

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 Reset return air temp. setting of Ductable Split ACs in UPS rooms		Sector: Building			
Year to be filled by BEE			Technology: IT			
Description of the energy conservation measure: Details enclosed in Annexure A1 Reset the return air temperature setting of Ductable Split ACs in UPS rooms						
<ul style="list-style-type: none"> • Measures: Return air temperature setting for all Split ACs in UPS room set at 24°C. UPS Room temperature is being monitored and the same is logged every two hours. <p style="text-align: center;">Energy savings achieved: 43 kWh per day – Annual Savings Rs 1.1 lacs</p>						
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification			
Agency that executed the project (with complete address and email): M K Raju Consultants Private Limited 16 Srinagar Colony, Temple Avenue, Chennai 600 015 Phone: (044) 2235 1151 / 2235 2491, Fax: (044) 2235 1070 Email: info@mkrajuconsultants.com						
Total investment, Rs.: Nil			Year of implementation: 2007-2008			
First year energy cost savings, Rs1.1 lacs						
First year other savings, Rs.: -0.0						
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other	
Energy consumption before	64.97	-	-	-	-	
Energy consumption after	49.27	-	-	-	-	
Energy tariff, Rs/ kWh/	7	-	-	-	-	
Company complete address: Citigroup Global Services Ltd lot No. 223, NESCO Compound, Goregaon (E), Mumbai 400 063 Phone: 022-67665005, Fax: 022-67665009 Email: capt.sivam@citi.com				We authorise Bureau to use this information for dissemination Signature Date		
Contact person who could be contacted for more information: Capt Muthu Sivam						

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.

Annexure 'A' 2

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 Optimise working of Screw Chillers		Sector: Building		
Year to be filled by BEE			Technology: IT		
Description of the energy conservation measure: Details enclosed in Annexure A2					
Optimize chilled water leaving temperature in the screw chillers					
Measures:					
<ul style="list-style-type: none"> Increased the chiller leaving chilled water temperature setting from 7°C to 10°C in steps and increased working area temperature to 24±1°C from 21±1°C. Chiller compressors running hours got reduced by one third and also complaints due to 'over cooling' - low temperature also reduced substantially. 					
Energy savings achieved: 630 kWh per day – Annual Savings Rs 16.1 lacs					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
Agency that executed the project (with complete address and email):					
M K Raju Consultants Private Limited 16 Srinagar Colony, Temple Avenue, Chennai 600 015 Phone: (044) 2235 1151 / 2235 2491, Fax: (044) 2235 1070 Email:info@mkrajuconsultants.com					
Total investment, Rs.: Nil			Year of implementation: 2007-2008		
First year energy cost savings, Rs.16.1 lacs					
First year other savings, Rs.: -					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	64.97	-	-	-	-
Energy consumption after	49.27	-	-	-	-
Energy tariff, Rs/ kWh/	7	-	-	-	-
Company complete address:				We authorise Bureau to use this information for dissemination	
Citigroup Global Services Ltd lot No. 223, NESCO Compound, Goregaon (E), Mumbai 400 063 Phone: 022-67665005, Fax: 022-67665009 Email:capt.sivam@citi.com				Signature	
Contact person who could be contacted for more information: Capt Muthu Sivam				Date	

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

ID to be filled by BEE	Title of the measure Stop AHU No.18 Fan Motor during non-peak hours	Sector : Building			
Year to be filled by BEE		Technology : IT			
Description of the energy conservation measure:					
<p>Background: AHU no. 18 supplies conditioned air to the cafeteria and training room.</p> <ul style="list-style-type: none"> • AC requirement for training room is 11 hours and cafeteria requirement is as on when requirement is there. • In addition to AHU 18, other dedicated AHUs were in operation to supply conditioned air to cafeteria • Measure: Stop the AHU No.18 fan motor after training class is completed. <p>Energy savings achieved: 71 kWh per day – Annual Savings Rs 1.85 lacs</p> <p>Replace existing conventional fluorescent lamps with energy efficient fluorescent lamps</p>					
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification		
Agency that executed the project (with complete address and email):					
<p>M K Raju Consultants Private Limited 16 Srinagar Colony, Temple Avenue, Chennai 600 015 Phone: (044) 2235 1151 / 2235 2491, Fax: (044) 2235 1070 Email:info@mkrajuconsultants.com</p>					
Total investment, Rs.: NIL			Year of implementation: 2007-2008		
First year energy cost savings, Rs.: 1.85 lacs					
First year other savings, Rs.: -					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	48	-	-	-	-
Energy consumption after	22	-	-	-	-
Energy tariff, Rs/ kWh/	7	-	-	-	-
Company complete address:				We authorise Bureau to use this information for dissemination Signature Date	
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Contact person who could be contacted for more information: Capt Muthu Sivam					

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

ID to be filled by BEE	Title of the measure Reduce the transformer secondary voltage to optimize the losses in electrical system	Sector : Building			
Year to be filled by BEE		Technology : IT			
Description of the energy conservation measure:					
<p>Background: Two 2000 kVA dry type transformers used for feeding the power to equipments like Chillers, Pumps, AHUs, UPS, Servers, Lighting etc.</p> <ul style="list-style-type: none"> • Average transformer secondary voltage maintained at 433V and therefore, equipments were operated at 433V as against rated voltage of 415V. • Higher supply voltage increase the power requirement for the electrical system due to increased losses in motor, lighting, electronic circuits etc. • Measure: Reduced the transformer secondary voltage to 410V from 433V to reduce the losses in electrical system and equipment. <p style="text-align: center;">Energy savings achieved: 433 kWh per day – Annual Savings Rs 11 lacs</p>					
Replace existing conventional fluorescent lamps with energy efficient fluorescent lamps					
Picture/ sketch/ drawing before modification (if available)	Picture/ sketch/ drawing after modification				
Agency that executed the project (with complete address and email):					
M K Raju Consultants Private Limited 16 Srinagar Colony, Temple Avenue, Chennai 600 015 Phone: (044) 2235 1151 / 2235 2491, Fax: (044) 2235 1070 Email: info@mkrajuconsultants.com					
Total investment, Rs.: NIL		Year of implementation: 2007-2008			
First year energy cost savings, Rs.: 11 lacs					
First year other savings, Rs.: -					
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other
Energy consumption before	-	-	-	-	-
Energy consumption after	-	-	-	-	-
Energy tariff, Rs/ kWh/	7	-	-	-	-
Company complete address:				We authorise Bureau to use this information for dissemination Signature Date	
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ID to be filled by BEE	Title of the measure Energy Saver in Lighting System		Sector : Building			
Year to be filled by BEE			Technology : IT			
Description of the energy conservation measure: Details enclosed in Annexure A4 Install energy saver in lighting system						
Picture/ sketch/ drawing before modification (if available)			Picture/ sketch/ drawing after modification			
Agency that executed the project (with complete address and email): M K Raju Consultants Private Limited 16 Srinagar Colony, Temple Avenue, Chennai 600 015 Phone: (044) 2235 1151 / 2235 2491, Fax: (044) 2235 1070 Email: info@mkrajuconsultants.com						
Total investment, Rs.: 7.3 lacs			Year of implementation: 2008-2009			
First year energy cost savings, Rs.: 22.5 lacs						
First year other savings, Rs.: -						
On annual basis	kWh 000'	Coal (Tons)	Gas Nm ³	Oil (kL)	Other	
Energy consumption before	1200	-	-	-	-	
Energy consumption after	878	-	-	-	-	
Energy tariff, Rs/ kWh/	7	-	-	-	-	
Company complete address: Citigroup Global Services Ltd lot No. 223, NESCO Compound, Goregaon (E), Mumbai 400 063 Phone: 022-67665005, Fax: 022-67665009 Email: capt.sivam@citi.com				We authorise Bureau to use this information for dissemination Signature Date		
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