

# SAY WATT?



MONTGOMERY  
**energyconnection**   
YOUR LINK TO ENERGY SAVINGS  
[MontgomeryEnergyConnection.org](http://MontgomeryEnergyConnection.org)

# WATT IS ENERGY CONSERVATION?



**not using energy or  
using less energy**

# WATT IS ENERGY EFFICIENCY?

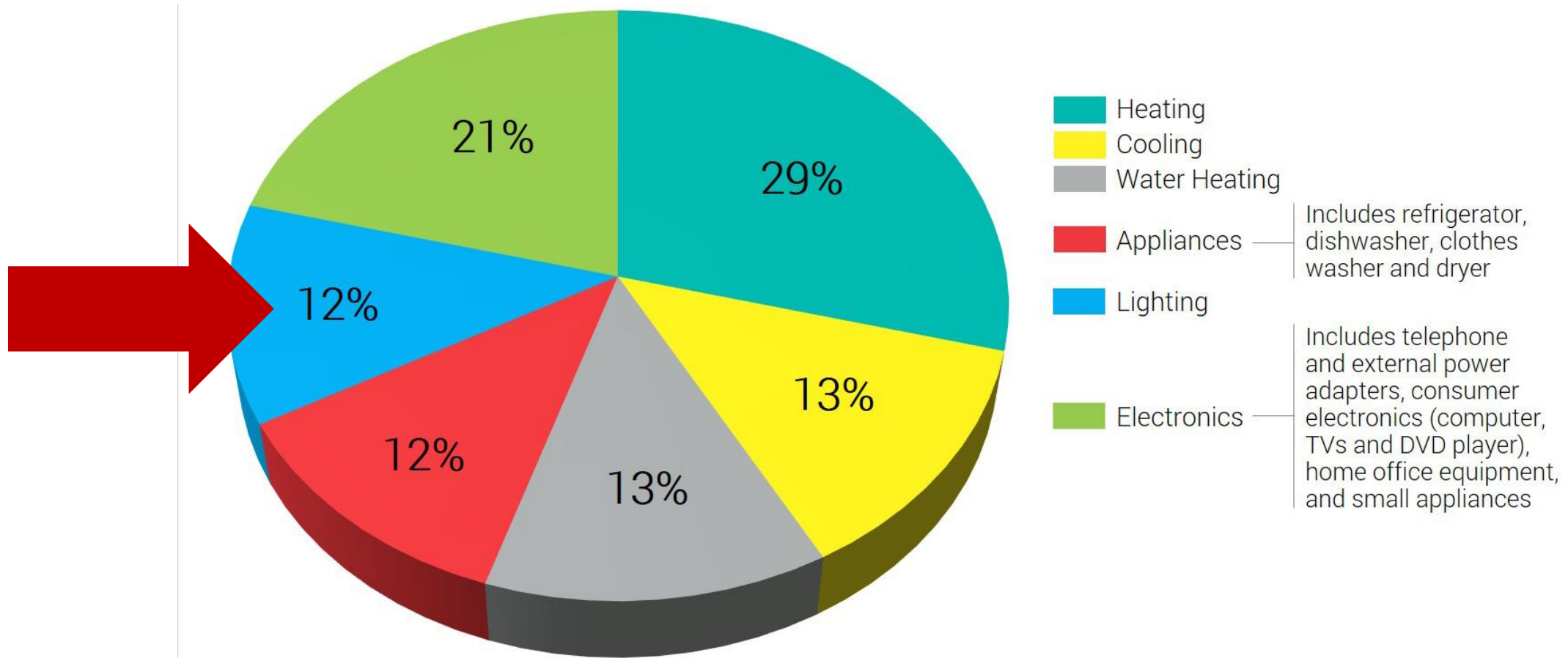
**not wasting energy by  
doing more with the  
same amount of energy  
or switching technologies**



# WATT IS YOUR UTILITY BILL?



# WHERE DOES YOUR MONEY GO?



Source: Typical House Factoid Memo. Lawrence Berkeley National Laboratory. April 2013.

# WHAT THE WATT?



**Measurement of energy**





# WHAT IS A LUMEN?

**Measurement of  
brightness**



# LED LUMENS TO WATTS CONVERSION CHART

BRIGHTNESS IN LUMENS		200+ 	400+ 	700+ 	900+ 	1300+ 
	STANDARD	25W	40W	60W	75W	100W
	HALOGEN	18W	28W	42W	53W	70W
	CFL	6W	9W	12W	15W	20W
	LED	4W	6W	10W	13W	18W



# WATT DOES IT MATTER?



# 60-WATT INCANDESCENT BULB 800 LUMENS



**\$0.95**

<https://www.1000bulbs.com/>

# 13-WATT CFL BULB 800 LUMENS

**\$3.14**



# 9-WATT LED BULB 800 LUMENS



**\$1.00**

<https://www.1000bulbs.com/>

# COST MATTERS

	<b>Incandescent</b>	<b>CFL</b>	<b>LED</b>
Watts	60 W	13 W	9 W
Brightness	800 lumens	800 lumens	800 lumens
Hourly Energy Cost	\$ .006	\$ .0013	\$ .0009
Lifespan	1,200 hours/1.3 months	7,500 hours/8 months	25,000 hours/2.8 years
Energy Cost per lifetime	\$7.12	\$9.75	\$22.50
Cost per bulb	\$0.95	\$3.14	\$1.00
Total Cost per lifetime	\$8.15	\$12.89	\$23.50
Bulbs needed to equal 1 LED	20.8 bulbs	3.3 bulbs	1 bulb
<b>REAL COST</b>	<b>\$169.79</b>	<b>\$42.97</b>	<b>\$23.50</b>

# LOOK FOR THESE



## Lighting Facts Per Bulb

<b>Brightness</b>	<b>820 lumens</b>
-------------------	-------------------

<b>Estimated Yearly Energy Cost</b>	<b>\$7.23</b>
-------------------------------------	---------------

Based on 3 hrs/day, 11¢/kWh

Cost depends on rates and use

### Life

Based on 3 hrs/day

**1.4 years**

### Light Appearance

Warm

Cool

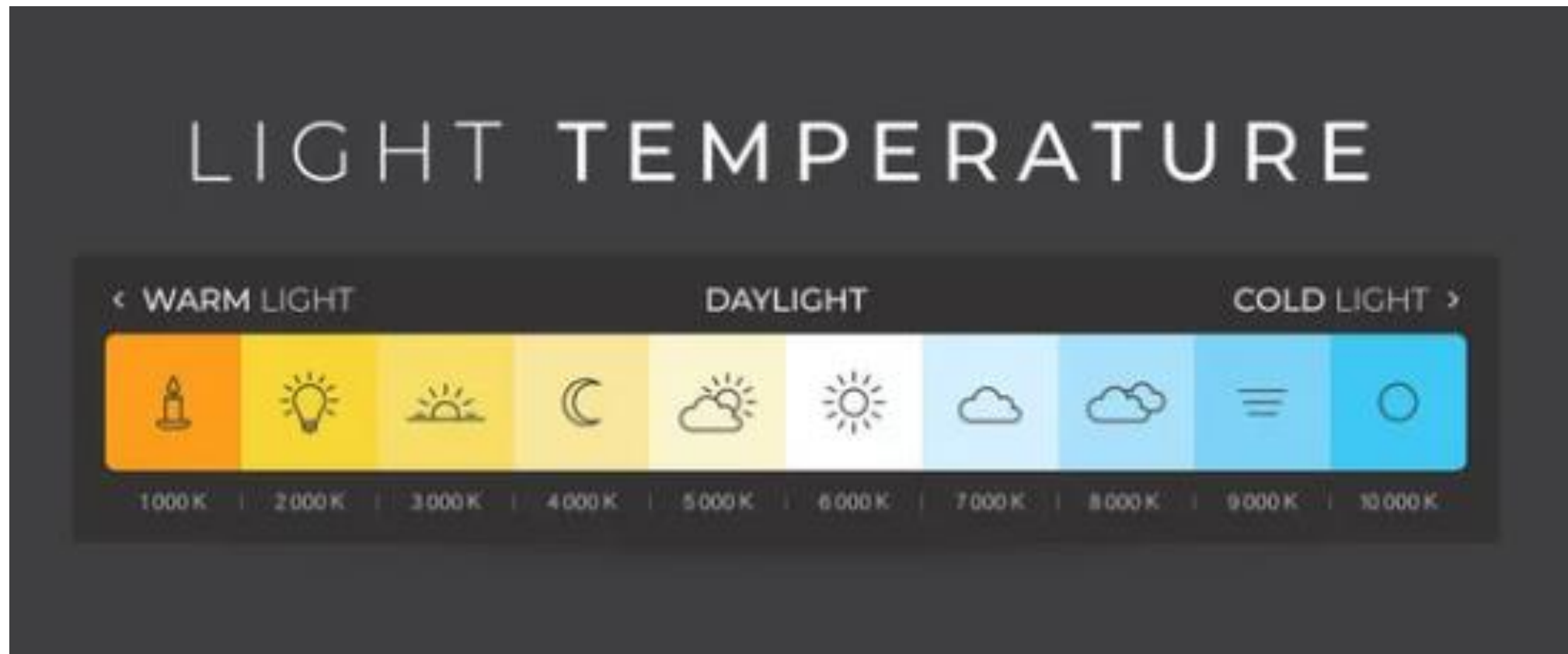


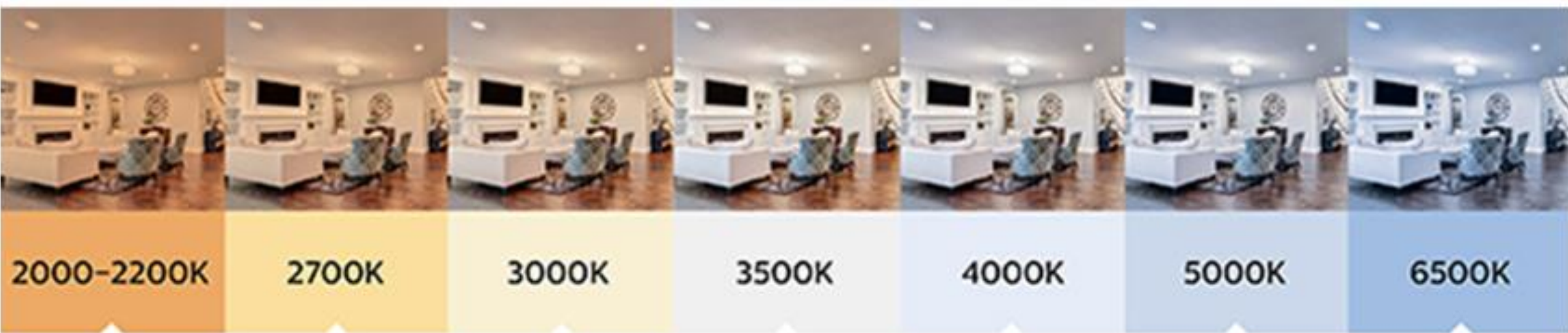
2700 K

<b>Energy Used</b>	<b>60 watts</b>
--------------------	-----------------



# COLOR MATTERS





**WARM OR SOFT WHITE**  
2700-3000 Kelvin

**Cozy, Inviting,  
Warm Glow**

- Living Room • Family Room
- Bedroom

**NEUTRAL OR COOL WHITE**  
3500-4100 Kelvin

**Clean, Efficient,  
Radiant Crisp Glow**

- Kitchen • Bathroom
- Basement • Garage

**SUNLIGHT OR DAYLIGHT**  
5000-6500 Kelvin

**Alert, Active  
Vibrant Glow**

- Reading • Hobby Room
- Detail Oriented Activities

# SHAPE MATTERS



**Standard**



**Can**



**Flood**



**Track**



**Linear/Tube**



**Candle/Candelabra**



**Globe**



**Vintage**

# TECHNOLOGY MATTERS





- LED Light Bulbs that Change Color
  - Phillips HUE, Govee, GE
- Voice-Command LED Lighting
  - Apple's Siri, Amazon's Alexa, Microsoft's Cortana, or Google's Assistant
- LED Light Bulbs with Occupancy Sensors
- LED Light Bulbs with Bluetooth Speakers
- LEDs with Security Cameras







QUESTIONS?