



IPRO 338

Green Technology in Electrical Construction

Sponsored by: Electrical Contractors' Association of City of Chicago, Inc.

ILLINOIS INSTITUTE OF TECHNOLOGY



LEED

WHAT IS LEED?

- Leadership in Energy and Environmental Design
- Encourage adoption of sustainable green building development practices

USGBC

- United States Green Building Council
- Non Profit organization working to make green buildings accessible to everyone

LEVEL OF CERTIFICATION

- Different Levels of certification based on points earned through various building practices
 - Certified 26-32 points
 - Silver 33-38 points
 - Gold 39-51 points
 - Platinum 52-69 points

FACTS AND FIGURES

- High levels of certification can be achieved at no additional cost
- US buildings account for 136 million tons of annual construction and demolition waste
- US buildings use 65% of total electricity consumption
- LEED and USGBC work to greatly reduce these numbers by every certified building

BENEFITS

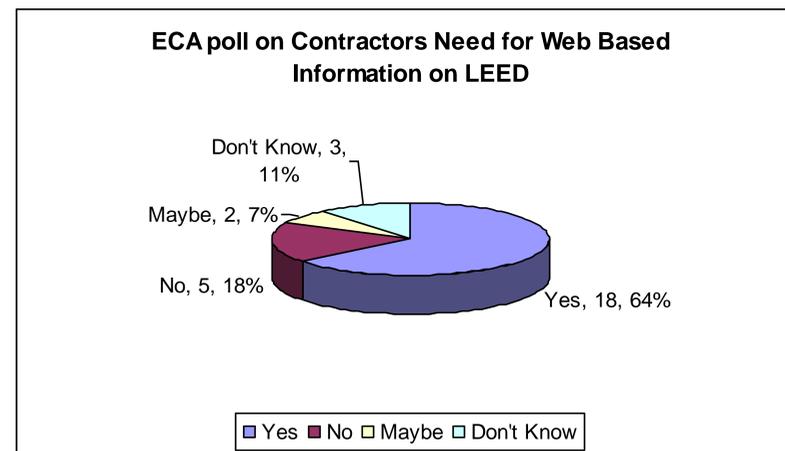
- Improve the health and productivity of occupants
- Reduce life-cycle energy and operating costs
- Set example in community
- Meet growing demands of tenants



Project Concept

PROBLEM BACKGROUND

- Green technology has become a major aspect of the design of buildings
- More developers demand these products and building techniques be used in construction.
- Information on these products is often confusing and incomplete.
- There is high demand for a tool that can help assist in bringing about a well Informed transition from industry standard building practices and products, to green alternatives, as well as cut down on miscommunication between architects and contractors



GOALS

- Develop a website to host a user-friendly online database of green technology information for the Electrical Contractors' Association (ECA) of the City of Chicago.
- Provide data on green electrical products with cut sheets, pricing and distributor information, return on investment projections, and Leadership in Energy and Environmental Design (LEED) certification facts.
- Within the timeframe of one semester, it was determined that the primary focus of the work should be on developing a template for the website.
- Setting the ground work in research and industry contacts to facilitate completion in future semesters.

Mission Statement

To provide a resource in helping Chicagoland electrical contractors meet Leadership in Energy and Environmental Design (LEED) and United States Green Building Council (USGBC) standards.

Team Members and Assignments



Dr. Dan Tomal
IPRO Professor



Giuseppe Marrari
Team leader



David Boonstra
Co-Team leader



Andrew Dilger
Template Designer



Jeremy Saulog
HVAC Research



Jason Mitchell
Waste Research



In Seok Sin
Poster Designer



Vruddhi Patel
Code of Ethics



Sabeen Haque
USGBC research



Amit Kamdar
Power Distribution Research/ Poster Design



Sarah Altoff
Meeting Minutes Taker



James Wright
LEED research / Flow Chart