## Snapshot of CT DEEP Proposal to DOE: Standardized, Sustainable and Transparent EM&V – Integrating New Approaches

## WHO:

- Team: CT DEEP (Applicant), NEEP (Sub-Awardee), LBNL, Eversource-CT and United Illuminating
- Supporting States: DE, DC, NH, NY, RI, VT

## WHAT: Objectives of the DOE Grant Overall

- Test the use of advanced data analytics and collection tools (M&V 2.0) and compare to traditional EM&V practice in terms of savings certainty, timeframe and other aspects.
- Assess how advanced capabilities of M&V 2.0 tools are best integrated or coordinated with supplemental evaluation and analysis.
- Track use of advanced data analytics and collection tools and transfer knowledge to build state capacities in the region.
- Develop and support transparency and adoption of acceptance criteria and standardized software testing protocols and reporting.
- Inform and coordinate EM&V 2.0 learning and pilot results with other regional EE organizations and national efforts.

HOW: Technical Scope of Task 1A the Commercial M&V 2.0 Pilot described below (see schedule for brief description of other sub-tasks)

- Work with utility partners to apply M&V 2.0 methods in existing program pilots using either proprietary or opensource tools (based on utility interest) in combination with non-routine adjustment algorithms
- Strategically select up to 35 buildings total within Eversource and UI service territories
- Conduct the M&V2.0 simultaneously with traditional M&V approaches
- Quantify savings uncertainty at the building and the aggregated pilot level.
- Compare costs of M&V2.0 vs traditional M&V
- Document results and incorporate into a resource guide for transferability and future replication
- Leverage findings to inform the Residential EE Pilot (Task 1B)

WHEN: 3 year project beginning in 2017; See opposite side of page for schedule by task and quarter

## WHY:

"The overall goal of this project is to explore and develop expertise and experience with advanced data collection and analytic tools and develop standardized automated M&V software tool protocols in order to support state efforts in the region to adopt and implement streamlined EM&V practices that provide for reliable, standardized, transparent and cost-effective approaches to quantify energy efficiency savings to support their state and regional policies and markets."

TASKS		M 1-3	M 4-6	M 7-9	M 10- 12	M 13- 15	M 16- 18	M 19- 21	M 22- 24	M 25- 27	M 28- 30	M 31- 33	M 34-
Subtask 1A - Commercial M&V 2.0 Pilot													
1A.1	Develop pilot scope and program designs	Х	х										
1A.2	Recruit the predictable buildings	Х	Х										
1A.3	Conduct 'continuous M&V'		Х	Х	Х	Х							
1A.4	Conduct 'traditional M&V' (at same sites)		Х	Х	Х	Х							
1A.5	Investigate methods to estimate uncertainty in savings				Х	Х							
1A.6	Document the program/pilot design						Х						
1A.7	Prepare a final auto-M&V tools							Х	Χ				
Suhtask 11	implementation resource guide ^ ^ ^   ^												
Jubiusk 11	Research technical methods used in												
1B.1	automated residential tools							Х	Х				
1B.2	Assess residential tools with respect to current practice in residential EM&V								х	х			
1B.3	Conduct pilot using whole house retrofit program data								Х	Х	х	х	
1B.4	Document residential pilot design and findings												х
1B.5	Recommend software testing protocols											х	Х
TASK 2	Track the use and experience of a	dvand	ced dat	a anal	ytics a	nd coll	lection	tools	(M&V	2.0) a	and in	tegrat	ion
	with evaluation, and transfer kno	wledg	ge to ot	her st	ates								
2.1	Conduct research, monitor and report on new tools, trends and practices in advanced data collection	х		х		х		х		Х		х	
	Disseminate information and results												
2.2	from CT M&V pilot to other states in							Х		Х		Х	Х
	region												
2.3	Facilitate learning of EM&V 2.0 developments and experience for Regional EE Organizations and National Audiences		х		х		х		Х		Х		х
2.4	Develop a summary regulatory handbook on "Standardized, Sustainable and Transparent EM&V - Integrating New Approaches"										х	х	х
TASK 3	Develop and support transparence	y and	adopti	ion of	accept	tance c	riteria	and s	tandaı	rdized	autor	nated	
IASK 3	M&V software testing protocols a	nd re	porting	3									
3.1	Inform the development of standardized data analytic software									Х	Х	Х	Х
3.2	testing protocols  Build understanding and acceptance of software testing protocols with states in region									Х	х	х	Х
3.3	in region  Support building transparency of EM&V methods and associated protocols using standardized EM&V methods forms	х	х	х	х	х	х	х	х	х	х	х	х