



Energy Conservation Measure implemented in 2007-2008

(To be filled up separately for each Energy Conservation Measure)

ID to be filled by BEE	Title of the measure Change over to energy efficient, lower wattage lamps.	Sector : Automobile			
Year to be filled by BEE		Technology : Energy Efficient lighting.			
Description of the energy conservation measure: . Earlier all 400 W HPMV lamps replaced with 250W HPSV lamps in all over the works except in the color rendering areas like inspection points and Painting area. During 2007-08, In CPS further 25 nos. 400W HPMV lamps were replaced with 250 W MH lamps which have color rendering characteristics thereby saving energy. And also 150 nos. fluorescent and incandescent machine lamps were replaced with CFL..					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
NA					
Agency that executed the project (with complete address and email): In house group.					
Total investment, Rs.: 37000			Year of implementation: 2007-08		
First year energy cost savings, Rs.:1,71,000					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	125	NIL	NIL	NIL	NIL
Energy consumption after	78	NIL	NIL	NIL	NIL
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	NIL	NIL	NIL	NIL
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr P K Gupta, AGM(CPS)				Signature	
				Date	


Energy Conservation Measure implemented in 2007-2008

(To be filled up separately for each Energy Conservation Measure)

ID to be filled by BEE	Title of the measure Improve lighting circuit and control	Sector : Automobile			
Year to be filled by BEE		Technology : Lighting circuit & Voltage control			
Description of the energy conservation measure:					
<ol style="list-style-type: none"> 1. Saving of energy by centralization of lighting ckt in Assembly line I & II and providing real time clock for switching OFF during non working period. 2. Provide real time clock switch for Auto Control of 180 Nos. Over Head Lights in Engine shop so that they are off during day time (One OH lamp is 250W) 3. Provide pilot lamps in Assembly line for security purpose and switch of O/H lights in C shift 4. Installation of Energy Saver for Shop Overhead light circuit. Voltage reduction increases lamp life with a negligible reduction in illumination level. 					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
			 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto 10px auto;">Energy Saver in O/H Light Ckt.</div>		
Agency that executed the project (with complete address and email): Neel Controls, Mumbai					
Total investment, Rs.:37000			Year of implementation: 2007-08		
First year energy cost savings, Rs.: 6,53,000					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	474	NIL	NIL	NIL	NIL
Energy consumption after	285	NIL	NIL	NIL	NIL
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	NIL	NIL	NIL	NIL
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr. S K Mohapatra, AGM, Maint. (Truck-I)				Signature	
				Date	


Energy Conservation Measure implemented in 2007-2008

(To be filled up separately for each Energy Conservation Measure)

ID to be filled by BEE	Title of the measure	Sector : Automobile			
Year to be filled by BEE	Use of VFD's for flow control of pumps and blowers and save energy	Technology : VFD for Flow control			
<p>Description of the energy conservation measure: Over the years more than 93 VFD have been installed for flow control and energy saving . During 2007-08 further 5 Nos. VFD of various sizes (1 5 HP to 150 HP) were installed on centrifugal pump and blowers in SFC and CPS Shop resulting in energy saving fairly inline with "Affinity laws". Accordingly saving varying from 12% to 30% were achieved in different applications.</p>					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
			 <p style="text-align: center;">VFD USED IN ARP – 4 IN CPS</p>		
Agency that executed the project (with complete address and email): In house group					
Total investment, Rs.: 6,80,000			Year of implementation:		
First year energy cost savings, Rs.: 7,31,000					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	1198	NIL	NIL	NIL	NIL
Energy consumption after	995	NIL	NIL	NIL	NIL
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	NIL	NIL	NIL	NIL
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr R B Singh, Manager, Maint (CPS)				Signature	
				Date	



Energy Conservation Measure implemented in 2007-2008

(To be filled up separately for each Energy Conservation Measure)

ID to be filled by BEE	Title of the measure Reduce thermal losses in furnaces/ ovens and save energy	Sector : Automobile			
Year to be filled by BEE		Technology : High emissivity Paint Coating and Insulation			
Description of the energy conservation measure:					
<ol style="list-style-type: none"> 1. Energy saving high-emmissivity Espee paint coating applied in Frame Baking Oven & prevent heat losses from all surfaces of Ovens. Reduced energy consumption from 2714kWh to 2280 kWh/day. 2. Renewed old insulation of ED and color line Ovens and arrested heat leakage from ovens. 3. Replace Skirt Plate & trough of Rotary hearth furnace of NFC to prevent heat losses. 					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
			 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;">High Emissive Paint Coating inside the Frame Baking Oven</div>		
Agency that executed the project (with complete address and email): In house group.					
Total investment, Rs.: 3,40,000			Year of implementation:		
First year energy cost savings, Rs.: 42,01,000					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	814	NIL	NIL	1872	NIL
Energy consumption after	684	NIL	NIL	1716	NIL
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	NIL	NIL	2392	NIL
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr S K Mahapatra, AGM, Maint (Truck-I)				Signature	
				Date	


Energy Conservation Measure implemented in 2007-2008

(To be filled up separately for each Energy Conservation Measure)

ID to be filled by BEE	Title of the measure Make technical improvements in process and equipment to save energy consumption	Sector : Automobile			
Year to be filled by BEE		Technology :Cold Core process			
Description of the energy conservation measure:					
Installation of 2 nd high speed Core making Loramendi machine using cold box technology replacing umbrella heaters in 6BT head line & CMVR head line.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Shell Core process</div>			 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">Cold core process</div>		
Agency that executed the project (with complete address and email): Loramendi,Alibarra-26,Spain					
Total investment, Rs.: 100,00,000			Year of implementation: 2007-08		
First year energy cost savings, Rs.: 10,68,000					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	1200	NIL	NIL	NIL	NIL
Energy consumption after	900	NIL	NIL	NIL	NIL
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	NIL	NIL	NIL	NIL
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr N K Singh, AGM (Foundry)				Signature	
				Date	


Energy Conservation Measure implemented in 2007-2008

(To be filled up separately for each Energy Conservation Measure)

ID to be filled by BEE	Title of the measure AUTO CONTROL OF WASHING MACHINE HEATERS:	Sector : Automobile			
Year to be filled by BEE		Technology : AUTO CONTROL			
Description of the energy conservation measure:					
Digital Temperature Control system provided to control heater on/off to control temperature as per set value AND Implementation of Real Time Switch to Automatic Control of Washing Machines.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
			 <p style="text-align: center;">TEMPERATURE CONTROLLER USED IN WASHING M/C IN ENGINE DIV</p>		
Agency that executed the project (with complete address and email): In house group.					
Total investment, Rs.: 15,000			Year of implementation: 2007-08		
First year energy cost savings, Rs.: 7,27,000					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	1273	NIL	NIL	NIL	NIL
Energy consumption after	1069	NIL	NIL	NIL	NIL
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	NIL	NIL	NIL	NIL
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr Anal Vijay Singh, AGM, Maint. (Engine)				Signature Date	



Energy Conservation Measure implemented in 2007-2008

(To be filled up separately for each Energy Conservation Measure)

ID to be filled by BEE	Title of the measure Make technical improvements in process and equipment to save energy consumption	Sector : Automobile			
Year to be filled by BEE		Technology : Automation			
Description of the energy conservation measure:					
Complete automation of 6000 T Press by installing robots so minimize manual operation in forging process and continuous running without breaks thereby saving on heat loss.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
			 <p style="text-align: center;">ROBOT IN 6000T PRESS</p>		
Agency that executed the project (with complete address and email): Fanuc Robot, Japan					
Total investment, Rs.: 37,00,000			Year of implementation: 2007-08		
First year energy cost savings, Rs.: 3,81,000					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	1694	NIL	NIL	NIL	NIL
Energy consumption after	1588	NIL	NIL	NIL	NIL
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	NIL	NIL	NIL	NIL
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr R K Bhol, AGM (Forge)				Signature	
				Date	

Energy Conservation Measure implemented in 2007-2008



(To be filled up separately for each Energy Conservation Measure)

ID to be filled by BEE	Title of the measure Improved work practices & productivity.	Sector : Automobile			
Year to be filled by BEE		Technology : Improved Work Practice			
Description of the energy conservation measure:					
<ol style="list-style-type: none"> 1. Minimize running of Line Frequency Induction Melting Furnaces and optimize running of Medium Frequency Melting Furnaces as per production requirement hence saving achieved over last year. 2. Increase width of tray of 4000 lb Heat Treatment line & thereby improve the out put of the furnace 					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
 TATA FURNACE NOT IN OPERATION			 Maximize Use of Medium Frequency Induction Melting Furnaces.		
Agency that executed the project (with complete address and email): Operation group, Foundry					
Total investment, Rs.: Zero			Year of implementation: 2007-08		
First year energy cost savings, Rs.: 27,88,000					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	40057	NIL	NIL	NIL	NIL
Energy consumption after	39282	NIL	NIL	NIL	NIL
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	NIL	NIL	NIL	NIL
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr. H S Mishra, AGM (Foundry)				Signature	
				Date	

Note: Please submit this sheet separately for each Energy Conservation Measure implemented in 2007-2008 and a CD containing the above information may be please be enclosed

Energy Conservation Measure implemented in 2007-2008

(To be filled up separately for each Energy Conservation Measure)

ID to be filled by BEE	Title of the measure Harnessing natural Day- Light	Sector : Automobile			
Year to be filled by BEE		Technology : Renewable Energy			
Description of the energy conservation measure:					
In order to harness natural day in World Truck area further 955 nos. translucent poly-carbonate roof sheets were installed in 2007-08. It has been established that one translucent sheet replaces the use of a 250W HPSV lamp during day light hours.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
 SHED WITHOUT TRANSLUCENT SHEET			 <div style="border: 1px solid black; padding: 5px; display: inline-block;">SHED WITH TRANSLUCENT SHEET</div>		
Agency that executed the project (with complete address and email): In house group					
Total investment, Rs.: 28,65,000			Year of implementation: 2007-08		
First year energy cost savings, Rs.: 18,69,000					
First year other savings, Rs.: Nil					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	1180	NIL	NIL	NIL	NIL
Energy consumption after	655	NIL	NIL	NIL	NIL
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	NIL	NIL	NIL	NIL
Company complete address: TATA MOTORS LTD, JAMSHEDPUR -831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr. Amarjit Singh, AGM (Engg. Audit)				Signature	
				Date	

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Energy Conservation Measure implemented in 2007-2008


(To be filled up separately for each Energy Conservation Measure)

ID to be filled by BEE	Title of the measure		Sector : Automobile		
Year to be filled by BEE	Remove In-efficient Equipment & retrofit energy efficient Unit.		Technology : Replacement of 3-step energy transfer to 2-step energy transfer.		
Description of the energy conservation measure: Inefficient TP-15 Thermic fluid heating Boilers was running only for Long Member Washing machine after phasing out of six zone washing machines and consuming excess oil since auto control system was not properly working. This boiler was removed and replaced by direct electrical heating system. Washing heating tank insulated with glass wool and all the gap and heat leakage source was sealed properly.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
N.A			N.A		
Agency that executed the project (with complete address and email): In house group					
Total investment, Rs.: 8,00,000			Year of implementation: 2007-08		
First year energy cost savings, Rs.: 49,57,000					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	240	NIL	NIL	318	NIL
Energy consumption after	830	NIL	NIL	0	NIL
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	NIL	NIL	17750	NIL
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr. S K Mahapatra, AGM, Maint (Truck-I).				Signature	
				Date	

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Energy Conservation Measure implemented in 2007-2008

(To be filled up separately for each Energy Conservation Measure)

ID to be filled by BEE	Title of the measure Reduced energy in Compressed air	Sector : Automobile			
Year to be filled by BEE		Technology : Comp. Air System optimisation			
Description of the energy conservation measure:					
<ol style="list-style-type: none"> 1. Reduce the Generation pressure of Centac compressors in AIF compressor house from 95PSIG to 92 PSIG 2. Reduce the operating pressure for Screw compressors by shifting down the Loading & Unloading pressure level - so that Centacs operate as base load and Screw compressors as trim load 3. Regular comprehensive compressed air leakage audit and corrective action, thereby reducing energy loss. 					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): In house group.					
Total investment, Rs.: ZERO			Year of implementation: 2007-08		
First year energy cost savings, Rs.: 29,78, 000					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	15654	NIL	NIL	NIL	NIL
Energy consumption after	14827	NIL	NIL	NIL	NIL
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	3.6	NIL	NIL	NIL	NIL
Company complete address: TATA MOTORS LTD, JAMSHEDPUR –831 010				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr M Verma, DM (Engg. Audit)				Signature	
				Date	

Note: Please submit this sheet separately for each Energy Conservation Measure implemented in 2007-2008 and a CD containing the above information may be please be enclosed