Data Entry Pages: Printable Version

Section A. Community Characteristics

A. Community Characteristics	Instructions / Explanation
1. Click on the button below to bring up a map of climate zones, and enter your zone here. *When finished, close the Climate Zones Map window and return to this screen.* EIA Climate Zones Map Climate zone (1-5)	Climate is a major determinant of energy use in buildings. The Finder uses the climate zone you enter to calculate the typical building energy consumption in your region as a baseline to evaluate potential energy savings.
2. Click on the button below to bring up a map of census regions, and select your State from the pulldown menu below. *When finished, close the Census Region Map window and return to this screen.* EIA Census Region Map Select State	Energy use and fuel consumption can vary greatly by region. The northwestern United States, for example, relies heavily on fuel oil for residential heating, while other parts of the country depend more on natural gas. The Finder takes these variations into account in its calculations.
3. What is the population of the community area you are analyzing in this scenario?	You can get these figures from your city or county government offices. If you are analyzing a small area such as a neighborhood region, you will have to develop estimates and a justification for your numbers.This information is used in the calculation for jobs creation from community energy efficiency programs.
4. Does your community have district heating? (This is not common.) Yes/No	District heat is generated from a central source and delivered to buildings in a community. You can read more at the IEA Information Centre on District Heating and Cooling. If your community has district heating, well done! You've chosen a highly efficient way to heat your buildings. You can continue with the Finder analysis in order to uncover energy efficiency opportunities, but because your community is already operating more efficiently than the average, the Finder's analysis will show opportunities in the residential sector that are greater than what you can expect to achieve.

Section B. Building Characteristics

In this section, you'll be asked to enter data on residential and non-residential buildings in your community. In most cases, you'll need to work with your community or county community development or tax assessor's department to gather the data you need.

Residential Buildings

B. Building Characteristics	Instructions / Explanation
5. How many households are in your community?	A "household" can be a single-family or a multi-family home. The data the Finder uses to estimate energy savings potential are averaged across these different housing types.
6. How many new residential households (single family and multi-family) on average will likely be built per year over the next ten years? per year	You can get these data from a number of places: your community or county community development department; tax assessor's division; building and planning offices; or from the state demographer's office. You can also get data fromthe U.S. Census website. Once you're there, click on "American FactFinder," enter your community and then click on "Housing Characteristics." This information will help the Finder estimate your community's potential energy savings in the new building sector over the next ten years. Be sure to enter your estimate of the average number of households that will be built per year over the next ten years, not the total over the next ten years.

Non-residential (Commercial) Buildings

The designation "commercial," which will be used throughout the Finder website, refers to any building that is not residential, including those that are used for commercial, academic, and public purposes. The commercial sector includes service businesses, such as retail and wholesale stores, hotels and motels, restaurants, and hospitals, as well as a wide range of buildings that would not be considered "commercial" in a traditional economic sense, such as public schools, correctional institutions, and religious and fraternal organizations. Excluded from the sector are the goods-producing industries: manufacturing, agriculture, mining, forestry and fisheries, and construction.

You'll probably find that this is the most difficult and time-consuming part of the whole data collection process. This is to be expected. If you can't obtain all the data you want, don't worry. The Finder calculates savings potentials on a sector-by-sector basis, so just fill in what you can for each building sector, and the Finder will generate your results based on those entries. You may choose to skip some sectors, or enter data only on a subset of buildings for which you can collect data quickly and easily. Or you may choose to spend more time and gather data on most or all of the buildings in your community.

You may also decide to make some estimates in this section. If you do, it's best to be conservative, and develop a justification for your methods that you can explain to others.

NOTE: If you have already evaluated potential energy savings in a particular building or for a specific project, like wastewater treatment plant upgrade, and you know both the energy savings and the dollar savings potential, don't include any data from those projects in this section. Instead, enter the data in the "Other" section.

B. Building Characteristics	Instructions / Explanation
7. How many total square feet of each type of non-residential (commercial) building space exists in your community? (You should count total floor area on all floors, not just the building footprint—the space the building takes up on the ground.)	Although there are many different kinds of commercial buildings, the Finder asks you to collect data only on the types listed here because they are the most common and/or have the highest energy intensities (the energy used per square foot of building space). The building descriptions were adapted from the Energy Information Administration (EIA) Commercial Building Energy Consumption Survey (CBECS). You can view the building descriptions on the EIA's Description of CBECS Building Types portion of their website. You can also see typical energy consumption in each building sector by visiting the Look at CBECS Building Activities page in the EIA website.
a. K-12 Education [ ] square feet	Buildings used for academic or technical classroom instruction, such as elementary, middle, or high schools. Buildings on education campuses for which the main use is not classroom are included in the category relating to their use. For example, administration buildings are part of "Office," dormitories are "Lodging," and libraries are "Public Assembly."
b. University/College Education [ ] square feet	Buildings used for academic or technical classroom instruction, such as classroom buildings on college or university campuses. Buildings on education campuses for which the main use is not classroom are included in the category relating to their use. For example, administration buildings are part of "Office," dormitories are "Lodging," and libraries are "Public Assembly."
c. Food Sales [ ] square feet	Buildings used for retail or wholesale of food. • Grocery store or food market • Gas station with a convenience store • Convenience store

d. Food Service square feet	Buildings used for the preparation and sale of food and beverages for consumption, for example a restaurant, bar, fast food chain, or cafeteria.
e. Health/Hospital square feet	Buildings used as diagnostic and treatment facilities for inpatient care, including: • Hospital or other inpatient health care • Mental health institution • Inpatient rehabilitation Buildings used as diagnostic and treatment facilities for outpatient care. Doctor's or dentist's office are included here if they use any type of diagnostic medical equipment (if they do not, they are categorized as an office building). These buildings include: • Doctor's or dentist's office • Clinic or other outpatient health care building • Outpatient rehabilitation • Veterinarian's office
f. Lodging square feet	Buildings used to offer multiple accommodations for short-term or long-term residents, including skilled nursing and other residential care buildings. • Hotel • Motel, inn, or resort • Retirement home • Shelter, orphanage, or children's home • Convent or monastery • Dormitory, fraternity, or sorority • Nursing home, assisted living, or other residential care building • Halfway house
g. Retail and Service square feet	Buildings used for the sale and display of goods other than food. • Car dealership or showroom • Alcoholic beverage store • Store that rents items such as videos, equipment, or vehicles • Freestanding store such as a department, furniture, clothing, hardware, drugstore, or bookstore • Shopping malls comprising of multiple connected establishments. • Enclosed mall • Strip shopping center Buildings in which some type of service is

	provided, other than food service or retail sales of goods • Auto service or auto repair shop • Beauty parlor or barber-shop • Car wash • Copy center • Dry cleaner or laundromat • Gas station • Kennel • Photo processing shop • Repair shop
h. Private sector office space _____ square feet	Buildings used for general office space, professional office, or administrative offices. Buildings used for general office space, professional office, or administrative offices. Doctor's or dentist's office are included here if they do not use any type of diagnostic medical equipment (if they do, they are categorized as a health care building). • Bank or other financial institution • Doctor's or dentist's offices if they don't use diagnostic medical equipment • Administrative or professional office • Research and development building
i. Public Assembly _____ square feet	Buildings in which people gather for social or recreational activities, whether in private or non-private meeting halls. • Theater, cinema, sports arena, casino, or night club • Gymnasium, health club, bowling alley, or other recreational sports facility • Social meeting center, meeting hall, or convention center • Library or museum • Transportation terminal • Funeral home • Broadcasting studio
j. Warehouse and Storage _____ square feet	Buildings used to store goods, manufactured products, merchandise, raw materials, or personal belongings (such as self-storage). • Refrigerated warehouse • Non-refrigerated warehouse

k. State and local government buildings [ ] square feet	All state and local buildings that are used for general office space, and those used for the preservation of law and order, and public safety, for example: • Jail, reformatory, or penitentiary • Courthouse or probation office • Fire and police stations Note: This is not a typical category in the EIA Commercial Building Energy Consumption Survey (CBECS). It is a combination of the Office and Public Order and Safety CBECS building designations.
l. Federal government buildings [ ] square feet	All federal buildings that are used for general office space, and those used for the preservation of law and order, and public safety, for example: • Jail, reformatory, or penitentiary • Courthouse or probation office • Fire and police stations Note: This is not a typical category in the EIA Commercial Building Energy Consumption Survey (CBECS). It is a combination of the Office and Public Order and Safety CBECS building designations.
8. How many total square feet of commercial and institutional (government, schools, health and hospital) building space under 50,000 square feet is likely to be built on average per year over the next ten years? [ ] square feet per year	Buildings that are smaller than 50,000 square feet have energy demands that are "skin dominated." That is, heating and cooling energy demands are largely driven by climate and are heavily influenced by how well-suited the building skin, or envelope, is for that climate. Be sure to enter your estimate of the average square feet of building space that will be built per year over the next ten years, not the total over the next ten years.
9. How many total square feet of commercial and institutional (government, schools, health and hospital) building space *over 50,000 square feet* is likely to be built on average per year over the next ten years? [ ] square feet per year	Buildings that are larger than 50,000 square feet typically have energy demands that are "load dominated." That is, heating and cooling energy demands are largely driven by the internal loads of the building (predominantly the heat produced by lighting, equipment and people), which are large enough to dwarf climate-related energy demands. Load dominated buildings are typically "load dominated" in their interiors and "skin dominated" around the periphery. This means that the building interior is always being cooled, and the building periphery is either

	being heated or being cooled, depending on the season and how well suited the building skin is for the climate. Examples of buildings that are 50,000 square feet or greater include large grocery stores, office buildings, and retail outlets such as Target and K-Mart. Be sure to enter your estimate of the average square feet of building space that will be built per year over the next ten years, not the total over the next ten years.

Section C. Building Energy Consumption

In this section you'll be able to view the data on building energy consumption that the Finder is using in its calculations. The data come from the Energy Information Administration Residential Energy Consumption Survey (RECS) and the Commercial Buildings Energy Consumption Survey (CBECS).

It is possible to calculate these numbers yourself by adding up the energy consumption by all households and all commercial buildings in your community from all the different fuel sources (typically electricity, natural gas, propane, and fuel oil) and dividing by the total number of households or commercial buildings. However, it would be difficult, not to mention very time consuming, to collect this information, so we have used average data for your climate and census region, building type, energy end uses (e.g. space conditioning (HVAC), water heating, and lighting), and for building size based on new commercial construction. We recommend using these average numbers unless more accurate numbers are readily available to you.

All energy figures are given in British thermal units (Btu). What's a Btu?

Residential Buildings

C. Building Energy Consumption	Instructions / Explanation
10. Average residential energy consumption in your community per household. _____ million Btu/yr	The Finder uses data from the 2001 Energy Information Administration Residential Energy Consumption Surveys (RECS) for the average residential energy consumption for major sources (electricity, natural gas, fuel oil, and propane) per household based on your climate type. Click here to see a graph of household energy expenditures typical for your climate region. You can calculate this number yourself if you contact your local energy providers to get average household consumption data. They may not have the information you need, and may refer you to a state agency or energy research organization (like NYSERDA in New York State). If you think your community has done enough energy efficiency work to appreciably reduce the average household energy consumption, you'll have a chance in the Results section to

	adjust the energy savings calculated by the Finder.
11. Average energy consumption for new residential construction per household [ ] million Btu/yr	The Finder uses RMI data for typical energy consumption for new homes by climate region. If your community has programs in place, such as energy efficient residential building codes like MEC or Title 24, you'll have a chance in the Results section to adjust the energy savings calculated by the Finder.

Non-residential (Commercial) Buildings

The designation “commercial,” which will be used throughout the Finder website, refers to any building that is not residential, including those that are used for commercial, academic, and public purposes.

C. Building Energy Consumption	Instructions / Explanation
12. Average annual commercial, industrial, and institutional energy consumption in your community for existing buildings per square foot of building space. (thousand Btu/square foot per year) K-12 Education [ ] University/College Education [ ] Food Sales [ ] Food Service [ ] Health/Hospital [ ] Lodging [ ] Retail and Service [ ] Private sector office space [ ] Public Assembly [ ] Warehouse and Storage [ ] State & local government [ ] Federal government [ ]	The Finder uses data from the 1999 Energy Information Administration Commercial Buildings Energy Consumption Survey (CBECS) for the average energy intensity (energy use per unit of building space) for each sector for major sources (electricity, natural gas, fuel oil, and propane). Click here to see a graph of typical commercial energy consumption patterns. If you think your community has programs in place, such as energy efficient commercial building codes like California Title 24, ASHRAE, or LEED, to appreciably reduce commercial energy consumption, you'll have a chance in the "Results" section to adjust the energy savings calculated by the Finder.

13. Average annual commercial, industrial, and institutional energy consumption in your community per square foot of building space for new buildings under 50,000 square feet. _____ Thousand Btu/square foot per year	The Finder uses data by climate region from the 1999 Energy Information Administration Commercial Buildings Energy Consumption Survey (CBECS) for the average energy intensity (energy use per unit of building space) by end use (e.g., heating or lighting) for skin dominated new building construction (buildings typically under 50,000 sq. ft.).
14. Average annual commercial, industrial, and institutional energy consumption in your community per square foot of building space for new buildings larger than 50,000 square feet. _____ Thousand Btu/square foot per year	The Finder uses data from the 1999 Energy Information Administration Commercial Buildings Energy Consumption Survey (CBECS) for the average energy intensity (energy use per unit of building space) by end use (e.g., heating or lighting) for load dominated new building construction (buildings typically over 50,000 sq. ft.).

Section D. Energy Providers & Energy Costs

In this section, you'll be asked to gather information about your community's energy providers and the costs of electricity, natural gas, fuel oil (if available), and propane.

Most successful community energy efficiency programs involve their energy providers to some degree. If you haven't already developed a relationship with your provider or providers, you should start now. You may need to call them to find out some of the cost information in this section, and in the future, they can be an important source of information and sponsorship for your community's energy program. You can read more about the role of utility providers here.

The following questions can guide your initial research:

What utility or utilities provide gas and electricity to my community?
What kinds of utilities are these?
Am I able to choose among utility providers?

In this section, the data entry fields have default values (shaded blue for most browsers)—state or national averages—from the Energy Information Administration. The default values are only appropriate if you can't find data that is more specific to your community. The better the data you put in, the more accurate results the Finder will put out, so try to get community-specific data if you can. You'll find instructions on how to do this below.

Electricity Costs

D. Energy Providers & Energy Costs	Instructions / Explanation
15. How much does your utility charge for residential electricity? What's a kWh? _____ cents/kWh	The default setting (in blue text for most Internet browsers) is your state's average for 2001, the latest year for which data are available from the Energy Information Administration. To get the most accurate pricing information (for both residential and commercial buildings), ask your local utility or

16. How much does your utility charge for commercial electricity? [ ] cents/kWh	utilities the price they charge customers per kilowatt-hour. Alternately, you may want to contact your state's public service commission or search the Energy Information Administration's website to get this information. If there is more than one electricity supplier in your community, find out how much each one charges, the total amount of electricity (in kWh or MWh) they sell to the residential and commercial sectors, and calculate a weighted average.

Natural Gas Costs

D. Energy Providers & Energy Costs	Instructions / Explanation
17. How much does your utility charge for gas sold to the residential sector? ($/1,000 cubic feet (Mcf)). Sometimes natural gas is measured in therms. Read more about measuring natural gas. [ ] $/Mcf $/therm **18.** How much does your utility charge for natural gas sold to the commercial sector? ($/1,000 cubic feet(Mcf)) [ ] $/Mcf $/therm	The default setting (in blue text for most Internet browsers) is your state's average for 2001, the latest year for which data are available from the Energy Information Administration. To get the most accurate pricing information, identify your local gas utility, and ask them the price they charge customers per thousand cubic feet or per therm (standard units for measuring gas). Alternately, you may want to contact your state's public service commission or search the Energy Information Administration's website to get this information. If there is more than one gas supplier in your community, find out how much each one charges, the total amount of electricity (in Mcf) they sell to the residential and commercial sectors, and calculate a weighted average.

Other Fuel Costs

D. Energy Providers & Energy Costs	Instructions / Explanation
19. What's the average price for fuel oil in your community? [ ] $/gallon **20.** What's the average price for propane in your community? [ ] $/gallon	The default setting (in blue text for most browsers) is the national average from the EIA 2003 Annual Energy Review 2001 p. 171 in dollars per gallon. To get a more accurate price, call several local providers and calculate a simple average. Alternately, you may want to contact your state's public service commission or search the Energy Information Administration's website to get this information.

Section E. Emissions Data

The United States currently gets eighty-eight percent of its energy from fossil fuel, or nonrenewable, energy sources. Fossil fuels were formed hundreds of millions of years ago, before the time of the dinosaurs, from decomposed plant and animal matter. When they are burned to provide energy, fossil fuels release greenhouse gases and other pollutants into the atmosphere.

Nuclear energy, which in 2001 provided eight percent of the United States' energy, is also a nonrenewable energy source. Its radioactive fuel, typically uranium, is used up in the process of energy production, and the spent, radioactive waste must be stored for tens of thousands of years before it becomes safe.

In contrast to fossil fuel and nuclear energy, renewable energy sources such as wind and solar are non-polluting and are constantly replenished. Currently, the United States gets only six percent of its energy from renewables, although these sources could cost-effectively supply much more of our energy needs.

Different areas of the country rely on different sources of energy to generate electricity. The northwestern United States, for example, has many sources of hydroelectric power, which does not generate air pollution, while other parts of the country depend on coal-fired power plants for their electricity, which do produce air emissions.

This section gives you instructions on how to look up your electricity resource mix (the energy sources such as coal-fired power plants or hydroelectric dams that provide electricity to your community) and the air emissions that are produced as a result.

The EPA eGRID database is a comprehensive source of data on the environmental characteristics of virtually all electric power generated in the United States. You should use the EPA's Power Profiler tool, which is based on EGRID data, to find the emissions data needed in boxes 21-23 below. Click on the link below to use this tool.

Go to EPA's Power Profiler

E. Emissions Data	Instructions / Explanation
21. What is your region's annual CO2 emissions rate? What's a MWh? [ ] lbs/MWh	Use the EPA's Power Profiler to find this information. Carbon dioxide (CO2) is a greenhouse gas, which means that it absorbs heat radiated from the Earth's surface. The average temperature of the Earth's surface is about 33 degrees C (60 degrees F) warmer than it would be if there were no atmosphere. This "greenhouse effect" makes life possible on Earth. However, since the industrial revolution, scientists have observed that the atmospheric concentration of CO2 and other greenhouse gases such as methane, ozone, and nitrous oxide are increasing. During the twentieth century, the global average surface temperature increased by over 0.6 degrees C (1 degree F). About half this rise has occurred since the late 1970s, and seventeen of the eighteen warmest years in the twentieth century occurred after 1980. Although other greenhouse gases have an even greater potential to cause global warming (methane, for example, has twenty-one times as much global warming potential

	as CO_2) carbon dioxide is the primary greenhouse gas simply because of its sheer volume in the atmosphere. It contributes to 83 percent of all U.S.-caused global warming.
22. What is your region's annual sulfur dioxide emissions rate? _____ lbs/MWh	Use the EPA's Power Profiler to find this information. From the Power Profiler website: Sulfur dioxides are formed when fuel containing sulfur (mainly coal and oil) is burned, and during metal smelting and other industrial processes. High concentrations of sulfur dioxide affect breathing and may aggravate existing respiratory and cardiovascular disease. Sensitive populations include asthmatics, individuals with bronchitis or emphysema, children, and the elderly. Sulfur dioxide is also a primary contributor to acid rain, which causes acidification of lakes and streams and can damage trees, crops, historic buildings, and statues. In addition, sulfur compounds in the air contribute to visibility impairment in large parts of the country. This is especially noticeable in some national parks. Sulfur dioxide is released primarily from burning fuels that contain sulfur (such as coal, oil, and diesel fuel). Stationary sources such as coal- and oil-fired power plants, steel mills, refineries, pulp and paper mills, and nonferrous smelters are the largest releasers.
23. What is your region's annual nitrogen oxides emissions rate? _____ lbs/MWh	Use the EPA's Power Profiler to find this information. From the EPA's information site on Six Principal Pollutants: Nitrogen oxides (NOx) are a family of highly reactive gases that form when fuel is burned at high temperatures, and come principally from motor vehicle exhaust and stationary sources such as electric utilities and industrial boilers. Nitrogen dioxide (NO_2), one kind of nitrogen oxide, is a suffocating, brownish gas. Nitrogen dioxide is a strong oxidizing agent that reacts in the air to form corrosive nitric acid, as well as toxic organic nitrates. It also plays a major role in the atmospheric reactions that produce ground-level ozone (or smog). Nitrogen dioxide can irritate the lungs and lower resistance to respiratory infections such as influenza. The effects of short-term exposure are still unclear, but continued or frequent exposure to concentrations that are typically much higher than those normally

	found in the ambient air may cause increased incidence of acute respiratory illness in children.

Section F. Municipal Traffic Lighting

There are many opportunities for energy savings in the municipal sector, for example, in water and wastewater treatment plants, swimming pools, ice rinks, and street lighting. However, many of these can only be quantified after a thorough, detailed assessment. The exception is an LED traffic lighting retrofit, which is relatively straightforward to evaluate.

LED traffic signals use 80 to 90 percent less energy than their traditional counterparts, and they can last up to ten years, as compared to less than to two years for incandescent signals. In addition, they rarely fail, which lowers maintenance costs, and reduces the risk of accidents at intersections, which reduces liability.

For this section, you'll need to use an Excel spreadsheet developed by the New York State Energy Research and Development Authority (NYSERDA) to generate an estimate of the energy and cost savings from an LED traffic signal retrofit in your community.

You can download the spreadsheet, called the LED Traffic Signal Life Cycle Cost Analyzer, from the NYSERDA Traffic Signals web page: Scroll down to Project Results and look for the LED Traffic Signal Life Cycle Cost Analyzer. Download the Advanced Tool unless you live in New York, in which case you can use the Basic Tool. If you have trouble finding the Advanced Tool, please click here.

Once you complete the spreadsheet analysis, enter the data on energy and cost savings so the Finder can include them in its totals.

F. Municipal Traffic Lighting	Instructions / Explanation
24. What are the potential energy and cost savings of an LED traffic signal retrofit?	You will use the results from the NYSERDA spreadsheet to complete this section.
a. Enter existing annual energy use in kWh per year. What's a kWh? _____ kWh/year	You will use the results from the NYSERDA spreadsheet to complete this section.
b. Enter existing annual energy bill. _____ $/year	You will use the results from the NYSERDA spreadsheet to complete this section.
c. Enter annual energy savings from spreadsheet. _____ kWh/year	You will use the results from the NYSERDA spreadsheet to complete this section.

d. Enter annual dollar savings from spreadsheet. _____ $/year	You will use the results from the NYSERDA spreadsheet to complete this section.
e. Enter Expected Payback Period. _____ years	You will use the results from the NYSERDA spreadsheet to complete this section.

Section G. Other Energy Savings Opportunities

You're almost done with data collection! In this section, you will have a last chance to enter data for specific energy efficiency initiatives that haven't been already covered in the previous data entry sections, and that your community knows about but hasn't yet implemented. For example, your community might have estimated the potential for energy savings for a municipal swimming pool, an ice rink, streetlighting, or a public stadium. Someone in your community may also have estimated energy savings potential for a *specific* building, and you can enter those savings estimate here. Just be sure you haven't already accounted for that building in a previous section!

You'll need estimates of energy and dollar savings for each energy efficiency project. If you have those data, click on the button below to add the project to this section. You will probably want to contact the local town hall or county offices to see if they have done any studies on energy efficiency potential in public buildings.

If you do not have any projects to add in this section, click on the 'next section' button to move onto the last section of the data entry.

Project Editor

Add a New Project

Select an option from the pulldown menu below:

Project Options

To Add a New Project Click the button above.

No projects exist for this example scenerio.

G. Other Energy Savings Opportunities	Instructions / Explanation
Project Name:	The name of your Project.
25. Current Energy Usage Electricity kWh/yr Natural gas Mcf Therms Fuel oil gallons Propane gallons	Sometimes natural gas is measured in therms. For natural gas select either therms or Mcf as your unit of measure. When you submit your results the finder will automatically convert therms into thousand cubic feet. Read more about measuring natural gas. 1 Mcf = 1000 cubic feet
26. Current energy costs $/yr	
27. Energy savings Electricity kWh/yr Natural gas Mcf Therms Fuel oil gallons Propane gallons	Sometimes natural gas is measured in therms. For natural gas select either therms or Mcf as your unit of measure. When you submit your results the finder will automatically convert therms into thousand cubic feet. Read more about measuring natural gas. 1 Mcf = 1000 cubic feet
28. Anticipated cost savings $/yr	
29. Anticipated payback years	

Energy efficiency projects and programs have great potential to create local jobs. When energy efficiency activities increase, local economic activity also climbs. Demand rises for construction workers, equipment retrofit services, new equipment sales, and even banks and local lending services that can finance energy efficiency projects. In addition, some of the money that residents and businesses save on energy circulates in the economy, creating a local economic multiplier effect (money that is spent locally over and over) that also boosts job creation.

This section of the Finder allows you to estimate the job creation potential in your community from energy efficiency projects and programs. The Finder's calculations are based on a model developed by economists at the U.S. EPA.

The jobs model relies on two inputs: dollar savings from energy efficiency projects, and the payback, or amount of time it takes for the energy savings to pay for the project's initial cost. The Finder has already calculated your community's potential dollar savings from energy efficiency projects and programs. You will need to estimate the payback period.

Typically, energy efficiency projects that have the shortest paybacks are implemented first because they are easy to justify. Projects with longer paybacks are often more difficult to sell, but can have equal or greater overall savings.

Of course, each energy efficiency measure will have its own unique payback based on the current costs of running the old, less efficient equipment and the costs of purchasing and installing the new equipment. In this section, we're not asking you to estimate individual paybacks for each project (e.g. replacing light bulbs or sealing ducts) **but rather an overall payback range for an entire sector**. We've suggested a high, medium, and low range for payback periods for each sector, or you can enter your own number. Just remember that whatever payback period you pick, you'll need to make your assumption transparent to others, and be prepared to justify your decision. For this reason, you may want to try several different options to get a range of estimates.

H. Jobs Creation	Instructions / Explanation
30. Residential Annual Dollar Savings 100% Participation What's this? User Defined Participation What's this? Low $ $ High $ $ Sector payback = [ ] years	Suggested Payback Entry: LOW: <2 years MEDIUM: 2-5 years HIGH: >5 years
31. Commercial Annual Dollar Savings 100% Participation User Defined Participation Low $ $ High $ $ Sector payback = [ ] years	Suggested Payback Entry: LOW: <2 years MEDIUM: 2-5 years HIGH: >5 years

32. Municipal Traffic Lighting

Summary of Results	
Annual Dollar Savings	Payback Period
$	years

You have already entered the payback period for Municipal Traffic Lighting in section F. It is shown here for your review.

33. Other Projects

Summary of Results		
Project	Annual Dollar Savings	Payback Period

You have already entered payback periods for these projects in section G. They are shown here for your review.

The job creation numbers below reflect the fact that energy efficiency projects require more human labor when they're first being put in place. These figures can also be viewed in the results section, but we've included them here so you can see immediately how your payback inputs affect your results.

Total Jobs Created, Year 1		
	100% Participation	User Defined Participation
Low		
High		

Total Jobs Created, Year 5		
	100% Participation	User Defined Participation
Low		
High		

Total Jobs Created, Year 10		
	100% Participation	User Defined Participation
Low		
High		

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