



## Annexure- B

### Energy Conservation Measure implemented in 2006-2007

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



ID to be filled by BEE	Title of the measure Optimisation of AHU – 3 & 4 water pump with adequate size pump. Film Plant, Waluj.	Sector : Plastic (Polyester)			
Year to be filled by BEE		Technology .....			
Description of the energy conservation measure: 1. Kirloskar Make KDS 2050 pump with 15 KW was in operation for AHU 3 & 4 in Film Plant, Waluj. 2. Water flow to AHU 3 & 4 in Film Plant was optimized and pump was replaced by KSB Mega G-50-160 with 3.7 KW motor.					
<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): In house maintenance team.					
Total investment, Rs.: 30,000 /-			Year of implementation: Jan.2007		
First year energy cost savings, Rs.: 1.66 Lacs.					
First year other savings, Rs.: ----					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm <sup>3</sup>	Oil (kL)	Other
Energy consumption before	240.84	–	–	–	–
Energy consumption after	195.39	–	–	–	–
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / kL ...	3.65	–	–	–	–
Company complete address: Garware Polyester Ltd. Aurangabad-Pune road, Waluj, Aurangabad.				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr.V.S.Saraf Mobile No. 09822557093 , Email ID – vss@garwarepoly.com				Signature	
				Date	

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## Annexure -B

### Energy Conservation Measure implemented in 2006-2007

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ID to be filled by BEE	Title of the measure Replacement of boiler feed pump & replacement of pump with energy efficient pump. Central Utility, Waluj.	Sector : Plastic (Polyester)			
Year to be filled by BEE		Technology .....			
Description of the energy conservation measure: 1. Installed capacity of boiler feed pump was higher then requirement Q- 22.6 m3/Hr. & H- 234 Mts. Against normal steam load of 12 MT/Hr. at 15.0 Kg/cm2. 2. The capacity of boiler feed pump water pump was reviewed & re-engineered to Q- 18 m3/Hr. & H- 182.7 Mts.					
Picture/ sketch/ drawing before modification (if available)		Picture/ sketch/ drawing after modification			
					
Agency that executed the project (with complete address and email): In house maintenance team.					
Total investment, Rs.: 2.05		Year of implementation: Oct. 2006			
First year energy cost savings, Rs.: 4.68 Lacs.					
First year other savings, Rs.: ----					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm <sup>3</sup>	Oil (kL)	Other
Energy consumption before	256.61	-	-	-	-
Energy consumption after	128.31	-	-	-	-
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / kL ...	3.65	-	-	-	-
Company complete address: Garware Polyester Ltd. Aurangabad-Pune road, Waluj, Aurangabad.				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr.V.S.Saraf Mobile No. 09822557093 , Email ID – vss@garwarepoly.com				Signature	
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## Annexure -B

### Energy Conservation Measure implemented in 2006-2007

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ID to be filled by BEE	Title of the measure Replacement of VAHP cooling water pump with energy efficient pump. Central Utility, Waluj.	Sector : Plastic (Polyester)			
Year to be filled by BEE		Technology .....			
Description of the energy conservation measure: 1. The cooling water pump that was in operation was old & inefficient. 2. The cooling water pump was replaced by efficient pump.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
					
Agency that executed the project (with complete address and email): In house maintenance team.					
Total investment, Rs.: 30,000 /-			Year of implementation: March 2007		
First year energy cost savings, Rs.: 1.12 Lacs.					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm <sup>3</sup>	Oil (kL)	Other
Energy consumption before	256.61	-	-	-	-
Energy consumption after	225.82	-	-	-	-
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / kL ...	3.65	-	-	-	-
Company complete address: Garware Polyester Ltd. Aurangabad-Pune road, Waluj, Aurangabad.				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr.V.S.Saraf Mobile No. 09822557093 , Email ID – vss@garwarepoly.com				Signature	
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## Annexure - B

### Energy Conservation Measure implemented in 2006-2007

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



ID to be filled by BEE	Title of the measure Optimisation of raw water system operation & use of energy efficient pump. Central Utility, Waluj.	Sector : Plastic (Polyester)			
Year to be filled by BEE		Technology .....			
Description of the energy conservation measure: 1. Higher water consumption operations were scattered during different times of the day. 2 Nos. of raw water pumps were in operation. 2. Higher water consumption operation were done at a time. Raw water pump was replaced by energy efficient pump. One raw water pump was stopped.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
Agency that executed the project (with complete address and email): In house maintenance team.					
Total investment, Rs.: 25000 /-			Year of implementation: Oct.2006		
First year energy cost savings, Rs.: 6.83 Lacs.					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm <sup>3</sup>	Oil (kL)	Other
Energy consumption before	428.18	-	-	-	-
Energy consumption after	240.85	-	-	-	-
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / kL ...	3.65	-	-	-	-
Company complete address: Garware Polyester Ltd. Aurangabad-Pune road, Waluj, Aurangabad.				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr.V.S.Saraf Mobile No. 09822557093 , Email ID – vss@garwarepoly.com				Signature	
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## Annexure -B

### Energy Conservation Measure implemented in 2006-2007

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



ID to be filled by BEE	Title of the measure Stopping F.Oil Line heating steam to tankfarm. CU, Waluj.	Sector : Plastic (Polyester)			
Year to be filled by BEE		Technology .....			
Description of the energy conservation measure: 1. Steam was used for F.oil heating for jacketed line & tank coil during transfer of Furnace oil. 2. Steam heating was stopped during FO transferred.					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
 <p>Steam supply ON.</p>			 <p>Steam supply to FO tank coil &amp; jacketed line stopped.</p>		
Agency that executed the project (with complete address and email): In house maintenance team.					
Total investment, Rs.: 0			Year of implementation: March-2006		
First year energy cost savings, Rs.: 17.04 Lacs.					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm <sup>3</sup>	Oil (MT)	Other
Energy consumption before	-	-	-	106.66	-
Energy consumption after	-	-	-	0	-
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / MT ...	-	-	-	15980	-
Company complete address: Garware Polyester Ltd. Aurangabad-Pune road, Waluj, Aurangabad.				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr.V.S.Saraf Mobile No. 09822557093 , Email ID – vss@garwarepoly.com				Signature	
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## Annexure -B

### Energy Conservation Measure implemented in 2006-2007

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



ID to be filled by BEE	Title of the measure Stopping of CKD HT compressor (Screw) of higher capacity & commissioning of LT reciprocating compressor. CU, Waluj.	Sector : Plastic (Polyester)			
Year to be filled by BEE		Technology .....			
Description of the energy conservation measure: 1. Higher capacity HT screw compressor capacity 5000NM <sup>3</sup> /Hr. was in operation for requirement of 2200NM <sup>3</sup> /Hr. compressed air for plant operation.. 2. 2 Nos. of LT reciprocating compressor of lower capacity 600NM <sup>3</sup> /Hr. were installed. 3. 6 Nos. of LT compressors of capacity 2100 NM <sup>3</sup> /Hr. (Already available in plant.) were made operational along with 2 Nos. of LT compressor of capacity 600 NM <sup>3</sup> /Hr.					
<b>Picture/ sketch/ drawing before modification</b> (if available)			<b>Picture/ sketch/ drawing after modification</b>		
 <p style="text-align: center;">HT screw compressor capacity 5000NM<sup>3</sup>/Hr</p>			 <p style="text-align: center;">2 Nos. of LT reciprocating compressor of lower capacity 600NM<sup>3</sup>/Hr. were installed</p>		
Agency that executed the project (with complete address and email): In house maintenance team.					
Total investment, Rs.: 14.0 Lacs.			Year of implementation: Jan.2007		
First year energy cost savings, Rs.: 34.97 Lacs.					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm <sup>3</sup>	Oil (kL)	Other
Energy consumption before	132.18	-	-	-	-
Energy consumption after	104.57	-	-	-	-
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / kL ...	3.65	-	-	-	-
Company complete address: Garware Polyester Ltd. Aurangabad-Pune road, Waluj, Aurangabad.				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr.V.S.Saraf Mobile No. 09822557093 , Email ID – vss@garwarepoly.com				Signature	
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### Energy Conservation Measure implemented in 2006-2007

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



ID to be filled by BEE	Title of the measure Reduce power required for polyester chips material conveying by using LPC instead of DPC at feeding Silo No 4 -erema side.Film Plant, Waluj.	Sector : Plastic (Polyester)			
Year to be filled by BEE		Technology .....			
Description of the energy conservation measure:  Earliar DPC (Dense Phase conveying system) was used to convey polyester chips (Material). Now ,LPC conveying system is used for conveying.					
<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): In house maintenance team.					
Total investment, Rs.: 1.10 Lacs.			Year of implementation: April 2006		
First year energy cost savings, Rs.: 1.21 Lacs					
First year other savings, Rs.:					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm <sup>3</sup>	Oil (kL)	Other
Energy consumption before	33.15	-	-	-	-
Energy consumption after	8.2	-	-	-	-
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / kL ...	3.65	-	-	-	-
Company complete address: Garware Polyester Ltd. Aurangabad-Pune road, Waluj, Aurangabad.				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr.V.S.Saraf Mobile No. 09822557093 , Email ID – vss@garwarepoly.com				Signature Date	

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## Annexure -B

### Energy Conservation Measure implemented in 2006-2007

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



ID to be filled by BEE	Title of the measure	Sector : Plastic (Polyester)			
Year to be filled by BEE	Optimization of air quantity and use of energy efficient blower for Line-4 MDO & Chill roll. Film Plant, Waluj.	Technology .....			
Description of the energy conservation measure:					
80,000 CFM AHU blower was use to supply air for Line – 4 MDO & chill roll. Action – New energy efficient blower were used to supply the air. Air quantity was also optimized. Electrical consumption - Reduced from 55 amp to 31 amp.					
<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): In-house maintenance team.					
Total investment, Rs.: 4.00 lacs			Year of implementation: Sept-2006		
First year energy cost savings, Rs.: 4.45 Lacs					
First year other savings, Rs.: Nil					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm <sup>3</sup>	Oil (kL)	Other
Energy consumption before	279	–	–	–	–
Energy consumption after	157	–	–	–	–
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / kL ...	3.65/kwh	–	–	–	–
Company complete address: Garware Polyester Ltd. Aurangabad-Pune road, Waluj, Aurangabad.				We authorise Bureau to use this information for dissemination	
Contact person who could be contacted for more information: Mr.V.S.Saraf Mobile No. 09822557093 , Email ID – vss@garwarepoly.com				Signature	
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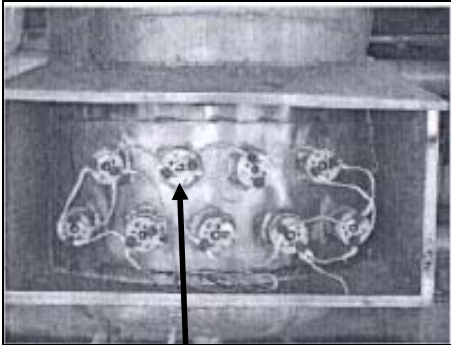

ID to be filled by BEE	Title of the measure	Sector : Plastic (Polyester)			
Year to be filled by BEE	Optimization of air quantity and use of energy efficient blower for Line-4 Pull roll, Winder & Slitter. Film Plant, Waluj.	Technology .....			
<p>Description of the energy conservation measure:</p> <p>80,000 CFM AHU blower was use to supply air for Line – 4 pull roll, winder, slitter.            Action – New energy efficient blowers (35,000 CFM X 2 nos.) were installed to supply the air . Air quantity was also optimized.            Electrical consumption - Reduced from 85 amp to 59 amp. ( 30 amp + 29 amp)</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): In-house maintenance team.					
Total investment, Rs.: 3.00 Lacs			Year of implementation: Aug-2006		
First year energy cost savings, Rs.: 4.82 Lacs					
First year other savings, Rs.: Nil					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm <sup>3</sup>	Oil (kL)	Other
Energy consumption before	431	–	–	–	–
Energy consumption after	299	–	–	–	–
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / kL ...	3.65/kwh	–	–	–	–
Company complete address: Garware Polyester Ltd. Aurangabad-Pune road, Waluj, Aurangabad.				We authorise Bureau to use this information for dissemination	
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ID to be filled by BEE	Title of the measure	Sector : Plastic (Polyester)			
Year to be filled by BEE	Conversion of electrical heating to steam Heating for Acid / Alkali Bath at filter room (Film Plant Waluj)	Technology .....			
Description of the energy conservation measure:					
For Heating & maintaining temp. of Acid & alkali Baths Electrical heaters (10 & 14 KW ) Were used . Heating source was replaced by Steam.					
<b>Picture/ sketch/ drawing before modification</b> (if available)			<b>Picture/ sketch/ drawing after modification</b>		
 <b><u>ELECTRICAL HEATING.</u></b>			 <b><u>STEAM HEATING</u></b>		
Agency that executed the project (with complete address and email): In-house maintenance team.					
Total investment, Rs.: 4500 /-			Year of implementation: June2007		
First year energy cost savings, Rs.:2.01 Lac /year					
First year other savings, Rs.: -----					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm <sup>3</sup>	Oil (kL)	Other
Energy consumption before	69	-	-	-	-
Energy consumption after	...	-	-	-	0.50 Lac
Energy tariff, Rs/ kWh/ Ton/ Nm <sup>3</sup> / kL ...	3.65	-	-	-	-
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