



# IRRIGATION LOAD MANAGEMENT Newsletter

Southern Power District

Summer 2004

## Load Management Hours Change

During the 2004 irrigation season, irrigators will see a small change in the load management hours that Southern Power District will be following. In 2004, control may begin as early as 9:00 AM and continue as late as 11:00 PM. However, the customer is guaranteed that the wells will not be controlled more than 12 consecutive hours. So if control begins for Southern at 9:00 AM, irrigators can expect to have their power restored by at least 9:00 PM that evening.

**In 2004, irrigation customers won't be controlled more than 12 consecutive hours.**

A second change this season involves adjustment or postponement of control by NPPD. Previously NPPD had felt we needed two hours of notification before control would begin. Once a control time was set and they subsequently determined that they did not need Southern's load controlled they could not change it. Now, they can change the control time to an hour or two later in the day.

As an example, let's say that Southern is asked to start controlling load at 1:00 PM. As the morning progresses, NPPD may not see the load growth they had expected. Rather than requiring Southern start controlling at 1:00 PM, NPPD can now change our start time to 3:00 PM. According

to Irrigation Services Manager, Anthony Bohaty, "This is a win-win situation for both the customer and Southern Power District. This new strategy by NPPD will give our customers more running time and allow NPPD more flexibility to take off loads more precisely as they are needed."

Southern has also added an emergency clause to our irrigation control rates. This clause allows Southern to enact load management at times or days when load control traditionally did not occur, if an emergency situation should arise. Southern now may use load management on a Sunday or holiday if an emergency power situation should arise.

**Southern can use load management on Sundays or holidays if an emergency power situation occurs.**

At this time, we can't predict how much Sunday control we will see for the upcoming year. If this option would have been available in 2003 we may have seen a 4-5 hour block of control on one Sunday in July of 2003. In 2004, if Southern is required to use the emergency clause, all rates except full power (uninterrupted) are subject to some control. According to Bohaty, "Southern expects the use of Sunday control to be light and will continue to strive to provide customers with the least amount of interruption as possible."

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# Three Day Control Makes Its Debut

For the 2004 season, Southern has replaced the old "Alternating Rate" with a "Three Day" control rate. In essence, the amount of running time is identical. The difference is that now the days of control will be the same each week, and not alternate as in the past. For example, if you signed up for three day control, you will be assigned three consecutive control days that are either Monday through Wednesday or Thursday through Saturday. The days of no interruption are the next three consecutive days.

So why the change? Each year we were seeing fewer wells on the alternating rate. Secondly, by simplifying the days of control, it eliminates the need for the customer to carry the

calendar of control days to verify which days they would be controlled each week. On the "Three Day" rate, control days stay the same for the entire summer. The three day control is priced exactly the same as the alternating had been in the past. Horsepower charges are \$21.25 per horsepower and the kwh is 4.8\$ per kilowatt hour.



**Three Day Control will offer the convenience of consistent control days.**

## KRVN Control Notifications



**Load Management Updates at 8:29 AM Monday -Saturday on KRVN 880-AM.**

With the change in the control hour period from 9:00 AM to 11:00 PM for irrigation services, Southern is adjusting the announcement time for KRVN Irrigation notices.

KRVN 880-AM Radio will announce the morning load management mes-

sage at 8:29 AM, Monday through Saturday. This will replace the prior message time of 9:14 AM. The early release messages will continue to air at the same times beginning at 4:59, 5:59, 6:59,

7:59, 8:59 and 9:59 PM. These announcements will begin on June 1, 2004 and run through mid-September. Southern will again be using KRGI 96-FM radio for early releases in the evenings. If Sunday emergency control is required, Southern will also utilize KRVN 880-AM and KRGI 96-FM to make this information available to you.

Load management information will again be available on our toll free hotline, 1-800-652-9809 and also by email updates. If you wish to be on Southern's email update list, simply email Anthony Bohaty, Irrigation Services Manager at [abo-haty@southernpd.net](mailto:abo-haty@southernpd.net).

**Tune to KRVN 880-AM Radio for load management announcements!**

## Demand Meters Reset

Southern currently resets all demand meters annually in September when our servicemen read meters. If you experience a problem with your motor or well which you feel may have created an unusual demand reading, contact our office to have your meter read and checked. By doing so, you may be able to avoid that reading from being used to bill your horsepower charge the next year.



## Load Control Boxes

Remember if you see a red and green light in your load control box window, you are currently under control. A single green light means you are not under control. If you think you are being controlled in error please contact the Irrigation Services Manager to verify your current rate of control or call the irrigation hotline to see what groups are under control.

# Understanding Electric Motor Horsepower

Irrigators often question the horsepower (HP) reading that Southern uses to bill them for the fixed or “HP charge” each year. This HP is obtained from a reading we acquire from our meter. The main reason for using this “measured horsepower” is because it ensures that everyone pays for what their well requires from our system to operate.

Electric motors are not 100% efficient and vary from one motor to another in their level of efficiency. They take electrical energy and turn it into mechanical work to pump water, move wheels, and other important tasks. However, since the motor isn't perfect, not all the electricity that goes into the motor is converted to mechanical work. Our meter measures the actual amount of electric demand required to run the motor and pump.

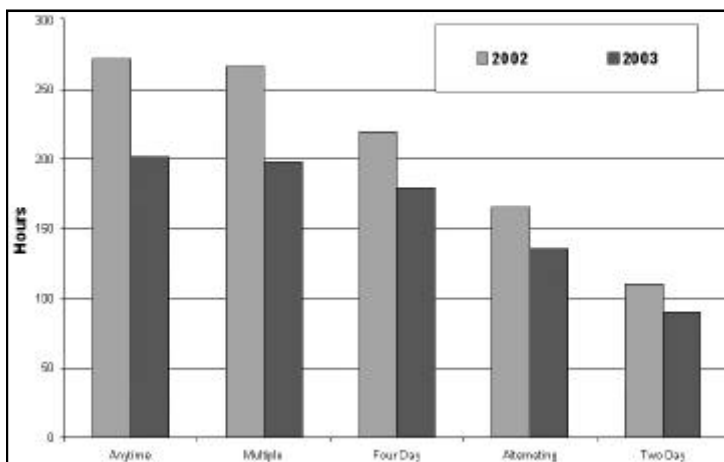
## Efficiency Matters

The motor manufacturers list the amount of energy they expect to be lost in the conversion on the nameplate as the “efficiency” of the motor. For example, let's say that you purchased a 75 HP motor. The amount of work that is going to come out of the motor is 75 HP (assuming you don't overload it). The nameplate says the motor has

## Southern's Irrigation Control Hours by Rate

BELOW: Southern Power District irrigators who participated in any load control category saw a decrease in the hours of control in 2003 when compared to the 2002 season.

The “Anytime” and “Multiple” Control options saw the sharpest declines when compared to Four Day, Alternating and Two Day load control.



an efficiency of 85%. How much energy will it take to produce that 75 HP of work? To produce 75 HP of work going out, you must put 88.23 HP of electrical energy in. If you buy a more efficient motor, it will require less energy to produce the same amount of work. A 75 HP motor that is 95% efficient requires 78.95 HP of electric energy, saving almost 10 HP of electrical energy to do the same amount of work.

A 75 HP motor at 100% efficiency, if that could be obtained, would not necessarily register that amount of HP when running an irrigation pump. The level or HP required is governed by the work the pump must do. That varies with the configuration of the pump and the depth the water must be pumped from. Southern measures the horsepower demand on the wells so we can accurately charge what each customer is using and bill them accordingly. This way everyone pays their fair share based on the efficiency of their motor and the requirements of the well and irrigation pump.

## Load Control Switch Tampering is Prohibited

It is important to remember that tampering with the load control switch at your irrigation service is prohibited for customers, and even pivot repairmen. Only Southern Power employees are authorized to access the switch and all associated wiring.

The load management program is designed to save power supply cost for Southern, and those savings can only be passed on to our customers when they adhere to their voluntary, agreed load management rate. If tampering is discovered, the load management rate will no longer apply, and the customer will be required to pay the “full service” power rate.

If you need to make changes in your system that might involve our load management switch, contact your local Southern Service Center as soon as possible. We will respond quickly to ensure that your changes can be made without affecting the operation of our switch.

Southern Power District



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#### Service Centers:

Grand Island	(308) 384-2202
Central City	(308) 946-2964
Franklin	(308) 425-6217
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Holdrege	(308) 995-5112
Or toll free	1-888-484-2470

#### General Office:

(308) 384-2350 or 1-800-652-2013

#### Customer Service:

(308) 381-5941  
1-800-579-3019 or  
customerservice@southernpd.net

## Plan Now for Construction Deadlines

When Southern Power District completes all new installations and upgrades for the 2004 irrigation construction season, we will have added 320 new services amounting to 14,700 new horsepower to our lines. This is a dramatic increase of 5,152 horsepower over 2003 construction. In 2003, Southern added 9,548 horsepower to our lines. With the increased amount of interest in the 2004 season, Southern did not take any new applications after February 1st. Typically, we have taken them on a non-firm basis and have been able to help customers with these last minute requests.

As a reminder for irrigation customers, there are several important dates to remember as you consider new electric installations for the 2005 irrigation season. If you are considering an upgrade to your existing irri-

gation service or a new well for 2005 please remember these dates and try to apply for electric service as soon as possible in the fall in order to help us better provide you with service.

For 2005, all applications made before November

1, 2004 can be estimated with Southern installing the underground wire needed from the meter to the well service. All well applications between November 2, 2004 and February 1, 2005 will be built, however no underground wire will be installed. Applications received between February 2, 2005 and May 1, 2005 will be considered non-firm (nonguaranteed). Service is not guaranteed and will only be built depending on the availability of labor and materials.

**Plan ahead now  
for these very  
important dates!**

## Well Numbers Important for Efficient Service

When you call Southern Power District after hours with service problems or for load management assistance, knowing your well number is very helpful.

The well number is posted on a yellow reflective tag on a pole near your well, usually facing the road for easy visibility for Southern's servicemen.

This number is a key identifier for the after hours answering service as they work to identify your service location. Having this number available when you call will expedite the

time it takes for us to call out a serviceman to your well. We are able to identify services by other means, but at minimum the your name and a legal location is required if you do not know your account number.



### Did You Know?

Southern Power District staff can identify which county your well is in by your well number? The well number pictured above begins with a 5, which means it is located in Adams County .