportunity to understand the training needs of the dealers and distributors, identify cost reduction avenues and opportunities to install quality systems and audits. This dialogue happens at various forums including one on one interaction, monthly/ quarterly reviews through helpdesks and dealer conferences and meets.

We provide guidance to dealers for ISO 9000 - system implementation. We also conduct annual dealer quality improvement projects and contests. Dealers are recognised based on their performance for the year and rewarded. To motivate these channel partners, dealer conferences are organised in India as well as overseas and the top performers are felicitated by the CMD or ED.


### CASE STUDY

In line with our organizational goal of restricting the Warranty Cost to a maximum of 0.6% constant efforts are being made to drive productivity through seamless processes and following a disciplined approach to manufacturing. We also review our policy for claims and payments to service dealers as this has an impact on reducing warranty costs.

Claims lodged by dealers are entered into the ERP CRM system, which in turn, triggers response and resolution activities. The claims database is reviewed on a continuous basis by Warranty Cell of QA and detailed analysis is conducted using various SQC tools. This activity covers both within warranty and post warranty feedback on product and services. In the near future, we intend to address warranty costs under a structured monitoring process, by bringing it under the scope of technologies such as business intelligence.

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#### PGBG and AOBG Warranty Cost as % of Sales







Bearing Warranty Cost as % of Sales







# Target Actual



# **ENVIRONMENTAL PERFORMANCE**

At KOEL, we strive to be global leaders and embrace the latest manufacturing technologies and facilities, so that our products conform to best in class standards. All our facilities comply with the local environmental legislative requirements – such as those enforced by the Central Pollution Control Board and State Pollution Control Boards, in addition to compliance with the Factories Act and Rules.

#### DISCLOSURE TO MANAGEMENT APPROACH - ENVIRONMENT

Policy*	<ul> <li>» Energy Policy</li> <li>» EHS Policy</li> <li>» Signatory to CII's Code for Ecologically Sustainable Growth</li> </ul>
Goals & Performance	<ul> <li>» Environmental compliance</li> <li>» Goals indicated in policies</li> <li>» OHSAS certification for Rajkot plant by 2011-12</li> </ul>
Organisational responsibility	Senior Vice President, P, IR, HR & Utilities

\*elaborated in the following sections

We have an Energy Management Program which has been developed based on the policies and ecological codes that we abide by -

#### **Energy Policy**

- » First adopted in 2002, first revision in 2005
- » Revision proposed in 2011-12
- CII Code for Ecologically Sustainable Growth
- » Signatories since 2007

#### **EHS Policy**

- » Originally established at Environmental Policy in 1998-1999
- » Modified suitably as EHS Policy in 2009

Objectives and targets for energy conservation are taken up and planned in line with these policies. The Energy Policy is signed by our Chairman & Managing Director (CMD) Mr. Atul Kirloskar. This indicates a strong commitment from our top management towards energy conservation. A proposed revision of the policy is being taken up this year in a systematic fashion to update the policy to better suit our future needs. Our energy policy is as follows.

#### **KIRLOSKAR OIL ENGINES LIMITED**



#### **ENERGY POLICY**

Achieving optimum use of energy in our operations and bringing about improvements in the energy efficiency of our processes and products will form an important component of the continuous im provement efforts in our organization

We shall strive to reduce enegy consumption per unit of value added by:

- » Minimizing wastage.
- » Using energy efficient processes and equipment.
- Conducting periodic energy efficiency improvement studies and implementing improvement measures.
- » Involvement of employees of all levels in the energy conservation efforts.
- » Effective dissemination of information
- Establishing norms and initiating programmes to help us comply with these norms.
- » Promotion to renewable energy resources within and outside KOEL.

In achieving these, we shall utilize the knowledge and expertise available from various sources including sister organizations, col laborators and outside experts.

We shall make efforts to bring about continuous improvement in the energy efficiency of our products.

05 May 2005

Atul Kirloskar Chairman and Managing Director ENVIRONMENTAL PERFORMANCE Contd...

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The following is our EHS Policy. The policy itself directs every KOELian to own and implement the commitments in every aspect of their work.





The Confederation of Indian Industries' (CII) initiated a program "Mission for Sustainable Growth" and appealed to the Indian industries to sign the ecological codes so prescribed and implement them. We are one of the leaders in the industry to have signed the Code and committed to planned reductions in the consumption of natural resources. We have successfully achieved all energy related targets set out in the Code. The following section shows our formal commitment statement to the Code.

## **CII - CODE FOR ECOLOGICALLY SUSTAINABLE GROWTH**

Being Cognizant of the need of sustainable growth as dwindling stock of natural capital, we commit ourselves to attainment of following Ten - Natural Capital Commandments.

- 1. Reduce specific consumption of energy and water by 3-5% every year over next ten years
- Reduce specific generation of waste and reduce the quantum of waste going to landfills by 3-5% every year over next 10 years.
- Increase use of renewables, including renewable energy by 5% every year in place of non-renewable over next ten years.
- Reduce greenhouse gases emission and other process emissions by 3-5% every year over next ten years
- 5. Increase use of recyclable and increase use of recyclability of resources embedded in the product.
- 6. Increase the share of harvested rainwater in the overall annual use of water by 5% every year over next ten years.
- 7. Incorporate life cycle assessment criteria for evaluating new and alternative technologies and produ
- 8. Strive to adopt green purchase policy and incorporate latest clean technologies at design stage.
- Take the lead in promoting and managing product stewardship programs, by forging partnerships with business and communities.
- 10. Reduce depletion of natural capital, which is directly attributable to company's activities by 5% every year over next ten years.

We also commit to demonstrate attainment of these commandments in our pursuit to certifications such as ISO 9001, ISO 14001, OHSAS 18001, SA 8000, Green Buildings, Eco-labels and the like.

ATUL KIRLOSKAR Chairman and Managing Director Kirloskar Oil Engines Ltd.

15 August 2007

#### ENERGY MANAGEMENT STRUCTURE

At KOEL, we recognize that sustainability cuts across all levels and calls for commitment from all employees of the organization – from the Board, the CMD, Senior Management to operational staff and administration. Being in the manufacturing industry, it is imperative for us to adopt energy conservation efforts in our move towards sustainability in order to beat the rising costs of energy, to manage greenhouse gas emissions and to optimally use fast depleting natural resources. With this perspective, our Energy Conservation cell (ENCON) has been constituted with representation from across functions and levels. It falls under the overall purview of our Utilities Department. Our ENCON structure remains unchanged from last year. The ENCON culture is anchored by the four pillars of centralized energy monitoring system, knowledge building, technology upgradation and green energy and products it follows the following model.

#### **ENVIRONMENTAL PERFORMANCE Contd...**



We follow the Plan Do Check Act (PDCA) cycle for our energy management. We regularly interact with ENCON groups from other companies within the Kirloskar Group, enabling us to learn and share good practices from across the industry.

We monitor energy usage and set targets for reduction of waste. We keep a check on energy usage while improving existing operating procedures. While the total energy consumed may rise with production, volumes, input and other factors, the specific energy consumption i.e., the amount of energy consumed in the production of one unit of product is a better indicator of the energy efficiency of our processes.

During 2010-11, the specific energy consumption for engines further reduced to as much as 2.4 % in comparison with the preceeding year. This is shown in the graphs below.

For bearings, the reduction in SEC is low as compared to the last couple of years, indicating limited scope of improvement in energy conservation. While the SEC is not at saturation level, further reduction in energy consumption would require rebuilding of plant and adoption of new manufacturing technologies.

The specific energy consumption (SEC) for our Pune plant has reduced over 4% this year. This may be partly attributed to lower plant utilization factor due to rebuilding activities at R-Shop. We have further set a target of 3% reduction in SEC during 2011-12 with projected production planning for the Pune plant.

# SPECIFIC ENERGY CONSUMPTION

# Specific Energy Consumption -Engines (Electrical)





#### Specific Energy Consumption - Bearings (Electrical)



**ENVIRONMENTAL PERFORMANCE Contd...** 

# DIRECT ENERGY CONSUMPTION (GJ)

The following table represents the split of total direct energy consumed across various plants at KOEL:







As evident from the graph, most of the direct energy requirements are met by diesel which accounts for nearly 81.26%. The Pune plant has the highest cumulative energy consumption which is approximately 43 % of the total energy consumption of the company. The following graph shows the direct and indirect energy consumption for all of KOEL.



During this year 2010-11, we undertook a project for estimation of carbon footprint across all our locations – emissions from production processes and allied activities. The study follows the internationally adopted protocol, the World Business Council for Sustainable Development (WBCSD) protocol/ISO 14064. This year, our direct GHG emissions were 7,030 t CO<sub>2</sub>e and indirect emissions 27,578 t CO<sub>2</sub>e.

At KOEL, we are constantly seeking out arenas where alternate renewable energy sources can be utilized. Last year, more than 35% of our total energy profile was 'green'.

Further, the following graph shows the split of indirect energy in terms of electricity from grid and electricity from renewable sources of energy over different plants.

We track emissions from stack at all locations, as a part of the legal compliance requirement. None of our operations use ozone depleting substances, for any of our plant processes.

## INDIRECT ENERGY CONSUMPTION



# STACK EMISSIONS

Stack Emissions (in tons)	SPM	SOx	NOx
Pune	0.37	1.39	0.13
Kolhapur	16.66	4.64	4.33
Nashik	0.11	0.22	0.00
Ahmednagar	1.50	1.23	0.45

\*Emission numbers from our Rajkot facility have not been included in the above table as with the present monitoring mechanism the emissions cannot be reported in Kg/month. They are presently monitored in concentrations as per the PCB norms

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SPM - Suspended Particulate Matter

NOx - Oxides of Nitrogen

SOx - Oxides of Sulphur



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We are committed to promoting and integrating renewable energy resources in our processes and products. With respect to these commitments, we have made a substantial investment in renewable energy projects. We not only using green energy is our production activities, but also integrating our products with renewable energy resources. We have incorporated various measures as part of our energy conservation efforts. Some of the renewable energy initiatives are:

- Purchase of power generated by wind power project
   We procure power generated from wind power by our sister concern. This restates our commitment to reduce our carbon footprint.
- » Generation of 4425  $m^{\scriptscriptstyle 3}$  of bio-gas from canteen waste
- » Generation of 1.2 lakh units of electricity from biodiesel which was used to meet in-house power requirements
- » Installation of two solar water heaters for canteen use resulting in energy savings of approximately 20000 units/year
- » Installation of 300 natural draft turbovents at Pune resultingin reduction of artificial cooling requirements and annual saving worth Rs 25 lakh

The adjacent graph shows the amount of energy (in kWh) being saved across various plants.

Total electric energy saved was 1.9 GWh this year. Additionally, savings of 19,385 litres of HSD.



Some highlighted energy conservation projects, plant-wise are:

#### **PUNE PLANT**

- » Utilization of maximum natural day light by installation of transference sheets & light pipe at R-HA & DV plant.
- » Installation of compressed air consumption monitoring system with individual flow meters for each shop
- » Replacement of sodium vapor lamps by new generation LED street lights
- » Installation of new generation T-5 lamps by replacing old & inefficient mercury vapour & metal halide lamps at R-HA plant.
- Installation of wind driven turbo ventilators at R-HA plant to reduce the energy consumption of air circulators.
- » Replacement of old & inefficient compressed air piping by energy efficient & zero air leakage piping system.



#### **KOLHAPUR PLANT**

- » Installation of wind driven turbo ventilators and polycarbonate transparent sheets at Utility & Main Plant for improving the daylight and thus energy conservation.
- » Replacement of Centrifugal Compressor Intercooler to improve efficiency.
- » Installation of variable frequency drives for higher size motors at CPCP Plants.
- » Installation of variable frequency drives for screw compressor.
- » Installation of energy efficient fan less cooling towers
- » Use of regenerative testing panels for genset testing.

# NASHIK PLANT

- » Reduction of engine testing hours to reduce fuel consumption
- » Utilization of maximum natural day light by installation of transference sheets and light pipe.
- » Use of welding machine energy saver for welding sets
- » Installation of star rated air conditioners replacing old and inefficient systems.

# **RAJKOT PLANT**

- » Reduction in the plant contract demand from 675 KVA to 475 KVA and change CTPT Unit.
- » Installation of auto timer panel for Painting section for Air Ventilation System.
- » Improvement in P.F by Capacitor Bank-Connection for each machine and at ETP Area.
- » Installation of wind driven turbo ventilators and polycarbonate transparent sheets for improving daylight and energy conservation.
- » Use of LED & solar street lights at security gate.

# AHMEDNAGAR PLANT

- » Installation of wind driven turbo ventilators and polycarbonate transparent sheets at Main Plant for improving daylight and energy conservation.
- » Replacement of old and inefficient reciprocating compressor with energy efficient screw compressor.
- » Modification of ammonia cracking furnace to improve energy efficiency.
- » Re-insulation of holding & melting furnaces to reduce radiation losses
- » Use of energy efficient Air Gun for cleaning operations.

# WATER

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# WATER BY SOURCE 2010-11



83% Water from Municipality/MIDC 15% Ground water 2% Water from tanker

### WATER BY PLANT / SOURCE 2010-11 (M<sup>3</sup>)



Water is one of the most critical resources. We recognize its importance and constantly monitor water consumption across plants. Our resource utilization is based on the 3R concept i.e., Reduce, Recycle and Regenerate. Across most of our location, the bulk of the water requirements are met by the municipality/ MIDC water supply, sufficing for 83% of our requirements.

Other prominent sources of water include ground water and water from tankers. The water usage spread by location is as follows:

Through continuous upgradation of Effluent Treatment Plants (ETP), we have achieved zero discharge at all our campuses. All treated water is then used for gardening or construction applications. 33% of the total water consumed this year has also been recycled, which is a healthy increase from 17% last year.

At our Ahmednagar plant, water use has been reduced by as much as 7% from last year. This is a result of improved monitoring by metering. Leakage reports are attended to immediately to control wastage. In Rajkot , we have replaced hydraulic dynamometer with Eddy Current Dynamometer, which helps in conserving the natural resources i.e. water. At Nashik, not only are we incorporating water conservation measures, but also creating awareness amongst our suppliers to reduce their water consumption during production and use.

Some important water conservation initiatives adopted at Pune are:

- » We have long been practicing recycling of 100% of water from product performance testing and heating processes in cooling towers.
- » Used water is sent to ETP and reused for gardening within premises.
- » Hand wash taps have sensors to ensure optimum use.
- » Localized movable sprinklers are used for watering lawns for optimum water consumption.

Activities planned for all plants under the water conservation program for the coming year-

- » Water audit by external agency at all locations
- » Implementation of no and low cost measures of water audit report
- » Installation of more number of water consumption meters at different locations
- » Integration of water meters with centralized Energy Monitoring System
- » To ensure the implementation of these activities, these have been incorporated as part of key result areas (KRAs) of respective authorities.

# CASE STUDY: RAIN WATER HARVESTING

We completed our first catchment area for rainwater harvesting at Kolhapur in 2009 with a capacity of approximately 80 lakh litres at an expenditure of Rs. 6,05,500. Gradually, two more catchment areas with the capacity of 58 lakh litres and 3.5 lakh litres respectively came up in 2010 at an investment of Rs. 90,68,500.

Another rain water harvesting pond was constructed in Kolhapur in 2011 via excavation of black cotton soil. The capacity of this pond is approximately 42 lakh litres, and it was built at a cost of Rs. 19,57,500.

With this, the total amount of rainwater that is collected has risen to 183.5 lakh litres.

# Rainwater Harvesting Capacity (in lakh litres)







#### **ENVIRONMENTAL PERFORMANCE Contd...**

### MATERIAL EFFICIENCY



#### Additional materials used (m<sup>3</sup>)

Semi-manufactured	Associated	Packaging
items	materials	materials
10.88 m <sup>3</sup>	19,798.24 m <sup>3</sup> (4% recycled)	12,327.31 m <sup>3</sup>

The raw materials required only for casting and forging and are fully reused (19,722 tons).

#### Total waste generated this reporting year

Location		Non- hazardous		
	Solid (Tons) Liquid (Kl) Numbers		(tons)	
Pune	61.58	173.63	1824	1232.80
Kolhapur	306.70	440.26	6220	4256.21
Nashik	-	26.04	62	89.23
Rajkot	13.67	601.52	262	119.71
Ahmednagar	848.69	-	999	768.44

Additionally, 460 bins and 206.09 Kl of non-hazardous wastes were disposed from the sites.

Material efficiency - We procure raw materials and cast/ forge according to our requirements. Most of the other materials featuring in the final product are purchased as semi manufactured goods. We have started to reclaim our packaging material to foster reuse of material. At Rajkot, all the 597 plastic crates for FOP bracket and small casting were reclaimed, while at Nashik we reclaimed more than 17% of packaging wood and bags. Further, at Nashik, suppliers were instructed to deliver materials in non hazardous packing like oil paper packaging instead of plastic bags. The suppliers replaced thermocol packaging with corrugated sheets and boxes, and started to use Skelton type boxes instead of wooden boxes to deliver materials. All 3745 metallic skids used for finished goods were reclaimed at Kolhapur.



All waste is sold to State Pollution Control Board authorized resellers or recognized agencies that dispose the wastes as per norms prescribed by PCB. The generation of paint sludge per engine shows a reducing trend. We are trying to recycle the paint waste by making paint primer from the paint waste through a MPCB/CPCB approved agency. We continue to maintain full compliance to all environmental laws of the land, and we have not paid any fines in this regard during the reporting period.

Further, we have made investments for environmental protection. The summary of these expenses are tabulated below:

# ENVIRONMENTAL PROTECTION EXPENDITURES

Waste disposal, emissions treatment and remediation costs	Prevention and environmental manage- ment costs
Rs. 104.41 lakh	Rs. 77.99 lakh
<ul> <li>» 93 % - treatment and disposal of waste</li> <li>» 7 % - treatment of emissions</li> </ul>	<ul> <li>» 39 % - Extra expenditures on green purchases</li> <li>» 28 % - Other costs</li> <li>» 22 % - External services for en- vironmental management</li> <li>» 11 % - External certifications of management systems</li> </ul>

### CASE STUDY: R-PLANT RENOVATION

During 2010-11, we completed renovation work and re-layout of R-Plant at Pune without hampering the production planning and incident-free. Some facts-

#### Environmenta

We undertook complete removal of asbestos from the roof and replaced it with bare zinc galvanum sheets.

We introduced illumination upgrades such as semi-transparent polycarbonate sheets in the roof which was incorporated at design level itself as an energy conservation initiative.

#### Economic

Illumination upgrades led to savings in operating cost of lighting.

Aids in compliance with illumination requirements set out in Factories' Act without associated costs of lighting.

#### Social

Redesign has led to increased employee satisfaction as a result of better lighting, more space, efficient and effective drainage systems, no bad odour and no spillages on shop floor.



# ENVIRONMENTAL PERFORMANCE Contd...







Massive Tree Plantation Program at Kolhapur Plant - 1



egular Camps for PUC Checking at Kolhapur Plant

# SOCIAL PERFORMANCE

# SOCIAL PERFORMANCE

# **EMPLOYEES**

We consider ourselves to be a people's organization. Employees form an integral part of our organization. Engaging, building and retaining talent continues to be among the top material issues for us. We offer employment only to individuals who are above the employable age (as specified by the law) and strongly condemn child labour and forced labour. We forbid workplace discrimination of any form including that based on gender. There was no incident of discrimination recorded in this reporting period.

Every employee is introduced to our Code of Conduct at the time of induction. The Code contains clear mandates that we as an organization are meant to follow including human rights aspects. We further reinforce this in practice, by denying entry to any individual seeking access to our campus for work if found to be underaged.

The year 2010-11 saw many reforms and introduction of best practices in our Human Resources policies. In recognition of our exemplary work in maintaining excellent employer and employee relations, we have been felicitated with the 'Best Human Response Award' in the large industries category by the Rotary Club of Poona West and the Mahratta Chamber of Commerce, Industries and Agriculture.

We constantly endeavour to incorporate and implement our organisational values and vision in all our peoplerelated processes. It is in our corporate strategy to create opportunities for learning and growth, and to make work more meaningful for our employees. All our full time employees undergo an annual performance review. The review serves as a guide in deciding the future plan and corrective actions necessary in goal setting and planning for training programs for employees. In our aim to build a competent, world-class workforce we engage all our employees in an environment that develops leadership at all levels and promotes professionalism.

The organization headcount as on 31 March 2011 was 3238. Of this, 31.16% (1009 employees) comprises of team members. The organization has 888 employees in various managerial positions. The adjacent graph details the spread of employees with respect to the employment category. All our facilities are located in areas where the talent pool is readily available. This helps us in supporting our preference of hiring locally, as we believe in fostering economic growth in the region we operate. The numbers substantiate this effort as 86% employees in senior management grade are from the local state itself.

A majority of our employees are 30 years of age or younger. The age and gender distribution of our work

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# **EMPLOYEE ENGAGEMENT**

#### **Activities & Highlights**

Developed action plan based on Gallup survey Trainings charted out based on needs KRAs of managers on intranet portal - higher clarity in roles

#### **How and How Often**

Baat Cheet -quarterly inhouse newsletter Gallup -annual satisfaction survey Training programs Performance Management Team building & CSR activities

#### **Purpose of Engagement**

Employee retention Talent Management Health & Safety

# HEADCOUNT DISTRIBUTION BY CATEGORY

#### **Employee by Category**



0.28% Top management (Senior VP & above) 03.09% Senior management (GM to VP) 06.86% Middle management (M2, M1) 17.20% Junior management (M5-M3) 21.83% Team Associates 31.16% Workmen (Team Members) 19.5% Others (GET, DET, Floating, DMC, Retainers, Contract, FTC, trainees, apprentices, etc)

#### Employee Headcount by Age



1433 are less than 30 yrs 1069 are between 30 and 50 yrs 736 are more than 50 yrs

#### **Employee Distribution by Gender**



03.27% Female 97.73% Male

force is depicted below. The industry has a low percentage of women employees, because of the nature of activities. However, at KOEL, we are constantly making efforts to gradually bring about a gender balance in the workforce.

The average attrition rate was 9%. 453 employees separated from the organization during the year due to various reasons such as retirement, etc. Percentage of women separated from the organization was 4.19%. Similarly, 65.78% of the people leaving the company belong to the age group of less than 30 years as shown below-

There has been a marginal decrease in the headcount of the organization from 3261 in 2009-10 to 3238 in the current reporting period.

For any changes in operation, shifts, etc, we provide atleast the minimum notice period specified as per the Factories Act. All unionized employees are governed under the collective bargaining agreement. We have had no cases of any form of labour unrest. We are proud to feature in the Limca Book of Records for signing the 6<sup>th</sup> consecutive wage settlement agreement with the Union in time without losing a single man-day with no external intervention.

#### Number of employees leaving - gender wise split



Number of employees leaving - age wise split



65.78% are less than 30 yrs 15.89% are between 30 and 50 yrs 18.32% are more than 50 yrs

**Kirloskar Oil Engines Ltd**, Khadki, Pune, a Rs 2,200-croreturnover company has an enviable history of not losing a single manday on account of labour unrest in the last 50 years. Its internal union named Rashtriya Engineering Shramik Sangh and the management shares a mature relationship.

Jimca

Book of Records

National Record 2011

From 1995 this is the sixth consecutive time that the company and the union have signed an in-time agreement before the expiry of the previous agreement without intervention of any outside party.

Vijaya Shose Editor, Limca Book of Record

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Policy	Policy on Human Resources Wage agreements
Goals & Performance	Performance Parameters - » Talent management (material issue of sustainability) » Employee engagement » Performance appraisal system » Rewards & recognition » Learning & development
	Harmonious Industrial relations resulting in 6th consecutive Wage
	Agreement being signed in time
	Enhancing skill and competency of employees by instituting Leadership-
	Development Program [LDP, MMDP]
	Performance Award Appreciation for recognising employees efforts.
	Conducting Employee Engagement Survey for seeking feedback on im provement areas
	Ensure Work Life balance for the employees » Conducting Yoga & Health Programs » Flexible in & out timings » Birthday Holiday
	Encouraging gender diversity
	Scholarships for employee's children.
	"I appreciate" On the Spot appreciation
	Financial Assistance through Loan Schemes
Organisational responsibility	Senior Vice President, P, IR, HR & Utilities
Training	Training needs are identified through an annual appraisal process after which the training cell at HR consolidates training requirements. This forms the input for preparing the Annual Training calendar. This calendar is released on quarterly basis and communicated via myKOEL intranet and subsequent mail. It combines functional, technical, and behavioural topics. To meet the intended objective HR plays a vital role in custom- izing training programs and by making use of internal and external re- sources.

# DISCLOSURE TO MANAGEMENT APPROACH – LABOUR PRACTICES AND DECENT WORK

### HR HIGHLIGHTS

Some best practices introduced this year-

- » We reframed and implemented the Performance Management System for managers
- » We initiated the Job Evaluation exercise to create a role based level matrix in senior management
- » We now allow for flexi time working to foster better work-life balance of employees
- » We also introduced a Birthday special holiday for our managers
- » We observed a 'No Vehicle Day' on 25 January 2011 in tandem with our belief of being an environmentally conscious organization. All employees, across all levels came to work by bicycles, public transport or on foot this day.

In an attempt to bring about more clarity in roles, Key Result Areas (KRA) for all managers were brought online with support from IT. The KRAs are linked to 4 corporate objectives for better alignment with our mission. Further, we are in the process of revisiting the existing hospitalization policy and benchmarking the same with hospitalization policies in other organizations, to design a more viable and robust policy for our employees.



#### **KIRLOSKAR OIL ENGINES LIMITED**



Enriching Lives

# HUMAN RESOURCES POLICY

Kirloskar Oil Engines Limited (KOEL) values its employees as its primary resource for its competitiveness & continued growth. It is committed to be guided by the organizational values and vision in all its people related processes.

It will build a competent, world-class workforce to execute its business plans and engage them in an environment that will develop leadership at all levels.

It will continuously strive to enhance the vibrancy in the organization whereby the employees take pride in their work and nurture a healthy work environment that inculcates professionalism.

The employees will be recognized for their accomplishments making them feel a part of a vibrant team to meet global challenges.

Date of release: 01 July 2009 Date of review: 30 June 2012

ATUL KIRLOSKAR Chairman and Managing Director

#### **EMPLOYEE ENGAGEMENT**

We believe in harnessing the wisdom and experience of our own employees towards decision and policy making. For this purpose we have three high-level cross functional management committees as mentioned below:



An instance of employee involvement in implementing organisational initiatives is the layout and renovation of Pune Plant I which was completed in 52 weeks. Involvement of employees while drafting people strategies and plans is evident from the fact that our 6th Wage agreement was signed without a single man-day loss.

#### **Employee Engagement Surveys**

We continue to measure the employee perceptions through the Employee Engagement Surveys conducted by Gallup, which is an independent organization. The surveys are conducted every year, the most recent survey was successfully done in January 2011.

In addition to the standard framework, the Kirloskar group has identified some additional parameters as a part of the employee feedback of Gallup Q12. The survey is administered across all locations for all managerial employees and Team Associates in English and Marathi respectively. The results of the survey are shared with all managers at all locations. Gallup also issues scorecards to those managers who have 4 or more managers reporting to them.

The following are the highlights from the recent survey:

- » Achieved 92% participation of all managers in the survey
- » Completed results sharing with 1500 employees (Managers + Team Associates)
- » Training for 30 new scorecard holders completed
- » Gallup Action Planning was facilitated across all BUs and all Locations.

For the second consecutive year, a Grand Mean Score of more than 4 in the Employee Engagement Survey was achieved by us which is a very healthy score for the company.

#### Attributes of the Employee Engagement Survey

Overall Measures	Work Group Attributes	Enterprise Level Attributes
Overall Satisfaction	I know what is expected of me I have necessary resources Opportunity to do what I do best Recognition in last seven days	Pride & Future Leadership Alignment
Advocacy	Someone at work cares Encourages development My opinion counts Mission purpose of the company	Work Culture Customer Orientation
Loyalty	Co-workers quality commitment Best Friend at work Progress discussions Opportunities to learn & grow	Safety environment Measurements & Rewards Growth & Training

#### **Knowledge and Capability Development**

Development of employees not only adds to a progressive work environment but also helps an organization attain its vision and mission. It is of paramount importance to us and we have a comprehensive training calendar in place consisting of Technical, Functional and Behavioural Programmes. These programmes are further customized depending upon the target trainees viz Junior Management Group, Middle Management Group and Senior Management Group. We have adopted a collaborative approach for framing this calendar and inputs are drawn from various channels such as annual performance appraisals, discussion with department and business heads and also the specific strategic needs that may arise on introduction of new technologies.

We have a tie up with the Welingkar Institute for Leadership Development Program for our employees. This is primarily aimed at developing successors for the key critical positions identified at senior levels. The second batch consisting of 19 Senior Managers in this program commenced training successfully and will be completing in September 2011. We also have a Middle Management Development Program with Kirloskar Institute of Advanced Management Studies. This enables us to create meaningful careers for our employees. There are currently 29 managers participating in this program as part of the second batch.

#### **Training & Development**

Trainings such as the "Fast Tracker Programme" provide excellent opportunities for fast career development. By means of this the candidate progressively undergoes training in basic management skills, advanced management skills at a relatively early stage of his/her career. People are also encouraged to complete higher studies while on the job, and are supplemented by upgrading their skill sets from time to time. The "Gurukul Programme" is intended to impart specialized technical and behavioural training to science graduates who join us.

#### **Graduate Engineer Trainee Program**

29 GETs were selected from around 19 premier institutes across India. The selected trainees undergo an extensive training programme for one year, including outbound programmes, where they are imparted training in various soft skills, engineering skills and management skills, besides being rotated in all functional areas to gain maximum exposure.

Training imparted has gone up substantially from 2.6 man days in FY 2008-09 to around 3.85 man days in 2009-10 and 4.32 man days in 2010-11.

# Average hours of training in 2010-11 per employee by employee category

Category	Mandays	Average hours per employee*
Senior Management	214	15.7
Middle Management	814	28.7
Junior Management	2518	36.0

\* Assuming 1 manday = 8 hours

6 Sigma has become a way of life in KOEL. An internal drive has been initiated to cover maximum managers under Six Sigma Green Belt and Black Belt Certification. A special transactional batch of Black Belt was organized for the corporate functions in close co-operation with Corp QA during the year 2010-11.

Policy	<ul> <li>» KOEL's Code of Conduct binding all employees</li> <li>» Wage Agreements</li> <li>» Agreements with Contractors</li> <li>» The Factories' Act and Maharashtra Factories Rules</li> </ul>
Goals & Performance	Corporate Strategies » Make work meaningful for all » Create opportunities for learning and growth » Be a good corporate citizen Performance: Zero legal non-compliance to Factories' Act
Organisational responsibility	Senior Vice President, P, IR, HR & Utilities

#### DISCLOSURE TO MANAGEMENT APPROACH - HUMAN RIGHTS

# **HEALTH & SAFETY**

# EHS STRATEGIC OBJECTIVES

- » To propagate a culture within KOEL that values good EHS performance and recognizes its link with superior business performance
- » To integrate EHS in overall business processes
- » To minimize the impact of activities, product and services on the environment
- » To maintain an injury free workplace
- » To ensure effective implementation of EHSMS- EMS, OHSAS
- » To continually improve EHSMS
- » To identify & implement best EHS practices

The Health & Safety of our employees and communities in our surroundings continues to be one of the most critical parameters of success of our business. Enhancing safety awareness amongst employees also featured as a KRA last year and continues to do so this year under our safety training targets. This year, we started to strengthen our safety organization by undertaking streamlining and consolidating of all safety related policies, management and implementation under one umbrella. The new proposed safety structure is depicted below.

The restructuring has been initiated in a systematic manner and is intended to provide greater clarity of roles to the employees involved. As part of restructuring, Corporate Safety will provide increased support to factory locations in areas of enhancing awareness on EHS legal requirements, Factory Act compliances and other safety issues.



#### **Proposed Safety Structure**

There is one Health & Safety committee at each of our locations except Pune. Pune has 6 Shop/plant level committees and one Central Safety Committee. Occupational health and safety committees comprises of a total of 184 members. This is an increment of 12.9% from the previous year. These members collectively represent 3.11% of the total workforce.



The adjacent graph represents the frequency rate (FR) of reportable accidents. The frequency rate for non-reportable accidents are depicted in the following page.

#### Total Workforce by Plants



#### Percentage of Workforce in Health & Safety Committee



#### **FR Reportable Accidents**



#### **Reportable Accidents**



- 03 Pune06 Kolhapur
- <mark>01</mark> Nashik
- 00 Rajkot
- O1 Ahmednagar

SOCIAL PERFORMANCE Contd...



#### Non Reportable Accidents



#### Severity Rate

60



#### Note:

- » Lost day begins after 48 hrs from time of accident.
- » Reportable accident- Accident causing injury which will prevent the injured person from working for a period of 48 hrs or more immediately after the accident.
- » All occupational injuries of reportable, nonreportable, first aid nature Occupational Disease cases are included in the data.
- » Million manhours worked is taken as basis for rates calculation as per IS 3786.

The absentee rates at Nashik and Rajkot plants are zero and KOEL-wide rate is 92.33. Note: Absentee Rate (AR): AR is presented as actual absentee days lost due to reportable accident/ injury cases as a percentage of total days scheduled to work by workforce. Data for absentees on account of illness/sickness cannot be tracked due to non availability of reliable data on absenteeism on account of actual sickness/ illness.

Formal agreements with the trade union cover health and safety topics such as responsibility for using Personal Protective Equipment, compliance with provisions of Factories act, maintaining a clean and safe area near and around the machine, and responsibility for ensuring that no pollution is caused by any individual in their area of activity. Formal agreements do not explicitly cover other topics like Joint Health and Safety committee, participation of worker representatives in Health and Safety inspections, audits & accident investigations, training and education, complaints mechanism, right to refuse unsafe work and periodic inspections. Procedures & frameworks exist within the company separately to ensure this as well as the involvement and participation of the workforce in these areas. Joint Health & Safety committees exist at each of our locations where there is a ratio of 1:1 representation of management staff & workers representatives. Worker representatives actively participate in safety committee meetings and report any unsafe conditions observed for improvement. They also participate in accident investigation. Provision is made for such requirement in the documented procedure for reporting & investigation of Incidents/accidents which is a common document for all our locations. Health & Safety committees and Grievance, IR committees and canteen committees are also functional and address workforce concerns on these topics. Worker representatives participate in such meetings as members of these committees.

### SAFETY TRAINING

This year, we conducted several EHS training programmes ranging from 'Basic Safety Awareness' modules to EHS legal compliance requirements to defensive driving, first aid training, fire fighting and emergency preparedness. We have achieved 7130 safety training man-hours covering 3401 people across categories. The details of the same have been provided below.

We also observed a Safety Week in March. Amongst many other events and awareness sessions, lectures on health awareness were conducted.

#### EHS WEBSITE

We have an internally developed EHS website which is available on the MyKOEL intranet portal. Initially, the purpose of the website is to make available all EHS management system related documentation including corporate

#### EHS Training Programmes (Pune) 2010-11

manual for the EMS & OHSMS at a single access point for employees at all locations.

- It contains » EHS Policy
- » Corporate EHS Manual
- » EHS Certificates
- » EHS Strategic Objectives
- » EHSMS department manuals of allocations
- » EHSMS related Standards
- » EHS Learning resources (training modules, articles etc)
- » Links to government web sites eg: MoEF, CPCB, MPCB, GPCB and PESO

We intend to develop this portal into a single source for all EHS related information. Ambitious plans are underway to include the following features on the same-

- » Launch a 'Help' page
- » Maintain a database of blood groups
- » Health alerts or guidance by doctors
- » Location wise database of hospitals, doctors, 24X7 chemists

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ľ	No. of Participants	Duration (Hrs)	Training Man bours	No. of participants Category wise		pry wise	
ľ	Participants	(Hrs) Man hours	Managers	TMs	Contractors	Suppliers	
5	574	47.5	1419.5	169	259	123	23

#### EHS Training Programmes (Kolhapur) 2010-11

No. of Participants	Duration (Hrs)	Training Man hours	No. of participants Category wise			
Farticipants	(1115)	Mannours	Managers+TAs	TMs	Contractors	Suppliers
2331	313.9	4067.4	209+1235	NA	887	NA

#### EHS Training Programmes (Rajkot) 2010-11

No. of Participants	Duration (Hrs)	Training Man hours	No. of participan	ts Catego	ry wise	
Participants	(1115)	Mannours	Managers	TMs	Contractors	Suppliers
496	60	1644	91	3	402	NA

SOCIAL PERFORMANCE Contd...

# CORPORATE SOCIAL RESPONSIBILITY (CSR)

### DISCLOSURE TO MANAGEMENT APPROACH - SOCIETY

Policy	KOEL's Code of Conduct binding all employees Annual Operating Plan of CSR division
Goals & Performance	Key Expectations from the society: » Understanding the needs of communities we work with » Employment Generation » Support for Social Projects Annual Societal Perception Survey Social Initiatives Supported: » WASH » Clean & Beautiful School » Association with the Akanksha Foundation focuses on Educa- tion & Health for children Senior Leaders plan & review the progress of these initiatives on periodical basis.
Organisational responsibility	Senior Vice President, P, IR, HR & Utilities

# ENGAGEMENT WITH SOCIETY

The majority of India's population still lives in villages and does not have access to basic amenities such as hospitals, schools, transportation facilities etc. They face challenges in procuring safe drinking water and have limited educational, medical infrastructure. As an organization we work and interact with the communities at various levels and it becomes imperative for us to institutionalize processes that aim at developing these communities.

It is always the small, but bold steps that have led to revolutions. We at KOEL are gradually taking up initiatives that focus on understanding the needs of communities. Surveys are conducted by BD Karve Research and Consultancy Cell on a yearly basis in and around the locations where we have our manufacturing facilities. The survey gathers information about the perception of the company by the community and presents a score to us in terms of the following:

- » Our performance as a responsible citizen
- » Our involvement in the communities where we operate
- » Reduction and prevention of nuisance from our operations throughout the life cycle of our products
- » Our corporate image

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Through extensive focused group discussions with the society, along with the survey results, key improvement areas are identified. These areas of need are then analysed and prioritized and a framework for their implementation is presented to the top management. Based on their further recommendations, the societal activities are chalked out and formally institutionalized in the form of a CSR calendar. The activities are then carried out on the basis of calendar year and are periodically reviewed. This year, our top 4 focus areas for CSR have emerged to be: » Health

- » Education
- » Environment
- » Sustainable Livelihood

#### We Care

To be known as a responsible citizen

Involve and improve communities where we operate

Follow our Company vision and our corporate identity of 'Enriching Lives'

# We Act

Community Perception Survey conducted annually by an external agency to evaluate our impact and assess community needs

Conduct programs on health, environment, education and sustainable livelihoods based on CII EXIM model

# We Evaluate

The Survey gives us the way forward. We adopt a three pronged "pre-program expectation", "post-program perception" and "formal feedback" model to understand needs and act upon them accordingly.

For example, it was pointed out that our computer education module was too short in duration (3 days). From this year, it was redeveloped to run over 7 days.



#### SOCIAL PERFORMANCE Contd...



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Some of the activities that have been carried out are as follows:

# **INITIATIVES IN HEALTH**

- » Conducting workshop on rehabilitation
- » Hosting awareness programs on health diet, women's health
- » Organizing stress management sessions for women
- » Conducting workshops for adolescent girls
- » Organizing health check up camps (460 people covered)
- » Organizing pre-marital counselling sessions
- » Promoting sports by conducting cricket tournaments
- » Started "Life Skill Training Program"
- » Celebration of Women's day (Health Awareness Program)
- » WASH initiatives
- » Conducting lectures on de-addiction (160 villagers)

### INITIATIVES IN EDUCATION

- » Computer Literacy Program for students
- » Cash Awards to school children based on academics
- » Career Guidance to school students
- » Teachers training program
- » Sponsoring orphans
- » Aid school children by providing them stationary
- » Sponsored two centres of Akanksha (82 students) in Khadki Bazaar, Pune

# INITIATIVES IN ENVIRONMENT

- » Tree plantation
- » Staging programs such as "Environment Mela: An Awareness Program on Environment"
- $\, {\rm *}\,$  Arranging PUC check up camps on the KOEL campuses
- » As a part of the Energy Conservation Initiative (EN-CON), conducting workshops for students aimed at highlighting ecological conservation
- » Conducting Waste Management Session from INORA, as an awareness program on environment
- » Spraying and Fogging

# INITIATIVES IN SUSTAINABLE LIVELIHOOD DEVELOPMENT

» Youth training programs

» Programs for women self help groups

Our proportion of spending on different CSR activities for this year has been as shown in the chart here-

#### CSR Spend



In order to make the initiatives more responsive and robust, our top management also participates in these initiatives as volunteers. In 2010-11, a total of about 897 man hours have been deployed by the company in community development activities.

## **Enriching Lives - Facts & Figures**

20,420 people were helped 900 man hours worth of people investment







# WATER SANITATION & HYGIENE - WASH 2010-11

WASH Initiative is an extension of our 'Clean and Beautiful School Competition Project' that endeavours to imbibe the value of cleanliness among the students. It has made significant progress in the year 2010-11. This initiative was well received in 20 schools where it was conducted with the help of voluntary services of employees of Kirloskar companies.

The WASH program focuses primarily on two aspects. Firstly, it strives to make essential improvements in school environment with respect to water and sanitation facilities and secondly, it tries to ensure that students inculcate hygiene habits and good practices for usage and maintenance of these facilities. It aims at bringing about behavioural changes suitable for healthy living.

WASH is implemented through a team of 60 employeevolunteers (managers and senior team members) of Kirloskar Oil Engines Limited, Kirloskar Brothers Limited and Kirloskar Pneumatic Company Limited.

During the year, WASH programme was implemented in 20 schools - 18 municipal schools and 2 private schools located in Yerawada, Hadapsar and Parvati areas in Pune. WASH activities are conducted through WASH Clubs - a representative forum formed in each school to take initiative for school level activities. Principals and concerned teachers and respective volunteers are also members of the WASH Club. We work in collaboration with 20 WASH Clubs having 250 student-members and have been able to reach out to more than 7000 students in the 20 schools. WASH explores interesting ways in reaching out to children to build their awareness about water, sanitation and hygiene issues and to develop required soft skills for proper usage of available sanitation facilities.



#### MONTHLY ACTIVITIES

#### October 2010

15th October being the International Hand Wash Day, the motto for October activity was 'Clean Hands: a Key to Good Health'. The significance of having clean hands as well as the ill-effects of unclean hands was emphasized through an activity filled campaign organised on 15th, 18th and 19th October 2010, reaching out to more than 6000 students.

'Saaf Hath Main Dum Hai' a short film made by UNICEF and having none other than master-blaster Sachin Tendulkar making an appeal for clean hands, made the desired impact. Students got inspired by the film. The filmscreening was followed by WASH pledge.

Various tools were developed to elucidate the theme. Demonstration of proper hand-wash method, a puppet called 'Germ' talking with the students and a pictorialquiz helped to make learning interactive and interesting. Informative leaflets were distributed to students for their own reading. They carried the leaflets to their homes for family members to read. The aim was to see that the hand-wash message reaches out to families as well.

#### November 2010

The theme of the month was 'Clean Drinking Water'. It was sub-divided into three themes – sources of water, water purification methods and causes and ill-effects of water contamination. The idea behind the subdivision was to ensure age-wise relevance of the topic. With a little guidance from the teachers and volunteers, students could relate the topic with their everyday experiences. Students were asked to pictorially represent all aspects of clean drinking water. A number of good drawings and slogans emerged from this activity. Some of their works were displayed on WASH board in the schools to serve as a constant reminder of their learning.

#### December 2010

Inadequate sanitation facilities in schools including lack of water is indeed a major issue. In many cases, children lack primary knowledge of using water during and after use of toilets. The December theme emphasized upon the aspect of using water to maintain sanitation facility clean after use. Posters and a game of completing incomplete sentences were used to trigger the thought process of students. The exercise helped children to come up with feasible solutions to keep facilities clean. It raised their awareness on its importance in their lives.

#### January 2011

As a follow up of December activity, focus of January 2011 activity was on practical aspects of using toilets. Volunteers explained to WASH club members, the importance and proper use of toilets and disadvantages of open defecation.

A picture sequencing game helped children understand different steps of toilet usage. The game served as a tool for WASH Club members to take the message further to rest of the students in the school.

Informative posters on do's and don'ts of toilet usage have been placed on the doors of the school toilets from inside, which helps students to use toilet facilities properly when they are in.



SOCIAL PERFORMANCE Contd...



# **KOEL & THE AKANKSHA FOUNDATION**

As a commitment to encourage literacy among children, we continue our partnership with the Akanksha Foundation. It is an NGO that aims to equip students with education, skills and character that they need to lead an empowered life. Akanksha works primarily in the field of education, addressing non formal education through the Akanksha centres and also provides formal education through the Akanksha Schools.

We support two centres of Akanksha with 82 students in Khadki Bazaar, Pune and provide infrastructural as well as monetary assistance. Our employees also frequently volunteer at these centres. The curriculum as designed by Akanksha is based on the students' age group and specific needs. We encourage field trips of these students to our campuses. For example, on Christmas Day this year, we hosted a campus tour of our Pune facility for the students and followed it with some celebrations.

# SAAKAV – LIFE SKILLS TRAINING PROGRAM

Saakav is our CSR unit's flagship program intended to facilitate the development of adolescents with the help of life skills development process and initiating a dialogue on the same with the parents and teachers.

We recognize that adolescence is a crucial period where emotional, physical, psychological and social growth is rapid. This stage requires psychosocial support and guidance to channelize and make constructive use of one's potential. Not providing a conducive environment at this stage can prove to be detrimental to the well being of adolescents, leading to truancy, addictions, delinquent behaviour, dropout, high riskbehaviour etc. It is thus crucial to work towards promotion of mental health for this age group.

The objective of the Saakav program, is to promote awareness amongst students through life skills development sessions specific to their age group. The programme also sensitizes teachers and parents towards the mental health needs of students.

Life skill is a very vast field. For round 1, we planned five sessions of one hour duration spread over 5 days. The project emphasized upon some of the most crucial skills required in the formation of a well-adjusted personality in adolescence phase. The modules focused on the following themes:

- » Self-awareness: To promote self-growth serving as a foundation for later sessions
- » Growing Up: Helping students understand, discover their body, be comfortable with the physical self. To clarify myths and mis-

conceptions on sexuality and develop healthy attitudes relating to the same and to satisfy their curiosity.

- » Managing Peers and Peer Pressure: Fostering development of healthy peer relations and resisting peer pressure.
- » Understanding Family Dynamics: Provided a forum to surface and discuss dilemmas on the nature of relationships within the family and deal with them effectively.

Saakav was first implemented with four divisions of class 9 of Irani School, reaching out to 160 girls and four divisions of Alegoankar School, Kirkee reaching out to 160 boys, totalling the reach out to 320 Students in Pune. Schools were approached by our CSR personnel and permission was sought to conduct sessions. A similar programme was then conducted at the Dhanpal Bhojkar High School, Talandge at Kolhapur which reached out to 80 boys and girls. The students from standard 9 typically fall in the age range of 14 to 17 years.

To supplement student learning and make a sustainable impact in their environment, a session was also conducted with the teachers of both the schools. Around 50 teachers attended the session.



# **AWARDS & RECOGNITIONS**

- » Parivartan Award 2011 Sustainability Award for Energy Efficiency in Process Innovation
- » Confederation of Indian Industries 11th National Award for Excellence in Energy Management 2010
- » Limca Book of Records National Record 2011 for not losing a single man-day on account of labour unrest in the last 18 years.
- » Mahindra & Mahindra Ltd. "Sustainability Award" to KOEL at their 'Annual Supplier Meet 2011'
- » 'National Energy Conservation Award 2009' from Hon. Minister of Power, Government of India Mr. Sushilkumar Shinde.
- » KOEL, Pune secured first place in the 'K-Group Interplant ENCON Competition 2009-10' in the large unit category (for 2nd time)
- » KOEL, Nashik won the first place in the 'K-Group Interplant ENCON Competition 2009-10' in the small unit category (3rd consecutive time)
- » KOEL, Rajkot won third place in the 'K-Group Interplant ENCON Competition 2009-10' in the small unit category for the second consecutive time.
- » In-house Communication Excellence (ICE) Award for technical newsletter (Baat Cheet)
- » Frost & Sullivan Most Preferred Brand Award in manufacturing/ processing industry below 250 kVA
- » Frost & Sullivan Customer Voice for Customer Service Support Leadership (gensets below 250 kVA)
- » Rotary Club of Poona West & Mahratta Chamber of Commerce, Industries and Agriculture 'Best Human Response Award'





Ernst & Young Pvt. Ltd. 5th floor, Block B 2 Nirlon Knowledge Park Off. Western Express Highway Goregaon (E) Mumbai - 400063, India Tel: +91 22 6749 8000 Fax:+91 22 6749 8200 www.ey.com/india

# **INDEPENDENT ASSURANCE STATEMENT**

The Management and Board of Directors Kirloskar Oil Engines Ltd. Pune, India.

#### **OUR ENGAGEMENT**

Ernst & Young Pvt. Ltd. ("EY") was engaged by Kirloskar Oil Engines Limited ("Company") to provide an independent assurance to its second Corporate Sustainability Report themed 'The Engine for Sustainable Growth' covering the financial year 2010-11 (the "Report").

The Company's management is responsible for the contents of the Report, its presentation, identification of key issues, engagement with stakeholders and its presentation. EY's responsibility, as agreed with the management of the Company, is to provide independent assurance on the report content as described in the scope of assurance.

Our responsibility in performing our assurance activities is to the management of the Company only, and in accordance with the terms of reference agreed with the Company. We do not therefore accept or assume any responsibility for any other purpose or to any other person or organization. Any dependence that any such third party may place on the Report is entirely at its own risk. The assurance report should not be taken as a basis for interpreting the Company's overall performance, except for the aspects mentioned in the scope below.

#### SCOPE OF ASSURANCE

The scope of assurance covers the following aspects of the Report:

- » Data and information related to the Company's sustainability performance for the period 1 April 2010 to 31 March 2011;
- » Review of information on sample core GRI G3 indicators covering five plants of the Company's operations at the following locations:
- Pune, Maharashtra (engines manufacturing)
- Nashik, Maharashtra (large engines)
- Ahmednagar, Maharashtra (bearings)
- Kolhapur, Maharashtra (engines manufacturing)
- Rajkot, Gujarat (engines manufacturing)
- » The Company's internal policies, protocols and processes related to collection and collation of sustainability performance data.

#### **EXCLUSIONS**

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The assurance scope excludes:

- » Operations of the Company other than those mentioned in the Scope;
- » Aspects of the Report other than those mentioned above;
- » Data and information outside the defined reporting period (1 April 2010 to 31 March 2011);
- » The Company's statements that describe expression of opinion, belief, aspiration, expectation, aim or future intention;
- » Review of the 'economic performance indicators' included in the Report.

#### LEVEL OF ASSURANCE AND CRITERIA USED

The assurance engagement was planned and performed in accordance with International Federation of Accountants' International Standard for Assurance Engagements Other than Audits or Reviews of Historical Financial Information (ISAE 3000). Our evidence-gathering procedures were designed to obtain a 'limited' level of assurance (as set out in ISAE 3000) on reporting principles, as well as on core sustainability performance indicators as per the reporting principles and criteria stated to be adopted by the Company, i.e., GRI 2006 (GRI G3) guidelines.


## **UERNST&YOUNG**

#### **KEY STEPS**

The performance of our engagement involved the following key steps:

- » Interviews at the Company's plants with Vertical Heads, Function Heads and key personnel to understand the sustainability vision, mechanism for management of key sustainability issues;
- » Visits to five plants covering the Company's Business as mentioned in the 'Scope of assurance' above;
- » Review of relevant documents and systems for gathering, analyzing and aggregating sustainability performance data in the reporting period;
- » Obtaining and reviewing evidence in support of claims made in the Report regarding the Company's sustainability.
- » Review of stakeholder engagement process through interviews with concerned personnel of the Company and sample group of external stakeholders;
- » Review of material qualitative statements and sample case studies in various sections of the Report.

#### **OBSERVATIONS AND OPPORTUNITIES FOR IMPROVEMENT**

Our key observations are as follows:

- » The Company has established specific goals and targets across its triple bottom lines (financial, social and environmental performance) along a three to five year sustainability roadmap;
- » There is continued emphasis on energy conservation as evidenced by equipment retrofitting and process redesign initiatives across all sites;
- » The Company has taken measures to strengthen its water management at Nashik and Kolhapur sites by adopting rainwater harvesting initiatives; Water savings through these measures may be quantified and communicated in future reporting;
- » The Company may consider institutionalizing periodic internal reviews of GRI Key Performance Indicators (KPIs) across its sites in order to maintain higher data control and reporting accuracy;
- » Adequate workplace safety culture among employees was evidenced at all sites and the Occupational Health and Safety statistics were found to be well maintained; There is scope for strengthening the tracking of near-miss incidents;
- » The Company continues to demonstrate its social commitment by engaging its local communities via social assessment surveys, community dialogues and pro-active interventions;
- » Waste management practices at Rajkot with respect to consent criteria needs closer review and monitoring, and appropriate interaction with statutory authorities.

#### **OUR CONCLUSION**

On the basis of our review scope and methodology, nothing has come to our attention that would cause us not to believe that the Report presents the Company's triple-bottom-line performance, in material respect, in line with the stated reporting principles and criteria.

#### **OUR ASSURANCE TEAM**

Our assurance team, comprising multidisciplinary professionals, was drawn from our Climate Change and Sustainability Services, undertakes similar engagements with a number of Indian and international companies. As an assurance provider, EY is required to comply with the independence requirements set out in International Federation of Accountants (IFAC) Code of Ethics for Professional Accountants. EY's independence policies and procedures ensure compliance with the Code.

#### For Ernst & Young Private Limited

Sudipta Das

Partner 8 November 2011 Kolkata

## **GRI CONTENT INDEX**

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#### \*Annual report - http://www.koel.co.in/upload/pdf/annual\_report\_2010\_11.pdf

Profile Disclosure	Description	Reported	Cross-reference/Direct answer	
1.1, 1.2	Strategy & Analysis	Fully	Page 4	
2.1 - 2.10	Organizational Profile	Fully	Page 11 (Our Business), Page 12 (Organizational Chart), Page 15 (Customers) Page 5 (About the Report), Business Groups, Annual Report Page 24 (Corporate Governance), Page 69 (Awards & Recognitions)	
3.1 - 3.13	Report Parameters	Fully	Page 5 (About the report), Page 8 (Stakeholder Engagement) Page 72 (GRI Content Index Table)	
4.1 - 4.17	Governance, commitments & engagement	Fully	Page 6 (Vision & Mission) & Page 8 (Stakeholder engagement and material issues) Page 24 (Corporate Governance) and Page 25 (Board level Committees, Remunera- tion to Directors), Page 26 (Risk Management Framework) Page 27 (Memberships & Associations), Annual Report (Code of Conduct) Currently, there are no clear processes at the Board to guide the organisation on ESG issues.	
DMA EC	Economic	Fully	Page 31	
DMA EN	Environmental	Partially	Page 37	
DMA LA	Labor Practices	Fully	Page 54	
DMA HR	Human Rights	Partially	Page 57	
DMA SO	Society	Fully	Page 62, 26 (Corruption)	
DMA PR	Product Responsibility	Fully	Page 19	

Performance Indicator	Economic	Reported	Cross-reference/Direct answer
EC1 - EC 4	Economic performance	Fully	Page 29, 30
EC6	Locally based suppliers - policy & practices	Fully	The term Local suppliers stand for Suppliers within India. Nearly three quarters of the monetory value of the top ten suppliers are from local suppliers. Our sourcing strategy is based on cost, quality and continuous availability, which the local suppliers have successfully delivered.
EC7	Local hiring practices	Fully	Page 52
EC8	Pro-bono/ in-kind invest- ments in infrastructure for public	Fully	Page 30 Page 65

Performance Indicator	Environmental	Reported	Cross-reference/Direct answer	
EN1, EN 2	Materials		Page 48	
EN3, EN4, EN 5	Direct, indirect energy consumption by primary energy source & energy conservation	Fully	Page 42-43	
EN8, EN 10	Water withdrawal by source & percentage recy- cled/ reused	Fully	Page 46	
EN11, EN 12, EN 13, EN 14, EN 15	Impacts & strategies, current actions and fu- ture plans for manag- ing impacts of activities, products and services on biodiversity	Fully	All our manufacturing facilities are located on MIDC and GIDC owned land. While we are constantly making our products eco-efficient (See CRE section), none of our activities have direct impacts on biodiversity in protected areas or areas of high biodiversity value.	
EN16, EN 17, EN 19, EN 20, EN 21, EN 22, EN 23, EN 24, EN 25	Emissions, effluents & waste	Fully	Page 44 Page 46, Page 48 No significant spills in the reporting period. No hazardous wastes have been trans- ported outside of Indian borders.	
EN26	Initiatives to mitigate en- vironmental impacts of products and services, and extent of impact mitiga- tion.	Fully	Page 20-21	
EN27	Percentage of products sold and their packag- ing materials that are re- claimed by category.	Fully	Page 48	
EN28	Monetary value of signifi- cant fines and total num- ber of non-monetary sanc- tions for non-compliance with environmental laws and regulations.	Fully	No instance of non-compliance with environmental laws and regulations during this reporting period.	
EN3O	Environmental protection expenditures and invest- ments by type.	Fully	Page 49	

#### **GRI CONTENT INDEX Contd...**

Performance Indicator	Labour Practices & Decent Work	Reported	Cross-reference/Direct answer
LA1, LA2, LA 3	Total workforce, turnover rate by employment type, employment contract, and region; Benefits to full time employees	Fully	Page 52, 53 & Page 30
LA4, LA5	Collective bargaining agreements	Fully	There are no "Part Time" employees 'Others' category - fixed term/ contract/ temporary 100% of our workforce is unionized. In case of any changes in shift, line or super- annuation, atleast 14 days and 6 months notice is always provided to the employ- ees as per statutory requirements.
LA6, LA7, LA8, LA9	Occupational health & safety parameters	Fully	Page 59 - 60 Zero fatalities Page 68 (Life skills training)
LA10, 12	Training & education	Fully	Page 57, 61, 100% of our employees go through the annual performance appraisal process.
LA13, LA 14	Diversity & equal oppor- tunity	Fully	Page 52, Details on the Board is provided in the Annual Report. There is no discrimination in compensation based on gender.

Performance Indicator	Social: Human Rights	Reported	Cross-reference/Direct answer	
HR1, HR2, HR 3	Investment & Procurement practices	Fully	Our investment agreements do not include human rights clauses. There were no assessments of suppliers conducted based on human rights during the reporting period. 100% of employees are trained on the Code of Conduct, which includes as pects of human rights.	
HR4	Total number of incidents of discrimination and ac- tions taken.	Fully	We have not had any cases of discrimination during this reporting period.	
HR5	Collective bargaining risks	Fully	No such operations where the freedom of association and collective bargaining may be at risk. Even at plant level, we have a committee which meets periodically where the union representatives can raise any issues and seek resolutions.	
HR6, HR 7	Child labor, forced & com- pulsory labor risks	Fully	Page 52	
HR9	Total number of incidents of violations involving rights of indigenous peo- ple and actions taken.	Fully	There were no such incidents during the reporting period.	

Performance Indicator	Social: Society	Reported	Cross-reference/Direct answer
501	Social programs - Nature, scope, and effectiveness	Fully	Page 62-68
S02, S03, S04	Anti corruption policies and procedures, trainings	Fully	Page 26, There were no incidents of corruption in this year of 2010-11 at KOEL.
S05, S06	Public policy, lobbying, fi- nancial contributions	Fully	Page 30, This year (April 2010 - March 2011), we made no donations to any political parties.
S07	Legal actions & outcomes for anti-competitive be- havior	Fully	There were no legal actions against KOEL on count of anti-competitive behavior, anti-trust and monopoly practices during this reporting period.
S08	Fines & sanctions for non- compliance with laws and regulations.	Fully	We have not had any cases of non compliance resulting in fines or non-monetary sanctions.
Performance Indicator	Social: Product Re- sponsibility	Reported	Cross-reference/Direct answer
PRI	Life cycle stages in which health and safety impacts of products and services are assessed for improve- ment, and percentage of significant products and services categories subject to such procedures.	Fully	Right from research, product development, certifications, manufacturing, market- ing, storage and final use and disposal, we continually strive to keep the emis- sions, noise, vibration well within specified limits. We are also continually trying to strengthen the protection from rotating and high temperature components. From producing supersilent gensets to gensets that can run on alternative fuels, our concern for customer satisfaction inspires us to take the aspects of impacts of our product during its use. Our products have received a variety of certification - FM/ UL being one. We are a ISO 9001 certified company, with all our manufacturing units being ISO 14001 and OHSAS 18001 certified.
PR2, PR4	Non-compliance incidents with regulations and vol- untary codes concerning a) health and safety im- pacts during life cycle, b) information and labeling of products and services	Fully	We have not had any incidents of non-compliance with regulations or voluntary codes which has resulted in a fine, penalty or a warning.
PR3	Type of product and ser- vice information required by procedures, and per- centage of significant products and services sub- ject to such information requirements.	Fully	We provide information on our product, spare parts & service to the customers through various display labels on the products & its packing as well as through Operations & Maintenance (O&M) manuals of the respective products as per rel- evant applicable labeling requirements. This information covers Health & Safety guidance for the use & servicing of our product. This enables the customers to use & maintain our products in a responsible manner which will have minimal adverse impact on environment, health & safety during the life of the product. We obtain test certificates for engine worthiness and other safety related issues like emis- sion; noise etc before the product is marketed through government authorized

#### **GRI CONTENT INDEX Contd...**

Performance Indicator	Social: Product Re- sponsibility	Reported	Cross-reference/Direct answer	
			agencies. Our products are also certified by BIS (Bureau of Indian Standards) and 'Conformite Europeene' (CE) or European Conformity label. 100% of our products and services are subject to the specified requirements. Safety is integral to design process of our products. We also ensure that docu- mentation relating to the product is sent to the customer at the time of equipment despatch.	
PR5	Practices related to cus- tomer satisfaction, in- cluding results of surveys measuring customer sat- isfaction.	Fully	Page 13	
PR6, PR 7	Marketing communications - laws standards, volun- tary codes & compliance	Fully	All our product and service related marketing communications comply with the law of the land. We do not sell any product that has been banned. Our CRE team took up a voluntary exercise of making all our products asbestos free and we have succesfully achieved this target. No instances of non-compliance.	
PR8	Total number of substanti- ated complaints regard- ing breaches of customer privacy and losses of cus- tomer data.	Fully	No substantiated complaints regarding breaches of customer privacy or loss of customer data.	
PR9	Fines & sanctions for non compliance concerning the provision and use of prod- ucts and services.	Fully	No such fines paid during the reporting period.	



## ACRONYMS

ABS	American Bureau of Shipping	GET	Graduate Engineering Trainees
AC	Air Conditioning	GHG	Greenhouse Gas
AC	•	GIDC	Gujarat Industrial Development Corporation
	Application Engineering		
AGOEM	Authorised Genset Original Equipment Manufacturer	GJ	Giga Joule
AMC	Annual Maintenance Contract	GPCB	Gujarat Pollution Control Board
AOBG	Agri & Off highway Business Group	GRI	Global Reporting Initiative
AOP	Annual Operating Plan	GRR	Goods Receipt report
ARAI	Automotive Research Association of India	GWh	gigawatt hour
ASN	Advance Shipment Notice		
		нс	Hydrocarbons
BI	Business Intelligence	hp	horsepower
BMEP	Brake mean effective pressure	hr	hour
BS	Bharat Stage	HR	Human Resources
BSE	•		Human Resources, Personnel & Industrial Relations
DOL	Bombay Stock Exchange	,	
		HSD	High speed diesel
CBO	Community based organisation		
CEV	Construction Equipment Vehicle	IFRS	International Financial Reporting Standards
CFO	Chief Financial Officer	INORA	Institute of Natural Organic Agriculture
CII	Confederation of Indian Industries	IRS	Indian Registrar of Shipping
CIO	Chief Information Officer	ISMS	Information Security Management System
CMD	Chairman & Managing Director	ISO	International Organization for Standardization
CNG	Compressed Natural Gas	IT	Information Technology
со	Carbon monoxide	ITSM	Information Technology Service Management
Corp QA	Corporate Quality Assurance		
CPCB	Central Pollution Control Board	JCB	J C Bamford Excavators Limited
CPCP	Casting Powder Coating Process	JMD	Joint Managing Director
CRE	Corporate Research & Engineering	JIVID	
			Minis along to be supplied. To show the stars the start
CRM	Customer Relation Management	KITL	Kirloskar Integrated Technologies Limited
CSBG	Customer Support Business Group	kL	kilolitre
CSR	Corporate Social Responsibility	Km	kilometre
CSS	Customer Satisfaction Survey	KOEL	Kirloskar Oil Engines Limited
СТРТ	Current Transformer Potential Transformer	KRA	Key Result Areas
		kVA	kilo volt-ampere
dBA	decibel	kWh	kilowatt hour
DET	Diploma Engineering Trainees		
DG	Diesel Generators	L&T	Larsen & Toubro Limited
DV	Digvijay Engines	LDP	Leadership Development Programme
	5.8.1947 2.18.1105	LEBG	Large Engines Business Group
E-CMS	Electronic Cash Management system	LED	Light emitting diode
ED	Executive Director	LPG	Liquefied Petroleum Gas
EGR		LRP	
	Exhaust gas Recirculation		Long Range Plan
EHS	Environment Health & Safety	LRS	Lloyds Registrar of Shipping
EHSMS	Environment Health & Safety Management System	-	
EMS	Environmental Management Systems	m3	cubic metres
ENCON	Energy Conservation	MCA	Ministry of Corporate Affairs
ERP	Enterprise Resource Planning	MCCIA	Mahratta Chamber of Commerce Industries and Agriculture
ETP	Effluent Treatment Plant	ME	Mechanical Engineer
EVA	Economic Value Added	Mgr.	Manager
EVP	Executive Vice President	MIDC	Maharashtra Industrial Development Corporation
		ml	millilitre
FM	Factory Mutual	mm	millimetre
FR	Frequency Rate	MMDP	Middle Management Development Programme
FTC	Full time contract	MoEF	Ministry of Environment & Forests
FY	Financial Year		
C 1	Financial Teal	MPCB	Maharashtra Pollution Control Board
	1		

#### ACRONYMS INDEX Contd...

MW	Mega Watt	SA	Social Accountability
		SEC	Specific energy consumption
NGO	Non Governmental Organisation	SPM	Suspended Particulate Matter
NOx	Oxides of Nitrogen	SQIC	Supplier Quality Improvement Contest
NSE	National Stock Exchange		
	Ŭ	т	Tonne
OEM	Original Equipment Manufacturer	t CO2e	tonnes Carbon dioxide equivalent
Offr.	Officer	TA	Team Associate
OHSAS	Occupational Health and Safety Assessment Series	TCE	Trichloro ethylene
ОМ	Order management	Terex	Terex Corporation
	-	тм	Team Member
PCB	Pollution Control Board	TRACE	Transparent Agents and Contracting Entities
PESO	Petroleum and Explosives Safety Organisation		
PF	Power Factor	UL	Underwriter's Laboratories
PGBG	Power Generation Business Group	UNICEF	United Nations Children's Fund
PM	Particulate Matter		
PPM	Parts per million	VA/VE	Value Analysis/ Value Engineering
PTL	Punjab Tractors Limited	VP	Vice President
PUC	Pollution Under Control	VRF	Variable Refrigerant Flow
QA	Ouality Assurance	WASH	Water Sanitation and Hygiene
Q.	Quality Assurance	WBCSD	World Business Council for Sustainable Development
RBI	Reserve Bank of India	10050	worke basiless couldn'tor sustainable bevelopment
RM	Raw Material		
RMSP	Raw Material to Selling Price		
NW31	Naw material to Jennig Trice		



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#### A note on forward-looking statements:

There are some forward-looking statements in the report pertaining to KOEL's strategy, vision and business plans. The realization of these involves a certain degree of uncertainty as they depend on future scenario and events that may not be directly within the control of KOEL.

## Notes


# For a cleaner, greener tomorrow.

100%

100%

At Kirloskar, we firmly believe that anything we do must enrich lives. It's this zeal that made us develop engines and generating sets, that run effectively on 100% bio-diesel, 100% straight vegetable oil (SVO) or even a blend of bio-diesel and diesel. We also provide technology that converts agri-waste into bio-fuel for a

cleaner, greener tomorrow.

At Kirloskar, that's what we

call a real innovation!



KIRLOSKAR OIL ENGINES LIMITED Laxmanrao Kirloskar Road Khadki, Pune 411 003 India. Tel: +91-20-2581 0341 Fax: +91-20-2581 0209 Web: www.koel.co.in



**Enriching Lives** 



**Enriching Lives** 

### KIRLOSKAR OIL ENGINES LIMITED

Laxmanrao Kirloskar Road, Khadki, Pune - 411 003 (INDIA). Email: sustainability@kirloskar.com Website: www.koel.co.in Please mail your feedback and questions on the report to: sustainability@kirloskar.com