Business Case for: Miami Towers Residences
Date: 06/12/2021
Prepared by: Team 4

1.0 Introduction/ Background

Converting a residential high rise building to an energy-efficient building located in downtown Miami (Miami Towers Residence) by installing solar panels, LED lighting and motion sensors on common areas.

2.0 Business Objective

Our objective is to lower "Miami Towers Residences" monthly condo fees by $30,000 a year by modernizing their current lighting and energy systems. Our goal is to install longer-lasting LED lights that are brighter and more aesthetically pleasing. We will smartly install solar panels on the exterior of the building to create energy for the building and have daylight controller sensors to monitor the ebb and flow of energy.

3.0 Current Situation and Problem/Opportunity Statement

The association pays high energy bills and is constantly replacing burnt-out light bulbs. The building is currently retrofitted with existing halogen lights that are costly to replace.
We found the opportunity to convert the existing light into LED and implement solar as the primary power source, with that we plan to reduce the energy usage and expenses by being environmentally conscious.

4.0 Critical Assumption and Constraints

One of the constraints that come with changing an entire building's lighting system is time. We will need to work quickly and efficiently in order not to frustrate the residents in the building. In order to change the lighting system, we will need to turn off the power in certain sections of the building and doing this every day can lead to complaints. Also, we need to work during the day in order not to disrupt anyone at night. Hopefully once done, our residents will appreciate the better lighting system implemented throughout the building. With the reduced cost of the lighting bill, we can make other improvements to the building.

5.0 Analysis of Option and Recommendation

Nuclear energy from a Nuclear reactor. This is recommended for the best zero-emission clean energy that will last up to 40 years minimum. Note that the life of the reactor might not have limits.

6.0 Preliminary Project Requirements

Financial Data available for Project Cost Analysis
Project preparation and strategic planning
Preliminary project plan approval

7.0 Budget Estimate and Financial Analysis

Total cost for equipment (LED, Motion Sensors) and labor estimated $120,000
Total cost for Solar Panels $766,000
Total cost for daylight controller sensors $34,540

8.0 Schedule Estimate

Total time with ordering of all parts and materials with labor will estimate 2 months. This includes weather restraints. Also, supply chain interruption risk assessment.

9.0 Potential Risks

Lighting ballasts can possibly need to be replaced.
Supply Risk
Tariffs on Supply
Governmental Risk

10.0 Exhibits

Exhibit A: Financial Analysis

Project Charter

Project Title: **Operation Green Light**
Project Start Date: 07/01/2021 (July first)
Projected Finish Date: 12/31/2021 (and it will take 6 months to be completed, that would be December thirdly first)
Budget Information:

- Total cost for equipment (LED, Motion Sensors) and labor are estimated $120,000 (1 hundred 20 thousand dollars)
- Total cost for Solar Panels $766,000 (7 hundred 66 thousand dollars)
- Total cost for daylight controller sensors $34,540 (34 thousand 5 hundred 40 dollars)
  For the Grand Total: $920,540 (9 hundred 20 thousand 5 40)

Project Justification: Operation Green Light will reduce the overall costs around 75-90% of the current average energy cost by installing Solar Panels, Daytime Sensors in common areas, and upgrading lighting to LED.

Project Manager: Team 4 Management Services

Project Objectives Reduce the overall energy expense by $300,000 (3 Hundred Thousand) +.

Main Project Success Criteria:

- The project must be completed on time.
- The project meets energy efficiency standards.
- We would have Updated and modern lighting system.
- The project would be completed within the budget.

Approach:

- Properly show the need for the building upgrades.
- RFP (Request for Proposal)
- Recruit contract installers for the lighting, motion sensors, and solar panel.
- Discuss the cost and benefits of these upgrades.

Roles and Responsibilities:

Role	**Name**	**Organization/ Position**	**Contact Information**
Project Manager	Jorge Luque	Team 4 Management Services / Project Manager	jluq012@fiu.edu
Budget Manager	Luis Robles	Miami Towers Residence / Comptroller	lrobl010@fiu.edu
Lighting Manager	Harrison Flynn	Lighting Masters / Electrical Engineer	hflyn004@fiu.edu

Sensor Specialist	Eric Penate	We-sense services / Sensor Technician	epena064@fiu.edu
Solar Panel Specialist	Eltong Carballo	Green Projects / Electrical Engineer	ecarb024@fiu.edu

Scope Statement (Version 1)

Project Title: Operation Green Light
Date: 06/12/2021 **Prepared by:** Team 4 Management Services

Project Justification: Operation Green Light will reduce the overall energy costs around 75-90% of the current energy average energy cost by, installing Solar Panels, Daytime Sensors in common areas, and upgrading lighting to LED.

Product Characteristics and Requirements:

1. Project Management service to oversee the Project
2. Solar Panel Vendor
3. Lighting Vendor
4. Sensor Vendor

Summary of Project Deliverables
Project management-related deliverables:

1. Weekly budget reports
2. Weekly progress reports
3. Monthly progress report with owners and stakeholders
4. Conclusion Summary

Project Success Criteria:

- Project is completed within 5 months.
- The energy consumption of the building goes down.
- Project is completed within the budget of $1,000,0000.
- Lighting fixtures work with motion sensors.

Stakeholder Register for Operation Green Light

Prepared by: Team 4 Management Services **Date:** 06/14/2021

Name	**Position**	**Internal/ External**	**Project Role**	**Contact Information**
Vicente Elliot	Property Manager	Internal	Project Execution	vicente@miamitowers.com
Joseph Montana	President (Board of Directors)	Internal	Leadership	joseph@miamitowers.com
Lebron Johns	Treasurer (Board of Director)	Internal	Budget and Finance	lebron@miamitowers.com
Larry Bird	Secretary (Board of Directors)	Internal	Recorder and Approval	larry@miamitowers.com
Pedro Elias	Ownership Representation	Internal	Approval Authority	Pedro_e@gmail.com
Juan Arroyo	City of Miami	External	Permits and Authorization	Juan_a@cityofmiami.com

Stakeholder Management Strategy for Operation Green Light

Prepared by: Team 4 Management **Date:** 06/13/2021

Name	Level of Interest	Level of Influence	Potential Management Strategies
Property Manager	High	Medium	Execution of Project
President (Board of Directors)	High	Medium	Leadership
Treasurer (Board of Director)	High	High	Budget and Finance
Secretary (Board of Directors)	High	Medium	Recorded and approval
Ownership	Medium	High	Goal 51% of ownership approval
City of Miami	Low	High	Turn in correct forms

Milestone Report for Operation Green Light

Prepared by: Team 4 Management Services **Date: 1/11/2021**

Milestone	Date	Status	Responsible	Issues/Comments
Project approval	06/01/2021	Completed	Team 4	Cost estimations
Phase 1 – Project Charter	07/01/2021	Completed	Jorge	
Scope of Project & Statement	07/20/2021	Completed	Luis	None
Planning & Management	08/01/2021	Completed	Team 4	Schedule
Phase 2 – Resource Allocation for Project	08/10/2021	In Process	Eric	
Budget approval with cost-benefit analysis.	08/20/2021	In Process	Harrison	Justification of cost for sensors
Performance of the project quality	09/01/2021	In Process	Luis	Efficiency effectiveness
Phase 3 – Meeting	09/10/2021	Not Started	Team 4	Reviews
Communication Plan	09/20/2021	Not Started	Project lead	
Risk Management Plan	10/01/2021	Not Started	Eltong	
Final Phase – Preparation for Presentation	11/10/2020	Not Started	Team 4	Assign order
Closing Checklist	11/20/2020	Not Started	Team 4	Pre-checklist
Project completed	12/01/2021	XXXXXX	Team 4	