

US EPA ARCHIVE DOCUMENT

**Pre-Proposal for FY 2009 State Innovation Grant**  
**Project Summary Information**

- **Project Title:** Common Measures Project 2 (CMP2) / A Seven State Project for Analyzing & Improving ERP Measurement Results & Developing Beyond Compliance Programs
- **Project Lead State/Applicant:** Connecticut Department of Environmental Protection (CT DEP) with the Northeast Waste Management Officials' Association (NEWMOA or Association)<sup>1</sup>
- **Participating States:** Colorado Department of Public Health and Environment, CT DEP, Massachusetts Department of Environmental Protection, New Hampshire Department of Environmental Services, New York State Department of Environmental Conservation, Rhode Island Department of Environmental Management, Vermont Department of Environmental Conservation
- **Project Manager:** Robert Isner, Director of Waste, Engineering & Enforcement Division, (860) 424-3023, robert.isner@po.state.ct.us
- **Focus Area:** Build capacity within states to understand and improve business sector performance using Environmental Results Program (ERP) tools and root cause methodologies. Develop, implement and promote beyond compliance modules that can be used in any future environmental program application.
- **Funded or Executed with Other Federal Programs:** Not applicable
- **Total Funds Requested from EPA:** \$280,000
- **Project Period:** 3 Years
- **Project Abstract:** ERP tools have helped multiple states improve environmental performance of thousands of small businesses. This project will leverage the ERP work already done by multiple states and expand the ERP application by developing a model for root cause analysis techniques and training state participants on the use of those techniques. The project will also promote compliance assurance strategies that have been tested to be most effective in improving performance results in the Small Quantity Generator of Hazardous Waste sector. And finally, the project will develop beyond compliance outcome measures in energy conservation, water conservation, pollution prevention and/or recycling that can be used in any future environmental program application.
- **Special Federal Flexibility needed to implement the project:** States may need to use existing RCRA flexibility as described in the "Guidance for RCRA Core LQG Pilot Projects."
- A letter of support from each participating state program director is attached.

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<sup>1</sup> NEWMOA is a non-profit, non-partisan interstate governmental association. Their membership is composed of state environmental agency directors of the pollution prevention, hazardous and solid waste, and waste site cleanup programs in CT, ME, MA, NH, NJ, NY, RI, and VT. NEWMOA's mission is to develop and sustain an effective partnership of states to explore, develop, promote, and implement environmentally sound solutions for the reduction and management of materials and waste, and for the remediation of contaminated sites, in order to achieve a clean and healthy environment. For more information visit: [www.newmoa.org](http://www.newmoa.org).

## Project Narrative

### Background

Environmental agencies must increasingly look for innovative solutions to identifying and reducing cumulative pollution impacts of thousands of small businesses in order to achieve environmental protection goals for clean air, clean water and safe waste, while, at the same time, promoting better “beyond compliance” performance in state climate mitigation and sustainability plans. The states and EPA view the use of the Environmental Results Program (ERP) tools as a way to help agencies face this challenge by significantly improving the effectiveness and efficiency of environmental programs. The term ERP was coined by Massachusetts DEP to describe the comprehensive environmental compliance approach that it developed with EPA assistance over several years. ERP uses: performance measurement tools employing valid statistical methods, specialized software, strategic outreach and collaboration with the regulated community, training strategies, and self certification programs. Program features are tailored to a particular group, such as Small Quantity Hazardous Waste Generators (SQG’s). ERP tools have now been developed and used successfully by a growing number of states, many of which have also received EPA grant assistance.

The Common Measures Project 1 (CMP 1) was a 3 year effort by 9 participating state environmental agencies (CT, ME, MA, NH, NY, RI, VT, WA and CO) that was funded under EPA’s State Innovations Grant Program in 2005. The project was designed to advance state ERP capabilities through multi-state training and coordinated use of the measurement and other tools. The participating states developed and used a common set of environmental performance indicators and statistical methods to collect information about the Small Quantity Generator of Hazardous Waste (SQG) sector, for the purposes of drawing group performance conclusions and to compare the differences in group performance levels between (and among) the participating states. A key goal of the CMP 1 was to build capacity within states to use ERP tools and to enable participating states to compare the effectiveness and efficiency of differing state strategies for improving the compliance and environmental performance of the SQG sector.

The Common Measures Project 2 (CMP 2) will leverage the common measures already developed and the multi-state performance results produced under the CMP 1, and expand the ERP application by developing methodologies for identifying the root causes of performance differences and/or changes. CMP 2 will train state staff in the application of these analytical methods and build capacity within states to perform these kinds of measures into the future. Participating states will use these methods to analyze SQG performance differences between (and among) the states to assist in identifying program changes that could improve performance. States that implement improvement strategies as a result of these analyses will perform another round of measurement to test the effectiveness of the strategies.

The second component of the CMP 2 project will involve developing and using quantifiable “beyond compliance” outcome measures for up to four performance categories: energy conservation, water conservation, pollution prevention, and recycling. At a minimum, states will select at least one performance category, develop measures for that category and apply those measures on a common group or business sector to establish a baseline of performance. These measures could be used by states to measure beyond compliance environmental performance in future field inspections, certifications and other data collection work including routine regulatory reporting by facilities in any sector.

States that participated in the CMP 1 have expressed particular interest in collaborating to develop quantifiable energy conservation measures because of growing concern about the need to address climate change. The CMP 2 will draw from the many existing energy programs that have been developed or are under development by the State and Federal Energy Offices or Programs and other not-for-profit or private energy efficiency utilities to develop its measures.

CMP 2 will promote state-to-state collaboration by 1) developing a model for root cause analysis methods/techniques and training state participants on the use of those techniques 2) sharing compliance assurance strategies that have been tested to be most effective in improving performance results in the SQG sector, 3) developing beyond compliance outcome measures in energy conservation, water conservation, pollution prevention and/or recycling that can be used in any future environmental program application.

### **Project Goals and Objectives**

Connecticut Department of Environmental Protection (CT DEP), the lead state and applicant, and the other participating states are seeking EPA assistance to build ERP capacity in their states by developing methods for analyzing common measures results to determine reasons for differences, and to aid in developing strategies to improve performance where necessary. This work and related training would build on the successful multi-state measurement work accomplished in the SQG sector under the CMP1. Participating states will develop and implement “beyond compliance” measures in at least one, and up to four, of the following performance categories: energy conservation, water conservation, pollution prevention, and/or recycling that can be used in any future environmental program application. Results from this multi-state effort could then be used to implement state climate action/sustainability plans/strategies.

Key accomplishments of CMP1 include:

- Developed a set of common environmental performance indicators for the SQG sector and auto body sector
- Collected and reported data on those indicators
- Created an environmental performance index to compare SQG results across participating states
- Reported on compliance assurance and performance enhancement strategies to provide background for comparing the index scores

- Built capacity within states to use ERP tools

The goals of Common Measures Project 2 are:

- Build additional capacity within states to improve business sector performance using ERP measurement tools and root cause analysis methodologies to determine the reasons for differences in performance and to develop appropriate corrective measures to prevent hazardous waste pollution
- Enable states to use ERP tools and methods to develop, implement and test “beyond compliance” measures in energy conservation, water conservation, pollution prevention, and/or recycling that can be used in any future environmental program application

The Objectives of Common Measures Project 2 are:

- Select root cause methodology/techniques for analyzing SQG performance differences
- Perform root cause analysis on SQG performance differences and/or changes among participating CMP 1 states
- Compare and adopt the most effective and efficient compliance assurance strategies being used by the participating states
- Select states will conduct another round of performance measurement of the SQG sector using ERP’s statistically-based random compliance measurement approach<sup>2</sup> to test effectiveness of these strategies
- Report next round of SQG performance results
- Create beyond compliance module involving the development of quantifiable outcome measures in up to four performance categories: energy conservation, water conversation, pollution prevention and recycling
- Select at least one beyond compliance category and apply measures on a common group or business sector to establish a baseline of performance
- Report multi-state performance results on beyond compliance outcome measures

The anticipated results of the Common Measures Project 2 include:

- Building capacity within states to quantify environmental performance improvements

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<sup>2</sup> As part of this Project, states may need to use existing RCRA flexibility as described in the “Guidance for RCRA Core LQG Pilot Projects” to complete SQG inspections. Participating states may also request direct EPA assistance to perform some of the field measurement work.

- Allowing measurement of group environmental performance changes over time
- Enabling states to identify and understand specific problem areas, and direct program resources where they will achieve the greatest environmental results
- Developing beyond compliance module(s) that includes quantifiable outcome measures in energy and water conservation, pollution prevention and/or recycling
- Using the module within and across states on existing and future environmental programs

The CMP 2 will enable participating states to better focus their limited resources on specific problem areas identified, and on an on-going basis, to deploy those strategies that have been demonstrated to achieve the greatest improvements in environmental results from among the strategies employed by all the participating states.

CMP 2 will involve state-to-state collaboration on the creation of a beyond compliance module with quantifiable outcome measures that are tested using ERP performance measurement techniques. Results from this multi-state effort could then be used to implement state climate action/sustainability plans/strategies.

Results from this project will add significant value not just with future ERP programs but with any environmental protection program. The results will be shared with the States ERP Consortium as well as EPA for national ERP results reporting and other interested ERP stakeholders.

The CMP 2 will also coordinate and collaborate with the proposed Region V States ERP for Auto Body Refinishing Shops SIG and the Lean/P2 Partnership and Risk-Based ERP Initiatives SIG by providing advice and technical assistance to that project when requested. The CMP2 will also seek to exchange information on these efforts as well as look for opportunities to share resources to build interstate use of ERP tools and methods. These initiatives strengthen the mission of the ERP effort and allow states to learn from each other in order to adopt efficient and cost effective strategies for protecting the environment.

### **Connection to EPA's Strategic Goals**

The proposed project's beyond compliance module addresses the EPA's Strategic Goal 1 Clean Air and Global Climate Change and Goal 2 Clean and Safe Water by developing quantifiable outcome measures in areas of energy conservation, water conservation, pollution prevention and recycling.

EPA's Strategic Goal 5 Compliance and Environmental Stewardship, Objectives 5.1 and 5.2 commit the Agency to increase compliance and improve environmental performance through pollution prevention and innovation. This proposed project addresses these objectives by supporting the development of a multi-state approach to implementing and analyzing strategies that effectively combine multi-media compliance improvement and pollution prevention on a business sector basis. The ERP approach addresses the Agency's interest in innovations in permitting by enabling state agencies to implement a streamlined program that emphasizes sector-wide performance without the need for site



specific individual permits for a large number of relatively small entities. It promotes improved compliance by providing the necessary tools for sectors to meet multi-media requirements and is based on a rigorous statistically valid method for measuring compliance and beyond compliance practices.

### **Summary Work Plan**

Connecticut Department of Environmental Protection, as the lead state for this project, will provide (with the direct support of NEWMOA staff and contactors as appropriate) overall project management, including planning, organizing, staffing, directing, and controlling the project. The project will be implemented by the NEWMOA states and Colorado, as noted below. The project team will seek the input of the NEWMOA Board of Directors at critical junctures during the development of the project and will consult with the NEWMOA Board of Directors, who are also directors of the participating state agency programs except for Colorado, on policy issues that may arise during the project.

### **The following section describes the proposed project's key steps:**

#### 1. Complete detailed root cause analysis of differences between and among states on SQG performance

- Explore various root cause methodologies applicable to this project
- Report the pros and cons of each method
- Select a methodology and provide training to participating states
- Perform root cause analysis on overall SQG performance among states in CMP1

#### 2. Reviewing individual state performance and adopting compliance assurance strategies for SQGs

- Each state will decide if it is necessary to implement any changes related to compliance assurance based on SQG performance levels and existing strategies that have been effective
- Enable states to focus their limited resources on the specific problem areas identified to deploy those strategies that have been demonstrated to achieve the greatest improvements in environmental results from among the strategies employed by all the participating states.
- States that determine that performance must be improved will implement program changes and perform another round of measures to test effectiveness of those changes.

#### 3. Use existing data management system

- Under Common Measures Project 1, participating states developed data collection tools that could be shared by states. These tools stored information, analyzed data and report results. Building on this work, participating states will continue to use existing software and other tools created for managing ERP data under CMP2.

#### 4. Use of statistical methodologies

- Under Common Measures Project 1, participating states developed a software application that was designed to assist states in their implementation of the statistical methods for evaluating performance measurement data. CMP 1 also trained state staff in the application of statistical techniques including developing a sample size, choosing a confidence level and interpreting data. Building on this work, states would continue to use the statistical methodologies that are already in place for analyzing ERP data under CMP2.

#### 5. Collect, evaluate and report on second round of measurement data

- Under Common Measures Project 1, participating states were trained on data elements that would be used, and the formats that each state could use to collect and manage their data. The participating states developed a common strategy for collecting and aggregating data. NEWMOA staff worked closely with a Workgroup consisting of project staff from each participating state and the NEWMOA Board of Directors to devise an effective method for collecting, aggregating, and analyzing SQG data. Building on this successful work, states will use the same data collection methods and approaches to collecting a second round of measurement data on SQGs.
- The results of this data analysis will be submitted to the States ERP Consortium and EPA for national ERP results reporting.

#### 6. Beyond compliance module for energy conservation, water conservation, pollution prevention or recycling

- Evaluate four beyond compliance categories for measurement
- Select at least one category and develop quantifiable outcome measures for that category. For example, this project could develop quantifiable measures to estimate the overall energy savings resulting from implementing various energy efficiency techniques by measuring the level of adoption on those techniques within any given group
- Select common group(s) or business sectors to apply measures
- Conduct statistically valid number of random inspections to gather a baseline of performance
- Report multi-state beyond compliance outcome results involving energy conservation, water conservation, pollution prevention and/or recycling.

#### 7. Report results to the State ERP Consortium and EPA

The Connecticut Department of Environmental Protection and NEWMOA will prepare a project report for EPA, the ERP Consortium and others summarizing:



- the methodologies states are using to analyze root cause
- the data analysis of compliance assurance strategies implemented by states
- the data analysis of second round of SQG inspections to track performance improvements
- the beyond compliance modules with quantifiable outcomes in energy conservation, water conservation, pollution prevention or recycling

The report and other project information will be posted on NEWMOA's website for wider circulation.

### **Roles of State Lead and NEWMOA Staff**

#### Connecticut Department of Environmental Protection

Overall, Lead will assist the project by:

- Providing overall project management
- Developing and managing a contract with NEWMOA to support the Project
- Sharing ERP information, tools, and resources that the Agency has developed with other states
- Participate actively in the Workgroup

#### NEWMOA Staff's Role in the Project

Overall, NEWMOA will assist this project by:

- Organizing and facilitating state conference calls and meetings
- Serving as a clearinghouse for assistance materials and facilitating the collection of performance results from participating states
- developing and managing a contract(s) with a consultant(s) with expertise in statistical analysis, root cause analysis, ERP or related measurement approaches
- Developing or refining proposals for SQG sector, assisting the workgroup in setting group performance goals, and compiling project results
- Providing general root cause training for all participating states
- Providing direct support to individual participating states to assist with their activities
- Collecting and analyzing aggregated performance data from multiple states
- Assisting with preparing project reports

The project team, to the greatest extent possible, will use existing participating state expertise and existing ERP support materials to undertake this project. However, as described above there may be a need to utilize grant funds for direct consultant services to assist with activities, such as statistical analysis, root cause, ERP or related measurement approaches

### **Project Reporting & Measurement:**

- Periodic project status reports will be submitted to EPA

- Group performance results as described in the project narrative above will be reported to EPA

**Project Milestones: (assuming project starts October 1, 2009 and end September 30, 2012)**

- Complete root-cause analysis of SQG performance differences [*October 2009 - October 2010*]
- Review of individual state performance, develop and implement effective compliance assurance strategies for SQGs [*October 2009 – January 2011*]
- Collect, evaluate and report another round of measurement data to NEWMOA Board of Directors, States ERP Consortium and EPA [*February 2011 – May 2012*]
- Select and develop at least one beyond compliance module involving quantifiable outcome measures in either energy conservation, water conservation, pollution prevention or recycling [*October 2009 – October 2010*]
- Decide on common group or business sector to apply beyond compliance measures [*November 2010*]
- Conduct statistically valid number of random inspections to gather baseline performance of beyond compliance measures [*February 2011 – August 2011*]
- Analyze and report results to NEWMOA Board of Directors, States ERP Consortium, EPA and other stakeholders [*September 2011 – February 2012*]

## Project Cost Summary

**Pre-Proposal for FY 2009 State Innovation Grant Budget**  
Connecticut Department of Environmental Protection (CT DEP)  
Budget Period: October 1, 2009 – September 30, 2012

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|--|------------------|
| <b>CT DEP</b> (Administrative Oversight and Assistance)                  | <b>10,000</b>    |
| <b>Grant Partner/NEWMOA—see below</b>                                    | <b>270,000</b>   |
| <b>Total Project Costs</b>   | <b>\$280,000</b> |
| <b>In-kind Match</b> (State funded program staff working on the project) | <b>\$28,000</b>  |

|                            |                  |
|----------------------------|------------------|
| <b>TOTAL PROJECT COSTS</b> | <b>\$308,000</b> |
|----------------------------|------------------|

### NEWMOA's Portion of the Project Budget for Three Years

|   |                       |
|---|-----------------------|
| <b>Personnel</b>  | <b>109,800</b>        |
| <i>[EPA Redacted as Confidential Budgetary Information]</i> |                       |
| <b>Benefits</b>   | <b>29,646</b>         |
| <i>[EPA Redacted as Confidential Budgetary Information]</i> |                       |
| <b>Travel &amp; Meetings<sup>3</sup></b>                    | <b>36,000</b>         |
| Meeting Costs (conference room \$500)                       | 2,000                 |
| State and NEWMOA Staff Travel                               | 34,000                |
| <b>Supplies</b>   | <b>1,000</b>          |
| <b>Sub-Contractor</b>                                       | <b>24,000</b>         |
| <b>Other</b>  |                       |
| Conference Calls (18 conference calls at \$200/call)        | <b>3,600</b>          |
| Miscellaneous   | <b>74</b>             |
| <b>Total Direct</b>   | <b><u>204,120</u></b> |
| <b>Total Indirect</b>                                       | <b><u>65,880</u></b>  |
| <i>[EPA Redacted as Confidential Budgetary Information]</i> |                       |
| <b>TOTAL</b>  | <b>\$308,000</b>      |

<sup>3</sup> This funding would support the participation of the state staff in the regional project meetings at critical points in the project. This budget would cover the following travel costs: 2 meeting participants from 8 participating states to 4 meetings, including travel costs and lodging for one night (average cost for the travel of each state participant is estimated to be \$500) for a total of \$28,000. NEWMOA staff travel would include the following costs: 2 staff participating in 4 face-to-face events (average cost per staff person estimated to be \$500) for a total of \$4,000. NEWMOA staff travel would also include 2 visits to approximately 5 individual states to train and assist them on their projects (average cost per staff person estimated to be \$200 – this assumes that some of these trips would not require over night stay and some of them would) for a total of \$2,000.