## A Powerful Conversation

Josh Castleberry

Dean, WET Central Carolina Technical College



### Question

- Which is more important, food or electricity?
- Begging the question
- False dichotomy

### Learning to think and discuss

- Ad hominem
- Argumentum ad Populum
- Appeal to Tradition
- Appeal to (the Wrong) Authority
- Appeal to Emotion
- Argument from Personal Incredulity
- False Cause

- Red Herring
- Straw Man
- Slippery Slope
- Appeal to ignorance
- Hasty Generalization / cherry picking
- Loaded Questions

#### **Key Topic 1: Traditional Non-renewable Energy Sources**

- 1. Explain how Oil, Natural Gas and Coal Systems Generate Electricity and Potential Issues with Expanding production to meet future needs.
- 2. Identify the environmental, social, and economic, advantages and disadvantages of each source, including short-term impacts.
- 3. Explain the setup and design of traditional energy infrastructure and distribution systems.
- "Renewable energy advocates want to eliminate natural gas entirely, but without it, we'd be left in the dark and freezing in our homes."
- Straw Man
- The argument sets up a distorted version of the opponent's position (straw man) by implying that renewable energy proponents want to eliminate natural gas entirely, creating a false and extreme position that is easier to attack.

#### Key Topic 2: Renewable and Alternative Energy Sources

- 1. Explain how Solar, Wind and Hydroelectric systems generate electricity and potential issues with expanding production to meet future needs.
- 2. Identify the environmental, social, and economic advantages and disadvantages of each source, including short-term and long-term impacts.
- 3. Explain the setup and design of renewable/alternative energy infrastructure and distribution systems
- "Solar panels require a lot of energy to manufacture, making them more harmful to the environment than traditional energy sources."
- Cherry Picking
- This statement selectively focuses on one aspect of solar panel production (energy consumption during manufacturing) while ignoring the overall life cycle analysis, which often shows that solar energy has a lower environmental impact in the long run.

#### **Key Topic 3: Technological Advancements and Transition Challenges**

- 1. Describe recent technological advancements within the solar, wind and hydroelectric energy fields including infrastructure and distribution systems.
- 2. Describe the challenges associated with transitioning to renewable/alternative energy sources.
- 3. Identify solutions to the challenges associated with renewable/alternative energy, including environmental, social, and economic incentives.
- "If we allow net metering for private homes, it will lead to an unsustainable situation where everyone produces their own energy, causing grid instability and the collapse of the entire electricity system."
- Slippery slope
- States that a relatively small and specific policy (net metering for private homes) will inevitably lead to an extreme and negative outcome (grid instability and the collapse of the entire electricity system) with no causal connection

#### Key Topic 4: Changing roles and responsibilities in making energy decisions

- 1. Describe how energy regulations are created at the local, state/provincial, and international levels and how these regulations impact producers and consumers.
- 2. Identify what energy use decisions can be made on an individual/household level.
- 3. Explain the accountability process for pollution/emissions related to energy generation and distribution at the local, state/provincial, and international levels.
- 4. Describe how financial incentive programs work in the green energy space and explain the socioeconomic and environmental impacts of carbon offset credits, renewable energy credits, and other trade-off programs.
- "Instead of discussing the benefits of financial incentives for renewable energy, we should be focusing on addressing unemployment issues and improving the economy."
- Red Herring
- While addressing unemployment and improving the economy are important topics, they are not directly relevant to the discussion about the effectiveness or appropriateness of financial incentives for renewable energy.

#### **Key Topic 5: Vulnerabilities and Opportunities**

- 1. Identify vulnerabilities inherent with an increased demand for alternative energy sources: (such as weather conditions, Solar flares, human disruption).
- 2. Describe possible solutions to limit or eliminate those vulnerabilities identified.
- General understanding of Texas power grid failures AND California wildfires (Thomas Wildfire 2017)



# Josh Castleberry castleberryjs@cctech.edu 803-778-6601