



Energy and Water Management Plan

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Section 1: Instructions

[Texas Government Code §447.009](#) requires each state agency and institution of higher education to set and report percentage goals for reducing its usage of water, electricity, transportation fuel and natural gas. According to [34 Tex. Admin. Code §19.14 \(2016\)](#), these goals must be included in a comprehensive energy and water management plan (EWMP) submitted by **Oct. 31** of every fiscal year to the State Energy Conservation Office (SECO). This requirement is intended to streamline and standardize the energy reporting requirements of state agencies and institutions of higher education.

Please complete Section 2: Agency Information and Section 3: Providing Agency or Section 4: Tenant Agency, as applicable, for **the previous fiscal year**. Save this form as “EWMP-Agency Number-Agency Acronym-FY20##.docx” (e.g., EWMP-104-LBB-FY2021.docx), and return this form by email to seco.reporting@cpa.texas.gov no later than **Oct. 31**.

Please do not embed images, charts or graphics in your responses; however, you may provide hyperlinks to them.

Please visit [SECO’s Energy and Reporting website](#) for more information. For questions about reporting, please contact seco.reporting@cpa.texas.gov or call 844-519-5676.

Section 2: Agency Information

Please provide the name and number (if applicable) of the agency that is submitting an Energy and Water Management Plan.

Agency Name: Texas A&M International University

Agency Number: 761

Other agencies included in this summary: none

Please provide the contact information for the person(s) responsible for implementation of the recommendations in the plan and the contact information for the person(s) responsible for reporting and submitting the plan, if different.

Implementation Contact

Name: Trevor Liddle

Title: Senior Director Campus Safety & Planning

Email: tliddle@tamiu.edu

Phone: 956-326-3310

Reporting/Submission Contact

Name: Tim Murphy

Title: TAMU System Energy Program Manger

Email: tkm@tamu.edu

Phone: 979-458-8486

Section 3: Providing Agency

Does your agency occupy or manage a state-owned building and pay the utilities? Yes - Providing Agency

If NO, please skip to [Section 4: Tenant Agency](#).

If YES, please complete the following:

Have you submitted, or will you be submitting by Oct. 31, 2021, energy and water usage data for your agency and properties using the [ENERGY STAR Portfolio Manager](#) tool? Yes - EnergyStar data submitted

Progress Report

The Progress Report Section must outline the progress of activities related to the implementation of projects from the previous Energy and Water Management Plan (if applicable), including continuation of or new preliminary energy audits, a summary of the results, utility efficiency and cost savings. Agencies should periodically conduct preliminary energy audits to identify new utility savings opportunities.

Texas A&M International University (TAMIU) is committed to energy conservation. Energy conservation initiatives have helped the main campus source Energy Use Index (EUI) reduce from 194 mBtu per square foot in March 2016 to 187.3 mBtu per square foot in August 2021, for an overall reduction in EUI of 3.5%. TAMIU entered into a Phase I Energy Savings Performance Contract that was substantially completed in November 2019. Annual savings are projected to include \$252,392 in electrical savings, \$250,885 in water/sewer savings and \$150,506 in O&M savings, with an overall utility reduction of 34%. TAMIU recently completed a Phase II and III IGA with plans of moving ahead with Phase II and III ESPC projects. Additionally, TAMIU is involved in a demand response program that reduces electricity costs by reducing campus load during times of high grid demand.

Goals

The Goals Section must summarize the future goals for utility conservation. In accordance with [Texas Government Code §447.009](#), each state agency and institution of higher education shall set percentage goals for reducing the agency's or institution's usage of water, electricity, transportation fuels and natural gas. The percentage goal should state a target year and reference the target goal relative to a benchmark year.

Texas A&M International University entered into an ESCO agreement to develop a campus-wide energy conservation and public awareness project. The project is committed to providing the most state of the art programs and services which includes the University's facilities, facility operations and infrastructure. The ultimate goal is more efficient facility operation, student awareness, engagement and learning and real dollar savings that can be leveraged elsewhere. Annual savings includes \$252,392 in electrical savings, \$250,885 in water/sewer savings and \$150,506 in O&M savings. The project was substantially completed November 2019. TAMIU recently completed a Phase II and III Investment Grade Audit, with the intention of entering a Phase II and Phase III Energy Savings Performance Contract this coming winter.

| Utility | Target Year | Benchmark Year | Percentage Goal |
|----------------------|-------------|----------------|-----------------|
| Water | FY2027 | FY2020 | 3.5% |
| Electricity | FY2027 | FY 2020* | 24% |
| Transportation fuels | FY2027 | FY2020 | 3.5% |
| Natural gas | FY2027 | FY2020 | 7% |

*[Texas Health and Safety Code Section 388.005\(c\) and \(f\)](#). Entities that began energy conservation tracking prior to Sept. 1, 2007, or in attainment areas, may substitute their own electricity benchmark years.

Strategy for Achieving Goals

The Strategy Section must describe how the agency or institution plans to prioritize and implement cost-effective utility efficiency measures in order to meet the established utility conservation goals.

Phase I of Texas A&M International University's Energy Service Company (ESCO) project addresses the following: Ageing, inefficient HVAC infrastructure is cause for two main concerns: 1) increased risk of major failure and 2) energy and operational cost are substantially higher. Furthermore, the costly repairs, rebuilds, and emergency replacements further burden the financial picture for the university. Lighting, indoors and out is inefficient and difficult to maintain. Far more efficient indoor and outdoor lighting and security lighting is available and saves the university hundreds of thousands of dollars each year. Water Upgrades – conserving the precious resource of water is achieved by applying custom flush valve retrofits that minimize the water required while ensuring one flush performance and low flow aerators on all faucets. Metering – complete the meter project on campus and provide portfolio analysis reporting to stay in control of facility consumption and how to better manage it. Energy Education – Ignite, a behavioral modification program that incorporates enhanced energy awareness through interactive and educational based events. "Ignite" targets students, staff and the University community. A demand response program is executed each year to reduce costs per KWh. Additionally, TAMIU has just recently completed a phase II and III Investment Grade Audit, to eventually produce even more energy savings through ESPC project ECM's. TAMIU schedules the heating and cooling systems to reduce energy when a space is not being used. Utility consumption building profiles are generated weekly and reviewed to insure buildings are operating as designed. Monthly campus utility consumption and costs are reviewed to insure energy conservation initiatives are obtaining expected results.

Implementation Schedule

The Implementation Schedule Section must outline a proposed timeline for implementing utility cost-reduction measures and a strategy for monitoring utility savings of the installed utility measures.

TAMU Board of Regents approval: October 2017, THECB approval: March 2017, Executed contract: April 2017, Work began: May 2018, Work substantially complete November 2019. The Phase II and III IGA has just been completed, so we are waiting on additional details.

Finance Strategy

The Finance Strategy Section must describe how the agency or institution plans to obtain funding for the recommended utility cost-reduction measures. This section should show the estimated cost of all projects and the funding sources to be used.

ESCO funding summary: Revenue financing system debt proceeds are \$9,056,000, TAMIU placed \$721,563 in cash towards the project, for the total project funding of \$9,777,563, with an average estimated annual debt service of \$749,225, to be sourced by utility savings. Simple payback of less than 14 years (based upon avoided energy consumption using FY2015 energy costs) is projected by the energy services company (ESCO) hired to perform energy audits along with both project design and construction, with loan repayment made from purchased utility cost avoidance. If the projected utility consumption avoidance is not achieved, the ESCO will be responsible to pay the University for any shortfall in projected savings caused by not meeting the energy avoidance target.

Transportation Fuel Consumption

Does your agency maintain one or more state-owned vehicles? Yes - Has fleet

Does your agency report its fuel usage via the [Texas Fleet System](#)? Yes - Report to fleet system

Employee Awareness Plan

The Employee Awareness Plan Section must outline how the agency will make employees aware of utility cost-reduction measures, both directly (affecting change in behavior) and indirectly (not designed to affect behavior).

Texas A&M International University is implementing a behavioral modification program, Ignite which provides curriculum support and instruction focused on helping all TAMU community members learn to be better stewards of natural resources on campus and at home. The goals of Ignite are to: Educate students, staff, administration and faculty on energy saving activities using behavioral modification programs including signature courses, events, public outreach, and informational media. Assist the University in generating savings through implementation of Ignite initiatives. Create community and regional awareness of the accomplishments of the program.

Section 4: Tenant Agency

Progress Report

The Progress Report Section must outline the progress of the implementation of projects from the previous Energy and Water Management Plan or Resource Efficiency Plan (if applicable), including a summary of the results of the projects in terms of utility efficiency and cost savings.

Click to enter your agency's Progress Report.

Transportation Fuel Consumption (if applicable)

Does your agency maintain one or more state-owned vehicles? Choose an item.

Does your agency report its fuel usage via the [Texas Fleet System](#)? Choose an item.

Employee Awareness Plan

The Employee Awareness Plan Section must outline how the agency will make employees aware of direct utility consumption. Plans might include employee training, signage or recognition programs.

Click to enter your agency's Employee Awareness Plan.