



Energy and Utility Management Plan and Procedures

Updated
October 1, 2025

Maintained by:
Justin Thlang, Energy Management Specialist

Purpose

In accordance with Texas Education Code Section 44.902, the school board must establish a long-range energy plan that includes strategies for achieving energy efficiency. This plan and procedures document will serve as the district's long-range energy plan.

Recognizing that utilities are one of the largest expenditures for the district after payroll, we believe that the prudent use of our natural resources will aid tremendously in maintaining the highest level of financial stewardship. This, in turn, aids in ensuring that more of every taxpayer dollar is utilized for creating the appropriate environment to promote student success.

Implementation

Implementation of this plan requires the joint effort of the trustees, administrators, teachers, staff, support personnel, and students of the district. Our aim is to save utility dollars while ensuring an environment conducive to learning and working.

Objectives

- Raise awareness of utility consumption and opportunities for savings
- Reduce purchased utility consumption, while maintaining an acceptable indoor environment
- Maintaining records of utility & sanitation usage and costs
- Ensure that prudent conservation measures are used in construction and renovation
- Explore opportunities to lower costs (rates, billing structure, etc.) associated with utilities
- Practice environmental stewardship through a recycling program
- Set reasonable guidelines to achieve successful energy management while providing an environment conducive to student success

Efficiency Strategies

Strategy #1: Tracking of Utility Usage and Cost

A critical component of managing utility dollars is tracking utility usage and expenditures. This data aids in determining the effectiveness of our efforts and determining where those efforts may be best focused. It is the responsibility of the Energy Management Department to track usage and cost in a meaningful manner with reasonable frequency. This is accomplished by:

- Comparing current usage to historical baselines to account for current performance
- Benchmarking performance in order to assess if costs are reasonable
- Analyzing data to identify anomalies or areas of waste or potential savings
- Generating utility reports to provide guidance to staff for future decisions
- Evaluating conservation measures implemented by analyzing performance data
- Recommending improvement actions based on this data

Strategy #2: Generating Awareness of Usage/Auditing

It is the responsibility of the Energy Management Department to generate awareness of the current state of our utility usage and cost, as well as to communicate best practices to achieve potential savings. Additionally, other educational opportunities about utility efficiency may be implemented to raise awareness within the district.

Periodic visits to school campuses may be conducted to deliver an update on utility efficiency and to identify and communicate regarding additional opportunities for savings. A walk-through audit of the school may be performed to ensure the school is operating efficiently and to identify potential areas for improvement.

An incentive program may be created to support these efforts on a campus-by-campus basis with support from the administrators, teachers, staff, and students.

Strategy #3: Facility Use Guidelines

The way we operate district facilities will have the most significant impact on district utility costs. We aim to efficiently use our district's resources, similar to the manner in which we might do so in our homes. In order to control unnecessary costs, the following measures have been implemented:

Scheduling Guidelines

- The Energy Management Department, in collaboration with the Director of Maintenance, sets reasonable general school day operating schedules for district buildings, listed below. Additional operation of HVAC (Heating, Ventilation and Air-Conditioning Equipment) is scheduled to accommodate the needs of those conducting appropriate school businesses outside of these hours, as described below. Equipment will generally be scheduled to operate at optimal set point in all classrooms during the times listed below.

Elementary Schools: 8:10 a.m. – 3:30 p.m.

Middle Schools: 8:50 a.m. – 4:10 p.m.

High Schools: 7:30 a.m. – 5:00 p.m.

- Additional operation of HVAC equipment must be requested through the campus scheduler and submitted via FS Direct at least three working days in advance. This allows sufficient time to ensure schedules are accommodated properly. Efforts will be made to accommodate all reasonable requests and to locate after-hours events in the most efficient manner possible, according to location and attendance. Periodic checks will be made to ensure that requests are being made during actual facility usage time periods.
- Requests should include the locations & the event times in which the space will be occupied. The control system operators will set up the appropriate heat-up or cool-down time necessary for the equipment in the space.
- Rental requests will be processed per the signed rental agreement by the Facility Leasing Specialist and in accordance with the district's Legal and Local GKD & GKA Policies and Leasing Rates.

- Due to the high cost of energy during the summer, reasonable effort will be made to limit summer scheduling or to consolidate activities to limited zones in a building.

HVAC Guidelines

- The Energy Management Department will institute temperature setpoints that provide a reasonable level of comfort and comply with any district contractual obligations within the framework of appropriate dress. Generally, the setpoint will be 70-73 degrees in the cooling season and 68-71 degrees in the heating season.
- During unoccupied times, the temperature will be set to 80-85 degrees during the cooling season and set back to 55-60 degrees in the heating season. This will protect against potential damage caused by freezing or humidity and decrease the demand on equipment and time necessary to return the space to appropriate occupied conditions. This also provides a reasonable working environment for after school custodial crews.
- Hot or cold complaints should be submitted via the work order system to address any problems as quickly as possible.
- In temporary buildings, or other areas in which the room occupant has control of the HVAC systems such as portables, the same guidelines should be applied, and the occupant has the responsibility to set back their system appropriately at the end of the day. Custodians should make appropriate adjustments if the occupants have not done so.

Other Guidelines

- Personal, energy-using devices (i.e. refrigerators, microwaves, coffee makers, radios, lamps, etc.) are strongly discouraged due to the cost incurred by the district and excess burden placed on pest management, safety, and building electrical load. Items used should be restricted to the break rooms. Space heaters are prohibited due to fire risk. If a personal device poses a safety or environmental risk, the occupant will be asked to remove it.
- Lighting is to be turned off when an area is unoccupied. The room occupants are responsible for ensuring the lights are turned off in areas where occupancy sensors are not in place. Ideally, lights should be turned off even when sensors are in place.
- Natural lighting should be used when and where possible, especially in winter.
- Outdoor lighting should be off during the daytime. Please report any issues via the work order system.
- Computers, monitors, copiers, Smartboards, screens etc. should be turned off at the end of the day.
- Irrigation should not occur when rains have been sufficient or during school hours. Please report any issues to the Energy Management Department at 972-487-4222.

Strategy #4: Recycling Program/Waste Management

In response to regional, state, national and global environmental concerns, the district will align its recycling practices, in accordance with operating standards and global behaviors. This helps prepare our students for their future. Specifically, GISD will provide equipment and training to personnel and students in recycling behaviors with the goal of eliminating unnecessary waste and creating awareness and environmental stewardship. Recycling will also limit the amount of waste the district must manage.

Please contact Energy Management for the most current recycling standards and with any questions regarding practices, signage, or containers.

Strategy #5: Explore Opportunities for Efficiency Savings

There are several opportunities for efficiency savings in the district that require further investigation to determine the cost and savings benefit. The following items have been evaluated by the Facilities & Maintenance team and viable projects will continue to be delivered to facilities administration for consideration. These opportunities may include, but are not limited to:

- Power Factor Correction
- Additional Lighting Retrofits
- Rebates or incentives on construction and renovation projects
- Optimization of Outside Air Intake
- Limiting of After-Hours Activities where appropriate
- Consideration of Irrigation Control improvements
- Vending Machine Automation or Lighting Removal
- Updates to Outdoor Lighting
- HVAC equipment such Chiller/Boiler pumps
- High Efficiency DX Equipment

It is also the responsibility of the Facilities & Maintenance team to explore other funding opportunities, such as rebates and grants.

Strategy #6: Purchasing of Energy/Equipment & Construction Guidelines

The cost of energy has a significant impact on the district's annual utility costs. Therefore, it is the responsibility of the Energy Management team to investigate opportunities to maintain low utility rates, as well as identify savings opportunities in billing for all utilities.

In addition, all appropriate Energy Management team members will be included in discussions regarding equipment selection for devices that consume a significant amount of energy, such as HVAC and lighting. This also pertains to discussions on construction and renovation design in order to review for efficiency opportunities. These decisions can have a significant impact on potential future costs, and it is prudent that the district have all information prior to decision-making.

General Equipment Guidelines

The Energy Management Department and Maintenance teams maintains general equipment guidelines for construction and renovation projects with minimum criteria for cost-effectiveness. These guidelines should be followed in all projects as they represent the greatest value to the district, while maintaining the appropriate conditions. Some of the minimal criteria are listed below:

- Classroom lighting should be T8 lighting with electronic ballasts and vacancy sensors or LED with low maintenance and similar local control.

- Gymnasium lighting should be LED or T5 lighting with electronic ballasts
- Compact Fluorescent lamps should be used instead of incandescent
- HVAC unit selection should be evaluated for life cycle cost, where possible
- Plumbing fixtures should be low-flow
- An Energy Management System or programmable thermostat should be included in all renovation/construction.

Please contact the Energy Management Department or the Director of Maintenance for the most current equipment guidelines.

Contact Information

Any questions regarding this Garland ISD Energy and Utility Plan can be directed to our Energy Management Department at 972-487-4222 or energy@garlandisd.net.