



## SSC2030: Start-of-course survey<sup>1</sup> KEY

### Behaviors:

1. Please take a moment to think about your typical energy usage habits, how often do you do each of the following?

	Never	Rarely	Occasionally	Often	Always
Unplug devices not in use					
Search for energy efficient products					
Turn of lights when leaving a room					
Encourage others to save energy					
Car pool					

2. If you had a question about energy, where would you be most likely to turn to find information and answers? (Choose several with most important = 1)

	An instructor
	Textbooks / printed books
	Friends / peers
	Family
	Internet search engines (Google, etc.,)
	Scholarly research / databases
	Encyclopedias (online / print)
	Social media from non-professionals
	Social media from professionals
	Blogs or forums
	Government websites
	Industry websites
	Non-profit agencies
	Other:

3. Which of those sources do you trust the most? (Choose several with most important = 1)

	An instructor
	Textbooks / printed books
	Friends / peers
	Family
	Internet search engines (Google, etc.,)
	Scholarly research / databases
	Encyclopedias (online / print)
	Social media from non-professionals
	Social media from professionals
	Blogs or forums
	Government websites
	Industry websites
	Non-profit agencies

<sup>1</sup> Adapted from the National Energy Foundation's 'Energy literacy survey'



**Energy literacy:**

4. Energy is best defined as: (choose 1)

	The flow of electricity
	The rate at which work is done
X	The ability to do work
	Work output divided by work input
	Fossil fuels

5. The original energy source of nearly all living things on Earth is:

X	The sun
	Water
	Oxygen
	Plants
	Soil

6. Electricity bills charge consumers by the \_\_\_\_\_ unit of electricity.

	Watt (W)
X	Kilowatt-hour (kWh)
	British thermal unit (BTU)
	Volt (V)
	Horsepower (HP)

**Sources and types of energy:**

7. Which fuel are most power plants being built in the US today are designed to use?

	Coal
	Uranium
	Petroleum
X	Natural gas
	Hydropower

8. In the past five years, which fuel's use has declined?

	Petroleum
X	Coal
	Natural gas
	wind
	solar

9. Which creates fewest GHG (greenhouse gas) emissions when used to create electricity?

X	Natural gas
	Coal
	Wood
	Oil



10. The term renewable energy means that an energy source is \_\_\_\_\_

	Is free and easy to use
	Is very efficient
	Does not produce GHGs
	Can be converted directly to electricity
X	Can be used without depletion

11. Which is a renewable energy resource?

	Solar
	Biomass
	Geothermal
	Hydropower
X	All of the above

12. Which resources provided 86% of electricity in the US in 2015?

X	Coal, natural gas and nuclear
	Natural gas, nuclear and solar
	Natural gas, wind, solar
	Coal, natural gas, wind
	Coal, nuclear, hydropower

**Energy use:**

13. Which of the following uses the most energy in average American homes?

	Refrigerators and freezers
	Lighting
X	Heating and cooling space
	Heating water
	electronics

14. How much US energy consumption is used for transportation?

	10 – 15%
X	25 – 30%
	40 – 45%
	55 – 60%
	70 -75%

15. Since 2003, per capita (per person) energy use in the US has \_\_\_\_\_.

	decreased
	stayed about the same
X	increased



16. In the past ten years, US petroleum imports have \_\_\_\_\_.

	increased
X	decreased

**Energy efficiency and conservation:**

17. Which is **not** a potential advantage of using a smart meter?

	Smart meters provide consumers with precise details of their consumption patterns
	Smart meters help consumers identify ways to use electricity more efficiently
	Smart meters can help consumers manage their electrical use remotely.
	Smart meters can help utilities manage supplies more efficiently.
X	Smart meters can help consumers save energy without behavioral change.

18. Conserving water also conserves energy.

X	True
	False

**Tradeoffs and implications:**

19. Which are potential consequences of increased energy production?

	Job creation
	Increased tax revenue
	Royalty payments for property owners
X	All of the above
	None of the above

20. Fracking for natural gas and oil has helped lower consumer energy prices.

X	True
	False

21. Electric vehicles use electricity only from renewable sources.

	True
X	False

**Attitudes:**

22. Indicate how you feel about each of these statements.

	disagree 1	2	3	neutral 4	5	agree 6
Energy efficiency and conservation aren't that important to me.						
I'm too busy to be concerned about energy use.						
It would be too much of an inconvenience to my lifestyle to reduce my energy use.						
When home, I take actions to conserve energy.						
There is very little I can do personally to conserve energy in my home.						



My efforts to conserve energy will have a possible impact on the environment.						
I'm not willing to conserve energy at home if it comes as a cost to my comfort.						
My friends and I often talk about energy.						
Energy efficiency is vital to our economy.						
I have a moral obligation to reduce energy use.						
I am willing to compromise with those whose views on energy differ from mine.						
Reducing my energy use will have a strong, positive impact on my finances.						
We need to develop more ways of producing renewable energy even if that energy costs more.						
The government has a strong role to play in our nation's energy efficiency and conservation policies.						
Climate change is a vital issue that must be addressed.						
I stay informed about local and national energy issues.						
I believe I have a voice in helping to impact energy policies.						
Clean energy is more important than reliable and affordable energy.						
Affordable energy is more important than clean and reliable energy.						
As a country, we need to invest more money and effort into becoming energy independent as soon as possible.						
Becoming an energy independent country is vital to our economic success and national security.						
The US should be focused on leveraging all energy resources, fossil fuel and renewables.						

23. Ten years from now, how do you think the US will change in each of these areas?

	big decrease	decrease	same	increase	big increase
Use of oil					
Use of natural gas					
Use of coal					
Production of nuclear energy					
Use of renewable energy					



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Advances in energy efficiency and conservation					
Consumer energy awareness					
Government action on GCC					
Energy demand					
Energy self-sufficiency					
Home energy storage					
Energy consumption costs					