VOLUME 1, ISSUE 2

RISD ENERGY REPORT

AUGUST 2012

GOING GREEN

Content:

The Roswell Independent School District has been looking into “green” projects. There have been numerous inquiries into solar, wind, and geothermal projects. The district hopes to utilize energy saving equipment throughout our schools, to offset the rising costs of utilities.

Our district is putting in a ground source heat pump at East Grand Plains Elementary School. The ground source heat pump uses the earth to cool water. Running water found under the school will help the heat pump to cool the water used to air condition and heat the school. Ground water is 56 degrees.

The water in the system will stay at 56 degrees. Water will be pumped throughout the system while fans blow the cooled air into the school. The heater will heat the water from 56 degrees up to the necessary temperature to heat the school. It is easier and more efficient to heat the water from 56 degrees than from the extreme cold temperatures, that dropped to –9 degrees last year. This new green technology is expected to save us millions of dollars over the next 25 years.

Besides the money we save by implementing energy efficient equipment, we also are claiming rebates through Xcel Energy. The savings and the rebates are helping our district be as green as it can be.

SPECIAL POINTS OF INTEREST:

A heavy coat of dust on a light bulb can block up to half of the light

A hot water faucet that leaks one drop per second can add up to 165 gallons a month. That's more than one person uses in two weeks.

Tips: outdoor Lighting

Many homeowners use outdoor lighting for decoration and security. A variety of products are available from low-voltage pathway lighting to motion-detector floodlights.

LEDs work well indoors and outdoors because of their durability and performance in cold environments. Look for LED products such as pathway lights, step lights, and porch lights for outdoor use. You can also find solar powered outdoor lighting.

Because outdoor lights are usually left on a long time, using CFLs or LEDs in these fixtures will save a lot of energy. Most bare spiral CFLs can be used in enclosed fixtures that protect them from the weather.

CFLs and LEDs are available as flood lights. These models have been tested to withstand the rain and snow so they can be used in exposed fixtures.

ENERGY STAR-qualified fixtures that are designed for out-door use and come with features like automatic daylight shut-off and motion sensors.

WATERING DURING THE SUMMER MONTHS

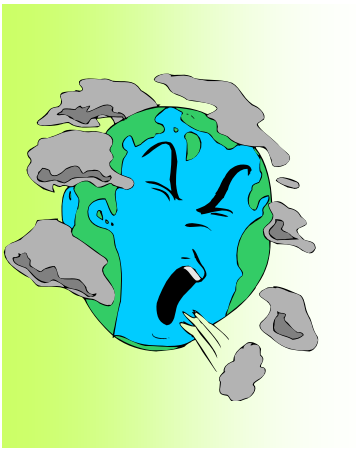
Summer is a difficult time for grass in this part of the country. We do not get much precipitation, and the heat really takes its toll on our lawns. We all would like our lawns to be green and plush, but we are unsure of how to do this without spending too much money. The school district does not actually have a policy for this. The custodians water at their discretion, and the district usually spends more money on watering than they should.

The best time to water grass is during the cool part of the day to minimize water lost to evaporation. Early morning hours (4am to 8am) are best . Peak water consumption hours (4pm to 9pm) should be avoided. Avoid watering during midday hours when it is hot and sunny to prevent the scalding of the turf. Watering at night is not recommended because the lawn stays wet for a long period of time which can promote diseases and affect the health of your lawn. You should also avoid watering during rainy or windy weather conditions. Water when your lawn needs watering and water about an inch per week

Adhering to these watering hints will help you save and produce a green, plush lawn.

REDUCING DESTRUCTIVE GASES

The average U.S. household produces about 150 pounds of CO_2 a day by doing commonplace things like turning on air-conditioning or driving cars. That's more than twice the European average and almost five times the global average, mostly because Americans drive more and have bigger houses. In order to make any difference in our world, Americans would have to cut back these gases by 80%.

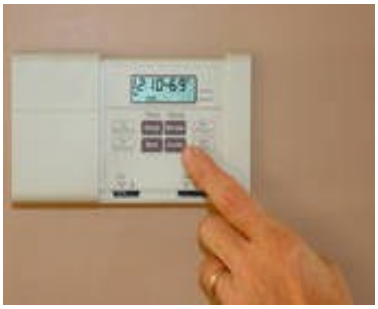


The Roswell ISD is helping to reduce these gases. The district uses an EMS (Energy Management System) to control the times the air conditioners and heaters run. The EMS allows us to set comfortable temperatures in the school, while controlling the times the air or heat run. The district also monitors those who drive company cars, by watching their fuel consumption and milage.

Saving our Earth should be up to all of us. Please do your part.

AC OPEN DOORS AND WINDOWS

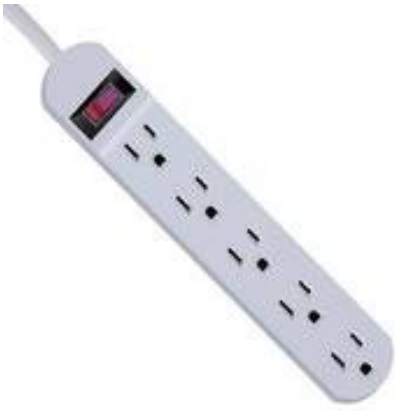
The National Weather Service has documented this summer to be the hottest summer yet. Many of our schools are using central cooling and are turning down the thermostats to try and stay cooler. As I walk around the schools, I am finding more and more open doors and windows while the central ac units are operating. This practice wastes a lot of money.



Central air conditioners help our district to control the environment in our classrooms. The thermostat is programmed to maintain a temperature of 68-72 degrees. An open door or window will allow outside, warm air into the supposedly controlled environment and make the air conditioner work harder to maintain the programmed temperature. The additional run times on the air conditioner cost the district dearly. Not only does the run time increase because warm air is entering the room, the maintenance costs increase because the units are experiencing additional wear and tear. Keeping windows and doors shut while running your ac will save our district money.

HELPFUL HOME ENERGY TIPS

Using power strips to control your energy consumption, in your home, can save you some extra cash. Power strips can be turned on and off with the flip of a switch. Many items you leave plugged into wall sockets continue to use energy, even while they are not being used. For example, the power adapters to your phones, ipods, computers, etc. will continue to use electricity while plugged into the wall, even if you are not charging these items. These power adapters can be plugged into a power strip and shut down each morning when you are no longer charging them.



Any appliance that is "remote ready," will continue to use energy while not in use. Televisions and stereos, for instance, keep a 3KwH light built in to show your appliance is ready to be turned on or off.

Ovens or ranges have lighted control panels, and/or lighted clocks, etc. Coffee pots, toasters, electric frying pans, crock pots, etc, all have lights to show they are plugged into a wall socket. Do we really need to keep these appliances plugged in so they can continue to use electricity? A power strip can make turning these items off, easier. Using a power strip can help you conserve energy.

SAVING RAINWATER

Rainwater has been a resource that many of us overlook. It really doesn't rain that often in this part of the country, but when it does, it usually rains good. A good barrel under an eave or overhang can collect quite a bit of water.

Rain water can be used to water your gardens and lawns. The rain water has more nutrients for your plants. Tap water is treated by the city and contains chemicals that are supposed to be good for people, like fluoride, and calcium, but are not good for plants. Rain water is a cheap alternative.

Rain water can be used to cook. Many people in this part of the country swear by rain water when cooking beans. Rain water is naturally soft, meaning it does not carry many minerals or hard particles. Boiling the water sterilizes it and allows for consumption.

Collecting rainwater can help in lowering your water bill. The amount of water collected will differ in each state, but will make a difference in your bill. The more you collect and use, the less you turn on your faucets. That has to be good on your pocketbook and the environment.

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"conservation

makes

cents"

$$$

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If you have any suggestions for the Roswell Energy Report, please email them to pmysza@risd.k12.nm.us

Your suggestions will be taken into consideration and approved for publication by administration. We cannot guarantee that your story or suggestion will be printed in the RISD Energy Report.

MISSION STATEMENT:

FOCUSING ON QUALITY EDUCATION FOR EACH AND EVERY CHILD

WATER LEAKS

Water leaks can cost the district a significant amount of money, if not reported. The following chart illustrates the potential cost associated with water leaks of varying sizes. Keep in mind, these costs relate only to lost water and not to coasts associated with any damage that might be created by a water leak:

LEAK CHART @60 P.S.I. AND $2.50/kgal

A dripping leak consumes:
15 gal/day
450 gal/month
$1.13 per month

A 1/8 in. leak consumes:
244 gal/day
97,314 gal/month
$243 per month

A 1/32 in. leak consumes:
202 gal/day
6081 gal/month
$15 per month

A 1/4 in leak consumes:
12,948 gal/day
388,438 gal/month
$971 per month

A1/16 in. leak consumes:
811 gal/day
24328 gal/month
$61 per month

A1/2 in leak consumes:
51,792 gal/day
1,553,760 gal/month
$3,884 per month