

Webinar

Overview of Stakeholders Participation in Adoption & Implementation of Building Energy Codes

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Building Energy Codes: Stakeholders and Implementation

- ▶ Buildings account for over 1/3 of global energy consumption
- ▶ Energy codes can help **curb building energy use**, but also **improve economic performance, reduce CO₂ emissions** and other pollutants, **improve energy security**
- ▶ Why and how engage stakeholders in code adoption and implementation?



- ▶ Analyzed implementation of building energy codes in 22 countries:
 - Country information and contacts are available
<http://www.gbpn.org/laboratory/building-energy-codes-portal>
- ▶ IPEEC report:
 - International Partnership on Energy Efficiency Cooperation (IPEEC), 2015.
Delivering Energy Savings in Buildings: International Collaboration on Building Energy Code Implementation.



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Building Energy Codes: Stakeholders

- ▶ Who are the stakeholders?
 - **Code adopters:** country- or state- level officials/policymakers
 - **Code enforcers:** local government officials/policymakers
 - **Code implementers:** building developers and owners
 - **Suppliers:** building material/appliance manufacturers & industry associations
 - **Others:** Local utilities and utility commissions, energy efficiency advocates

- ▶ Across countries: a gap between code adoption (typically, at the national or state level) and implementation (typically, at the local level)

- ▶ Need for stakeholder engagement to fill that gap





Stakeholder Engagement: Code Cycle

- ▶ **Development and adoption:** identify stakeholder and public concerns, create acceptance and shorten implementation time
 - Particularly important, where federal government does not have the jurisdiction to mandate code implementation
 - E.g., Australia's work with multiple stakeholders on a single national code
- ▶ **Implementation:** improving code rigor, such as when regulators lack data on real costs, savings and supplies
 - E.g., efforts in the U.S. to assess implementation and hold focus groups on compliance software
- ▶ **Building capacity** for implementation
 - Stakeholders come together through engagement and get informed; adoption of code revisions also requires updating skills of inspectors, developers and others
 - E.g., Canada, Australia, EU, Singapore, China



Different Needs In Building Code Policies

- ▶ Stakeholders can express their concerns at different stages
 - In the U.S., very common at code development and adoption stages
 - In many other regions, implementation stage may be the focal point
- ▶ Code adoption/implementation cycle also determines how to engage stakeholders:
 - Initial code adoption vs. revision and implementation stages
 - A clear schedule of code revisions facilitates stakeholder engagement





Pathways for Stakeholder Engagement

- ▶ Regulatory proceedings
 - Entails formal notice and comment periods, public hearings/workshops, and maintenance of information portals to ensure transparency
 - Often used for code development, revisions and adoption
- ▶ Focus groups, surveys, conferences
 - Planned interactions, but without a formal set of rules and/or proceedings
 - Used to assess implementation elements and to share updates
- ▶ Meetings as needed with individual stakeholders; hotlines
 - Helpful to obtain and/or share specific data



Ways to Engage Stakeholders

Types of Outreach	Examples
Public meetings/ conferences	Canada, France, Spain, United Kingdom, United States
Working groups and technical committees	Australia, China, Indonesia, Italy, Singapore, South Africa, South Korea, Spain, United Kingdom, United States
Surveys	Australia, Spain
Newsletters	Canada, France
A dedicated website or set of webpages	Australia, Canada, France, Indonesia, South Africa, Spain, Singapore, United Kingdom, United States

Case Study: How Australia Got Its Building Energy Code

- ▶ Australia: a federation of eight states and territories
- ▶ In 1994, the Australian Building Codes Board (ABCB) was formed by an inter-government agreement as the representative body for all the governments
- ▶ The ABCB consists of representatives of the eight States and Territories as well as representatives from industry and the Commonwealth Government
- ▶ Introduced the energy efficiency component of its building code in 2003



Case Study: Code Assessment in Australia

- ▶ Commitment to continuously engage stakeholders in code development/revision through:
 - Technical committees
 - Working groups
 - Web-site & stakeholder surveys

- ▶ More recently, stakeholder engagement helped assess weaknesses in compliance. The National Energy Efficient Building Project engaged 1,000 stakeholders from various stages of the construction cycle:
 - Most stakeholders brought up issues with compliance and perceived that the practice of compliance with building energy codes is weak
 - Effort to engage with key stakeholders to improve compliance with minimum standards and encourage obtaining beyond minimum requirements



Conclusions

- ▶ Countries increasingly recognize the role of stakeholder engagement as codes get more complex, nuanced and stringent
 - Stakeholder engagement can increase code feasibility, completeness, and acceptance and improve implementation capacity, thereby reducing compliance costs and time
- ▶ Countries have different needs in stakeholder engagement and it can take different forms
 - Engagement can help stakeholders voice issues; while some countries have greatest challenges at code development and adoption stages, other regions find implementation most challenging
 - Regular revision cycles facilitate stakeholder participation



References Consulted

- ▶ Vaughan, E. and J. Turner. 2013. The Value and Impact of Building Codes. Environmental and Energy Study Institute.
- ▶ Ivner, J., Westerberg, K. and S. Ljung. 2010. Approaches to Participation in Local Energy Planning. Examples from a Swedish region.
- ▶ Department of Energy. 2016. Energy Data Accelerator. Stakeholder Engagement Strategy Guide.
- ▶ Global Buildings Performance Network (GBPN), Pacific Northwest National Laboratory (PNNL), and International Partnership for Energy Efficiency Cooperation. Released in 2015. “Building Energy Codes Portal”.
- ▶ International Partnership on Energy Efficiency Cooperation (IPEEC), 2015. Delivering Energy Savings in Buildings: International Collaboration on Building Energy Code Implementation. Available at: <http://ipeec.org/publications>.
- ▶ Commonwealth of Australia. 2000. International Survey of Building Energy Codes. Available at: <http://www.industry.gov.au/Energy/Energy-information/Documents/internationalsurveybuildingenergycodes.pdf>