
# Energy

## Introduction

The generation of energy from fossil fuels emits a range of different pollutants, in addition to being the largest contributor to **greenhouse gas** emissions. Air pollutants from energy sources can cause asthma, respiratory disease and other ailments in the community. Please use this section of the application to enter your energy use data and report on energy conservation and cleaner energy successes. This section of the application is tied to the Climate section, due to energy's contribution to an organization's carbon footprint.

## Energy Use Demographics

**Baseline Year** is the year the facility began actively tracking energy use and reduction--but for the purpose of this application **can be no more than five (5) years ago (or 2015)** .

**1.*** Please enter the facility's **Baseline Year** for Energy data **(2015-2020)**:

PGH uses Energy Star Portfolio Manager's definition of **Gross Floor Area**. If the facility uses Portfolio Manager, you can cut and paste the value for **Gross Floor Area** into the application. Learn more on how to define your **campus** (or which part of your campus is being included in your energy footprint).

Please enter the facility's **Gross Floor Area in Square Feet** below:

| Baseline Year Sq Ft | Previous Year Sq Ft | Current Year Sq Ft |
|---|---|---|
| **2.*** | **3.*** | **4.*** |

Enter the same value for all three years if the facility's **Gross Floor Area** has not changed. These values will populate on both the Water and Energy pages.

## Energy Usage

All energy data MUST be provided for a 12-month **CALENDAR YEAR**, meaning we are seeking data from January 1st through December 31 for Current Year.

To appropriately compare energy performance, Practice Greenhealth has to utilize data from the **same 12-month period** (e.g. we need to see energy use in an especially cold February (or extreme heat waves in the summer) for all sites for an accurate comparison--not just those who typically utilize a calendar year for reporting.)

**5.*** Did the facility make changes to its **air handling protocols** to adapt to the COVID-19 pandemic?

- (●) Yes
- ( ) No

**5.a*** Please indicate if the hospital implemented any of the following measures: (Please select all that apply.)

- [x] Increase in outside air
- [ ] Increased number of air changes
- [ ] Discontinued use of HVAC setback
- [ ] Negative pressure rooms
- [ ] Negative pressure isolation rooms
- [x] Other

**5.a.a*** Please indicate **where** outside air has been utilized:

- ( ) 100% outside air for entire facility
- ( ) By department or unit
- (●) Other

**5.a.a.a*** Please describe other strategy for **use of outside air**:

**6.*** Did the facility undertake any activities in 2020 that might have significantly **increased** its energy use or square footage (e.g., the introduction of new major medical equipment, mobile equipment or plugs, major renovation/construction load, or a new bed tower opening, etc.)?

- (●) Yes
- ( ) No

**6.a*** Please describe activities that may have increased energy use:

**Table A1. Conventional Energy Use**:

Please indicate the facility's CALENDAR YEAR energy use in **Table A1.** below. Every applicant is required to complete the CURRENT YEAR (2020) energy usage column. To receive maximum points on this page, please enter the facility's baseline and previous year (2019) data as well. The energy use reduction metric cannot be calculated unless both baseline and previous year data and units are provided.

If this is your first year of tracking energy data, you should enter your 2020 data in BOTH the baseline and current year columns and leave previous year blank. If last year (2019) was the facility's baseline year, enter it for both previous year and baseline year below. **If you do not use a particular energy type, please leave it blank. Do not enter zeros.**

Facilities must provide **calendar year data** for energy use (January 1st- December 31st).

For electricity use, please enter all non-renewable electricity purchased from the local utility grid in Table A1. If the facility owns and retires **RECs** for any portion of its electricity--the **renewable energy** can be tracked in Table B1. Be sure not to double count this energy use. Please ensure the amount of electricity entered in **Table A1. Conventional Energy Use** is the total electricity purchased **minus the RECs value**, where the **RECs** are then entered in **Table B1.** below. (E.g., purchased electricity+**RECs**=total electricity, with conventional kWhs entered in Table A1. while purchased **RECs** are entered in Table B1.

Facilities that have municipalities or utilities that generate **renewable energy** which is distributed through transmission lines cannot claim the off-site **renewable energy** as part of their portfolio mix unless the hospital owns and retires the associated **RECs**. Utility companies that generate renewable electricity on behalf of their customers benefit their customers through reduced **Scope 2 greenhouse gas** (indirect) emissions--but the utility's renewable mix does not impact the hospital's percent **renewable energy** in its energy portfolio. See Table B1. for the complete definition and guidance on tracking **RECs**.

Please check that the data for any given fuel type (electricity, natural gas, etc.) is the same order of magnitude for all years, and check the units for each energy type for each year. Please provide data for any given fuel type (electricity, natural gas) for all 3 years (Baseline, Previous and Current).

Please only include **building energy use**--DO NOT INCLUDE energy use for fleet vehicles, such as diesel or fuel oil for vehicles. If you cannot separate building and vehicle use for a certain fuel type, please check with **Awards Technical Assistance** for guidance.

| Energy Categories | Baseline Year Usage | Units (baseline) | Previous Year Usage | Units (previous) | Current Year Usage | Units (current) |
|---|---|---|---|---|---|---|
| **Electricity** | 7.* | 8.* Select an optio | 9.* | 10.* Select an optio | 11.* | 12.* Select an optio |
| **Natural Gas** | 13.* | 14.* Select an optio | 15.* | 16.* Select an optio | 17.* | 18.* Select an optio |
| **Fuel Oil (#2)** | 19.* | 20.* Select an optio | 21.* | 22.* Select an optio | 23.* | 24.* Select an optio |
| **District Steam** | 25.* | 26.* Select an optio | 27.* | 28.* Select an optio | 29.* | 30.* Select an optio |
| **District Hot Water** | 31.* | 32.* Select an optio | 33.* | 34.* Select an optio | 35.* | 36.* Select an optio |
| **District Chilled Water- Electric Driven Chiller** | 37.* | 38.* Select an optio | 39.* | 40.* Select an optio | 41.* | 42.* Select an optio |
| **District Chilled Water- Absorption Chiller using Natural Gas** | 43.* | 44.* Select an optio | 45.* | 46.* Select an optio | 47.* | 48.* Select an optio |
| **District Chilled Water- Engine-Driven Chiller Natural Gas** | 49.* | 50.* Select an optio | 51.* | 52.* Select an optio | 53.* | 54.* Select an optio |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Diesel** | **55.*** | **56.*** Select an optio | **57.*** | **58.*** Select an optio | **59.*** | **60.*** Select an optio |
| **Propane** | **61.*** | **62.*** Select an optio | **63.*** | **64.*** Select an optio | **65.*** | **66.*** Select an optio |
| **67.*** Other fossil fuel type | **68.*** | **69.*** | **70.*** | **71.*** | **72.*** | **73.*** |

In order for the program to accurately calculate your **greenhouse gas (GHG) emissions**, go to **US EPA's Power Profiler** and enter the facility's zip code and click Enter (it takes a few seconds to run). Select your electric utility and click **"View Report"** to identify the name of your **geographic region** (the name is located above the map or immediately below the View Report button. (This also takes a few seconds to run).

**74.*** Select your **geographic region** identified using **US EPA's Power Profiler**:

The Power Profiler is **required** this year. If you cannot find your power profile at the website **US EPA's Power Profiler**, contact **awards@practicegreenhealth.org**" for assistance.

Applicants in **Puerto Rico** should choose the SPP South grid. **British Columbia and Ontario** facilities should choose the WECC Northwest grid. **Other facilities outside US** please select grid MRO East, or contact **awards@practicegreenhealth.org** for assistance in selecting a region that more closely resembles your power mix.

Select an option...

The following table shows the auto-calculated **greenhouse gas** emissions for each type of energy used, from data provided in Table A. above. For more information on how these values were calculated, refer to **Guidance on Greenhouse Gas (GHG) Emission Calculations**.

Table A2: **Greenhouse Gas** Emission by Energy Type (measured in **MTCO2e**)

| Fuel Type | **Baseline Year GHG Emissions by Energy Type** | **Previous Year GHG Emissions by Energy Type** | **Current Year GHG Emissions by Energy Type** | **Percent Change in Energy- Related GHG Emissions from Baseline Year** | **Percent Change in Energy- Related GHG Emissions from Previous Year** |
|---|---|---|---|---|---|
| **Electricity (location based)** | **75.*** 0 | **76.*** 0 | **77.*** 0 | **78.*** 0 | **79.*** 0 |
| **Natural Gas** | **80.*** 0 | **81.*** 0 | **82.*** 0 | **83.*** 0 | **84.*** 0 |
| **Fuel Oil (#2)** | **85.*** 0 | **86.*** 0 | **87.*** 0 | **88.*** 0 | **89.*** 0 |
| **District Steam** | **90.*** 0 | **91.*** 0 | **92.*** 0 | **93.*** 0 | **94.*** 0 |
| **District Hot Water** | **95.*** 0 | **96.*** 0 | **97.*** 0 | **98.*** 0 | **99.*** 0 |
| **District Chilled Water-Electric Driven Chiller** | **100.*** 0 | **101.*** 0 | **102.*** 0 | **103.*** 0 | **104.*** 0 |
| **District Chilled Water-Absorption Chiller using Natural Gas** | **105.*** 0 | **106.*** 0 | **107.*** 0 | **108.*** 0 | **109.*** 0 |
| **District Chilled Water-Engine-Driven Chiller Natural Gas** | **110.*** 0 | **111.*** 0 | **112.*** 0 | **113.*** 0 | **114.*** 0 |
| **Diesel** | **115.*** 0 | **116.*** 0 | **117.*** 0 | **118.*** 0 | **119.*** 0 |
| **Propane** | **120.*** | **121.*** | **122.*** | **123.*** | **124.*** |

| | | | | | |
|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 |
| **125.*** 0 | **126.*** | **127.*** | **128.*** | **129.*** | **130.*** |
| **Scope 1 (Direct) Energy-related GHG Emissions Total** | **131.*** 0 | **132.*** 0 | **133.*** 0 | **134.*** 0 | **135.*** 0 |
| **Scope 2 (Indirect) Energy-related GHG Emissions Total** | **136.*** 0 | **137.*** 0 | **138.*** 0 | **139.*** 0 | **140.*** 0 |

**141.*** Did you enter data for calendar year (Jan 1- Dec 31)?

- ○ Yes
- ○ No

**The facility will not get credit for the energy reduction metric if it does not enter data for the calendar year Jan 1- Dec 31.**

**142.*** Does the facility generate or purchase **renewable energy**?

Yes

Please enter the facility's **renewable energy** use into **Table B1 Renewable Energy Use** (including onsite or offsite **renewable energy** generation or purchased **renewable energy** certificates (**RECs**)).

If the hospital is purchasing **renewable energy** through its utility, be sure to enter that here and deduct it from the conventional energy consumption. If your utility bill shows one value for electricity and you are purchasing **RECs** to cover some or all of the total kWh consumed, then ensure the amount of electricity entered in **Table A1 Conventional Energy Use** is the total electricity minus the energy you are covering with **RECs**, and then enter the energy covered by your purchased **RECs** in the **renewable energy** section (**Table B1** below). (E.g., conventional electricity+**RECs**=total electricity, with conventional kWhs entered in Table A1, while purchased **RECs** are entered in Table B1.)

**The facility must own and retire the RECs for any renewable energy in order to make any renewable energy claims in Table B1 below.** Ensure you select Own/Retire **RECs** in the last column of Table B1 or points will be removed.

Facilities **cannot claim renewable energy from their utility grid mix**. Please ensure you have checked to ensure that your **renewable energy** project has retained ownership of the associated **RECs** or the facility has purchased replacement **RECs** before claiming the energy as renewable below in Table B1. Please see Practice Greenhealth's new **Guidance on Renewable Energy Usage** for more information on REC retirement, sample use case scenarios and alignment with existing reporting frameworks.

**Table B1. Renewable Energy Use** (generated onsite or purchased)

| Renewable Energy | Baseline Year Usage | Units (baseline) | Previous Year Usage | Units (previous) | Current Year Usage | Units (current) | Own/Retire RECs? |
|---|---|---|---|---|---|---|---|
| **142.a*** Type 1: Generated **On-site** Select an o | **142.b*** | **142.c*** Select an o | **142.d*** | **142.e*** Select an o | **142.f*** | **142.g*** Select an o | **142.h*** Select an o |
| **142.i*** Type 2: Generated **Off-site** Select an o | **142.j*** | **142.k*** Select an o | **142.l*** | **142.m*** Select an o | **142.n*** | **142.o*** Select an o | **142.p*** Select an o |
| **142.q*** Type 3: Generated **Off-site** Select an o | **142.r*** | **142.s*** Select an o | **142.t*** | **142.u*** Select an o | **142.v*** | **142.w*** Select an o | **142.x*** Select an o |
| **142.y*** Type 4: Purchased **RECs** /certificates Select an o | **142.z*** | **142.aa*** Select an o | **142.ab*** | **142.ac*** Select an o | **142.ad*** | **142.ae*** Select an o | **142.af*** Select an o |

**Please Note**: If the facility has claimed **renewable energy** above and have NOT indicated they own and have retired the associated **RECs**, Practice Greenhealth will remove points for this metric.

**Table B2. Total Avoided GHG Emissions from Renewables (in MTCO2e)**

| Total | Baseline Year | Previous Year | Current Year |
|---|---|---|---|
| **Total Renewable Energy Use (kBtus)** | **142.ag*** 0 | **142.ah*** 0 | **142.ai*** 0 |
| **Total Avoided GHG emissions (MTCO2e) from renewable energy generation:** | **142.aj*** 0 | **142.ak*** 0 | **142.al*** 0 |

**Avoided GHG Emissions** are dependent upon the facility owning and retiring the **RECs**. If the facility does not own/retire the associated **RECs**, there are no avoided emissions. Please see Practice Greenhealth's **Guidance on Greenhouse Gas (GHG) Emission Calculations** for more information on relevant conversion factors for energy types, direct and indirect emissions, and avoided **GHG** emissions.

This table **auto-calculates the facility's Energy Use Portfolio** (percent energy usage and cost by energy type) and is based on values entered in Table A1 (and Table B1 if applicable).

**Table C. Current Energy Use Portfolio**

| Category | kBtus (Baseline) | kBtus (Previous) | kBtus (Current) | Percent of Total Usage (Current) | Percent of Total Cost (Current) |
|---|---|---|---|---|---|
| **Conventional Electricity (Fossil Fuel or Nuclear)** | **143.*** 0 | **156.*** 0 | **169.*** 0 | **170.*** 0 | **195.*** |
| **Natural Gas** | **144.*** 0 | **157.*** 0 | **171.*** 0 | **172.*** 0 | **196.*** |
| **Fuel Oil #2** | **145.*** 0 | **158.*** 0 | **173.*** 0 | **174.*** 0 | **197.*** |
| **District Steam** | **146.*** 0 | **159.*** 0 | **175.*** 0 | **176.*** 0 | **198.*** |
| **District Hot Water** | **150.*** 0 | **163.*** 0 | **183.*** 0 | **184.*** 0 | **202.*** |
| **District Chilled Water-Electric Driven Chiller** | **147.*** 0 | **160.*** 0 | **177.*** 0 | **180.*** 0 | **199.*** |
| **District Chilled Water-Absorption Chiller using Natural Gas** | **148.*** 0 | **161.*** 0 | **178.*** 0 | **181.*** 0 | **200.*** |
| **District Chilled Water-Engine-Driven Chiller Natural Gas** | **149.*** 0 | **162.*** 0 | **179.*** 0 | **182.*** 0 | **201.*** |
| **Diesel** | **151.*** 0 | **164.*** 0 | **185.*** 0 | **187.*** 0 | **203.*** |
| **Propane** | **152.*** 0 | **165.*** 0 | **186.*** 0 | **188.*** 0 | **204.*** |
| **Onsite Renewable Energy** | **153.*** 0 | **166.*** 0 | **189.*** 0 | **190.*** 0 | **205.*** |
| **Offsite Renewable Energy** | **154.*** 0 | **167.*** 0 | **191.*** 0 | **192.*** 0 | **206.*** |
| **Total** | **155.*** 0 | **168.*** 0 | **193.*** 0 | **194.*** 0 | **207.*** 0 |

**208.*** Based on this data, the below % of your facility's energy portfolio is from renewable sources.

0

### Energy Performance Metrics : Energy Use Intensity (EUI)

**Table D** auto-calculates and summarizes your **energy performance metrics** based on values entered in **Table A1** above.

The median Energy Use Intensity (EUI) from hospital award winners is **222 kBtus/sq ft** and values range from 125 to 370. (The median EUI for long term care facilities is 171 kBtus/sq ft and ranges from 100 to 220; the median EUI for community health care centers is 117 and ranges from 85 to 220

**Table D. Energy Use Intensity (EUI)** Note: EUI values should be the same order of magnitude for all three years.

| Current Year kBtus | Baseline Year kBtus | Previous Year kBtus | % Change from Baseline kBtus | % Change from Previous kBtus |
|---|---|---|---|---|
| **209.*** 0 | **210.*** 0 | **211.*** 0 | **212.*** 0 | **213.*** 0 |
| **Current Year EUI** | **Baseline Year EUI** | **Previous Year EUI** | **% Change from Baseline EUI** | **% Change from Previous EUI** |
| **214.*** 0 | **215.*** 0 | **216.*** 0 | **217.*** 0 | **218.*** 0 |

**219.*** Does the facility use **Energy Star Portfolio Manager**?

- (●) Yes
- ( ) No

**219.a*** Has your facility benchmarked your facility using **EnergyStar's Portfolio Manager**?

- (●) Yes
- ( ) No

**219.a.a*** Please indicate **Energy Star score** for 2020:

**219.a.b*** Please indicate the facility's **Site EUI** for 2020 according to Portfolio Manager:

**219.a.c*** Please indicate the facility's **Weather-Normalized Site EUI** for 2020 according to Portfolio Manager:

### Other Energy Program Successes

Please describe any additional **projects, savings, successes or innovations** in the energy program or projects at your facility that you would like to share in the space provided below. Please feel free to provide commentary and/or attach a file.

**220.*** Energy Success 1: Please describe or attach any additional documentation:

**221.*** Optional Attachment:

**222.*** Energy Success 2: Please describe or attach any additional documentation.

**223.*** Optional Attachment: