Energy Conservation Measure implemented in 2007-2008

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

ID	Title of the measure Adoption of appropriate chemical treatment technology of cooling water to Increase of COC from 10 to 12	Sector: GENERAL
Year		Technology: optimize CW COC

Description of the energy conservation measure:

Increase of COC from 10 to 12, thereby implementing water conservation & energy conservation. 116364M^3/year water saved. In addition to the monetary savings achieved, the consumption of Chlorine, acid & alkali used for chemical treatment also has reduced.

Picture/ sketch/ drawing before modification (if available)	**Picture/ sketch/ drawing after modification**
	

Agency that executed the project (with complete address and email):
WEX Technologies Pvt. Ltd., 97/8/1, Paud Road, Kothrud, Pune, India
Ph: 0120-25285635-37, Email: wextech@vsnl.net

Total investment, Rs.: Nil	Year of implementation: April2007
First year energy cost savings, Rs.: 48492	
First year other savings, Rs.: 231564	

On annual basis	kWh 000'	Coal (Tons)	Gas Nm^3	Oil (kL)	Other
Energy consumption before	330767	NA	NA	NA	NA
Energy consumption after	313324	NA	NA	NA	NA
Energy tariff, Rs/ kWh	2.78	NA	NA	NA	NA

Company complete address:
220 MW Samalkot Combined Cycle Power Station,
IDA Peddapuram, P.O. Box No 22, Samlakot H.P.O.
East Godavari Dist, Andhra Pradesh - 533 440.

Contact person who could be contacted for more information:
Mr. B. R. Das, Energy Manager
PH: 09346259324, Email: biswa.das@relianceada.com

We authorize Bureau to use this information for dissemination

Signature

Date

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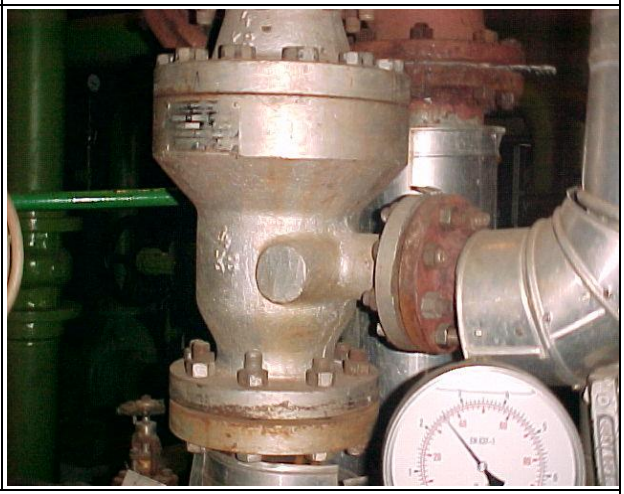
Energy Conservation Measure implemented in 2007-2008

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

ID	Title of the measure Overhauling of Recirculation Valve of LPBFP-1 to reduce power consumption.	Sector: GENERAL
Year		Technology: Auto Recirculation valve

Description of the energy conservation measure:

In the view of Energy Conservation, a study carried out for LPBFP performance and observed that, LPBFP#1 is drawing 10 amps more current than Pump#2 for the same flow requirement. After detail study, Maintenance of Recirculation Valve of LPBFP-1 carried out. After LPBFP-1 ARV overhauling, Power consumption reduced by 3KW.

Picture/ sketch/ drawing before modification (if available)	**Picture/ sketch/ drawing after modification**
NOT AVAILABLE	

Agency that executed the project (with complete address and email): SPS MAINTENANCE TEAM

Total investment, Rs.: Nil	Year of implementation: July2007

First year energy cost savings, Rs.: 48839

First year other savings, Rs.: Nil

On annual basis	kWh 000'	Coal (Tons)	Gas Nm^3	Oil (kL)	Other
Energy consumption before	420495	NA	NA	NA	NA
Energy consumption after	402927	NA	NA	NA	NA
Energy tariff, Rs/ kWh	2.78	NA	NA	NA	NA

Company complete address: 220 MW Samalkot Combined Cycle Power Station, IDA Peddapuram, P.O. Box No 22, Samlakot H.P.O. East Godavari Dist, Andhra Pradesh - 533 440. Contact person who could be contacted for more information: Mr. B. R. Das, Energy Manager PH: 09346259324, Email: biswa.das@relianceada.com	We authorize Bureau to use this information for dissemination Signature Date

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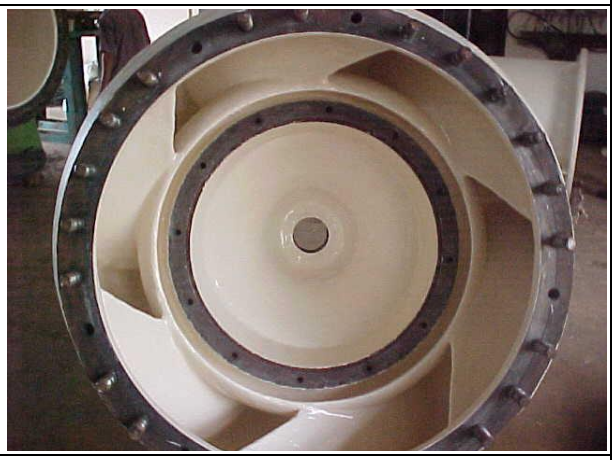
Energy Conservation Measure implemented in 2007-2008

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

ID	Title of the measure Fluglide coating for anti-corrosion & energy saving in CW pump	Sector: GENERAL
Year		Technology: CORROCOAT

Description of the energy conservation measure:

There are 3x55% three identical Circulating Water pumps (2 working + 1 standby). Water flows through the concrete channel to the circulating water pump bays.
Fluglide coating (Corrocoating) of one CW pumps had been done to improve pump efficiency through reduction in Hydraulic frictional losses, which results in reduction in power consumption & protection against corrosion & erosion thereby increasing the pump life. After corrocoating of CW pump-3, its performance found satisfactory and Energy saving is 36KWH.

Picture/ sketch/ drawing before modification (if available)	**Picture/ sketch/ drawing after modification**
NOT AVAILABLE	

Agency that executed the project (with complete address and email):
M/s Kirloskar Corrocoat Pvt. Ltd., Raj Paris Trimeni Towers, 147 G.N. chetty road, T.Nagar, Chennai
Ph: 044-28156546, Email: gowrisankar.vk@kicopl.com

Total investment, Rs.: 398200	Year of implementation: Aug2007
First year energy cost savings, Rs.: 581261	
First year other savings, Rs.: NA	

On annual basis	kWh 000'	Coal (Tons)	Gas Nm^3	Oil (kL)	Other
Energy consumption before	5286099	NA	NA	NA	NA
Energy consumption after	5077012	NA	NA	NA	NA
Energy tariff, Rs/ kWh	2.78	NA	NA	NA	NA

Company complete address:
220 MW Samalkot Combined Cycle Power Station,
IDA Peddapuram, P.O. Box No 22, Samlakot H.P.O.
East Godavari Dist, Andhra Pradesh - 533 440.

Contact person who could be contacted for more information:
Mr. B. R. Das, Energy Manager
PH: 09346259324, Email: biswa.das@relianceada.com

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Energy Conservation Measure implemented in 2007-2008

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

ID	Title of the measure Installation of Variable Frequency Drive In Low Pressure Boiler Feed Pump.	Sector: GENERAL
Year		Technology: VFD

Description of the energy conservation measure:

Low Pressure Boiler Feed Pump connected to 75 KW drive feeding hot water to Boiler to maintain the water level in the drum through control valve.
(Make- Sulzer, Type- MB80/5, Multistage, Horizontal, Flow- 68m3/hr, Head- 232.28 bar)
As energy conservation purpose same drive connected to VFD from 14.09.07.
LPBFP 2 operated on VFD mode upto 42Hz without any abnormality & power saving achieved by approx. 17 KWh.

Picture/ sketch/ drawing before modification (if available)	**Picture/ sketch/ drawing after modification**
NOT AVAILABLE	

Agency that executed the project (with complete address and email):
Yantra Automation Pvt. Ltd., 1301 Swaroop krupa, Subhash Nagar, PUNE, INDIA
Ph:09375947847, Email: yantra.automation@vsnl.com

Total investment, Rs.: 451571	Year of implementation: Sept2007
First year energy cost savings, Rs.: 59953	
First year other savings, Rs.: NA	

On annual basis	kWh 000'	Coal (Tons)	Gas Nm^3	Oil (kL)	Other
Energy consumption before	386682	NA	NA	NA	NA
Energy consumption after	365116	NA	NA	NA	NA
Energy tariff, Rs/ kWh	2.78	NA	NA	NA	NA

Company complete address: 220 MW Samalkot Combined Cycle Power Station, IDA Peddapuram, P.O. Box No 22, Samlakot H.P.O. East Godavari Dist, Andhra Pradesh - 533 440. Contact person who could be contacted for more information: Mr. B. R. Das, Energy Manager PH: 09346259324, Email: biswa.das@relianceada.com	We authorize Bureau to use this information for dissemination Signature Date

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Energy Conservation Measure implemented in 2007-2008

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

ID	Title of the measure Improvement in Gross Heat Rate through Bypassing of LP Heater & stop condensate Preheater Pump	Sector: GENERAL
Year		Technology: OPTIMISE FW CYCLE

Description of the energy conservation measure:

LPH is provided in the condensate system as a regenerative system. LPH extraction steam is taken from LP turbine for preheating of the condensate prior going to the deaerator. Condensate Preheat exchanger is installed to recover low grade heat from the flue gas temperature during natural gas operation.
Study was conducted on bypassing the LPH & stopping of Condensate preheater pump & reduction of the deaerator pressure set point affect on the ST load & exit flue gas temperature, maintaining GT load at 60 MW. After Isolation Of LPH & CPH & With Deaerator Pr Set Point 1.0 Bar Load Increased By 230 KW with maintain the exit flue gas temperature above sulphur dew point temperature.

Picture/ sketch/ drawing before modification (if available)	**Picture/ sketch/ drawing after modification**
NOT AVAILABLE	

Agency that executed the project (with complete address and email): INHOUSE O&E TEAM

Total investment, Rs.: NIL	Year of implementation: Dec2007

First year energy cost savings, Rs.: 1735138

First year other savings, Rs.: NA

On annual basis	kWh 000'	Coal (Tons)	Gas Nm^3	Oil (kL)	Other
Energy consumption before	622505	NA	NA	NA	NA
Energy consumption after	0	NA	NA	NA	NA
Energy tariff, Rs/ kWh	2.78	NA	NA	NA	NA

Company complete address: 220 MW Samalkot Combined Cycle Power Station, IDA Peddapuram, P.O. Box No 22, Samlakot H.P.O. East Godavari Dist, Andhra Pradesh - 533 440. Contact person who could be contacted for more information: Mr. B. R. Das, Energy Manager PH: 09346259324, Email: biswa.das@relianceada.com	We authorize Bureau to use this information for dissemination Signature Date

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Energy Conservation Measure implemented in 2007-2008

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

ID	Title of the measure Condensate Extraction Pump Destaging	Sector: GENERAL
Year		Technology: PUMP DESTAGING

Description of the energy conservation measure:

There are two 100% capacity driven condensate extraction pumps, normally one pump in operation and other in auto stand-by mode. After required flow study, it was conclude that, in view of the benefit of Energy conservation, pump destaging to be done.
Prior to Destaging, both pump having 4 stages. Pumps Model is TTMC 150- 400/4. Prior to Destaging of CEP #1, both pumps trip at discharge header pressure set at 14.5 bar. After De-stage of CEP#1, both pumps trip at discharge header pressure set changed from 14.5 bar to 8.0 bar
After CEP #1 destaging, all parameters checked during steam turbine trip & HP/LP bypass valve 100% open condition, found working Satisfactorily. Energy saving is 67KWH.

Picture/ sketch/ drawing before modification (if available)	**Picture/ sketch/ drawing after modification**
	

Agency that executed the project (with complete address and email):
Customer Support Services, Sulzer Pumps India Ltd., RamanayyaPeta, Kakinada, India
Ph: 09848351796, Email: ajaaz.sayyed@sulzer.com

Total investment, Rs.: 115933	Year of implementation: March2008
First year energy cost savings, Rs.: 110588	
First year other savings, Rs.: NA	

On annual basis	kWh 000'	Coal (Tons)	Gas Nm^3	Oil (kL)	Other
Energy consumption before	910350	NA	NA	NA	NA
Energy consumption after	870570	NA	NA	NA	NA
Energy tariff, Rs/ kWh	2.78	NA	NA	NA	NA

Company complete address: 220 MW Samalkot Combined Cycle Power Station, IDA Peddapuram, P.O. Box No 22, Samlakot H.P.O. East Godavari Dist, Andhra Pradesh - 533 440. Contact person who could be contacted for more information: Mr. B. R. Das, Energy Manager PH: 09346259324, Email: biswa.das@relianceada.com	We authorize Bureau to use this information for dissemination Signature Date

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Energy Conservation Measure implemented in 2007-2008

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

ID	Title of the measure Energy saver installed in MLDB	Sector: GENERAL
Year		Technology: ENERGY SAVER

Description of the energy conservation measure:

In the view of Energy Conservation, a survey carried out for reduction in Lighting system. The Energy consumption is 1256.4KWh/day. The total connected load to Main Lighting Distribution board is 75KW. The daytime power consumption is 25KW and nighttime it is 75KW. Energy Saver has been installed and commissioned for the Power Block MLDB, net savings found 203 units per day.

Picture/ sketch/ drawing before modification (if available)	**Picture/ sketch/ drawing after modification**
NOT AVAILABLE	

Agency that executed the project (with complete address and email):
ES Electronics (India) Pvt. Ltd., 438, 4th Main Road, Nagendra Block, Bangalore, India
Ph: 6727836, 6728761

Total investment, Rs.: 142940	Year of implementation: March2008
First year energy cost savings, Rs.: 9029	
First year other savings, Rs.: NA	

On annual basis	kWh 000'	Coal (Tons)	Gas Nm^3	Oil (kL)	Other
Energy consumption before	459852	NA	NA	NA	NA
Energy consumption after	456604	NA	NA	NA	NA
Energy tariff, Rs/ kWh	2.78	NA	NA	NA	NA

Company complete address:
220 MW Samalkot Combined Cycle Power Station,
IDA Peddapuram, P.O. Box No 22, Samlakot H.P.O.
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Energy Conservation Measure implemented in 2007-2008

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

ID	Title of the measure Bypassing of Pretreatment Plant	Sector: GENERAL
Year		Technology: Clarifier bypass

Description of the energy conservation measure:

During monsoon as there is no input water coming to reservoir, turbidity fluctuations are eliminated, hence direct raw water is taken to the CW makeup as well as process requirement since it is meeting the requirement of limits. On the basis continuous monitoring of water quality, Clarifier bypass was done, due to which Auxiliary power consumption 200KWh per day and chemical consumption saved.

Picture/ sketch/ drawing before modification (if available)	**Picture/ sketch/ drawing after modification**
NOT APPLICABLE	

Agency that executed the project (with complete address and email): INHOUSE - SPS TEAM

Total investment, Rs.: Nil	Year of implementation: May2007

First year energy cost savings, Rs.: 28356

First year other savings, Rs.: 39950

On annual basis	kWh 000'	Coal (Tons)	Gas Nm^3	Oil (kL)	Other
Energy consumption before	72250	NA	NA	NA	NA
Energy consumption after	62050	NA	NA	NA	NA
Energy tariff, Rs/ kWh	2.78	NA	NA	NA	NA

Company complete address: 220 MW Samalkot Combined Cycle Power Station, IDA Peddapuram, P.O. Box No 22, Samlakot H.P.O. East Godavari Dist, Andhra Pradesh - 533 440. Contact person who could be contacted for more information: Mr. B. R. Das, Energy Manager PH: 09346259324, Email: biswa.das@relianceada.com	We authorize Bureau to use this information for dissemination Signature Date

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