



ABM FASHIONS LTD
Horinachala, Kashimpur, Konabari, Gazipur, Dhaka-1700

ENERGY CONSUMPTION REPORT 2018

Introduction: Energy management can be broadly defined as the proactive, organized and systematic management of energy use in an organization to satisfy both environmental and economic requirements. ABM Fashions Ltd. has set itself an ambitious goal to become an energy efficient factory. We established an energy management system as a means to reduce our environmental impact caused by energy consumption and also to reduce operating costs. Energy management system attempts to balance the total energy inputs with its use and serves to identify all the energy streams in the systems and quantifies energy usages according to its discrete function. Regular reporting helps to make related people updated about the consumption scenario of energy which helps to make further decision regarding energy cost optimization, pollution control, safety aspects and suggests the methods to improve the operating & maintenance practices of the system. Our energy management system is the combination of below mentioned tasks

- ✓ Metering, Tracking and Collecting and understanding the energy consumption scenario of the facility.
- ✓ Identifying opportunities to save energy
- ✓ Taking action to save energy
- ✓ Tracking the progress and ongoing improvement

Goal: This report has been prepared to understand the energy consumption scenario of 2018 at the facility. The ultimate goal is to improve environmental performance and to reduce energy costs through improved energy efficiency and energy management control. Other benefits generally include increased resource efficiency, improved production budgeting and reduction of greenhouse gas (GHG) emissions.

Scope: The scope of this report combines the sources to users and distribution of energy at the facility.

Data sources: The data used in this report are collected from Utility bills and purchase invoices of different energy sources. Energy distribution and ranking has been done based on the Single line Diagram (SLD) of the facility and machine specification.



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Electricity Consumption in 2018

Purchase Electricity		
Month	Consumption (KWH)	Cost (Taka)
January	115010	1003882
February	89835	789023
March	112095	983398
April	92750	813234
May	98050	865361
June	67840	605054
July	108120	949382
August	80825	715963
September	88245	780405
October	109180	958873
November	89040	785003
December	100700	880846
G. Total	1151690	10130424

Diesel Consumption in 2018

Month	Consumption (Liter)		S. Total (Liter)	Cost (Taka)	Remarks
	Generator-1	Generator-2			
January	1620	1630	3250	211250	
February	1780	1820	3600	234000	
March	4620	5030	9650	627250	
April	4400	4350	8750	568750	
May	4000	3980	7980	518700	
June	790	760	1550	100750	
July	3420	3450	6870	446550	
August	1450	1430	2880	187200	
September	2540	2570	5110	332150	
October	2100	2160	4260	276900	
November	750	670	1420	92300	
December	1570	1600	3170	206050	
G. Total	29040	29450	58490	3801850	



Gas Consumption in 2018

Billing Month	CNG		LPG		Total Cost	Remarks
	CNG (Cubic Meter)	Cost (Taka)	LPG (kg)	Cost (Taka)		
January	11037.98	441431	2660	201400	642831	
February	9174.7	367011	1050	78800	445811	
March	9389.56	375460	1365	99600	475240	
April	10092.1	406157	1085	77500	483657	
May	9997.85	399875	1645	119350	519225	
June	7135.94	285495	875	65550	351045	
July	10831.59	433310	455	33550	466860	
August	5607.17	224285	175	12950	237235	
September	8666.7	349245	227.5	17450	366695	
October	9720	388681	297.5	25400	414081	
November	9759.71	390398	573.5	50775	441173	
December	10018.53	400768	367.5	32875	433643	
Total	111431.83	4462116	10776	815200	5277496	

Total Electricity Consumption: 1151690 kWh or 4146084 MJ

Total Gas Consumption Consumption: (111431.83+ 5711.28) = 117143.11 m³ or 634295.07 MJ

Total Diesel Consumption: 58490 ltr or 2316204 MJ

*LPG kg to m³: 1kg = 0.53m³

*Electricity 1 kwh = 3.6 MJ

* Gas 1 m³ = 37 MJ

*Diesel ltr = 39.6 MJ



Section wise Energy Consumption

Sewing Section:

Total Sewing Machine Load= 563.805kw
Electricity Consumption = $563.805 \times 10 \times 298 = 1680138.9$ kWh

Total Sewing Section Light Load = 33.85 kW
Electricity Consumption = $33.85 \times 10 \times 298 = 100873$ kWh

Total Sewing Section Fan Load = 79.3 kW
Electricity Consumption = $79.3 \times 10 \times 208 = 164944$ kWh

Total Sewing Section Iron Load = 81.4 kW
Electricity Consumption = $81.4 \times 10 \times 208 = 169312$ kWh

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Total Energy Consumption= (1680138.9+100873+164944+169312) = 2115267.9 kWh or 7614964.44 MJ

Finishing Section:

Total Finishing Machine Load= 58.284 kW
Electricity Consumption = $58.284 \times 10 \times 298 = 173686.32$ kWh

Total Finishing Section Light Load = 38.65 kW
Electricity Consumption = $38.65 \times 10 \times 298 = 115177$ kWh

Total Finishing Section Fan Load = 38.04 kW
Electricity Consumption = $38.04 \times 10 \times 208 = 79123.2$ kWh

Total Finishing Section Iron Load = 36.4 kW
Electricity Consumption = $36.4 \times 10 \times 298 = 108472$ kWh

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Total Energy Consumption= (173686.32 +115177+79123.2+108472) = 476458.52 kWh or 1715250.67MJ



Cutting Section:

Total Cutting Machine Load= 25.68 kW
Electricity Consumption = $25.68 \times 10 \times 298 = 76526.4$ kWh

Total Cutting Section Light Load = 7.754 kW
Electricity Consumption = $7.754 \times 10 \times 298 = 23106.92$ kWh

Total Cutting Section Fan Load = 17.88 kW
Electricity Consumption = $17.88 \times 10 \times 208 = 37190.4$ kWh

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Total Energy Consumption= (76526.4 +23106.92 +37190.4) = 116023.72 kWh or 417685.392MJ

Official purpose

Total AC Load = 103 kW
Electricity Consumption = $103 \times 10 \times 208 = 214240$ kWh

Total load for computer printer light etc. = 4 kWh
Electricity Consumption = $4 \times 10 \times 298 = 11920$ kWh

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Total Energy Consumption= (214240+11920) = 226160 kWh or 814176 MJ

Utility Section:

Gas Consumption for Boiler= 117143.11 m³ or 634295.07 MJ
Electricity Consumption for Compressor = $48 \times 10 \times 298 = 143040$ kWh or 514944 MJ
Electricity Consumption for Boiler = $6 \times 10 \times 298 = 17880$ kWh or 64368 MJ

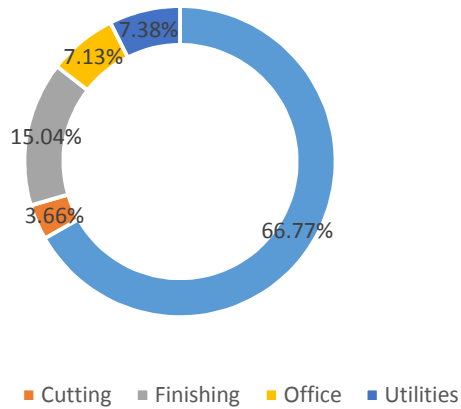
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Total Energy Consumption= (634295.07+143040+64368) = 841703.07 MJ



Section wise energy Consumption

Section	Energy Consumption MJ	Energy Consumption %	Rank
Sewing	7614964.44	66.77%	1
Cutting	417685.392	3.66%	5
Finishing	1715250.67	15.04%	2
Office	814176	7.13%	4
Utilities	841703.07	7.38%	3
Total	11403779.572	100%	

Section wise energy Consumption percentage



Conclusion: This report contains the total energy consumption information of ABM fashions Ltd in 2018. It will help to understand the energy consumption and distribution pattern in the facility.

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