

**Developing Common Protocols to Estimate, Track and
Report Demand Resources Savings, Costs and Emission
Reduction Impacts in the Northeast**

**Regional Evaluation, Measurement and
Verification (EMV) Center Project**

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On behalf of Northeast Energy Efficiency Partnerships, Inc.

NARUC Winter

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Who is NEEP?

Northeast Energy Efficiency Partnerships

“Facilitating partnerships to advance energy efficiency.”

- Regional non-profit organization founded in 1996 with mission to promote the efficient use of energy use in buildings by:
 - Advancing energy efficiency policy in states/region
 - Facilitating coordinated program marketing and implementation across program administrators in region
 - Advancing appliance standards
 - Updating building energy codes and promoting beyond code policies
- Funding: Regional sponsors, private foundations, US EPA, US DOE
- Region: New England, New York, Mid-Atlantic states
- Role: Strategist, convener, facilitator, coordinator, educator
- Structure: Not-for-profit governed by Board of Directors and served by a professional staff (15 FTE)

EMV Center Project Background

- NEEP Protocols Report (Jan . 2006) – lack of transparency and differences across state protocols in the Northeast
- ISO-Forward Capacity Market (FCM) – June 2006
 - 6/06: New England Conf. of Public Utility Commissioners (NECPUC) – passed resolution committing states to work together to develop common protocols for EE
 - 7/06-3/07: State Program Working Group (SPWG) represented by EE PAs and New England energy regulators facilitated by NEEP → provide input to ISO-NE M&V Manual
 - Some coordination between SPWG and merchant ESCOs
- Other Policy Needs: common M&V protocols for carbon (RGGI) and NOx attainment planning purposes

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SPWG Coordinated Research and Evaluation – Current Activities

- Electric energy efficiency evaluation, measurement and verification
- Priority: Develop common assumptions to support FCM M&V Plans (e.g., measure lives and persistence, end use load shapes to inform coincidence factors, etc.)
- Expand beyond ISO New England FCM needs?
- Expand beyond New England?
- Expand beyond state-funded EE programs (coordinate with merchant EE providers)?
- Issues of data confidentiality

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Northeast EM&V Center Project – Overview

- Project kick-off: Advisory Committee convened 10/07
- Phase I: Feasibility/scoping study by 2/08
- Phase II: EMV Center Development Plan by 4/08
- Phase III: Funding and Implementation – start in Fall 2008?

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Northeast EM&V Center – Stakeholder Input

- In-depth, confidential interviews with key stakeholders to test concepts/scope of EMV center (Nexus Market Research)
- Interview guide developed based on input from project Advisory Committee
- Questions focused on scope (geographic, technology, fuel), core functions, housing and funding of potential EMV center
- Draft report completed Jan. 10, final report due mid Feb. 2008

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NEEP Recommendations for Northeast EMV Center

- Based on:
 - NMR interview results
 - Advisory Committee written responses to interview guide
 - NEEP Board member input
- Presented to Project Advisory Committee Jan. 18
- Serving as basis for EMV Center Development Plan (Feb-April 2008)
- Addressing specific information “gaps”

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Northeast EM&V Center: Overarching Goal

To support the development and use of common and/or consistent protocols to estimate, track and report the savings, cost and emission reduction impacts of demand side resources implemented pursuant to state and regional energy and environmental policies.

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Northeast EM&V Center: Policy/Market Drivers

- Participation and reliability of demand resources in the New England Forward Capacity Market
- Potential participation and reliability of demand resources in other capacity markets (PJM and NY)
- Assessments of demand resource impacts on carbon markets (RGGI), and achieving state and regional climate change action plan goals
- Assessments of demand resource impacts on achieving state/regional ozone attainment levels
- Consistency across states in resource planning activities through procurement and other public policies
- Support for regional energy efficiency credit (EECs) program?

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Northeast EM&V Center: Approach and Timeframe

Approach:

Establish a regional stakeholder forum convened and facilitated by NEEP to implement an initial three-year plan to address priority issues and needs for defined audiences.

Timeframe:

Specific recommendations for Years 1-3, with recommendations for "Later" based on success of first years, the demand for services, and available resources



Northeast EM&V Center: Customers

■ Practitioners

- Program administrators (utilities, state agencies/authorities, municipal utilities, aggregators)
- Merchant energy providers

■ State regulators

- Energy/utility regulators
- Air regulators

■ Independent System Operators/Regional Transmission Owners

■ Federal agencies (EPA and DOE)

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Northeast EM&V Center: Scope

	Geographic	Technology	Fuel
Yrs 1-3	<ul style="list-style-type: none">• Wholesale capacity markets: New England, and NY and PJM states (as markets broaden to other demand resources)• RGGI states	<ul style="list-style-type: none">• EE products and services• Demand Response	<ul style="list-style-type: none">• Electricity (Yrs 1-2)• Natural Gas (Yrs 2-3)
Later	<ul style="list-style-type: none">• Other states	<ul style="list-style-type: none">• Combined Heat Power• Building Integrated Renewables	<ul style="list-style-type: none">• Fuel Oil - maybe



Function #1 (Yrs 1-3): Facilitate Development of Common Protocols or Guidelines for:

- EM&V definitions/terms
- EM&V methods
- Energy and demand savings (stipulated values, input assumptions, algorithms)
- Savings precision/accuracy
- Application of free ridership and spillover
- Reporting formats for state level savings, cost and emission reduction data



Function #2 (Yrs 1-3): Facilitate Coordinated Research and Evaluation Activities

- Develop regional, multi-year plan for priority joint research and evaluation needs (e.g., load shape analyses, baseline studies, persistence studies, etc.)
- Develop and issue RFPs for research sponsors
- Conduct joint research and evaluation through third party contractors



Function #3 (Yrs 1-3): Provide Access to Common Protocols/Guidelines, and Supporting Info.

- Develop and maintain a central on-line database of savings assumptions/stipulated values (based on development of common protocols) and provide technical support
- Post coordinated research and evaluation studies and other publicly available data used as basis for common protocols to website (and/or link to existing on-line databases)
- Monitor and post information regarding state/regional policies and proceedings on EM&V requirements



Functions #4 and #5 (Later):

#4 - Data Collection and Reporting:

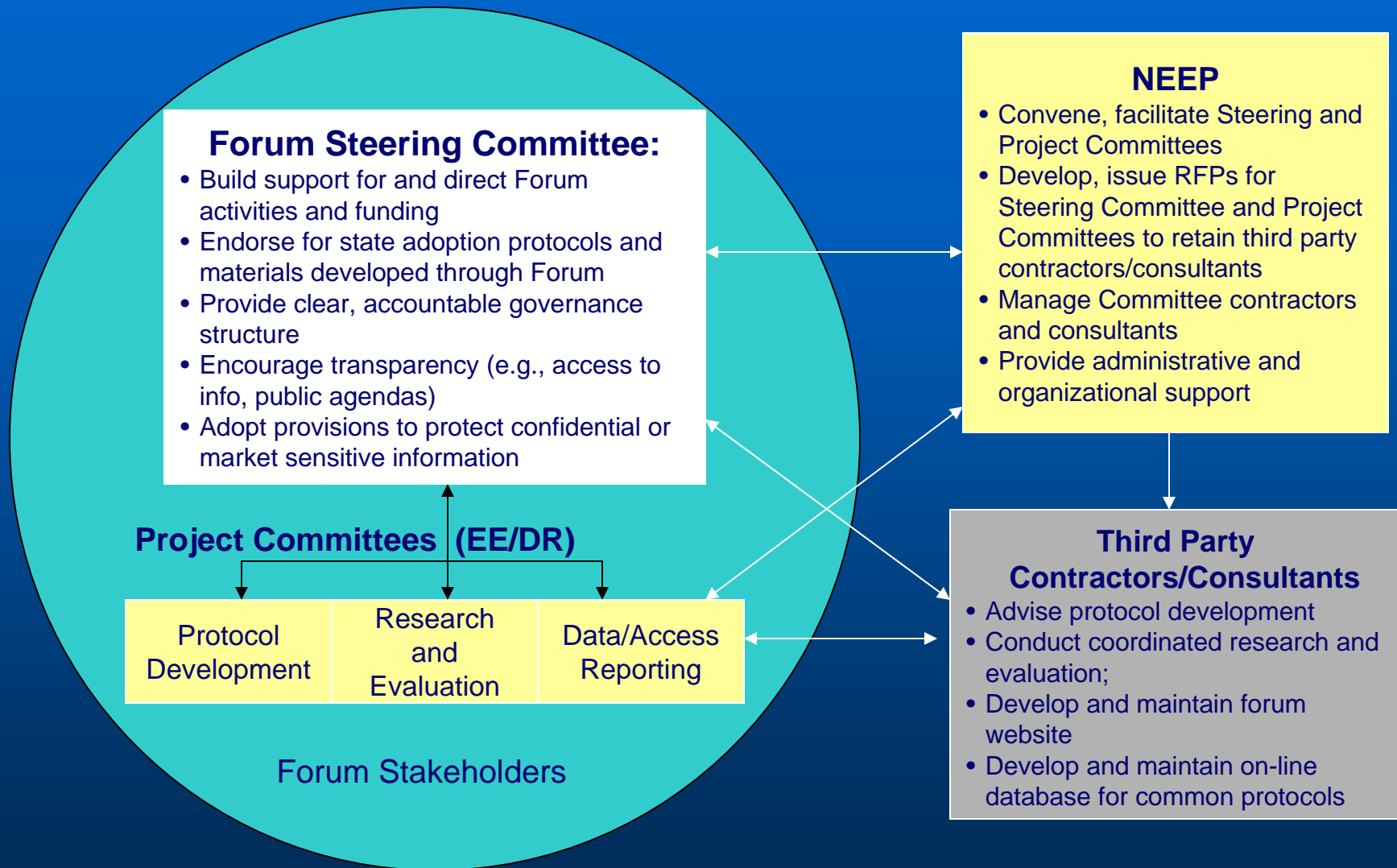
- Develop web-based templates for reporting savings data
- Collect and aggregate state data to regional level
- Develop reports on impact of energy and demand savings relative to regional energy and environmental goals

#5 - Training and Custom Services:

- Provide targeted training using web-based curricula (e.g., training on EM&V methods, other protocols supported by center/forum)
- Provide custom services as needed on fee-for-service basis (e.g., preparing custom reports, conducting specific research beyond general EMV center needs)



Northeast EM&V Center: Structure and Governance



Northeast EM&V Center: Funding

- Start-up/Establishment Costs:
 - Founding membership/subscription
 - Grant or project underwriting
- On-going Operating Costs:
 - Annual subscription
 - Membership service
 - Grants
 - Fee for service

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Advisory Committee Feedback 1/18/08

Supports NEEP recommendations, in particular:

- EMV Center to serve energy and environmental policy
- Initial attention to EE and DR, electric and natural gas
- Focused agenda responsive to pressing near-term needs with eye to longer term issues and needs
- Proposed organizational/governance structure

Identify and focus on Year 1 priority tasks

Implement EMV center/forum ASAP

Additional input needed during Development Phase:

- NY ISO, PJM RTO
- Demand response providers
- Natural gas efficiency program administrators
- Expertise outside of Northeast (e.g., NW Regional Technical Forum, CA DEER, other)

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Coordinate with State, Regional and National M&V Activities

- Existing and emerging state M&V protocols
- Regional – NE-ISO FCM protocols, NY ISO needs, PJM RPM developments
- National
 - NAESB project (demand response and EE)
 - US EPA NAPEE project (Model Impact Evaluation Guide)



Northeast EM&V Center/Forum: Project Schedule

- Final NMR Feasibility Report and NEEP Recommendations – mid February
- NEEP Development Plan:
 - Draft Development Plan – end of March
 - Final Plan – end of April
 - Start-up fundraising – Spring/Summer '08
 - Plan Implementation – Fall '08?

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Questions?

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