

INSTRUCTIONS FOR COMPLETING THE ELI M&E PROGRAM PROFILE DATA COLLECTION INSTRUMENT

This data collection instrument (DCI) is designed to facilitate the collection of information on ELI programs. These instructions provide guidelines for completion of the DCI. The person(s) completing the DCI should regard the instructions as a reference that should only be consulted when there is a question regarding the completion of a particular data request.

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DCI Reference Number

The DCI reference numbers will consist of the acronym for the country, followed by 1, 2, 3, etc. For example, AR-1 is the first DCI for Argentina. Other country codes: Peru = PE; South Africa = SA; Latvia = LV; Hungary = HG; Czech Republic = CZ; Philippines = PH.

M&E Expert

Enter your name: i.e., the name of the M&E expert entering the data.

DCI Information

Date Submitted

Enter the month, day, and year when the DCI was **completed**.

Data Collection Phase

If this is the first submission for the ELI program, check **first data submittal**. Otherwise, check **data update**.

Primary Program Implementing Agent

This is the organization performing the actual program implementation/delivery - e.g., utility company, local community organization, or an energy service company. There may be a combined effort in program implementation. **Check all applicable implementing agents.**

Energy Service Company (ESCO)

An Energy Service Company is a firm that specializes in providing conservation services. Typically, this firm enters into contractual agreements with utility companies to assist in planning, implementation/delivery, and monitoring and evaluating programs like ELI.

Other

Please provide a brief explanation.

Contact

Enter the name, address, telephone number, FAX number, and electronic mail (email) address for the person to be contacted for additional information.

Implementing Agent Name

Enter the full name of the primary program implementing agent (in English).

Program Name

Enter the full name of the ELI program (in both native language and in English).

Project ID Number

If you have given the program an internal code, please complete, so that it is easier to communicate and avoid misunderstanding.

Program Summary

Describe the program in a few sentences, using the section headings of the DCI. Provide program highlights that capture the essence of the program: e.g., its market delivery system, program impacts, uniqueness of program, expectations versus results, etc. Use another page if necessary.

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Program Start and End Dates

Enter the month and year for start and end dates of the **overall program**. For ongoing programs, check **ongoing**; for programs that have ended, check **terminated** and specify the program end date.

Program Status

“Program status” refers to the life-cycle stage of the program. Programs may be in one of three stages in their life cycle. These stages are defined below. **Check one only.**

Pilot

Pilot Programs are designed to test or build the capability to deliver full-scale programs.

Full-Scale

Full-Scale Programs are available to all consumers/facilities in an eligible market at the **national** level or for a particular **region**.

Phase Out

A Phase Out Program is in its last year of operation; the evaluation of the program may continue after a program has ended.

Evaluation Status

Check one only.

Completed

A program evaluation (impact and process) has ended and that at least one evaluation report is available.

In-progress

A program evaluation has started and is ongoing.

Planned

A program evaluation is being planned and is likely to be implemented. Specify the approximate date when the evaluation will start.

Energy Objectives

Check one or more of the three objectives that apply to the ELI program.

Energy Efficiency

Programs promoting more efficient use of energy.

Load Optimization

Load optimization programs include *load shifting* (promoting the movement of electricity use from one time period to another, usually from the on-peak to the off-peak period for a single day), *valley filling* (promoting increased off-peak electricity consumption, without necessarily reducing on-peak demands), *peak clipping* (promoting reduced electricity demand (kW) at times of peak daily demand (typically, at system peak)), and *load building* (promoting increased electricity consumption, generally without regard to the timing of this usage).

Program Goals

Most programs have goals that shape the program. Where appropriate, describe the goals in terms of number of participants, energy savings, demand savings, fuel savings, unit sales, or other category. Specify the units. Please include a description your assumptions regarding *what standard technology is being replaced by each energy efficient technology* (e.g., replacement of a xx Watt fluorescent bulb with a xx Watt CFL.)

Reasons for Selecting This ELI Activity

Sixteen potential reasons for implementing this ELI activity are listed on the DCI. **Check at least one and no more than 5** key reasons that apply to the ELI activity.

Regulatory Incentive

A regulatory body (e.g., a public utilities commission) has offered incentives to the primary program implementing agent (see pg. 1) for promoting ELI programs. The incentives may be financial or non-financial, and the primary program implementing agent has the option of taking advantage of these incentives.

Political Initiatives

Pressure by the general public, interest groups, political parties, and others made it necessary for the primary program implementing agent to implement this ELI activity.

Public Image

Implemented for enhancing the public image of the primary program implementing agent (i.e., for good public relations).

Result of Screening Process

A formal screening process (e.g., using computer cost-effectiveness tests) was used to select the ELI activity - e.g., a program may be selected because its benefit-cost ratio was greater than one.

Result of Other Competitive Analysis

A bidding process or some other form of competitive analysis was used to select the ELI activity - e.g., a program may be selected because the winner of an ELI bid included this program in its menu of program offerings.

Economic Development

Implemented for developing a stronger economy - e.g., creating more employment in the region.

Business Opportunity

Implemented for developing a new business for the primary program implementing agent.

Long-term Resource Option

Implemented for providing a resource for the future.

Market Penetration

Implemented for increasing the penetration of one or more energy efficiency measures and practices in the marketplace.

Quality of Service

Implemented for increasing the quality of service offered to the utility's customers.

Customer Retention

Implemented for retaining customers for the utility - e.g., offering low billing rates so customers will stay with the utility.

Cost of Service

Implemented for reducing the cost of service to the utility (e.g., less generating capacity needed to build).

Reduction of Global Warming

Implemented for improving the quality of the global environment as it relates to global warming (e.g., CO₂).

Reduction of Local Emissions

Implemented for improving the quality of the local environment (e.g., air quality and water quality).

Market Transformation

Implemented for influencing the attitudes and behavior of individuals and organizations, so that investments in energy efficiency persist even after the program is changed or eliminated.

Legislated

A regulatory/legislative body has required that the primary program implementing agent implement ELI programs.

Other

If another reason is important and is not listed, please specify.

Eligible Markets

The Eligible Market is any set of consumers/facilities or participating units that qualify for a program based on the program's eligibility requirements. **Check all that apply.** Eligible Market definitions can be classified into two main categories:

New Construction

New Construction refers to buildings and facilities (or additions) constructed during the current year; it may also include major renovations of existing facilities and building envelope components (although there is no strict definition, "major renovations" occur when large amounts of floor area or electrical systems are affected).

Replacement/Retrofit

Replacement/retrofit buildings are structures that are in use as of the beginning of the current year. Replacement is the installation of new equipment or building envelope components for worn out equipment at the end of its useful life. Retrofit is the substitution of new equipment for existing equipment prior to its normal retirement age accompanied by the removal and disposal of the old equipment.

Energy Source Affected

Indicate type of energy source that the ELI program affects: e.g., electricity is obvious, but if you feel the program indirectly affects gas, fuel oil, others fuels or district heating indirectly, please so indicate.

Program Types

Each program must fall into one of the following 5 ELI Program types:

- ELI#1 - Public Education, Marketing and Standards
- ELI#2 - Electric Distribution Utility Programs
- ELI#3 - Transaction Support and Financing
- ELI#4 - Market Aggregation
- ELI#5 - Financial Incentives

Check all applicable types, each of which corresponds to one (or sometimes two) ELI Types.

General Information (ELI#1)

Programs that inform consumers/facilities about ELI options through advertising media such as brochures, utility bill stuffers, television, radio and print media ads.

Site-Specific Information (ELI#1)

Programs that provide guidance on energy efficiency and load management options tailored to a particular home or facility. They often involve an on-site inspection of the home/facility to identify potential cost-effective ELI actions. An energy audit and design assistance are examples of site-specific information programs.

Installation of Conservation Measures (ELI#2 or #3)

Programs where the utility, contractor, or consumer/facility directly installs energy efficiency ELI measures for participants (with or without incentives).

Operations and Maintenance (ELI#1 or #3)

Programs that include regular maintenance of particular measure(s), along with training and education of O&M personnel, maintenance manuals, and periodic re-testing to measure actual performance.

Load Control(ELI#2 or #3)

Programs that promote shifts in electricity consumption from one time period to another (usually from on-peak periods to off-peak periods during a single day) or clipping peak usage.

Financing/financial incentives (ELI #5)

Programs that provide a monetary or financial incentive for the adoption of technologies and/or energy using behaviors.

Education and Training (ELI#1)

Programs that attempt to educate and train the general population or key target groups (e.g., builders and architects) through workshops, seminars, and special courses.

Research and Development (ELI#3)

Development of new technologies as well as the demonstration and technology transfer of these research projects.

Building Standards and Labels (ELI#1)

Standards that typically require minimum energy efficiency levels for new construction, as well as cases where major improvements are being made to existing stocks. Typical actors involved in building standards are local, regional or national government. In some cases, "labels" may be assigned to indicate the energy efficiency of the building or its qualifying under a specific efficiency standard.

Lighting Standards and Labels (ELI#1)

Standards that typically require minimum energy efficiency levels for new lighting. In some cases, labels may be provided by utilities which show the energy efficiency of the lighting equipment.

Market Transformation (ELI#1)

Programs that try to influence the attitudes and behavior of individuals and organizations, so that investments in energy efficiency persist even after the program is changed or eliminated

Alternative Rates (ELI#2)

Programs that offer special rate designs or structures for utility or supplier customers in return for participation in programs designed to change load shape, especially peak load.

Time-of-Use

Programs that feature rates differentiated by time-of-the-day and/or season of the year.

Interruptible/Curtailable

Programs that provide incentives in the form of utility/supplier bill credits or special (reduced) rate structures. In exchange for the incentive, the customer agrees to reduce electrical loads upon request from the utility/supplier. The request is usually made during critical periods when the system demand approaches the utility's generating

capacity. For interruptible programs, the power company is able to remotely switch off the equipment. For curtailable programs, the customer voluntarily reduces power consumption, as laid down in an agreement.

Other

Please provide a brief explanation.

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Consumers Targeted By Program

Refers to groups (or subgroups) of consumers with similar characteristics, such as income, building type, or economic activity which is the focus of the program. Major sectors include Residential, Commercial, Industrial, and Agricultural. Each ELI program will target at least one sector. For commercial, industrial, and agricultural sectors, specify 6-digit NACE codes (consult with country experts on selection of codes). **Check all that apply.**

For the multi-family houses/apartments group, four options are possible: central heating, individual electric space heating, individual non-electric space heating, and district heating. Where there is a mix of options, the predominant configuration should be noted.

Non-consumers Targeted By Program

Refers to key groups that participate in the program as intermediaries for the consumers targeted by the program: e.g., building owners, retailers, wholesalers, appliance manufacturers, builders, realtors and developers, architects and engineers, building managers and administrators, building and equipment operators, and energy service companies. **Check all that apply.**

Technologies

Specify all lighting technologies that apply to the ELI program. Use the **Other** category only if necessary. For each technology, indicate an estimated simple payback time in years.

Payback Time

The period of time required for the energy savings to equal the cost of the conservation action; e.g., if a compact fluorescent exit light costs \$6 and saves \$3 per year, the payback is 2 years.

Marketing Incentives

Type of Incentives

Any award used to encourage consumer/facility participation in an ELI program and adoption of recommended measures is an incentive. Below are definitions of incentive types:

Rebates and Cash Awards

Cash payments in the form of a direct payment awarded for participation in an ELI program.

Financing/Loans/Leasing

ELI Program incentives where the financing cost associated with a financial instrument or loan is paid for, in part or in whole, by the utility/supplier or other party. There may also be favorable terms offered for leasing equipment.

Direct Installation

Programs that offer equipment and installation at no cost to the consumer (i.e., out-of-pocket investment on the part of the consumer is not required).

Billing Rate Discounts

Reduced billing rates offered by utilities or suppliers to their customers in order to encourage participation in an ELI program.

Bulk Purchasing

Bulk Purchasing occurs when a utility, supplier, aggregator or other sponsor purchases a large quantity of merchandise (e.g., refrigerators) and re-sells to participants at a wholesale cost plus a slight markup (typically resulting in a cost lower than retail cost).

Gifts

Incentives in the form of merchandise are awarded to a consumer, utility, or trade ally for participation in an ELI program.

Other

Please provide a brief explanation.

Marketing Methods

The list identifies methods commonly used to contact, educate, or solicit consumer/facility participation in an ELI program. **Check all applicable methods.**

Direct Mail

Direct Mail is used when the primary program implementing agent sends mail (including brochures and bill inserts) directly to the target group.

Advertising

Includes radio, television, and newspaper advertising of the program.

Energy Audits

An inspection of a house, building, or industrial process by an expert who makes recommendations for ways the customer can reduce energy use.

Personal Contact

Personal Contact is used when the primary program implementing agent directly contacts individuals of a target group, in-person or by telephone.

Other

Please provide a brief explanation.

Participation Summary (not applicable until program has been underway)

Most Recent Year and Cumulative Participation

Enter the calendar year for which the most recent year costs apply and enter in the column header. Enter the start and end years in the column header for which the cumulative costs apply.

Number of Participants

Enter the number of participants that have participated in the program, where participants may be customers, households, facilities, or firms. The units chosen should be the same unit type as those used to specify the number of expected participants (see page 2 of DCI) and eligible customers (see below).

Number of Eligible Customers

Enter the number of eligible customers, where eligibility refers to criteria that a customer must meet in order to participate in an ELI program.

Participation Rate (% of Eligible Customers)

The Participation Rate is defined as the *ratio* (expressed as a percent) of the number of *participants* in a program to the total number of *eligible customers* for the program. The following equation specifies the participation rate:

$$\text{Participation Rate} = (\text{Participants}/\text{Eligible Customers} * 100)$$

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Program Impacts (not applicable until program has been underway)

Cost Information

Report all costs in your country's monetary units and enter the calendar year for which the costs apply. M&E country experts need to convert costs (in their country's monetary units) to US dollar; specifying the exchange rate used.

Most Recent Year and Cumulative Program Costs, Savings, and Sales

Enter the calendar year for which the most recent year costs, savings, and sales apply and enter in the column header. Enter the start and end years in the column header for which the cumulative costs, savings, and sales apply.

Total Utility/Organizer Costs

All utility/organizer expenses associated with an ELI program: e.g., rebates, labor costs (such as the time of utility staff, field representatives, and contractors) as well as program support costs which are directly associated with individual customers participating in the program; such costs include advertising and program promotion.

Total Non-Utility/Organizer Costs

All program expenses paid by customers, trade allies, and other organizations that are not reimbursed by the utility/organizer.

Total Program Costs

The sum of the utility/organizer costs and non-utility/organizer costs associated with an ELI program.

Incentive Costs (%)

Indicate the percentage of total program costs that are monetary inducements in the form of a rebate or payment. Incentives costs could include reimbursement of installation and/or equipment costs as well as other costs such as cash rebates to customers and incentives to trade allies. Incentive cost % plus non-incentive cost % should equal 100%.

Non-Incentive Costs (%)

Indicate the percentage of total program costs that are non-incentive (administrative) costs. These include labor costs (such as the time of utility staff, field representatives, and contractors) as well as program support costs which are directly associated with individual customers participating in the program. Such costs include advertising and program promotion. Incentive cost % plus non-incentive cost % should equal 100%.

Electricity Savings

Electricity Savings should be entered in megawatt-hours. A megawatt-hour is equal to 1,000 kilowatt-hours or 1,000,000 watt-hours and is abbreviated MWh.

System Peak Demand Savings

System Peak Demand Savings should be entered in megawatts. A megawatt is equal to 1000 kilowatts or 1,000,000 watts and is abbreviated MW. The changes in the demand for electricity resulting from the program occur at the same time the utility experiences its system peak demand (often referred to as diversified coincident peak demand).

Fuel Savings

Fuel Savings should be entered in terajoules. A terajoule is equal to 10^{12} joules.

Appliance Sales

Appliance Sales should be entered in number of units sold. Specify the appliance in the second column using the codes on page 3 of the DCI.

Data Used to Calculate Savings

This section requests information regarding the types of energy data used for the calculations of energy and load impacts. **Check all that apply.**

Engineering Data

Estimates using engineering principles with assumptions about equipment and system performance characteristics and operation profiles of measures installed through the programs.

Utility Bills

Ideally, utility bills are obtained for a year before and a year after participation, Annual electricity and gas use is typically adjusted for weather and other relevant factors, and the differences between pre- and post-participation use in kWh/year or therms/year are computed.

Spot Metering

Generally, electricity and gas use is monitored before and after participation for short times (e.g., a few days). Other relevant factors (e.g., operating hours for equipment and heating degree days) are measured for a longer time (e.g., up to a year).

Whole-building Load Data

Electrical use of a facility is monitored to record kW demands and kWh before and after participation.

End-Use Load data

Specific circuits or equipment affected by new systems are monitored to record kW demand and kWh before and after participation.

Equipment Specifications

Performance of new equipment is calculated based on information obtained directly from the manufacturer. (In those cases where there is a handbook of equipment specs in the hands of engineers, "engineering data" should be checked instead.)

Site Specific Data

Energy and load effects are calculated based on information obtained by a program representative during an audit of, or other type of visit to, the facility.

Appliance Sales Data

Data on appliance sales generally come from manufacturers or retailers. Sometimes special surveys are conducted to obtain more precise data.

Other

Indicate other data sources used for estimating or measuring the energy impacts of ELI programs.

Life-Cycle Program Costs**Average Measure Lifetime**

This is the average lifetime of all of the measures installed in the program. Where possible, the average should be weighted by energy savings (weighted average).

Discount Rate

The real societal and utility discount rates should be reported; these rates exclude the rate of inflation.

Levelized Utility Resource Cost

The levelized utility resource is calculated in the same way as the levelized total resource cost; the differences are: (1) the costs are utility-related costs (not total program costs) listed

in the table at the top of page 4 in the DCI; and (2) the real discount rate is the utility's discount rate.

Levelized Total Resource Cost

The levelized total resource cost is the uniform cost of a program *over its lifetime*, or the cost of the program's first year multiplied by the uniform capital recovery factor applied at the utility's discount rate divided by the average annual energy or demand changes (in kWh, kW, therms, or MBtus). The costs are the total program costs listed in the table at the top of page 4 in the DCI. Indicate the average measure lifetime, discount rate, and the cost units used in determining the levelized total resource cost. The equation used in calculating the levelized total resource cost is:

$$\text{Levelized Total Resource Costs} = \frac{\text{Total Program Costs} \times \frac{d}{(1 - (1 + d)^{-n})}}{\text{Annual Energy Savings}}$$

Where:

d = real societal discount rate

n = average measure lifetime

total program costs = utility costs plus participant costs

Lessons Learned

Enter any lessons learned in this section. Lessons learned may pertain to the current program year or to the entire life of the program. Where available, discuss difficulties encountered in program design, financing, implementation, and evaluation; recommendations for program improvement; and key elements for program success.