

Energy Technologies Area Lawrence Berkeley National Laboratory

Flexible and Consistent Reporting for Energy Efficiency Programs:

Introducing a New Tool for Reporting Utility Customer-Funded Efficiency Program Spending and Savings

Greg Rybka

Ian Hoffman, Charles Goldman, and Lisa Schwartz Webinar December 17, 2015 Electricity Markets and Policy Group Lawrence Berkeley National Laboratory

Project funded by DOE Office of Electricity Delivery and Energy Reliability, National Electricity Delivery Division

Overview

- 1. Energy efficiency (EE) program reporting: Current situation and challenges
- 2. Uses of customer-funded EE program data
- 3. LBNL EE Reporting Tool: Overview and walk through

4. Q&A

EE Reporting: Background

- Administrators of utility customer-funded energy efficiency programs regularly report what they spend and save to their regulators or other oversight entities
- These reports typically include:
 - a narrative that highlights achievements of the program administrator's portfolio of efficiency programs
 - tables and charts that quantify spending, savings, and achievement of policy objectives

Issues:

- Energy efficiency reporting practices vary widely among program administrators and states.
- Many studies of reporting practices for efficiency programs have identified issues of <u>consistency</u>, rigor and <u>completeness</u>
- Challenging to determine whether a program administrator is achieving its energy efficiency goals

EE Reporting: Current Situation

Spending/Costs

- > 1/2 of states don't report total costs (i.e. program administrator costs and participant costs)
- < 1/2 of states report program cost breakdowns, although cost categories often differ

Energy savings

- Only ~ 1/3 of states report lifetime savings.
- "Net savings" often not defined in annual filings, and baselines are rarely defined

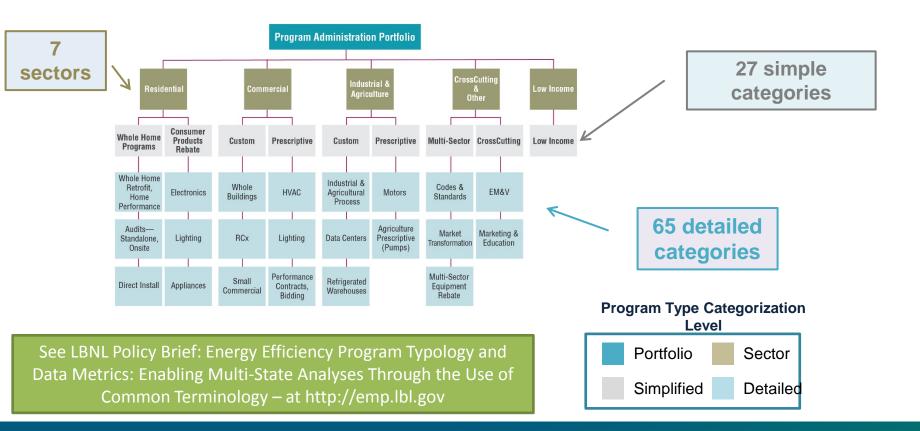






Issues in EE Reporting – Standardized Program Typology

 Weak consensus on EE terminology and no fully adopted standard scheme for characterizing EE programs



EE Reporting Project Objectives

- Encourage more transparency, consistency and rigor in reporting EE program impacts, costs and methodologies
 - Particularly in those states where program administrators do not currently provide annual reports
 - Elevate the quality of reporting by states that are new to EE or just ramping up
 - Greater consistency: classification of spending and resource costs (administrative costs, incentives) and estimation of program impacts (e.g., net savings)

Encourage comprehensiveness

 More program-level reporting by states and program administrators on total costs, cost effectiveness, customer participation, market penetration

Uses of Reported Energy Efficiency Data

Program Administrators

- Benchmark to local, regional and state values for similar markets
- Identify opportunities for performance improvements and cost efficiencies

Utility and Air Regulators

- Weigh cost and performance among efficiency resources
- Compare demand and supply resources
- Ensure prudent spending of funds

EE Program Spending, Savings, Cost-effectiveness and Participant Data

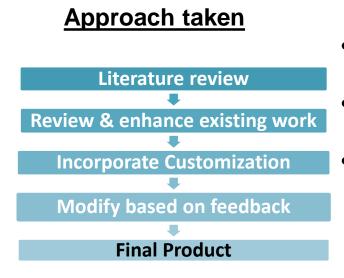
System Operators and Resource Planners

- Make better load forecasts and thus enable better GT&D planning
- Aid in integrated resource planning

Efficiency Industry Actors and Other Stakeholders

Assess market dynamics, trends and opportunities

Solution Spreadsheet-based reporting tool and technical brief

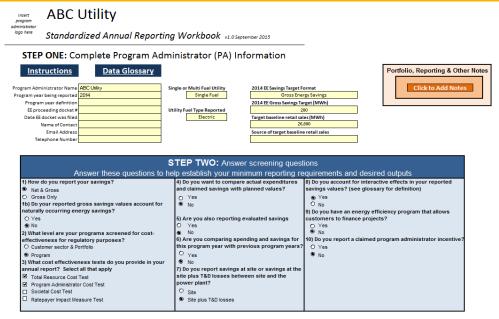


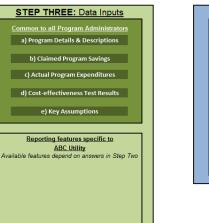
Potential benefits of Reporting Tool:

- Reduced time for staff to assess reporting compliance
- Improved benchmarking of programs over time and different geographic regions
- Diagnostic for identifying higher/lower performing programs

LBNL Energy Efficiency Reporting Tool

- Flexible and customizable
- Comprehensive data collection
- Consistent format
- Raises the bar







Core Features

• Core

- Program category (sector, type)
- Program implementer
- Program description
- Baseline used
- Claimed annual savings
- Claimed lifetime savings
- Measure life
- Number of participants/units
- Program expenditures
- Cost-effectiveness test results

Program Administrator-Specific Features

Core

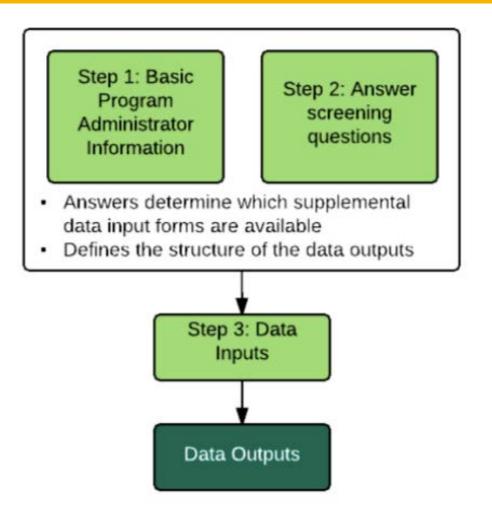
- Program category (sector, type)
- Program implementer
- Program description
- Baseline used
- Claimed annual savings
- Claimed lifetime savings
- Measure life
- Number of participants/units
- Program expenditures
- Cost-Effectiveness test results

Customizable

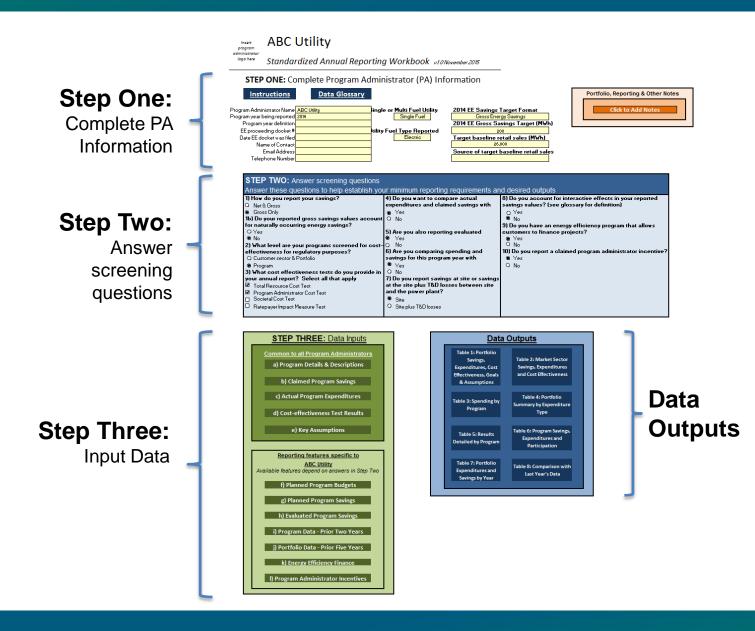
- Net vs gross reporting
- Sector level reporting or program level reporting
- Interactive effects
- Planned savings vs. claimed/reported
- Evaluated savings
- Comparison with previous years
- Site or source reporting of savings
- EE financing
- Program administrator incentive

LBNL EE Reporting Tool Walk Through

Using the Tool

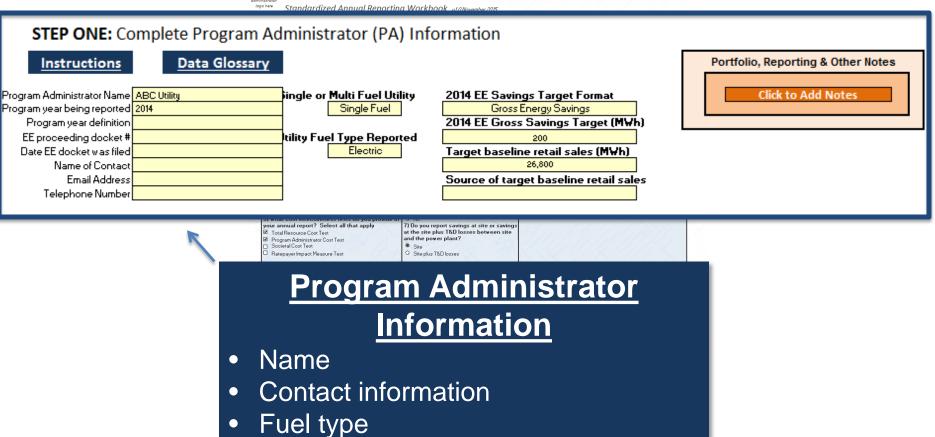


Main Menu



Main Menu – Step One

ABC Utility



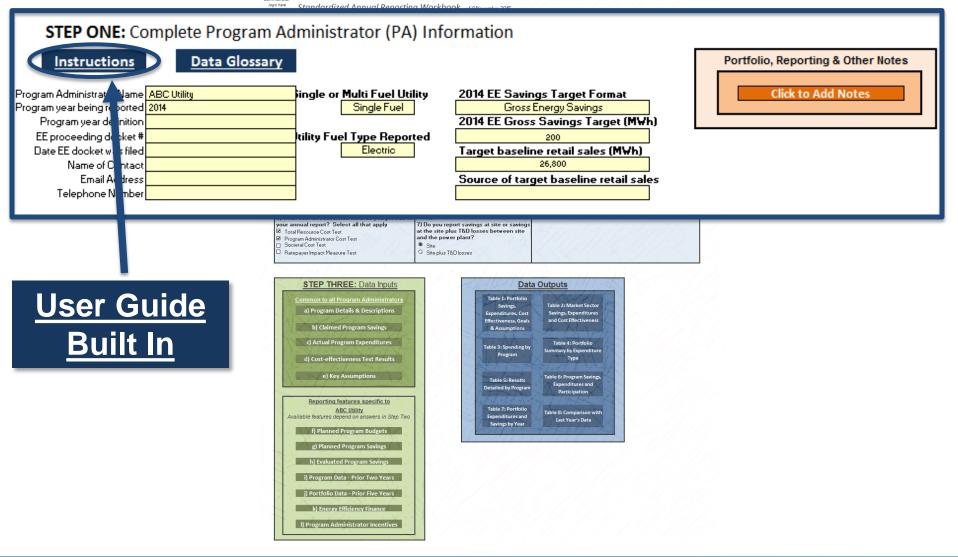
• Targets

I) Program Administrator Incentives

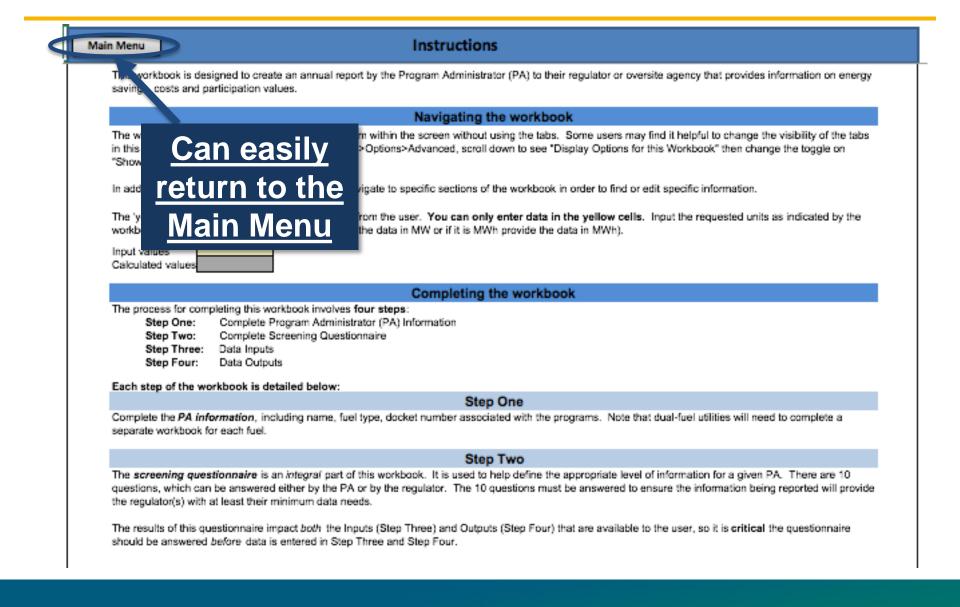
• Notes

Main Menu => Instructions

ABC Utility



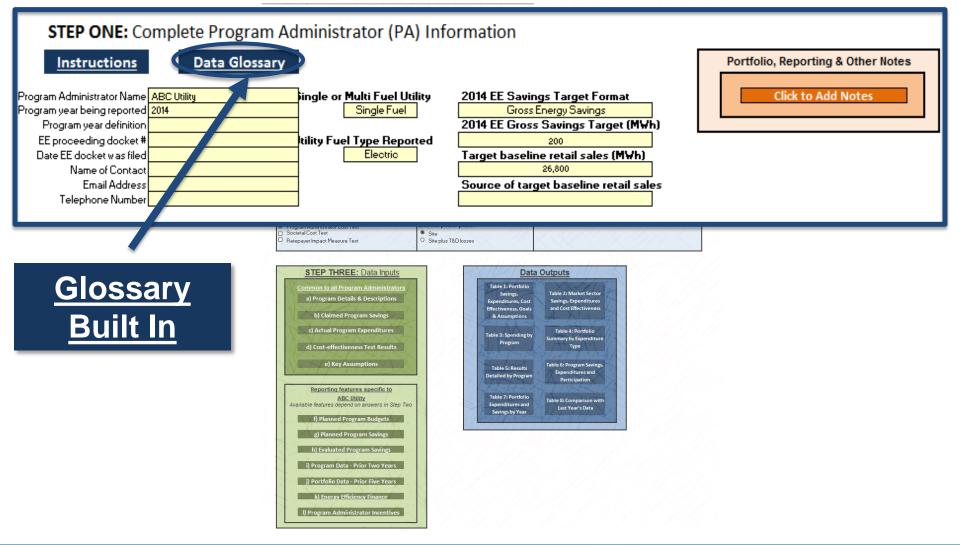
Instructions



Main Menu => Glossary

ABC Utility

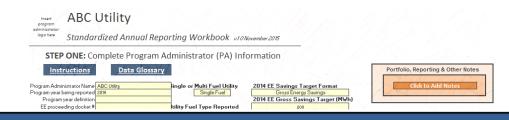
logo here Standardized Annual Reporting Workbook (1.0 November 2015



Glossary – Excel & Word Versions

Main Menu	Glossary	
Term	Definition	Instruction: Click the icon to open the
# Participants	Total number of consumers participating in the subject program. For new construction programs, we classify "number of homes or buildings" as the number of participants. In some programs, the number of participants will be the number of structures or multifamily units that received efficiency measures through a program.	glossary as a separate file. Double-click attached document:
# Units	Total number of measures installed or credited with savings in the subject program (e.g., number of CFLs for which savings are claimed in a lighting program). If the number of units reported for a new construction or retrofit program is defined as structures built or retrofitted to a higher level of energy performance, then these are not counted as units but as participants.	Tool Glossary
Administration Costs (\$)	Actual spending by the program administrator (PA) on costs associated with planning, designing and implementing an energy efficiency program in a defined geographic area, unless some of those costs are specifically accounted for elsewhere. In general, these costs pay for the salaries, training and equipping of internal PA staff to administer and implement a program or oversee the work of an outside contract implementer. If evaluation, compliance and marketing, outreach & education costs are not reported separately, then they typically are included under program administration costs. When a program is being terminated, shut-down costs also should be included in administration costs.	separate Word
Air Quality Impacts	To some degree, power plants generally control emissions of some pollutants to the atmosphere; the balance goes up the stack. Some emissions are harmful to human health and welfare as they are emitted; others contribute to chemical reactions in the atmosphere, creating harmful contaminants while airborne.	<u>file too</u>

Main Menu – Step Two



STEP TWO: Answer screening questions Answer these questions to help establish your minimum reporting requirements and desired outputs

nswer areas questions to help establish your minimum reporting requirements and desired outputs										
4) Do you want to compare actual expenditures	8) Do you account for interactive effects in your reported									
and claimed savings with planned values?	savings values? (see glossary for definition)									
Yes	O Yes									
O No	No									
	9) Do you have an energy efficiency program that allows									
5) Are you also reporting evaluated savings	customers to finance projects?									
Yes	Yes									
O No	O No									
6) Are you comparing spending and savings for	10) Do you report a claimed program administrator incentive?									
	Yes									
Yes	O No									
O No										
7) Do you report savings at site or savings at the										
site plus T&D losses between site and the										
power plant?										
Site										
O Site plus T&D losses										
	 4) Do you want to compare actual expenditures and claimed savings with planned values? Yes No 5) Are you also reporting evaluated savings Yes No 6) Are you comparing spending and savings for this program year with previous program years? Yes No 7) Do you report savings at site or savings at the site plus T&D losses between site and the power plant? Site 									

Screening Questions

Table 6: Program Savi

• Enables customization

e) Key Ass

- Answers impact the available data
 - inputs and data outputs

Screening questions

STEP TWO: Answer screening questions	STEP TWO: Answer screening questions											
Answer these questions to help establish you	r minimum reporting requirements and	I desired outputs										
1) How do you report your savings?	4) Do you want to compare actual expenditures	8) Do you account for interactive effects in your reported										
Net & Gross	and claimed savings with planned values?	savings values? (see glossary for definition)										
 Gross Only 1b) Do your reported gross savings values account for 	Yes O No	⊙Yes ®No										
naturally occurring energy savings?	U NO	9) Do you have an energy efficiency program that allows										
O Yes	5) Are you also reporting evaluated savings	customers to finance projects?										
No	Yes	Yes										
2) What level are your programs screened for cost-	 No 6) Are you comparing spending and savings for 	O No 10) Do you report a claimed program administrator incentive?										
effectiveness for regulatory purposes? O Customer sector & Portfolio	this program year with previous program years?											
Program	• Yes	O No										
3) What cost effectiveness tests do you provide in your	O No											
annual report? Select all that apply	7) Do you report savings at site or savings at the											
 Total Resource Cost Test Program Administrator Cost Test 	site plus T&D losses between site and the power plant?											
□ Societal Cost Test	Site											
Ratepayer Impact Measure Test	O Site plus T&D losses											
 Net-to-Gross 	 Planned savings 	 Interactive effects 										
 Naturally occurring 	 Evaluated savings 	 EE financing 										
savings	Prior years data	Program										
6	5	6										
 Level of cost-effectiveness 	 Location of savings 	administrator										
screening		incentive										
 Cost-effectiveness tests 												
used												

Main Menu – Step Three

ABC Utility

program dministrator logo here Standary

here Standardized Annual Reporting Workbook (1.0 November 2015

STEP ONE: Complete Program Administrator (PA) Information



STEP TWO: Answer screening questions										
Answer these questions to help establish you	ur minimum reporting requirements ar	nd desired outputs								
1) How do you report your savings?		8) Do you account for interactive effects in your reported								
O Net & Gross	expenditures and claimed savings with	savings values? (see glossary for definition)								
Gross Only	ge Yes	O Yes								
1b) Do your reported gross savings values account	O No	18 No								
for naturally occurring energy savings?		9) Do you have an energy efficiency program that allows								
O Yes	5) Are you also reporting evaluated	customers to finance projects?								
📽 No	We Yes	🛞 Yes								
2) What level are your programs screened for cost-	O No	O No								
effectiveness for regulatory purposes?	Are you comparing spending and	10) Do you report a claimed program administrator incentive?								
O Customer sector & Portfolio	savings for this program year with	😸 Yes								
Program	\$8 Yes	O No								
3) What cost effectiveness tests do you provide in	O No									
your annual report? Select all that apply	7) Do you report savings at site or savings									
Total Resource Cost Test	at the site plus T&D losses between site									
Program Administrator Cost Test	and the power plant?									
Societal Cost Test	📽 Site									
Ratepayer Impact Measure Test	 Site plus T&D losses 									



<u>Data Inputs –</u> <u>PA-specific</u> <u>features</u>

STEP THREE: Data Inputs	
Common to all Program Administrators	
a) Program Details & Descriptions	
b) Claimed Program Savings	
c) Actual Program Expenditures	
d) Cost-effectiveness Test Results	
e) Key Assumptions	
Reporting features specific to	
ABC Utility Available features depend on answers in Step Two	
f) Planned Program Budgets	
g) Planned Program Savings	
h) Evaluated Program Savings	
i) Program Data - Prior Two Years	
j) Portfolio Data - Prior Five Years	
k) Energy Efficiency Finance	
I) Program Administrator Incentives	



Main Menu – Step Three

ABC Utility

ogo here Standardized Annual Reporting Workbook (1.0 November 2015

STEP ONE: Complete Program Administrator (PA) Information

Instructions Data Glossary

<u>Data Inputs -</u> <u>Core</u>

- Program
 details/descriptions
- Claimed program savings
- Actual program
 expenditure
- Cost-effectiveness
- Key assumptions

STEP THREE: Data Inputs

Portfolio, Reporting & Other Notes

- Common to all Program Administrators
 - a) Program Details & Descriptions

b) Claimed Program Savings

c) Actual Program Expenditures

d) Cost-effectiveness Test Results

e) Key Assumptions

Table 7: Portfolio

Expenditures and

Savings by Year

able 8: Comparison with

Last Year's Data

Beporting features specific to <u>ABE Utility</u> Available features depend on answers in Step Two () Planned Program Budgets g) Planned Program Savings h) Evaluated Program Savings i) Program Data - Prior Two Years j) Portfolio Data - Prior Five Years k) Energy Efficiency Finance j) Program Administrator Incentives

Main Menu – Step Three

ABC Utility

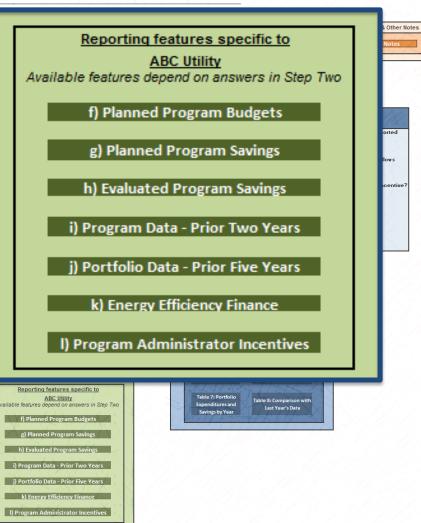
Program

EE

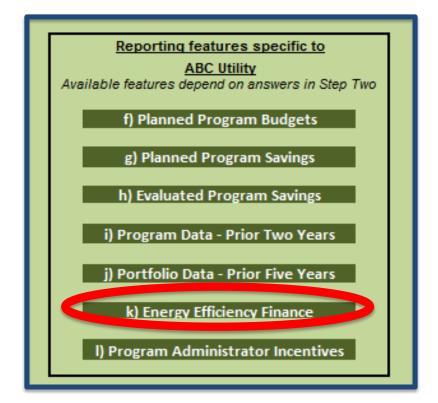
Ingo here Standardized Annual Reporting Workbook «1.0 November 2015

<u>Data Inputs –</u> <u>PA-specific</u> <u>features</u>

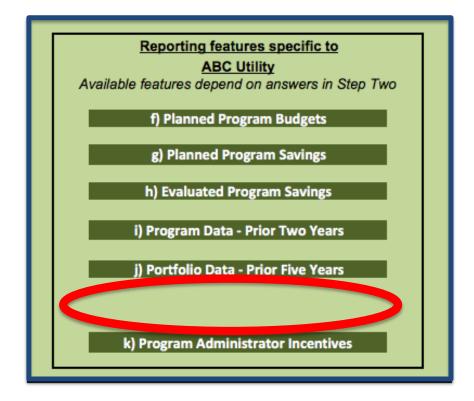
- Planned budgets
- Planned savings
- Evaluated program savings
- Prior data
- EE finance
- PA incentives



STEP TWO: Answer screening questions		
Answer these questions to help establish you	r minimum reporting requirements and	desired outputs
 1) How do you report your savings? Net & Gross Gross Only 1b) Do your reported gross savings values account for naturally occurring energy savings? Yes No 	 4) Do you want to compare actual expenditures and claimed savings with planned values? Yes Yes No 5) Are you also reporting evaluated savings 	 8) Do you account for interactive effects in your reported savings values? (see glossary for definition) O Yes No 9) Do you have an energy efficiency program that allows customers to finance projects? A) Yes
 2) What level are your programs screeped for cost- effectiveness for regu ○ Customer sector & P(9) Do you have an e finance projects? innual report? Select I Total Resource Cost Program Administrate Societal Cost Test 		O No
Ratepayer Impact Measure Test	O Site plus T&D losses	



STEP TWO: Answer screening questions		
Answer these questions to help establish you	r minimum reporting requirements and	I desired outputs
 1) How do you report your savings? Net & Gross Gross Only 1b) Do your reported gross savings values account for naturally occurring energy savings? Yes 	4) Do you want to compare actual expenditures and claimed savings with planned values? Yes No 5) Are you also reporting evaluated savings	 8) Do you account for interactive effects in your reported savings values? (see glossary for definition) O Yes No 9) Do you have an energy efficiency program that allows customers to finance projects?
 No 2) What level are your programs screeped for cost- effectiveness for regu O Customer sector & Pe 9) Do you have an e finance projects? Mhat cost effectiven annual report? Select Total Resource Cost Program Administrate Societal Cost Test 	5.0	hat allows customers to
Ratepayer Impact Measure Test	O Site plus T&D losses	



Data Inputs – Two Examples

<u>Two</u> <u>illustrative</u> <u>examples:</u> • Program details • Claimed Savings

STEP THREE: Data Inputs

Common to all Program Administrators

a) Program Details & Descriptions

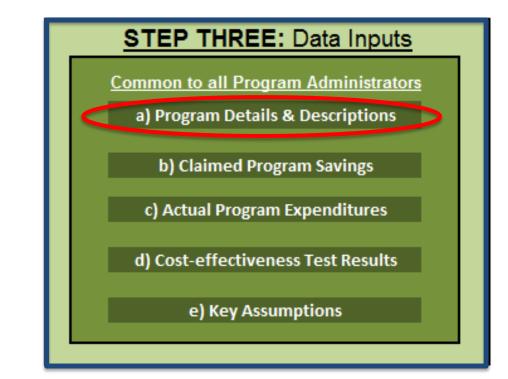
b) Claimed Program Savings

c) Actual Program Expenditures

d) Cost-effectiveness Test Results

e) Key Assumptions

Data Inputs Example: Program Details



Data Inputs Example: Program Details

Main Menu Progr

Program Descriptions

Program Details

Instructions: Provide program details in the following order: Program Name, Target Market Sector and Detailed Program Type. Note that the dropdown options available in Detailed Program Type are dependent on the response provided in the Target Market Sector field. Also, if the Target Market Sector is modified after the Program Type has been selected, then the Detailed Program Type must be selected again. If portfolio-level expenses are being reported, that are not associated with specific programs, then enter these as their own line item(s) with a Target Market Sector of "Cross Sectoral/Other". If the program type is not available, select the most appropriate Target Market Sector and enter the Detailed Program Type as opposed to using the drop-downs.

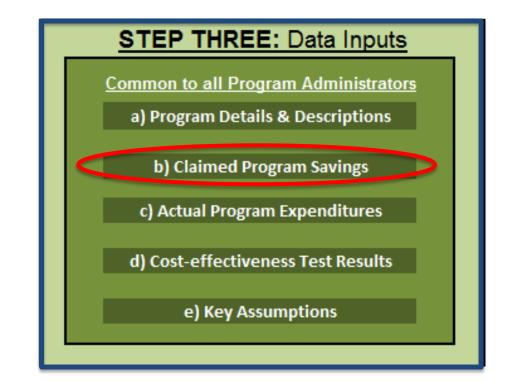
Select the type of baseline that is used for determining energy savings for the programs. Include additional information as is appropriate, especially if "Other", "Dynamic" or "Multiple" are selected.

If the program is administered in collaboration with another program administrator (PA), select "Yes" from the dropdown, e.g., a whole home retrofit offered jointly by an electric PA and a gas PA. Also, provide the name of the other PA with which the program is being jointly administered. More details on jointly administered or multi-utility programs can be provided in Program Notes section of the "Program Descriptions" sheet. Provide additional information for each program by clicking on the "Program Descriptions" button.

	Program Name	Target Market Sector	Program Typology Program Type Definitions Detailed Program Type	Explain baseline	Describe baseline(s) used if "other", "dynamic", or "multiple" were used	Was this program jointly administered?	Who was the other Program Administrator?
1.	Residential New Construction (example)	Residential	Res: New Construction	Code or Standard		No	
2.	Residential Whole Home Retrofit	Residential	Res: Whole Home/Retrofit	Existing conditions		No	
	C&I Prescriptive	Commercial_Industrial	CI: Prescriptive	Existing conditions		No	

- Program Name
- Target Market Sector
- Detailed Program Type
- Baseline
- Joint Administration

Data Inputs Example: Claimed Savings



Data Inputs Example: Claimed Savings

Main Menu

Claimed Program Savings

Instructions: Provide annual demand savings, and annual and lifetime energy savings. Click the "Claimed Net-to-Gross" button to input NTG values. Provide the number of participants or units installed along with the number of eligible participants or estimated market size. Additionally, provide a participant definition for each program.

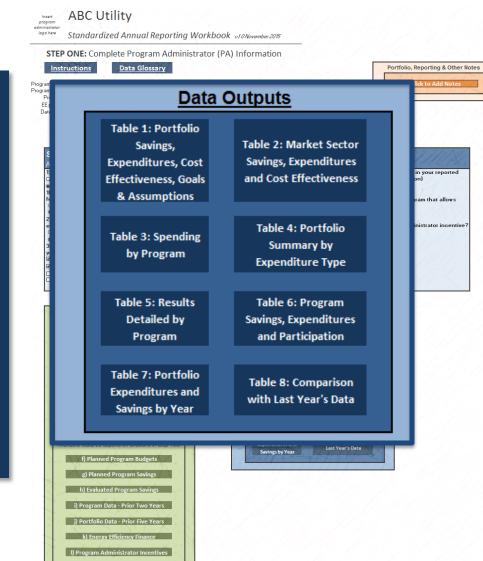
Program Name	Gross Demand Savings (MW)	Gross Annual Energy Savings (MWh)	Gross Lifetime Energy Savings (MWh)	Claimed Net-to- Gross Net-to- Gross Ratio	Net Demand Savings (MW)	Net Annual Energy Savings (MWh)	Net Lifetime Energy Savings (MWh)	Program Savings Lifetime (Years)	Participants /Units	Eligible Participants	Participant/Unit Definition
1. Residential New Construction (example)	20	258	2,580	0.90	18	232	2,322	10.0	500	8,000	Accounts
2. Residential Whole Home Retrofit	18	15	2,432	0.80	14	12	1,946	9.0	400	8,800	Homes
3. C&I Prescriptive	10	300	1,234	0.70	7	210	864	8.0	32	245	Customers

• Gross

- Demand savings
- Annual energy savings
- Lifetime energy savings
- Net-to-Gross Ratio
- Net
 - Demand savings
 - Annual energy savings
 - Lifetime energy savings

- Program savings lifetime
- Participants/Units
- Eligible Participants
- Participant/Unit Definition

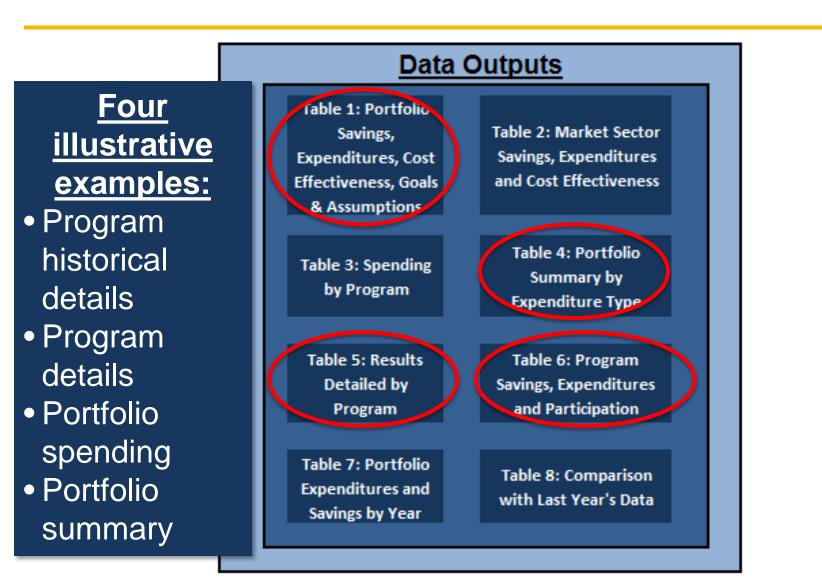
Main Menu – Data Outputs



<u>Data Outputs</u>

- Portfolio
 - Savings
 - Expenditure
- Sector
 - Savings
 - Expenditure
- Expenditures by program
- Expenditures Type
- Detailed Program Results
- Historical
 Comparisons

Data Outputs – four examples



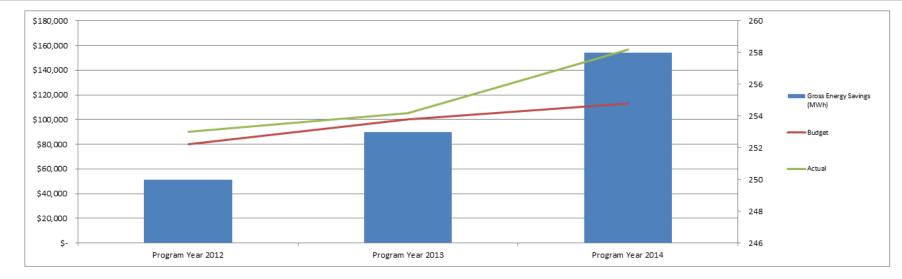
Data Outputs

Data	Outputs
Table 1: Portfolio Savings, Expenditures, Cost Effectiveness, Goals & Assumptions	Table 2: Market Sector Savings, Expenditures and Cost Effectiveness
Table 3: Spending by Program	Table 4: Portfolio Summary by Expenditure Type
Table 5: Results Detailed by Program	Table 6: Program Savings, Expenditures and Participation
Table 7: Portfolio Expenditures and Savings by Year	Table 8: Comparison with Last Year's Data

Data Output – Program Historical Trends

Main Menu	Table 6
Residential New Construction (example)	Select program from dropdown menu to view details.

	Residential New Construction (example)																	
Expenditures Gross Energy Savings (MWh)							I	Net Energy S	avings	(MWh)			Partici	pants				
Program	Budget	Actual	%	Plan	Claimed	%	Evaluated	%	Plan	Claimed	%	Evaluated	%	Plan	Claimed	%	Evaluated	%
Program Year 2012	\$ 80,000	\$ 90,000	113%	230	250	109%	200	87%	207	225	109%	180	87%	230	220	96%	220	96%
Program Year 2013	\$ 100,000	\$ 105,000	105%	250	253	101%	220	88%	225	207	92%	198	88%	230	220	96%	220	96%
Program Year 2014	\$ 113,100	\$ 156,400	138%	250	258	103%	340	136%	225	232	103%	306	136%	240	500	208%	500	208%



NOTE: Based on answers to screening questions, the savings values are reported at the: site

Data Outputs

_	Data (Outputs
	Table 1: Portfolio Savings, Expenditures, Cost Effectiveness, Goals & Assumptions	Table 2: Market Sector Savings, Expenditures and Cost Effectiveness
	Table 3: Spending by Program	Table 4: Portfolio Summary by Expenditure Type
	Table 5: Results Detailed by Program	Table 6: Program Savings, Expenditures and Participation
	Table 7: Portfolio Expenditures and Savings by Year	Table 8: Comparison with Last Year's Data

Data Output – Program Details

Main Menu	Table 5								
2014 Portfolio Data									
			Expenditures	Claimed	Gross Energy	Savings	Claimed	l Net Energy S	òavings
Program Name	Target Sector	Program Type	Actual \$	Demand M₩	Annual Energy M∀h	Lifetime Energy M∀h	Demand MW	Annual Energy M∀h	Lifetime Energy MWh
Residential New Construction (example)	Residential	Res: New Construction	156400	20	258	2580	18	232.2	2322
Residential Whole Home Retrofit	Residential	Res: Whole Home/Retrofit	215600	18	15	2432	14.4	12	1945.6
C&l Prescriptive	Commercial_Industrial	CI: Prescriptive	156400	10	300	1234	7	210	863.8
"Hide"		-	-	-			-		

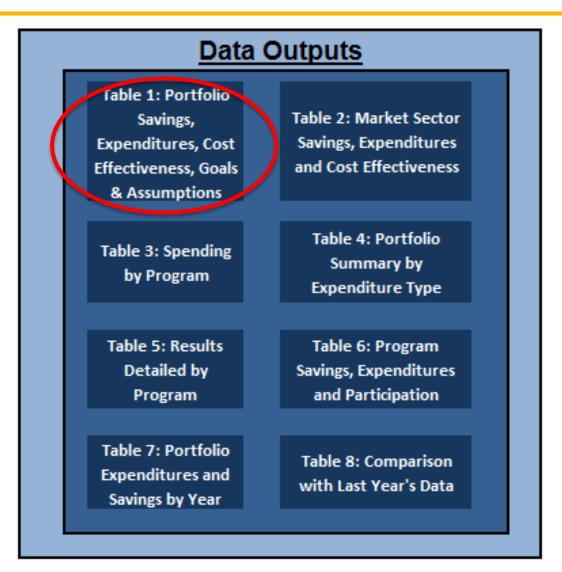
Data Outputs

Data Outputs										
Table 1: Portfolio Savings, Expenditures, Cost Effectiveness, Goals & Assumptions	Table 2: Market Sector Savings, Expenditures and Cost Effectiveness									
Table 3: Spending by Program	Table 4: Portfolio Summary by Expenditure Type									
Table 5: Results Detailed by Program	Table 6: Program Savings, Expenditures and Participation									
Table 7: Portfolio Expenditures and Savings by Year	Table 8: Comparison with Last Year's Data									

Data Output – Portfolio Details

Main Menu	Table 4									
EE Portfo	lio Summary by	Expe	nditure 1	Гуре						
EE Program Expend	iture Summary	2014 Total Expenditures								
Expenditure	е Туре	% of Total	Budget (\$)	Actual (\$)	% of Total					
Administrative Expenditures		21%	24,000	24,800	23%					
Delivery Expenditures		23%	26,100	19,800	19%					
Marketing, Education and Outreach	(\$)	5%	6,000	4,800	5%					
EM&V (\$)		6%	7,000	7,000	7%					
Incentive Expenditures		44%	50,000	50,000	47%					
		100%	113,100	106,400	100%					
Incentive Expenditures 47%	EM&V (\$)		Administrative Expenditures 23% Delive ceting, Education d Outreach (\$)	ery Expenditures 19%						
	EM&V (\$)	an	4%							
	/%		470							

Data Outputs: Portfolio level



Data Output – Portfolio Savings, Expenditures, Cost-Effectiveness

Main Menu Table 1																										
	2014 Portfolio Savings, Expenditures, Cost Effectiveness, Goals & Assumptions																									
Planne	Planned Gross Energy Planned Net Energy Savings Savings				Claim	Claimed Gross Energy Claimed I Savings Sav			ned Net E Savings		Y Evaluated Gross Energy Savings			Evaluated Net Energy Savings		Expenditures			Cost-Effectiveness							
																					Total		Program		Societal	
	Annual	Lifetime		Annual	Lifetime		Annual	Lifetime		Annual	Lifetime		Annual	Lifetime		Annual	Lifetime			% of	Resource Net		Administrat or Net		Net Benefits	
Demand			Demand						Demand									Budget	Actual	Budget	Benefits	TRC	Benefits	PAC		SCT
MW	MWh	MWh	M₩	MWh	MWh	M₩	MWh	M∀h	M₩	MWh	M₩h	M₩	MWh	M₩h	M₩	MWh	M₩h				(\$000's)	Ratio	(\$ 000's)	Ratio	(\$000's)	Ratio
34.0	250.0	2,500.0	30.6	225.0	2,250.0	48.0	573.0	6,246.0	39.4	454.2	5,131.4	82.4	340.0	3,400.0	74.2	306.0	3,060.0	113,100.0	528,400.0	467.2%	1,123.00	1.56	s -	-	s -	-

NOTE: Based on answers to screening questions, the savings values are reported at the: site

Cost-effectiveness assumptions

Utility Discount Rate	0%
TRC/Societal Discount Rate	0%
Participant Discount Rate	0%

Methodology for calculating the cost-effectiveness tests

wethodology for calculating the cost-effectiveness tests
0
1

Non-Energy Benefits included in Cost-Effectiveness Tests

	Included	Description (if different from glossary)	Included in which Test(s)
Non-Energy Benefits to Participants	0	0	0
O&M Cost Savings	0	0	0
Participant Health Impacts	0	0	0
Employee Productivity	0	0	0
Benefits Unique to Low-Income Consumers	0	0	0
Comfort	0	0	0
Unitary adder for societal benefits	0	0	0
Air Quality Impacts	0	0	0
Water Quantity and Quality Impcts	0	0	0
Employment and Other Economic Impacts	0	0	0
Other Economic Considerations	0	0	0
Societal Risk and Energy Security	0	0	0
Reduction of Effects of Termination of Service	0	0	0
Avoidance of Uncollectible Bills for Utilities	0	0	0
Monetization of emissions	0	0	0
Other	0	0	0

Demand Savings Assumptions (time period and methodology for which demand savings is

- Energy savings
- Expenditures
- Cost-Effectiveness
- Assumptions

Discussion: Next Steps

- Technical assistance available to states that want to adopt standardized reporting using the tool
- Options include:
 - Customization of reporting tool
 - Include information linked to state policy objectives or reporting required by legislature or PUC (e.g., summary tables, graphs)
 - Augment numerical reporting with a standardized narrative document that provides for qualitative descriptions of the program administrator's efforts

Questions/Comments



http://emp.lbl.gov/

https://emp.lbl.gov/publications/flexible-and-consistent-r

Project funded by DOE Office of Electricity Delivery and Energy Reliability, National Electricity Delivery Division

Contact information



Gregory Rybka (510) 486-5970 grybka@lbl.gov



Chuck Goldman (510) 486-4637 cagoldman@lbl.gov



Ian M. Hoffman (510) 495-2990 IHoffman@lbl.gov



Lisa Schwartz (510) 926-1091 Icschwartz@lbl.gov

http://emp.lbl.gov/

https://emp.lbl.gov/publications/flexible-and-consistent-r

Project funded by DOE Office of Electricity Delivery and Energy Reliability, National Electricity Delivery Division