**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. **Developed and recorded your organization’s objective and energy targets.**
2. **Obtained top management’s approval of the objectives and energy targets and communicate appropriately.**
3. **Communicated the energy objectives and energy targets appropriately to your organization.**
4. Develop and record your organization’s objective and energy targets.

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| ☒ | We have gathered a team to develop and record our targets. |

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| ☒ | As appropriate, we supplemented our energy team with: |

☒ Individuals with energy expertise

☒ Personnel in specialized functions, such as accounting or finance

☒ Personnel familiar with operational or production equipment

☒ Management familiar with organizational plans and goals

☒ Suppliers or contractors that provide energy equipment or technical resources

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| ☒ | Our team consists of the following individuals: |

**Team member name Function represented**

|  |  |  |
| --- | --- | --- |
| ☒ | *(insert name here)* | Energy Team |
| ☒ | *(insert name here)* | Engineering |
| ☒ | *(insert name here)* | Operations |
| ☒ | *(insert name here)* | Management |
| ☒ | Click here to enter text. | Click here to enter text. |

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| ☒ | We have provided our team with the inputs needed to develop relevant objectives and energy targets: |

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| **Our objectives and energy targets:** | | |
| ☒ | Are consistent with our energy policy and effectively spur our energy policy commitments into action. | Yes |
| ☒ | Consider and fully incorporate the potential energy improvement opportunities identified, prioritized, legal requirements and those that can be realistically achieved in the energy review. | Yes |
| ☒ | Consider the significant energy uses (as identified in the Significant Energy Uses task and when identified we set an objective and/or energy target related to that improvement. | Yes, cross-referenced with the Significant Energy Use (SEU) identified in Task 9. |
| ☒ | Consider our organization’s business and financial situation, operating conditions, and constraints that are achievable, compatible, and align with your organization’s strategic business plans, and result in successful improvement of energy performance and the EnMS. | Yes, and it aligns with our energy policy. We will change the policy as necessary. |
| ☐ | Click here to enter text. | Click here to enter text. |

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| **Our objectives related to energy performance include:** | |
| ☒ | Reduce annual data center and system energy consumption in line with our energy targets, including PUE, without negatively impacting [WUE](https://www.iso.org/standard/63450.html), [CUE](https://www.iso.org/standard/63450.html), and [RCI](http://ancis.us/images/RCI.pdf). |
| ☒ | Meet or exceed energy performance standards as required by Federal, State, and City laws. |
| ☒ | Improve energy-related communications with on-site suppliers and contractors within two years. |
| ☒ | Empower the Energy Team to coordinate, define, and measure the impact of the EnMS by the end of 2026 |
| ☐ | Click here to enter text. |

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| **Our energy targets are quantitative and include:** | |
| ☒ | Reduce IT equipment (SEU) electrical consumption by 25% from the 2024 baseline by the end of 2028 |
| ☒ | Reduce HVAC system (SEU) electrical consumption by 50% from the 2024 baseline by the end of 2028 |
| ☒ | Reduce electrical system (SEU) losses by 25% from the 2024 baseline by the end of 2028 |
| ☒ | Improve our ENERGY STAR Score by at least five percentage points from the 2024 baseline by the end of 2028 |
| ☒ | Develop a list of at least 15 improvement opportunities from employee ideas by the end of 2026 |
| ☒ | Click here to enter text. |

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| **We have established:** | | |
| ☒ | A process for monitoring, reviewing, and updating objectives and targets on a continual basis. | Yes, led by the Energy Team. |
| ☒ | Roles and responsibilities for monitoring and reviewing this progress. | Energy Team members have been assigned responsibilities to review progress on objectives and targets. |
| ☒ | A practice of reporting objectives and energy target achievements to top management through the management review process introduced in the Management Review task. We issue revisions to objectives as needed. | Objectives and targets are reviewed with management semi-annually or when needed. |
| ☒ | We retain documented information on the objectives and energy targets. | We retain all relevant documentation on the objectives and energy targets. |
| ☐ | Click here to enter text. | Click here to enter text. |

*The Energy Objectives and Targets Worksheet below can be useful to record objectives, energy targets and required inputs.*

Energy Objectives and Targets Worksheet

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Reduce annual data center electrical consumption by 33% by the end of 2028 compared to our baseline year (2024) | | | **Doc ID:** | |
| **Interim Target 1:**  Reduce annual data center electrical consumption by 20% by the end of 2026 compared to the baseline year of 2024 | | | | |
| **Interim Target 2:**  Improve our ENERGY STAR Score by at least two percentage points from the 2024 baseline by the end of 2026 | | | | |
| **Interim Target 3:**  Develop a list of at least seven improvement opportunities from employee ideas by mid-2027 | | | | |
| **List the energy policy commitment(s) relevant to this objective:**  Reduce annual data center energy consumption by 33% by 2028, focusing on continuous improvement of energy performance, monitored semiannually. | | | | |
| **Considerations** | | | | |
| **Is this objective related to one or more legal, regulatory, or other energy requirements?**  **☒ YES** **☐ NO**  **If yes, list the relevant legal or other requirements:**  Uphold legal and other requirements that guide reductions in energy use; [ISO 50001:2018](https://www.iso.org/standard/69426.html). | | **How were applicable legal and other energy requirements taken into account in the development of this objective and related targets?**  Applicable legal and energy requirements guided our development of this objective and its related targets. | | |
| Is this objective related to one or more significant energy uses? **☒ YES ☐ NO**  **If yes, list the significant energy use(s):**  IT equipment, HVAC system, Electrical system | | **How were significant energy uses taken into account in the development of this objective and related targets?**  To meet our long-term objective and interim Targets 1-3, energy performance across all three of our SEUs must continue to improve. | | |
| **How has the prioritized list of opportunities from the energy review been considered in the development of this objective?**  The prioritized list of opportunities defined our action plans to achieve this objective. | | | | |
| **What technological options are feasible for this objective?**  This objective is feasible through the implementation of readily available energy-efficient technologies. Inherently energy-efficient equipment starts with purchasing ENERGY STAR qualified equipment (a federal requirement). The [Data Center Master List of Energy Efficiency Actions](http://datacenters.lbl.gov/resources/data-center-master-list-energy) can help in this process.  IT Equipment (servers, storage equipment, and network equipment): High utilization is imperative, as is the use of inherently energy-efficient equipment. Server virtualization software and server CPU utilization monitoring can achieve high utilization and eliminate idle (zombie) servers.  HVAC System (chillers, Air Handling Units (AHUs), and pumps): In addition to inherently efficient equipment, air management is essential to allowing higher space temperatures in the data center. This results in higher chiller efficiencies, improved economizer operation, and reduced operating time for fans and pumps.  Electrical System (transformers, UPSs, and PDUs): The big elephant in the room is the Uninterruptible Power Supply (UPS). It needs to be both inherently energy efficient and highly utilized. | | | | |
| **What financial requirements or conditions are relevant to this objective?**  Capital investment will be required from corporate allocation to meet this objective effectively. | | | | |
| **What source of funds will be utilized for this objective/target?**  **☒ Capital budget**  **☒ Maintenance budget**  **☐ External loan**  **☐ Performance contract**  **☐ Guaranteed savings**  **☒ Other**  Utility incentives. | | | | |
| **What business and operational conditions or constraints are relevant to this objective?**  Available funding for the new equipment and systems, and ongoing management of this equipment and systems. | | | | |
| **Who are the interested parties who have or may have views relevant to this objective and target(s)?**  Site leadership, corporate owners, regulators, and clients/tenants. | | | | |
| **How have the views of interested parties been considered?**  The objective and targets are to ensure the data center complies with federal, state, and local energy and climate laws, while providing tangible benefits to the company’s bottom line. | | | | |
| **Monitoring and Measurement** | | | | |
| How will the objective be monitored and measured? Using [ENERGY STAR Portfolio Manager](https://www.energystar.gov/buildings/tools-and-resources/portfolio-manager), we’ll measure our overall energy use for each period and compare it to the baseline of year 2024. | | How will the target(s) be monitored and measured? [ENERGY STAR Portfolio Manager](https://www.energystar.gov/buildings/tools-and-resources/portfolio-manager), coupled with our Data Center Infrastructure Management (DCIM) platform. | | |
| What data will be collected or analyzed? Electric consumption from the utility and each of the three selected SEUs. | **Who will collect or analyze the data?** (Responsible Positions)  Engineering. | How often will monitoring and measuring be done? Continuously. | | What will be the record of monitoring and measurement? DCIM system and Statement of Energy Performance from ENERGY STAR Portfolio Manager |
| **What monitoring and measurement equipment will be utilized?**  DCIM system and supplemental metering. | **Which equipment will require calibration?**  All future systems, equipment, and meters. | **Is this equipment already in the calibration system?**  Partially. | | What will be the record of calibration? Recorded and documented by the calibration firm. |
| **What will be the EnPI (if any) that will be used to report this objective/target(s)?**  Key performance metrics: [PUE, WUE, CUE](https://www.iso.org/standard/63450.html), and [RCI](http://ancis.us/images/RCI.pdf)  Electricity consumption for IT equipment, HVAC systems, and electrical systems.  [ENERGY STAR Portfolio Manager](https://www.energystar.gov/buildings/tools-and-resources/portfolio-manager)  [ENERGY STAR Score for Data Centers](https://www.energystar.gov/buildings/tools-and-resources/energy-star-score-data-centers) | | | | |

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| **Related Energy Management Action Plans**  (List the Action Plans associated with achieving this objective and related targets) | |
| Click here to enter text. | Click here to enter text. |
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| Click here to enter text. | Click here to enter text. |
| Click here to enter text. | Click here to enter text. |
| **Controls** | |
| **What operational controls are needed?**  New standard operating procedures and maintenance logs are being developed for all three SEUs. | **List any controls that are already in place:**  Standard maintenance procedures for IT, mechanical, and electrical systems. |
| **Prepared by:**  Director of Engineering | **Date:**  10/5/23 |

1. Obtain top management’s approval of the objectives and energy targets and communicate appropriately.

|  |  |  |
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| ☒ | We have a process in place to report objectives and energy target achievements to top management using the management review process introduced in the Management Review task and issue revisions as needed. | Yes, as part of the annual management review. |

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| **Top Management Responsibilities:** | |
| Objectives and energy targets have been established | 10/6/23 |
| These objectives and energy targets align with our organization’s strategic direction. | Confirmed during Top Management Review 10/6/23 |
| Resources needed to achieve objectives and targets are provided. | Confirmed during Top Management Review 10/6/23 |
| Objectives and energy targets are either approved or direction is provided for any needed changes. | Approved during Top Management Review 10/6/23 |

|  |  |
| --- | --- |
| **Team Responsibilities:** | |
| Objectives and energy targets are presented to management for review and approval in a clear and understandable format. | Approved during Top Management Review 10/15/23 |
| Sufficient information is provided to justify the purpose of the objective(s) and energy target(s) and its relationship to the organization’s strategic direction and energy policy commitments. | Confirmed during Top Management Review 10/15/23 |

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| **Top Management Approval:** | | |
| ☒ | Top Management has reviewed and approved Baselines, Objectives and Targets, and have offered their support. | |
| ☒ | Who approved: | General Manager |
| ☒ | Date approved: | 10/15/23 |

*The Energy Objectives and Targets Worksheet provided earlier in this task can be useful in communicating to management the proposed objectives and related targets, relevant inputs and in detailing the monitoring processes in place.*

1. Communicate the energy objectives and energy targets appropriately to your organization

**We have communicated our objectives and energy targets to the following groups:**

|  |  |  |
| --- | --- | --- |
| ☒ | The Energy Team | 10/22/23 |
| ☒ | All personnel who can affect these objectives and targets or have a role in achieving them | 10/22/23 |
| ☒ | Employees and on-site contractors have been made aware of how they contribute to achieving the objectives and energy targets, | 10/22/23 |
| ☒ | Broadly across our organization’s improvement efforts to promote a culture of energy efficiency and support positive energy behavior. | 10/22/23 |

|  |  |  |
| --- | --- | --- |
| ☒ | Objectives and Targets have been incorporated into our organization’s EnMS Awareness Training | 10/22/23 |

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| ☒ | We periodically update personnel on progress made towards achieving the objectives and energy targets and celebrate success when they are achieved. | Yes. |

*The below table can be useful in helping to track your training and communication efforts:*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Communication / Training Event** | **Targeted Audience** | **Event Date** | **Responsible Party Name** | **Responsible Party Signature** |
| All-staff Announcement | All Employees | 10/25/23 | General Manager | Click here to enter text. |
| Department Meeting | Operations Team | 10/25/23 | Director of Operations | Click here to enter text. |
| Department Meeting | Engineering Team | 10/25/23 | Director of Engineering | Click here to enter text. |
| Department Meeting | Energy Team | 10/25/23 | Energy Team Lead |  |
| Contractor Training | All Contractors | 10/25/23 | Director of Engineering | Click here to enter text. |
| Click here to enter text. | Click here to enter text. | Click here to enter a date. | Click here to enter text. | Click here to enter text. |
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Top Management Approval

|  |  |  |
| --- | --- | --- |
| ☒ | Date approved: | 10/28/23 |
| ☒ | Who approved: | General Manager |

Comments

Click here to enter text.