



August 30<sup>th</sup>, 2021

Eddy Trevino, P.E., CEM  
Director, State Energy Conservation Office  
Data Analysis & Transparency Division  
Texas Comptroller of Public Accounts  
LBJ State Office Building  
111 East 17th Street, Room 314  
Austin, Texas 78701

**RE: ESL's preliminary recommendation regarding the 2021 IRC (Chapter 11) and the 2021 IECC, based on a stringency analysis.**

Dear Mr. Trevino:

In accordance with the Health and Safety Code Section 388.003, as amended, the Energy Systems Laboratory (Laboratory) has completed the technical analysis regarding the comparison of the stringency and environmental impact of Chapter 11, 2021 International Residential Code (IRC) and the 2021 International Energy Conservation Code (IECC) versus the current Texas Building Energy Performance Standards (TBEPS), based on Chapter 11 of the 2015 IRC and the 2015 IECC.

**The Laboratory's Preliminary Recommendations:**

Single-Family Residential Construction

The Laboratory recommends that SECO adopt Chapter 11 of the 2021 IRC, as published, as the new Texas Building Energy Performance Standards (TBEPS) for all residential construction, one- and two-family residences of three stories or less above grade because of the increased energy efficiency.

Commercial and Residential Construction

The Laboratory recommends that SECO adopt the 2021 IECC, as published, as the new Texas Building Energy Performance Standards (TBEPS) for commercial, industrial and residential buildings over three stories (including R2, R3 and R4 residential buildings and excluding one- and two-family residences of three stories or less above grade) because of the increased energy efficiency.

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**Summary of the Technical Stringency Analysis of the 2021 code vs. the Current TBEPS:**

The analysis has determined that the residential provisions of the 2021 IECC are more stringent than the current Texas Building Energy Performance Standards (TBEPS). The residential provisions in the 2021 IECC are identical to Chapter 11 of the 2021 International Residential Code (2021 IRC).

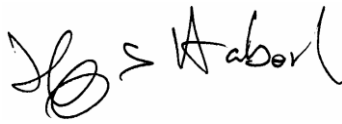
In the commercial provisions of the 2021 IECC, there are three paths to obtain compliance. The first path is to comply with the requirements of the ASHRAE Standard 90.1-2019. The second and third paths, prescriptive and total building performance, are to comply with the requirements put forth in Chapter 4 of the 2021 IECC, which includes the commercial provisions. The Laboratory’s analysis has determined that the commercial provisions of the 2021 IECC are more stringent than the current Texas Building Energy Performance Standards (TBEPS) for all three paths.

**Additional Recommendations:**

The Laboratory recommends that SECO begin educating, training, and providing technical assistance for designers, builders, subcontractors and enforcement officials to enable statewide compliance immediately upon adoption.

Please see the attachments for a synopsis of the stringency analysis. The highlighted text represents changes that are more stringent.

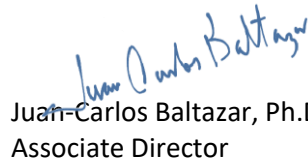
Sincerely,



Jeff S. Haberl, Ph.D., P.E.<sup>inactive</sup>  
Associate Director



Bahman L. Yazdani, P.E.  
Associate Director



Juan Carlos Baltazar, Ph.D., P.E., BEMP  
Associate Director

Copy: Fred Yebra, P.E., State Energy Conservation Office  
David E. Claridge, Ph.D., P.E., Energy Systems Laboratory

List of Attachments:

- A. Summary of the Laboratory’s Stringency Comparison Analysis: TBEPS (based on Chapter 11 - 2015 IRC and 2015 IECC) Vs. the 2021 IRC and 2021 IECC: Single Family Residential.
- B. Summary of the Laboratory’s Stringency Comparison Analysis: TBEPS (based on Chapter 11 - 2015 IRC and 2015 IECC) Vs. the 2021 IRC and 2021 IECC: Commercial.