Problem Statement

Resource consumption in built environment has a significant impact upon ecological, economic and societal well-being. According to the US Green Building Council, buildings account for 40% of national energy use. This fact, compounded by the mounting recognition and scientific consensus surrounding global climate change, has increased the demand for improved energy efficiency within this built environment. The benefits of green building are numerous, and include improved air quality, reduced waste and water consumption, natural resource and biodiversity conservation, reduced operational costs, and optimized comfort and health of building occupants. Implementation of green building and sustainable practices has gained considerable momentum within the both public and private sectors. Numerous opportunities for outreach and efficiency gains have been identified and implemented in the commercial, residential and government building sectors, however faith-based institutions in particular have yet to be sufficiently addressed.

In the absence of binding national climate change legislation, there has been a trend toward policy establishment at the state, municipal, and organizational levels. Cities such as Santa Barbara and local organizations such as the Community Environmental Council have moved to establish action plans and strategies aimed toward the goal of a sustainable energy future. The influence and importance of community and faith-based institutions such as schools and places of worship must not be discounted in this movement towards sustainability.

Studies indicate that over three-quarters of Americans identify themselves as religious or spiritual. Religion strongly influences human behavior, and when faith-based institutions place a greater emphasis on the natural environment, the possibilities for far-reaching social change are profound. ECOFaith Santa Barbara (The Environmental Coalition of Faith Communities) is a recently established organization focused on this opportunity in the South Coast Region. The initiative seeks to mobilize churches, synagogues, mosques, temples and other religious communities to mitigate local causes of global warming in their buildings and practices. The organization aims to develop a comprehensive program to aid religious groups in the assessment of energy consumption in their places of worship and the development of sustainable practices from a faith-based perspective.

Project Objectives

ECOFaith’s stated mission is “to build upon the convictions of religious faith from many traditions to address the urgent needs of the environment.” The objective of this Group Project is to collaborate with Santa Barbara ECOFaith in the development, implementation, and validation of their preliminary project action plans. The Group Project will establish performance benchmarks and identify opportunities for increased resource efficiency in places of religious faith through the development of science-based methodologies. Additionally, we will provide educational resources for congregations desiring to adopt more environmentally sustainable lifestyles as a dimension of spiritual practice. Additionally, the Project will assist in the marketing and endorsement of ECOFaith’s goals to the larger faith-based community outside of the region.

Challenges may include the issue that faith-based institutions are generally ineligible for government or utility rebates to offset costs of building weatherizing or retrofits. Moreover, many of these facilities are decades to centuries old, and many of the necessary retrofit measures can be cost-prohibitive. However, if this Group Project
is able to demonstrate verifiable savings through cost modeling and recommendations for infrastructure upgrades and lifestyle changes, this challenge can become negligible.

Project Significance

While evaluation of residential and commercial building energy efficiency is not a new concept, framing this study within the context of the faith-based community makes this endeavor considerably unique. Religious congregations are an uncultivated market segment for the promotion of sustainable design, building and living. Religious leaders are in a position to call upon their congregations to action to be better stewards of the environment by reducing their consumption and waste. As representatives of diverse faith groups serving the greater Santa Barbara community, the ECOFaith coalition has acknowledged that climate change and resource scarcity are issues that transcend religious boundaries and that collaborative leadership is imperative.

Background Information

ECOFaith Santa Barbara was formed in 2008, with the support of Congresswoman Lois Capps and a grant from the James S. Bower Foundation. The associated faith-based institutions are making explicit the implicit environmental imperatives contained in their traditional scriptures, doctrines and ethical precepts. ECOFaith seeks to mobilize and support these institutions by providing expert consultants and a comprehensive process for energy efficient design, planning, building and renovation, water-saving landscaping, and educational activities.

There are currently 21 religious institutions that are members of the ECOFaith coalition, four of which are currently involved in a pilot study. For each case study, ECOFaith and the focus institution have produced a vision statement, as well as action plans addressing education, energy, site, water, materials, indoor environment, and green purchasing. ECOFaith is currently working with the Santa Barbara Community Environmental Council (CEC) towards the “Fossil Free by ’33” regional target and utilizing the CEC’s “Get Energized” carbon emissions reduction pledge to assess commitment of individual congregation members.

Stakeholders

Target benefactors include:
- Participating institutions and members of their congregation.
- City of Santa Barbara
- Community Environmental Council
- California Air Resources Board
- USGBC
- Santa Barbara Contractors Association
- Built Green Santa Barbara

Approaches & Available Data

This project will be a collaborative effort between community leadership, congregation members and Bren MESM students who will provide verifiable technical data relating to the green building upgrades these institutions and congregation members adopt. Based on the preliminary analyses of the four pilot institutions (mid-2009), quantitative matrices must be developed and data validated, and a benchmark set from which performance improvements can be assessed.

This project will also inform the process by which ECOFaith engages prospective participating institutions. The approach currently consists of two stages, developing a green plan for each faith building, and educating the institution leaders and congregations.

Greening of faith buildings includes:
- Completion of an energy audit and building and grounds assessment
• Development of a long term plan with priorities, timelines and budget acknowledging the USGBC triple bottom line: environmental stewardship, social responsibility, and economic profitability
• Creation of a plan for recycling, reusing, conserving
• Cost analysis of most viable energy efficiency retrofits for institutions and congregation members
• Assessment of target level of environmental sustainability, including LEED certification, should the option be viable

Education process includes:
• Assessment of educational needs
• Formation of green team and committees within the faith community
• Development of marketing materials
• Development of sustainability goals for entire congregation

**Deliverables**

• Develop energy audit protocol and cost analyses
• Templates which congregations can utilize for replicable self-evaluations:
  • Project checklists
  • GHG emissions inventory tool
  • Facility audit procedures
• Assessment tools with which to evaluate performance improvements
• Strategy recommendations for future projects

**Client Information**

Environmental Coalition of Faith Communities, Santa Barbara
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Dr. Ed Bastian has agreed to provide data and other information required for a successful project with no stipulation for a non-disclosure agreement or restriction to publication of the report.

**Anticipated financial needs and sources of support**

No significant financial commitment for the project is anticipated at this time. While it will likely be necessary for the team to travel to multiple congregation sites, all participating institutions are currently located within the Greater Santa Barbara region. It is not foreseeable at this time whether a summer internship position will be available.

**Additional References & Resources**

Spiritual Paths Foundation: www.spiritualpaths.net
Santa Barbara Community Environmental Council: http://www.cecsb.org/
United States Green Building Council (USGBC) California Central Coast Chapter: www.usgbcc4.org
California Inner Faith Power & Light Foundation: http://interfaithpower.org/