



Commercial AC and HP Committee: Characterizing the Energy and Demand Benefits of Rooftop Unit QI and QM

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Meeting Objectives

- ▶ Learn about the PNW Regional Technical Forum's (RTF) rooftop unit M&V protocol and savings calculator
- ▶ Parse out unique needs of Commercial HVAC program administrators with respect to M&V of rooftop unit QM/tune-up programs
- ▶ Discuss and begin to prioritize additional activities that members could pursue collectively at the bi-national level

Agenda

▶ Intro: putting today's discussion in context

▶ Presentation

- Mark Cherniack and Howard Reichmuth, New Buildings Institute (NBI): *Standard Protocol for Measurement of Fan and Cooling Savings from Rooftop Units*

- Q&A

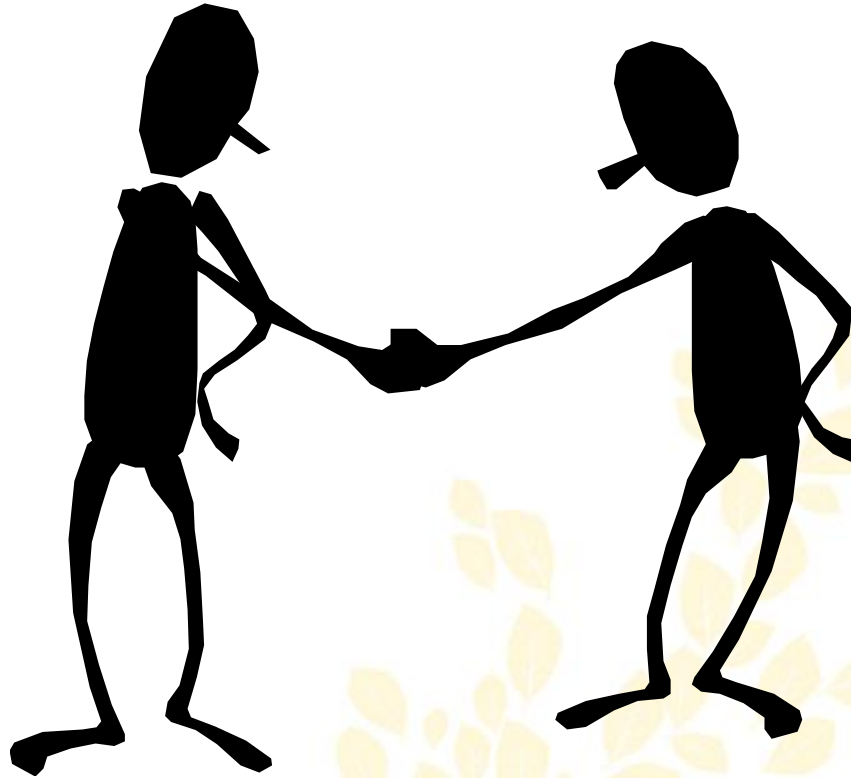
▶ Discussion

▶ Wrap-up and Next Steps



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Introductions



Background for today's session

- ▶ Committee just completed a major revision of equipment specification, ready to take on new projects
- ▶ Need for greater system-level savings from unitary HVAC equipment and to go beyond widget base measures
- ▶ QI/QM opportunities on Committee's radar for many years
- ▶ Addressing EM&V challenges of RTU tune-up programs a top priority in Committee work plan

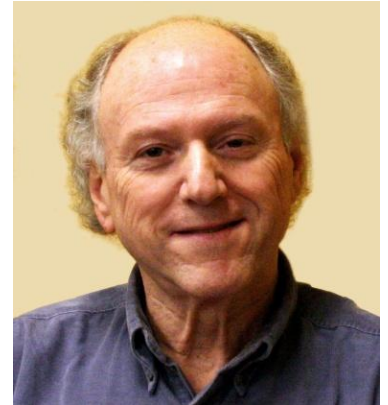
Presenters Asked to Discuss

- ▶ Describe role and significance of PNW Regional Technical Forum (RTF)
- ▶ Background for M&V protocol: What spurred the RTF to develop the RTU M&V protocol and what issues does the protocol aim to resolve?
- ▶ High level principles and methodology embedded in the protocol.
- ▶ Provide a quick overview of associated savings calculator
- ▶ Next steps for protocol and calculator within the RTF
- ▶ National significance, tee-up potential role for CEE, if any

Introductions to our presenters

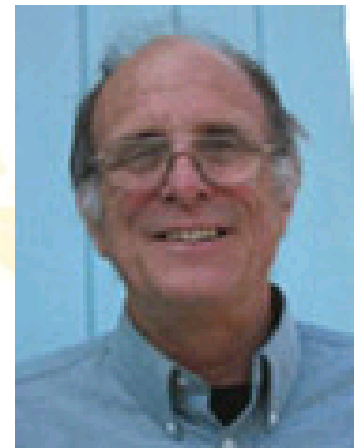
▼ Mark Cherniack, Senior Program Manager, New Buildings Institute (NBI)

- 30+ years EE and RE experience
- Manages NBI's portfolio of commercial rooftop HVAC efficiency projects
- Works with CEC and CA utilities



▼ Howard “Howdy” Reichmuth, Senior Engineer, NBI

- Unitary HVAC, calibrating WB energy models
- Extensive experience in HVAC monitoring and commissioning
- Experience in integrated resource planning and program evaluation



Q&A

- ▼ Questions about what was presented?



Discussion Questions

- ▶ In view of what we have discussed so far, what are the unique EM&V needs for rooftop unit Quality Maintenance/tune-up programs?
- ▶ What specific outcome would be most useful in 2012 to support members in overcoming EM&V challenges to commercial RTU Maintenance/tune-up programs?
- ▶ What is first step for the CEE Commercial AC and HP Committee to achieve this outcome in 2012?

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