**Unit 6.1 Assignment: Technical Proposal Writing**

Dennis Clement

Post University

CIS 311\_30 Technical Writing in CIS

Dr. Matthew Zullo

October 10th, 2025

**Executive Summary**  
This suggestion suggests that we replace the incandescent and fluorescent exit signs in our buildings with exit signs that light up by themselves. The Marine Corps Development and Education Center (MCDEC) experiment at Quantico and other studies show that switching to self-illuminating signs has major benefits for safety, finances, and operations. The expected savings come from using less electricity, not having to do maintenance, and lower labor costs for replacing bulbs. This project is a good financial investment and a safety update because it will pay for itself in less than three years and last for 10 to 12 years.

**Problem Statement**  
At the moment, our company uses regular incandescent and fluorescent exit signs in all of its buildings. These signs are safe enough to use, however they do have two big problems:

1. **High Energy Use:** Traditional incandescent exit signs use between 50 and 100 watts per fixture, while fluorescent exit signs use between 13 and 26 watts. These expenditures add up quickly because they run all the time.
2. **Burden of Maintenance:** Exit signs need new bulbs on a regular basis, which costs money for materials, labor, stocking and storing, and safety issues that come with power outages during maintenance.

Because we need more reliable and affordable emergency indicators, using self-illuminating exit signs is a practical and forward-thinking answer.

**Suggested Fix**  
The answer is to switch out all of the old exit signs for new ones that light up on their own. These signs stay lit up for up to 12 years without needing electricity or maintenance. These signs use photoluminescent or tritium-based technologies to work, so they don't need electrical circuits and can't be affected by power outages.

Some of the main benefits are:

* **Saving Energy:** Getting rid of the requirement for 13 to 100 watts each fixture saves a lot of money on utilities. For instance, replacing 400 incandescent lights that are on all the time and use $0.13/kWh might save more than $18,000 a year (Kolin, 2022).
* **Less Maintenance:** Self-illuminating signs don't need to have their bulbs changed, which saves about $13,500 a year in labor and materials expenditures, as shown in the Quantico case study.
* **Safety Assurance:** These models don't go dark during power outages like electric exit signs do, so they are always visible in emergencies.
* **Easy to Install:** Putting it up is as easy as hanging a picture, so new building doesn't need wiring or separate electrical circuits.

**Cost Study**

* **Cost to Buy:** $200 to $250 for a single-face unit and $450 to $500 for a double-face device. Buying in bulk can lower expenses even more.
* **Cost of Installation:** About $10 per sign.
* **Expected Payback:** Less than three years, depending on how much energy and maintenance expenditures are right now.
* **Lifecycle Savings:** The money saved on energy and maintenance over the course of 10 years is estimated to be many times more than the initial expenditure.

**Plan for Putting It into Action**

1. **Assessment:** Take an inventory of the whole facility to find out how many exit signs there are and whether each one needs a single- or double-face sign.
2. **Budgeting and Buying:** Get permission to spend money and buy units from approved providers (such as Safety Light Corp. or GSA contracts).
3. **Installation:** Plan the replacement in stages to cause the least amount of trouble. You can put in each unit in only a few minutes.
4. **Evaluation:** Keep track of energy use and maintenance costs every three months to make sure the expected savings are real.

**Conclusion**  
Switching to exit signs that light up on their own is a smart, cost-effective, and safe way to do things. This plan is a long-term answer for our firm because it has a short payback period, needs almost no maintenance, and will always work during power outages. This project will not only lower our operating costs, but it will also show that we care about safety and saving energy.

**References**

Kolin, P. C. (2022). *Self-illuminating exit signs*. In *Successful writing at work* (12th ed., pp. 458–459). Cengage.

The Exit Light Company. (n.d.). *Tritium self luminous exit signs.* The Exit Light Company. <https://www.exitlightco.com/category/Power-Free-Tritium-Exit-Signs.html>