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# SMUD PowerStat<sup>®</sup> Pilot

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Energate Smart Thermostat User Guide

Powering forward. Together.<sup>SM</sup>



# Meet the Energate Smart Thermostat

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Thank you for choosing to participate in SMUD's PowerStat® Pilot. As a participant, you've received a new Energate Pioneer Z100 smart thermostat. You'll find that it offers you a lot of flexibility and convenience in an automated temperature management system.

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## Contents

Controls	2
Thermostat Settings	3
Scheduling	3
Changing Modes	5
Conservation Settings	6
LED Indicator Lights	7
Support	8

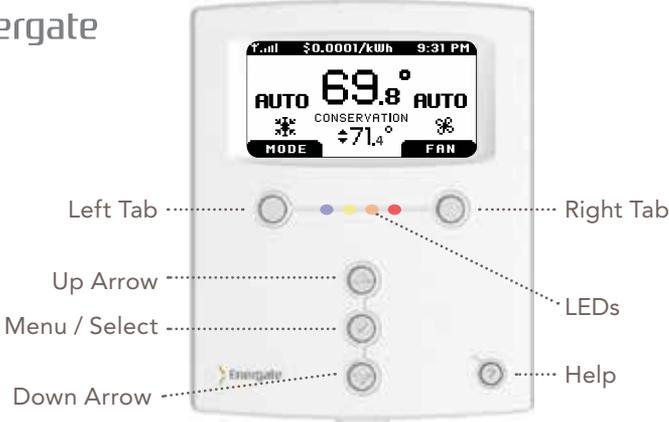


With the Energate smart thermostat, you can:

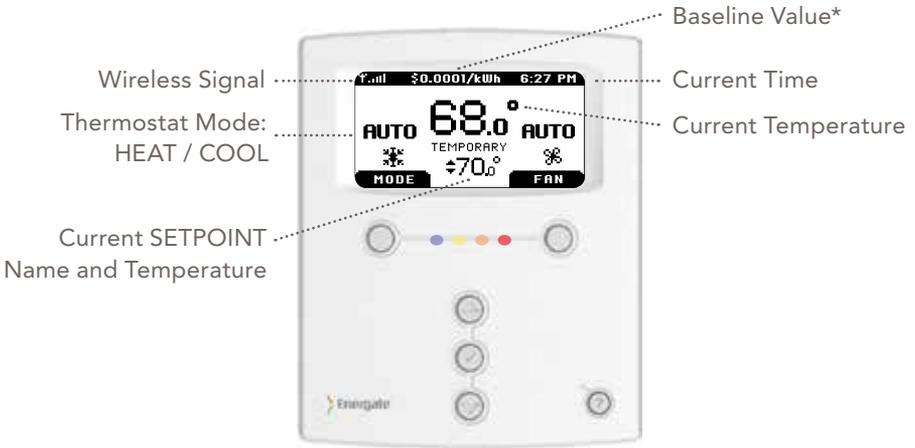
- Create a personal heating and cooling schedule.
- Easily adjust the temperature when you need to change your schedule.
- Choose how the system responds to peak hours—favoring comfort, savings or a balance between the two.

**Let's take a moment to understand how it works.**

## The Controls



The easy-to-read help screens and LED indicator lights ensure you're always aware of what the system's doing. The SETPOINT shows the target heating or cooling temperature, and the HEAT, COOL and FAN icons animate when your equipment's running.



\* The baseline value is not the price you pay. Please visit [smud.org/2013powerstat](http://smud.org/2013powerstat) for information on the Optimum Off-Peak Plan.

## Your Standard Thermostat Settings: Temperature SETPOINTS

For many of our customers, the need for air conditioning may change throughout the day. By programming your thermostat SETPOINT, you can set different temperatures for different times.

A "SETPOINT" is your preferred temperature for a particular time of day, according to your basic activity schedule. To help make SETPOINT programming simple, we've assigned each SETPOINT a name for the time of day, including "Wake" for your morning routine, "Leave" for when you've gone out, "Return" for when you come back and "Sleep" for after hours.

So, for example, if your thermostat is operating in AUTO mode and the "Return" SETPOINT is assigned a COOL temperature of 78°, the system will start cooling only if the temperature rises above 78°. *You can save up to 10% on the cost of running your air conditioner for every two degrees that you raise your thermostat.*

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## Programming Your SETPOINTS: Made Easy with Quick Schedule

**Planning your schedule.** In the table below, fill in the times and temperatures you would like the installer to program into your thermostat as SETPOINTS. If you only change your thermostat at night, fill out just the Wake and Sleep sections.

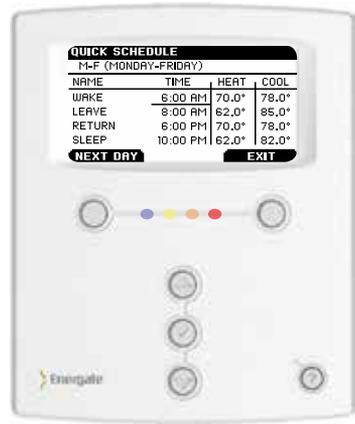
	SETPOINT		Start Time	
	Heat°	Cool°	Monday – Friday	Saturday – Sunday
Wake				
Leave				
Return				
Sleep				

## Changing Your Schedule

After you program the thermostat to follow a weekly schedule of SETPOINTS (Wake, Leave, Return, Sleep), the temperatures for each SETPOINT can be changed and the TIMES that they become active can be adjusted to your schedule. Depending on how the SETPOINTS are programmed, they can help save you energy.

The fastest way to view or change SETPOINT temperatures and start times is through the Quick Schedule screen. You can get to this screen from the Main Menu.

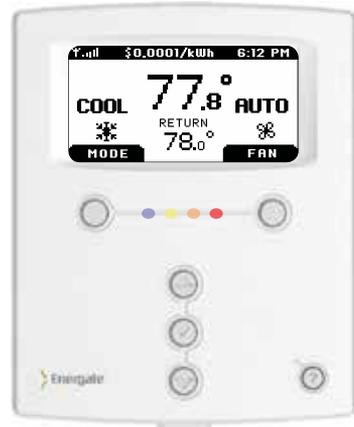
- Press any button to wake the thermostat.
- Press the MENU / SELECT (✓) button to display the Menu.
- Use the ARROW buttons and the MENU / SELECT (✓) button to choose QUICK SCHEDULE.
- The WAKE time will be underlined. Press the ARROW buttons to change the time.
- Press the MENU / SELECT (✓) button to move to the HEAT temperature.
- Press the ARROW buttons to select the desired temperature.
- Press the MENU / SELECT (✓) button to move to the COOL temperature.
- Press the ARROW buttons to select the desired temperature.
- Repeat for any other SETPOINTS. Press the LEFT TAB button to move to the next day.
- EXIT by pressing the RIGHT TAB button.



## Overriding Your SETPOINTS: TEMPORARY HOLD

You can use the TEMPORARY HOLD feature any time you want to change the temperature setting without clearing your SETPOINT.

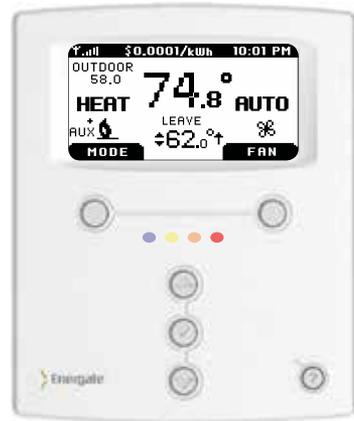
- Press the ARROW button to select the desired target temperature.
- Press the LEFT TAB button to accept the TEMPORARY HOLD. When it's accepted, you'll see "TEMPORARY" under the current temperature.
- This setting will remain until the next SETPOINT change in your schedule.
- Cancel a TEMPORARY HOLD by pressing any ARROW button and then the RIGHT TAB button.



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## Changing the Thermostat Operating and Fan Modes

- Press any button to wake the thermostat.
- Pressing the LEFT TAB button changes the thermostat mode (COOL / HEAT / AUTO / EMERG / OFF).
- Pressing the RIGHT TAB button changes the fan mode (ON / AUTO).



## Managing Energy Use During Peak Hours: Conservation Settings

The Energate smart thermostat gives you choices on how to automate your electricity use in response to peak hour pricing—to maximize savings, comfort, or to strike a balance between these preferences.

Based on what's important to you, you can choose from one of five Conservation Settings, each of which responds differently to peak hours. Then, the thermostat takes over, adjusting your temperature to keep you at your chosen comfort level.

**CONSERVATION**



COMFORT  
BALANCED  
SAVINGS

COMFORT MOST IMPORTANT. IGNORES PRICE INCREASES.

**OK**

**CONSERVATION**



COMFORT  
BALANCED  
SAVINGS

PREFER COMFORT OVER SAVINGS.

**OK**

**CONSERVATION**



COMFORT  
BALANCED  
SAVINGS

BALANCES COMFORT AND SAVINGS IN RESPONSE TO ENERGY PRICES.

**OK**

**CONSERVATION**



COMFORT  
BALANCED  
SAVINGS

PREFER SAVINGS OVER COMFORT.

**OK**

**CONSERVATION**



COMFORT  
BALANCED  
SAVINGS

SAVINGS MOST IMPORTANT. RESPONDS TO ALL PRICE INCREASES.

**OK**

MAXIMUM  
COMFORT



MAXIMUM  
SAVINGS

### Maximum Comfort

- Comfort is your most important consideration.

- 1° increase.

### Comfort

- You prefer comfort over savings.

- 2° increase.

### Balanced

- Comfort and savings are equally important to you.

- 3° increase.

- This is the default setting.

### Savings

- You choose to be more flexible with your temperature settings in order to save more money.

- 4° increase.

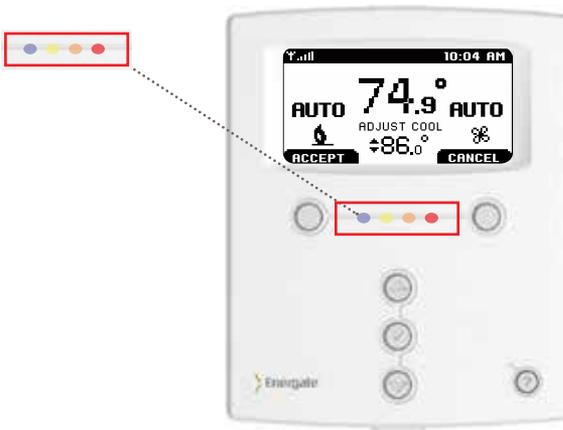
### Maximum Savings

- Saving money is your most important consideration.

- 5° increase.

## Blue and Red Lights: What They Mean

The thermostat has a row of LED indicator lights right below the display screen. The blue and red lights indicate that it is a Conservation Day during peak hours.



LED Color	Price Signal
BLUE	Conservation Day Peak Hours
RED	Conservation Day price is in effect



## If You Have Questions...

The Energate smart thermostat will be fully functional until September 30, 2013. Then, the thermostat will transition to a standard programmable thermostat. Meanwhile, if you have further questions about the thermostat or this study, here are several resources that can help:

- A user manual is included with the new thermostat.
- To opt-out of Conservation Days, SMUD's support staff is available on weekdays between 8:00 a.m. and 5:00 p.m., at 855-253-1824.
- You can call GoodCents directly for thermostat support at 866-380-6052.



## Notes

