**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 the facilities, equipment, systems, and processes that can have significant impact on energy performance.**
2. **Incorporated consideration of energy opportunities and operational controls in design projects.**
3. **Included results of energy performance considerations in specification, design, and procurement activities, where applicable.**
4. **Retained records of the results of design activities related to energy performance.**
5. Identify the facilities, equipment, systems, and processes that can have a significant impact on energy performance:

|  |  |  |
| --- | --- | --- |
| ☒ | Facilities, equipment, systems, and processes have been identified | Yes, see Task 9 Playbook (SEUs). |

For the energy uses associated with those mentioned above, the following items have been identified:

|  |  |  |
| --- | --- | --- |
| ☒ | Management and operation of SEUs. | Yes, see Task 9 Playbook (SEUs). |
| ☒ | Achievement of energy objectives, targets, and action plans. | Yes, see Tasks 12 & 13 Playbooks. |
| ☒ | EnPIs identified. | Yes, see Task 11 Playbook (EnPIs). |

1. Incorporate consideration of energy opportunities and operational controls in design projects:

|  |  |  |
| --- | --- | --- |
| ☒ | Energy opportunities and operational controls have been incorporated into design, renovation, and modification efforts. | The Energy Team collaborates closely with other departments to ensure that energy opportunities and operational controls are integrated into each project design.  |
| ☒ | We have ensured that design projects include an operational control strategy to make sure that anticipated savings are achieved. | Yes, see Task 17 Playbook (Operational Control) |

Energy performance improvement considerations:

|  |  |  |
| --- | --- | --- |
| ☒ | Potential energy performance improvements have been considered. | All projects include energy performance as a design parameter. |
| ☒ | Necessary operational controls have been identified. | All projects include operational controls as a design parameter. |
| ☒ | Management of energy performance impacts on designs. | The Energy Team and other departments review designs for energy performance impacts. |

When evaluating opportunities for improving energy performance, the following items have been considered:

|  |  |  |
| --- | --- | --- |
| ☒ | How will existing infrastructure and processes be modified?  | Consideration of modifications to existing infrastructure and processes is a part of all project designs. |
| ☒ | What can be changed to improve energy consumption over time? | Reducing energy consumption is a key objective of all potential projects involving energy-intensive equipment. |
| ☒ | What is the right energy source for the application?  | All systems in the data center utilize electricity as their primary energy source.  |
| ☒ | What are the technological options? | Consideration of technologies to improve energy performance is a part of all project designs. |
| ☒ | What operational controls are needed to achieve and sustain energy performance? | Operational controls to optimize energy performance are a part of all project designs. |

*The worksheet below can be useful in identifying and evaluating energy performance improvement opportunities and operational controls in design activities.*

Worksheet for Energy Considerations in Design

**Purpose**: To help the user identify and consider energy performance improvement opportunities and operational control in the design of new, modified and renovated facilities, equipment, systems and processes that can have a significant impact on energy performance.

|  |
| --- |
| **This design effort is related to: (Check all that apply)**☐ New facility(ies) ☐ New equipment, systems or processes☐ Renovated or modified facility(ies) ☒ Renovated or modified equipment, systems or processes☒ Significant energy uses and associated controls ☐ Objectives, targets and action plans ☒ Energy performance improvement ☒ Maintenance of the energy systems**Describe the Project:**  Upgrades to the Data Center Energy Monitoring (DCIM) system.  |
| **Prepared by:** Director of Engineering | **Date:** 4/4/24 |
| **Identify the facilities, equipment, systems, and processes involved in this design effort that can significantly impact energy performance** (energy efficiency, use, and consumption) | **What is the current energy source?** | **Is there another energy source option?** | **What are some technologies and other options for improving energy performance?** | **Are new or additional operational controls needed?** (specify) | **Who is responsible for the design?** | **What improvements can be expected?**(Examples: energy savings; maintenance cost savings; environmental impact reduction) |
| The DCIM system controls the data center cooling system (chillers and computer room air handlers). | Electricity. | No | Optimized set-points and real-time monitoring. | A software upgrade may suffice. | The controls contractor. | Primarily substantial energy savings, but also maintenance savings. |
| Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. | Click here to enter text. |

1. Include results of energy performance considerations in specification, design, and procurement activities, where applicable:

|  |  |  |
| --- | --- | --- |
| ☒ | Energy performance considerations detailed in the ‘Worksheet for Energy Considerations in Design’ (above) have been incorporated into our specifications, designs and procurement activities. | Yes, completed on 4/26/24 |

|  |  |  |
| --- | --- | --- |
| ☒ | We have ensured that new energy-efficient technology is specified, applied, and used correctly to avoid misapplications. | Yes, completed on 4/26/24 |
| ☒ | We have assigned roles and responsibilities to qualified personnel. | Yes, completed on 4/26/24 |

1. Retain records of the results of design activities related to energy performance:

|  |  |  |
| --- | --- | --- |
| ☒ | We continually maintain a record of the results of design activities and have recorded this data in a central location. | The Engineering Team keeps the records. |

The documentation we maintain includes:

|  |  |  |
| --- | --- | --- |
| ☒ | Completed checklists | Click here to enter text. |
| ☒ | Meeting minutes | Click here to enter text. |
| ☒ | Design drawings | Click here to enter text. |
| ☒ | Purchasing specifications | Click here to enter text. |
| ☒ | Project records | Click here to enter text. |
| ☒ | New sequence of operations for BMS controls | Click here to enter text. |
| ☒ | Commissioning report | Click here to enter text. |

Top Management Approval

|  |  |  |
| --- | --- | --- |
| ☒ | Date approved: | 4/30/24 |
| ☒ | Who approved: | General Manager |

Comments

Click here to enter text.