Many people consider the first Earth Day, which was held on April 22, 1970, to be the birth of the modern environmental movement. This day was created for the purpose of awakening the consciousness of the public, sparking awareness of the pollution occurring in the air, and water and on land. It was during this time that many laws were enacted that changed the course of American behavior and placed the environment in focus. In addition, this day is celebrated throughout the world!

Chico State celebrates this amazing day every year, and showcases many organizations on campus who are committed to making the campus and Earth a better place. The campus’ Institute for Sustainable Development will be collaborating with other groups campus-wide to facilitate a fun-filled, educational event in honor of this day.

PowerSave Campus will be tabling throughout the day. To bring awareness to a few current environmental issues, there will be two displays. One will highlight California’s drought and encourage students and the community to conserve our most precious resource, water. In addition, there will be a display of carbon dioxide emissions. This display will put into perspective how much carbon dioxide is released into our atmosphere every time one gallon of gasoline is combusted. There will also be a fundraiser for endangered species. PowerSave hopes to reach out to as many students and community members as possible during the day. In order to accomplish this goal, an abundance of information will be provided on how to be more energy and water efficient.
Today in Energy Efficiency

With a global population of 7 billion, and a total primary energy consumption of 493 quadrillion BTUs in 2008 (that’s 493,000,000,000,000,000) according to the EIA, efficiency is a highly desired attribute of energy in our society.

Most often thought of as being created by innovations in technology, improvements in energy efficiency are also produced just as easily by changes in operations or service. This is why a whole energy efficiency industry has emerged with several successful companies who provide data reporting services and strategies for improving these aspects in our society. In fact, in their most recent annual report on industry, the Consortium for Energy Efficiency (CEE) showed that “2013 budgets climbed to a record $9.6 billion, and US and Canadian combined gas and electric demand-side investments reached $8.0 billion from all sources in 2012.”

There are also reasons for promoting efficiency which are not as obvious. Environmental sustainability isn’t the only lasting affect of increased energy efficiency. The amount we pay for energy is largely influenced by how efficiently we use energy. Greater efficiency along with improved economy structure may lead to a decrease in the dollar we spend to get a certain amount of energy, a measurement known as “energy intensity”. The Energy Information Agency (EIA) reports that energy intensity in the US has been declining steadily since the early 70s and it is projected to continue declining through 2040.

The US isn’t the only country observed to have an “efficiency kickstart” after the oil embargo of the 70’s. The International Energy Agency (IEA) says that for 11 of it’s 16 participating countries, energy use would have been 58% higher in 2005 without the energy efficiency improvements that started emerging after the early 70’s. An important conclusion the IEA makes is that “the changes caused by the oil price shocks in the 1970s and the resulting energy policies did considerably more to control growth in energy demand and reduce CO2 emissions than the energy efficiency and climate policies of the 1990s.” Would this hold true for a price shock created by a boom of expensive renewable energy sources and infrastructure upgrades?

Improving efficiency holds true as a strategy for addressing the energy situation we face. As citizens of today’s modern world, it’s time we start recognizing energy efficiency as an extra fuel that’s always on discount. As Patricia Poppe of Consumer’s Energy describes it... Energy Efficiency is “the bridge between a company being able to give a customer more choices, and a customer trusting that that energy company doesn’t want them to just use more and more, and spend more and more, but energy efficiency is where the mutual intent actually overlaps.”

Our world is run by computers, phones, and tablets; all of which require electricity to function. Large scale operations such as businesses or schools usually have a large amount of computers at hand, many of which are not being utilized for the majority of the workweek. As a very sustainable school, CSU Chico has been proactive in confronting this issue by installing the “Faronics Power Save” Software on many campus machines, allowing them to eliminate computer energy waste by turning themselves off when they are left on but not in use.

Many computers on campus, including the entire first floor computer lab in the Merriam Library, have this software installed that detects periods of inactivity on computers and turns them off accordingly. This software installed by the school’s IT Support Services department is vital to any company’s ability to save energy, and this software requires being setup only once before it can go into effect.

Computers have become integral in our daily lives, and they’re not usually on the list of appliances you think of when considering machines in your house or building that waste a large amount of energy. Servers, monitors, computers, and even printers are all machines that consistently use energy. Having a tool to hit the switch when you forget, is extremely beneficial in the effort to reduce wasteful energy consumption. For those that do not have access to software such as this can experience the same savings by just remembering to turn off their devices when they will not be in use for an extended period of time.

Max Bowman
Samantha Duncan

Advancements in LED innovation has led to an exciting development in lighting efficiency. This advancement is the creation of LEDs that are even more efficient than its predecessors. The company Cree has introduced a new bulb that harvests 303 lumens per watt, which is 10% greater efficient than the older version. While the 10% increase in efficiency is impressive, it is the comparison to 60 watt incandescent bulbs that makes this development so impressive.

Luckily, however, the traditional 60 watt incandescent bulb is now technically outlawed thanks to new lighting standards developed in January. This is an important step toward energy efficiency. These old 60 watt bulbs used 95% of its energy to produce heat. It also yielded 750-1150 lumens, or between 12.5 and 19 lumens per watt.

Micah Yaldezian

The 2014 Farm Bill was recently signed into law and among other statutes, the bill has multiple sustainable aspects written in and calls for more ecologically friendly tactics in order to receive certain benefits. Along with multiple cost cuts for farmers in rural and smaller farming operations, the bill has sections that provide funding for farmers who grow Non-Food crops for energy use. These crops could include such things as corn for biofuels. There are several energy and environmental implications in this Farm Bill, especially in the realm of conservation, which at $56 billion makes up 6 percent of the bill’s total funding. The Rural Energy for America program, or REAP, is a part of the bill that provides certain grants and loan guarantee incentives for farmers and rural small business owners. These incentives can only be gained if the farmers adopt energy efficient technologies in a broad range of categories. REAP funds wind, solar, hydroelectric, biomass and biogas, and has provided funding for enough projects since 2008 to produce enough energy to power 680,000 U.S. homes each year. This program is in effect for many local farmers and other providers who work directly with CSU Chico. The methods of the farmers who provide our food should concern us and in many cases, when we allocate the least amount of money for a meal, the richest companies take the profit. Americans would need to stay educated on where there food comes from and how it is that it is grown and cared for.

Bree Russel

People are rediscovering the benefits of buying local food. Buying from local farmers directly supports your local economy and family farmers. Buying local not only supports your local economy, but it means that your food isn’t travelling long distances by planes, trains, trucks, and ships which all consume copious amounts of energy and contribute to the global pollution epidemic. How far your food is grown, stored, transported, processed and cooked can all influence your impact on the environment. Transportation related impacts are particularly important for imported foods. Food miles and the resulting pollution increase substantially when we consider produce and good imported halfway around the world. “Between 1968 and 1998, world food production increased by 84 percent and the population by 91 percent, but food trade increased 138 percent. Today, the typical American prepared meal contains, on average, ingredients from at least five countries outside the United States” (National Resource Defense Council).

Locally produced food proves the best choice for minimizing global warming and other pollutants. Green house gas emissions related to agricultural imports and exports directly correlate to asthma and other respiratory symptom cases along with the number of school absences. The data has proven that this pollution is directly effecting the health of our community. Transportation related pollutants can be greatly reduced by purchasing local. By choosing local produce, you can reduce fuel consumption and global warming pollution associated with transporting food. Strengthen your local economy and protect the environment by eating fresher fruits and vegetables available at your local markets.