**Date last modified/updated:** Click here to enter a date. **Internal audit:** Click here to enter a date.

**Who last modified/updated:** Click here to enter text. **Management review:** Click here to enter a date.

**This part of the Navigator Playbook is completed when you have:**

1. **Identified all energy sources that are consumed within the scope and boundaries.**
2. **Made a list of energy uses within the scope and boundaries.**
3. **Identified relevant variables that potentially affect the energy consumption of SEUs and would help create meaningful energy performance indicators (EnPIs) and energy baselines (EnBs).**
4. **Developed and implemented a data collection plan based upon the data needs including the key characteristics of ISO 50001.**
5. **Ensured measurements and metering are conducted accurately and are repeatable.**
6. **Determined appropriate analysis methods and used them to understand and monitor energy use and consumption.**
7. Identify all energy sources that are consumed within the scope and boundaries.
8. Make a list of energy uses within the scope and boundaries.

[ ]  We have identified our current energy sources (to be recorded in 50001 Ready Navigator Energy Consumption Tracker)

[ ]  Analysis has been carried out on collected data to assess past and present energy use and consumption at the equipment level (to be recorded in 50001 Ready Navigator Energy Consumption Tracker)

Use the 50001 Ready Navigator Energy Consumption Tracker to collect and record this information. This tool is included as part of the 50001 Ready Navigator Playbook. If you are already collecting and storing this information in other ways, indicate below.

[ ]  Energy data has been organized and entered into a central location and the data is stored at:

Click here to enter text.

[ ]  We have identified energy uses associated with energy sources (complete first two columns)

**Energy Uses**

|  |  |  |  |
| --- | --- | --- | --- |
| **Energy Uses** | **Energy source(s) used** | **Factors/persons that affect consumption** | **Large energy user (y/n)** |
| Data Center | Electricity-offsite generation | Researchersclimate temperature and humidity. | y |
| Office Heating | Natural Gas | StaffOccupancy, climate temperature and humidity | n |
| SEMs (microscopes)  | Electricity-primarily on-site solar | Research schedule, Length of use in one analysis session, data quality and preparation | y |
| Lab Air conditioning | Electricity-offsite generation | Climate temperature and humidity | n |
| Biofuel Wet Lab | Electricity-offsite generation | Climate temperature and humidity, research schedule, occupancy | y |

1. Identify relevant variables that potentially affect the energy consumption of SEUs and would help create meaningful energy performance indicators (EnPIs) and energy baselines (EnBs).

[ ]  We have identified relevant variables that potentially affect the energy consumption of SEUs and would help create meaningful energy performance indicators (EnPIs) and energy baselines (EnBs)

|  |  |
| --- | --- |
| **Relevant Variable** | **Affected SEU(s)** |
| Temperature | All |
| Humidity | All |
| Building occupancy | Heating system, wet lab, SEMs |
|  |  |
|  |  |

1. Develop and implement a data collection plan based upon the data needs including the key characteristics of ISO 50001 (see resource for Task 20 Monitoring and Measurement of the EnMS).
2. Ensure measurements and metering are conducted accurately and are repeatable.

[ ]  We have established our data needs for our Energy Review

[ ]  We have established a process for collecting this data at scheduled intervals

[ ]  We have identified sources for collecting this data

[ ]  We have identified personnel responsible for collecting this data Click here to enter text.

[ ]  Who Click here to enter text.

[ ]  We have established this data is from sources that are accurate and repeatable

Method: Our facilities manager A will collect and appropriately catalogue our energy data for the facility and relevant variables. This data is collected from utility bills and NOAA records. Building occupancy records are marked with badge-scan records held by facilities.

1. Determine appropriate analysis methods and use them to understand and monitor energy use and consumption.

[ ]  Appropriate analysis methods have been used to understand and monitor energy use and consumption.

Method: Our energy manager assesses heating degree and cooling degree days using NOAA climate records. They then utilize the EnPI tool to conduct analysis on site and SEU energy performance.

Top Management Approval

|  |  |  |
| --- | --- | --- |
| [ ]  | Date approved: | Click here to enter a date. |
| [ ]  | Who approved: | Click here to enter text. |

Comments

Click here to enter text.