

Efforts to Address Energy Issues

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WHAT'S COVERED

In this tutorial, we will explore the efforts to address energy issues. We will discuss U.S. policies around supply and demand of energy, including the Energy Policy Act. We will briefly cover the background of energy policy and the environment and discuss actions that can be taken by private businesses and individuals to address energy issues. Lastly, we will discuss the impacts of U.S. energy policy. Specifically, this lesson will cover the following:

1. Policy Related to Energy Supply

In order to address energy issues, whether it be at the global or national level, there are two strategies that can be utilized:

- Increasing the energy supply
- Decreasing the energy demand

At present, most efforts to address energy have aimed to do the former, which is to increase energy supply and its sources.

IN CONTEXT

Let's discuss a little bit of historical background to provide some context for U.S. energy policy. In the 1970s, there was international political tension between the United States and a number of countries, and this tension resulted in an oil shortage. By 1973, the cost of a barrel of oil had quadrupled, resulting in empty gas stations and fuel rationing.

In response, in order to prevent any further shortages, Congress ratified the Energy Policy and Conservation Act of 1975 to establish a reserve of oil in the United States. The act also required better automobile efficiency standards in order to reduce demand for oil and gasoline.

1a. Purpose

The majority of U.S. policy actions toward energy have been to provide subsidies and tax credits for oil and gas. Additionally, most energy policies in the United States have done the following:

- Address industries on an individual basis, without approaching them with any comprehensive plan
- Allow a free-market philosophy to determine the U.S. energy mix
- Provide significant subsidies for nuclear power and fossil fuels, as well as some subsidies for renewable sources
- Seek and support inexpensive, abundant, and reliable energy sources, with the end goal of supporting economic growth

1b. President Carter

Before global climate change became a widely accepted political issue, energy was not seen as an environmental issue. In the 1970s, President Carter framed energy as a national security issue and encouraged an increase in coal consumption and production. Therefore, the U.S. Department of Energy focused on defense work related to nuclear energy.

In recent years, energy has continued to be framed as a national security issue, as well as an economic growth opportunity by scaling up renewables and creating more green jobs.

1c. Energy Density

Historically, humans have transitioned from sources of energy that are less energy-dense to ones that are more energy-dense. This has allowed humans to spend more time on specialization and tasks rather than the bare essentials of food and shelter.

Therefore, humans transitioned from using human power to wood, then coal, and now oil. It is uncertain what the next more energy-dense source of energy will be.



2. Policy Related to Energy Demand

While most policy decisions in the United States seek to increase energy supplies, there have been some related to demand, most of which are focused on increasing energy efficiency through technology, as opposed to directly reducing energy-use behaviors.

2a. Purpose

Since the 1970s, policies that have been implemented for this purpose include the following measures:

- Incentives for small power generators
- Tax credits for installing home insulation
- Energy efficiency standards for light bulbs and home appliances
- Taxes on automobiles that are low efficiency and require large quantities of fuel
- Disincentives for gasoline use through higher taxes

2b. Energy Policy Act of 1992

The Energy Policy Act of 1992 sought to address contemporary energy issues through the following measures:

- Federal requirements to use alternative fuels and fleets
- Funding devoted to energy research
- Efficiency requirements in federal buildings
- Tax credits for consumer investments in efficiency
- Increases in automobile emissions standards
- Setting goals for greenhouse gas reductions

3. Efforts of Private Businesses and Individuals

Private businesses and individuals have also taken action to address energy issues.

Some businesses choose to construct and operate their buildings in ways that ensure energy efficiency. They can do this by installing renewable energy sources onsite, such as a PV (photovoltaic) array or a wind turbine.

Individuals have also done this by installing a PV on their roofs or even, in rare cases, utilizing geothermal energy. Individuals have also requested that their utility provide them with more renewable energy sources, choosing to consume less energy in their homes, and purchasing more energy-efficient appliances and products.



4. Impacts of the U.S. Energy Policy

Impacts of the U.S. energy policy have been increased production of renewable energy, as well as increased production of biofuels, mostly ethanol from corn.



DID YOU KNOW

However, some experts note that the cultivation, fertilization, harvesting, and transportation of biofuels may outweigh their positive impacts because these processes end up producing carbon emissions equivalent to that of fossil fuel sources of energy.

This policy has maintained a dependence on fossil fuels within the United States and, as a result, maintained production of greenhouse gases contributing to climate change.

Overall, the U.S. energy policy has not directly addressed environmental or human health impacts from energy use but has instead focused on the amount of produced energy and its sources.



SUMMARY

In this lesson, we learned about efforts to address energy issues in the United States. We learned about U.S. energy **policy in relation to supply and demand**, along with their **purpose** and **President Carter's** involvement. We also discussed how energy was not originally viewed as an environmental issue. We learned about the U.S. **Energy Policy Act of 1992** and discussed actions taken by **private businesses and individuals** to address energy challenges. Lastly, we learned about the **impacts resulting from U.S. energy policy**.

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