




Energy Conservation Measure implemented in 2006-2007

| | | | | | |
|---|--|---------------------------|------------------------------------|--|-------|
| ID to be filled by BEE | Title of the measure | Sector: <i>Fertiliser</i> | | | |
| Year to be filled by BEE | Use of air from PAC III in ammonia plant as instrument air in Urea plant. | Technology | | | |
| Description of the energy conservation measure: | | | | | |
| <p>Surplus air available in 3rd Process air compressor of ammonia plant was used as instrument air in Urea plant. We were able to stop 2 instrument air compressors in Urea plant. Before: (80 KW x 2 x 24 Hrs. x 330 days) = 1267200 Kwh. After : 0 Savings: Rs. 77.68 Lakhs</p> | | | | | |
| Picture/ sketch/ drawing after modification | | | | | |
|  | | | | | |
| Agency that executed the project (with complete address and email): In house modification. | | | | | |
| Total investment, Rs.: Rs.5.50 Lakhs. | | | Year of implementation: 30.04.2006 | | |
| First year energy cost savings, Rs.: 77.68 Lakhs. | | | | | |
| First year other savings, Rs.: | | | | | |
| On annual basis | kWh 000' | Coal (Tons) | Gas Nm ³ | Oil (kL) | Other |
| Energy consumption before | 1267.2 | ----- | ----- | ----- | ----- |
| Energy consumption after | 0 | ----- | ----- | ----- | ----- |
| Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ... | 6.13 | | | | |
| Company complete address: | | | | We authorise Bureau to use this information for dissemination Signature Date | |
| RCF Thal. | | | | | |
| Contact person who could be contacted for more information: | | | | | |
| Shri S.D.Panadare Energy Manager | | | | | |



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|---|--|----------------------------|------------------------|--|-------|
| (To be filled up separately for each Energy Conservation Measure) ID to be filled by BEE | Title of the measure Use of air from PAC III in ammonia plant as passivation air in Urea plant. | Sector: <i>Fertiliser.</i> | | | |
| Year to be filled by BEE | Technology | | | | |
| Description of the energy conservation measure: Surplus air available in 3 rd Process air compressor of ammonia plant was used as passivation air in Urea plant. We were able to stop 3 nos. of passivation air blower in Urea plant. Before: (22 KW x 3 x 24 Hrs. x 330 days) = 522720 Kwh. After : 0 Savings: Rs.32.04 Lakhs | | | | | |
| Picture/ sketch/ drawing after modification | | | | | |
|  | | | | | |
| Agency that executed the project (with complete address and email): In-house modification | | | | | |
| Total investment, Rs.: 0.50 lakhs | Year of implementation: 30.05.2006 | | | | |
| First year energy cost savings, Rs.: 32.04 Lakhs | | | | | |
| First year other savings, Rs.: | | | | | |
| On annual basis | kWh 000' | Coal (Tons) | Gas Nm ³ | Oil (kL) | Other |
| Energy consumption before | 522.7 | ----- | ----- | ----- | ----- |
| Energy consumption after | 0 | ----- | ----- | ----- | ----- |
| Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ... | 6.13 | | | | |
| Company complete address: RCF Thal. Contact person who could be contacted for more information: Shri S.D.Panadare Energy Manager | | | | We authorise Bureau to use this information for dissemination Signature Date | |

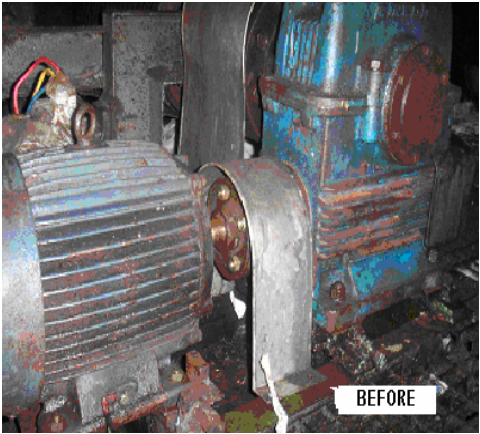

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|--|--|--------------------------------|--|--|-------|
| ID to be filled by BEE | Title of the measure Installation of PEEK wear rings | | Sector: Fertiliser | | |
| Year to be filled by BEE | | | Technology | | |
| Description of the energy conservation measure: Installation of PEEK wear rings (Poly Ether – Ether - Ketone) for 31P13A,21P8B,11P8B, 21 P 27A in Urea Plant. | | | | | |
| | 31 P-13 A | 21 P-8 B | 11 P-5 B | 21 P-27 A | |
| Before | 15.68 KW | Reduction in Current by 8 Amps | Reduction in Current by 8.5 Amps | Reduction in Current by 6 Amps | |
| After | 14.19 KW | | | | |
| Savings in KW | 1.49 | 4.65 | 4.41 | 3.53 | |
| <p>Earlier these rings were of metal and used to seize when pump is vapor locked. Earlier clearances were kept higher as rings of metal. Now a days clearance is one third of that and hence avoids passing back to suction thus reducing amperage of pump. [1.5+4.6+4.4+3.5]=14 KW for 12 Hrs.] =(14 KW x 12 Hrs. x 330 days) = 55440 Kwh. Savings: Rs.3.40 Lakhs</p> | | | | | |
| Picture/ sketch/ drawing after modification | | | | | |
|  | | | | | |
| Agency that executed the project (with complete address and email): In house modification. | | | | | |
| Total investment, Rs.: 1.81 | | | Year of implementation: Oct.2006 to Jan 2007 | | |
| First year energy cost savings, Rs.: 3.4 lakhs | | | | | |
| First year other savings, Rs.: | | | | | |
| On annual basis | kWh 000' | Coal (Tons) | Gas Nm ³ | Oil (kL) | Other |
| Energy consumption before | | ----- | ----- | ----- | ----- |
| Energy consumption after | 544.4 | ----- | ----- | ----- | ----- |
| Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ... | 6.13 | | | | |
| Company complete address: RCF Thal. Contact person who could be contacted for more information: Shri S.D.Panadare Energy Manager | | | | We authorise Bureau to use this information for dissemination Signature Date | |

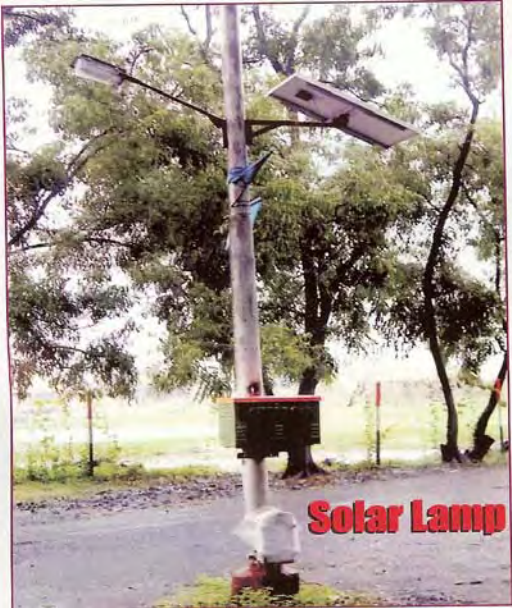
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|---|--|----------------|---|--|-------|
| ID to be filled by BEE | Title of the measure High efficiency motors in WTP (2Nos.) | | Sector : <i>Fertiliser</i> | | |
| Year to be filled by BEE | | | Technology | | |
| Description of the energy conservation measure: 2 Nos. of High efficiency motors were installed in place of old conventional motors. Before: After : Savings: Rs.0.97 Lakhs | | | | | |
| Picture/ sketch/ drawing before modification (if available) | | | Picture/ sketch/ drawing after modification | | |
|  | | |  | | |
| Agency that executed the project (with complete address and email): | | | | | |
| Total investment, Rs.:2.75 Lakhs | | | Year of implementation: June, 2006 | | |
| First year energy cost savings, Rs.:0.97 Lakhs | | | | | |
| 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/ Ton/ Nm ³ / kL ... | 6.13 | | | | |
| Company complete address: RCF Thal. Contact person who could be contacted for more information: Shri S.D.Panadare Energy Manager | | | | 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 | Sector Fertiliser..... |
| Year to be filled by BEE | Geared Motor in place of Motor with Reduction Gear box for conveyers in PHP | Technology |
| <p>Description of the energy conservation measure: At the project stage the conveyor belts for bunkers feeding were installed with a drive unit consisting of drive motor & worm reduction gear with input and output shaft (2 no) couplings. This arrangement involves frequent & recurrent maintenance jobs. In view of the above, "Helical Geared Motors", having better transmission efficiency were installed in place of "Worm Reduction Gear box with Motor", This has eliminated the input coupling & reduced the no of coupling to one from earlier two. The savings are calculated on the basis of 37 operating month in the financial year 2006-07 i.e. up to April 07</p> | | |
| Picture/ sketch/ drawing before modification (if available) | Picture/ sketch/ drawing after modification | |
|  |  | |
| Agency that executed the project (with complete address and email): The Geared Motors were procured and installation was done in-house. No outside agency was involved. | | |
| Total investment, Rs.:5,00,000 | Year of implementation: 2006-2007 | |
| First year energy cost savings, Rs.: 2,50,284 | | |
| First year other savings, Rs.:10,000 | | |
| On annual basis | kWh 000' | Coal (Tons) |
| Energy consumption before | 455341 | |
| Energy consumption after | 381547 | |
| Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ... | 5.50 | |
| Company complete address: RCF Thal. Contact person who could be contacted for more information: Shri S.D.Panadare Energy Manager | We authorize Bureau to use this information for dissemination Signature Date | |

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|--|---|----------------|--|--|-------|
| ID to be filled by BEE | Title of the measure Solar power for street lighting installed in Kurul township. | | Sector: <i>Fertiliser</i> | | |
| Year to be filled by BEE | | | Technology | | |
| Description of the energy conservation measure: | | | | | |
| Solar power for street lighting was installed at strategic locations in Kurul township of Thal for convenience of the people. It was very useful during load shedding in night. | | | | | |
|  | | | | | |
| Agency that executed the project (with complete address and email): | | | | | |
| Total investment, Rs.: 1.33 Lakhs | | | Year of implementation: September 2006 | | |
| First year energy cost savings, Rs.: Nil | | | | | |
| 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/ Ton/ Nm ³ / kL ... | ----- | ----- | ----- | ----- | ----- |
| Company complete address: RCF Thal. Contact person who could be contacted for more information: Shri S.D.Panadare Energy Manager | | | | 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 | | Sector: <i>Fertiliser</i> | | | |
| Year to be filled by BEE | Provision of 30 watt tubes (2000 nos.) in place of 36 watt for general Lighting | | Technology | | | |
| Description of the energy conservation measure: | | | | | | |
| <p>General lighting (36 W) in common places were replaced with 30 watt tubes (2000 nos.) (6W/tube for 9 hrs, for 300 days) = 32400 Kwh. Saving: Rs.1.99 Lakhs</p> | | | | | | |
|  | | | | | | |
| Agency that executed the project (with complete address and email): | | | | | | |
| Total investment, Rs.:2.34 Lakhs | | | Year of implementation: October,2006 | | | |
| First year energy cost savings, Rs.:1.99 Lakhs. | | | | | | |
| First year other savings, Rs.: | | | | | | |
| On annual basis | kWh 000' | Coal (Tons) | Gas Nm ³ | Oil (kL) | Other | |
| Energy consumption before | 36 W | | | | | |
| Energy consumption after | 30 W | | | | | |
| Energy tariff, Rs/ kWh/ Ton/ Nm ³ / kL ... | 6.13 | | | | | |
| Company complete address: | | | | We authorise Bureau to use this information for dissemination | | |
| RCF Thal. | | | | | | |
| Contact person who could be contacted for more information: | | | | Signature | | |
| Shri S.D.Panadare Energy Manager | | | | Date | | |