

OMB No. 1910-5179 Expiration 2024

Introduction:

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.

If you have any questions about DOE's involvement in this survey, please contact Ava Kalina at 202-573-5882.

Privacy Act Statement

The information you provide to the Department of Energy (DOE) during this study will be used 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 wages, 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.

With your consent, the DOE will collect your response as you participate in the study. This includes responses to all survey questions for which your firm qualifies. Your feedback will be kept private and will not be linked to you. Only de-identified and aggregated information will be included in any final or published reports. None of your identifying information will be included in the reports. The DOE does not anticipate further disclosure of your personal information except as required by law.

Participation is voluntary, and you may withdraw participation at any time.

Paperwork Reduction Act Burden Disclosure Statement

Public reporting burden for this collection of information is estimated to up to 48 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.

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

- 1 Yes [CONTINUE]
- 2 No [TERMINATE]

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?

_____ (Accept all five-digit responses)

Have check box for Refused (Terminate if Refused)

B. Is your organization involved, in whole or part, with an activity related to energy? We define this as being directly involved with researching, developing, producing, manufacturing, distributing, selling, implementing, installing, or repairing components, constructing facilities (for energy product manufacturing and distribution) or other energy infrastructure projects such as EV charging and ports for offshore wind, and other 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.

- 1 Yes [CONTINUE]
- 2 No [CONTINUE]
- 3 Not sure [TERMINATE]

C. Is your organization participating in the building, construction, or retrofitting of manufacturing, assembling, or materials processing facilities?

- 1 Yes [CONTINUE TO SD.]
- 2 No [GO TO SD.]
- 3 Not sure [TERMINATE]

D. Is your organization participating in the building, construction, or retrofitting of warehouses and related logistical facilities?

- 1 Yes [CONTINUE TO SE.]

- 2 No [GO TO SE.]
- 3 Not sure [TERMINATE]

E. Is your organization participating in the building, construction, or retrofitting of public facilities for infrastructure, energy, or transportation?

- 1 Yes [CONTINUE TO SF.]
- 2 No [GO TO SF.]
- 3 Not sure [TERMINATE]

F. Is your organization participating in the building, construction, expansion, or retrofitting of ports and port related facilities?

- 1 Yes [CONTINUE TO SG.]
- 2 No [TERMINATE IF SError: Reference source not found=2 AND SC.=2 AND SD.=2 AND SE.=2]
- 3 Not sure [TERMINATE]

IF SC.=1 OR SD.=1 OR SE.=1 OR SF.=1 DISPLAY SG. OTHERWISE SKIP
IF SC.=2 AND SD.=2 AND SE.=2 AND SF.=2 AND SError: Reference source not found=2, TERMINATE

G. In the last 12 months, has your organization been directly involved in the building and construction of any of the following types of facilities?

IF SC.=1 DISPLAY OTHERWISE SKIP

1. Manufacturing facilities related to wind energy (offshore or land-based), hydrogen, batteries or energy storage, solar energy, or other energy related manufacturing facilities?

- 1 Yes (specify type_____)
- 2 No
- 3 Not sure

IF SD.=1 DISPLAY OTHERWISE SKIP

2. Warehouse facilities and distribution centers related to energy and energy storage?

- 1 Yes (specify type_____)
- 2 No
- 3 Not sure

IF SE.=1 DISPLAY OTHERWISE SKIP

3. Electric charging stations for electric vehicles or other related infrastructure for electric or alternative vehicles?

- 1 Yes (specify type _____)
- 2 No
- 3 Not sure

IF SF.=1 DISPLAY OTHERWISE SKIP

4. Ports that are preparing or supporting offshore wind development or operations or the transportation of Liquefied Natural Gas or other energy related work?

- 1 Yes (specify type _____)
- 2 No
- 3 Not sure

IF SError: Reference source not found=2 **AND** SG.1=1 OR SG.2=1 OR SG.3=1 OR SG.4=1 DISPLAY Q1. AND Q2., THEN SKIP TO Q1, OTHERWISE TERMINATE

H. What is your role in your organization?

- 1. Human resources
- 2. Owner, manager, or proprietor
- 3. Other [Specify]

I. Which of the following industries describes 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.

[ALLOW MULTIPLE RESPONSES]

- 1. Electric Power Generation
- 2. Electric Power Transmission and Distribution, including electric vehicle charging stations
- 3. Storage, including electric vehicle batteries
- 4. Energy Efficiency, Including Heating, Cooling and Building Envelope (IF NEEDED THIS INCLUDES THERMAL OR HOT WATER SOLAR)
- 5. Fuels
- 6. Transportation Vehicles, including Motor Vehicles (IF NEEDED: Including industrial and agricultural vehicles, such as forklifts, tractors, and recreational vehicles, such as golf carts) e
- 7. Component Parts for Transportation Vehicles
- 8. Carbon Capture, Utilization, and Storage (CCUS)
- 9. Direct Air Capture (DAC)
- 10. Other (Specify _____) [TERMINATE]
- 11. DK/NA [TERMINATE]

[DISPLAY SCREENER J. IF SI. COUNT>1]]

- J. Which do you consider your organization's **primary** industry, based on the majority of labor hours performed at your location? [PIPE IN SI. CATEGORIES, ACCEPT ONE]
1. Electric Power Generation
 2. Electric Power Transmission and Distribution, including electric vehicle charging stations
 3. Storage, including electric vehicle batteries
 4. Energy Efficiency, Including Heating, Cooling and Building Envelope (IF NEEDED THIS INCLUDES THERMAL OR HOT WATER SOLAR)
 5. Fuels
 6. Transportation, including Motor Vehicles (IF NEEDED: Including industrial and agricultural vehicles, such as forklifts, tractors, and recreational vehicles, such as golf carts)
 7. Component Parts for Transportation Vehicles
 8. Carbon Capture, Utilization, and Storage (CCUS)
 9. Direct Air Capture (DAC)
 10. Other

CREATE **SJ.PRIME** FROM SI. IF SI. COUNT=1, OR SJ. IF SI. COUNT>1

- K. [DISPLAY FOR EACH SI.] Which of the following [INSERT SI. RESPONSE] technologies is your organization directly engaged with? [ALLOW MULTIPLE RESPONSES]

A. Electric Power Generation (IF SI.=1) [RANDOMIZE]

1. Solar Electric Generation [SET SOLAR=1]
2. Land-based Wind Generation
3. Offshore Wind Generation
4. Geothermal Generation
5. Bioenergy/Biomass Generation
6. Low-Impact Hydroelectric Generation such as run of river
7. Traditional Hydroelectric Generation
8. Marine and Hydrokinetic Generation
9. Advanced/Low Emission Natural Gas
10. Nuclear Generation
11. Coal Generation
12. Oil and other Petroleum Generation
13. Natural Gas Generation
14. Combined Heat and Power
15. Other Generation (Specify)

B. Electric Power Transmission and Distribution (IF SI.=2) [RANDOMIZE]

1. Traditional Transmission and Distribution
2. Electric Vehicle Charging Stations
3. Smart Grid
4. Micro Grids
5. Other Grid Modernization
6. Other (Specify)

C. Storage (IF SI.=3) [RANDOMIZE] [IF SK.A=1, “(including battery storage for solar generation)”

1. Pumped hydro-power storage
2. Battery storage, including electric vehicle batteries [IF SK.A=1, “(including battery storage for solar generation)”
3. Mechanical storage (flywheels, compressed air energy storage, etc.)
4. Thermal storage
5. Liquefied natural gas
6. Compressed natural gas
7. Crude oil
8. Refined petroleum fuels (liquid)
9. Refined petroleum fuels (gas)
10. Coal storage (piles, domes, etc.)
11. Biofuels, including ethanol and biodiesel
12. Nuclear fuel
13. Other gas fuel (Specify)
14. Other liquid fuel (Specify)
15. Other Storage
16. Other (Specify)

IF SK.C=2, DISPLAY H_2, H_3, and H_4

H_2. What type of Battery Storage do you work with? [ALLOW MULTIPLE RESPONSES] [RANDOMIZE]

1. Lithium batteries
2. Lead-based batteries
3. Other solid-electrode batteries (Specify)
4. Vanadium redox flow batteries
5. Other flow batteries (Specify)

H_3. What is the application of your battery storage work? [ALLOW MULTIPLE RESPONSES] [RANDOMIZE]

1. Consumer devices
2. Vehicles or other transportation (including electric vehicles)
3. Behind-the-meter (buildings or industrial facilities)
4. Front-of-meter (electric grid)

5. Other (Specify)

H_4: What stage of batteries do you work with? [ALLOW MULTIPLE RESPONSES] [RANDOMIZE]

1. Materials (lithium, cobalt, manganese, graphite, nickel, etc.)
2. Component parts
3. Cells
4. Modules/Packs
5. Other (Specify)

D. Energy Efficiency, Including Heating, Cooling and Building Envelope (IF SK.=4) [RANDOMIZE]

1. ENERGY STAR® Certified Appliances (not including HVAC)
2. ENERGY STAR Certified Heating, Ventilation, and Cooling (HVAC), except air-source and ground-source heat pumps
3. ENERGY STAR Air-Source Heat Pumps
4. ENERGY STAR Ground-source or geothermal heat pumps
5. 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.)
6. Traditional HVAC goods, control systems, and services
7. ENERGY STAR certified water heaters
8. ENERGY STAR Certified Electronics (TVs, Telephones, Audio/Video, etc.)
9. ENERGY STAR Certified Windows, Doors and Skylights
10. ENERGY STAR Certified Roofing
11. ENERGY STAR Certified Insulation
12. Air sealing
13. ENERGY STAR Certified Commercial Food Service Equipment
14. ENERGY STAR Certified Data Center Equipment
15. ENERGY STAR Certified LED lighting
16. Other LED, CFL, and efficient lighting
17. Solar thermal water heating and cooling [SET SOLAR=1]
18. Other renewable heating and cooling (biomass, etc.)
19. Advanced building materials/insulation
20. Recycled building materials
21. Reduced water consumption products and appliances
22. Energy auditing services
23. Other (Specify)

E. Fuels (IF SK.=5) [RANDOMIZE]

1. Coal
2. Onshore petroleum, including gasoline and diesel

3. Offshore petroleum, including gasoline and diesel
4. Onshore natural gas
5. Offshore natural gas
6. Other Fossil Fuel
7. Corn Ethanol
8. Renewable Diesel
9. Biodiesel
10. Other Ethanol/Non-Woody Biomass
11. Woody Biomass/Cellulosic Biofuel
12. Waste Fuels
13. Other Biofuels
14. Nuclear Fuel
15. Other (Specify)

DISPLAY KA IF SK.E = 2 & 3

KA. Do you primarily work with onshore or offshore petroleum?

1. Onshore petroleum
2. Offshore petroleum
3. Don't know/ Refused

DISPLAY KB IF SK.E = 4 & 5

KB. Do you primarily work with onshore or offshore natural gas?

1. Onshore natural gas
2. Offshore natural gas
3. Don't know/ Refused

F. Transportation Vehicles, Including Motor Vehicles (IF SI.=6) [RANDOMIZE]

1. Gasoline and Diesel Motor Vehicles (excluding freight transport)
2. Hybrid Electric Vehicles
3. Plug-In Hybrid Vehicles
4. Electric Vehicles
5. Natural Gas Vehicles
6. Hydrogen/Fuel Cell Vehicles
7. Other (Specify _____)

G. Component Parts for Transportation Vehicles (IF SI.=7) [RANDOMIZE]

1. Transportation Vehicle Engine & Drive Parts
2. Transportation Vehicle Exhaust System Parts
3. Transportation Vehicle Body Parts
4. Other Transportation Vehicle Parts (Specify _____)

SET SOLAR=1 IF SK.A=1 OR SK.D=17

IF SK. TOTAL>1, DISPLAY SK.PRIME, IF NOT, SKIP

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

[PIPE-IN RESPONSES FROM SK.A-SK.G]

[IF RESPONDENT ONLY IDENTIFIES WITH ONE INDUSTRY AT SCREENER I., USE THAT INDUSTRY FOR THE REMAINDER OF THE SURVEY IN PLACE OF "ENERGY" / IF MORE THAN ONE, CONTINUE TO USE "ENERGY." EXCEPTION - IF THE ONLY SELECTION AT SCREENER I. IS "OTHER" OR "DK/NA," USE "ENERGY"]

L. Which of the following industry descriptions describe your organization's focus as it relates to the [energy/ SI.] industry? [ALLOW MULTIPLE RESPONSES]

1. An organization involved in agricultural goods and services
2. An organization involved in mining and extraction
3. An organization that manufactures and/or assembles [energy/ SI.] goods or produces components that go into energy products
4. An organization that conducts research and development and related services for [energy/ SI.]
5. An organization involved in the wholesale trade and distribution of [energy/ SC] products and services
6. An organization that installs [energy/ SI.] systems or provides services for installation of [energy/ SI.] systems
7. A public or private utility
8. An organization that provides consulting, engineering, finance, legal, or other professional services related to energy
9. An organization that conducts operations and maintenance (O&M) for [energy/ SI.] systems
10. An organization primarily involved in education and training
11. Other support services (Specify: _____)
12. Other (Specify: _____)
13. Not sure

[DISPLAY SCREENER M. IF MORE THAN ONE SELECTED AT SCREENER L.]

M. Which do you consider your organization's **primary** focus as it relates to the [energy/ SC] industry, based on the labor hours performed at your location

1. An organization involved in agricultural goods and services

2. An organization involved in mining and extraction
3. An organization that manufactures and/or assembles [energy/ SC] goods or produces components that go into energy products
4. An organization that conducts research and development and related services for [energy/ SI.]
5. An organization involved in the wholesale trade and distribution of [energy/ SC] products and services
6. An organization that installs [energy/ SI.] systems or provides services for installation of [energy/ SI.] systems
7. A public or private utility
8. An organization that provides consulting, engineering, finance, legal, or other professional services related to energy
9. An organization that conducts operations and maintenance (O&M) for [energy/ SI.] systems
10. An organization primarily involved in education and training
11. Other support services (Specify: _____)
12. Other (Specify: _____)
13. Not sure

SET SM.PRIME BASED ON SCREENER M. RESPONSE OR SCREENER L. RESPONSE IF SCREENER L. COUNT=1

DISPLAY SN. IF SK.A=14 **OR** SK.B=6 **OR** SK.C = 13, 14, 15, OR 16 **OR** SK.E = 15, **AND** SL. = 4, 8, OR 10

N. Does your organization work with hydrogen fuel in any capacity?

1. Yes (Please specify)_____
2. No
3. Don't know/ Refused

IF SM.PRIME=7, DISPLAY SCREENER O.

O. 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?

1. Yes
2. No
3. DK/NA

.....

For this survey, we will just be asking about the people that work at or directly report to your current location and are doing work for your organization.

IF SError: Reference source not found=2 **AND** SG.1=1 OR SG.2=1 OR SG.3=1 OR SG.4=1 DISPLAY Q1. AND Q2., THEN SKIP TO Q4.

1. Including all people, permanent and temporary, contract employees as well as any other individuals who may work for or be employed by other entities, how many **people** work at or from your current location doing work for your organization?

A. Record # of ALL people _____

Have check box for Refused

Of the #_(TAKE FROM Q1A)_ people that work at or from your current location, how many are permanent employees, full-time or part-time. Please note this would include all of those employees that have taxes withheld by your organization in their paycheck.

B. Record # of permanent employees _____

Have check box for Refused

Of the #_(TAKE FROM Q1A)_ people that work at or from your current location, how many are self-employed or independent contractors working for your organization. Please note this would include all of those individuals that receive a 1099 from your organization rather than wages with taxes withheld for them.

C. Record # of self-employed or independent contractors _____

Have check box for Refused

Of the #_(TAKE FROM Q1A)_ people that work at or from your current location, how many are employed by another firm or entity, such as a temporary employment agency or a union hiring hall, but are providing services for your organization. Please note this would include all consultants, temporary workers or advisors that are employed by another firm but doing work for your organization.

D. Record # of people employed by another firm _____

Have check box for Refused

[BUILD IN CHECK SO Q1B + Q1C + Q1D = Q1A]

Now we want to just ask about those permanent employees that work at or from your current location.

2. Based on [Take Q1.B #] 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?

- 1 More [record # _____]
- 2 Fewer [record # _____]
- 3 Same number
- 4 Refused

[If amount differs by 10% or more in either direction, DISPLAY:]
Just to confirm, you currently have _____ permanent employees at your current location and you expect to have _____ (more/fewer) employees, for a total of _____ permanent employees 12 months from now.

IF SError: Reference source not found=2 **AND** SG.1=1 OR SG.2=1 OR SG.3=1 OR SG.4=1 SKIP TO Q4.

3. Of the [Take Q1.B #] full time and part-time permanent employees at your current location, how many of these workers support the [energy/ SI.] portion of your business? Please note that your response should include administrative staff supporting the energy portion of your business.

Record # of employees _____

Have check box for Refused

[IF NEEDED: SUPPORT WORKERS ARE DEFINED AS THOSE INDIVIDUALS THAT SPEND ANY AMOUNT OF TIME, DIRECTLY WORKING ON ENERGY RELATED PROJECTS INCLUDING ADMINSTRATIVE SUPPORT WORKERS]
[Q3 SHOULD BE LESS THAN OR EQUAL TO Q1 - BUILD IN CHECK]

[IF SError: Reference source not found=2 **AND** SG.1=1 OR SG.2=1 OR SG.3=1 OR SG.4=1 DISPLAY Q4., THEN SKIP TO Q6. OTHERWISE SKIP. IF YES TO MORE THAN ONE SG. CATEGORY DISPLAY QUESTION FOR EACH ONE THAT IS YES]

4. Of the [Take Q1.B #] full time and part-time permanent employees at your current location, how many of these workers support the building and construction work related to manufacturing facilities / warehouses / infrastructure / ports? (PIPE IN RESPONSES FROM SG.) Please note that your response should include administrative staff supporting this portion of your business.

Record # of employees _____

Have check box for Refused

[IF NEEDED: SUPPORT WORKERS ARE DEFINED AS THOSE INDIVIDUALS THAT SPEND ANY AMOUNT OF TIME, DIRECTLY WORKING ON CONSTRUCTION RELATED PROJECTS INCLUDING ADMINISTRATIVE SUPPORT WORKERS]

[Q4. SHOULD BE LESS THAN OR EQUAL TO Q1.- BUILD IN CHECK]

5. Of your [Take Q3. #] 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.

- a. In-state within your region/metropolitan area [Record #]_____
- b. In-state outside your region/metropolitan area [Record #]_____
- c. Out-of-state [Record #]_____

IF SB=1 **OR** SError: Reference source not found=2 AND SG.1=1 OR SG.2=1 OR SG.3=1 OR SG.4=1 DISPLAY Q6. AND Q7.

6. How many full-time and part-time **permanent** employees did you have working at your current location 12 months ago that supported the [energy/ SI./ facilities construction] portion of your business?

Record # of employees _____

Have check box for Refused

7. Based on [Take Q3. #] full-time and part-time permanent employees at your location that support the [energy/ SI./ facilities construction] portion of your business, how many employees do you expect to have at your location 12 months from now?

- 1 More [record #_____]
- 2 Fewer [record #_____]
- 3 Same number
- 4 Refused

Just to confirm, you currently have ____ permanent employees supporting the energy portion of your business and you expect that number to be ____ (more/fewer) 12 months from now, for a total of ____

IF RESPONDENTS ANSWERED Q3 DISPLAY Q8A AND Q9A IF RESPONDENTS ANSWERED Q4 DISPLAY Q8B AND Q9B

8. A. Thinking of your [INSERT Q3.] energy employees, how many spend at least 50% of their time supporting the energy portion of your business?

Record: _____

B. Thinking of your [INSERT Q4] employees that support the building and construction work related to manufacturing facilities / warehouses / infrastructure /

ports? (PIPE IN "YES" RESPONSES FROM SG.), how many spend at least 50% of their time supporting that portion of your business?

Record: _____

9. A. Thinking of your [Q3. ANSWER] energy employees, how many spend all of their time supporting the energy portion of your business?

Record: _____

B. Thinking of your [INSERT Q4] employees that support the building and construction work related to manufacturing facilities / warehouses / infrastructure / ports? (PIPE IN "YES" RESPONSES FROM SG.), how many spend all of their time supporting that portion of your business?

Record: _____

IF SError: Reference source not found=2 **AND** SG.1=1 OR SG.2=1 OR SG.3=1 OR SG.4=1 SKIP TO QError: Reference source not found

SECTION 2 – Workforce Profile Questions

If SI. COUNT > 1 response, DISPLAY Q10.

10. Thinking of your [Take Q3.] [energy/ SI.] 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.

PIPE IN SCREENER I. RESPONSES

Record # of employees _____

If SI. COUNT > 1 response and Q8.>0, DISPLAY Q11.

11. Thinking of your [Take Q8.] [energy/ SI.] 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.

PIPE IN SCREENER I. RESPONSES AND EMPLOYMENT FROM Q8.]

Record # of employees _____

BUILD CHECK SO TOTAL MUST = Q8.

IF Sl. = 1 and Screener K..A > 1 response, DISPLAY Q12. OTHERWISE SKIP

USE Q3. IN PLACE OF Q10. IF SELECTED COUNT AT SCREENER I. WAS ONE (ONE CHOICE)

12. Thinking of your [PIPE IN Q10./Q3. GENERATION ANSWER] 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.

PIPE IN SCREENER K..A RESPONSES

Record # of employees _____

IF Sl. = 2 and Screener K..B > 1 response, DISPLAY Q13. OTHERWISE SKIP

13. Thinking of your [PIPE IN Q10./Q3 ELECTRIC POWER TRANSMISSION AND DISTRIBUTION ANSWER] energy transmission, distribution, and 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.

PIPE IN SCREENER K..B RESPONSES

Record # of employees _____

IF Sl. = 3 and Screener K..C > 1 response, DISPLAY Q14. OTHERWISE SKIP

14. Thinking of your [PIPE IN Q10./Q3. STORAGE ANSWER] 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.

PIPE IN SCREENER K..C RESPONSES

Record # of employees _____

IF Q14._2(BATTERY STORAGE)>0, DISPLAY Q15.

15. Thinking of your [PIPE IN Q14._2 #] 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.

1. Consumer devices [Record # of employees]
2. Vehicles or other transportation [Record # of employees]
3. Buildings or industrial facilities [Record # of employees]
4. Electric Grid [Record # of employees]
5. Other (Specify) [Record # of employees]

IF Sl. = 4 and Screener K..D > 1 response, DISPLAY Q16. OTHERWISE SKIP

16. Thinking of your [PIPE IN Q10./Q3. ENERGY EFFICIENCY, INCLUDING HEATING, COOLING AND BUILDING ENVELOPE ANSWER] 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.

PIPE IN SCREENER K..D RESPONSES

Record # of employees _____

IF Sl. = 5 and Screener K..E > 1 response, DISPLAY Q17. OTHERWISE SKIP

17. Thinking of your [PIPE IN Q10./Q3. FUELS ANSWER] 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.

PIPE IN SCREENER E.E RESPONSES

Record # of employees _____

IF Sl. = 6 and Screener K..F > 1 response, DISPLAY Q18. OTHERWISE SKIP

18. Thinking of your [PIPE IN Q10./Q3. TRANSPORTATION VEHICLES ANSWER] motor-vehicle 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.

PIPE IN SCREENER E.F RESPONSES

Record # of employees _____

IF SI. = 5 and Screener K..G > 1 response, DISPLAY Q19. OTHERWISE SKIP

19. Thinking of your [PIPE IN Q10./Q3. COMPONENT PARTS ANSWER] 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.

PIPE IN SCREENER K..G RESPONSES

Record # of employees _____

Demographic questions

20. Thinking of your [Take Q3./Q4] [energy/ SI.] employees, how many are:

- a) Men: Record # employees _____
- b) Women: Record # of employees _____
- c) Gender non-binary/other: Record # of employees _____
- d) Refused

Q20. a+b+c must = Q3.

IF SError: Reference source not found=1 OR SError: Reference source not found=2 AND SG.1=1 OR SG.2=1 OR SG.3=1 OR SG.4=1 DISPLAY QError: Reference source not found THROUGH Q37.23.

21. Thinking of your [Take Q3./Q4] [energy/ SI./ facilities construction] employees, please indicate the race and/or ethnicity:

- (a) American Indian or Alaska Native
For example, Navajo Nation, Blackfeet Tribe of the Blackfeet Indian Reservation of Montana, Native Village of Barrow Inupiat Traditional Government, Nome Eskimo Community, Aztec, Maya, etc. Record # of employees _____
- (b) Asian
For example, Chinese, Asian Indian, Filipino, Vietnamese, Korean, Japanese, etc. Record # of employees _____
- (c) Black or African American
For example, African American, Jamaican, Haitian, Nigerian, Ethiopian, Somali, etc. Record # of employees _____

- (d) Hispanic or Latino
For example, Mexican, Puerto Rican, Salvadoran, Cuban, Dominican, Guatemalan, etc. Record # of employees _____
- (e) Middle Eastern or North African
For example, Lebanese, Iranian, Egyptian, Syrian, Iraqi, Israeli, etc. Record # of employees _____
- (f) Native Hawaiian or Pacific Islander
For example, Native Hawaiian, Samoan, Chamorro, Tongan, Fijian, Marshallese, etc. Record # of employees _____
- (g) White
For example, English, German, Irish, Italian, Polish, Scottish, etc. Record # of employees _____

22. Thinking of your [Take Q3./Q4] [energy/ SI./ facilities construction] employees, how many:

- a) Are Veterans of the U.S. Armed Forces Record # of employees _____
- b) Are 55 and over Record # of employees _____
- c) Are between 30 and 54 Record # of employees _____
- d) Represented by Unions, Collective Bargaining Agreements, and/or Project Labor Agreements Record # of employees _____
- e) Have a disability that requires accommodation
- f) Were formerly incarcerated
- g) Refused

23. Thinking of the current [Take Q3./Q4] [energy/ SI./ facilities construction] employees at your location, how many are in the following occupational categories?

(Please only assign one category to each employee that supports the [energy/ SI.] 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.)

- a. Mining and Extraction Field positions (includes oil field workers, miners, etc.)
- b. Production/Manufacturing positions (includes workers in refineries and assembly workers and those involved in the design, quality control and manufacturing process)

Record # of employees _____
Have check box for Refused

- c. Construction, installation or repair positions (includes technicians, building trades people, and supervisors that are working at project site)

Record # of employees _____

Have check box for Refused

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

Record # of employees _____
Have check box for Refused

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

Record # of employees _____
Have check box for Refused

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

Record # of employees _____
Have check box for Refused

- g. Other (Specify: _____)

Record # of employees _____
Have check box for Refused

(CREATE INTERNAL CONTROL SO Q23. A+B+C+D+E+F+G EQUALS Q3.)

SECTION 3 – Workforce Development & Training Needs

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

Record _____

IF Q24.>0, DISPLAY Q25.-28. otherwise SKIP

25. Thinking of the [Insert Q24.] energy/ facilities construction 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.

1. Very difficult
2. Somewhat difficult
3. Not at all difficult
4. DK/NA

IF Q25. = 1 or 2 DISPLAY Q26. and Q27., otherwise SKIP

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

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

28. You reported [insert Q24.] additional workers at your organization over the last 12 months. Of these [insert Q24.] positions, how many:

a. Were newly created positions?

Record # of employees _____

b. Were existing employees that added energy responsibilities?

Record # of employees _____

c. Were hired to replace workers due to turnover or retirement?

Record # of employees _____

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

Record # of employees _____

e. Required a bachelors degree or beyond: _____

Record # of employees _____

f. Required an associate degree or academic certificate from an accredited college, but not a bachelors degree: _____

Record # of employees _____

g. Required a vocational or technical postsecondary certificate or credential: _____

Record # of employees _____

- h. Are represented by a union, collective bargaining agreement, or a project labor agreement: _____

Record # of employees _____

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

1. Yes
2. No
3. DK/NA

30. Briefly describe the mentorship/sponsorship program?

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

1. Yes
2. No
3. DK/NA

IF Q31. = 1, DISPLAY Q32.

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

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

1. Yes
2. No
3. DK/NA

IF Q33. = 1, DISPLAY Q34.

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

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

1. Yes
2. No
3. DK/NA

IF Q35. = 1, DISPLAY Q36.

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

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

1. Yes
2. No
3. DK/NA

IF SError: Reference source not found=1 DISPLAY Q38.

SECTION 4 – Business Questions

38. The following is a list of factors that may contribute to difficulty growing a profitable business. Please rate the significance of each factor. [READ ITEM, THEN SAY] is it very significant, somewhat significant, or not at all significant. [RANDOMIZE]

- a. Lack of capital
- b. Lack of qualified talent
- c. Poor demand
- d. Cost or supply of materials
- e. Permitting delays
- f. Interconnection delays
- g. Policy challenges

IF SError: Reference source not found=1 **OR** SError: Reference source not found=2
AND SG.1=1 OR SG.2=1 OR SG.3=1 OR SG.4=1 DISPLAY Q39.-Q40

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

- a. In-state (Enter %) _____

- b. Out of state but in the United States (Enter %)_____
- c. Outside of the United States (Enter %)_____ (WEB ONLY SPECIFY COUNTRIES_____)
- d. DK/NA

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

- 1. In-State (Enter %)_____
- 2. In a bordering state but out of state (Enter %)_____
- 3. In the United States, but outside of a bordering state (Enter %)_____
- 4. Outside of the United States (Enter %)_____ (WEB ONLY SPECIFY COUNTRIES _____)
- 5. DK/NA

41. Are you currently partnering with registered apprenticeship programs, community colleges, universities, government training programs, or private sector training programs? [SELECT ALL THAT APPLY]

- 1. Yes, registered apprenticeship programs (WEB ONLY SPECIFY _____)
- 2. Yes, a community college or multiple community colleges (WEB ONLY SPECIFY _____)
- 3. Yes, a university or multiple universities (WEB ONLY SPECIFY _____)
- 4. Yes, a government training program or multiple government training programs (WEB ONLY SPECIFY _____)
- 5. Yes, a private sector training program or multiple private sector training programs (WEB ONLY SPECIFY _____)
- 6. No
- 7. DK/NA

42. Has your business been awarded any federal government grants, loans, or procurement contracts?
[SELECT ALL THAT APPLY]

- 1. Yes, grant (SPECIFY_____)

2. Yes, loan (SPECIFY _____)
3. Yes, contract (SPECIFY _____)
4. No
5. DK/NA

SECTION 5 – Revenue Questions

DISPLAY Q43. if SM.PRIME = 5 or 6

43. Can you name any specific rebates or incentives that can reduce the cost of selling, distributing or installing energy for your customers? [Record up to 3]

Record: ____

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

Record \$: _____

DISPLAY Q45. if SK. has multiple responses, otherwise SKIP

45. 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? (Use numbers to indicate percentages, for instance 20=20%)

1. INSERT SK. RESPONSE 1 _____%
2. INSERT SK. RESPONSE 2 _____%
3. INSERT SK. RESPONSE 3 _____%
4. ...
5. All other revenue not related to energy _____%

Q45. total must equal 100%

SECTION 6 – Motor Vehicles & Component Parts

DISPLAY Q46. if SI. = 6, otherwise SKIP

46. With which of the following types of transportation vehicles does your firm primarily design, manufacture, sell, repair, or otherwise work with? [SELECT ONE]

1. Automobiles
2. Light- or Medium- Duty Vehicles
3. Heavy Duty Vehicles
4. Industrial Vehicles, such as forklifts

5. Recreational Vehicles, such as golf carts
6. Rail
7. Other (specify _____)

DISPLAY Q47.-Q49. if SI. = 7, otherwise SKIP

47. 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?

1. Yes, electric vehicles
2. Yes, hydrogen fuel cell vehicles
3. Yes, other (Specify)_____
4. No
5. Don't know/ Refused

DISPLAY Q48. IF Q47.=1, otherwise SKIP

48. 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?

1. All of it (100%)
2. Half to most of it (50% to 99%)
3. A quarter to almost half of it (25% to 49%)
4. Less than a quarter (1% to 24%)
5. DK/NA

49. Thinking of the type of fuel used, does your organization offer parts or products for any of the following types of transportation vehicles? [ALLOW MULTIPLE]

1. Gasoline and Diesel Motor Vehicles (excluding freight transport)
2. Hybrid Electric Vehicles
3. Plug-In Hybrid Vehicles
4. Electric Vehicles
5. Natural Gas Vehicles
6. Hydrogen Vehicles
7. Fuel Cell Vehicles
8. Other (Specify _____)

[If Q49. = 2,3, or 4, DISPLAY Q50., otherwise SKIP]

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

- a. Body design or structure
- b. Batteries
- c. Charging components

- d. Electric propulsion (i.e. converter, controller, transmission, etc.)
- e. Auxiliaries (i.e. brakes, steering, climate control, etc.)
- f. Other (Specify_____)

SECTION 7 – Energy Efficiency

IF SCREENER O.=1, DISPLAY Q51.

51. How many of your [Take Q3#] energy employees work on administering, managing, evaluating, or otherwise working on utility-led energy efficiency programs, rebates, and other activities?

Record # of employees: _____

SECTION 8 – Facilities Construction

IF SError: Reference source not found=2 AND SG.1=1 OR SG.2=1 OR SG.3=1 OR SG.4=1 DISPLAY Q52.

52. How important are the Bipartisan Infrastructure Law (BIL), Inflation Reduction Act (IRA), and other federal policies and investments to your company's growth?

- 1. Very important
- 2. Somewhat important
- 3. Not at all important
- 4. Don't know/ Refused

WAGE SECTION

USE SCREENERS FROM USEER (2025) TO CONFIRM INFORMATION LEARNED INITIALLY

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

DEVELOP OCCUPATIONAL MATRIX TO IDENTIFY UP TO 4 OCCUPATIONAL CATEGORIES

Now we'd like to ask you about occupational categories that work from or report to your current location.

1. Thinking about the different ways you hire [OCCUPATIONAL CATEGORY], please let us know if you hire this position for permanent full-time employment, permanent part-time employment, as a temporary or independent contractor employed by your organization, OR as a temporary or contract worker employed by another organization (employment agency) or union hiring hall). (SELECT ALL THAT APPLY)

- 1 = Permanent full-time employment (taxes withheld by employer)
- 2 = Permanent part-time employment (taxes withheld by employer)
- 3 = As a temporary or independent contractor paid by your organization (taxes are not withheld)
- 4 = As a temporary or contract worker employed by another organization
- 5 = Union hiring hall
- 6 = No, we do not employ workers within this occupational category
- 7 = Don't know/ No Answer

	1	2	3	4	5	6	DK/NA
A. Occupational Category #1.....	1	2	3	4	5	6	7
B. Occupational Category #2.....	1	2	3	4	5	6	7
C. Occupational Category #3	1	2	3	4	5	6	7
D. Occupational Category #4	1	2	3	4	5	6	7

We would like to ask you about your permanent full-time employees that work at or report to your current business location. [SKIP FOR ALL Q1A-D THAT DOES NOT EQUAL 1]

2. How many **permanent full-time** [OCCUPATIONAL CATEGORY TITLE] report to or work from your current location? [IF NEEDED: This includes persons in the field or working remotely that report to this location]

Record # of employees for OC #1 _____
 Record # of employees for OC #2 _____
 Record # of employees for OC #3 _____
 Record # of employees for OC #4 _____
 Have check box for Refused

3. What is the lowest starting or entry-level salary (excluding benefits) for [INSERT OC] ? [THIS IS PERMANENT FULL-TIME FOR Q3 - 5]

A OC #1 _____ \$'s per hour / month / year
 B OC #2 _____ \$'s per hour / month / year
 C OC #3 _____ \$'s per hour / month / year
 D OC #4 _____ \$'s per hour / month / year

4. What is the highest salary for [INSERT OC] at your organization?

A OC #1 _____ \$'s per hour / month / year
 B OC #2 _____ \$'s per hour / month / year
 C OC #3 _____ \$'s per hour / month / year
 D OC #4 _____ \$'s per hour / month / year

5. Over the last 12 months, have wages increased, decreased, or stayed the same for [INSERT OC] ? [THIS IS PERMANENT FULL-TIME]

1 Increased more than 10%
 2 Increased from 5% to 10%
 3 Increased from 1% to 4%
 4 Decreased
 5 Stayed the same
 6 DK/NA

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>DK/NA</u>
A. Occupational Category #1.....	1	2	3	4	5	6
B. Occupational Category #2.....	1	2	3	4	5	6
C. Occupational Category #3	1	2	3	4	5	6
D. Occupational Category #4	1	2	3	4	5	6

Now we'd like to ask about benefits for those individuals that are permanent full-time employees that work at or report to your current business location.

6. What type of healthcare insurance contribution does your organization make for [INSERT OC]?

- 1 = Firm contributes ALL healthcare insurance costs for employee & family
- 2 = Firm contributes ALL healthcare insurance costs for employee only
- 3 = Firm contributes SOME BUT NOT ALL healthcare insurance costs for employee & family
- 4 = Firm contributes SOME BUT NOT ALL healthcare insurance costs for employee only
- 5 = Firm does not contribute to employee's healthcare insurance costs
- 6 = Don't know/ No Answer

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>DK/NA</u>
A. Occupational Category #1.....	1	2	3	4	5	6
B. Occupational Category #2.....	1	2	3	4	5	6
C. Occupational Category #3	1	2	3	4	5	6
D. Occupational Category #4	1	2	3	4	5	6

7. Does your organization contribute to some type of retirement plan (401k, pension, IRAs,..) for [INSERT OC]?

- A OC #1 _____ 1 = YES, 2 = NO, 3 = DK/NA
- B OC #2 _____ 1 = YES, 2 = NO, 3 = DK/NA
- C OC #3 _____ 1 = YES, 2 = NO, 3 = DK/NA
- D OC #4 _____ 1 = YES, 2 = NO, 3 = DK/NA

8. Does your organization offer paid time off (PTO) or paid vacation for [INSERT OC]?

- A OC #1 _____ 1 = YES, 2 = NO, 3 = DK/NA
- B OC #2 _____ 1 = YES, 2 = NO, 3 = DK/NA
- C OC #3 _____ 1 = YES, 2 = NO, 3 = DK/NA
- D OC #4 _____ 1 = YES, 2 = NO, 3 = DK/NA

Now I would like to ask some of the qualifications and promotion opportunities for full-time permanent positions that work at or report to your current business location.

9. Are there certificate(s), technical certification(s) or other specific educational degrees or training programs that are valued by your firm, when looking to hire [INSERT OCCUPATION]? [Single response, repeat for each occupation]

1. Yes, a certification is required for [INSERT OCCUPATION] (Specify certification) _____
2. Yes, a degree is required for [INSERT OCCUPATION] (Specify degree) _____
3. Yes, a certification is NOT required for [INSERT OCCUPATION], but workers with the certification are paid an additional wage premium (Specify certification and additional wage premium per hr/yr) _____
4. Yes, a degree is NOT required for [INSERT OCCUPATION], but workers with the degree are paid an additional wage premium (Specify degree and additional wage premium per hr/yr) _____
5. Yes, a certification is valued for [INSERT OCCUPATION] but not required nor paid an additional wage premium (Specify certification) _____
6. Yes, a degree is valued for [INSERT OCCUPATION] but not required nor paid an additional wage premium (Specify degree) _____
7. No
8. Not sure

10. At your organization do you typically promote individuals from within for [INSERT OCCUPATION], or do you primarily hire people from outside your organization?

- 1 Promote from within
- 2 Recruit from outside the organization
- 3 Both, promote from within and recruit from outside the organization
- 4 DK/NA

	<u>1</u>	<u>2</u>	<u>3</u>	<u>DK/NA</u>
A. Occupational Category #1.....	1	2	3	4
B. Occupational Category #2.....	1	2	3	4
C. Occupational Category #3	1	2	3	4
D. Occupational Category #4	1	2	3	4

[IF Q11 FOR A - D = 1 OR 3 DISPLAY Q12]

11. At your organization what are the primary positions that people have before they become [INSERT OCCUPATION]?

- A OC #1 _____
- B OC #2 _____
- C OC #3 _____
- D OC #4 _____

12. In your organization what are the primary positions that people move up to after working as a [INSERT OCCUPATION]?

- A OC #1 _____
- B OC #2 _____
- C OC #3 _____
- D OC #4 _____

13. What percentage of the [INSERT OCCUPATION] workers at your firm are covered by a Collective Bargaining Agreement or Project Labor Agreement or are otherwise members or covered by one or multiple labor unions?

- 1 A few (1% - 25%)
- 2 Some (26% - 50%)
- 3 Most (51% - 75%)
- 4 All or almost all (76% - 100%)
- 5 None (0%)
- 6 DK/NA

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
A. Occupational Category #1.....	1	2	3	4	5	6
B. Occupational Category #2.....	1	2	3	4	5	6
C. Occupational Category #3	1	2	3	4	5	6
D. Occupational Category #4	1	2	3	4	5	6

14. Of the [INSERT OCCUPATION] workers at your firm, how many live within 50 miles of the office where they work from or report to?

- 1 A few (0% - 24%)
- 2 Some (25% - 49%)
- 3 Most (50% - 74%)
- 4 All or almost all (75% - 100%)
- 5 DK/NA

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>DK/NA</u>
A. Occupational Category #1.....	1	2	3	4	5
B. Occupational Category #2.....	1	2	3	4	5
C. Occupational Category #3	1	2	3	4	5
D. Occupational Category #4	1	2	3	4	5

15. Does your organization inquire about criminal records on applications for job seekers for the following occupations?

- 1 Yes, but a criminal offense does not automatically disqualify job seekers
- 2 Yes, and our organization prefers not hire those with any criminal offense
- 3 Yes, and legally the organization cannot hire those with a nonviolent criminal offense for this role
- 4 DK/NA

	<u>1</u>	<u>2</u>	<u>3</u>	<u>DK/NA</u>
A. Occupational Category #1.....	1	2	3	4
B. Occupational Category #2.....	1	2	3	4
C. Occupational Category #3	1	2	3	4
D. Occupational Category #4	1	2	3	4

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.

- da. First and Last Name (Interview note enter 99 for REF)
 - 1. First Name
 - 2. Last name
- db. Position (Interview note enter 99 for REF)
- dc. Phone (Interviewer Note 9999999999 for REF)
- dd. Email (Interview note enter 99 for REF)
- de. Organization Name (Interview note enter 99 for REF)
- df. Organization Street Address (Interview note enter 99 for REF)
- dg. Organization City (Interview note enter 99 for REF)
- dh. Organization State (Interview note enter 99 for REF)
- di. Organization Zip (Interviewer Note 99999 for REF)

Thank you very much for your time.