



JANUARY/FEBRUARY 2016

Home energy

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A Very Water- and Energy-
Efficient Retrofit

Habitat X Strategic Plan

Attics and Crawls

Passive Vents in Tight Apartments



ACCOUNTABILITY FOR THE FUTURE:

The 2016 Habitat X Strategic Plan

by Chris Dorsi

The Habitat X Summer National Conference provides a collaborative meeting place for leaders from the energy efficiency, building performance, and utility industries. Now in our fifth year, we've become increasingly focused on creating intelligent, realistic, and actionable guidance that can be applied by practitioners across our industries.

THE VISION

At our most recent conference, held July 28–30, 2015, in Big Sky, Montana, participants worked in a collaborative process to capture a vision for a far-reaching and achievable industry future. The Habitat X Strategic Plan, summarized here, identifies the issues that conference participants deemed to be of prime importance to our organizations, our industries, and society at large. Our goal is to gather knowledge, develop realistic industry guidance, and move key initiatives toward success.

The 2016 Strategic Plan reflects our belief that the six initiatives outlined here are worthy of our focused attention over the next year. We'll then revisit and update this plan at the 2016 Summer National Conference. Many of these initiatives are not new—indeed, some have been at the forefront of the work performed by industry players for many years. Many of these will continue to earn a place in the strategic plans we develop in future years. But we believe that focused work on these key initiatives right now will be most likely to yield the positive and industry-changing results needed to establish high-performance construction as the norm here in North America.

THE EVOLVING ROLE OF GAS AND ELECTRIC UTILITIES

TEAM: Ben Bunker (ICF International), John Dendy (Habitat X), Ryan Schwochert (DNV GL), and Leif Magnuson (Pacific Gas and Electric Company).

The gas and electric utilities play a critical role in the construction, operation, and upgrade of North American buildings. Their role is evolving rapidly, thanks to factors that include shrinking demand due to widespread installation of renewables, the advent of smart grid technologies, increased requirements for reduction of carbon emissions, and the disaggregation of traditional utility services. Yet we still see important disagreements between the high-performance building industry and utility organizations.

Our Initiatives

- ▶ Develop educational and technical resources that promote an expanded dialogue among the building performance community, utility companies, and regulatory organizations.
- ▶ Support the development of pay-for-performance programs that reward building owners, implementers, and contractors for delivered savings rather than predicted savings.
- ▶ Continue the development of best practices for utility programs that encourage both traditional energy efficiency measures and high-performance construction methods.
- ▶ Support the development of data-collection and sharing protocols that allow all parties to benefit from the increasing availability of data on building performance.

CONNECTING HOME HEALTH AND HOME PERFORMANCE

TEAM: Kevin Kennedy (Children's Mercy Hospital), Leif Magnuson (Pacific Gas and Electric Company), Joe Medosch (Energy & Environmental Consulting), Penelope Schwiebert (Osprey Home Performance), Bill Spohn (TruTech Tools), Brad Turner (Southface Institute), Chandler von Schrader (EPA), and Larry Zarker (Building Performance Institute).

We recognize increasing connections between a home's performance and the health of its occupants. This connection establishes this as one of the most important non-energy-related benefits of high-performance construction.

Our Initiatives

- ▶ Strengthen the collaboration between health care providers and the home performance industry.
- ▶ Participate in the development of health assessment protocols that are integrated with energy audit protocols.
- ▶ Build awareness among consumers about the connection between home performance and occupant health.
- ▶ Support the development of credentials for combined home performance and home health assessors. Determine if there is a need for a credential for home health remediation specialists.
- ▶ Identify, train, and empower home performance professionals who can expand their services into the home health arena.
- ▶ Develop implementation models for combined home performance and home health organizations.

CONSUMER ETHICS AND VALUES

TEAM: Chris Dorsi (Habitat X), Mike Lynch (Refuge Sustainable Building Center), and Corbett Lunsford (the Building Performance Workshop).

The building performance industry has had only limited success in achieving widespread adoption of high-performance

construction among building owners and occupants. We recognize that there are economic, cultural, and technical barriers to adoption.

Our Initiatives

- ▶ Identify and focus on proven consumer needs and interests. Rethink the standard messaging of the building performance industry in this light.
- ▶ Perform expanded consumer outreach and education that focuses on house-as-a-system concepts, and identifies the limitations of widget upgrades and box changeouts.
- ▶ Engage in realistic dialogues with consumers about the potential hazards of poorly performing buildings.
- ▶ Develop transparent educational campaigns that seek to reduce consumer belief in “magic” or unproven products.
- ▶ Help build brand awareness that increases consumer interest in high-performance buildings. Continue to support strong existing brands such as Energy Star.

CONTRACTOR TRAINING AND QUALITY CONTROL

TEAM: Colin Genge (Retrotec, Incorporated), Jonathan Lang (Knauf Insulation), Joe Medosch (Energy & Environmental Consulting), Thomas Murrell (QuFresh, Incorporated), Erwin Schwiebert (Osprey Building Performance), Karl Seebach (Laney College), and J. West (High Performance Human Habitats).

The implementation of high-performance building standards within the construction industry, for both new and existing buildings, has been slowed by barriers of tradition, economics, and training.



A few of the contributors to the 2016 Strategic Plan taking a break from their deliberations at the recent Habitat X Summer National Conference.



The 2016 Strategic Plan gives high priority to training and education that addresses the real-life challenges faced by tradespeople on the job.

Our Initiatives

- Develop roles as trusted advisors and allies to building contractors and tradespeople.
- Demonstrate the advantages of high-performance buildings, with quantitative proof, in ways that are relevant to the construction industry, the real estate community, lenders, and consumers.
- Develop protocols for high-performance construction and management that recognize the realities and limitations of the construction and building management industries.
- Develop workforce training that focuses on house-as-a-system concepts and implementation.
- Integrate the high-performance building industry into the existing construction industry.

BUILDING PERFORMANCE AND PRODUCT DEVELOPMENT

TEAM: Rick Blumenthal (Knauf Insulation), Colin Genge (Retrotec, Incorporated), Thomas Murrell (QuFresh, Incorporated), and Jim Robinson (Knauf Insulation).

The methods and materials used to build and maintain high-performance buildings are evolving rapidly. We recognize both opportunities and risks in the adoption of these products. To achieve solid gains in mainstream construction practice, the construction industry needs ready access to methods and materials that are proven to provide long-term and reliable performance.

Our Initiatives

- Support manufacturers in the research and development of methods and materials that are safe, durable, effective, and environmentally benign.
- Perform research and development with the goal of developing construction methods that produce long-term results.
- Develop performance-testing protocols that include assessment of non-energy-related attributes. Develop metrics for non-energy-related attributes as needed.
- Continue research that focuses on the impact of construction methods, construction materials, and maintenance practices on the health of building occupants.



Habitat X has always benefited from strong representation among the manufacturing and contracting industries. The 2016 Strategic Plan reflects this in its emphasis on scalable and realistic solutions—all designed to encourage the widespread implementation of high-performance construction within the conventional construction industry.

PROGRAMS AND BUILDING CODES

TEAM: Griffin Hagle (Richard Heath and Associates), Jonathan Lang (Knauf Insulation), Joe Medosch (Energy & Environmental Consulting), Chandler von Schrader (EPA), and James Jackson (ICF International).


The programs and building codes under which we design, build, and manage buildings continue to fall short in their encouragement of high-performance construction. In many cases, existing programs and codes could have more positive impact if they were simply implemented and enforced more effectively.

Our Initiatives

- Advocate for stringent building and energy codes that encourage high-performance construction.
- Advocate for increased enforcement of building and energy codes.
- Create market pressure that penalizes organizations that do not adhere to and enforce existing energy codes.
- Develop collaborative partnerships with administrators of utility and government efficiency programs.

- Continue to develop broad-based programs that integrate house-as-a-system concepts and go beyond simple energy savings.

AN INDUSTRY FUTURE

This Strategic Plan describes an ambitious set of goals and responsibilities. The path to success for some of these initiatives will be straightforward, while others will require the commitment of an entire generation in order to make progress. Along the way, we'll need players from every industry sector who can work in a collaborative and cross-disciplinary discussion to promote our most forward-looking knowledge, business practices, and public policy. We encourage you to join the dialogue. 

Chris Dorsi is the founder of Habitat X. He has spent the last 40 years developing best practices for the high-performance housing industry by founding successful construction companies, publishing respected textbooks, and developing professional training events.

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