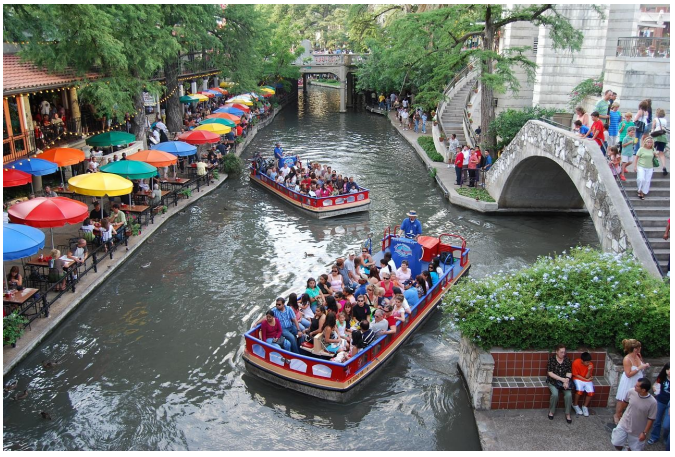
The Online Code Environment and Advocacy Network

San Antonio: A Case Study for Advanced Codes

Abstract

On March 12, 2009, the San Antonio City Council voted to approve and adopt a new Sustainable Buildings Ordinance that increases the energy efficiency of buildings by 15% more than the existing San Antonio and Texas state energy codes. This measure incorporated water conservation and other green building elements for all new construction, additions and substantial renovations in the city. The ordinance will make San Antonio the third major city to adopt advanced energy codes in Texas, joining Austin and Houston. The new ordinance will go into effect January 1, 2010, and mark a significant collaborative effort by many stakeholders.



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Issue

The City of San Antonio had been charged through the Mayor's Mission Verde initiative to adopt advanced codes beyond the Texas Energy codes, which were based upon IECC 2000/ASHRAE 90.1-2001. To accomplish this, the City's Office of Environmental Policy and the Mayor appointed the Sustainable Buildings Task Force and Commercial and Residential Advisory Committees to develop and propose a new code. The challenge for the committees became one of developing advanced codes that would be palatable to the members of the committees which were made up of technical representatives of the building community. Many committee members were concerned about the implementation and technical feasibility of moving beyond code to 15 and 30 percent energy efficiency improvements. Also, the codes needed to be crafted in a way that would be acceptable to the Taskforce members, made up of a wide array of stakeholder groups, both technical and non-technical, including local real estate professionals, building owners and operators, developers, other City agencies, and industry professionals. Cost and ease of implementation was paramount in their concerns and in consideration of the new codes.

Background

In January 2009, Mayor Phil Hardberger announced Mission Verde, a comprehensive plan for building a sustainable economy in San Antonio. The initiatives outlined in Mission Verde aimed to establish a self-reliant, flexible economy by attracting green businesses, developing green jobs, conserving energy and water resources, generating and distributing local renewable energy, and developing a robust and efficient system of transportation and land use. A central force in support of the effort was the Mayor's Taskforce on sustainable buildings and a related effort to adopt codes that save energy and water resources -- at a faster rate than that of the State of Texas, which was upgrading statewide energy codes.

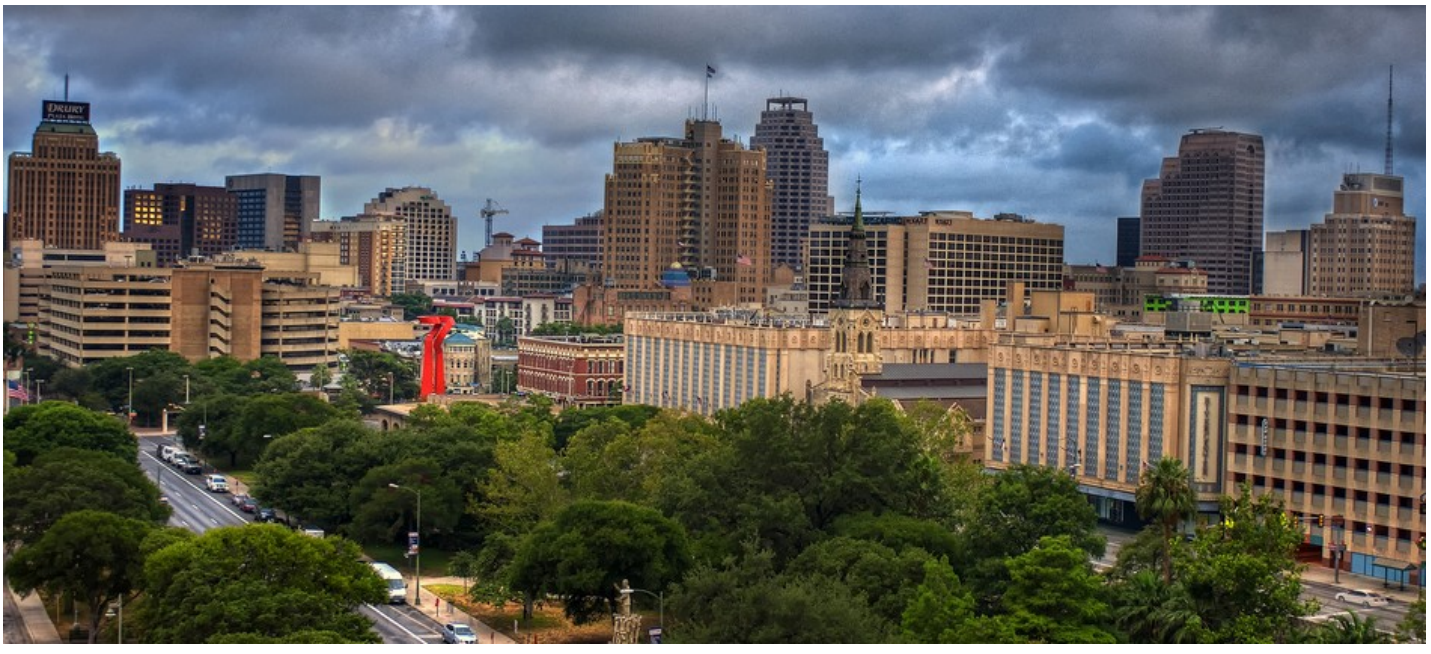
Resource conservation is a major component of Mission Verde and any comprehensive strategy to conserve en-

ergy and water must include buildings. Buildings represent almost 75% of the electricity consumption in the country and over 90% in San Antonio. Likewise, buildings and landscaping irrigation represent significant water consumption, both nationally and in San Antonio. In order to achieve cost-effective energy and water savings in buildings, efforts must be tailored to apply to both new construction and existing buildings. The most effective way to achieve energy and water savings in new construction is to develop a locally-specific building code that establishes minimum performance standards, provides flexibility in achieving those standards, and encourages greater voluntary action through incentives.

Toward the goal of achieving these cost-effective energy and water savings, Mayor Hardberger appointed a taskforce of stakeholders to guide the formation of the code proposal, as well as an advisory committee to provide technical guidance and initial development of the code requirements. The membership of the Taskforce was diverse, with elected officials, city staff, architects, builders, engineers, developers, environmentalists, the City of San Antonio, San Antonio Water System (SAWS), the Real Estate Council, the Greater San Antonio Builders Association, and similar groups. Representatives of the Building Codes Assistance Project (BCAP) served on the Advisory Committee as a technical resource on all matters, but particularly with the development of code language and with elements related to implementation.

The Taskforce worked closely with the Advisory Committee, sometimes meeting several times a week to hammer out technical details of the recommendations that the Taskforce would act upon. The Advisory Committee needed to develop recommendations that the building community would be comfortable with, as well as provide technical "interpretation" to the Taskforce stakeholders, many of whom were not technically inclined or aware of the potential impacts of code proposals on their businesses.

The Advisory Committee faced tough challenges in crafting recommendations that could be easily understood by stakeholders and cost effectively implemented by the entire building community. The result was a set of technical recommendations that had a great deal of flexibility in the options for compliance. The recommendations provided business stakeholders with achievable compliance options that would attain an energy efficiency improvement of 15% above current code AND support current business practices. A future goal of 30% energy efficiency



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improvement by 2012 was also established and to help ease the community towards higher performing buildings. To encourage movement toward the 30% goal, a parallel set of guidelines were established to create a voluntary approach -- with incentives that would be adopted at a later date -- for buildings that met the 30% criteria after 2012. This incentive will be supported by both the City and the Utilities; the details have not yet been developed or announced.

Barriers Encountered

As often is the case when trying to reach consensus within diverse groups, simply getting buy-in from all Taskforce members was challenging. In addition, due to the economic climate both locally and nationally, concerns were voiced regarding the impact on construction costs. In response, the Advisory Committee developed standards that were affordable, easy to understand and enforce, and phased-in over time. A 15% efficiency improvement threshold was set for initial compliance in 2010 and that was supported by a voluntary standard that will be incentivized until adopted in 2012. Implementation guidelines were also established, specifying education, outreach and training that would occur to ensure that the building community would understand the new standards. The effort to build consensus was ultimately rewarded by almost unanimous support from the Mayor's Taskforce and the City Council.

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Lessons Learned

The primary barrier encountered was achieving stakeholder buy-in. This was the biggest hurdle faced by the San Antonio Mission Verde advanced code process. Neither the Mayor nor the Taskforce had any appetite for political hardball in this effort. It was paramount that consensus be achieved to enable the initial development of recommendations and adoption of an advanced energy code. The Taskforce and Advisory Committee also understood that if this effort was to succeed beyond conception and adoption through actual implementation and enforcement, other agencies and the key stakeholder groups would have to be supportive -- everyone needed to be onboard. The San Antonio Planning and Services Development Department, the primary implementer of building codes, was engaged throughout the process. As such, their concerns were always fully addressed.

Likewise, it was noted that in order to reach the goal of 30% above code over the longer term, the utility and the city will have to assist in developing appropriate incentives.

View Technical Appendix