

## **Response to Participant Questions**

**Webinar: Capture Energy Savings in New Commercial Construction in Minnesota  
Funded through the Minnesota Conservation and Applied Research and Development Grant  
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**Question: How does the current adopted code support improved compliance or touch on the weak areas found here?**

Response: In the scope of this study we did not dig deep into the current adopted IECC 2018/ASHRAE 90.1-2016 code. However, many of the items that we touched on had either increased stringency (i.e. envelope properties, lighting power density and controls) or continued to play a large role (commissioning and control elements), so we would expect to see large savings potential there. With the new code change, many independent organizations are conducting training sessions to bring design firms and contractors up to speed and highlighting problematic areas.

**Question: Will performance path be measured on the operational side at whole build level or system level? Will this require sub metering be installed in buildings?**

Response: The Performance Path entails completing an energy model at construction completion to demonstrate compliance through either IECC Section C407 Total Building Performance pathway, or ASHRAE 90.1 Energy Cost Budget method. It does not require actual measurement and verification, or sub metering of the building and systems.

**Question: Could you share more about how commission compliance compared between the design phase and actual implementation? Were you able to confirm that Cx reports were provided?**

Response: In verifying the mechanical and lighting commissioning measures, we first looked for a Cx plan in the design specifications, and in the field asked for verbal confirmation from on-site contractors that Cx has been carried out or is scheduled to be. We were unable to obtain Cx reports in most cases due to various reasons, i.e. timing of the data collection process, difficulties in connecting with the project team, etc. Hence, we attributed compliance of this measure to whether Cx is planned for in the design specifications, and scheduled to be (or has already been) carried out in the field through verbal confirmation.

**Question: How does the team balance pay-for-performance with the fact that payments well after the first cost incurred may not be as influential on decision-makers since the building owner or occupant may change, sometimes not very long after construction is complete?**

Response: Since the focus of our recommendation is more to validate energy savings from code compliance – and reward deeper savings from operational strategies – this wouldn't have as much of an influence on whether or not high first cost strategies are incorporated into the project. With that said, CEE's Pay for Performance CARD report describes how different program structures could address this issue – such as by shortening the length of the performance period or splitting the incentive to provide a percentage up front.

**Question: Do you evaluate whether there was any difference in compliance rates between energy code enforcement and non-enforcement zones?**

Response: At the outset of the study, we compared the Dodge Data to enforcement zones. We found that only 5% of the projects were in non-enforcement zones so we decided to not stratify our sample or base any targets on enforcement zones. In the end, we found that 2 buildings were in non-enforcement zones.

**Question: Did you come across any municipalities that have staff that focuses on energy code compliance within their building code staff?**

Response: The scope of this study didn't include a review of municipalities and their building code staff. However, other participants in this webinar have noted that St. Paul and Edina both were communities they knew of that had staff that were knowledgeable of building codes. This would be an interesting point to study further.