ENERGY MANAGEMENT PLAN
Alvin Independent School District

Mission Statement
Recognizing our responsibility as Trustees of Alvin ISD, we believe that every effort should be made to conserve energy and natural resources. We believe that energy efficient operations will reduce operating costs and is in the best interest of the District. As a result, we are establishing this Energy Management Plan to be implemented within each of our facilities and campuses.

District Performance Goals
The Energy Management Plan supports and targets the achievement of the Performance Goals visioned and prescribed by the Board of Trustees.

“Facilities”
Facilities will be provided that are supportive of a quality instructional program and represent the importance of public education within the community.
- Facility improvements will reflect the importance of energy management and conservation in maintaining efficient fiscal operations.
- Community input and involvement will be sought if new facilities or significant renovations are proposed by the District.
- Facilities will provide a safe and secure environment for students and District personnel.

Operating Procedures for the Energy Management Plan
A set of Operating Procedures has been established to address the following details necessary for the execution and achievement of the Energy Management Plan. These procedures are contained in a separate attachment and included by reference.
- Objectives
- Definitions
- Strategies
- Assignments

Commitment to Implementation of Procedures
Implementation of these procedures shall be the joint responsibility of the Trustees, Administrators, Energy Manager, and all staff. The success of the procedures is dependent upon total cooperation from every level within the system. An Energy Manager shall be established to develop and implement the Operating Procedures. The Energy Manager and Director of Maintenance will be responsible for oversight of these procedures.

Execution
Having considered the responsibility to improve the District's efficiency of operation, eliminate unnecessary expenditures for energy, and conserve our natural resources, the Board of Trustees does hereby adopt this Energy Management Plan.
OPERATING PROCEDURES
For the Energy Management Plan
Alvin Independent School District

PURPOSE
To support the mission, goals, and implementation of the District’s Energy Management Plan.

OBJECTIVES
- Reduce the District’s energy consumption by tracking energy use and improving energy management practices.
- To provide a comfortable, safe, and healthy environment for facility users at the lowest cost to the District.
- To raise the level of energy conservation awareness among students, staff, teachers, support personnel, and the surrounding community.

DEFINITIONS
- Energy Manager: a District staff position whose function is to coordinate and oversee the effective utilization and consumption of energy and utilities intent on conserving energy while accomplishing the District’s Performance Goals.
- School Sponsored Activity Request: See Strategy 2.3
- Facility Rental: See Strategy 2.4
- SECO: State Energy Conservation Office
- SCORE: Schools Conserving Resources
- TEMA: Texas Energy Managers Association
- Environmental index: the state of the human environment which satisfies the comfort level of temperature, humidity, and lighting for the average person.
- HVAC: heating, ventilation, and air conditioning
- Set point temperature: temperature settings programmed into the HVAC controls which set the heating and cooling temperature limits under which the facility will operate when in use.

Table 1:

<table>
<thead>
<tr>
<th>Campus</th>
<th>Operating Hours</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elem</td>
<td>M - F 7:00 - 4:30</td>
<td>no weekend events unless scheduled</td>
</tr>
<tr>
<td>JH</td>
<td>M - F 7:30 - 5:00</td>
<td>no holiday operation</td>
</tr>
<tr>
<td>HS</td>
<td>M - F 6:30 - 5:00</td>
<td></td>
</tr>
<tr>
<td>Admin</td>
<td>M - F 7:30 - 5:00</td>
<td></td>
</tr>
<tr>
<td>Support</td>
<td>M - F 7:30 - 5:00</td>
<td></td>
</tr>
</tbody>
</table>
STRATEGIES
To achieve these objectives, the following six strategies will be in effect:

**Strategy 1: Utility Tracking, Reporting, and Future Recommendations**
Assignment for Strategy 1 will be to the Energy Manager and Maintenance Department.

1. Benchmarking all our facilities quarterly to quantify and track energy use.
2. Generating facility-specific energy reports to share with management and principals.
3. Recommending best practices, guidelines, and projects for meeting the objectives.

Utility reporting and recommendations will communicate facts and the plan’s objectives to the staff. This communication will increase people’s understanding, support positive conversion of human mindsets and behavioral changes, and develop an environment for continuous improvement.

**Strategy 2: Guidelines for Facility Operations**
Assignment for Strategy 2 will be to the Energy Manager. It is necessary to establish operating levels, times, set points, and common practices for operating District facilities. These guidelines should be in accordance with industry standards. Consistent with the District’s Energy Management Plan and Operating Procedures, the Energy Manager will review, program, and adapt lighting and HVAC systems to maintain an acceptable environmental index and assure practical efficient use of these systems.

The following guidelines should be employed to reduce and manage energy costs:

1. **HVAC Systems**
   a. Will start up in time for buildings to reach set point temperature when school day or activity begins. Reference Table 1: Normal business operating hours.
   b. Will hold temperatures until the defined end of normal business day. Reference Table 1: Normal business operating hours.
   c. Will have set point temperatures programmed at state recommended levels. Temperature settings are programmed to satisfy the average person. Hot verses cold personal tolerances will vary.
   d. Will be shut off on school holidays and weekends unless the facility has scheduled after-hours activities.

2. **Lighting**
   a. Manually controlled lights in rooms, auditoriums, and athletic areas should be turned off when the space is unoccupied for greater than 15 minutes.
   b. Parking lot lighting and exterior building lighting will be restricted to the minimum light level necessary to maintain security. Run times for exterior lighting will be set based on approved activity times.
   c. Lighting fixtures for all sports fields and athletic facilities should be brought on only when natural lighting levels dictate and turned off as soon as possible after activity is complete.
3. **Facility use - School Sponsored Activity**
   The activity must be a component of the District’s defined curricular or extracurricular activities serving students of Alvin ISD in alignment with the District’s approved academic plan for all similar District campuses or groups. Facility requests for uses not mandated by District approved academic plans do not comply. Late night (after 10 PM) and holiday use of facilities is subject to approval of the Superintendent’s cabinet. **Beginning in fiscal year 2012/2013**, the leadership team and Energy Manager will allot an appropriate number of after-hours run hours for each campus. If after-hours operations of a campus are requested and the annual allotment of budget hours is depleted, the campus will be charged under the terms of a facility rental.

4. **Facility use - Rental**
   a. Non-AISD Event - Facility Rental (examples include recitals, church rentals, reunions, athletics camps, or other non-profit organizations).
   b. Rental fee adjustments will be made on an annual basis to be consistent with the cost of facility operations including a replacement factor.
   c. Late night (after 10 PM) and holiday use of facilities is subject to approval of the Superintendent’s cabinet.

5. **Common Practice for All**
   a. All stewards of Alvin ISD should contribute to and support the efficient and effective use of energy within the District.
   b. Limit the number of dates at each campus for after-hours activities.
      o Elementary school campuses choose a single night during the week in which all groups plan for after-hours activities.
      o Secondary school campuses choose one or two nights in which no activity will take place.
   c. Consolidate after-hours activities to the most efficient sized building zone. The Energy Manager will provide guidelines for each campus.
   d. Schedule after-hours events to begin immediately after school ends to take advantage of the conditioned building and avoid restarting HVAC equipment to cool the building down for a second time in the same day.
   e. Save energy in portable classrooms. At the end of the activity or school day, set portable thermostat to 80°F cooling, 65°F heating, or turn off HVAC system.
   f. Staff should always close exterior doors when entryways are not in use. Avoid propping open exterior doors to assist both energy conservation and security.
   g. Computers, monitors, printers, copiers, and all other electrical equipment shall be turned off by the user at the end of the activity or day. Following a prompt to the user, auto shutdown of the device will be programmed and occur on scheduled workdays at 5 PM.
   h. When an energy-consuming appliance or device is not necessary for the approved District instructional program, it shall be turned off and removed.
   i. Blinds or drapes on windows that receive direct sunlight should be closed when HVAC systems are on and at night during the winter.
Strategy 3: Compliance with Facility Operating Guidelines
Assignment for Strategy 3 will be to all facility occupants including staff, students, facility users, clubs, civic groups, and renters.

Strategy 4: Personal Appliance or Plug Load Appliances
Assignment for Strategy 4 will be to all facility occupants including staff, students, facility users, and Energy Manager.

1. Heaters (personal unit heaters) are not allowed. As defined and enforced by the local Fire Marshal and the National Fire Protection Agency’s Life Safety Code, personal electric unit heaters are not allowed. Any individual using a personal heater within AISD facilities is subject to the fine levied by the Fire Marshal.

2. Facility electrical outlets and circuits will serve District needs and equipment loads as a first priority. Electrical outlets and available power is not guaranteed for personal appliances in all locations. In facilities where electrical outlets or service is not available to support an appliance, the personal appliances will not be allowed. Power outlets or circuits will not be added to accommodate personal appliances.

3. Personal electrical appliances are subject to inspection by AISD. Appliances in poor condition, lacking repair, compromised in any way, or that create any type of safety hazard are subject to immediate removal by the District without notice to the owner.

4. Personal electrical appliances should be plugged directly into the wall outlet. If an extension cord or plug strip is required, it must be of an equal or greater wire size compared to the appliance cord, not exceed 10 feet in length, or create an overload condition.

5. All personal appliances will be cleaned and unplugged by the owner during Christmas break and summer break, unless the staff member is under contract and working those dates.

Strategy 5: Savings Incentive Program
Assignment for Strategy 5 will be to campus principal, facility occupants (including staff, students, and facility users), and Energy Manager. For the campus that helps achieve a reduction in electrical consumption when compared to prior year electrical KWH per ADA and demand charges, the savings will be shared. Savings will be adjusted for ADA, facility modifications, Energy Manager expenses, and District budget reductions.

1. Fifteen percent of savings will be credited back to the campus.

2. Calculations will cover two periods:
   - Aug - Dec
   - Jan - May

Strategy 6: Provide Energy Conservation Education to Facility Users
Assignment for Strategy 6 will be to the Energy Manager to assist faculty and staff educational opportunities related to energy use and best management practices through:

1. Using programs available to the District (such as ENERGY STAR, SECO, SCORE, TEMA, Rebuild America/Energy Smart Schools, and Watt Watchers of Texas) and make information and training opportunities available to school staff and interested parties.
2. Sharing of facility-specific energy use reports.
3. Providing training and answer sessions for faculty and management.

ADDITIONAL ASSIGNMENTS

- **Principal**
  - Appoint an Energy Coordinator for your school (assistant principal, teacher, etc.).
  - Do not use assembly areas such as the auditorium or gymnasium for small groups that can comfortably meet in smaller areas.
  - Prohibit use of vacant classrooms and portables.
  - Use the fewest number of rooms necessary for summer and night programs.
  - Schedule classes to maximize the utilization of classroom space in the buildings based on ADA.
  - Establish a resource center for energy education in your school.
  - Solicit feedback from students and staff on energy conservation.
  - Inform the public, parents, and other groups about your school’s energy conservation efforts.

- **Teacher & Staff**
  - Do not block classroom air supply and return grills with furniture or displays.
  - Keep exterior doors and windows closed.
  - Turn off all machinery and lights when leaving the classroom at the end of the day.
  - Do not cover or block thermostats or temperature-sensing wall plates.
  - Wear appropriate District approved clothing based on season, climate, room conditions, and personal temperature comfort level. Encourage students to do the same.

- **Maintenance**
  - Inspect heating and air conditioning equipment on a preventive maintenance schedule.
  - Maintain the building’s exterior envelope to include building insulation, caulking, and weather-stripping.
  - Reduce hot water temperatures to 120°F except in food preparation areas.
  - Keep exterior doors in good working condition. Repair damaged windows and doors immediately.
  - Adjust HVAC and lighting controls to coincide with changes in Central Standard Time and Daylight Savings Time.
  - Perform preventative maintenance of exhaust fans and louvers to operate only when building systems necessitate.