

**From:** [Anthony Sparks](#)  
**To:** [James, Mary, RLD](#)  
**Subject:** [EXT] Comments Regarding Adoption of 2018 Energy Code  
**Date:** Tuesday, July 28, 2020 12:57:49 PM

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Mary -

I've been in correspondence with Harold Trujillo from EMNRD, and he suggested I provide you the following comments I shared with him concerning Albuquerque Public Schools' perspective on building commissioning for large construction projects:

Hello Harold.

We are working on a report to show the cost of Cx, both per square foot and percentage of total construction cost, for all major projects. Should have that in plenty of time before the hearing on Wednesday.

Meanwhile, I thought I'd give you APS' take on commissioning as a general practice:

1. The proper functioning and reliability of HVAC systems is one of the most challenging aspects of our construction projects. This is increasingly true as equipment and controls become more sophisticated, complicated, network-connected and 'smart.'
2. Nothing seems to linger longer, cause more occupant complaints, or cost more money than faulty HVAC systems and controls.
3. In an attempt to address this concern, APS has tried many fixes in recent years, with varying degrees of success:
  1. Two year standard warranty for HVAC control systems.
  2. Extended service/maintenance agreements with installing mechanical contractors.
  3. Pre-selection of HVAC equipment to ensure qualified/certified installers of systems.
  4. Substantial completion withheld until control systems are visible/operational on the APS network.
  5. Hiring in-house controls specialists.
4. Oversight and verification by design engineers during construction has become a thing of the past. Highly competitive design fees have all but eliminated their direct involvement with contractors.
5. For all the above reasons, it has become APS' standard practice to hire an independent commissioning agent for all projects that involve substantial HVAC or controls elements, regardless of LEED. We find it imperative that someone knowledgeable is assigned to verifying and documenting system functionality. Frankly, we don't consider commissioning an 'added cost,' we consider it a necessary element of successful construction.
6. Having a Cx firm on board *does not guarantee that the system will work*. However, it does provide a detailed, documented means to address issues during and after installation. Over time, our commissioning partners also become important resources for trouble-shooting system deficiencies and/or failures.

I hope this gives you a clear picture of our stance on the commissioning process. I'll forward the cost data as soon as we get it compiled.

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-- **Tony Sparks, LEED AP (BD+C), CxA, BOC**

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