NJ BPU Clean Energy Program: Evaluation Work Group (EWG)
Feb 28, 2014

Objective: To identify data required (already collected or needs to be collected through IMS or outside of IMS) in order to perform the various types of energy evaluation studies.

Approach: The table below (Table 1) lists primary data[1] required against each type of evaluation study. This is then matched with the IMS Data Table (Table 2). Together these two documents provide an overall idea of how going forward the IMS can be used while conducting evaluation studies.

Table 1: Desired Data to be Collected and Inputted into IMS as Part of Its Functions (Invoicing, Reporting, Program Administration) for All New Jersey Energy Efficiency Programs (whether NJCEP, Utilities, or Others)

	Type of Energy Evaluation Study	Data within IMS Scope (already collected OR needs to be collected)	Data outside IMS Scope

A	**Baseline** – a type of market assessment studies that provide a snapshot in time of the state of a market. These studies define what the state of the market is at the beginning of a particular program as a means of comparison for future results.
	
	Most recent baseline study was performed by EnerNoc in 2013.
		1. Existing energy efficiency measure data
		  i. List of all major appliances, number, their age or year of installation, energy efficiency rating, manufacturer, manufacturer product identification codes (model number, model name), location (EDC area), building type
		2. Replacement measures
		  i. List of replacement appliances, number, their age or year of installation, energy efficiency rating, manufacturer, manufacturer product identification codes (model number, model name), location (EDC area), building type
			1. Load reduction as a result of ongoing Demand Response programs
			2. Population/ Demographics

B	**Technical and Market Potential** – Technical potential is an estimate of the total level of EE/RE resources available unrestrained by economics. Economic potential screens for available EE/RE resources that are economically viable	1. See baseline study 2. Existing measure cost, electricity and natural gas usage by month, and measure life 3. Replacement measures cost, electricity and natural gas usage by month, and	1. Ownership type – rented/ self-usage (residential) 2. New construction

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[1] Does not include secondary data that may also be needed that goes beyond IMS's functions

	Type of Energy Evaluation Study	Data within IMS Scope (already collected OR needs to be collected)	Data outside IMS Scope
	compared to other available alternatives. Market potential estimates the realistic level of economic resources that can be developed taking into consideration other market factors. Most recent technical and market potential study was performed by EnerNoc in 2013.	measure life	3. Information about future measures, building codes etc.
C	**Market Assessment** - address specified market attributes such as customer awareness, market barriers (and strategies to remove/reduce them), product and service availability, prices, new products, and market share of energy efficient products and services. They can also provide insight into key aspects of program impacts, including estimated free rider and spillover effects. Most recent studies performed in 2006 and 2008.	1. Marketing budgets of program managers and utilities 2. Reason for each measure replacement (equipment failure, economics, program incentives, etc.) 3. Incentives for each measure	
D	**Impact Evaluations** - support the measurement of energy savings, the amount and distribution of savings, and the appropriateness and comprehensiveness of measures. Most recent studies performed by KEMA in 2009.	1. Monthly electric and natural gas bills for 12 months, date of bills	
E	**Benchmarking –** compares savings and cost-effectiveness of programs run by different managers Benchmarking study planned for in 2014.	1. See impact evaluation	1. Savings and costs of similar programs in other states
F	**Process Evaluations** - address implementation effectiveness, operational efficiency, and customer satisfaction, attitudes, and awareness related to specified programs.	1. Time to complete each major milestone from initial program contact to final payment of incentives 2. Note: many important processes are not part of IMS	

	Type of Energy Evaluation Study	Data within IMS Scope (already collected OR needs to be collected)	Data outside IMS Scope
	Most recent process evaluation conducted in 2004		
G	**Cost-benefit analysis** (prospective and retrospective) - should assess the costs and benefits of individual measures, programs and the overall portfolio of programs. Cost-benefit analyses have been conducted in 2004, 2005, and annually since 2008.	1. See baseline and technical market potential 2. Program administrative budgets	1. Other non-IMS data includes price forecasts, discount rate, emissions, costs of emissions, and electrical and natural gas losses
H	**Tracking System Assessments**		
I	Technical Resource Manual (**Protocols**)	Should IMS independently produce the calculations in the protocol? Note: Calculations from the Protocols provide values that end up in IMS but IMS itself does not affect the Protocols	
J	**Clean Energy Economic Impact** – assessing the size and economic impact of the NJ Clean Energy Economy	1. Name and complete contact information of vendors/contractors 2. NAICS code for vendors/contractors 3. Company revenue and employment in New Jersey 4. Number of employees in clean energy jobs (or percent of time spent on clean energy jobs) 5. Total wages (or percent) in clean energy jobs 6. Occupations of employees in clean energy jobs 7. Specific information for each project (hours, wages, benefits, types of employees, cost of materials, cost of wages)	1. Induced impact of clean energy economy