U.S. DEPARTMENT OF ENERGY

Office of **ENERGY EFFICIENCY & RENEWABLE ENERGY**

SEP Updates: Market Titles, Metrics, & Historic Preservation

SEP Market Title Project

Achieve greater consistency in the use of **Market Titles** or **Activities** so that the SEOs and WIP are better positioned to share the impacts of SEP with state legislators and governors, U.S DOE leadership, other federal agencies, the U.S. Congress, and others.

Alabama	Oregon
Arkansas	Pennsylvania
Kentucky	Tennessee
Florida	Texas
Idaho	Washington
New York	Wisconsin

U.S. DOE State Energy Program (SEP) Staff

National Association of State Energy Officials (NASEO)

TN

Number of Market Titles

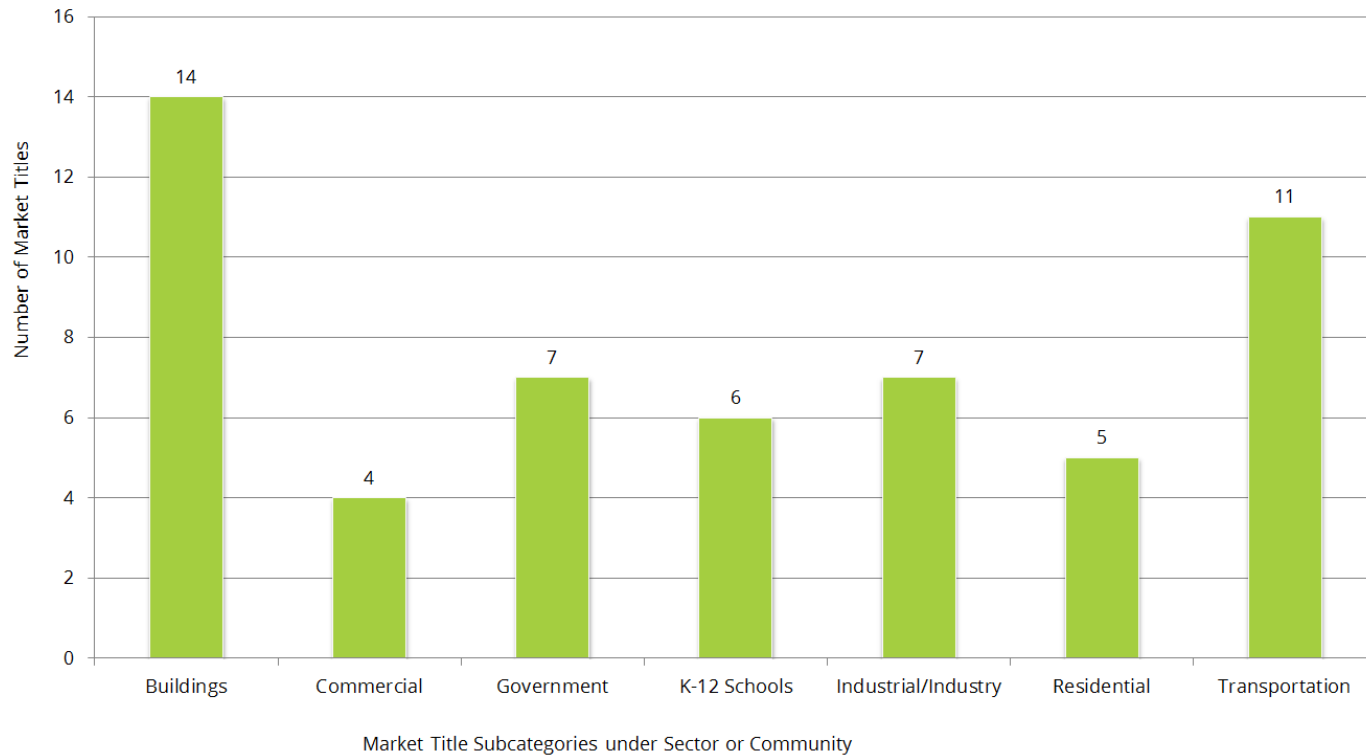| Subcategory	Value
Administration	36
Audit(s)	4
Development	4
Education and Outreach	16
Energy Assurance	18
Loan	9
Planning	12
Policy	17
Rebate	3
Retrofits	7
Technical Assistance	7
Training	7
Workforce Development	3
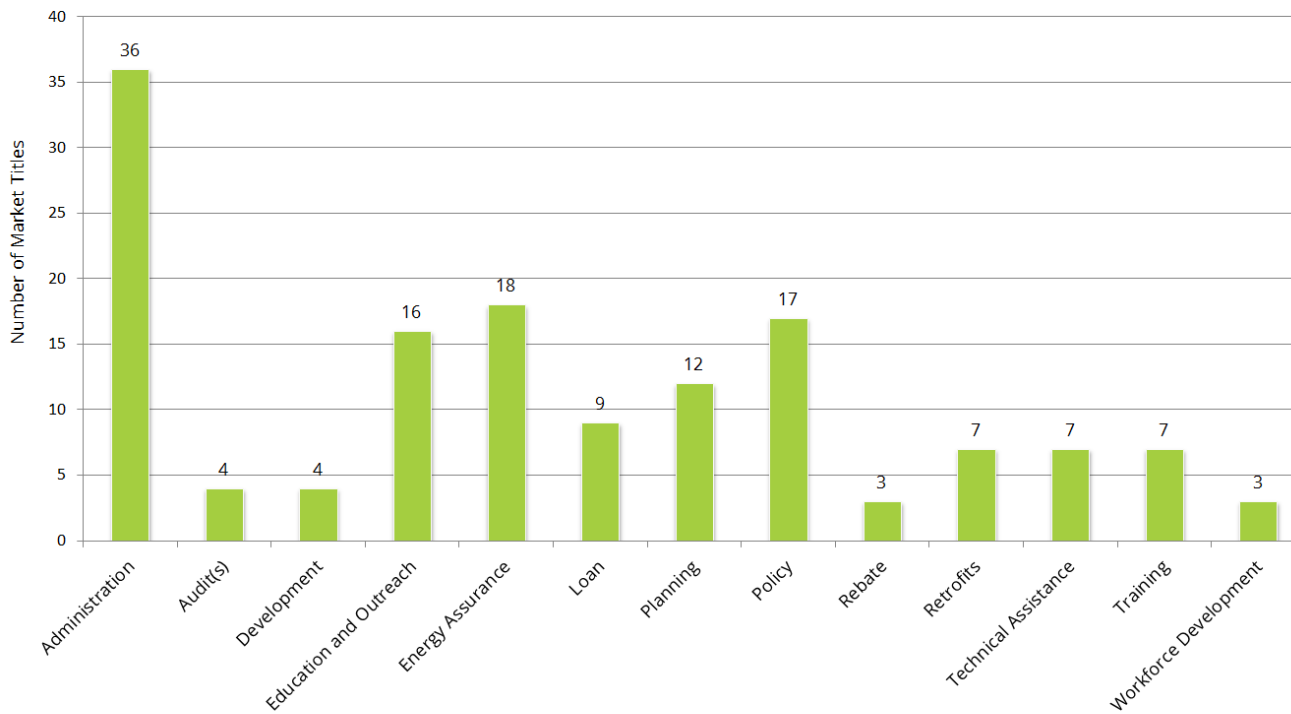
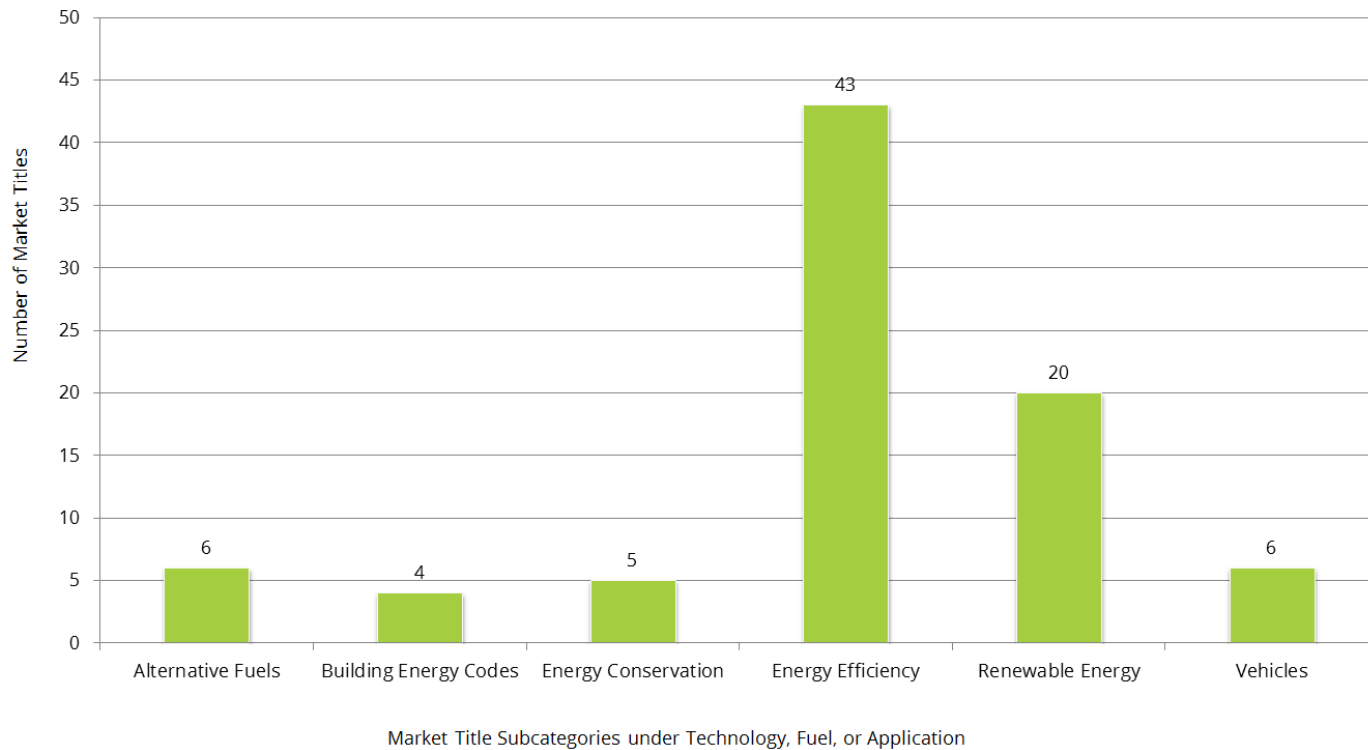Market Title Subcategories under Program, Project, or Activity Type

NOTE: SEOs selected 190 market titles under the "Program, Project, or Activity Type" category in PY 2017, though not all are reflected above. This chart reflects the most popular subcategories under "Program, Project, or Activity Type," totaling 143 of the 190 PY 2017 market titles for this category.

NOTE: SEOs selected 80 market titles under the "Sector or Community" category in FY 2017, though not all are reflected above. This chart reflects the most popular subcategories under "Sector or Community," totaling 54 of the 80 FY 2017 market titles for this category.

NOTE: SEOs selected 114 market titles under the "Technology, Fuel, or Application" category in FY 2017, though not all are reflected above. This chart reflects the most popular subcategories under "Technology, Fuel, or Application," totaling 84 of the 114 FY 2017 market titles for this category.

Current vs. Proposed PAGE Process

CURRENT

1. Market Title
SEO inserts a Market Title.

2. Market Category
SEO selects from a dropdown box with 6 options.

3. Activity Checkboxes
SEO selects from 55 "activity" checkboxes. Option to check multiple "activity" checkboxes.

4. Narrative
SEO inserts details regarding eligible activities.

5. Milestones
SEO inserts Milestones – DOE doesn't provide options.

6. Metrics
SEO selects from DOE-provided options – 14 Metric Areas.

PROPOSED

1. SEO External Name
SEO inserts "external" activity name. DOE does not utilize.

2. SEP Activity (NOTE: 10 CFR 420 & SEP Guidance use term "activities")
SEO selects from a dropdown box with 8 options.

3. Checkboxes
SEO selects from ~20 "sector" checkboxes and ~30 "technology/fuel/application/other program" checkboxes.

4. Narrative
SEO inserts details regarding eligible activities.

5. Milestones
SEO inserts Milestones – DOE doesn't provide options.

6. Metrics
SEO selects from DOE-provided option. Revised 2019 with 11 Metric Areas.

1. SEO External Name: SEO inserts "external" activity name. DOE does not utilize.

SEO External Name: K-12 Energy Education

2. SEP Activity: SEO selects from a dropdown box with 8 options:

- **Program Management** [SEP management, oversight, operations, subrecipient monitoring]
- **Policy, Planning, and Program Development**
- **Energy Security** [planning, preparedness, response, rebuilding / recovery, mitigation, risk mgmt., resiliency, cybersecurity]
- **Education & Outreach** [conferences / forums convened or supported, certain stakeholder engagement, k-12 programs, challenges or other recognition programs, web-based info / clearinghouses]
- **Training / Workforce Development** [e.g., BOC classes, CEM prep courses, HVAC certifications]
- **Technical Assistance** [audits, analyses, evaluations, studies, assessments, surveys, monitoring, energy services, etc.]
- **Funding** [includes financing and incentive programs = loans, loss reserves, bonds, grants, rebates, tax incentives, etc.]
- **Economic Development** [RD&D related activities (as SEP cannot fund R&D), market development]

SEP Activity: Education & Outreach

1. SEO External Name: SEO inserts "external" activity name. DOE does not utilize.

SEO External Name: K-12 Energy Education

2. SEP Activity: SEO selects from a dropdown box with 8 options:

- **Program Management** [this covers management, oversight, operations, subrecipient monitoring, and administration]
- **Policy, Planning, and Program Development**
- **Energy Security** [planning, preparedness, response, rebuilding / recovery, mitigation, risk mgmt., resiliency, cybersecurity]
- **Education & Outreach** [conferences / forums convened or supported, certain stakeholder engagement, k-12 programs, challenges or other recognition programs, web-based info / clearinghouses]
- **Training / Workforce Development** [BOC classes, CEM prep courses, HVAC certifications]
- **Technical Assistance** [audits, analyses, evaluations, studies, assessments, surveys, monitoring, energy services, etc.]
- **Funding** [includes financing and incentive programs = loans, loss reserves, bonds, grants, rebates, tax incentives, etc.]
- **Economic Development** [RD&D related activities (as SEP cannot fund R&D), market development]

SEP Activity: Education & Outreach

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SECTOR or COMMUNITY

Agriculture / Agricultural	Landlord / Tenant
Buildings	Low or Limited Income
Commercial	Manufacturing
Community	Nonprofits
Local Government	Private Sector
State Government	Public
Federal Government	Residential
K-12 Schools	Rural
Higher Education	Transportation
Industrial / Industry	Utilities

TECHNOLOGY, FUEL, APPLICATION, or OTHER PROGRAM

Alternative Fuels and Advanced Vehicle Technologies	EPA Energy Star
Appliance Efficiency or Standards	Geothermal
Biofuels	Grid Mod
Biomass	Hydropower
Building Energy Codes or Standards	Natural Gas
CHP	Other – Please Specify
Clean Energy / Clean Energy Technologies	Propane
Distributed Energy Resources	Smart Grid
DOE Accelerators	Solar
DOE Clean Cities	Storage
Electric Vehicles	Syngas
Energy Conservation	Water Nexus
Energy Efficiency	Wind
Energy Management	Weatherization
Energy Savings Performance Contracting	

Ex.

3. Checkboxes: SEO selects from 20 "sector" checkboxes and 29 "technology/fuel" checkboxes.

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4. Narrative: SEO inserts details regarding eligible activities.

Narrative: The Office of Energy Programs has a long history of supporting K-12 Energy Education through professional development and student learning opportunities…

5. Milestones: SEO inserts Milestones – DOE doesn't provide options.

Milestone 1. Conduct Energy Education Camps for educators. Number = 3
Milestone 2. Conduct Energy Education Workshops for educators and students. Number = 20
Milestone 3. …

6. Metrics: SEO selects from DOE-provided option. Revised 2019 with 11 Metric Areas.

Metric 1. 10. TRAINING AND EDUCATION/TECHNICAL ASSISTANCE // 10a. Education and outreach conducted // Number of workshops, training, and education sessions held. Estimated number = 35.
Metric 2. 10. TRAINING AND EDUCATION/TECHNICAL ASSISTANCE // 10a. Education and outreach conducted // Number of people attending workshops, training, and education sessions. Estimated number = 2,000
Metric 3. …

- **Program Management** *[this covers management, oversight, operations, subrecipient monitoring, and administration]*
- **Policy, Planning, and Program Development** *[inclusive of modeling work]*
- **Energy Security** *[planning, preparedness, response, rebuilding / recovery, mitigation, risk mgmt., resiliency, cybersecurity]*
- **Education & Outreach** *[conferences / forums convened or supported, certain stakeholder engagement, k-12 programs, challenges or other recognition programs, web-based info / clearinghouses]*
- **Training / Workforce Development** *[BOC classes, CEM prep courses, HVAC certifications]*
- **Technical Assistance** *[audits, analyses, evaluations, studies, assessments, surveys, monitoring, energy services, etc.]*
- **Funding** *[includes financing and incentive programs = loans, loss reserves, bonds, grants, rebates, tax incentives, etc.]*
- **Economic Development** *[RD&D related activities (as SEP cannot fund R&D), market   Development, modeling work]*

Agriculture / Agricultural	Landlord / Tenant
Buildings	Low / Limited Income
Commercial	Manufacturing
Community	Multi-state Collaboration
Government	Non-profits
o Local	Private Sector
o State	Public
o Federal	Residential
K-12 Schools	Rural
Higher Education	

- **Alternative Fuels and Advanced Vehicle Technologies** *[note, inclusive of biofuel]*

- **Appliance Efficiency or Standards**

- **Biofuels**

- **Biomass**

- **Building Energy Codes or Standards**

- **Combined Heat & Power**

- **Clean Energy / Clean Energy Technologies** *[e.g., carbon capture, climate action plans]*

- **Cybersecurity**

- **Distributed Energy Resources**

- **U.S. DOE Accelerators**

- **U.S. DOE Clean Cities**

- **Electric Vehicles**

- **Energy Conservation**

- **Energy Efficiency** *[e.g., energy waste reduction, lighting retrofits]*

- **Energy Management**

- Energy Savings Performance Contracting

- EPA Energy Star

- Geothermal *[note, guidance will distinguish this option as a renewable resource as opposed to heating/cooling]*

- Grid Modernization

- Hydropower

- Natural Gas

- Other – Please Specify *[note, guidance will set parameters – inclusive of other "nexus" items such as air quality]*

- Propane

- Smart Grid

- Solar

- Storage

- Syngas

- Water Nexus

- Wind

- Weatherization

- Implementation date TBD

- Coordinate with PAGE Team

  o Develop "prototype" for participating states to beta test

  o User interface will look very similar

  o Functionality and connectivity

    ▪ What can be queried?

    ▪ How granular?

- Development of Guidance Document

- Develop and deliver training for SEOs

- Small group of Project Officers and/or Participating SEOs to   provide technical assistance during rollout

- **National Association of State Energy Officials will host an informational webinar prior to the Annual Meeting in September.**

- **If you are not on the NASEO email listserv and would like to attend the webinar, please provide your email address to Cassie Powers cassie.powers@naseo.org.**

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TN SEO / TDEC Office of Energy Programs

615-741-2994

New and Improved Process Metrics in the Performance Accountability for Grants in Energy (PAGE) System

Robert Hu

Updated Process Metrics – What Changed?

Metric Area	Metric	Metric Item(s) to Report on
1. Building Codes and Standards	1a. Building code adoption	Name of new code adopted
		Name of old code replaced
		Number of new and existing buildings covered by new code
		Compliance rate
2. Benchmarking, Sub-metering, and Energy Management	2a. Number of buildings/facilities in benchmarking tool, by sector	Number of buildings/facilities added to benchmarking tool
		Square footage of buildings added to benchmarking tool
		Number of buildings/facilities sub-metered
		Number of sub-meters added
		Square footage buildings with sub-meters added
		Number of buildings/facilities added to utility tracking program(s)
		Square footage of buildings added to utility tracking program(s)
3. Energy Audits	3a. Energy audits, by sector	Number of investment grade audits (IGAs) performed
		Number of non-investment grade audits (IGAs) performed
		Square footage of buildings/facilities audited
		Auditor's projection of energy savings (kWh, therms, MMBTU, gallons of fuel, gallons of water)
		Average Daily Flow (MGD) of WWTF audited
		Number of projects started based on audits

Updated Process Metrics – What Changed?

Metric Area	Metric	Metric Item(s) to Report on
4. Retrofits	4a. Buildings retrofitted, by sector	Number of buildings retrofitted
		Square footage of buildings retrofitted
		Estimated project savings (KWh, therms, gallons of fuel, gallons of water, dollars)
	4b Energy management systems installed, by sector	Number of energy management systems installed
		Square footage of buildings with systems installed
	4c. Street lights retrofitted	Number of energy efficient streetlights installed
		Estimated project savings (KWh)
	4d. Water conservation retrofits made, by sector	Number of water conservation retrofits completed
		Number of water management systems installed
	4e. Wastewater treatment facilities retrofitted	Reduction in energy intensity (MMBTU/MG, MMBTU/kg BOD removed)
	4f. Manufacturing re-tooling, process improvements	Number of facilities with manufacturing space repurposed for clean energy products
		Square footage of manufacturing space repurposed for clean energy products
		Number of manufacturing lines retrofitted
	4g. Energy, water saved, by sector	Reduction in electricity consumption (MWh/year)
		Reduction in water consumption (gallons/day)
		Reduction in fuel oil consumption (gallons/year)
		Reduction in natural gas consumption (MMcf/year)
		Dollars saved

Updated Process Metrics – What Changed?

Metric Area	Metric	Metric Item(s) to Report on
5. Planning, Policy, and Studies	5a. Energy planning activities	Number of energy plans developed or updated
		Number of climate action plans developed or updated
		Number of energy baseline analyses/inventories developed or updated
	5b. Renewable energy feasibility studies	Number of renewable energy feasibility studies completed or updated
	5c. Transportation studies	Number of transportation efficiency studies completed
		Number of transportation feasibility studies completed
		Number of other transportation studies completed
		Number of multi-modal studies completed or updated
	5d. Economic policy analyses	Number of job studies completed or updated
		Number of supply chain analyses completed or updated
	5e. Energy security, emergency, resilience, and assurance activities	Number of energy assurance and/or energy security plans or studies completed or updated
		Number of energy resiliency plans or studies completed or updated
	5f. Grid modernization analyses	Number of grid modernization policies completed or updated
		Number of smart grid technology incentives completed or updated
	5g. Energy storage analyses	Number of storage studies completed or updated
	5h. Microgrid analyses	Number of smart grid technology incentives completed or updated
		Number of Microgrid site assessments completed or updated
6. Energy Efficiency Certification, Rating, and Labeling	6a. Residential building labels	Number of residential labels generated
	6b. Building certification or rating programs	Number of commercial buildings certified (Energy Star, LEED, etc.)
		Square footage of buildings certified or rated
		Number of plants certified or rated (ISO 50001, Energy Star, Superior Energy Performance, etc.)
		Square footage of industrial plants certified or rated
	6c. Policies or ordinances enacted (state, local, private)	Voluntary certification/labeling policies or ordinances enacted
		Mandatory certification/labeling policies or ordinances enacted

Updated Process Metrics – What Changed?

Metric Area	Metric	Metric Item(s) to Report on
7. Financial Instruments	7a. Financial incentives provided, by sector and incentive type	Monetary value of financial incentives provided
		Total value of investments incentivized
	7b. Existing or new financial programs utilized/created, by sector and program type	Number of customers newly utilizing program
		Private dollars leveraged
		Total dollars invested as a result of financial mechanism
		Projected energy, cost savings
		Number of financial programs developed or updated
	7c. Loans and Grants by sector	Number of grants given
		Total monetary value of grants given
		Number of loans given
		Total monetary value of loans given
		Number of loans repaid
		Monetary value of loans repaid
	7d. Energy Savings Performance Contracts, by sector	Number of contracts signed
		Dollar value of contracts signed
		Projected savings (kWh/year)
	7e. Energy Investment Partnerships/Green Banks	Number of projects funded
		Total monetary value of projects funded

Updated Process Metrics – What Changed?

Metric Area	Metric	Metric Item(s) to Report on
8. Renewable Energy Market Development	8a. Biofuel systems installed	Number of biofuel systems installed
		Total capacity of biofuel systems installed (gallons/year)
	8b. Biomass systems (non-transport) installed	Number of biomass (non-transport) systems installed
		Total capacity of biomass (non-transport) systems installed (kW)
	8c. Ground source geothermal systems installed	Number of ground source geothermal systems installed
		Total capacity of ground source geothermal systems installed (tons)
	8d. Hydropower systems installed	Number of hydropower systems installed
		Total capacity of hydropower systems installed (kW)
	8e. Solar photovoltaic (PV) electric systems installed	Number of solar PV electric systems installed
		Total capacity of solar PV electric systems installed (kW)
	8f. Wind energy systems installed	Number of wind energy systems installed
		Total capacity of wind energy systems installed (kW)
	8g. Renewable thermal systems installed	Number of solar thermal systems installed
		Total capacity of solar thermal systems installed (square feet)
		Number of other renewable thermal systems installed
		Total capacity of other renewable thermal systems installed (Btu/hr)
	8h. Other renewable electric systems installed	Number of other renewable systems installed
		Total capacity of other renewable systems installed (kW)
9. Transportation Infrastructure and Vehicles	9a. Alternative fuel vehicles purchased, by fuel type	Number of alternative fuel vehicles purchased
	9b. Conventional vehicles converted to alternative fuel use by fuel type	Number of vehicles converted to alternative fuel use by fuel type
	9c. New alternative fuel stations emplaced	Number of new alternative refueling stations emplaced
	9d. Electric Vehicle Infrastructure	Number of charging station site assessments completed (e.g. expected usage)
		Number of charging stations installed
		Number of vehicle to grid pilot/demonstrations
	9e. Vehicle miles traveled reduced	Number of vehicle miles traveled reduced annually (VMT/year)

Updated Process Metrics – What Changed?

Metric Area	Metric	Metric Item(s) to Report on
10. Training and Education/ Technical Assistance	10a. Education and outreach conducted	Number of contacts reached via webinars, site visits, fact sheets, or other
		Number of workshops, training, and education sessions held
		Number of people attending workshops, training, and education sessions
	10b. Technical assistance provided	Number of participants
	10c. Workforce development	Number of people trained
		Number of professional certifications achieved
		Jobs retained (Full Time Equivalent)
		Jobs created (Full Time Equivalent)
	10d. Building codes and standards training conducted	Number of people trained
	10e. Energy assurance (security, emergency, resiliency) activities	Number of training sessions completed
		Number of workshops and tabletop exercises, training, and education sessions held
11. Other	11a. Administrative	Administrative (no associated metric)
	11b. Electric production, transmission, and distribution	Transmission and distribution energy efficiency improvements – estimated project KWh savings
	11c. Methane capture, by sector	Estimated methane captured (MMcf, dollars saved)
	11d. Energy storage systems	Number of battery storage systems installed
		Total capacity of battery systems installed (kW)
		Number of thermal storage systems installed
		Total capacity of thermal storage systems installed (KBtu/hr)
	11e. Combined heat and power (CHP)	Number of CHP screenings completed
		Number of feasibility studies completed
		Number of CHP Systems installed (technology and/or fuel type)
		Capacity of CHP systems installed (MW)
		Thermal output of CHP systems installed

Quarterly Performance Reports

Quarterly Performance Reports (QPR)

QPR– How to Enter New Process Metrics

How to Add a Process Metric

Multiple Entries for Buildings Retrofitted Metric

Help Module – SEP Formula and Competitive

Training Video

SEP Training Videos

Requesting technical assistance

Project Officer

Contact your PO for TA

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PAGE Hotline

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Programmatic Agreements for Historic Preservation

Programmatic Agreements -Background

- In 2010, the Department of Energy (DOE), the Advisory Council on Historic Preservation (ACHP), and the National Conference of State Historic Preservation Officers (NCSHPO) developed a Prototype Programmatic Agreement (PA) to address the National Historic Preservation Act (NHPA) Section 106 compliance requirements for the Weatherization and Intergovernmental Program Office's (WIPO) State Energy Program (SEP), Energy Efficiency Conservation Block Grants (EECBG), and the Weatherization Assistance Program (WAP).

- The intent of the Prototype PA was to provide DOE's WAP, SEP, and EECBG Recipients with a streamlined method for complying with DOE's responsibilities under Section 106 of NHPA.

- The Prototype PA is the basis for the individual Programmatic Agreements (PAs) with U.S. states and territories.

- The PAs are beneficial to DOE and Recipients in multiple ways:
  - The PAs include an extensive list of activities that are exempt from the Section 106 review process.
  - DOE relies on the PAs to streamline the NEPA compliance process.
  - The PAs delegate some of DOE's NHPA Section 106 compliance responsibilities to the Recipient.

Programmatic Agreements – Current Status

- Currently, **47** U.S. states and territories have DOE-executed Programmatic Agreements.

- The intent of the PA is to streamline compliance with the National Historic Preservation Act.

- The PAs are intended to be a tool for states and territories, DOE and State Historic Preservation Officers.

- DOE's goal is for all states and territories to have a DOE-executed PA.

Programmatic Agreements - Next Steps

- How are the PAs working?

- Annual Reporting – DOE's enhanced efforts

- Extending the PAs beyond 2020