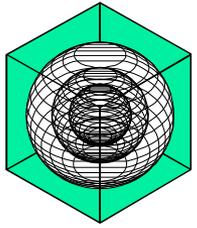


# Beyond Code: New Texas Territory

Looking for a New Frontier

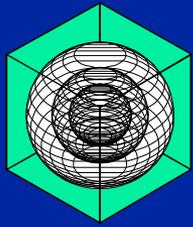
Presented by Tom Fitzpatrick

Energy Systems Laboratory, Texas A&M University System



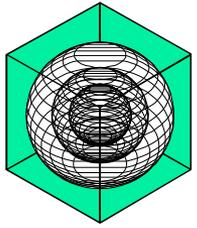
# We'll talk about

- What did Texas do (in terms of energy code adoption)?
- How did we do it?
- What kind of goals do we have for voluntary, above-code efforts?
- What is the current status of voluntary programs relative to code compliance?



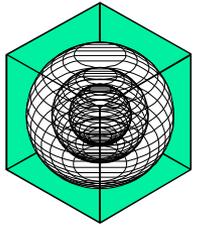
June 2001

Texas Gov. Rick Perry  
signs SB 5, 77<sup>th</sup> Texas Leg.



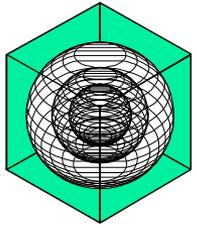
# Overview of SB 5

- establishes **Texas Emissions Reduction Plan**, including
  - a diesel emissions reduction incentive program,
  - a motor vehicle purchase or lease incentive program,
  - a new technology research and development program,
  - an energy efficiency grant program, and
  - building energy performance standards.



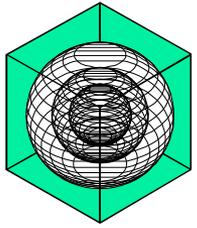
# Building Energy Performance Standards Adopted

- energy efficiency chapter of the **International Residential Code** for single family residential construction, and
- **International Energy Conservation Code** for all other residential, commercial and industrial construction in the state.
- Requires that municipalities establish procedures
  - for administration and enforcement, and
  - to ensure that code-certified inspectors perform inspections.



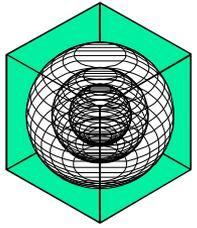
# Local Amendments

- Local amendments allowed.
- In non-attainment areas and affected counties, may not result in less stringent energy efficiency requirements.
  - Texas A&M Energy Systems Laboratory (ESL) to review local amendments and submit annual report of savings impacts to TNRCC.
  - 38 non-attainment or affected counties include the major metropolitan areas, approx. 70% of population, and 80% of economic activity.



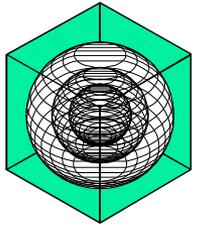
# Outside of Municipal Jurisdictions

- A building certified through an energy efficiency (above-code) program is considered in compliance;
- A building inspected by a code-certified inspector (warranty inspection) is considered in compliance; otherwise,
- A builder may self-certify a building with a form to be provided by ESL.



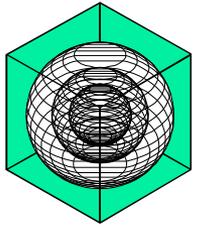
# Energy Systems Laboratory of Texas A&M System

- is responsible for making code implementation materials available to building community;
- may provide technical assistance to political subdivisions;
- is responsible for developing a standardized reporting format for home energy ratings, and providing public information about home energy ratings;
- calculates and reports savings impacts of building energy provisions to TNRCC.



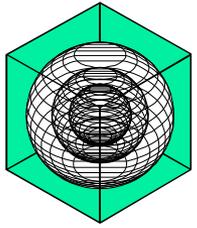
# Credit Where Credit Is Due

- Texas Natural Resource Conservation Commission (TNRCC) to negotiate emission reduction credits with US EPA
- TNRCC to revise State Implementation Plan, substituting provisions of SB 5 for certain existing strategies.



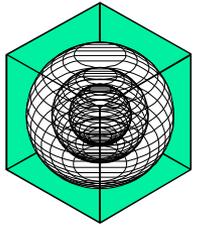
# Important Dates

- Effective date of SB 5 was 9-1-01.
- The referenced edition of codes is the 2000 editions at 5-1-01 (inc. Mar '01 Supplement).
- Requires local administration and enforcement procedures in place by 9-1-02.



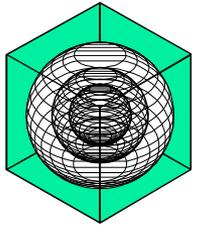
# How did we do it?

- Link building energy efficiency to electric generation and emissions reduction potential
- Begin state market transformation by adopting code in a major metropolitan area (DFW)
- Consensus to use latest model code (IECC)
- Maintain uniformity – level the playing field – raise the baseline



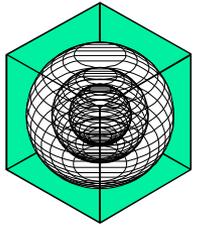
# DFW Metroplex Region

- North Central Texas Council of Governments - a model of leadership
- Long history of regional code recommendations – high level of professionalism among code officials
- Very active public involvement in SIP
- Greater Dallas HBA committed to involvement in community solutions



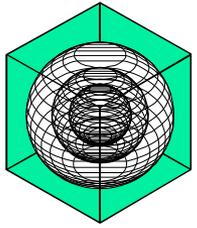
# NCTCOG Amendments

- A trade-off allowing higher levels of glazing balanced by higher SEERs to remain within the IRC scope.
- An “alternative compliance path” permitting demonstration of IECC compliance by certification through an “above code, performance tested” energy efficiency program.



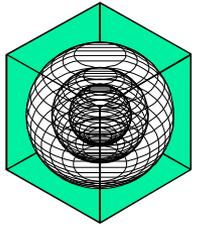
# Goals...

*...Provide the grounds for growth.*



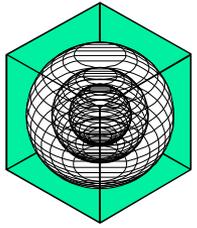
# Above-code, performance-tested

- Value to builders (2000)
  - Schedule control
  - Elimination of city inspections/interpretations
  - Market leader position
- Value to community
  - Additional emission reductions
  - Assurance of energy performance
  - Potential for improving standards among certain trades – improving quality



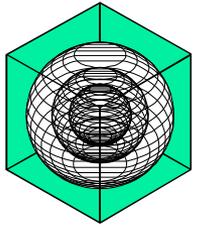
# Moving to the State level

- Builder goals
  - Establish IRC as residential building code
  - Reduce IRC energy requirements
  - Minimize governmental role
- Legislative goals
  - Avoid energy waste and the most unnecessary emissions by adopting an energy code
  - Maintain energy requirements that do the most good (impacting air conditioning needs during ozone season)
  - Use voluntary programs in lieu of new inspection forces (costs) outside of municipal areas
  - Capture credit for local amendments and initiatives that go beyond base codes



# Recent Developments

- ESL established Stakeholder group for SB5 implementation
- Review of NCTCOG amendments
- Completion of initial (DOE2-based) simulation tool for evaluating local amendments and programs
- Preliminary review of Energy Star BOPs for Houston and Dallas vis a vis IRC/IECC



# Recent Developments

- Preliminary discussions concerning next level of market transformation programs needed
- ESL working with TNRCC and others on procedures to track energy savings and related emission reductions from code implementation and beyond code efforts.
- ESL web site established at <http://eslsb5.tamu.edu>