










Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure VARIABLE FREQUENCY DRIVE	Sector : Cement			
Year to be filled by BEE		Technology: variable speed drive			
Description of the energy conservation measure: VFD with LT motor installed in cooler fan and coal mill booster fan in place of 225 KW HT slip ring motor with GRR.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>GRR</p> </div> <div style="text-align: center;">  <p>HT Motor</p> </div> </div>			<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>VVF Drive</p>  <p>LT Motor</p> </div> <div style="text-align: center;">  </div> </div>		
Agency that executed the project (with complete address and email): In-House modification					
Total investment, Rs.:30.0 Lac			Year of implementation: 2006-07		
First year energy cost savings, Rs.: 25.16 Lacs					
First year other savings, Rs.:					
On annual basis	kW	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	311				
Energy consumption after	233				
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	4.25				
Company complete address: GRASIM CEMENT Grasim Vihar Raipur – 493 196				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: R. S. Sharma sharmars@adityabirla.com				Signature	
				Date: 20.09.2007	

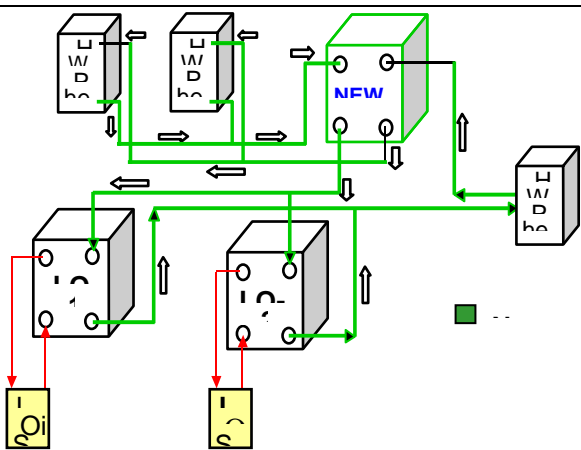

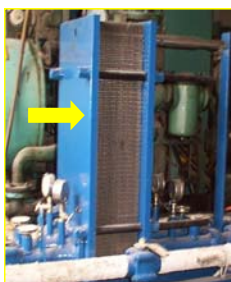
Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure ENERGY EFFICIENT MOTOR		Sector : Cement		
Year to be filled by BEE			Technology: variable speed drive		
Description of the energy conservation measure: Installation of energy efficient motor with VFD.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>DOL Starter</p> </div> <div style="text-align: center;">  <p>Conventional motor</p> </div> </div>			<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>VVVFD</p> </div> <div style="text-align: center;">  <p>Energy efficient motor</p> </div> </div>		
Agency that executed the project (with complete address and email): In-House modification					
Total investment, Rs.:6.00 Lac			Year of implementation: 2006-07		
First year energy cost savings, Rs.: 14.96 Lacs					
First year other savings, Rs.:					
On annual basis	kW	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	80				
Energy consumption after	40				
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	4.25				
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Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure COMPRESSED AIR OPTIMISER		Sector : Cement			
Year to be filled by BEE			Technology: Air demand optimization.			
Description of the energy conservation measure: Installation of compressed air optimizer in compressed air circuit.						
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification			
			 <p style="text-align: center;">Compressed air optimiser</p>			
Agency that executed the project (with complete address and email): In-House modification						
Total investment, Rs.:14.30 Lac			Year of implementation: 2006-07			
First year energy cost savings, Rs.: 11.99 Lacs						
First year other savings, Rs.:						
On annual basis	kW	Coal (Tons)	Gas Nm ³	Oil (kL)	Other	
Energy consumption before	421					
Energy consumption after	387					
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	4.25					
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Contact person who could be contacted for more information: R. S. Sharma sharmars@adityabirla.com				Signature		
				Date: 20.09.2007		



Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure LUB OIL RECOVERY SYSTEM	Sector : Cement			
Year to be filled by BEE		Technology: CFL			
<p>Description of the energy conservation measure:</p> <p style="color: blue;">We have modified the lub oil circuit and HT water circuit by providing Plate heat exchangers and interconnections between the Engines to utilized the heat energy of internal system water of running DG set to heat the lub oil of stand by DG sets.</p> <p style="color: blue;">We interconnected the internal water system of all the DG sets in such a way that we can heat the lub oil of any standby DG set with any one running Engine. Plate heat exchangers used for every DG set.</p>					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
 <p style="text-align: center;">New connection ■</p>			<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Hot water heating recovery</p> </div> <div style="text-align: center;">  <p>Lub oil heating recovery</p> </div> </div>		
Agency that executed the project (with complete address and email): In-House modification					
Total investment, Rs.: 3.00 Lac			Year of implementation: 2006-07		
First year energy cost savings, Rs.: 4.17 Lacs					
First year other savings, Rs.:					
On annual basis	kWh '000	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	98				
Energy consumption after	0				
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	4.25				
Company complete address: GRASIM CEMENT Grasim Vihar Raipur – 493 196				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: R. S. Sharma sharmars@adityabirla.com				Signature Date: 20.09.2007	

Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure ENERGY EFFICIENT STREET LIGHT	Sector : Cement			
Year to be filled by BEE		Technology: CFL			
Description of the energy conservation measure: Installed 100 watt CFL light in place of 128 sodium vapour lamp					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
 <p style="margin-top: 10px;">Sodium vapor light</p>			 <p style="margin-top: 10px;">CFL light</p>		
Agency that executed the project (with complete address and email): In-House modification					
Total investment, Rs.:14.30 Lac			Year of implementation: 2006-07		
First year energy cost savings, Rs.: 11.99 Lacs					
First year other savings, Rs.:					
On annual basis	kWh '000	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	180				
Energy consumption after	100				
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	4.25				
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Energy Conservation Measure implemented in 2006-2007

ID to be filled by BEE	Title of the measure WATER COOLED CONDENSOR		Sector : Cement		
Year to be filled by BEE			Technology: CFL		
Description of the energy conservation measure: Installed water cooled condenser in place of air cooled condenser for our CCR central AC unit.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
 <p>Air cooled condenser</p>			 <p>Water cooled condenser</p>		
Agency that executed the project (with complete address and email): In-House modification					
Total investment, Rs.:10.0 Lac			Year of implementation: 2006-07		
First year energy cost savings, Rs.: 4.87 Lacs					
First year other savings, Rs.:					
On annual basis	kW	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	115				
Energy consumption after	95				
Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ...	4.25				
Company complete address: GRASIM CEMENT Grasim Vihar Raipur – 493 196				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: R. S. Sharma sharmars@adityabirla.com				Signature	
				Date: 20.09.2007	