

IMPROVING HEATING EFFICIENCY

Wire drawing unit, Sri Lanka	Steel industry, Nepal	Electrical switchgear industry, Bangladesh
		
<ul style="list-style-type: none"> • Heat loss from oversized door opening minimized by having multiple positions for door opening • More comfortable working environment • Annual savings: 15,467 kWh • Payback: Immediate 	<ul style="list-style-type: none"> • Recuperator installed to recover flue gas waste heat • Used to preheat air entering furnace • Annual Savings: 227.6 t of coal • Payback: 5 months 	<ul style="list-style-type: none"> • Temperature of bakelite moulding machine heaters regulated by auto cut-off • Product quality improved • Annual savings: 2,970 kWh • Payback: <2 months

January 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

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IMPROVING LIGHTING EFFECTIVENESS

Aluminium extruded products, Sri Lanka	Corrugated roofing sheet industry, Nepal	Steel industry, Bangladesh
		
<ul style="list-style-type: none"> • Transparent sheet installed in roof to provide natural light • Roof height increased leading to cooler temperatures • Annual savings: 7,000 kWh • Payback: 10 months 	<ul style="list-style-type: none"> • Dusty and hazy translucent sheets on roof replaced • Better illumination and working conditions 	<ul style="list-style-type: none"> • 24 translucent sheets installed on roof top • Annual savings: 15,415 kWh • Payback: 7 months

February 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21 <small>21 Shaheed Day</small>	22	23
24	25	26	27	28		

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COMPRESSOR OPTIMIZATION

Steel rerolling industry, Sri Lanka	Corrugated roofing sheet industry, Nepal	Steel industry, Bangladesh
<ul style="list-style-type: none"> • Compressor leakage points rectified • Two compressors instead of one after rectification • Annual savings: 691,700 kWh • Payback: Immediate 	<ul style="list-style-type: none"> • Compressor set pressure decreased from 6.5-7.5 bar to 4.5-6.5 bar • Annual savings: 5,900 kWh • Payback: Immediate 	<ul style="list-style-type: none"> • Air leakages in various machines observed which were fixed • Compressor operation improved • Annual savings: 31,000 kWh • Payback: < 1 month

March 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
31					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17 <small>17 Sheikh Mujibur Rahman's Birthday</small>	18	19	20	21	22	23
24	25	26 <small>26 Independence Day</small>	27	28	29	30

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RESOURCE OPTIMIZATION

Aluminium extruded products, Sri Lanka	Fabrication unit, Nepal	Steel industry, Bangladesh
		
<ul style="list-style-type: none"> • Powder coating transfer efficiency improved by optimising charging voltage, gun speed, gun-part distance • Annual savings: 1,490 kg powder • Payback: Immediate 	<ul style="list-style-type: none"> • Semi-finished products and cut pieces properly stored • Safe and clean working environment • Increased reuse of cut pieces • Annual savings: 2.4 t steel, 0.4 t Aluminium • Payback: 2 months 	<ul style="list-style-type: none"> • Collecting trays placed below colour coating machines for catching spilled paint • Cleaner floors • Annual savings: 4,600 L of paint • Payback: Immediate

April 2019



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11	12	13
14 14 Bengali New Year	15	16	17	18	19	20
21 21 Shab e-Barat	22	23	24	25	26	27
28	29	30				

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HEATING OPTIMIZATION

Powder coating industry, Sri Lanka	Steel industry, Nepal	Engineering and fabrication industry, Bangladesh
		
<ul style="list-style-type: none"> • Old burner was replaced with new forced draft gas burner for improved combustion in curing oven • Annual savings: 1,513 kg of LPG • Payback: 21 months 	<ul style="list-style-type: none"> • Hot air duct from the recuperator to burner was insulated leading to less fuel consumption in reheating furnace • Annual savings: 57,000 l of furnace oil • Payback: 2 months 	<ul style="list-style-type: none"> • Heaters in plastic moulding machine were insulated • Led to improved working conditions and less energy consumption • Annual savings: 3,600 kWh • Payback: < 1 month

May 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 1 May Day	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18* 18 Buddha Purnima
19	20	21	22	23	24	25
26	27	28	29	30	31* 31 Jumatul Bidah	




* Subject to the appearance of the moon.

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WATER OPTIMIZATION

Steel industry, Sri Lanka	Fabrication industry, Nepal	Power engineering industry, Bangladesh
		
<ul style="list-style-type: none"> Rainwater from terrace collected in an existing unutilized tank Used for rinsing baths in production Annual savings: 375,000 litres Payback: 3 months 	<ul style="list-style-type: none"> Water cascading used for rinsing parts after pickling Existing rinse pits were resin coated and used with water cascading Annual savings: 576,000 litres Payback: 26 months 	<ul style="list-style-type: none"> Workers were trained to allow adequate time for drain out while removing parts from acid treatment tanks A buzzer with stop watch was installed to provide reminder Annual savings: 137 L acid and 10,800 L water Payback: < 1 month

June 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30						1* <small>1 Shab-e-Qadar</small>
2	3	4* <small>4 Eid-ul-Fitr Holiday</small>	5* <small>5 Eid-ul-Fitr</small>	6* <small>6 Eid ul-Fitr Holiday</small>	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

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LIGHTING OPTIMIZATION

Electrical panel manufacturing industry, Sri Lanka	Steel industry, Nepal	Copper wire manufacturing, Bangladesh
		
<ul style="list-style-type: none"> • Tube lights when fused or damaged were replaced with LEDs in a phased manner • Annual savings: 7,435 kWh • Payback: 2.4 years 	<ul style="list-style-type: none"> • 250 W sodium vapour lamps (37 nos.) replaced by 100 W LED lamps • 100 W incandescent lamps (4 nos.) replaced by 11 W LED lamps • Annual savings: 21,262 kWh • Payback period: 27 months 	<ul style="list-style-type: none"> • Tube lights (36 W) and incandescent lights (60 W) were replaced with LED (18 W) • Annual savings: 500 kWh • Payback period: 6.5 months

July 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

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ELECTRICITY OPTIMIZATION

Cooling equipment industry, Sri Lanka	Engineering industry, Nepal	Steel industry, Bangladesh
<ul style="list-style-type: none"> • Since load is mainly from industrial machinery, the company switched to a more cost-effective industrial category tariff system from domestic tariff • Unit charge was reduced • Annual savings: 256,000 LKR • Payback: 3 months 	<ul style="list-style-type: none"> • Damaged capacitors and Miniature Circuit Breaker were repaired or replaced • Led to higher power factor and lower demand • Annual savings: 31,500 NPR • Payback period: 4 months 	<ul style="list-style-type: none"> • Capacitor bank repaired and capacity improved • Power factor increased • Annual savings: 20,000 BDT • Payback period: < 1 month

August 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12* <small>12 Eid-ul-Adha Holiday</small>	13* <small>13 Eid-ul-Adha Holiday</small>	14* <small>14 Eid-ul-Adha Holiday</small>	15 <small>15 National Mourning Day</small>	16	17
18	19	20	21	22	23	24 <small>24 Shuba Janmashtami</small>
25	26	27	28	29	30	31

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COMPRESSOR OPTIMIZATION

Powder coating industry, Sri Lanka



- Compressor was relocated to an area with sufficient ventilation and protection
- Annual savings: 555 kWh
- Payback: Immediate

Metal fabrication, Nepal



- New pressure gauge installed and leakages arrested
- Cut-off pressure could be reduced
- Annual savings: 2,673 kWh
- Payback: < 1 month

Metal industry, Bangladesh



- Compressors were relocated to a new location with sufficient ventilation
- Loading time reduced by 18%
- Annual savings: 1,218 kWh
- Payback: Immediate

September 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10* 10 Ashura	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

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HOUSEKEEPING

Sign board manufacturing industry, Sri Lanka	Fabrication industry, Nepal	Cooling tower manufacturing industry, Bangladesh
<ul style="list-style-type: none"> • Recyclable, non-recyclable and hazardous wastes segregated • Stored in separate colour coded bins with written tag • Workers trained • Improved working environment and productivity 	<ul style="list-style-type: none"> • Cylinders which were earlier lying haphazardly on the floor were stored vertically with clamp • Increased work space • Safer work environment 	<ul style="list-style-type: none"> • The workers were provided with personal protection equipment (PPE) • Workers were motivated to use PPE • Reduced risk of accident

October 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4	5
6	7	8 8 Vijaya Dashami	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

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REDUCED WASTAGE / POLLUTION

Steel industry, Sri Lanka	Steel industry, Nepal	Power engineering industry, Bangladesh
		
<ul style="list-style-type: none"> • Bag filter installed to remove particulate matter from furnace flue gas • Reduced release of hazardous particulate matter • Less air pollution 	<ul style="list-style-type: none"> • Industry prepared cemented ground for storing final products • Products prevented from direct contact with soil • Rejection reduced by 25% • 11 t of material saved annually 	<ul style="list-style-type: none"> • Drain boards between tanks reducing contamination • Reduced chemical and water spillage to floor • 3-5% of chemical and water saved

November 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10* <small>10 Eid-e-Milad un-Nabi</small>	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30



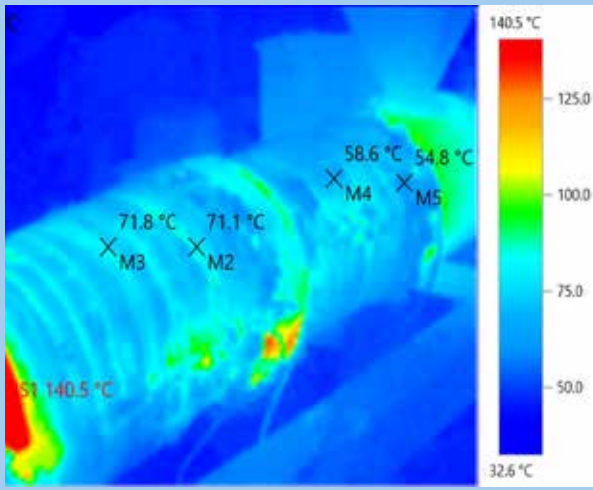
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HEATING OPTIMIZATION

Steel industry, Sri Lanka	Steel industry, Nepal	Cable manufacturing, Bangladesh
		
<ul style="list-style-type: none"> • Newly constructed recuperator installed in re-heating furnace • Annual savings: 13,750 litres fuel • Payback: 6 months 	<ul style="list-style-type: none"> • Exposed pipeline in the boiler insulated • Lower heat loss resulting in lower rice husk consumption • Annual savings: 27 tons per year • Payback: 1 month 	<ul style="list-style-type: none"> • Extruder machine insulated with ceramic blanket • Annual savings: 1,200 kWh • Payback: < 1 month

December 2019

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16 <small>16 Victory Day</small>	17	18	19	20	21
22	23	24	25 <small>25 Christmas Day</small>	26	27	28
29	30	31				

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