



**The Department of State  
Hearing on DOS-47-15-00016-P  
State Energy Conservation Construction Code (Energy Code)**

**Friday, January 29, 2016**

**Testimony by Scott E. Frank, PE, LEED® AP, Chair, Energy Codes Committee, American Council of Engineering Companies of New York (ACEC New York)**

On behalf of the American Council of Engineering Companies of New York / Metropolitan Region (“ACEC New York”), I’d like to thank the Division of Building Standards and Codes for their efforts to update the State’s energy code. As a partner at Jaros, Baum & Bolles Consulting Engineers, located here in New York City and as Chair of the ACEC New York Energy Codes Committee, I am here today to testify on the proposed Commercial Building related amendments to the New York State Energy Conservation Construction Code.

Founded in New York City in 1921, ACEC New York is one of the oldest continuing organizations of professional consulting engineers in the U.S. ACEC New York represents 280 engineering and affiliate firms throughout New York State that collectively employ more than 20,000 people statewide, with a concentrated presence of firms located within the five boroughs of New York City. ACEC New York is dedicated to promoting growth of the industry through the education of our members, promotion of cooperative relationships, and by addressing specific areas of concern on behalf of our membership.

First, I would like to commend the Division for taking the unprecedented step, during the LAST Energy Code update, of amending ASHRAE Standard 90.1 as part of the update process in order to harmonize the Commercial Building requirements across the two separate and stand-alone Energy Codes that are embodied in the ICC family of Codes being adopted by the State (ASHRAE Standard 90.1 and Chapter 4 of the International Energy Code). (Why the national model Codes need to include this redundancy is a topic for another hearing.) However, I wish to express great disappointment in the fact that the Division has chosen not to carry forward those essential amendments for the currently proposed Code update. This regression will impose significant hardships on building owners in New York State.

I wish to offer the following general comment regarding the schedule for enacting the proposed New York State Energy Conservation Construction Code. Specifically, sufficient time should be provided after adoption of the proposed Energy Code and before the effective date of implementation to allow municipalities within New York State (such as New York City) that have adopted local Energy Codes, as provided for in the State Energy Law, sufficient time to update their respective Energy Codes in order to satisfy the stringency requirements for those municipalities as set forth in the Law. Specifically, I recommend that January 1, 2017 be the effective date of the proposed Code based on the current proposed adoption schedule of the Spring of this year.

I wish to offer the following specific technical comments to the proposed Standard 90.1-2013, as follows:

**ASHRAE Standard 90.1, Section 8.4.1 - Voltage Drop:** The requirement for a maximum of 2% voltage drop for electrical feeders and a separate requirement for 3% voltage drop for branch circuits is punitive to some high rise residential buildings, resulting in significant cost exposure in the form of oversized electrical feeders, and yielding minimal if any energy savings. This provision has been revised by Addendum “C” to ASHRAE 90.1-2013 to eliminate these punitive requirements for feeder and branch circuit voltage drop, in favor of an aggregate 5% voltage drop for the combination of feeder and branch circuit. Specifically, the current language in 8.4.1 would be deleted and replaced with the following clause:

8.4 Mandatory Provisions

8.4.1 Voltage Drop

Exception: Feeder conductors and branch circuits that are dedicated to emergency services

~~8.4.1.1 Feeders. Feeder conductors shall be sized for a maximum voltage drop of 2% at design load.~~

~~8.4.1.2 Branch Circuits. Branch circuit conductors shall be sized for a maximum voltage drop of 3% at design load.~~

8.4.1 Voltage Drop. The conductors for feeders and branch circuits combined shall be sized for a maximum of 5% voltage drop total.

Including this Amendment language would allow New York State relief from this otherwise onerous requirement. This modification would not impact the stringency of the New York State Code relative to the current Federal Standard (ASHRAE Standard 90.1 2013) as the overall voltage drop requirement is unchanged.

Thank you for your consideration of these comments.