Reducing Energy Use:
Meeting the 2030 Challenge and other Initiatives
Why should architects focus on energy?

U.S. Energy Consumption by Sector

- Buildings 49%
- Transportation 28.2%
- Industry 22.7%

U.S. CO₂ Emissions by Sector

- Buildings 46.9% (2580 MMT CO₂e)
- Industry 19.6% (1082 MMT CO₂e)
- Transportation 33.5% (1845 MMT CO₂e)

Source: ©2010 2030, Inc. / Architecture 2030. All Rights Reserved.
Data Source: U.S. Energy Information Administration (2009)
“Architects need to accept responsibility for their role in creating the built environment and, consequently, believe we must alter our profession’s actions and encourage our clients and the entire design and construction industry to join with us to change the course of the planet’s future.”

AIA Sustainable Architectural Practice Position Statement
December 2005
The 2030 Challenge

…we commit to take the following steps in recognition of this AIA 2030 Commitment:

- Establish Sustainability Leadership
- Implement Operational Action Items
- Develop Sustainability Action Plan
- Report Annual Progress

What is the AIA 2030 Commitment?

This page contains a letter from RDG Planning & Design to their clients regarding the AIA 2030 Commitment. The letter outlines the steps they will take to address environmental issues.

October 15, 2010

Christine R. McEwen, CPHQ
The American Institute of Architects
1735 New York Ave., NW
Washington, DC 20006-5692

Dear Christine,

RDG Planning & Design, a firm of architects in Los Angeles, CA, is hereby signing up for the AIA 2030 Commitment. This commitment is our goal of all new non-residential buildings by the year 2030.

As architects, we understand the need to exercise leadership in creating the built environment. We believe we must alter our professional practice to manage our carbon footprint. The design and construction industry has made significant advances toward creating high performance buildings of all types and sizes. As a result, the industry is positioned to have a substantial impact by continuing to foster high building performance and reducing building-related greenhouse gas emissions.

RDG Planning & Design is committed to the office of the sustainability leader. As such, we are signing this letter to commit to the following action items:

1. Establish Sustainability Leadership
2. Implement Operational Action Items
3. Develop Sustainability Action Plan
4. Report Annual Progress

We therefore commit RDG Planning & Design to take the following steps which are part of the AIA 2030 Commitment program:

- Within two months of the commitment date, establish a team or leader to guide the development and implementation of the three plans.
- Within six months of signing the commitment, the firm will implement a minimum of four operational action items:
  1. Develop an engineer for all new non-residential buildings to evaluate the performance of the building.
  2. Develop a sustainability action plan that achieves annual greenhouse gas reduction.
  3. Develop an energy plan for all new non-residential buildings.
  4. Develop a sustainability action plan that achieves annual greenhouse gas reduction.
- Within the second year of the commitment, the firm will develop a sustainability action plan that achieves annual greenhouse gas reduction.

We also report the critical metrics for new buildings and existing buildings related to actual building performance. We will report our progress to the AIA and publicize the ongoing development of effective metrics and standards for reporting. The AIA 2030 Commitment program must respect the confidentiality of information about specific clients, projects, and proprietary issues.

We look forward to working with you and our professional colleagues to achieve the goals of the 2030 Commitment.

Sincerely,

[Signatures]

[Company Letterhead]

[Address]

[Phone]

[Email]

[Website]

[Address]

[Phone]

[Email]

[Website]
Implement Operations Action Items

Implement a minimum of four action items related to firm operations

Office Energy Use
- Calculate firm/office baseline energy intensity
- Energy Star rated equipment and appliances
- Replacement of incandescent lamps with fluorescent

Waste Reduction and Supplies
- Reduce paper consumption by using electronic documents
- Institute a recycling policy
- Purchase environmentally friendly cleaning supplies

Transportation
- Incentives for employees who ride share, walk, or bike
- Establish a policy for offsetting business travel
- Fuel efficient rental cars encouraged for business travel

Meeting Procedures
- Paperless technology for agendas, handouts, and presentations
- Encourage virtual meetings when possible
Develop a sustainability action plan that will demonstrate success toward the 2030 goals.

Sustainable Operations
Set sustainable operations goals aimed at reducing the negative impact of firm operations

Set Sustainable Design Goals
Design projects to reduce the amount of fossil-fuel based energy used to align with 2030 goals regardless of whether required by client

Institute Staff Training and Education
Ensure staff is invested in the firm’s sustainable design goals and can contribute to the success

Develop a Business Strategy
Communicate why a sustainable design approach is important and why the firm is qualified
Report progress toward goals and share publicly

Compile basic project info:

- Project identifier (internal)
- Gross Square Feet
- Building Occupancy Type
- Is the project modeled?
- EUI from Modeled Projects
- Design Energy Code for Non-Modeled Projects
- Lighting Power Density
AIA 2030 Commitment Reporting Tool - DESIGN YEAR 2011

Getting Started

This tool generates a report which is intended to provide your firm and the AIA with a snapshot of how your firm’s design work is progressing toward the 2030 targets. Several aspects of the AIA 2030 Commitment are incorporated into this tool, including predicted energy use, project modeling and intent to collect actual use data. The activities of collecting project data and analyzing report outputs is intended to drive the topic of energy performance to the front of design considerations for all projects.

Steps

There are four steps to reporting your firm’s design work progress toward the 2030 goals:
AIA 2030 Commitment Report

ABC Architects
Design Work 2011

Whole Building/Additions Projects
GSF Included in Analysis: 1,880,061

PEUI Reduction from Average EUI (Current Target 60%)

41.6%

GSF Modeled
1,780,061

94.7%

GSF for which Data will be Collected
1,362,396

72.5%

Interior-Only Projects
GSF Included in Analysis: 13,345

LPD Reduction 2011 (Target 20%)

19.2%

GSF Meeting Target
0,000 = 0.0%
AIA 2030 Commitment: National Reporting

AIA released the first annual report in May 2011: ‘Measuring Industry Progress Toward 2030’

Out of the 125 firms expected to report, 56 reported

To view full report: http://www.aia.org/2030commitment