Northwest **Power** and **Conservation** Council

April 30, 2019

MEMORANDUM

TO: **Council Members**

FROM: **Shirley Lindstrom**

SUBJECT: **Remarks by John Chatburn, Director, Idaho Governor's Office of Energy and Mineral Resources**

BACKGROUND:

Presenter: John Chatburn, Director, Idaho Governor's Office of Energy and Mineral Resources

Summary: Mr. Chatburn will give an overview of the Idaho energy landscape, including updates on planned transmission projects, and energy efficiency work underway at investor owned utilities. He will also give an update on the Idaho National Laboratory projects currently underway.

Background: Idaho Energy Landscape Report (February 2019): https://oemr.idaho.gov/wp-content/uploads/FINAL-Energy-Landscape-2019-1.pdf

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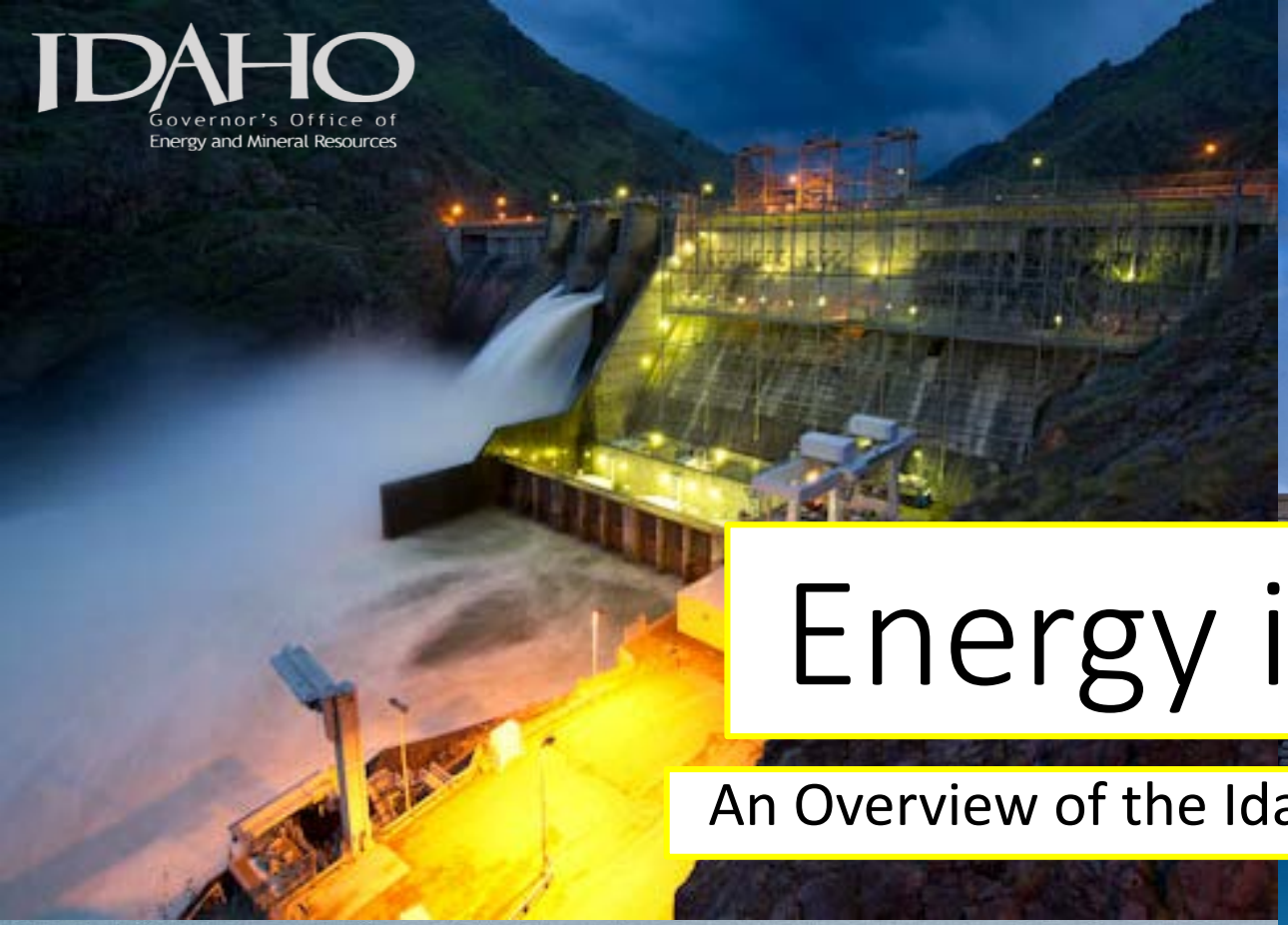
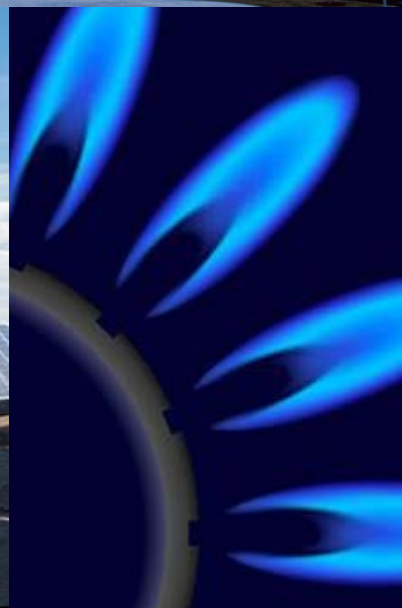
Energy in Idaho

An Overview of the Idaho Energy Landscape





Executive Order 2016-03

- Created the Office of Energy and Mineral Resources (OEMR)
  - Serve as Idaho's clearing house for energy and mineral information
  - Coordinate energy and mineral planning and policy development
  - Participate in federal energy and mineral processes as a cooperating agency

Data Statement

- In this presentation and in the Energy Landscape the term “energy” covers information that involves electricity, natural gas and transportation fuels.
  - When discussing specific types of energy, the term for that form of energy will be used.

- The statistical information is primarily from:
  - U.S. Energy Information Administration
  - Idaho Public Utilities Commission
  - Individual Utility Integrated Resource Plans

Idaho Energy Production & Consumption

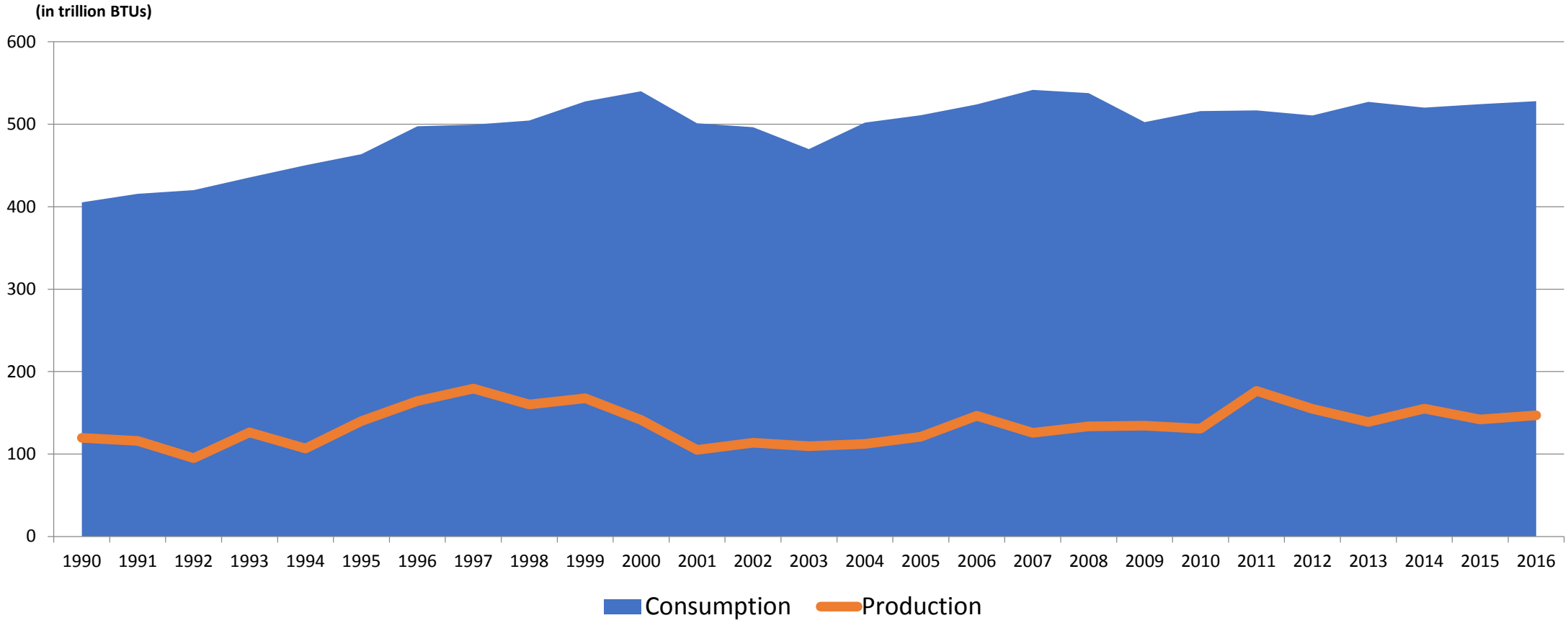


Figure 1.9, p. 16

Sources of Energy Consumed In Idaho

Idaho Total End-Use Energy Consumption in 2016: 528.5 Trillion Btu

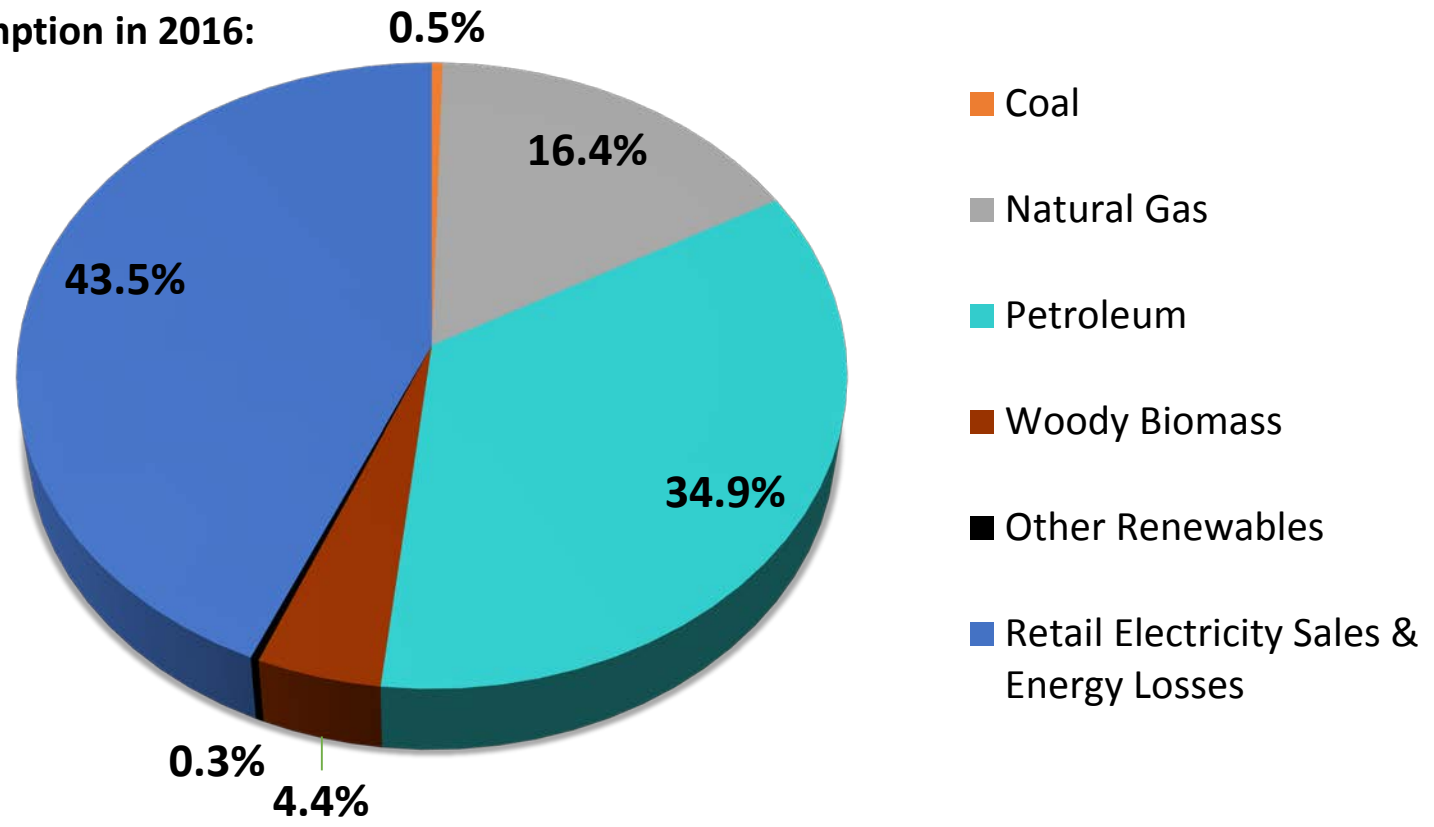
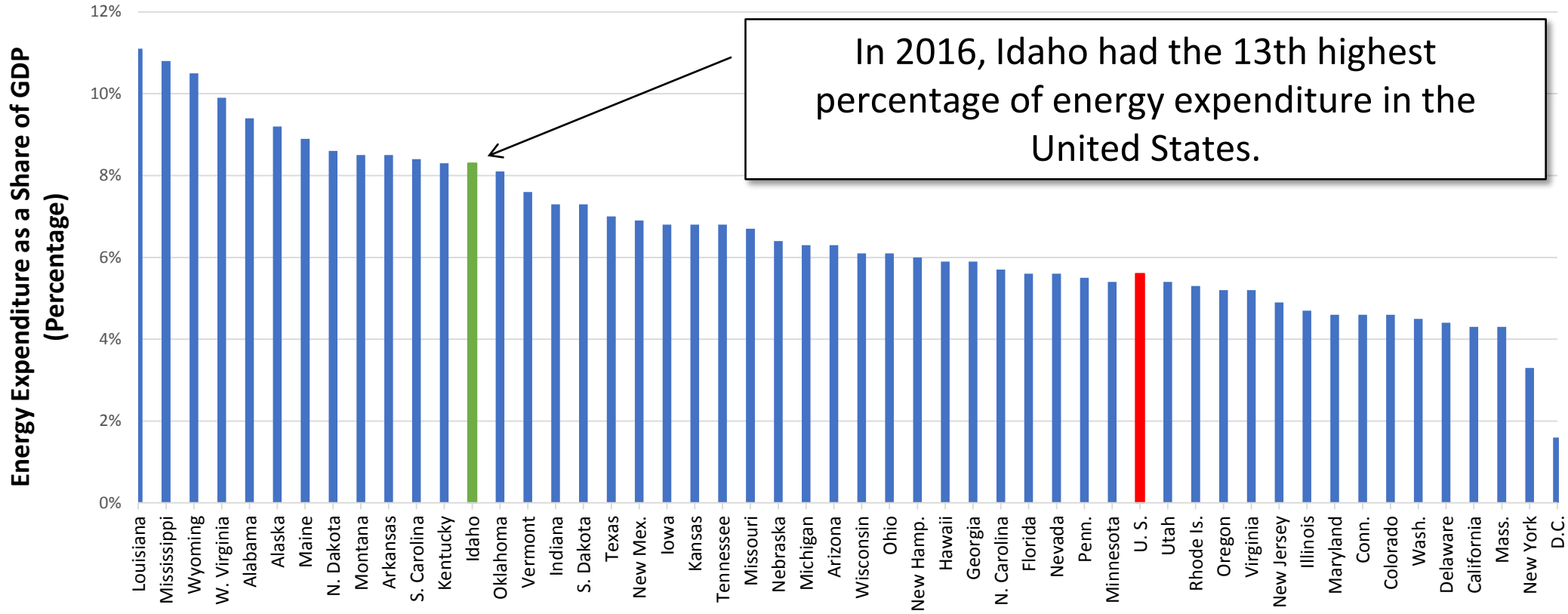


Figure 1.10, p. 16

Idaho's Energy Expenditures



The price of total energy uses dollars per million BTU as a unit of measurement.
The data listed uses total energy expenditures for all sectors divided by the current-dollar GDP.

Figure 1.1, p. 6

Idaho's Electricity Rates

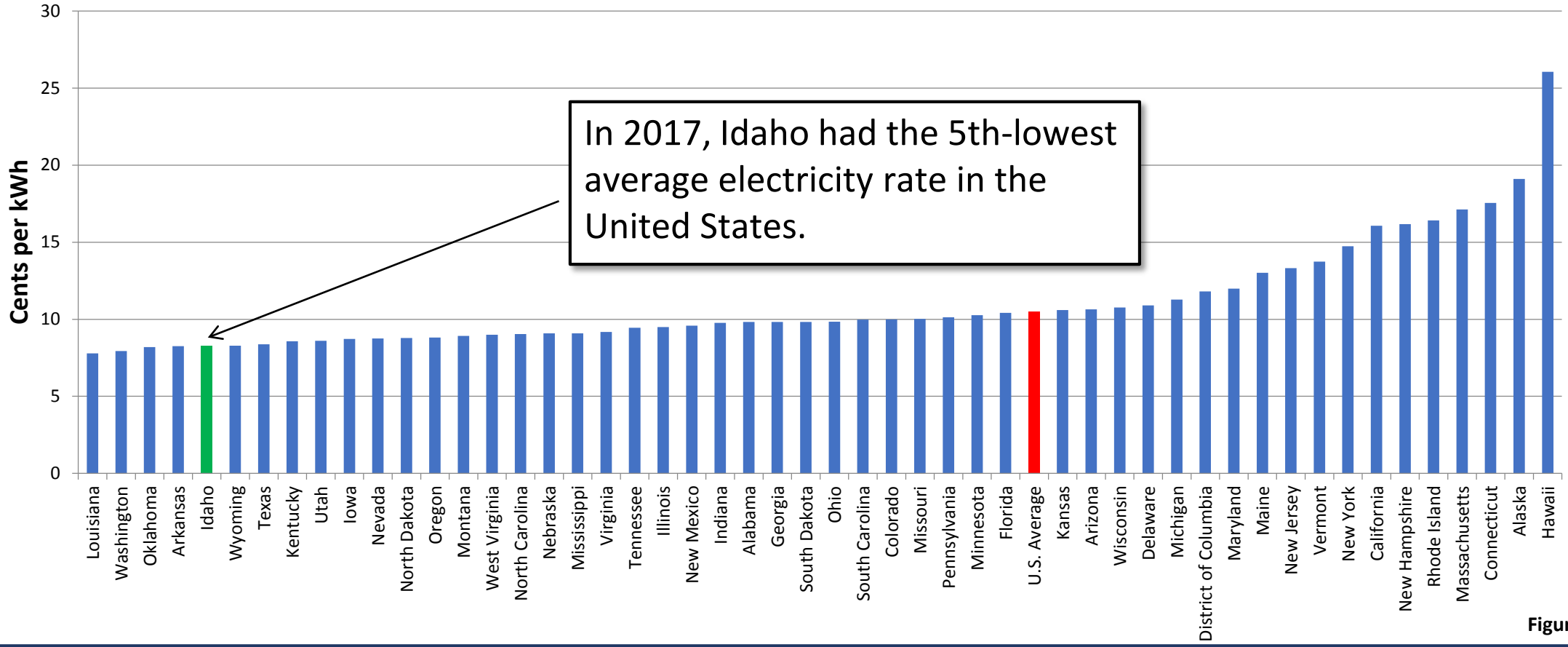


Figure 1.13, p. 18

Idaho Electricity Generation by Sector

2016 Total: 23,058,814 MWh

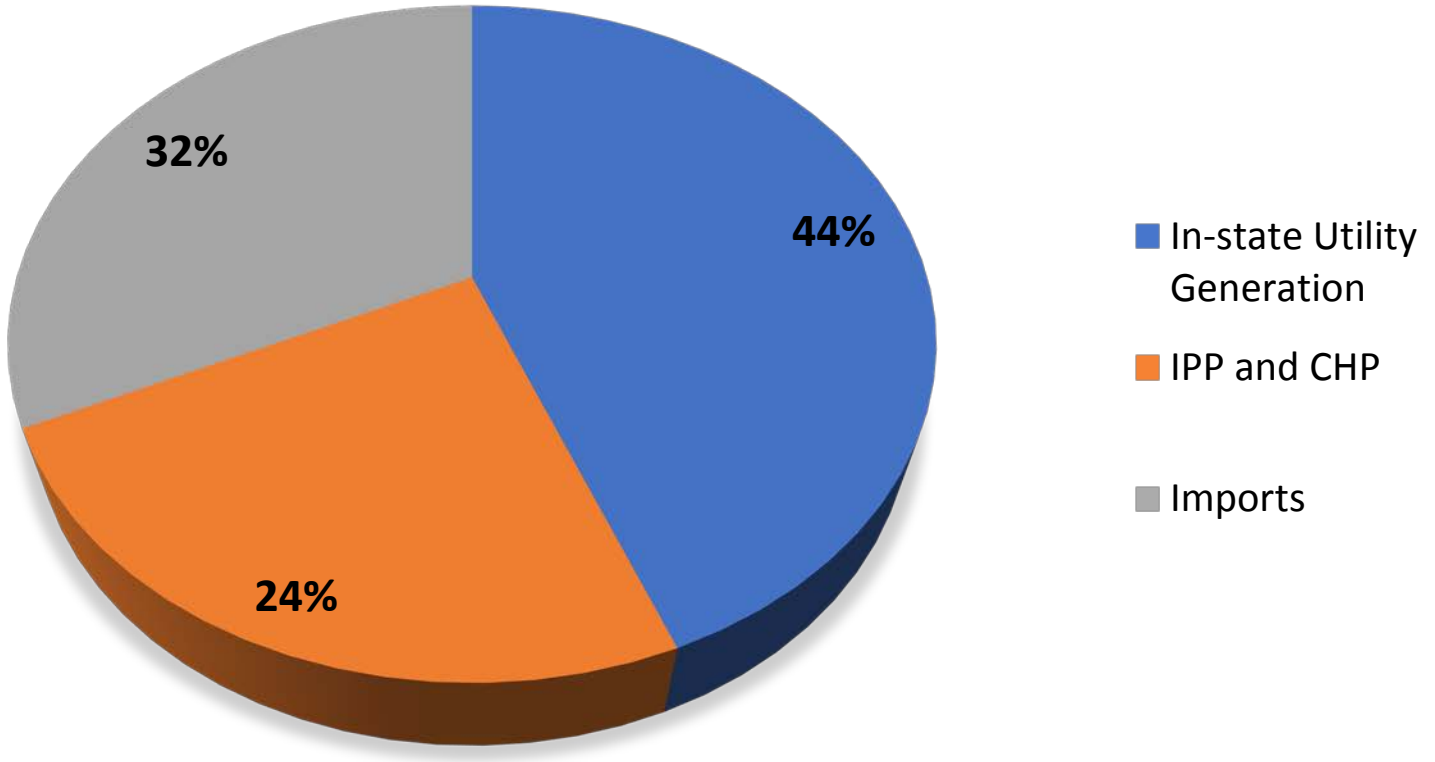
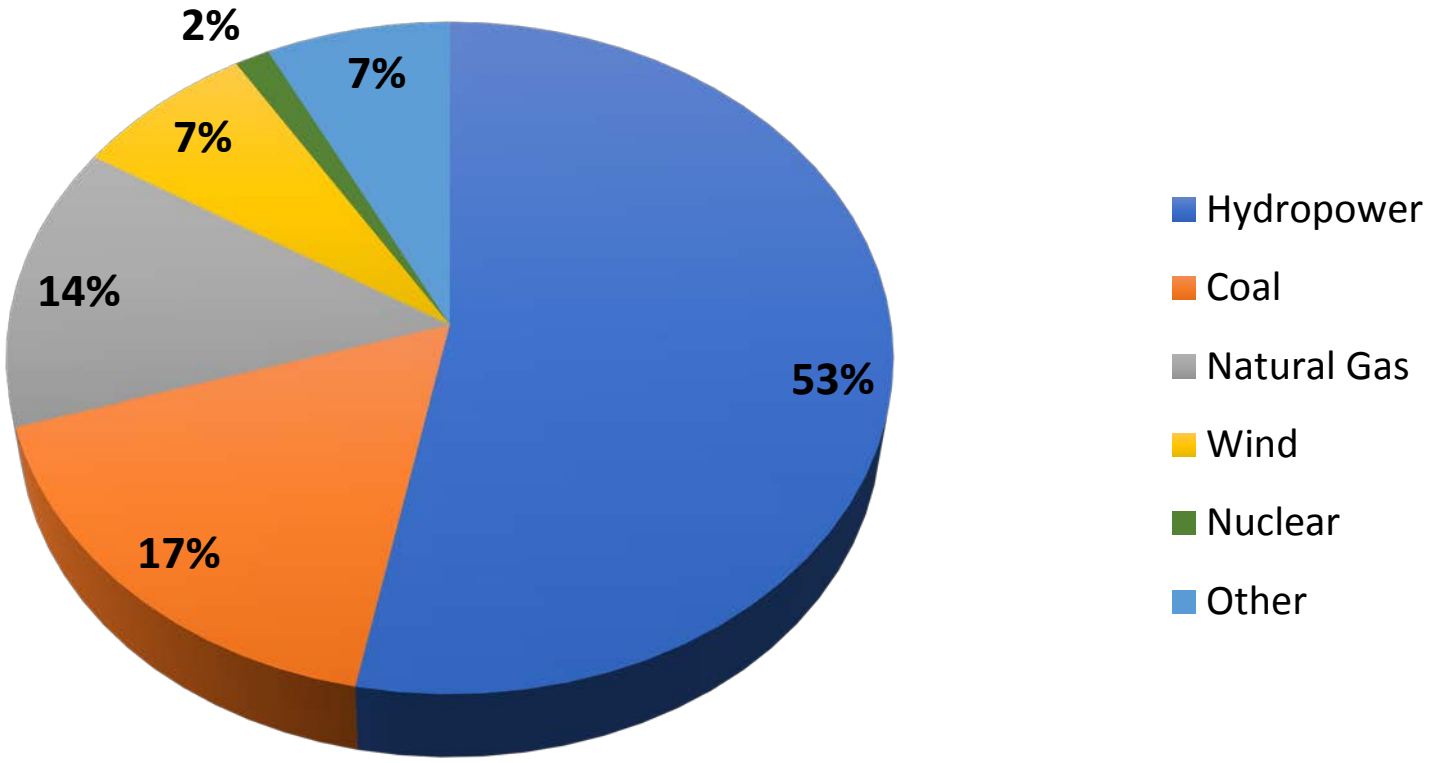


Figure 1.11, p. 17

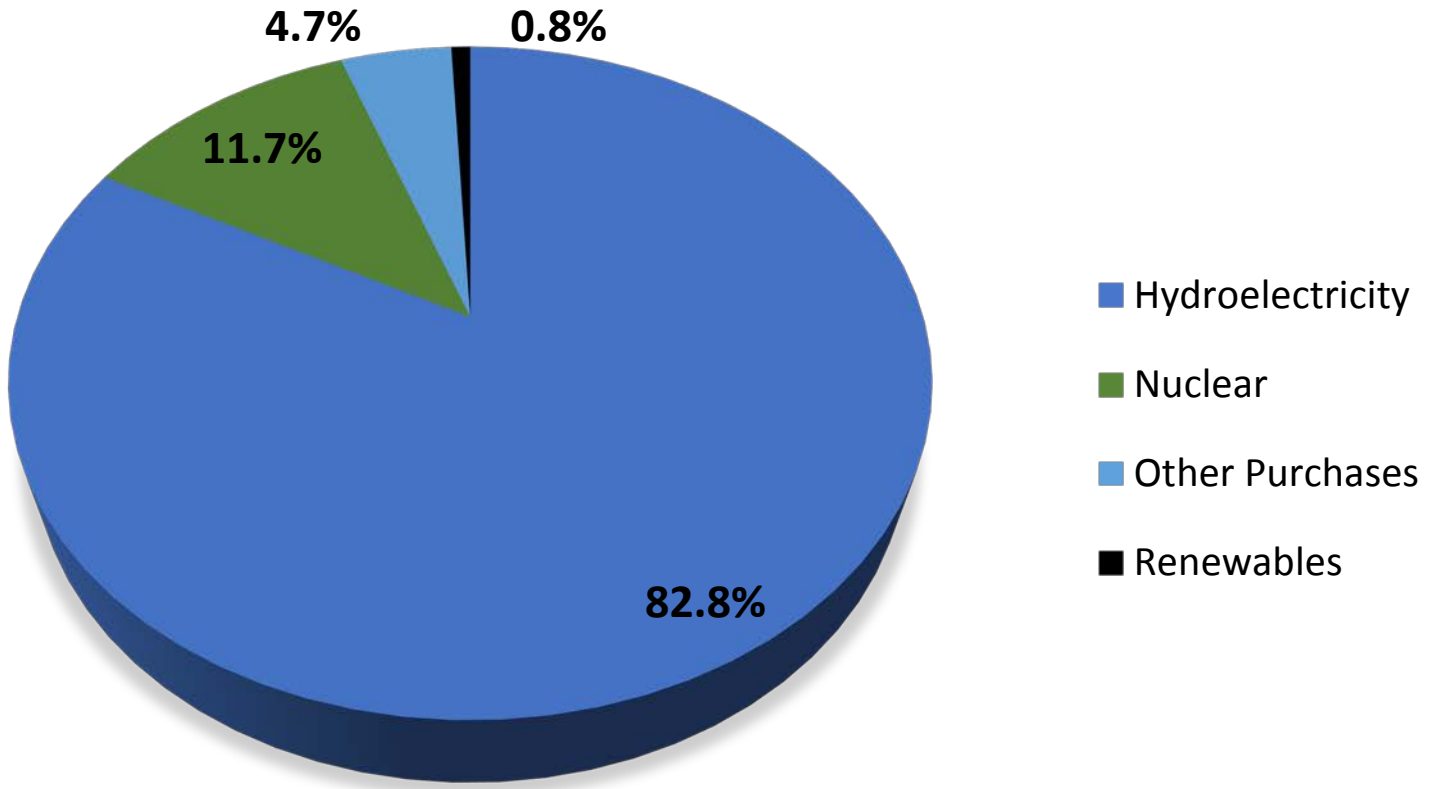
Idaho's Electric Fuel Mix



The 2017 fuel mix in this figure is based on the percentage of Idaho load served by each utility and not by the generation source of the energy actually delivered to the customer.
"Other" refers to solar, geothermal, biomass and other sources.

Figure 1.12, p. 17

Bonneville Power Administration (BPA) Electricity Generation Mix



BPA's 2017 electricity generation mix helps to power about 96% of the electricity provided by Idaho's municipalities and cooperatives.

Figure 1.16, p. 24

Municipal & Cooperative Utilities

- Idaho has 11 municipal utilities and 15 rural electric cooperatives
- Together they serve approximately 16% of Idaho's electric needs.
  - Most of their generation supply comes from BPA
  - Approximately 82% of BPA's electricity generation comes from hydropower systems which include several Snake River dams
- The PUC does not regulate municipal or cooperative utilities; they are regulated by city councils and elected boards of directors.

Electric Municipal & Cooperative Utilities Service Territories

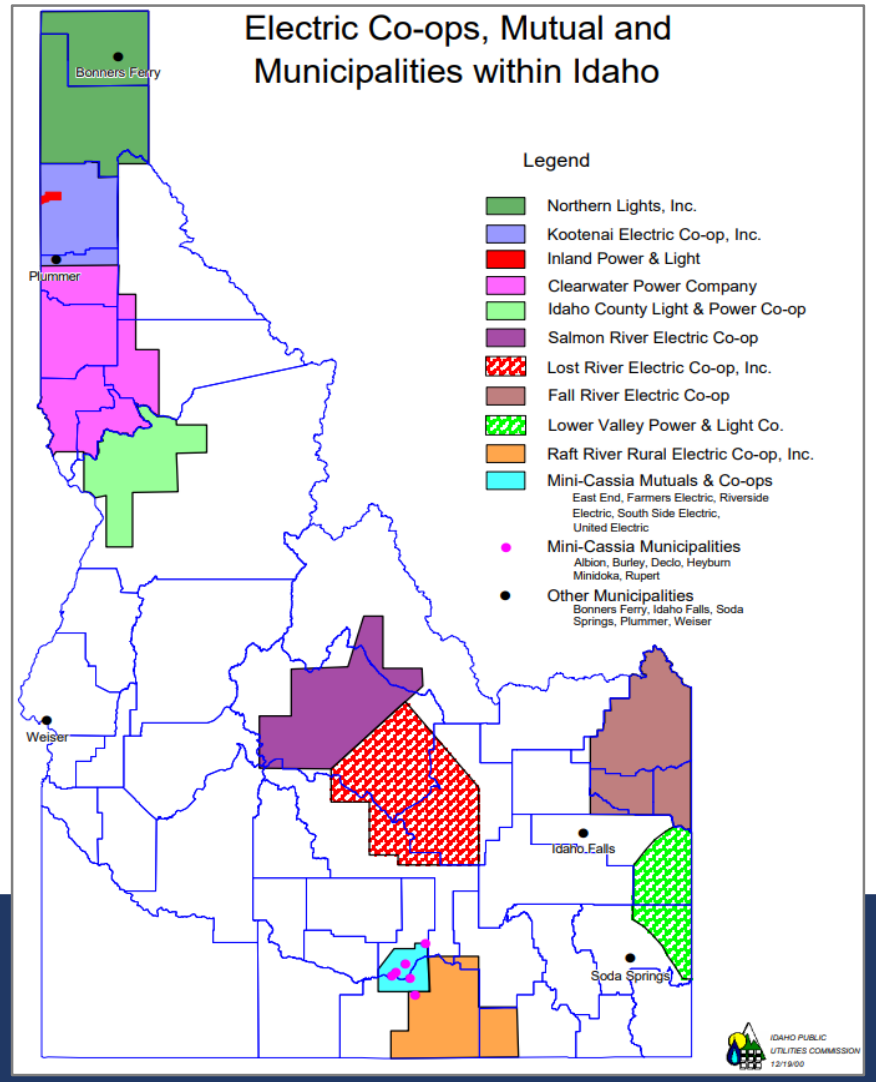


Figure 1.4, p. 9

Investor-Owned Utilities

- There are 5 investor-owned utilities that offer electric and/or natural gas services in Idaho. These utilities provide service to 84% of the electric customers in Idaho:
  - Idaho Power (electric)
  - Rocky Mountain Power/ PacifiCorp (electric)
  - Avista (electric and natural gas)
  - Intermountain Gas (natural gas)
  - Dominion Energy (natural gas)
- These utilities, except Dominion Energy, are subject to regulation by the Idaho Public Utilities Commission (PUC)
  - The PUC allows the Utah Public Service Commission to regulate Dominion Energy which serves approx. 2,200 customers in Franklin County.

Electric Investor-Owned Utilities Service Territories

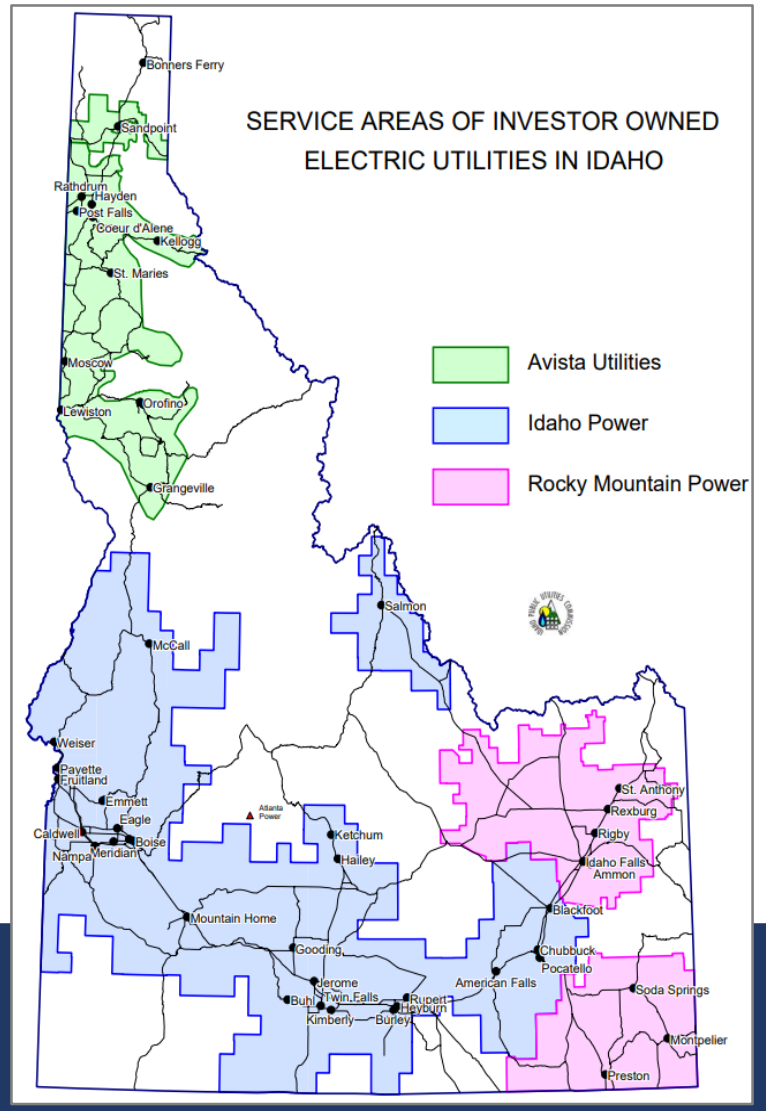
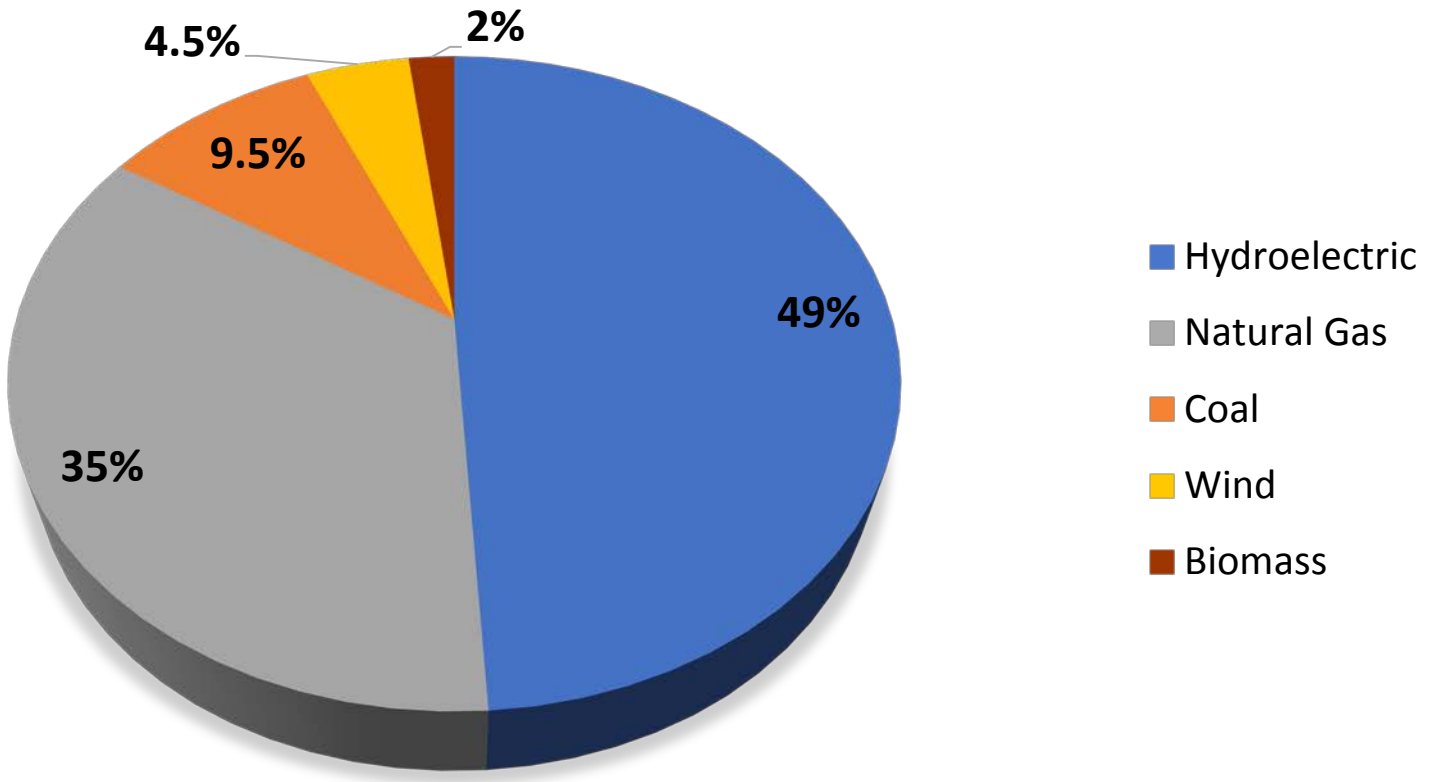


Figure 1.3, p. 8

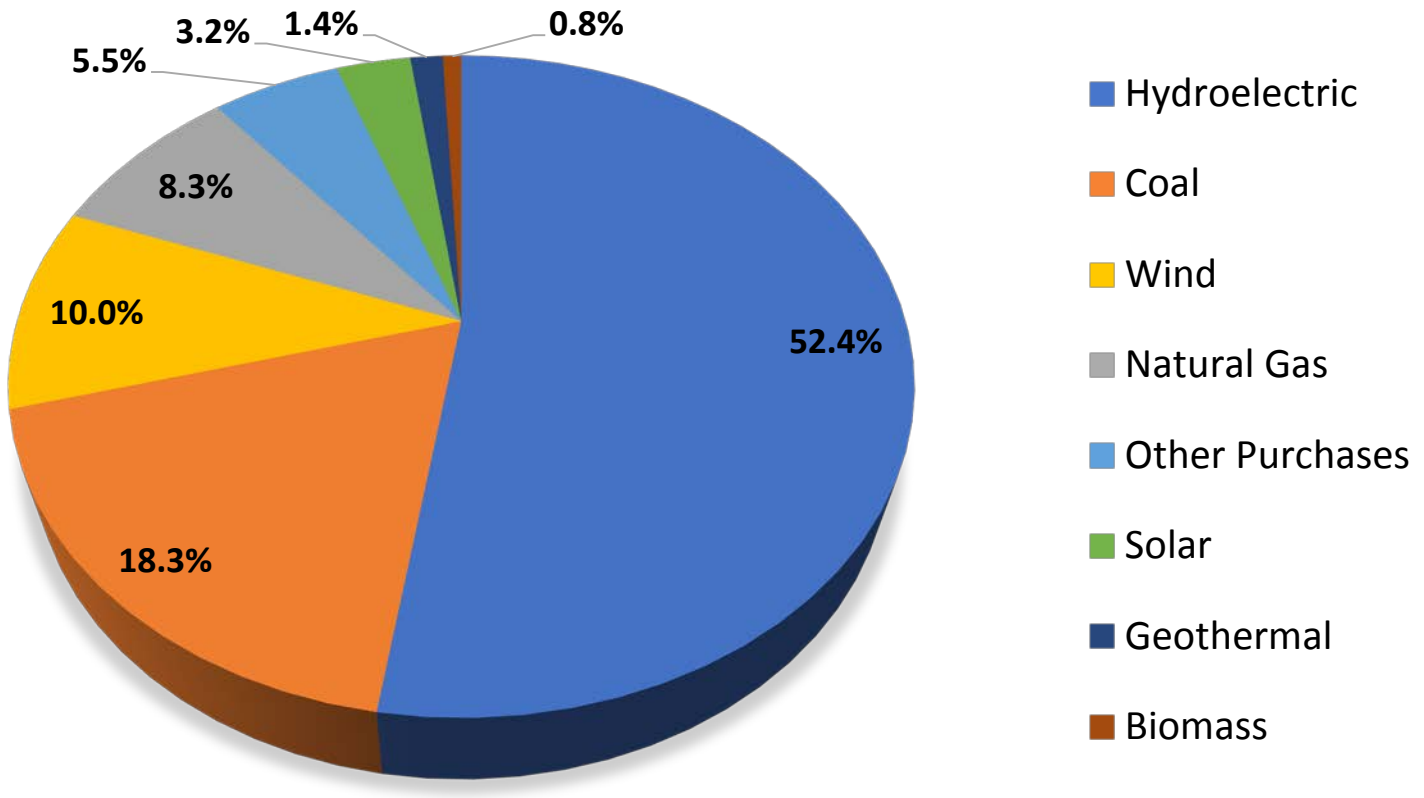
Avista Electricity Generation Mix



The 2016 mix in this figure includes both utility generated energy and long-term contract purchases.

Figure 1.5, p. 10

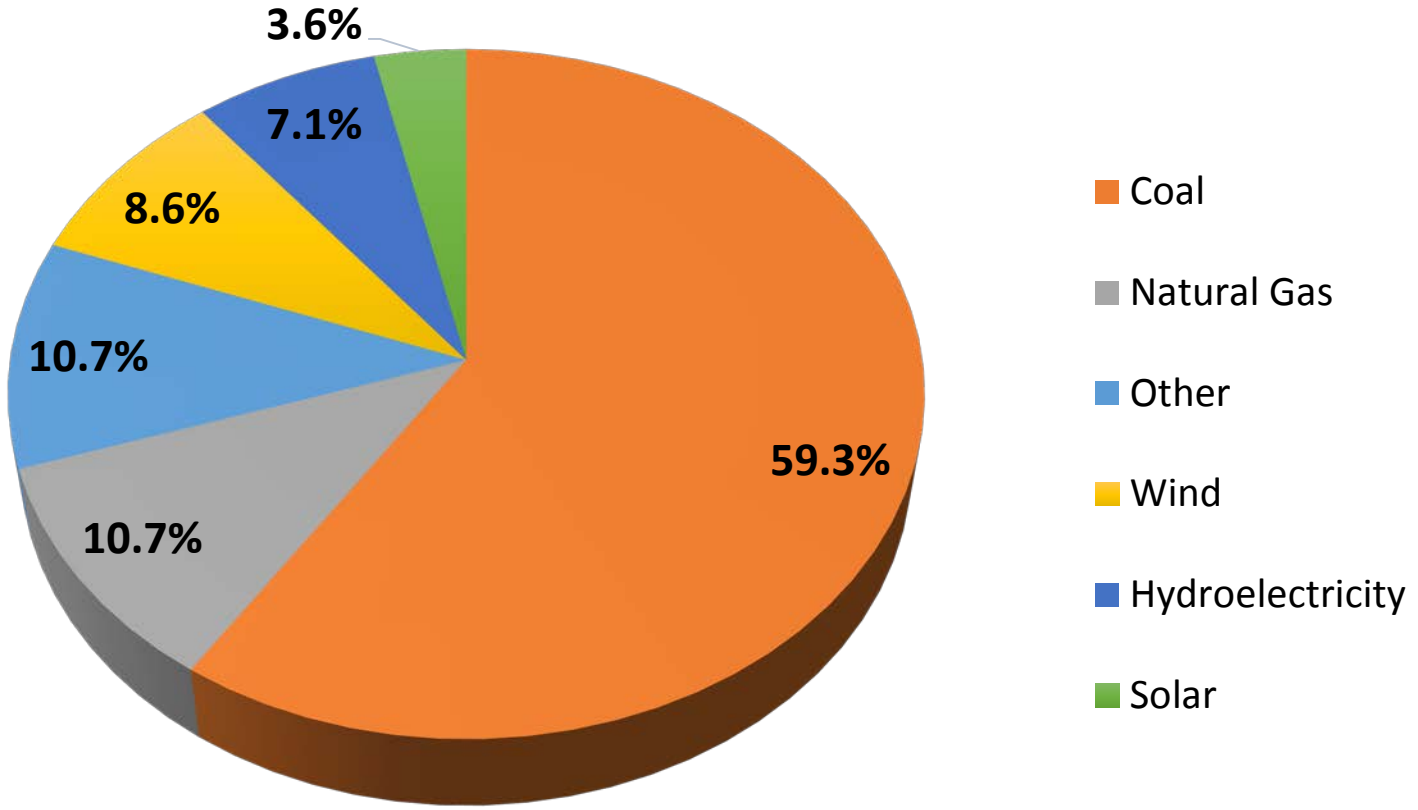
Idaho Power Electricity Generation Mix



The 2017 mix in this figure includes both utility generated energy and long-term contract purchases.

Figure 1.6, p. 11

PacifiCorp- Rocky Mountain Power Electricity Generation Mix



The 2017 mix in this figure includes both utility generated energy and long-term contract purchases.

Figure 1.7, p. 12

PURPA Projects in Idaho

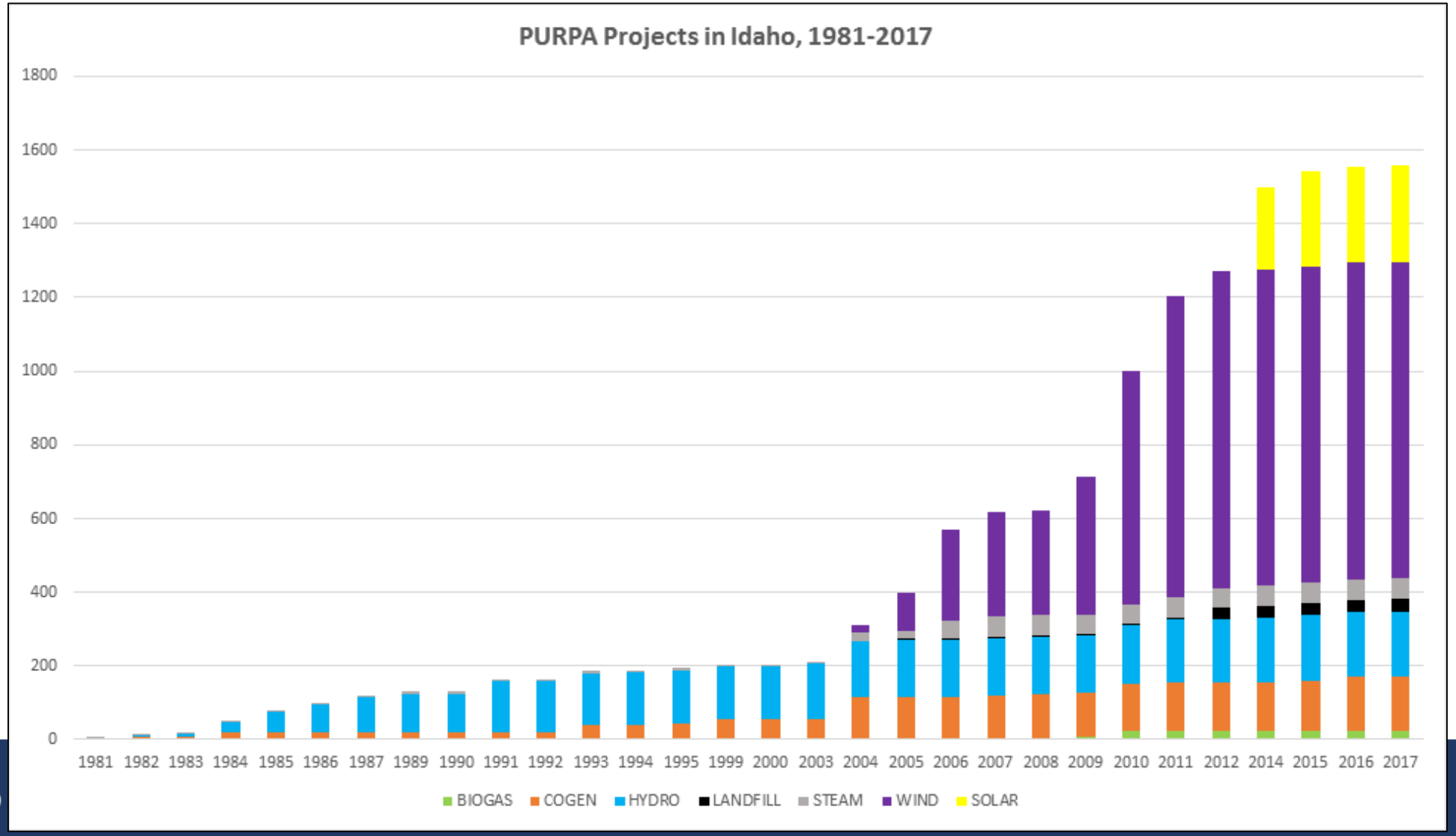


Figure 1.17, p. 29

Utilities Energy Efficiency Savings Data

- Idaho Power, Avista, and BPA are members of the Northwest Energy Efficiency Alliance (NEEA)
  - The energy savings reported by NEEA can be attributed to partnering with their member utilities on energy efficiency programming.
- Reported Utility Energy Efficiency Program Savings:
  - Avista's 2017 Idaho Energy Savings: 42,223 MWh
  - Idaho Power's 2018 Idaho Energy Savings: 176,846 MWh
  - Rocky Mountain Power's 2017 Idaho Energy Savings: 15,830 MWh
  - BPA's 2017 Energy Savings: 1,370 aMW

High Voltage Transmission Lines

- Gateway West received its final right of way grant from the BLM.
- Boardman to Hemingway (B2H) finished federal review.
  - B2H is in the state of Oregon's siting process.
- Hooper Springs transmission line is under construction.

Electric Vehicles

- Idaho received permission to apply for approximately $17 million in funding to mitigate emissions under the VW Settlement.
  - About $2.6 million may be used for infrastructure for light-duty vehicles that use alternative fuel.
  - OEMR is coordinating with Idaho's Department of Environmental Quality on the Electric Vehicle Supply Equipment (EVSE) program.

- Electrify America, a subsidiary of Volkswagen, will build out a network of DC fast charging stations throughout the country, as part of the VW Settlement
  - 5 stations will be installed in Idaho by June 2019 along I-84 and I-15

Small Modular Reactors (SMR) at INL

- Utah Associated Municipal Power Systems (UAMPS) has a “Carbon Free Power Plan” that includes construction of a NuScale SMR installation at the Idaho National Laboratory (INL)
- UAMPS and DOE entered into an MOU in 2018 to facilitate research utilizing NuScale SMRs at INL
  - INL’s Joint Use Modular Plant (JUMP) project will utilize one NuScale power module primarily for research and one module will provide electricity to the INL site.
- NuScale is currently working through the design certification process with the NRC. Completion is expected in early 2021.
- UAMPS is developing a Combined Construction and Operating License Application(COLA) for the INL site with the U.S. Nuclear Regulatory Commission (NRC). COLA submission to NRC is anticipated for late summer 2021.

Idaho's Natural Gas Rate

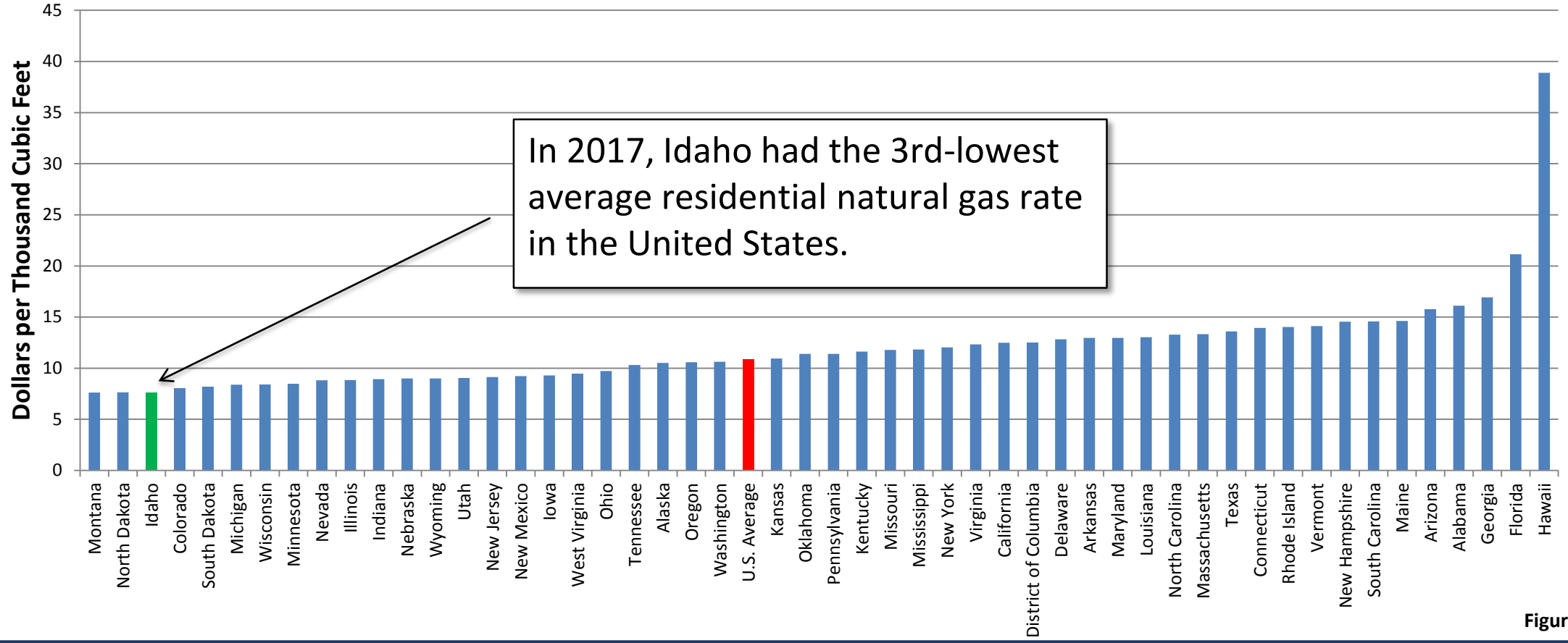


Figure 1.14, p. 19

Natural Gas Service Territories

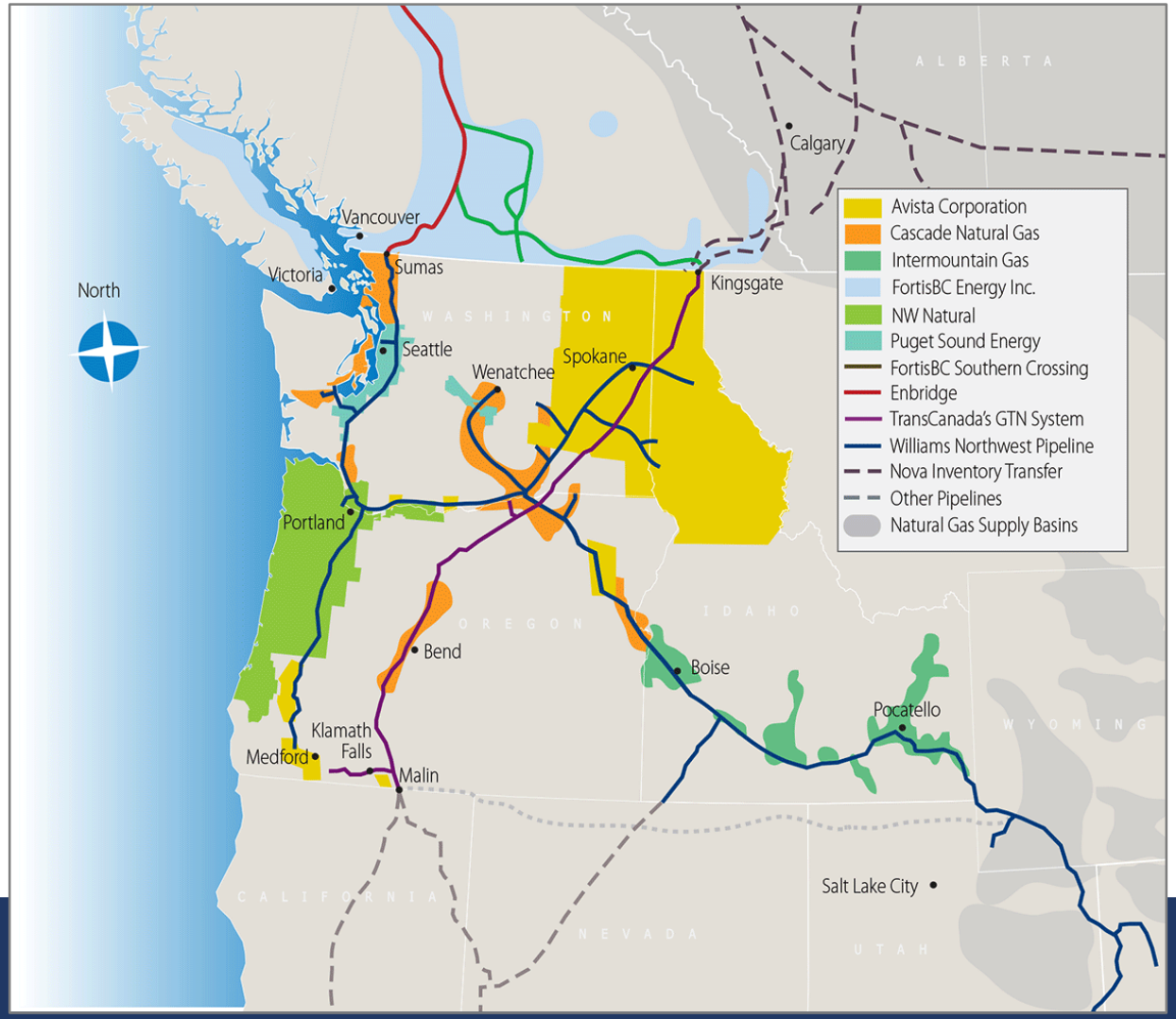


Figure 1.8, p. 14

Idaho's Retail Gasoline Prices

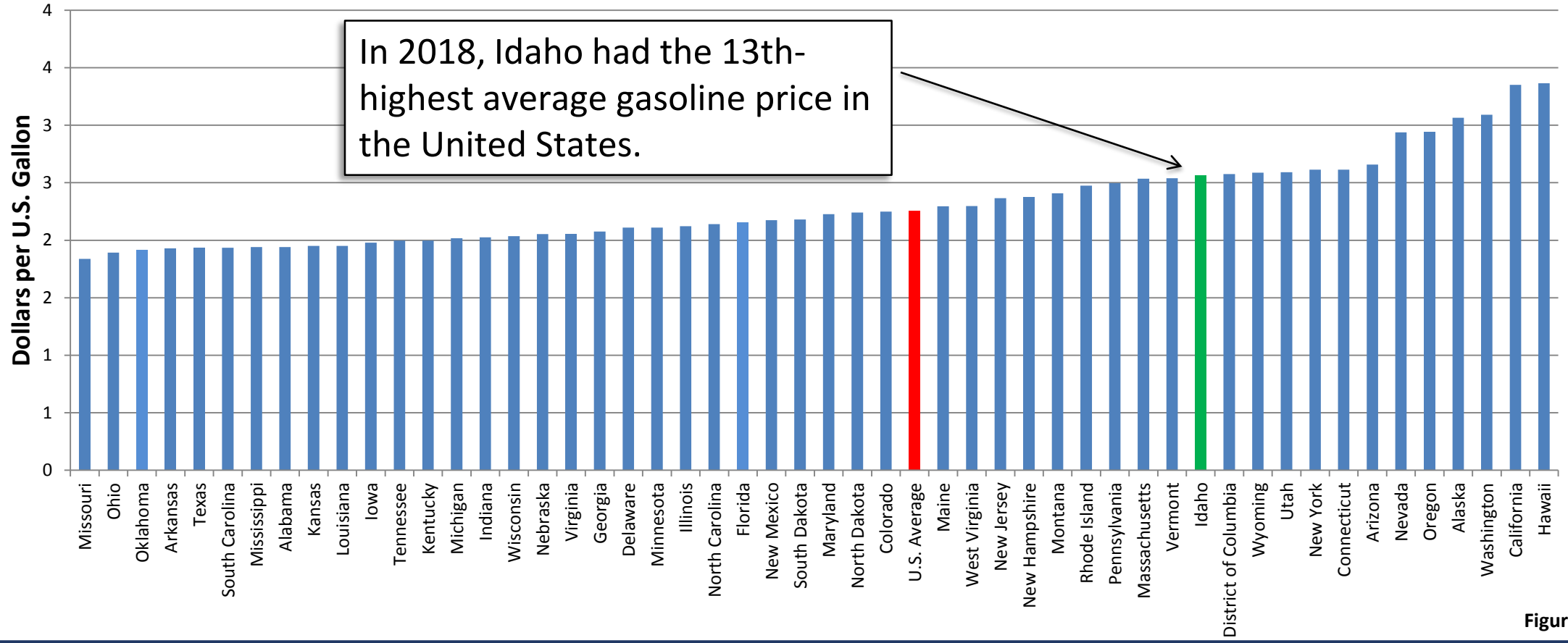


Figure 1.15, p. 19

Transportation Fuel Pipelines Serving Idaho

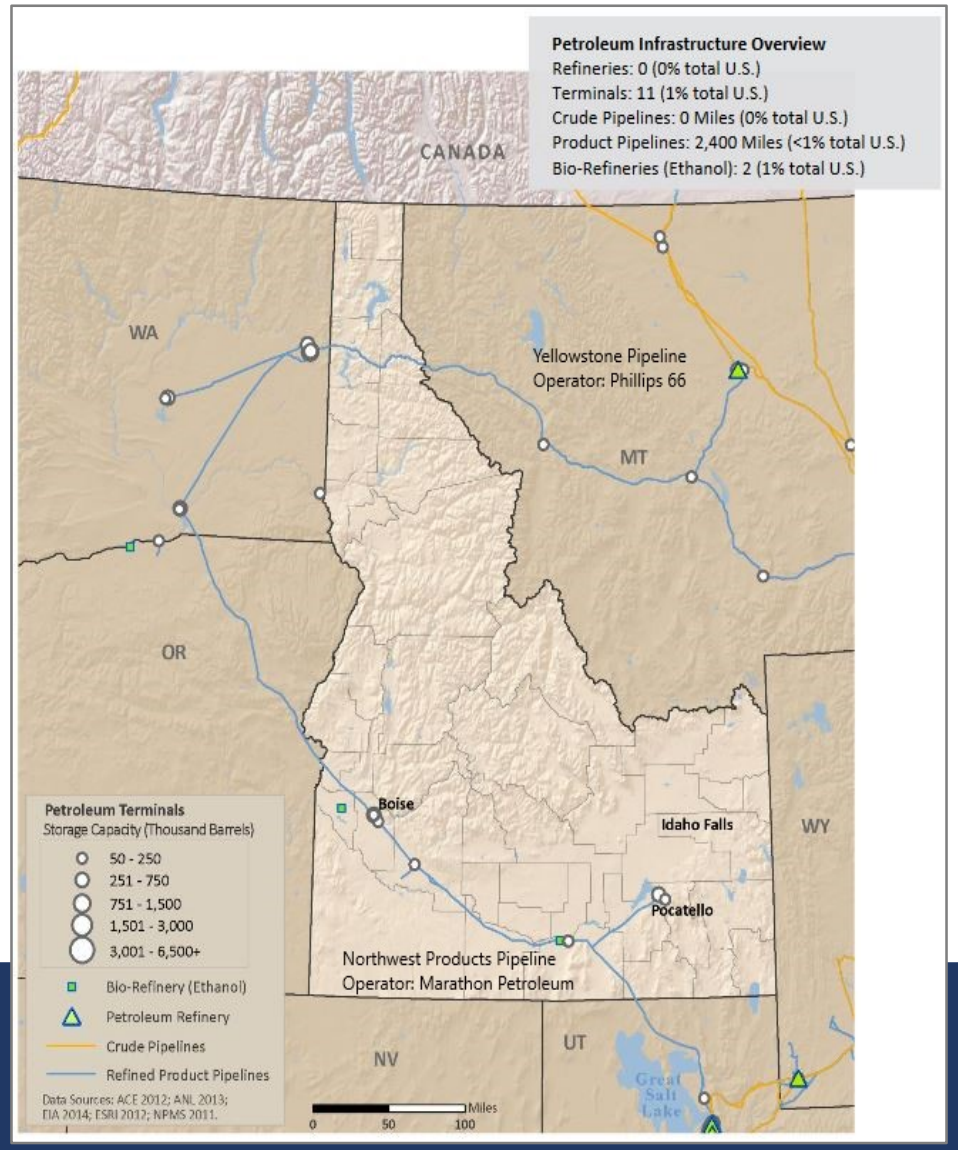


Figure 2.2, p. 35

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Questions?