Indiana Energy Status:
A View from 30,000 Feet

Presented by:
Douglas J. Gotham
State Utility Forecasting Group
Energy Center
Purdue University

Presented to:
Indiana Conference on Energy Management

July 18, 2007
Topics

• Energy consumption by sector
• Energy consumption by fuel type
• Energy intensity
• Prices
Historical Perspective

• Most of the slides presented here show how things have changed over the last several years

• The data behind the graphs came for the Energy Information Administration.
Energy Consumption by Sector
Indiana Residential Fuel Consumption Levels

Energy (10^12 Btu)

Year


Natural Gas

Petroleum

Electricity

Geothermal & Solar

Coal

Wood

Energy Center

It will happen here.

PURDUE UNIVERSITY
Indiana Residential Fuel Consumption Shares

Year

Energy (Percent)

Coal
Petroleum
Natural Gas
Geothermal & Solar
Wood
Electricity

US Residential Fuel Consumption Shares

Energy (Percent)

Year


Coal

Petroleum

Natural Gas

Wood

Electricity

Geothermal & Solar
Indiana Commercial Fuel Consumption Levels

Energy (10^12 Btu)

Year


Natural Gas
Electricity
Petroleum
Coal
Wood & Waste
Geothermal
Indiana Commercial Fuel Consumption Shares

- Coal
- Natural Gas
- Petroleum
- Wood & Waste
- Geothermal & Hydroelectric
- Electricity

Energy (Percent) vs. Year

US Commercial Fuel Consumption Shares

- **Natural Gas**
- **Petroleum**
- **Electricity**
- **Coal**
- **Wood & Waste**
- **Geothermal**

Year: 1960 to 2000
Indiana Industrial Fuel Consumption Levels

Year

Energy (10^12 Btu)
0 100 200 300 400 500 600

Coal
Petroleum
Natural Gas
Electricity
Wood & Waste
Indiana Electric Industry Fuel Consumption Levels

Energy (10^12 Btu) vs. Year

- Coal
- Natural Gas
- Petroleum
- Hydroelectric
Indiana Electric Industry Fuel Consumption Shares

Year


Energy (Percent)

0 10 20 30 40 50 60 70 80 90 100

Natural Gas
Petroleum
Hydroelectric

Coal
Energy Consumption by Fuel Type
Indiana Coal Consumption Levels

- **Total**
- **Electric Industries**
- **Industrial**
- **Residential**
- **Commercial**

The graph shows the energy consumption in Indiana from 1960 to 2000, categorized by type of consumption (Total, Electric Industries, Industrial, Residential, Commercial) in units of 10^12 Btu.
Indiana Natural Gas Consumption Shares

- Residential
- Commercial
- Industrial
- Transportation
- Electric Industries

Year: 1960 to 2000

Energy (Percent): 0 to 100
Indiana Petroleum Consumption Levels

Year
Energy (10^12 Btu)
0 100 200 300 400 500 600 700 800 900 1000
Total
Transportation
Industrial
Residential
Commercial
Electric Industries
Indiana Petroleum Consumption Shares

- Electric Industries
- Transportation
- Industrial
- Commercial
- Residential

Year:
- 1960
- 1965
- 1970
- 1975
- 1980
- 1985
- 1990
- 1995
- 2000

Energy (Percent):
- 0
- 10
- 20
- 30
- 40
- 50
- 60
- 70
- 80
- 90
- 100
Indiana Electricity Consumption Levels

Year

Energy (10^12 Btu)


Total

Industrial

Residential

Commercial
Indiana Electricity Consumption Shares

Energy Center

Energy (Percent)

Year


Industrial

Commercial

Residential
US Electricity Consumption Shares

Energy (Percent)

Year


Transportation

Industrial

Commercial

Residential
Indiana Total Consumption Levels

Year

Energy (10^12 Btu)

Total

Industrial

Electric Industries

Transportation

Residential

Commercial
Energy Intensity
Indiana Energy Use Per Capita

- Total
- Coal
- Petroleum
- Natural Gas
- Electricity
- Renewables

Year:
- 1960
- 1965
- 1970
- 1975
- 1980
- 1985
- 1990
- 1995
- 2000

mmBtu/Capita:
- 0
- 100
- 200
- 300
- 400
- 500
- 600
2003 Energy Use Per Capita by State

State including the District of Columbia (Rank)

- Rhode Island (1st)
- Illinois (17th)
- Michigan (18th)
- Ohio (29th)
- Kentucky (45th)
- Indiana (46th)
- Alaska (51st)
US Energy Use Per GDP Dollar

- Total
- Petroleum
- Natural Gas
- Coal
- Electricity
- Renewables

Btu Per GDP Dollar (2000$)

Year

Energy Center
Prices
Indiana Residential Energy Prices

Nominal Price ($/mmBtu)

Year


Electricity

Petroleum

Natural Gas

Wood

Coal
2006 Residential Electric Prices by State

- West Virginia (1st)
- Kentucky (6th)
- Indiana (13th)
- Illinois (15th)
- Ohio (24th)
- Michigan (34th)
- Hawaii (51st)
Energy Center

2006 Commercial Electric Prices by State

Price (Cents/kWh)

State including the District of Columbia (Rank)

- Missouri (1st)
- Kentucky (6th)
- Indiana (15th)
- Illinois (21st)
- Ohio (31st)
- Michigan (32nd)
- Hawaii (51st)
2006 Industrial Electric Prices by State

Kentucky (1st)
Illinois (10th)
Indiana (14th)
Ohio (26th)
Michigan (31st)
Hawaii (51st)
2006 All Sectors Electric Prices by State

State including the District of Columbia (Rank)

Price (Cents/Kwh)

Kentucky (1st)

Indiana (9th)

Illinois (15th)

Ohio (25th)

Michigan (32nd)

Hawaii (51st)