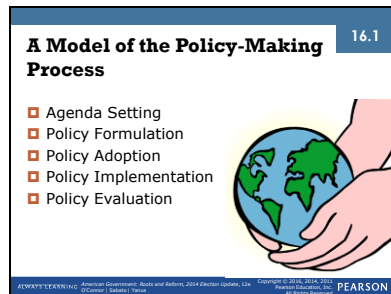


Slide 1



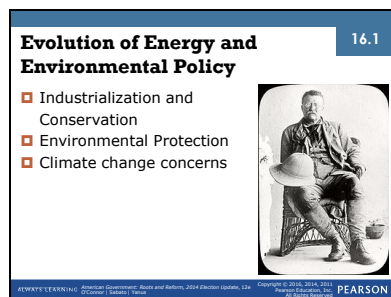
Slide 2



Policy-Making Process

- ❑ Agenda Setting
Deciding which issues to discuss
- ❑ Policy Formulation
Crafting of proposed courses of action
- ❑ Policy Adoption
Approval of a policy proposal
- ❑ Policy Implementation
Process of carrying out public policies
- ❑ Policy Evaluation
Did policy achieve its goals?

Slide 3

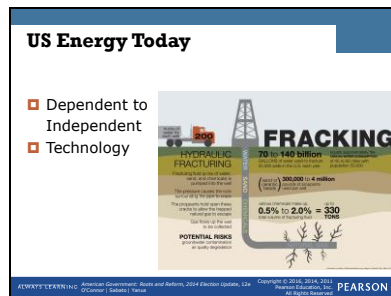


Early on in our history, concerns about the environment were related to industrialization and "laissez-faire" attitudes toward business and private property. Conservation efforts were led by President Theodore Roosevelt, who created the U.S Forest Service, national parks, and other preserves. The burning of fossil fuels resulted in environmental damage, and the focus shifted to environmental protection. Rachel Carson's book *Silent Spring* and the first Earth Day in 1970 are examples of that shift in thinking.

About same time, however, the United States was becoming increasingly dependent on foreign oil sources. Groups like the Organization of Arab Petroleum Exporting Countries (OAPEC) and the Organization of Petroleum Exporting Countries (OPEC) began raising their prices, which led to U.S. policies such as speed limits and fuel efficiency standards for cars.

While the rest of the world has committed to the reducing greenhouse gases with the Paris Accord, the Trump Administration favors the continued use and development of fossil fuels.

Slide 4



Energy and environmental policy are linked. The demand for cheap and abundant sources of energy using fossil fuels can have serious environmental impacts, such as climate change.


The United States has recently transitioned from a country dependent on other countries for oil and gas to become a leading exporter.

This energy independence has come primarily from new technology allowing oil and gas to be extracted from oil shale. Like coal, the United States has an abundance of these resources. Likewise, technology has allowed solar power and wind power to be competitive with fossil fuels. With improvements to battery technologies, solar and wind power can be stored for times when the sun has set and the wind has died down.

Slide 5

Evolution of Energy Policy

- Industrialization and Conservation
 - Abundant coal and oil
 - Teddy Roosevelt and the conservation of natural resources



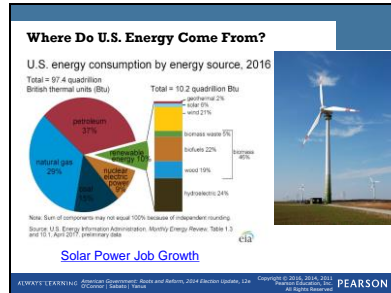
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Early on in our history, concerns about the environment were related to industrialization and "laissez-faire" attitudes toward business and private property.

The industrial revolution was fueled by abundant coal. Later oil fields were found that were easy to access and refine. Fossil fuels gave energy to our growing home, factories, and use of automobiles.

Economic growth resulted in a rapid growth of cities and an insatiable use of natural resources. Some feared if something wasn't done, many natural resources would be lost forever. Early conservation efforts were led by President Theodore Roosevelt, who created the U.S Forest Service, national parks, and other preserves.

Slide 6



While fossil fuels still dominate energy production overall in the U.S., solar and wind production are on a growth trajectory (especially in China, India, and some other developing countries, as well as parts of Europe). 2015 was the first record-setting year that more new infrastructure for renewable energy was installed than new infrastructure for nonrenewable energy.

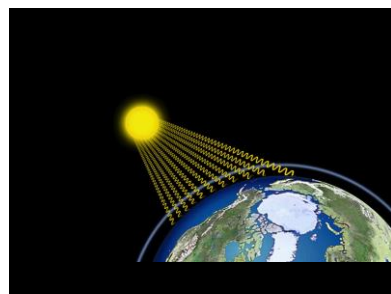
Slide 7



TALKING POINTS:

- Wind energy could supply 40 times more electricity than the entire world currently uses.

Slide 8



TALKING POINTS:

- Every hour the Earth gets as much energy from the sun as we need to run the entire global economy for a year.
- If we can increase the fraction of that that we harvest and use, we can make a lot of progress towards solving the climate crisis and helping local economies at the same time.

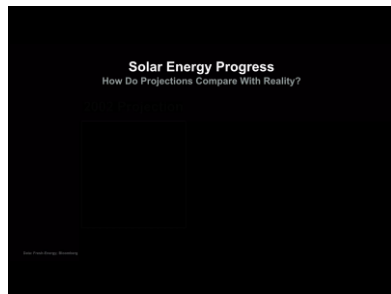
Slide 9



TALKING POINTS:

- Look for example at renewable energy.
- Wind energy was predicted to provide 30 gigawatts of electricity worldwide by 2010.
- As of 2016 we had exceeded that prediction by 16 times over.

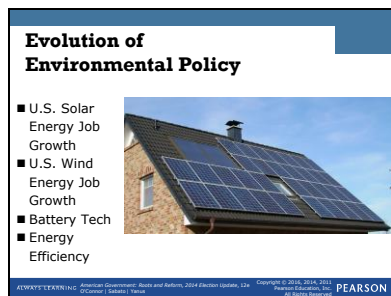
Slide 10



TALKING POINTS:

- Solar energy is an even more dramatic story.
- 15 years ago the best projection was that we would install 1 gigawatt of solar energy capacity per year by 2010.
- By 2010, we exceeded that goal by 17 times.
- In 2016 we exceeded the goal by 75 times.

Slide 11



According to Jan 2017 Business Insider Story, U. S. solar-energy jobs are growing 12 times as fast as the US economy.

Wind turbine technician is the fastest-growing profession in the US.

Solar Employs More People In U.S. Electricity Generation Than Oil, Coal And Gas Combined. ... Just under 374,000 people were employed in solar energy, according to the report, while coal, gas and oil power generation combined had a workforce of slightly more than 187,000. Forbes 2017

Battery-storage systems built by UniEnergy Technologies of Mukilteo, allow electricity to power 100 to 120 homes for up to three hours.

Wind turbines and solar panels are intermittent energy sources, producing electricity only when the wind blows and the sun shines. Those kilowatts have to be used immediately, and the inability to store that electricity until customers need it has been one of the drawbacks of renewables for utilities.

Due to increases in energy efficiencies, the world is powering more with less energy. In 2017, Tacoma City Light requested a rate increase because their customers were using less energy than the utility had planned for.

Slide 12

Evolution of Environmental Policy

- Rachel Carson's *Silent Spring*,
- Earth Day 1970
- Keep America Beautiful PSA

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Rachel Carson's book *Silent Spring* detailed the problems associated with pesticides, specifically DDT. DDT was advertised by its maker as safe for people and the environment only deadly to insects causing disease and damage to crops. DDT was associated with causing the egg shells of birds to become soft and not allow for fledglings to hatch.

This lead to a rapid fall in raptor populations. The American Bald Eagle became endangered.

By 1975 Peregrine Falcons were down to an estimated 10% of their estimated 1940 population of 3,875 nesting pairs. Concerned conservationists started

collecting eggs and incubating them, raising the chicks using puppets, and then releasing them to save the population.

With the banning of DDT, raptor populations have rebounded and Bald Eagles are no longer on the endangered list.

Lately, Rachel Carson has been accused to overstating the damage caused by DDT. Critics, including the conservative CATO Institute, said the banning of DDT resulted in millions of people in Africa to die because of not being able to use DDT. The science disagrees with these claims. Further research has found that traces of DDT are still being found throughout the environment and that they have negative impacts on humans and other animals.

The photo Earthrise shot by Apollo astronaut William Anders in 1968, helped in the rise of the environmental movement and the first Earth Day in 1970.

Slide 13

Environmental Policy 16.4

- ▣ National Environmental Policy Act of 1969
- ▣ Clean Air Act of 1970
- ▣ Clean Water Act of 1972



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The major environmental policies we have at the federal level were passed right before and during the 1970s. The National Environmental Policy Act of 1969 required government agencies to draft an environmental impact statement when proposing a new project.

That was followed the next year by the Clean Air Act of 1970, which established primary and secondary air quality standards for six air pollutants. Two years later Congress passed the Clean Water Act of 1972, which sought to make all surface water "swimmable and fishable" by 1985. Changes proposed by current and past presidents are limited to meeting requirements of these major pieces of legislation. Changes in regulations are likely to be settled by the courts unless Congress revises these bills.

Slide 14

Climate Change

- ▣ Concerns
 - Greenhouse gases and global warming



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Climate change is controversial because some people do not believe that the Earth is warming as the result of human activities, namely using large amounts of fossil fuels. While a growing number of people and politicians now agree that climate change is happening and is the result of human activity, environmentalists believe that not enough is being done fast enough to reverse the damages to the environment.

Slide 15



TALKING POINTS:

- Climate change, along with other factors such as ecosystem loss, is contributing to the worst extinction event since the extinction of the dinosaurs 65 million years ago.

PHOTO: Endangered golden poison frog.

Slide 16



While leadership in the U.S. federal government oppose policy to combat climate change, state, local, and interest groups are working together to make meet the goals of the Paris Climate Accord.

These groups are implementing state and local policies to protect the environment and sharing information policies, and practices they hope will lead to real change.

Slide 17

