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3133 N.W. 63rd
Oklahoma City, OK 73116
T: 405.590.2452
F: 405.767.0529



AP Council approves 2008-09 budget

By ED BALDRIDGE
News-Sun correspondent

AVON PARK - The Avon Park City Council voted to approve the fiscal year 2008-2009 budget Monday night during its regular meeting.

The \$15.4 million budget reflects a 27 percent decrease in operating expenditures over last year.

"We cut about \$5 million out of our expenditures," Avon Park City Manager Sarah Adelt said.

A falling tax base contributed to some of the budget cuts. The tax base of Avon Park fell by 5.2 percent, dropping from \$267 million last year to \$254 million, but most of the cuts reflected a pessimistic outlook for the national economy.

"We know we have to operate leaner, and we are making every effort to do that," Adelt said.

One of the areas cut back by the city includes pay raises for city employees.

"We have eliminated raises," Adelt said. "And we have eliminated one position and frozen several others. We are doing everything we can to make sure we have a balanced budget with these changes."

Councilman Joe Wright said, "There is no question our local economy is struggling right now. I am convinced that the state will continue to decrease their projections for tangible and sales tax every quarter, and that means less revenue for Avon Park, but I feel comfortable that we have cut out everything we can. We even have a bit of a safety net that we can cut further."

Hardest hit with the budget cuts was the city police department. Since the city decided to combine resources with the county with dispatching, several dispatch positions were eliminated.

To reverse the trend of decreasing revenues, Avon Park department heads and the council are looking at alternative means of generating cash or saving further.

"I am excited about the KVAR project at the water and sewer plants," Wright said.

The KVAR unit saves electricity by reducing the amount of power used by inductive equipment like large motors that drive pumps.

All motors use more electricity than is needed to operate. Electrical engineers call it "non-productive current." That's why motors are hot to the touch ... the excessive, unused current is expressed as heat.

The KVAR technology evens out the electrical usage and eliminates the need to draw more power from the electric



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The KVAR technology evens out the electrical usage and eliminates the need to draw more power from the electric company over 24 hours.

According to Freddie Renfro, Avon Park's working foreman for the water and waste water departments, the two installations of the KVAR units have already saved the city more than \$670 per month.

During the discussion of the budget, the council also directed Renfro to continue with the KVAR project installations.



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Electrifying invention saving city money in AP

By CHRISTOPHER TUFFLEY
christopher.tuffley@newssun.com

AVON PARK -- The city has joined an increasing number of municipalities, businesses and homeowners who are installing KVAR units into their electrical systems.

The units, which are marketed and installed by Central Florida KVAR Inc., are energy optimizers designed to maximize the efficiency of an inductive electrical motor, the CEO of the company Jack Turbeville says. CEO in his case stands for chief electrical officer.

Turbeville adds that a side benefit is that the unit helps an electrical motor run cooler thereby increasing its life span.

Simplified, here's how it works:

Inductive electrical motors operate because wire, wrapped around an axle that spins, creates electrical current. The size of the windings determines how much current is created.

Because energy fields expand and restrict, the electricity that runs along transmission and delivery lines tends to ebb and flow. For this reason electrical motors are typically over wound, meaning they are built to create more electricity than is needed. This is so the motors can absorb surges when they occur.

But it also means motors fluctuate between creating more energy than is needed -- which goes to waste -- and having to draw more energy from the power company when not enough electricity is available.

The KVAR unit, contained in a small gray box, is installed on the load side of the breaker box -- that is on the customer's side of the meter -- where it acts as a capacitor.

Capacitors absorb and store excess electricity. They then discharge the stored energy back where it came from when it is needed.

In other words, a KVAR unit keeps the flow of energy going through a motor at an even rate, and keeps energy in the house to be reused when needed.

A specific example may help to understand how that helps the customer.

Turbeville and Jeff Sims, a field technician, were out at the city's wastewater plant Wednesday sizing KVAR units for each of two three-phase inductive motors that operate the plant's main agitators. These are significant pieces of equipment that run constantly. The motors are brand new.



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In cases like this, Turbeville said, the KVAR unit is customized. That means a technician attaches a unit containing capacitors of various sizes. The technician mixes and matches them until the motor is running at peak efficiency, 99 percent.

One motor's efficiency was improved to 99 percent from 85 percent. This meant that the amount of amps it was drawing from the power company were lowered from 25.5 to 20.

Put another way, the projected cost of running the motor before installing a KVAR unit was \$427 a month, or \$5,124 for 12 months. With a KVAR unit, however, the cost would drop to \$303 a month, or \$3,636 for a year.

Turbeville said home units are more generalized, based on amount of floor space under roof and the number of motors in the home.

A KVAR unit only works with inductive electrical motors. It has no affect on lighting, for example.

But for a home with a washer/dryer, dishwasher, air conditioning, electrical fans, hair dryers, pool pumps, etc. that get a lot of use a family can save between 8 to 20 percent on its electrical bill every month Turbeville said.

Freddie Renfro, head of the water department, said he has already seen a 10 percent reduction in costs with the KVAR units in place for a little over a month at the Bell Street water wells.

"They work," he said. "There's no way they don't work. I seen it work. I got the numbers."

KVAR units are the invention of Gary Taylor, who worked on the idea for 17 years. Turbeville was trained by him and has an almost religious fervor in his belief in the product. He hopes that KVAR units will eventually be installed in every American home and business. He says that the nation would save about 20 percent of its electricity that way.

For more information, call Turbeville at 446-0833.



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KVAR system paying off for Avon Park

By CHRISTOPHER TUFFLEY
christopher.tuffley@newssun.com

AVON PARK -- In a time when most economic news is bad, the city of Avon Park actually has some good news to report.

"We're real pleased with (the KVAR capacitors). The first units put on have already paid for the initial investment," said Freddie Renfro in an interview Wednesday. He is operating foreman for the city.

KVAR is a brand name. Its product, also produced by other companies, is a series of customized capacitors which, "clean up the dirty power from the power company," Renfro explained.

Put simply, electricity utilities vary the amount of power they send through their transmission and delivery lines because of the tremendous consumer demand. The capacitors equalize the oscillating extreme highs and lows of transmission into a 99 percent continuous power feed, saving wear and tear on the electric motor itself -- they survive an average of 80 percent longer -- while using less electricity at the same time. The device also protects against power surges.

"The savings are two-fold," Renfro said, then emphasized the savings apply only to electric motors, not other powered items like lights.

Renfro became aware of the device when a salesman for the company sold him one for his own home. When he saw a 20 percent saving in his electric bill, he figured the city could save even more and went to the city council where it approved a test of the product at the Bell Street pump last summer.

In July 2007 the electric bill for the pump was \$6,593.08.

In July 2008 -- the first full month after the device was installed -- the electric bill for the pump was \$5,788.40. The cost of the kilowatt hour, affected by volume, had dropped from \$8.53 an hour to \$7.89.

Renfro warns that the pump's electric bill has gone up since the beginning of the year. But, he said, that is because of Progress Energy's 25 percent fee hike.

"If we hadn't gone to this, the bill would be much higher," Renfro said.

As it is, even with the increase, Renfro said the average monthly electric bill for Bell Street would drop from \$6,669 in 2008 to \$6,099 in 2009. Multiply that out and the savings are substantial, he said.



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Over at the sewage plant the savings are not quite as dramatic, he added. The reason being the motors are not as large -- the rule of thumb for capacitor systems like KVAR is the more and larger the electric motors, the more the consumer stands to save.

However, Renfro added, he was seeing a drop in kilowatt hours used and estimates that the device there will have paid for itself within 10 months.

Renfro, whose office is decorated with deer antlers and the framed cover of an outdoors magazine, hopes everyone gets with the program.

"It's a win/win for everybody," he said. "If we don't have to burn as much fuel it's good for the environment and the price of gas. The power companies aren't going to go away, it's not like they'll go out of business.

"Capacitors are nothing new," he said. "They've just figured out how to get it up there so they get 99 percent power feed.

"Right here in Central Florida we're the first municipality to use KVAR. I'm getting calls on a daily basis asking for information, like how much we save and are we pleased. My general comment is, 'don't wait.'"