U.S. DEPARTMENT OF ENERGY

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Intro

This communication is being made on behalf of the **Department of Energy (DOE)**. We are conducting a national survey about the energy, energy-related, and advanced manufacturing industries. This important survey addresses businesses that research, develop, manufacture, install, or work with products that generate, distribute, or save energy. This includes organizations involved in fossil and renewable energy production, energy efficiency products and services, motor vehicles, solar, wind, fossil, other energy sources, and energy-related products and services.

Your individual responses will **not** be published; only aggregated information will be used in reporting the survey results.

The survey is **voluntary** and can take up to 45 minutes (including any necessary preparation) of your time. Your participation will help determine how investments of time and money should be made to support the industry and prepare the present and future labor pool.

Paperwork Reduction Act Burden Disclosure Statement

This data is being collected to allow energy-related employment to be assigned by primary value chain activity, including: research and development; manufacturing; sales and distribution; installation, repair and maintenance; and professional services. It will also provide insight on workforce demographics and employers' ability to recruit qualified workers.

The data you supply will be used by industry, training organizations, community colleges, job seekers, federal agencies and other stakeholders, to better inform the workforce development system by highlighting changes in the industry that are driving demand for workers. The data will also inform energy economic development planning activities at the local, state and regional levels by providing a more detailed assessment of energy jobs, as well as the changing energy landscape and how such changes influence labor markets.

Public reporting burden for this collection of information is estimated to up to 45 minutes, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing

the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of the Chief Information Officer, Enterprise Policy Development & Implementation Office, IM-22, Paperwork Reduction Project OMB Control Number 1910-5179, U.S. Department of Energy, 1000 Independence Ave SW, Washington, DC, 20585-1290; and to the Office of Management and Budget (OMB), OIRA, Paperwork Reduction Project OMB Control Number 1910-5179, Washington, DC 20503.

Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB control number.

Submission of this data is voluntary.

Does your organization have at least one location with employees in the United States? (Please count yourself as an employee if you are an owner-operated business or sole proprietor).

- ○ Yes
- ○ No

Zip

For this survey, please only answer for your current business location. If your organization has other U.S. locations, please do not include their data. What is the zip code of your current location?

- ○ Enter zip code: _____
- ○ Refused

SB

Is your organization involved, in whole or part, with an activity related to energy, energy efficiency, or motor vehicles?

We define this as being directly involved with researching, developing, producing, manufacturing, distributing, selling, implementing, installing, or repairing components, goods or services related to Electric Power Generation; Electric Power Transmission, Distribution, and Storage; Energy

Efficiency, including Heating, Cooling and Building Envelope; Fuels, including Extraction, Processing, Production, and Distribution; and Transportation, including Motor Vehicles. This also includes supporting services such as consulting, finance, tax, and legal services related to energy.

- ○ Yes
- ○ No
- ○ Not sure

SC

Which of the following industries describe your organization's work? If your organization is involved in energy research or professional services for the industry, please select the options that are most relevant to your organization.

(Multiple responses permitted)

- ☐ **Electric power generation** (the process of generating electric power from other sources of primary energy whether connected to a distribution grid or not)
- ☐ **Electric power transmission and distribution, including electric vehicle charging** (carries electricity from suppliers to demand sites)
- ☐ **Storage**, **including fuel storage and electric vehicle batteries** (stores energy)
- ☐ **Energy efficiency, including heating, cooling and building envelope** (includes thermal or hot water solar) (goods and services that reduce electricity demand pursuant to EPA's Energy Star Standards or Department of Energy Efficiency Standards or refers to establishments that are involved with heating, ventilation and air conditioning (HVAC) from Renewable Energy sources or work that increases the Energy Efficiency of HVAC systems)
- ☐ **Fuels** (substances that produce useful energy when they undergo a chemical or nuclear reaction)
- ☐ **Transportation vehicles, including motor vehicles** (includes fossil and non-fossil fuel related rail, aircraft, vessels, and vehicles)
- ☐ **Component parts for transportation vehicles** (parts for fossil and non-fossil fuel related rail, aircraft, vessels, and vehicles)
- ☐ **Carbon capture and storage**
- ☐ None of the above
- ☐ Don't know/ Refused

SD

Which do you consider your organization's **primary** industry, based on the majority of labor hours performed at your location?

- **Electric power generation** (the process of generating electric power from other sources of primary energy whether connected to a distribution grid or not)
- **Electric power transmission and distribution, including electric vehicle charging** (carries electricity from suppliers to demand sites)
- **Storage**, **including fuel storage and electric vehicle batteries** (stores energy)
- **Energy efficiency, including heating, cooling and building envelope** (includes thermal or hot water solar) (goods and services that reduce electricity demand pursuant to EPA's Energy Star Standards or Department of Energy Efficiency Standards or refers to establishments that are involved with heating, ventilation and air conditioning (HVAC) from Renewable Energy sources or work that increases the Energy Efficiency of HVAC systems)
- **Fuels** (substances that produce useful energy when they undergo a chemical or nuclear reaction)
- **Transportation vehicles, including motor vehicles** (includes fossil and non-fossil fuel related rail, aircraft, vessels, and vehicles)
- **Component parts for transportation vehicles** (parts for fossil and non-fossil fuel related rail, aircraft, vessels, and vehicles)
- **Carbon capture and storage**

SEA

Which of the following **electric power generation** technologies is your organization directly engaged with?

(Select all that apply)

- [ ] Combined heat and power
- [ ] Oil and other petroleum generation
- [ ] Advanced/low emission natural gas
- [ ] Offshore wind generation
- [ ] Nuclear generation
- [ ] Solar photovoltaic electric generation
- [ ] Geothermal generation
- [ ] Bioenergy/biomass generation
- [ ] Concentrated solar electric generation
- [ ] Low-impact hydroelectric generation including wave/kinetic generation
- [ ] Coal generation
- [ ] Land-based wind generation
- [ ] Traditional hydroelectric generation

- [ ] _____ Other generation (Specify)
- [ ] Natural gas generation

SEB

Which of the following **electric power transmission and distribution** technologies is your organization directly engaged with?

(Select all that apply)

- [ ] Electric vehicle charging stations
- [ ] Smart grid
- [ ] Traditional transmission and distribution
- [ ] _____ Other grid modernization (Specify)
- [ ] _____ Other (Specify)
- [ ] Micro grids

SEC

Which of the following **storage** technologies is your organization directly engaged with?

(Select all that apply)

- [ ] Crude oil
- [ ] Nuclear fuel
- [ ] Thermal storage
- [ ] Coal storage (piles, domes, etc.)
- [ ] Mechanical storage (flywheels, compressed air energy storage, etc.)
- [ ] Battery storage, including electric vehicle batteries or storage for solar generation
- [ ] Liquefied natural gas
- [ ] Refined petroleum fuels (gas)
- [ ] Compressed natural gas
- [ ] Pumped hydro-power storage
- [ ] Refined petroleum fuels (liquid)
- [ ] Biofuels, including ethanol and biodiesel

- [ ] Other gas fuel (Specify)
- [ ] Other liquid fuel (Specify)
- [ ] Other storage (Specify)
- [ ] Other (Specify)

What type of **battery storage** do you work with?

(Select all that apply)

- [ ] Lead-based batteries
- [ ] Lithium batteries
- [ ] Vanadium redox flow batteries
- [ ] Other solid-electrode batteries (Specify)
- [ ] Other flow batteries (Specify)

What is the application of your **battery storage** work?

(Select all that apply)

- [ ] Front-of-meter (electric grid)
- [ ] Consumer devices
- [ ] Behin-the-meter (buildings or industrial facilities)
- [ ] Vehicles or other transportation
- [ ] Other (Specify)

SED

Which of the following **energy efficiency, including heating, cooling and building envelope** technologies is your organization directly engaged with?

(Select all that apply)

- [ ] ENERGY STAR certified roofing

- [ ] ENERGY STAR certified windows, doors and skylights
- [ ] ENERGY STAR certified heating, ventilation, and cooling (HVAC), except air-source and ground-source heat pumps
- [ ] ENERGY STAR certified electronics (TVs, telephones, audio/video, etc.)
- [ ] Traditional HVAC goods, control systems, and services
- [ ] ENERGY STAR certified water heaters
- [ ] ENERGY STAR® certified appliances (not including HVAC)
- [ ] Other high efficiency HVAC that are out of scope for ENERGY STAR certification (e.g. indirect evaporative coolers, air to water heat pumps, energy recovery systems, etc.)
- [ ] ENERGY STAR certified insulation
- [ ] Air sealing
- [ ] ENERGY STAR certified commercial food service equipment
- [ ] ENERGY STAR certified data center equipment
- [ ] ENERGY STAR certified LED lighting
- [ ] Other LED, CFL, and efficient lighting
- [ ] Solar thermal water heating and cooling
- [ ] Other renewable heating and cooling (geothermal, biomass, heat pumps, etc.)
- [ ] Advanced building materials/insulation
- [ ] Recycled building materials
- [ ] Reduced water consumption products and appliances
- [ ] Energy auditing services
- [ ] Other (Specify)

SEE

Which of the following **fuels** technologies is your organization directly engaged with?

(Select all that apply)

- [ ] Woody biomass/cellulosic biofuel
- [ ] Other biofuels
- [ ] Onshore petroleum, including gasoline and diesel
- [ ] Coal
- [ ] Corn ethanol
- [ ] Other fossil fuel
- [ ] Onshore natural gas
- [ ] Nuclear fuel
- [ ] Other ethanol/non-woody biomass

- [ ] Other (Specify)
- [ ] Offshore petroleum, including gasoline and diesel
- [ ] Offshore natural gas
- [ ] Renewable diesel
- [ ] Biodiesel
- [ ] Waste fuels

Do you primarily work with onshore or offshore petroleum?

- [ ] Offshore petroleum
- [ ] Onshore petroleum
- [ ] Don't know/ Refused

Do you primarily work with onshore or offshore natural gas?

- [ ] Don't know/ Refused
- [ ] Offshore natural gas
- [ ] Onshore natural gas

SEF

Which of the following **transportation vehicles, including motor vehicles** technologies is your organization directly engaged with?

(Select all that apply)

- [ ] Hydrogen vehicles
- [ ] Gasoline and diesel motor vehicles (excluding freight transport)
- [ ] Natural gas vehicles
- [ ] Hybrid electric vehicles
- [ ] Plug-in hybrid vehicles
- [ ] Electric vehicles
- [ ] Fuel cell vehicles
- [ ] Other (Specify)

SEG

Which of the following **component parts for transportation vehicles** technologies is your organization directly engaged with?

(Select all that apply)

- [ ] Transportation vehicle exhaust system parts
- [ ] Transportation vehicle engine & drive parts
- [ ] Transportation vehicle body parts
- [ ] Other transportation vehicle parts (Specify)

SEPrime

Which of the following technologies is your organization ***PRIMARILY*** engaged with?

- ○ Solar photovoltaic electric generation
- ○ Concentrated solar electric generation
- ○ Land-based wind generation
- ○ Offshore wind generation
- ○ Geothermal generation
- ○ Bioenergy/biomass generation
- ○ Low-impact hydroelectric generation including wave/kinetic generation
- ○ Traditional hydroelectric generation
- ○ Advanced/low emission natural gas
- ○ Nuclear generation
- ○ Coal generation
- ○ Oil and other petroleum generation
- ○ Natural gas generation
- ○ Combined heat and power
- ○ ${q://QID17/ChoiceTextEntryValue/14}
- ○ Traditional transmission and distribution
- ○ Smart grid
- ○ Micro grids
- ○ Electric vehicle charging stations

- ${q://QID18/ChoiceTextEntryValue/4}
- ${q://QID18/ChoiceTextEntryValue/5}
- Pumped hydro-power storage
- Battery storage, including electric vehicle batteries or storage for solar generation
- Mechanical storage (flywheels, compressed air energy storage, etc.)
- Thermal storage
- Liquefied natural gas storage
- Compressed natural gas storage
- Crude oil storage
- Refined petroleum fuels (liquid) storage
- Refined petroleum fuels (gas) storage
- Coal storage (piles, domes, etc.)
- Biofuels, including ethanol and biodiesel storage
- Nuclear fuel storage
- ${q://QID19/ChoiceTextEntryValue/13}
- ${q://QID19/ChoiceTextEntryValue/14}
- ${q://QID19/ChoiceTextEntryValue/15}
- ${q://QID19/ChoiceTextEntryValue/16}
- ENERGY STAR® certified appliances (not including HVAC)
- ENERGY STAR certified heating, ventilation, and cooling (HVAC)
- Other high efficiency HVAC that are out of scope for ENERGY STAR certification (e.g. indirect evaporative coolers, air to water heat pumps, energy recovery systems, etc.)
- Traditional HVAC goods, control systems, and services
- ENERGY STAR certified water heaters
- ENERGY STAR certified electronics (TVs, telephones, audio/video, etc.)
- ENERGY STAR certified windows, doors and skylights
- ENERGY STAR certified roofing
- ENERGY STAR certified insulation
- Air sealing
- ENERGY STAR certified commercial food service equipment
- ENERGY STAR certified data center equipment
- ENERGY STAR certified LED lighting
- Other LED, CFL, and efficient lighting
- Solar thermal water heating and cooling
- Other renewable heating and cooling (geothermal, biomass, heat pumps, etc.)
- Advanced building materials/insulation
- Recycled building materials
- Reduced water consumption products and appliances
- ${q://QID22/ChoiceTextEntryValue/20}

- Coal fuel
- Onshore petroleum fuel
- Offshore petroleum fuel
- Onshore natural gas fuel
- Offshore natural gas fuel
- Other fossil fuels
- Corn ethanol fuel
- Renewable diesel
- Biodiesel
- Other ethanol/non-woody biomass
- Woody biomass/cellulosic biofuel
- Waste fuels
- Other biofuels
- Nuclear fuel
- ${q://QID23/ChoiceTextEntryValue/10}
- Gasoline and diesel motor vehicles (excluding freight transport)
- Hybrid electric vehicles
- Plug-in hybrid vehicles
- Electric vehicles
- Natural gas vehicles
- Hydrogen vehicles
- Fuel cell vehicles
- ${q://QID24/ChoiceTextEntryValue/8}
- Transportation vehicle engine & drive parts
- Transportation vehicle exhaust system parts
- Transportation vehicle body parts
- ${q://QID25/ChoiceTextEntryValue/4}

SF-SG

Which of the following industry descriptions describes your organization’s focus as it relates to the energy industry?

(Select all that apply)

- [ ] An organization that manufactures and/or assembles energy goods or produces components that go into energy products
- [ ] An organization that conducts research and development and related services for energy

- [ ] An organization involved in the wholesale trade and distribution of energy products and services
- [ ] An organization that installs energy systems or provides services for installation of energy systems
- [ ] A public or private utility
- [ ] An organization that provides consulting, engineering, finance, legal, or other professional services related to energy
- [ ] An organization that conducts operations and maintenance (O&M) for energy systems
- [ ] An organization involved in agricultural goods and services
- [ ] An organization involved in mining and extraction
- [ ] An organization primarily involved in education and training
- [ ] _____ Other support services (Specify)
- [ ] _____ Other (Specify)
- [ ] Not sure

Which do you consider your organization's **primary** focus as it relates to the energy industry, based on the labor hours performed at your location?

- ○ An organization that manufactures and/or assembles energy goods or produces components that go into energy products
- ○ An organization that conducts research and development and related services for energy
- ○ An organization involved in the wholesale trade and distribution of energy products and services
- ○ An organization that installs energy systems or provides services for installation of energy systems
- ○ A public or private utility
- ○ An organization that provides consulting, engineering, finance, legal, or other professional services related to energy
- ○ An organization that conducts operations and maintenance (O&M) for energy systems
- ○ An organization involved in agricultural goods and services
- ○ An organization involved in mining and extraction
- ○ An organization primarily involved in education and training
- ○ ${q://QID26/ChoiceTextEntryValue/8}
- ○ ${q://QID26/ChoiceTextEntryValue/9}

SFA-SK

Does your organization work with hydrogen fuel in any capacity?

- ○ _____ Yes (Specify)
- ○ No

- Don't know/ Refused

Is your organization considered an Energy Service Company (ESCO)?

- Yes
- No
- Don't know/ Refused

Does your organization work on ENERGY STAR certified new home construction?

- Yes
- No
- Don't know/ Refused

Does your organization work on ENERGY STAR certified buildings and plants (commercial and industrial)?

- Yes
- No
- Don't know/ Refused

Does your organization have an energy manager or director responsible for energy management at one or more facilities?

- Yes
- No
- Don't know/ Refused

Does your organization employ workers that are in charge of administering, managing, evaluating, or otherwise working on utility-led energy efficiency programs, rebates, and other activities?

- Yes
- No
- Don't know/ Refused

Q1-Q8

For this survey, we will just be asking about the employees that work from or directly report to your current location.

Including all full-time and part-time employees, how many **permanent** employees work at or from your current location?

Record # of employees

Based on **${q://QID30/ChoiceTextEntryValue/1}** full-time and part-time permanent employees at your location, how many employees do you expect to have at your location 12 months from now?

Record # of employees

Just to confirm, you currently have **${q://QID30/ChoiceTextEntryValue/1}** permanent employees at your current location and you expect to have **${q://QID31/ChoiceTextEntryValue/1}** permanent employees 12 months from now.

If this is incorrect, please return to the previous question(s) and adjust your response(s).

Of the **${q://QID30/ChoiceTextEntryValue/1}** full time and part-time permanent employees at your current location, how many of these workers support the energy portion of your business? Please note that your response should include administrative staff supporting the energy portion of your business.

Record # of employees

Of your **${q://QID34/ChoiceTextEntryValue/1}** energy staff at your location (office staff and in the field), please classify them into the area where they spent most of their time over the last 12 months. Please count each employee only once.

In-state within your region/metropolitan area (Record # of employees)

In-state outside your region/metropolitan area (Record # of employees)

Out-of-state (Record # of employees)

How many full-time and part-time **permanent** employees did you have working at your current location 12 months ago that supported the energy portion of your business?

Record # of employees

Based on **${q://QID34/ChoiceTextEntryValue/1}** full-time and part-time permanent employees at your location that support the energy portion of your business, how many employees do you expect to have at your location 12 months from now that support the energy portion of your business?

Record # of employees

Just to confirm, you currently have **${q://QID34/ChoiceTextEntryValue/1}** permanent employees at your current location that support the energy portion of your business and you expect to have **${q://QID37/ChoiceTextEntryValue/1}** permanent employees that support the energy portion of the business 12 months from now.

If this is incorrect, please return to the previous question(s) and adjust your response(s).

Thinking of your **${q://QID34/ChoiceTextEntryValue/1}** energy employees, how many spend at least 50% of their time supporting the energy portion of your business?

Record # of employees

Thinking of your **${q://QID34/ChoiceTextEntryValue/1}** energy employees, how many spend all of their time supporting the energy portion of your business?

Record # of employees

Q9

Thinking of your **${q://QID34/ChoiceTextEntryValue/1}** workers at your location, please classify them in the following categories. Please count each employee only once and categorize them in the area where they spend the most time.

Electric power generation

Electric power transmission and distribution

Storage

Energy efficiency, including heating, cooling and building envelope	
Fuels	
Transportation vehicles, including motor vehicles	
Component parts for transportation vehicles	
Carbon capture and storage	

Q10

Thinking of your **${q://QID39/ChoiceTextEntryValue/1}** workers that spend at least 50% of their time supporting the energy portion of your business, please classify them in the following categories. Please count each employee only once and categorize them in the area where they spend the most time. (Do not exceed the total reported employees recorded for categories in the previous question)

Electric power generation (${q://QID43/ChoiceTextEntryValue/1} total reported employees)	
Electric power transmission and distribution (${q://QID43/ChoiceTextEntryValue/2} total reported employees)	
Storage (${q://QID43/ChoiceTextEntryValue/10} total reported employees)	
Energy efficiency, including heating, cooling and building envelope (${q://QID43/ChoiceTextEntryValue/3} total reported employees)	
Fuels (${q://QID43/ChoiceTextEntryValue/4} total reported employees)	
Transportation vehicles, including motor vehicles (${q://QID43/ChoiceTextEntryValue/5} total reported employees)	
Component parts for transportation vehicles (${q://QID43/ChoiceTextEntryValue/6} total reported employees)	
Carbon capture and storage (${q://QID43/ChoiceTextEntryValue/7} total reported employees)	

Q11

Thinking of your **${e://Field/Q9_1} energy generation workers** at your location, please classify them in the following categories. Please count each employee only once and categorize them in the technology area where they spend the most time.

Solar photovoltaic electric generation	
Concentrated solar electric generation	
Land-based wind generation	

Offshore wind generation	
Geothermal generation	
Bioenergy/biomass generation	
Low-impact hydroelectric generation including wave/kinetic generation	
Traditional hydroelectric generation	
Advanced/low emission natural gas	
Nuclear generation	
Coal generation	
Oil and other petroleum generation	
Natural gas generation	
Combined heat and power	
${q://QID17/ChoiceTextEntryValue/14}	

Q12

Thinking of your **${e://Field/Q9_2} electric power transmission and distribution** workers at your location, please classify them in the following categories. Please count each employee only once and categorize them in the technology area where they spend the most time.

Traditional transmission and distribution	
Smart grid	
Micro grids	
Electric vehicle charging stations	
${q://QID18/ChoiceTextEntryValue/4}	
${q://QID18/ChoiceTextEntryValue/5}	

Q13

Thinking of your **${e://Field/Q9_3} storage** workers at your location, please classify them in the following categories. Please count each employee only once and categorize them in the technology area where they spend the most time.

Pumped hydro-power storage	
Battery storage, including electric vehicle batteries or storage for solar generation	
Mechanical storage (flywheels, compressed air energy storage, etc.)	

Thermal storage	
Liquefied natural gas	
Compressed natural gas	
Crude oil	
Refined petroleum fuels (liquid)	
Refined petroleum fuels (gas)	
Coal storage (piles, domes, etc.)	
Biofuels, including ethanol and biodiesel	
Nuclear fuel	
${q://QID19/ChoiceTextEntryValue/13}	
${q://QID19/ChoiceTextEntryValue/14}	
${q://QID19/ChoiceTextEntryValue/15}	
${q://QID19/ChoiceTextEntryValue/16}	

Q14

Thinking of your **${e://Field/BATTERY}** battery storage workers at your location, please classify in them in the following categories. Please count each employee only once and categorize them in the battery storage application category where they spend the most time.

Consumer devices	
Vehicles or other transportation	
Buildings or industrial facilities	
Electric grid	
${q://QID137/ChoiceTextEntryValue/5}	

Q15

Thinking of your **${e://Field/Q9_4} energy efficiency, including heating, cooling and building envelope** workers at your location, please classify them in the following categories. Please count each employee only once and categorize them in the technology area where they spend the most time.

ENERGY STAR® certified appliances (not including HVAC)	

ENERGY STAR certified heating, ventilation, and cooling (HVAC)	
Other high efficiency HVAC that are out of scope for ENERGY STAR certification (e.g. indirect evaporative coolers, air to water heat pumps, energy recovery systems, etc.)	
Traditional HVAC goods, control systems, and services	
ENERGY STAR certified water heaters	
ENERGY STAR certified electronics (TVs, telephones, audio/video, etc.)	
ENERGY STAR certified windows, doors and skylights	
ENERGY STAR certified roofing	
ENERGY STAR certified insulation	
Air sealing	
ENERGY STAR certified commercial food service equipment	
ENERGY STAR certified data center equipment	
ENERGY STAR certified LED lighting	
Other LED, CFL, and efficient lighting	
Solar thermal water heating and cooling	
Other renewable heating and cooling (geothermal, biomass, heat pumps, etc.)	
Advanced building materials/insulation	
Recycled building materials	
Reduced water consumption products and appliances	
${q://QID22/ChoiceTextEntryValue/20}	

Q16

Thinking of your **${e://Field/Q9_5} fuels**-related workers at your location, please classify them in the following categories. Please count each employee only once and categorize them in the technology area where they spend the most time.

Coal	
Onshore petroleum, including gasoline and diesel	
Offshore petroleum, including gasoline and diesel	
Onshore natural gas	
Offshore natural gas	
Other fossil fuel	

Corn ethanol	
Renewable diesel	
Biodiesel	
Other ethanol/non-woody biomass	
Woody biomass/cellulosic biofuel	
Waste fuels	
Other biofuels	
Nuclear fuel	
${q://QID23/ChoiceTextEntryValue/10}	

Q17

Thinking of your **${e://Field/Q8_6} transportation vehicles, including motor vehicles-**related workers at your location, please classify them in the following categories. Please count each employee only once and categorize them in the technology area where they spend the most time.

Gasoline and diesel motor vehicles (excluding freight transport)	
Hybrid electric vehicles	
Plug-in hybrid vehicles	
Electric vehicles	
Natural gas vehicles	
Hydrogen vehicles	
Fuel cell vehicles	
${q://QID24/ChoiceTextEntryValue/8}	

Q18

Thinking of your **component parts for transportation vehicles-**related workers at your location, please classify them in the following categories. Please count each employee only once and categorize them in the technology area where they spend the most time.

Transportation vehicle engine & drive parts	
Transportation vehicle exhaust system parts	
Transportation vehicle body parts	

${q://QID25/ChoiceTextEntryValue/4}	

Q19-Q37

Thinking of your **${q://QID34/ChoiceTextEntryValue/1}** energy employees, how many are:

Male (Record # of employees)	
Female (Record # of employees)	
Gender non-binary (Record # of employees)	

This survey uses U.S. Census Bureau categories for ethnicity and race. The U.S. Census Bureau considers race and ethnicity to be two separate and distinct concepts. Ethnicity determines whether a person is of Hispanic origin or not. Race is defined as a person's self-identification with one or more social groups. An individual can report as White, Black or African American, Asian, American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander, or some other race.

Thinking of your **${q://QID34/ChoiceTextEntryValue/1}** energy employees, please indicate the ethinicity for each employee. How many are:

Hispanic or Latino (Record # of employees)	
Not Hispanic or Latino (Record # of employees)	

Thinking of your **${q://QID34/ChoiceTextEntryValue/1}** energy employees, please indicate the race and choose all that apply. How many are:

American Indian or Alaskan Native (Record # of employees)	
Asian (Record # of employees)	
Black or African American (Record # of employees)	
Black Indigenous	
Native Hawaiian or other Pacific Islander (Record # of employees)	
White (Record # of employees)	
Two or more races (Record # of employees)	

Thinking of your **${q://QID34/ChoiceTextEntryValue/1}** energy employees, how many are:

Veterans of the U.S. Armed Forces (Record # of employees)	
55 and over (Record # of employees)	
Represented by unions, collective bargaining agreements, and/or project labor agreements (Record # of employees)	
Identify as LGBQT+	
Have a disability that requires accommodation	
Were formerly incarcerated	

Thinking of the current **${q://QID34/ChoiceTextEntryValue/1}** energy employees at your location, how many are in the following occupational categories?

(Please only assign one category to each employee that supports the energy portion of your business. If they fall into more than one category, please assign them to the category in which they devote more of their time.)

Mining and Extraction Field positions (includes oil field workers, miners, etc.)

- ○ _____ Record # of employees
- ○ Refused

Production/Manufacturing positions (includes workers in refineries and assembly workers and those involved in the design, quality control and manufacturing process)

- ○ _____ Record # of employees
- ○ Refused

Installation or repair positions (includes technicians, building trades people, and supervisors that are working at project site)

- ○ _____ Record # of employees
- ○ Refused

Administrative positions (includes customer service representatives, clerks, office and operations support)

- ○ _____ Record # of employees
- ○ Refused

Management/Professional positions (*does not include* those supervisors that spend a majority of their time at project sites or sales managers)

- ○ _____ Record # of employees
- ○ Refused

Sales positions (includes cost estimators, sales representatives and sales managers)

- ○ _____ Record # of employees
- ○ Refused

Other

- ☐ _____ Specify
- ☐ _____ Record # of employees
- ☐ Refused

How many energy workers have you hired over the last 12 months, either for new positions or to replace former workers?

Record #: _____

Thinking of the **${q://QID62/ChoiceTextEntryValue/1}** energy workers that you have hired at your location over the last 12 months, please indicate your level of difficulty finding qualified applicants to fill the positions.

- ○ Very difficult

- Somewhat difficult
- Not at all difficult
- Don't know/ Refused

What are the two most significant reasons for the reported difficulty?

#1

#2

Please provide the two most difficult positions for your organization to fill at your location.

#1

#2

You reported **${q://QID62/ChoiceTextEntryValue/1}** additional energy workers at your organization over the last 12 months.Of these **${q://QID62/ChoiceTextEntryValue/1}** positions, how many:

Were newly created positions?

- Record # of employees
- Refused

Were existing employees that added energy responsibilities?

- Record # of employees
- Refused

Were hired to replace workers due to turnover or retirement?

- Record # of employees
- Refused

You reported **${q://QID62/ChoiceTextEntryValue/1}** additional energy workers at your organization over the last 12 months.Of these **${q://QID62/ChoiceTextEntryValue/1}** positions, how many:

Were positions that required previous work experience related to the position?

- ○ _____ Record # of employees
- ○ Refused

Required a bachelor's degree or beyond?

- ○ _____ Record # of employees
- ○ Refused

Required an associate degree or academic certificate from an accredited college, but not a bachelor's degree?

- ○ _____ Record # of employees
- ○ Refused

Required a vocational or technical postsecondary certificate or credential?

- ○ _____ Record # of employees
- ○ Refused

Are represented by a union, collective bargaining agreement, or a project labor agreement?

- ○ _____ Record # of employees
- ○ Refused

Does your firm have a formal or informal mentorship/sponsorship program?

- ○ Yes

- No
- Don't know/ Refused

Briefly describe the mentorship/sponsorship program.

Has your firm adopted any specific strategies, policies, or programs to increase the number of female hires?

- Yes
- No
- Don't know/ Refused

Briefly describe the strategies, policies, or programs to increase female hires.

Has your firm adopted any specific strategies, policies, or programs to increase the number of ethnic or racial minority hires?

- Yes
- No
- Don't know/ Refused

Briefly describe the strategies, policies, or programs to increase minority hires.

Has your firm adopted any specific strategies, policies, or programs to increase the number of LGBTQ+ hires?

- Yes
- No

- Don't know/ Refused

Briefly describe the strategies, policies, or programs to increase LGBTQ+ hires.

Does your firm offer or require a diversity and/or inclusion training program aimed at advocating workplace diversity and inclusion?

- Yes
- No
- Don't know/ Refused

Q38-Q40

The following is a list of factors that may contribute to difficulty growing a profitable business. Please rate the significance of each factor.

	Very significant	Somewhat significant	Not at all significant	Don't know/ Refused
Poor demand	O	O	O	O
Policy challenges	O	O	O	O
Lack of capital	O	O	O	O
Cost or supply of materials	O	O	O	O
Permitting delays	O	O	O	O
Interconnection delays	O	O	O	O
Lack of qualified talent	O	O	O	O

Thinking about your organization's energy related suppliers and vendors, what percent of your supply chain purchases (in dollars/value), are:

(Use whole numbers to indicate percentages, i.e. 20% = 20. Enter zero (0) if none)

In-state (Enter %)	
Out of state but in the United States (Enter %)	
Outside of the United States (Enter %)	

Which countries are your energy related suppliers and vendors located in?

Thinking about your organization's energy related customers, what percent are located:

(Use whole numbers to indicate percentages, i.e. 20% = 20. Enter zero (0) if none)

In-state (Enter %)	
In a bordering state but out of state (Enter %)	
In the United States, but outside of a bordering state (Enter %)	
Outside of the United States (Enter %)	

Which countries are your energy related customers located in?

Q41-43

Can you name any specific rebates or incentives that can reduce the cost of selling, distributing or installing energy for your customers?

Approximately how much of your organization's work at your current location, in terms of total gross revenue, is related to energy?

Record $:

Approximately how much of your organization's work at your current location, in terms of total gross revenue, is related to each of the following products or services? (Please use whole numbers to represent percentages, for example 30 = 30%)

(Answers should sum to 100%)

Solar photovoltaic electric generation	
Concentrated solar electric generation	
Land-based wind generation	
Offshore wind generation	
Geothermal generation	
Bioenergy/biomass generation	
Low-impact hydroelectric generation including wave/kinetic generation	
Traditional hydroelectric generation	
Advanced/low emission natural gas	
Nuclear generation	
Coal generation	
Oil and other petroleum generation	
Natural gas generation	
Combined heat and power	
${q://QID17/ChoiceTextEntryValue/14}	
Traditional transmission and distribution	
Smart grid	
Micro grids	
Electric vehicle charging stations	
${q://QID18/ChoiceTextEntryValue/4}	
${q://QID18/ChoiceTextEntryValue/5}	
Pumped hydro-power storage	
Battery storage, including electric vehicle batteries or storage for solar generation	
Mechanical storage (flywheels, compressed air energy storage, etc.)	
Thermal storage	
Liquefied natural gas storage	
Compressed natural gas storage	
Crude oil storage	
Refined petroleum fuels (liquid) storage	
Refined petroleum fuels (gas) storage	
Coal storage (piles, domes, etc.)	
Biofuels, including ethanol and biodiesel storage	
Nuclear fuel storage	

${q://QID19/ChoiceTextEntryValue/13}	
${q://QID19/ChoiceTextEntryValue/14}	
${q://QID19/ChoiceTextEntryValue/15}	
${q://QID19/ChoiceTextEntryValue/16}	
ENERGY STAR® certified appliances (not including HVAC)	
ENERGY STAR certified heating, ventilation, and cooling (HVAC)	
Other high efficiency HVAC that are out of scope for ENERGY STAR certification (e.g. indirect evaporative coolers, air to water heat pumps, energy recovery systems, etc.)	
Traditional HVAC goods, control systems, and services	
ENERGY STAR certified water heaters	
ENERGY STAR certified electronics (TVs, telephones, audio/video, etc.)	
ENERGY STAR certified windows, doors and skylights	
ENERGY STAR certified roofing	
ENERGY STAR certified insulation	
Air sealing	
ENERGY STAR certified commercial food service equipment	
ENERGY STAR certified data center equipment	
ENERGY STAR certified LED lighting	
Other LED, CFL, and efficient lighting	
Solar thermal water heating and cooling	
Other renewable heating and cooling (geothermal, biomass, heat pumps, etc.)	
Advanced building materials/insulation	
Recycled building materials	
Reduced water consumption products and appliances	
${q://QID22/ChoiceTextEntryValue/20}	
Coal fuel	
Onshore petroleum fuel, including gasoline and diesel	
Offshore petroleum fuel, including gasoline and diesel	
Onshore natural gas fuel	
Offshore natural gas fuel	
Other fossil fuels	
Corn ethanol fuel	

Renewable diesel fuel	
Biodiesel	
Other ethanol/non-woody biomass	
Woody biomass/cellulosic biofuel	
Waste fuels	
Other biofuels	
Nuclear fuel	
${q://QID23/ChoiceTextEntryValue/10}	
Gasoline and diesel motor vehicles (excluding freight transport)	
Hybrid electric vehicles	
Plug-in hybrid vehicles	
Electric vehicles	
Natural gas vehicles	
Hydrogen vehicles	
Fuel cell vehicles	
${q://QID24/ChoiceTextEntryValue/8}	
Transportation vehicle engine & drive parts	
Transportation vehicle exhaust system parts	
Transportation vehicle body parts	
${q://QID25/ChoiceTextEntryValue/4}	

Q44-cont

With which of the following types of transportation vehicles does your firm **primarily** design, manufacture, sell, repair, or otherwise work with?

- ○ Automobiles
- ○ Light duty vehicles
- ○ Heavy duty vehicles
- ○ Industrial vehicles, such as forklifts
- ○ Recreational vehicles, such as golf carts
- ○ Rail

- ○ Other (Specify)
- ○ Don't know/ Refused

Does your firm manufacture, design, sell, and/or distribute parts solely used for alternative vehicles, or vehicles with a fuel source other than gasoline or diesel?

(Select all that apply)

- ☐ Yes, electric vehicles
- ☐ Yes, hydrogen vehicles
- ☐ Yes, other (Specify)
- ☐ No
- ☐ Don't know/ Refused

How much of your firm's work, as a percentage of your total revenue, is attributed to parts solely used for alternative vehicles, or vehicles with a fuel source other than gasoline or diesel?

- ○ All of it (100%)
- ○ Half to most of it (50% to 99%)
- ○ A quarter to almost half of it (25% to 49%)
- ○ Less than a quarter (1% to 24%)
- ○ Don't know/ Refused

Thinking of the type of fuel used, does your organization offer parts for any of the following types of transportation vehicles?

(Select all that apply)

- ☐ Hybrid electric vehicles
- ☐ Hydrogen vehicles
- ☐ Electric vehicles
- ☐ Plug-in hybrid vehicles
- ☐ Fuel cell vehicles
- ☐ Gasoline and diesel motor vehicles (excluding freight transport)
- ☐ Natural gas vehicles
- ☐ Other (Specify)

- [ ] Don't know/ Refused

Which systems for electric and hybrid vehicles does your firm primarily work with?

- [ ] Auxiliaries (i.e. brakes, steering, climate control, etc.)
- [ ] Charging components
- [ ] Batteries
- [ ] Electric propulsion (i.e. converter, controller, transmission, etc.)
- [ ] Body design or structure
- [ ] Other (Specify)
- [ ] Don't know/ Refused

How many of your **${q://QID34/ChoiceTextEntryValue/1}** energy employees work on ENERGY STAR certified new home construction?

Record # of employees

How many of your **${q://QID34/ChoiceTextEntryValue/1}** energy employees work on ENERGY STAR certified buildings and plants (commercial and industrial)?

Record # of employees

How many of your **${q://QID34/ChoiceTextEntryValue/1}** energy employees work on administering, managing, evaluating, or otherwise working on utility-led energy efficiency programs, rebates, and other activities?

Record # of employees

Thank you for completing the survey. Since it sometimes becomes necessary for the project manager to confirm responses to certain questions, please verify your contact information.

This information will also be used to ensure that we do not call you as part of our telephone survey effort for this project.

First and Last Name

Position

Phone

Email	
Organization Name	
Organization Address	
Organization City	
Organization State	
Organization Zip