

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 Removal of dryer after Quenching Tank at TADL	Sector : Steel Re rolling			
Year to be filled by BEE		Technology – Water evaporation theory			
Description of the energy conservation measure: Dryer was used to remove water carry over from sheet. Temp. in quench tank increased from 40 to 55 Deg. C. This has ensured complete evaporation of water without dryer.					
Picture/ sketch/ drawing before modification (if available)	Picture/ sketch/ drawing after modification				
Agency that executed the project (with complete address and email): M/s. TKES India					
Total investment, Rs.:0 Lacs	Year of implementation: 2007-2008				
First year energy cost savings, Rs.: 15 Lacs					
First year other savings, Rs.:-					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	50			55	
Energy consumption after	0			0	
Energy tariff, Rs/ kWh/kL ...	4			20000	
Company complete address: ThyssenKrupp Electrical steel India Pvt. Ltd., At post:- Gonde, Village Wadivarhe, Taluka- Igatpuri, Dist.- Nashik- 422403 Ph. No. +91 2553 225182-88 Ext. 184 Contact person who could be contacted for more information: Mr. Vinayak Salunke, Sr. Manager- Energy & Instrumentation				We authorise Bureau to use this information for dissemination Signature Date 08/10/2008	

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

ID to be filled by BEE	Title of the measure Replacement of copper ballast with Electronic ballast in FTL	Sector : Steel Re rolling			
Year to be filled by BEE		Technology - Electronic ballast			
Description of the energy conservation measure: Avg. power consumption in copper ballast was 12 watt. Self power consumption of electronic ballast is 5 Watt. Total 200 FTL are replaced with electronic ballast.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): M/s SCPL, Nashik					
Total investment, Rs.: 0.69 Lacs			Year of implementation: 2007-2008		
First year energy cost savings, Rs.: 0.16 Lacs					
First year other savings, Rs.:-					
On annual basis	Watts 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	0.31				
Energy consumption after	0.28				
Energy tariff, Rs/ kWh	4				
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ID to be filled by BEE	Title of the measure Replace with Energy efficient Motors	Sector : Steel Re rolling			
Year to be filled by BEE		Technology –EFF Motor			
Description of the energy conservation measure: Old inefficient motors replaced with EFF Class1 (4 Nos, X 18.5 kW)					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): TKES India					
Total investment, Rs.: 1.93 Lacs			Year of implementation: 2007-2008		
First year energy cost savings, Rs.: 0.2 Lacs					
First year other savings, Rs.:-					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other EFF %
Energy consumption before	437				86
Energy consumption after	432				92.5
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	4				
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ID to be filled by BEE	Title of the measure Replace with Energy efficient Pumps	Sector : Steel Re rolling			
Year to be filled by BEE		Technology –EFF Pump			
Description of the energy conservation measure: Oversized and inefficient water five pumps- Replacement with Energy Efficient pumps					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): M/s. Grundfoss, Chennai					
Total investment, Rs.: 4.95 Lacs			Year of implementation: 2007-2008		
First year energy cost savings, Rs.: 7.87 Lacs					
First year other savings, Rs.:-					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	707				
Energy consumption after	517				
Energy tariff, Rs/ kWh ...	4				
Company complete address: ThyssenKrupp Electrical steel India Pvt. Ltd., At post:- Gonde, Village Wadivarhe, Taluka- Igatpuri, Dist.- Nashik- 422403 Ph. No. +91 2553 225182-88 Ext. 184 Contact person who could be contacted for more information: Mr. Vinayak Salunke, Sr. Manager- Energy & Instrumentation				We authorise Bureau to use this information for dissemination Signature Date 08/10/2008	

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

ID to be filled by BEE	Title of the measure Frequency Converter for Agitator#1 at rolling Mills	Sector : Steel Re rolling			
Year to be filled by BEE		Technology ...VFD.....			
Description of the energy conservation measure: Agitators are provided for uniformity of coolant in coolant tank. Coolant moves @ 5000 LPM during mill run which also gives good amount of circulation of coolant. Hence speed of two agitators (out of three) can be reduced. Spare VFDs are used. Only expenditure of panel cost has incurred. Energy consumption before= 33.1 kW/hr Energy consumption after= 25.8 kW/hr					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): M/s. TKES India					
Total investment, Rs.: 0.22 Lacs			Year of implementation: 2007-2008		
First year energy cost savings, Rs.: 0.6 Lacs					
First year other savings, Rs.:-					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	68				
Energy consumption after	53				
Energy tariff, Rs/ kWh	4				
Company complete address: ThyssenKrupp Electrical steel India Pvt. Ltd., At post:- Gonde, Village Wadivarhe, Taluka- Igatpuri, Dist.- Nashik- 422403 Ph. No. +91 2553 225182-88 Ext. 184 Contact person who could be contacted for more information: Mr. Vinayak Salunke, Sr. Manager- Energy & Instrumentation				We authorise Bureau to use this information for dissemination Signature Date 08/10/2008	

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

ID to be filled by BEE	Title of the measure Controller for Air Handling Unit at Mill-1 Air Conditioner	Sector : Steel Re rolling			
Year to be filled by BEE		Technology ...Auto Control...			
Description of the energy conservation measure: Earlier temperature control was through thermostat and now it is replaced with electronic temperature controller. Air leakages in control room were arrested to improve savings. Power consumption is 22.3 kWh. There is a reduction in operating hours.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): M/s. TKES India.					
Total investment, Rs.: 0.2 Lacs			Year of implementation: 2007-2008		
First year energy cost savings, Rs.: 2.45 Lacs					
First year other savings, Rs.:-					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	192				
Energy consumption after	136				
Energy tariff, Rs/ kWh	4				
Company complete address: ThyssenKrupp Electrical steel India Pvt. Ltd., At post:- Gonde, Village Wadivarhe, Taluka- Igatpuri, Dist.- Nashik- 422403 Ph. No. +91 2553 225182-88 Ext. 184 Contact person who could be contacted for more information: Mr. Vinayak Salunke, Sr. Manager- Energy & Instrumentation				We authorise Bureau to use this information for dissemination Signature Date 08/10/2008	

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

ID to be filled by BEE	Title of the measure Automatic Power factor controller at Jack well	Sector : Steel Re rolling			
Year to be filled by BEE		Technology			
Description of the energy conservation measure: Before :- Manual ON/OFF of capacitors After:- Automatic ON/OFF control of capacitor to improve power factor.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): M/s. TKES India, Nashik					
Total investment, Rs.: 2 Lacs			Year of implementation: 2007-2008		
First year energy cost savings, Rs.: 0.4 Lacs					
First year other savings, Rs.:-					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other Power Factor
Energy consumption before					0.8 lag
Energy consumption after					Unity
Energy tariff, Rs/ kVA					150
Company complete address: ThyssenKrupp Electrical steel India Pvt. Ltd., At post:- Gonde, Village Wadivarhe, Taluka- Igatpuri, Dist.- Nashik- 422403 Ph. No. +91 2553 225182-88 Ext. 184 Contact person who could be contacted for more information: Mr. Vinayak Salunke, Sr. Manager- Energy & Instrumentation				We authorise Bureau to use this information for dissemination Signature Date 08/10/2008	

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

ID to be filled by BEE	Title of the measure Downsizing of cooling tower Fan -1 motor at CT-1	Sector : Steel Re rolling			
Year to be filled by BEE		Technology ...EFF Motor.....			
Description of the energy conservation measure: Aluminum fan replacement with FRP fan has resulted into oversize motor. Original motor of 22 kW had been replaced 7.5 kW. Energy consumption before= 7.29 kW/hr Energy consumption after= 3.94 kW/hr					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): M/s. TKES India					
Total investment, Rs.: 0.34 Lacs			Year of implementation: 2007-2008		
First year energy cost savings, Rs.: 0.51 Lacs					
First year other savings, Rs.:-					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	26				
Energy consumption after	14				
Energy tariff, Rs/ kWh	4				
Company complete address: ThyssenKrupp Electrical steel India Pvt. Ltd., At post:- Gonde, Village Wadivarhe, Taluka- Igatpuri, Dist.- Nashik- 422403 Ph. No. +91 2553 225182-88 Ext. 184 Contact person who could be contacted for more information: Mr. Vinayak Salunke, Sr. Manager- Energy & Instrumentation				We authorise Bureau to use this information for dissemination Signature Date 08/10/2008	

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

ID to be filled by BEE	Title of the measure Removal of Steam dryer after ECL at TADL	Sector : Steel Re rolling			
Year to be filled by BEE		Technology ... Water evaporation theory			
Description of the energy conservation measure: Dryer was used to remove water carry over from sheet. Temp. in scrubber increased from 70 to 80 Deg. C. Direct injection of steam had been replaced with indirect heating of water through heat exchanger. This has ensured complete evaporation of water without dryer. Energy consumption before= 17 kW/hr and 666 steam kg/hr Energy consumption after=0 kW/hr and 238 steam kg/hr					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
Agency that executed the project (with complete address and email): TKES India					
Total investment, Rs.: 0 Lacs			Year of implementation: 2007-2008		
First year energy cost savings, Rs.: 62 Lacs					
First year other savings, Rs.:-					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	124			379	
Energy consumption after	0			141	
Energy tariff, Rs/ kW/ kL ...	4			20000	
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(To be filled up separately for each Energy Conservation Measure)

ID to be filled by BEE	Title of the measure Optimization of AC at Administration building	Sector : Steel Re rolling			
Year to be filled by BEE		Technology ...Timer control			
Description of the energy conservation measure: Air Conditioners are operated through timer. These are switched off during lunch time and 0.5 hrs before close of office hour. Saving of 20 kW/day had been achieved.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): TKES India					
Total investment, Rs.: 0.2 Lacs			Year of implementation: 2007-2008		
First year energy cost savings, Rs.: 0.24 Lacs					
First year other savings, Rs.:-					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other Steam flow (Kg/hr)
Energy consumption before	378				
Energy consumption after	372				
Energy tariff, Rs/ kWh	4				
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(To be filled up separately for each Energy Conservation Measure)

ID to be filled by BEE	Title of the measure Automatic temp. controller system for dryer ,Pickling	Sector : Steel Re rolling			
Year to be filled by BEE		Technology ...Auto Control			
Description of the energy conservation measure: Steam was supplied through manual control valve to control air temp. Required air temp. is 120 Deg. C and observed temp. was 120 to 135 deg. C. A closed loop automatic control system with air temperature sensor and steam flow control valve is installed to maintain 120 Deg C.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): M/s. Forbes Marshall, Pune					
Total investment, Rs.: 2.4 Lacs			Year of implementation: 2007-2008		
First year energy cost savings, Rs.: 1.69 Lacs					
First year other savings, Rs.:-					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before				167	
Energy consumption after				159	
Energy tariff, Rs/ kL ...				20000	
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(To be filled up separately for each Energy Conservation Measure)

ID to be filled by BEE	Title of the measure Productivity improvement at TADL (annealing furnace)	Sector : Steel Re rolling			
Year to be filled by BEE		Technology ...Fuel change			
Description of the energy conservation measure: Electrical heating in zone 4,5,6 had been replaced with LPG heating and cooling system in zone 20 and 21 had been replaced with energy efficient cooling system. Energy consumption before= 288 kW/MT and 27 kg of LPG/MT Energy consumption after= 171 kW/MT and 33 kg of LPG/MT					
Picture/ sketch/ drawing after modification (if available)			Picture/ sketch/ drawing after modification		
 <p>Zone 4,5,6- Electrical to LPG heating</p>			 <p>Zone 20, 21- Energy Efficient cooling system</p>		
Agency that executed the project (with complete address and email): M/s. TKES India					
Total investment, Rs.: 1143 Lacs			Year of implementation: 2007-2008		
First year energy cost savings, Rs.: 251 Lacs					
First year other savings, Rs.:-					
On annual basis	kWh 000'	Coal (Tons)	LPG Gas MT	Oil (kL)	Other
Energy consumption before	36000		3375		
Energy consumption after	22125		4125		
Energy tariff, Rs/ kWh/Mt	4		40000		
Company complete address: ThyssenKrupp Electrical steel India Pvt. Ltd., At post:- Gonde, Village Wadivarhe, Taluka- Igatpuri, Dist.- Nashik- 422403 Ph. No. +91 2553 225182-88 Ext. 184 Contact person who could be contacted for more information: Mr. Vinayak Salunke, Sr. Manager- Energy & Instrumentation				We authorise Bureau to use this information for dissemination Signature Date 08/10/2008	

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

ID to be filled by BEE	Title of the measure TOD Saving:- Remote operation of water supply pump	Sector : Steel Re rolling															
Year to be filled by BEE		Technology ...Remote control															
Description of the energy conservation measure: Water supply pumps are located at Jack well- 3 Kms. away from plant and were operated in day time. Now these are operated through internet in night time to get benefit of lower tariff during night time.																	
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 15%;">Zone</th> <th style="width: 35%;">Time in Hrs.</th> <th style="width: 50%;">Rs./ kWh</th> </tr> </thead> <tbody> <tr> <td style="background-color: #90EE90;">Zone A</td> <td style="background-color: #90EE90;">22 to 6</td> <td style="background-color: #90EE90;">2.25</td> </tr> <tr> <td>Zone B</td> <td>6 to 9 ,12 to 18</td> <td>3.1</td> </tr> <tr> <td>Zone C</td> <td>9 to 12</td> <td>3.9</td> </tr> <tr> <td>Zone D</td> <td>18 to 22</td> <td>4.2</td> </tr> </tbody> </table>			Zone	Time in Hrs.	Rs./ kWh	Zone A	22 to 6	2.25	Zone B	6 to 9 ,12 to 18	3.1	Zone C	9 to 12	3.9	Zone D	18 to 22	4.2
Zone	Time in Hrs.	Rs./ kWh															
Zone A	22 to 6	2.25															
Zone B	6 to 9 ,12 to 18	3.1															
Zone C	9 to 12	3.9															
Zone D	18 to 22	4.2															
Picture/ sketch/ drawing before modification (if available)	Picture/ sketch/ drawing after modification																
																	
Agency that executed the project (with complete address and email): M/s. Systel																	
Total investment, Rs.: 0.83 Lacs	Year of implementation: 2007-2008																
First year energy cost savings, Rs.: 0.6 Lacs																	
First year other savings, Rs.:-																	
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other												
Energy consumption before	51																
Energy consumption after	51																
Energy tariff, Rs/ kWh	4																
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