Developing a Methodology for Commercial Building Energy Code Evaluation

Ken Baker, Senior Manager Codes and Standards

NORTHWEST ENERGY EFFICIENCY ALLIANCE

THE PROBLEM WITH COMMERCIAL EVALUATION

Type of Occupancy

Size of Building

Complexity of HVAC

Compliance Options

Prescriptive

Trade-off

Performance

More Variables…

Climate Zone

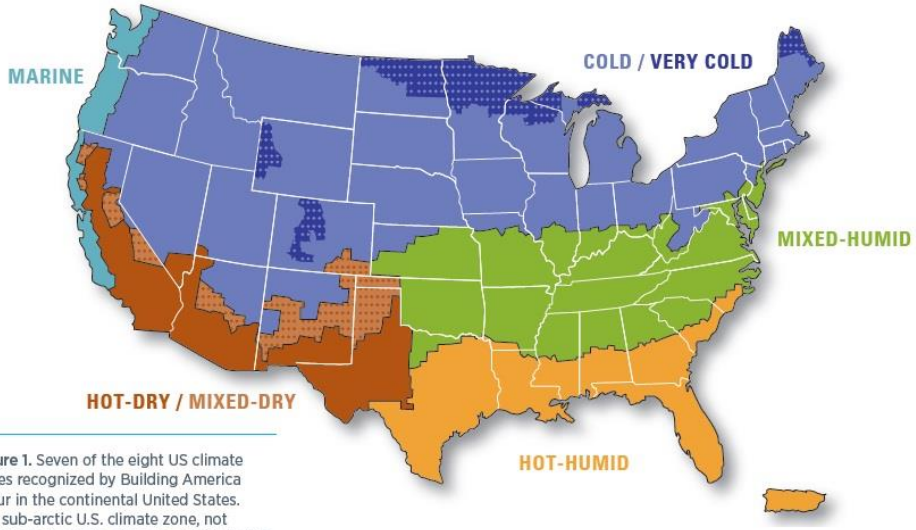


Figure 1. Seven of the eight US climate zones recognized by Building America occur in the continental United States. The sub-arctic U.S. climate zone, not shown on the map, appears only in Alaska.

Source: DOE

Design Considerations

Even more Variables…

Others…

- Submittal requirements differ
- Plan review
- Inspection

NORTHWEST STUDY

Northwest Study Goals

1. Identify major gaps in implementation and enforcement
2. Inform program development and enforcement efforts
3. Provide feedback on the efficacy of industry efforts and
4. Provide a better approach to estimating compliance and demonstrating value.

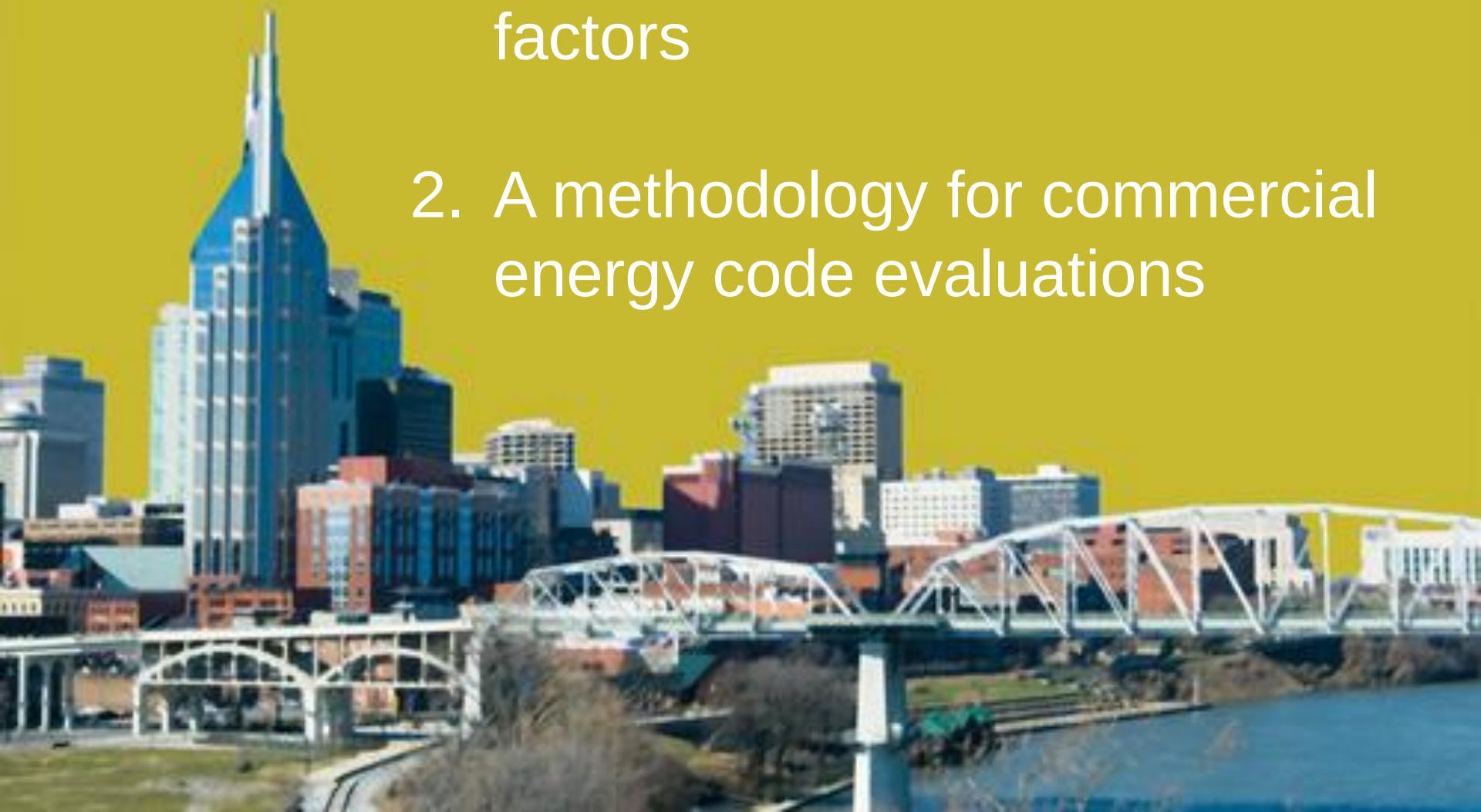
Compliance vs. Evaluation

Compliance		Evaluation
A component or subset of evaluation. Difficult to define.	→	Energy use and savings or impact.
A mix of measures that must be met for each building.	→	Includes enforcement, education, compliance, etc.
Not an indicator of energy savings.	→	Lets us know if market is transformed.

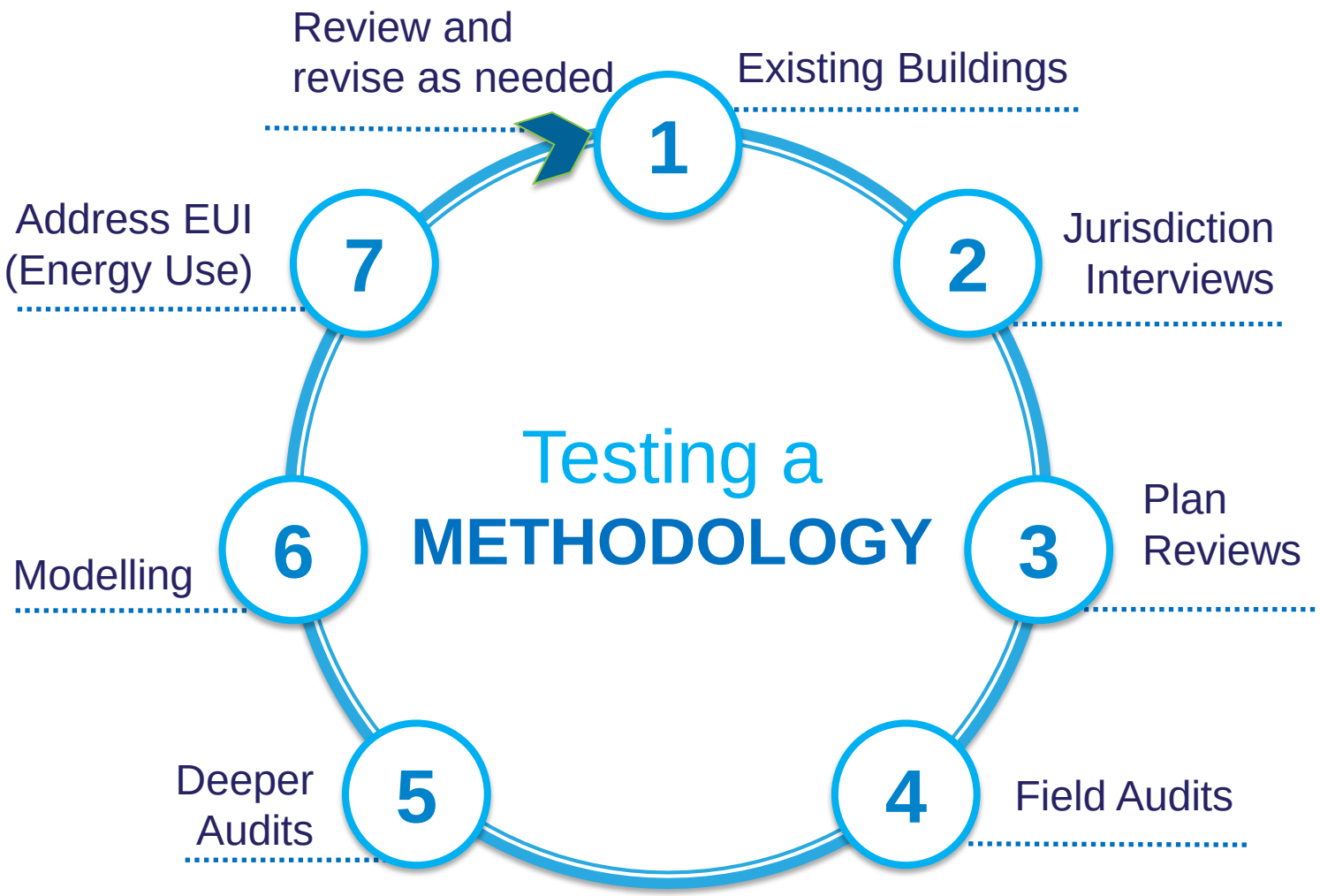
Expected Outcomes

1. A characterization of building factors

2. A methodology for commercial energy code evaluations



Our Protocols



Questions?

Filling the Energy Efficiency Pipeline

Accelerating Market Adoption

Delivering Regional Advantage

Thank You!

Ken Baker
kbaker@neea.org
503-688-5437