



## Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure Install VFD at hydraulic pumps at SPM	Sector. ....			
Year to be filled by BEE		Technology .....			
<b>Description of the energy conservation measure:</b>					
<p>Earlier these motor was running at full rpm. To maintain the flow, we were controlling the flow mechanically.            Later, VFD's were installed and speed optimized according to the pressure requirement.</p>					
<b>Picture/ sketch/ drawing before modification</b> (if available)			<b>Picture/ sketch/ drawing after modification</b>		
					
Agency that executed the project (with complete address and email): Capex Electrical, Cold Rolling Division, Jindal Stainless Ltd, Email : hsr.tig@jslhsr.com,					
Total investment, Rs.: 3.5 Lakhs			Year of implementation: 2006-07		
First year energy cost savings, Rs.1.52 Lakhs:					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm <sup>3</sup>	Oil (kL)	Other
Energy consumption before					
Energy consumption after					
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / kL ...					
<b>Company complete address:</b> Subhash Garg (Cold Rolling Division), Jindal Stainless Ltd., OP Jindal Marg Hisar. Mb - 9896095016, Fax - 01662-220496, Email - hsr.subhashgarg@jslhsr.com				We authorise Bureau to use this information for dissemination Signature  Date	


## Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure Install VFD at hydraulic pumps at ST-4 Line	Sector. ....			
Year to be filled by BEE		Technology .....			
<b>Description of the energy conservation measure:</b>					
<p>Earlier these motor was running at full rpm. To maintain the flow, we were controlling the flow mechanically. Later, VFD's were installed and speed optimized according to the pressure requirement.</p>					
<b>Picture/ sketch/ drawing before modification</b> (if available)	<b>Picture/ sketch/ drawing after modification</b>				
					
Agency that executed the project (with complete address and email): Capex Electrical, Cold Rolling Division, Jindal Stainless Ltd, Email : hsr.tig@jslhsr.com,					
Total investment, Rs.: 3.5 Lakhs	Year of implementation: 2006-07				
First year energy cost savings, Rs.0.95 Lakhs:					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm <sup>3</sup>	Oil (kL)	Other
Energy consumption before					
Energy consumption after					
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / kL ...					
<b>Company complete address:</b> Subhash Garg (Cold Rolling Division), Jindal Stainless Ltd., OP Jindal Marg Hisar. Mb - 9896095016, Fax - 01662-220496, Email - hsr.subhashgarg@jslhsr.com				We authorise Bureau to use this information for dissemination Signature  Date	

## Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure Optimization of Combustion Efficiency at AP-3	Sector. ....										
Year to be filled by BEE		Technology .....										
<p><b>Description of the energy conservation measure:</b>                  A particular amount of excess over is required over and above the theoretical air to ensure complete combustion of fuel. Any value above that excess air leads to decreased efficiency of furnace. Recommended value of oxygen in flue gas is 3-4 %. Higher % of oxygen in flue gas loss of heat. With the help of task force, various excess air levels at diff zones were monitored. Then a PLC based air flue ratio controller was installed which maintained the oxygen level to 3-3.5%.</p>												
<b>Picture/ sketch/ drawing before modification</b> (if available)		<b>Picture/ sketch/ drawing after modification</b>										
<table border="1" style="width: 100%; border-collapse: collapse; margin: 10px auto;"> <thead> <tr> <th style="width: 30%;">Zones</th> <th style="width: 70%;">Excess Oxygen</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Pre heating</td> <td style="text-align: center;">9.90%</td> </tr> <tr> <td style="text-align: center;">Zone - 2</td> <td style="text-align: center;">7.60%</td> </tr> <tr> <td style="text-align: center;">Zone - 3</td> <td style="text-align: center;">11.60%</td> </tr> <tr> <td style="text-align: center;">Zone - 5</td> <td style="text-align: center;">11.60%</td> </tr> </tbody> </table>		Zones	Excess Oxygen	Pre heating	9.90%	Zone - 2	7.60%	Zone - 3	11.60%	Zone - 5	11.60%	
Zones	Excess Oxygen											
Pre heating	9.90%											
Zone - 2	7.60%											
Zone - 3	11.60%											
Zone - 5	11.60%											
Agency that executed the project (with complete address and email): Utility Deptt. JSL CRD												
Total investment, Rs.: 22.43 Lakhs		Year of implementation: 2006-07										
First year energy cost savings, Rs.: 54 Lakhs												
First year other savings, Rs.: Lakhs												
On annual basis	kWh 000'	Coal (Tons)										
	Gas Nm <sup>3</sup>	Oil (kL)										
	Other											
Energy consumption before												
Energy consumption after												
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / kL ...												
<b>Company complete address:</b> Subhash Garg (Cold Rolling Division), Jindal Stainless Ltd., OP Jindal Marg Hisar. Mb - 9896095016, Fax - 01662-220496, Email - hsr.subhashgarg@jshsr.com		We authorise Bureau to use this information for dissemination Signature  Date										


## Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure  Optimize generation pressure of compressed air	Sector. ....			
Year to be filled by BEE		Technology .....			
<b>Description of the energy conservation measure:</b>					
Reduction in Power Consumption in air compressor by optimization of supply air pressure. For this we have installed an air regulating system on demand and supply side of our compressor battery(5 compressor of 1600CFM each).					
<b>Picture/ sketch/ drawing before modification</b> (if available)	<b>Picture/ sketch/ drawing after modification</b>				
					
Agency that executed the project (with complete address and email): Capex Mechanical, Cold Rolling Division, Jindal Stainless Ltd, Email : hsr.kapilsingla@jshsr.com,					
Total investment, Rs.: 15 Lakhs	Year of implementation: 2007-08				
First year energy cost savings, Rs.27.91 Lakhs:					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm <sup>3</sup>	Oil (kL)	Other
Energy consumption before					
Energy consumption after					
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / kL ...					
<b>Company complete address:</b> Subhash Garg (Cold Rolling Division), Jindal Stainless Ltd., OP Jindal Marg Hisar. Mb - 9896095016, Fax - 01662-220496, Email - hsr.subhashgarg@jshsr.com				We authorise Bureau to use this information for dissemination Signature	
				Date	

## Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure  Replace 40 watt fluorescent lamps with 28 watt T5 lamps.	Sector. ....
Year to be filled by BEE		Technology .....
<p><b>Description of the energy conservation measure:</b></p> <p><b>Background</b> In the entire plant the 40 watt fluorescent lamps with conventional copper ballast was installed for lighting purpose. Conventional chokes have certain inherent losses to the tune of 14 to 15 watt per ballast which means a conventional fluorescent lamp will consume 55 watt.</p> <p><b>Implementation</b> As suggested the 40 watt fluorescent was replaced by energy efficient 28 watt T5 lamps which are designed with special outer coating inside the lamp and hence operate at higher efficiency i.e. luminous per watt and thus gives tremendous saving.</p>		
<b>Picture/ sketch/ drawing before modification</b> (if available)		<b>Picture/ sketch/ drawing after modification</b>
Agency that executed the project (with complete address and email): Central Elect Deptt.		
Total investment, Rs.: 75000/-		Year of implementation: 2006-07
First year energy cost savings, Rs. 70000/-		
First year other savings, Rs.:		
On annual basis	kWh 000'	Coal (Tons)
	Gas Nm <sup>3</sup>	Oil (kL)
	Other	
Energy consumption before		
Energy consumption after		
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / kL ...		
<p><b>Company complete address:</b> Subhash Garg (Cold Rolling Division), Jindal Stainless Ltd., OP Jindal Marg Hisar. Mb - 9896095016, Fax - 01662-220496, Email - hsr.subhashgarg@jshsr.com</p>		<p>We authorise Bureau to use this information for dissemination Signature</p> <p>Date</p>


## Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure  Static VAR Compensator	Sector. ....			
Year to be filled by BEE		Technology .....			
<b>Description of the energy conservation measure:</b>					
<p>Our Power supply system at cold rolling division is extended from 220Kv supply in HR division. Static VAR compensator was installed at 11 Kv side. This is a dynamic system of 36 MVAR installed by AREVA (USA). The system improves overall pf and filters harmonics. The ratings are as under.</p> <p>Thyristor controlled reactor = 36MVAR            3<sup>rd</sup> Harmonic filter = 15 MVAR            5<sup>th</sup> Harmonic filter = 18 MVAR            7<sup>th</sup> Harmonic filter = 3.5 MVAR</p>					
<b>Picture/ sketch/ drawing before modification</b> (if available)			<b>Picture/ sketch/ drawing after modification</b>		
					
Agency that executed the project (with complete address and email): ,					
Total investment, Rs.: 403 Lakhs			Year of implementation: 2007-08		
First year energy cost savings, Rs.: Still under observation					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm <sup>3</sup>	Oil (kL)	Other
Energy consumption before					
Energy consumption after					
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / kL ...					
<b>Company complete address:</b> Subhash Garg (Cold Rolling Division), Jindal Stainless Ltd., OP Jindal Marg Hisar. Mb - 9896095016, Fax - 01662-220496, Email - hsr.subhashgarg@jsslhsr.com				We authorize Bureau to use this information for dissemination Signature  Date	


## Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure	Sector. ....			
Year to be filled by BEE	Switch off DC motors blowers when DC motors are off by proving interlock	Technology .....			
<p><b>Description of the energy conservation measure:</b></p> <p><b>Background</b> The blower motors form a huge load in the plant. The total load of the blowers is around 450 kw (CRD-1 &amp; CRD-2).</p> <p><b>Implantations</b> As suggested a delay timer and an interlock to switch off the blower motors off after 5 min of switching of the main DC motors.</p>					
<b>Picture/ sketch/ drawing before modification</b> (if available)			<b>Picture/ sketch/ drawing after modification</b>		
Agency that executed the project (with complete address and email): Internal Elect deptt.					
Total investment, Rs.: NIL			Year of implementation: 2006-07		
First year energy cost savings, Rs. 57000/-					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm <sup>3</sup>	Oil (kL)	Other
Energy consumption before					
Energy consumption after					
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / kL ...					
<p><b>Company complete address:</b></p> <p>Subhash Garg (Cold Rolling Division), Jindal Stainless Ltd., OP Jindal Marg Hisar. Mb - 9896095016, Fax - 01662-220496, Email - hsr.subhashgarg@jshsr.com</p>				<p>We authorise Bureau to use this information for dissemination</p> <p>Signature</p> <p>Date</p>	

## Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure  Wind Ventilators	Sector. ....			
Year to be filled by BEE		Technology .....			
<b>Description of the energy conservation measure:</b>					
<p>Replacement the AC Motor driven shed ventilators were replaced with the <b>Non Conventional Wind Ventilator</b>. In the third phase, <b>15 Nos of motor driven exhaust fans were replaced with the 82 nos of Non conventional one</b>. The distribution is as under:</p> <ol style="list-style-type: none"> <li>1. AP-2 shed - 33 nos.</li> <li>2. CBL shed - 8 nos.</li> <li>3. AP-1 shed - 26 nos.</li> <li>4. Z-Mill shed - 15 nos.</li> </ol>					
<b>Picture/ sketch/ drawing before modification</b> (if available)	<b>Picture/ sketch/ drawing after modification</b>				
					
Agency that executed the project (with complete address and email): Capex Mechanical, Cold Rolling Division, Jindal Stainless Ltd, Email : hsr.kapilsingla@jshsr.com,					
Total investment, Rs.: 6.97 Lakhs	Year of implementation: 2007-08				
First year energy cost savings, Rs.11.88 Lakhs:					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm <sup>3</sup>	Oil (kL)	Other
Energy consumption before					
Energy consumption after					
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / kL ...					
<b>Company complete address:</b> Subhash Garg (Cold Rolling Division), Jindal Stainless Ltd., OP Jindal Marg Hisar. Mb - 9896095016, Fax - 01662-220496, Email - hsr.subhashgarg@jshsr.com				We authorise Bureau to use this information for dissemination Signature  Date	

## Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure  Installation of solar light system at main gate	Sector. ....			
Year to be filled by BEE		Technology .....			
<p><b>Description of the energy conservation measure:</b>          4 Nos of street light at main gate are to be replaced with Solar lights.          The four street lights will be operating independently on basis of consolidated 'Pool in Array' of</p> <ul style="list-style-type: none"> <li>Solar Panels ( to be installed on roof top)</li> <li>Low maintenance single charge controller</li> <li>Batteries</li> </ul>					
<b>Picture/ sketch/ drawing before modification</b> (if available)	<b>Picture/ sketch/ drawing after modification</b>				
					
Agency that executed the project (with complete address and email):					
Total investment, Rs.: 80,000/-	Year of implementation: 2006-07				
First year energy cost savings, Rs. 11563					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm <sup>3</sup>	Oil (kL)	Other
Energy consumption before					
Energy consumption after					
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / kL ...					
<b>Company complete address:</b>  Subhash Garg (Cold Rolling Division), Jindal Stainless Ltd., OP Jindal Marg Hisar. Mb - 9896095016, Fax - 01662-220496, Email - hsr.subhashgarg@jshsr.com				We authorise Bureau to use this information for dissemination Signature  Date	