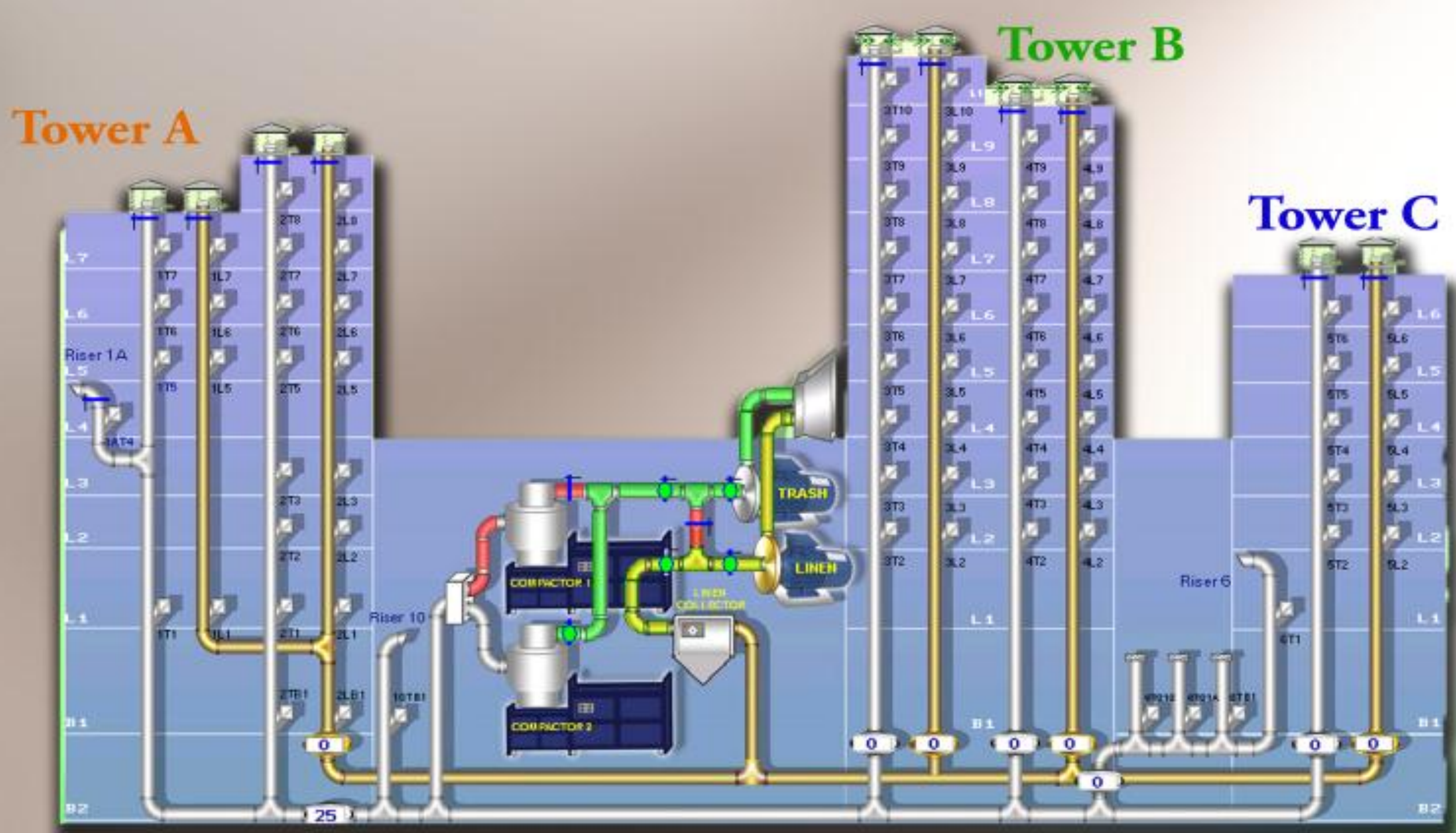




# Implementation of New Timing for Automated Waste & Linen Collection System (AWLS) to Reduce Wastage

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## Introduction

1. Automated Waste and Linen Collection System (AWLS) is the main mode for transferring waste to bin center and linen to linen room. It works by means of vacuum generated by 2 massive 160 KW exhausters located in a room right beside the bin center. It has 72 stations in total, 35 serving linen and 37 serving waste.

## Objective

The main objective of the project is to reduce wastage, electricity, maintenance cost and also prolong the life span of the AWLS.



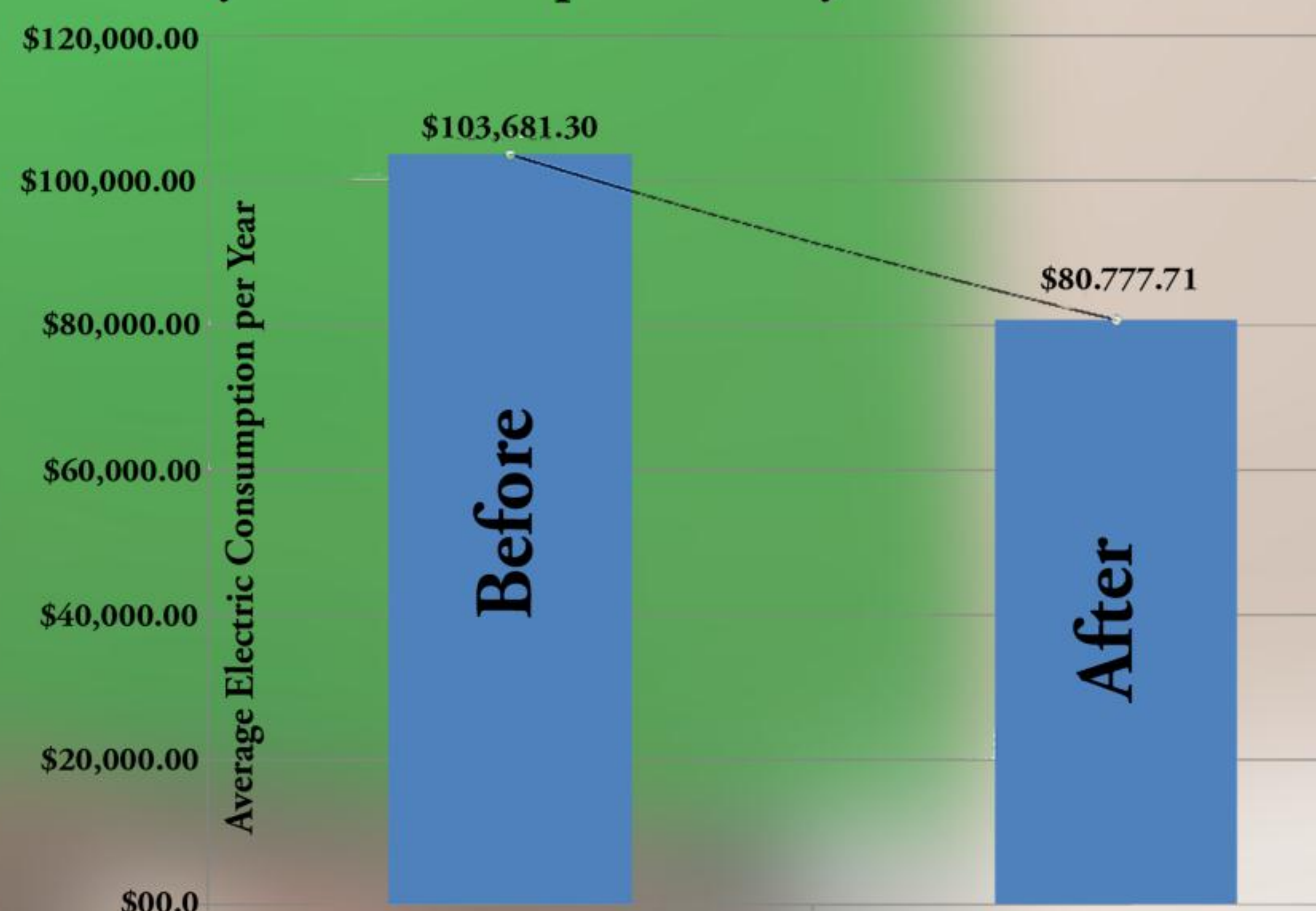
## Methodology

The 2 160KW exhauster on each linen and waste was originally set to run for 24hrs x 7 days a week continuously. However, user had their specific time to use the system, making the 2 exhausters running on idle mode whenever not in use. By introducing new timings and commands to the Programmable Logic Controller (PLC) to shut off the exhausters whenever not in use; this helped us to cut cost in electricity and maintenance instantaneously.

## Result

- With the implementation of new schedules by shutting off the system in between the schedules, we managed to save 13 hours of electricity consumption per day.
- This initiative saved an average of \$23,000 or 22.09% in electricity tariffs over a period of 1 year.

Schedule Before Kaizen						Schedule After Kaizen					
Running		Total Hrs	Idling		Total Hrs	Running		Total Hrs	Off		Total Hrs
8.00am	9.30am	1.5	9.30am	10.00am	0.5	8.00am	9.00am	1	9.00am	10.00am	1
10.00am	11.30am	1.5	11.30am	2.00pm	2.5	10.00am	11.00am	1	11.00am	1.00pm	2
2.00pm	3.30pm	1.5	3.30pm	4.00pm	0.5	1.00pm	3.00pm	2	3.00pm	4.00pm	1
4.00pm	6.00pm	2	6.00pm	7.00pm	1	4.00pm	5.00pm	1	5.00pm	7.00pm	2
7.00pm	9.00pm	2	9.00pm	10.00pm	1	7.00pm	9.00pm	2	9.00pm	10.00pm	1
10.00pm	12.00am	2	12.00am	3.00am	3	11.00pm	12.00am	1	12.00am	4.00am	4
3.00am	5.00am	2	5.00am	6.00am	1	4.00am	7.00am	3	7.00am	8.00am	1
6.00am	7.30am	1.5	7.30am	8.00am	0.5						
Total Hrs		14	Total Hrs		10	Total Hrs		11	Total Hrs		13



## Conclusion

With the implementation of the new schedule, we managed to save \$23,000 per year. At the same time, prolong the lifespan of the system by shutting down when not in use.