



**KISAAN KA POWER.  
DESH KA BHAROSA.**

## Swaraj Engines Ltd., Mohali, India achieves significant saving by implementing ISO 50001 Energy Management Systems

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### Energy Scenario

Today, we depend on energy for virtually everything in our lives. Energy doesn't just make our lives more comfortable, in many ways, it's essential for our survival. Since this is the case, if we continue to waste it without employing proper conservation methods, one day we will run out of non-renewable energy to use. It casts duty on Corporate India, being the major consumer of energy, to build a culture of Energy Conservation within the respective organizations. One way of doing the same is to deploy the best energy consumption practices and introduction of Energy Audits.

### Swaraj Engines

SEL is engaged in the manufacturing of Diesel Engines and hi-tech Engine parts. Realizing the need of the same, Swaraj Engines Ltd. (SEL), an associate company of Mahindra & Mahindra Ltd, approached British Standards Institution (BSI) for ISO 50001:2011. Energy Management System certification and together with BSI, it undertook the following initiatives in the area of Energy conservation:

- Laying of Energy policy & their objectives for significant areas of energy consumption like electricity, air, water, petroleum products.

- Formulation of Cross Functional Teams which have worked horizontally with each department and vertically with energy coordinator.
- Development methods for proper/detailed recording of data of energy consumption.
- Replacement of old machines with new energy efficient Machines.

This system approach of working has resulted into cost savings of more than Rs. 60 lacs in Financial year 2012-13. Additionally, this has also resulted into better working atmosphere in the form of improved lux value, less fatigue, safety improvement and reduction in wastages.

SEL is certified with ISO 50001:2011 in December,12 & achieved 1st such certification in Mahindra & Mahindra-AFS.

Overall, the cultural concept regarding savings in energy has changed from “only electricity” to all forms of energy wastages. Following is the summary of the tangible gains SEL has achieved by Implementing ISO 50001 Energy management Systems in the Mohali Plant.

SUMMARY OF GAINS -- ENERGY MANAGEMENT SYSTEM -----SEL - 2012-13				
S No.	DIVISION	SOURCE	TANGIBLE GAINS	
			F13 SAVING (Rs. LAC)	SAVINGS/ANNUM (Rs. LAC)
1	SERVICE BLOCK	PEAK LOAD	3.92	47.04
		OPTIMIZATION OF DG SETS	7.63	13.06
2	CAPACITOR BANK	POWER FACTOR	1.25	1.99
3	UTILITIES	CANTEEN	0.64	0.96
		SHOP INCLUDING AC'S	2.24	2.24
4	WATER	ETP	0.04	0.04
		ENGINE TESTING	0.4	0.4
5	SHOP	REMOVAL OF EXHAUST FANS	5.07	5.07
		ZERO ENERGY FANS		
		TRANSLUCENT SHEET		
		PAINT UNDER ROOFTOP		
6	MACHINE SHOP	LUBRICANTS/HYDRAULICS	19.53	19.53
7	SHOP & SERVICE BLOCK	OPTIMIZATIONS OF COMPRESSORS	15.76	15.76
		AIR LEAKAGES	4.72	4.72
8	PROCUREMENT	ENERGY EFFICIENT IT	0.46	0.46
Total			61.2	111.3

Energy Management Systems by– BSI Group India

