

PennsylvaniaGapAnalysis

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Prepared by the Building Codes Assistance
Project for the Pennsylvania Department of
Environmental Protection



BCAP Dedicated to the adoption, implementation,
and advancement of building energy codes

RECOMMENDATIONS AND IMPROVEMENTS

Positive change toward energy code adoptions and enforcements will take efforts from numerous sources—state agencies can encourage and facilitate meetings, provide resources, assistance, and recognition for leading jurisdictions; stakeholders can come together to advocate for policies that would provide needed funding for energy code training and resources; and local jurisdictions can partner with stakeholders and regional, county, and municipal organizations to provide education, awareness campaigns, and outreach to their communities. The following represent many opportunities Pennsylvania stakeholders, local jurisdictions, and the state could engage when given the opportunity.

Gap #1: Act 1 of 2011 adds unnecessary burden to the regulatory building codes review and update process.

Recommendation: The General Assembly should modify the UCC to restore an efficient regulatory building codes review and update process.

Gap #2: The UCC exempts alterations to existing residential buildings from permitting and meeting code requirements.

Recommendation: The General Assembly should amend the UCC to include permitting and code requirements for significant alterations, repairs and renovations to residential buildings.

Gap #3: The RAC has declined to review and recommend the 2012 IECC for adoption, robbing the commonwealth's citizens of the chance for significant energy savings.

Recommendation: The RAC should review the 2012 IECC for potential adoption by the end of the calendar year.

Gap #4: The RAC recommended a six-year code cycle to L&I.

Recommendation: L&I should retain the 3 year update cycle to keep up with new technology that will lower energy bills for Pennsylvania consumers. A slower update cycle of every six years means many new homes and buildings will not be built to modern standards, and buyers, occupants, and building managers will be stuck with unnecessarily high energy bills for the lifetime of their homes.

Gap #5: The UCC and previous court rulings make the process of adopting a more stringent code provisions an undue burden on jurisdictions that want to achieve greater energy savings for their citizens.

Recommendation: The General Assembly should strike the language about exemptions.

Gap #6: Pennsylvania does not have more stringent energy code requirements for state buildings.

Recommendation: The General Assembly should support HB 193 or similar legislation that adopts a more stringent energy code or standard for all state-owned, -funded, or -leased buildings. By requiring a more stringent energy code for public buildings, the commonwealth leads by example and demonstrates fiscal responsibility with tax payer dollars. More efficient public buildings help

governments hedge against uncertain energy availability and costs, create jobs, and stimulate the local economy. In addition, more stringent requirements familiarize and train the construction industry and code enforcement officials, and increase demand for “greener” products from suppliers, manufacturers, and providers.

Gap #7: The commonwealth does not provide municipalities with guidelines or technical assistance for implementing the UCC.

Recommendation: L&I, DEP, and/or the appropriate state agency, with feedback from local stakeholders should create guidelines for implementing the UCC that lead to greater uniformity throughout the commonwealth.

Gap #8: L&I may not have sufficient resources to carry out a proper energy code review and inspection process for commercial buildings for opt-out municipalities.

Recommendation: No state agency should have responsibility for enforcement on the local level unless it has sufficient funding and a clear mandate to guide its actions. The General Assembly could relieve L&I of the responsibility of commercial code enforcement, allowing it to focus on its primary responsibilities while returning this power to the local jurisdictions. If these communities do not want the burden of enforcement, as they have already indicated, they could contract out these services to a third party agency, as many opt in municipalities already do. One way to ease this financial burden is to establish or join a county or regional building inspection department.

Alternative Recommendation: L&I must charge the opt-out municipalities, which would provide additional resources to carry out sufficient and proper energy code review and inspection processes.

Gap #9: No state agency has jurisdiction over residential enforcement for municipalities that opt-out, leaving some areas in Pennsylvania without proper plan review and building inspection for homes.

Recommendation: The General Assembly should require all municipalities to be responsible for code enforcement. Those that have previously opted out could contract these services to a third party agency, as many opt in municipalities already do.

Gap #10: The L&I or local jurisdictions do not have many outreach efforts that support the energy code infrastructure.

Recommendation: Create more dedicated publications for the energy code, such as e-bulletins and flyers where energy code information, resources, trainings, and updates can be shared. Perhaps this is something that can be led by the Pennsylvania Association of Building Code Officials (PABCO).

Gap #11: Public outreach and education is needed. Citizens do not know nor understand the benefits energy codes provide.

Recommendation: public outreach and education efforts on the benefits of energy codes should be hosted by the commonwealth, using resources found through partnerships with local governments, nonprofits, educational institutions, and utilities.

Gap #12: There is little-to-no municipal oversight of residential construction in opt-out municipalities.

Recommendation: The General Assembly should amend the Pennsylvania Construction Code Act to require some type of professional oversight of residential construction in opt-out municipalities.

Gap #13: There is no legislative mandate for design liability placed on home builders in Pennsylvania, leaving residential consumers with limited recourse to remedy when serious design flaws are discovered.

Recommendation: The General Assembly should consider reinstating the requirement for involvement of a licensed design professional in the preparation of residential designs, or consider a means of placing similar design liability burdens on the home building industry.

Gap #14: Observations shared with BCAP mention the energy code is rarely enforced for commercial alterations and additions.

Recommendation: The General Assembly should amend the UCC to remove the exemption for residential alterations

Gap #15: Many enforcement professionals do not make energy codes a priority.

Recommendation: Enforcement professionals should prioritize the enforcement of energy codes alongside more traditional building codes.

Gap #16: Many local decision-makers do not make energy codes a priority.

Recommendation: Local decision-makers should prioritize the enforcement of energy codes by providing sufficient funding to code officials.

Gap #17: Not enough training opportunities provided or frequently enough.

Recommendation: The commonwealth should provide more training events.

Gap #18: Many municipalities lack funding to send staff to training workshops.

Recommendation: In moving forward, the commonwealth should consider online training. With many localities in a poor financial state, this approach reduces travel time and costs. This may increase the attendance rate.

Alternative Recommendation: As the state is very rural, training efforts logically convene in population centers which have historically had moderate attendance rates. Some events should be scheduled outside metropolitan areas and work to include more rural communities. The recent 2012 trainings did a good job at peppering the state and professionals hope this is true for the future.

Gap #19: While the quality of training is good, the material is not deep enough.

Recommendation: Hold a separate training program that focuses on sections of the UCC or advanced building technologies. These opportunities will help raise awareness of building science and advanced or above-code issues, which also prepares the industry for future code updates.

Alternative Recommendation: for sections of the UCC that are consistently not in compliance, the commonwealth could offer “update” trainings to provide further clarification. A focus group might be

another option, where professionals are invited to provide feedback on their experiences complying with the UCC.

Gap #20: Pennsylvania’s system of municipal government puts an additional bureaucratic burden on municipal officials, particularly in small municipalities.

Recommendation: The commonwealth, perhaps through a state office that supports municipal government, should promote and encourage the formation of regional or county inspection departments.

Gap #21: Too many interpretations of the energy provisions within the UCC, allowing for inconsistent implementation and confounded municipalities and TPAs.

Recommendation: If not L&I, the department should encourage the formation of a central authority for issues of code interpretation. This would support and harmonize implementation efforts across the commonwealth.

Gap #22: Pennsylvania does not require contractors to be licensed, certified, or even registered.

Recommendation: The commonwealth should institute a licensing requirement for contractors where working without a license results in criminal charges, jail, and/or penalties.

Gap #23: The commonwealth does not have a CEU requirement for design professionals.

Recommendation: The commonwealth should institute a CEU requirement for architects and a specific number of credits in energy codes. Following an initial application to practice in Pennsylvania, architects should be required to uphold the license through CEUs. CEU topics could include public protection, sustainable design, building energy efficiency, etc.

Gap #24: The commonwealth does not have a CEU requirement for construction professionals.

Recommendation: The commonwealth should institute a CEU requirement for builders and contractors.

Gap #25: Above-code programs provide resource and money conservation, but they are not widely utilized.

Recommendation: The use of third party, above-code energy efficiency programs at the local level could be further promoted and expanded. Perhaps consumer education efforts would aid this endeavor.

Gap #26: To amend provisions of the UCC, such as a “green” code that exceeds the UCC, local jurisdictions must submit proposed changes to L&I and demonstrate that “certain clear and convincing local climatic, geologic, topographic or public health and safety circumstances or conditions” justify the exception.

Recommendation: Allow more flexibility – both in process and practice – for municipalities that wish to have local policies that are more stringent than the UCC.

Gap #27: Electric utilities do not recognize the full potential and benefits of investing in energy code implementation.

Recommendation: Electric utilities must be educated so they realize energy codes complement other efficiency efforts and are often a better tool to meet their goals. When properly enforced, energy codes curb baseline demand over the life of a building; they are not intermittent or interrupted.

Gap #28: Act 129 did not include a mandate for gas utilities to achieve energy efficiency targets.

Recommendation: The PUC should be encouraged to work with regulated gas utilities to create energy efficiency targets for gas utilities, even voluntary credits will open the dialogue. Creating targets may also improve communication between gas and electric utilities regarding efficiency credits.

Gap #29: Utilities are not engaged in activities that promote the energy code.

Recommendation: The commonwealth should engage and strategize with utilities and cooperatives on code development and compliance. Two examples are: 1) withholding utility power until energy code provisions are met and verified; 2) develop incentive programs that support the Blower Door test or any other component of the UCC. Utilities should become more involved and support code compliance as they, too, benefit when homes and buildings demand less energy. Additionally, the energy efficiency of new construction aids utilities in predicting changes to system-wide demand

Gap #30: The commonwealth has not conducted a statewide measurement and verification study.

Recommendation: The commonwealth should take actions to measure and verify energy code compliance with the 2009 IECC by 2017. The construction lull allows for an excellent opportunity to devote time and resources to establish a baseline for energy code compliance with the UCC.

Gap #31: Pennsylvania does not have an overarching group that spans across state and industry stakeholders that is equipped to plan and lead initiatives forward to 90 percent energy code compliance.

Recommendation: The commonwealth should consider the creation of an energy codes collaborative. Leading efforts by New Hampshire and Delaware which both formed an energy codes compliance collaborative or similar group and created a realistic plan on how the state will proceed.