BUILDING CODES ASSISTANCE PROJECT

Promoting the adoption, implementation, and advancement of building energy codes for over 20 years.

STATEMENT OF QUALIFICATIONS 2016
The Building Codes Assistance Project (BCAP) provides high level support for energy code adoption and compliance across the country. BCAP empowers and rallies support and resources from a broad range of partners at the local, regional and national levels. Launched in 1994 as an initiative of the Alliance to Save Energy, the American Council for an Energy-Efficient Economy and Natural Resources Defense Council, BCAP became a project of the Trust for Conservation Innovation in 2014. BCAP is a highly regarded national resource by state and local stakeholders involved in energy codes.

BCAP has worked throughout the U.S. at the local, regional, state and national levels to advocate for stronger and more effective building energy codes. BCAP’s activities include: identifying advocacy needs and opportunities; convening stakeholders for collaborative action; sharing information and best practices; addressing common barriers to adoption and compliance; and developing materials and resources. BCAP has provided energy code adoption and implementation support in approximately 40 states. Our ongoing initiatives include the Energy Code Ambassadors Program, Compliance Planning Assistance Program and Energy Code Compliance Collaboratives. BCAP also serves as the de facto coordinator of the National Energy Codes Collaborative that convenes regional energy efficiency organizations, Pacific Northwest National Laboratory and other leading organizations of building code experts.

BCAP recognizes that the built environment represents a significant portion of national and global energy usage and accounts for approximately 40% of the production of greenhouse gases. We believe that the regulation of building-related emissions through energy code adoption and compliance is a proven method of lessening this impact, especially given the long life-cycle of buildings compared to other sectors of energy consumption. Through our commitment to energy codes, we tackle climate change by assisting in the development of progressive energy codes and by supporting states and local jurisdictions in their efforts to adopt the most current model energy code and reach 100% compliance to that code.

**About the Trust for Conservation Innovation (TCI):** TCI is a 501(c)3 tax-exempt nonprofit organization that incubates and accelerates program capacity for initiatives that conserve and protect a sustainable environment. TCI serves as a side-by-side operational partner, providing a shared administrative backbone that includes fiduciary oversight and monitoring, grant administration, accounting and financial reporting, human resources and benefits administration, liability insurance and risk management, and legal and tax compliance. TCI is headquartered in San Francisco, California.

**Our Staff**

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*Updated July 2016*
SELECTED PROJECTS

Development

Code development is the process of updating energy codes to match advances in building science and construction practices. In the United States, this process happens on a three-year cycle. As soon as the model energy codes—the International Energy Conservation Code (IECC) and ASHRAE Standard 90.1—are published, development begins for the next code cycle. Development processes vary from code to code, including when hearings are held, who can participate, and how often.

As a valued technical and policy resource on energy codes, BCAP collaborates with the Energy Efficient Codes Coalition (EECC) and other stakeholders to develop the codes that we promote. As a long-time partner to the International Code Council (ICC), we participated and provided our insights in the 2015 IECC Final Code Hearings in 2013. Opportunities to improve the usability of energy codes extended to the development of the 2015 International Green Construction Code (IgCC), ASHRAE Standards and Guidelines, and others. The IgCC, which aims to be 10% more energy efficient than the already-progressive 2012 IECC, includes the zero energy performance index (zEPI). This new energy scale promotes the comparison of a building's energy usage to the ultimate goal of zero, rather than evaluating it compared to the baseline of a model code.

BCAP President Maureen Guttman also participates in the ICC’s Sustainability, Energy and High Performance Building Code Action Committee (SEHPCAC) and the Governing Committee of the Sustainability Membership Council to widen our engagement in the development process of the model codes, focused on energy performance in buildings.

Adoption

Incremental Cost Analysis

One of the major barriers to energy code adoption is the concern about prohibitive construction costs increases. To address this, BCAP undertook a study to quantify the incremental construction cost of upgrading new single-family homes to the 2012 IECC in states and cities where such an analysis was feasible. Moving from current practice to the 2012 IECC would result in a weighted average incremental cost of $1,494 - $2,201 per home in the areas where analysis was completed. The annual energy savings per home would be $296 - 392 on average. When amortized over a thirty year mortgage with a 20% down payment, and including energy savings, incremental costs will pay for themselves within two years on average, providing the homeowner with substantially reduced operating costs for the remainder of the building’s life.

We believe these cost estimates are conservative and represent an upper bound on incremental cost, as they utilize only traditional building techniques, and do not take advantage of technologies or performance tradeoffs that would lower those costs, as well as improve energy performance. These analyses have proven to be highly effective tools in state and local code adoption proceedings, providing solid evidence that energy efficiency is cost effective and beneficial to consumers.
Communications

**Code Status Maps**

BCAP maintains a series of maps to provide a national snapshot of building energy code adoption and implementation. In cases where a state has developed its own code, the maps approximate its practical energy efficiency in terms of the national model codes. Every effort is made to ensure that our maps are kept accurate and up-to-date. Clicking on any state will take visitors to individual state pages, which provide detailed information on code processes and adoption cycles, code history, advocacy opportunities, energy data, regional climate concerns, news, and contact information for state and regional energy efficiency and code professionals.

**Commercial State Energy Code Status**

**Residential State Energy Code Status**
**Consumer Outreach**

The Consumer Outreach Campaign was launched by BCAP and Consumers Union in 2011. Our primary goal is to educate and engage entire communities in support of energy codes. Consumers have the right to homes that meet national standards for energy efficiency, but they lack the technical knowledge to be informed consumers. To achieve this, BCAP published resources such as a detailed Energy Code Checklist, available online in English and Spanish; an Interactive Energy Code Guide divided into prescriptive elements such as insulation and windows; and state specific resources.

These programs focus on:

- Educating the public on the impact of home energy use and the role of energy codes;
- Supporting the public to become a direct market force encouraging builders to meet and exceed energy efficiency requirements; and
- Getting the public to engage more actively as advocates to influence their state and local energy code adoption processes and code enforcement activities.
Selected Publications

**BCAP blog**
A way for BCAP staff to engage in a more in-depth discussion of news events and overarching issues about industry trends, state and national policies, and the future of energy codes.

**Code Alerts**
A weekly bulletin that highlights immediate opportunities to influence state and local policy outcomes, indicates code status, and recommends contacts for action. By promoting these opportunities among energy efficiency stakeholders, code supporters collectively increase their impact at legislative and regulatory proceedings at the state and local levels.

**Building Energy Code Connection**
A bi-monthly collaborative news vehicle about all things energy codes, distributed to a large national audience invested in staying up-to-date on trends and happenings in the world of codes. This newsletter specifically highlights information from BCAP and DOE’s Building Energy Codes Program (BECP). It also recognizes a quarterly Energy Code Champion.

**The Decoder**
A quarterly bulletin that delivers targeted, technical information on energy code enforcement and compliance to building officials, plans examiners, and inspectors. Topic areas include explanations and technical opinions on energy code provisions, sharing of best practices, new and helpful resources, and current issues related to enforcement and compliance. This publication is produced in collaboration with the Institute for Market Transformation (IMT).
Compliance

**Energy Code Ambassadors Program**

A supportive, local code enforcement infrastructure is crucial to realizing the benefits of energy codes. However, implementation and enforcement efforts are often lacking in many states, and receive disproportionately little attention in the world of building codes. To fulfill this need, BCAP and the International Code Council (ICC) created a program to improve enforcement of building energy codes by offering direct interaction with trained and experienced code professionals who understand the challenges and constraints of the field. The Energy Code Ambassadors Program (ECAP) has trained ambassadors in Alabama, Idaho, Nevada, Ohio, Texas, Utah and Wyoming.

Through training and open peer-to-peer sharing, ECAP strives to support the existing infrastructure by encouraging the correct and effective implementation of energy codes and by empowering existing code professionals so they may develop their familiarity and expertise with energy codes and share their knowledge. ECAP trains and certifies code officials and others to:

- Become experts in energy codes and any provisions made specific to their jurisdictions;
- Educate local builders, designers, suppliers, and contractors on energy code provisions;
- Share their knowledge and mentor other code officials on best practices;
- Represent peer code officials to voice their concerns and perspectives to appropriate state officials; and
- Build a strong local and state infrastructure for energy code support.

*Map of participating ECAP states*
**Compliance Planning Assistance**

Since 2010, BCAP has worked with 23 states through the Compliance Planning Assistance (CPA) Program to help them take practical steps towards achieving full compliance with the model energy codes. Many states have expressed increased interest in energy codes in response to unprecedented funding from the American Recovery and Reinvestment Act (ARRA) of 2009. With new opportunities come new challenges, such as the ARRA obligation for states to achieve 90% compliance by 2017. Throughout the process, BCAP speaks with key stakeholders and conducts extensive information gathering. Our in-depth research and analysis of the situation on the ground enables us to deliver targeted recommendations and data that accommodate state-specific needs and circumstances and meet reporting requirements. The CPA Program also helps participating states navigate the wide array of federal and regional resources and services available, choosing the best fit for each state.

The CPA Program is divided into two phases:

- **Gap Analysis Report** – Documents the state’s existing energy code infrastructure to assess the current gaps, identify best practices, and offer initial recommendations for improvement.
- **Strategic Compliance Plan** – Develops a targeted, state-specific plan with practical near- and long-term action items to move the state towards full energy code compliance. Since 2012, many CPA states formed Energy Code Compliance Collaboratives (next section) as a result of recommendations from their Strategic Compliance Plan.

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<td>South Carolina</td>
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**Energy Code Compliance Collaboratives**

This kind of collaborative is an emerging best practice from the state of Idaho in building energy codes. Since 2012, BCAP has worked with respective regional energy efficiency organizations, to mobilize working groups to organize state-based Collaboratives. In each case, BCAP presented the state and stakeholders with the concept of forming a Collaborative, engaged Collaborative members, and launched (or supported a state-based leader to launch) the Collaboratives by convening and leading initial meetings in each state.

An Energy Code Compliance Collaborative can...

- Assist states that are struggling with declining budgets, resources, and staff by assembling a team of local experts to assist the state as it works to achieve DOE 2017 compliance goals;
- Provide a forum for improving relations among diverse stakeholders affected by energy codes as they work together towards common interests and goals; and
- Assist the state in implementing a plan to achieve full compliance with energy codes.

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<th>Compliance Collaborative States:</th>
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<td>New Hampshire</td>
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*Updated July 2016*
Engaging Design Professionals

There is a growing consensus that code compliance responsibilities are most effectively addressed at the start of a project, in the multitude of decisions made by the owner, the architect, and the engineers. In late 2013, BCAP developed outreach materials for design professional stakeholders that engage the architectural and engineering community, including identifying barriers to greater energy code compliance, recommendations on overcoming these barriers, and the business and leadership opportunities designers can realize by taking ownership of building energy performance. Such materials include:

- **Why Architects Need to Care About Energy Code Compliance**
- **Facilitating Energy Code Compliance for Architects**
- **The Important of Building Energy Codes: How to Engage the Architectural Community**
- **AIA and the Importance of Energy Codes**
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