

An Overview of Ameren Missouri's Callaway Energy Center and Nuclear Power

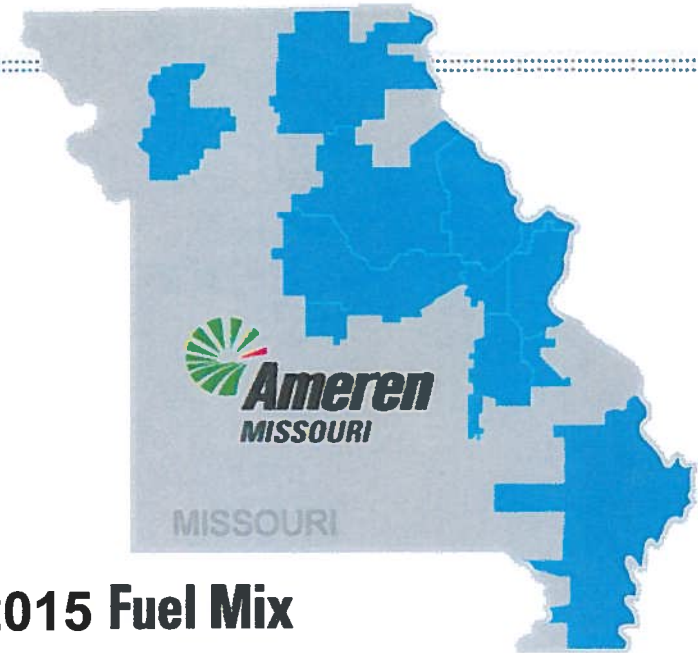
2016



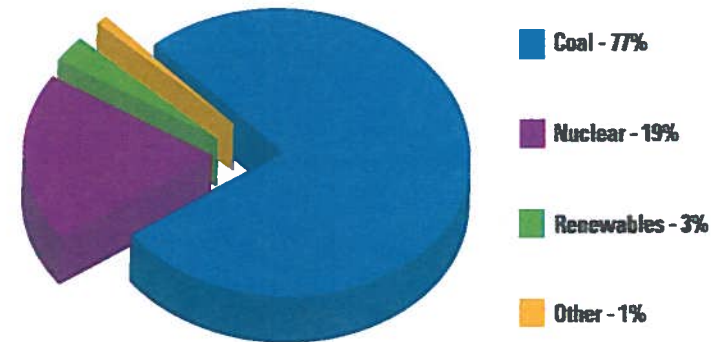
POWERING MISSOURI

Integrated Electric & Gas Utility

- 1.2 million electric customers
- 127,000 natural gas customers
- 24,000 square miles of service territory
 - 2,900 miles of electric transmission lines
 - 33,000 miles of electric distribution lines
- 10,200 MW of generation
- Serve more than 64 counties and more than 500 communities
- ~3,700 employees



2015 Fuel Mix




Other Generation Sources include:

- Natural Gas
- Methane Gas
- Wind Energy
- Solar energy



AMEREN MISSOURI GENERATION...OVER 10,000 MW



Meramec
STL Co.
839 MW
1953

Sioux
St. Charles Co.
986 MW
1967

Labadie
Franklin Co.
2,407 MW
1970

Rush Island
Jefferson Co.
1,204 MW
1976

Keokuk
Iowa
137 MW
1913

Callaway
Callaway Co.
1,200 MW
1984

CTGs
MO & IL
2,966 MW

Taum Sauk
Reynolds Co.
440 MW
1963 & 2010

Osage
Lakeside, MO
234 MW
1931

Recent Additions

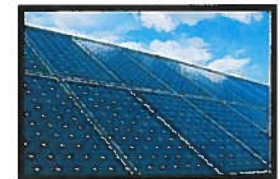
Landfill Gas Energy
15 MW



Wind Energy
102 MW



Solar Energy
6 MW (12/14)



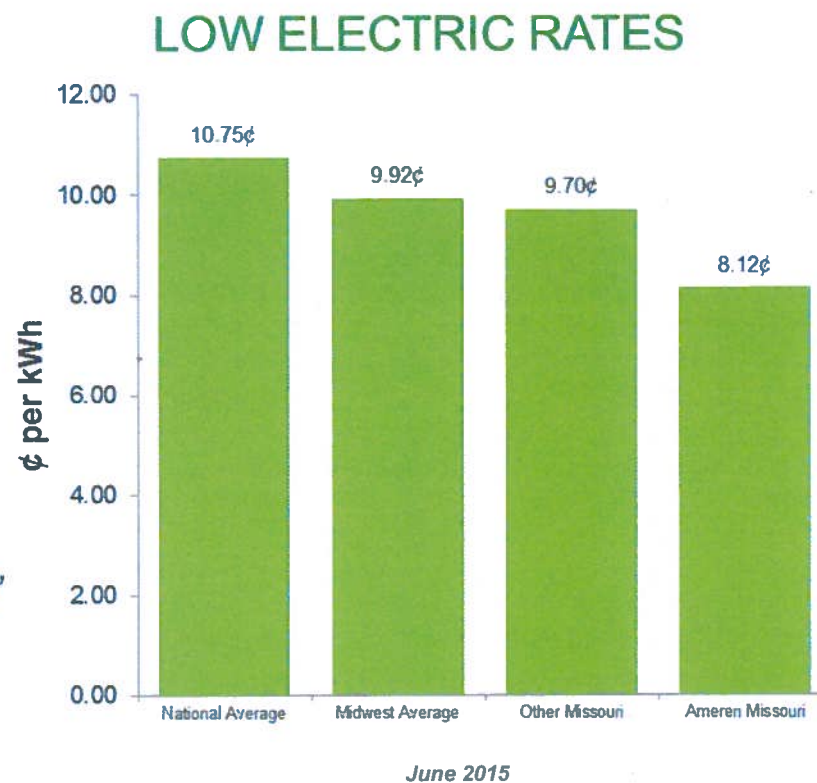
Ameren Overview

A Leader in Reasonably Priced Energy

Ameren Missouri's Electric **RATES** are **24% BELOW** the national average and **18% BELOW** the Midwest average

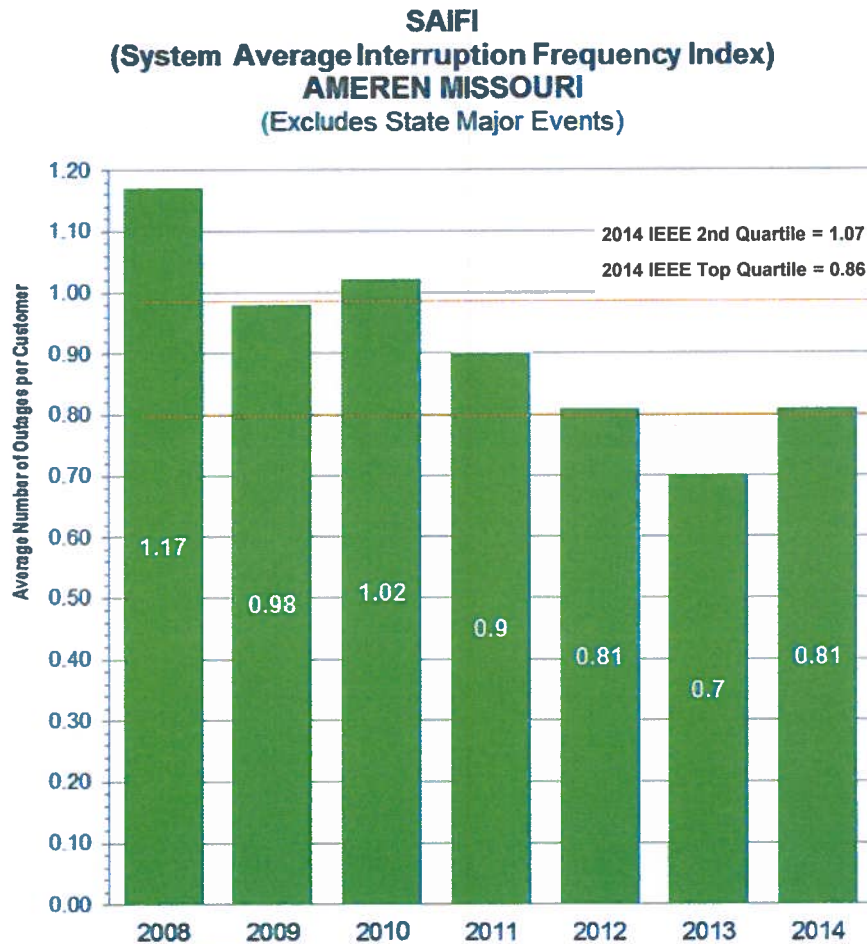
Ameren Missouri has the lowest rates among investor-owned utilities in the state

"EEl Winter Typical Bills and Average Retail Rates" report for 12-month period ending June 2015.



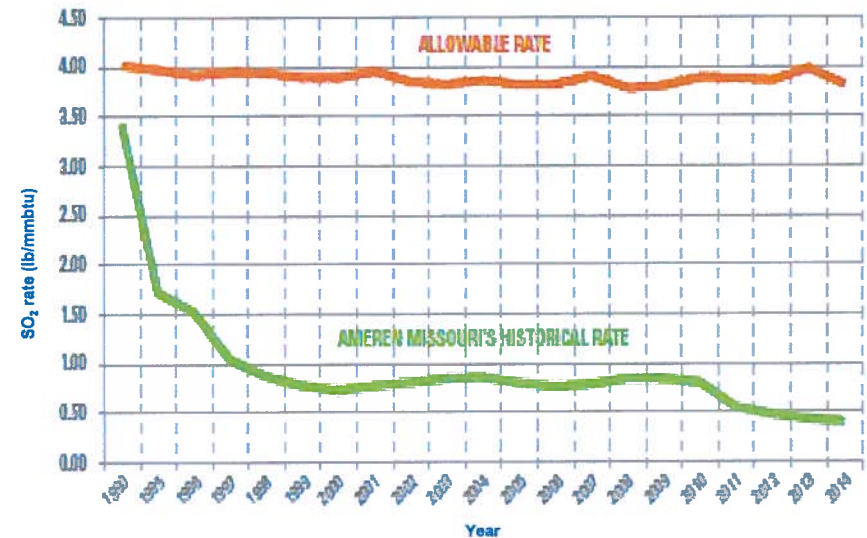
Top Tier Reliability, Cleaner Air and more Renewable Energy

Ameren Missouri reliability is in the top 25% in U.S.



Committed to Cleaner Air

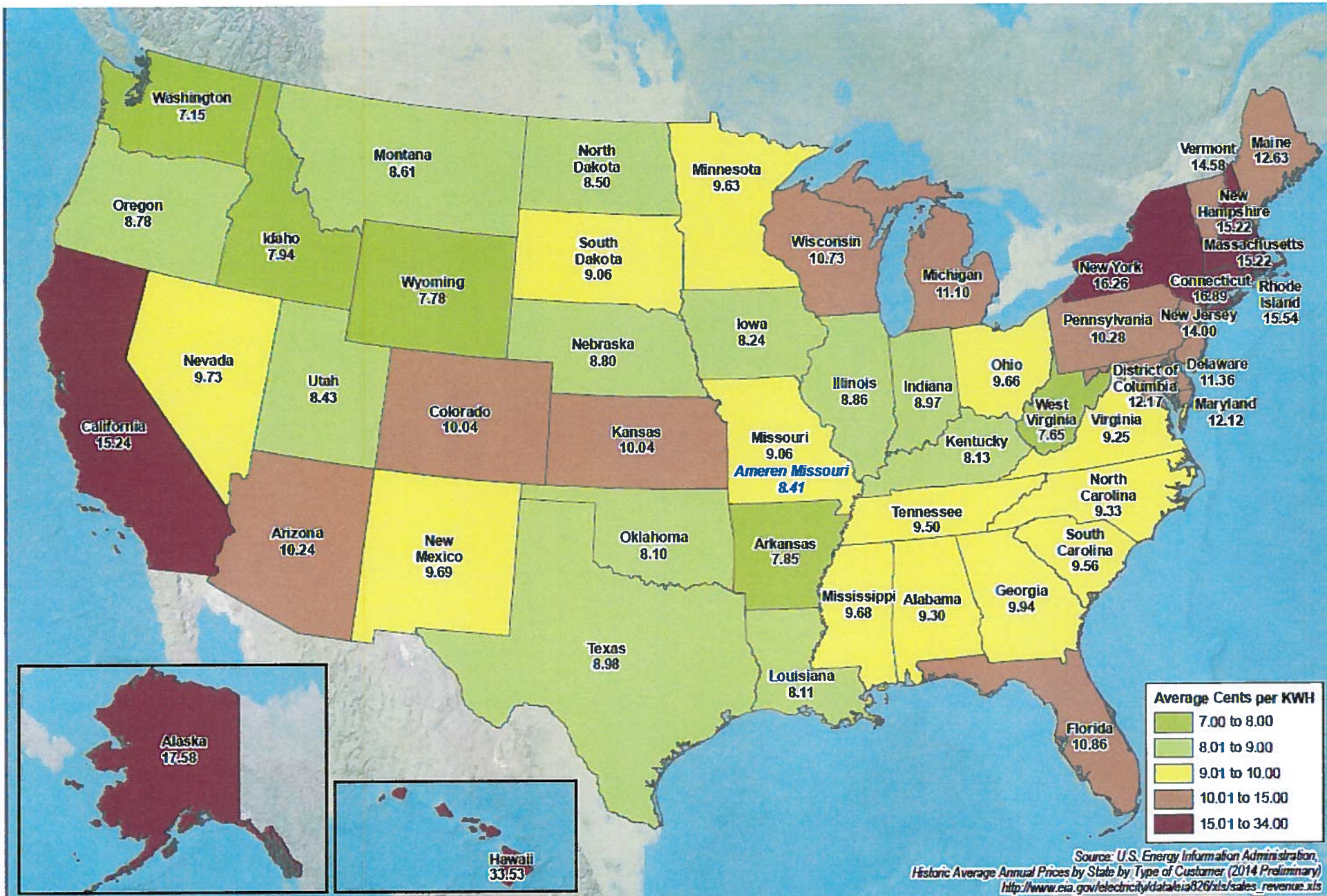
Ameren Missouri's Energy Centers operate at more than 75% below the EPA's current allowable emissions levels that are fully protective of human health.



Ameren Missouri Coal-Fired Generation Historical SO₂ Emissions

Reducing Carbon Emissions

Carbon emissions at Ameren Missouri's coal-generating plants are **DOWN 15 PERCENT** since 2010.



AVG. RETAIL PRICE OF ELECTRICITY - ALL SECTORS (CENTS PER KWH)

January 2014 - December 2014

United States Average: 10.45 cents per KWH



April 2015

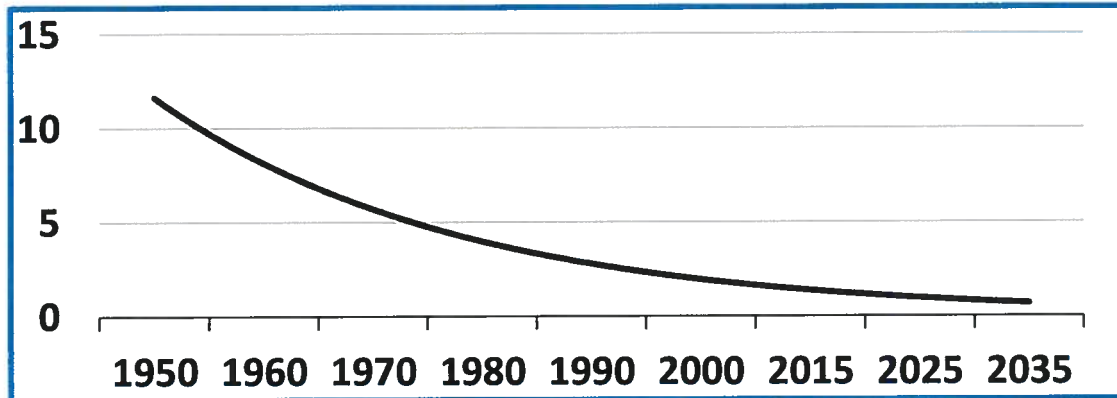
Missouri's Energy Infrastructure Receives a Low Grade

Infrastructure Category	Grade
Aviation	C
Bridges	C-
Dams	D-
Drinking Water	C-
Energy	D+
Inland Waterways	D
Levees	C-
Railroads	C
Roads	C
Schools	C
Wastewater	C-
OVERALL MO INFRASTRUCTURE	C-

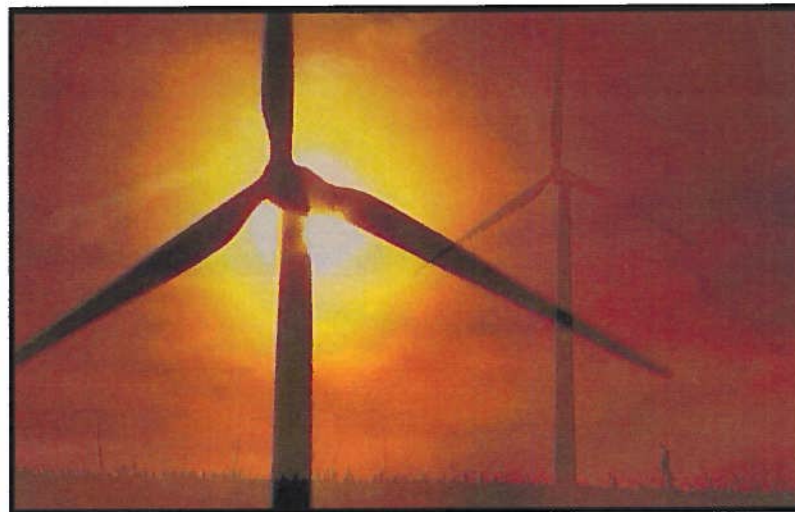
- The American Society of Civil Engineers (ASCE) gives Missouri low grades for its infrastructure, with an overall grade of C-.
- Roads, bridges and energy infrastructure have a lot of similarities.

Why are things different today?

Ameren Missouri Growth Rates are trending down



\$130 million spent on renewables mandates since 2009 per Missouri mandates



More Than
\$1 Billion
in EPA
Mandated
Regulations

Source: Energy Information Administration (EIA)



NUCLEAR ENERGY 101

and AMEREN MISSOURI'S CALLAWAY ENERGY CENTER



QUESTION:

How many nuclear plants are operating in the United States?

- A) 17
- B) 39
- C) 99
- D) 565



QUESTION:

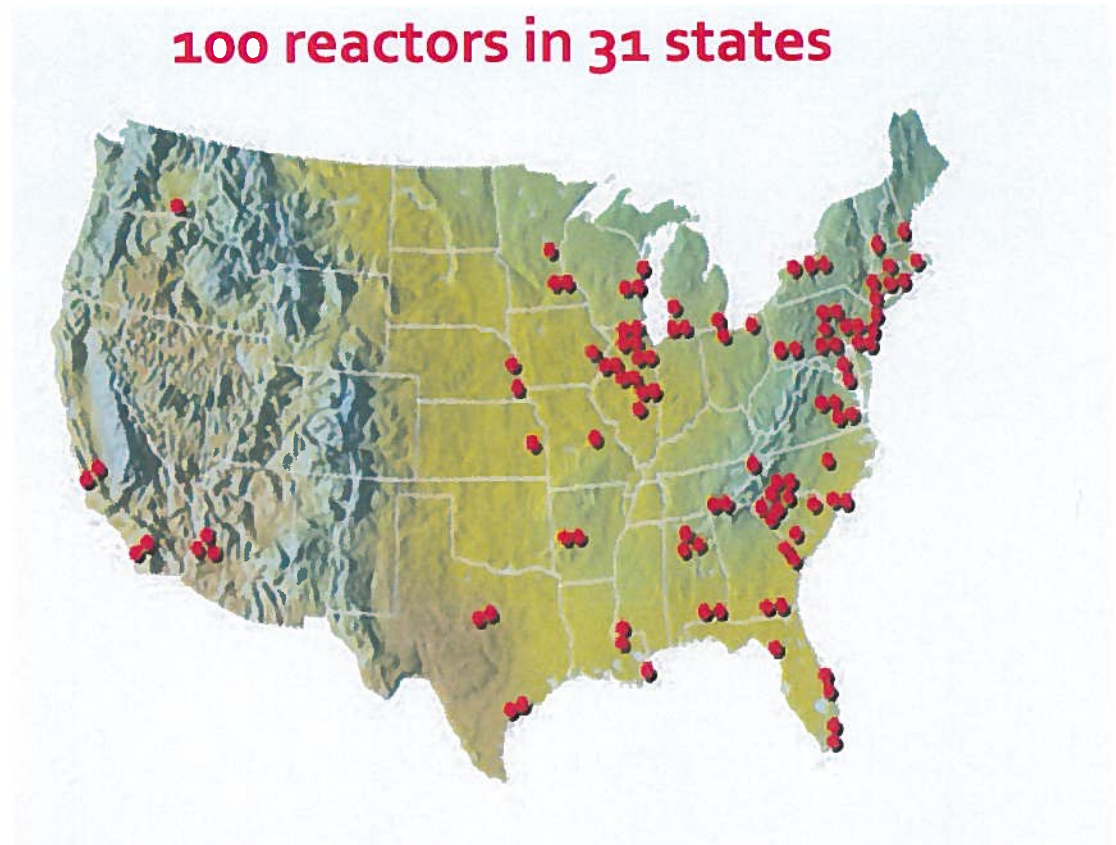
Nuclear power provides what percentage of electricity in the United States?

- A) 5 percent**
- B) 20 percent**
- C) 46 percent**
- D) 63 percent**

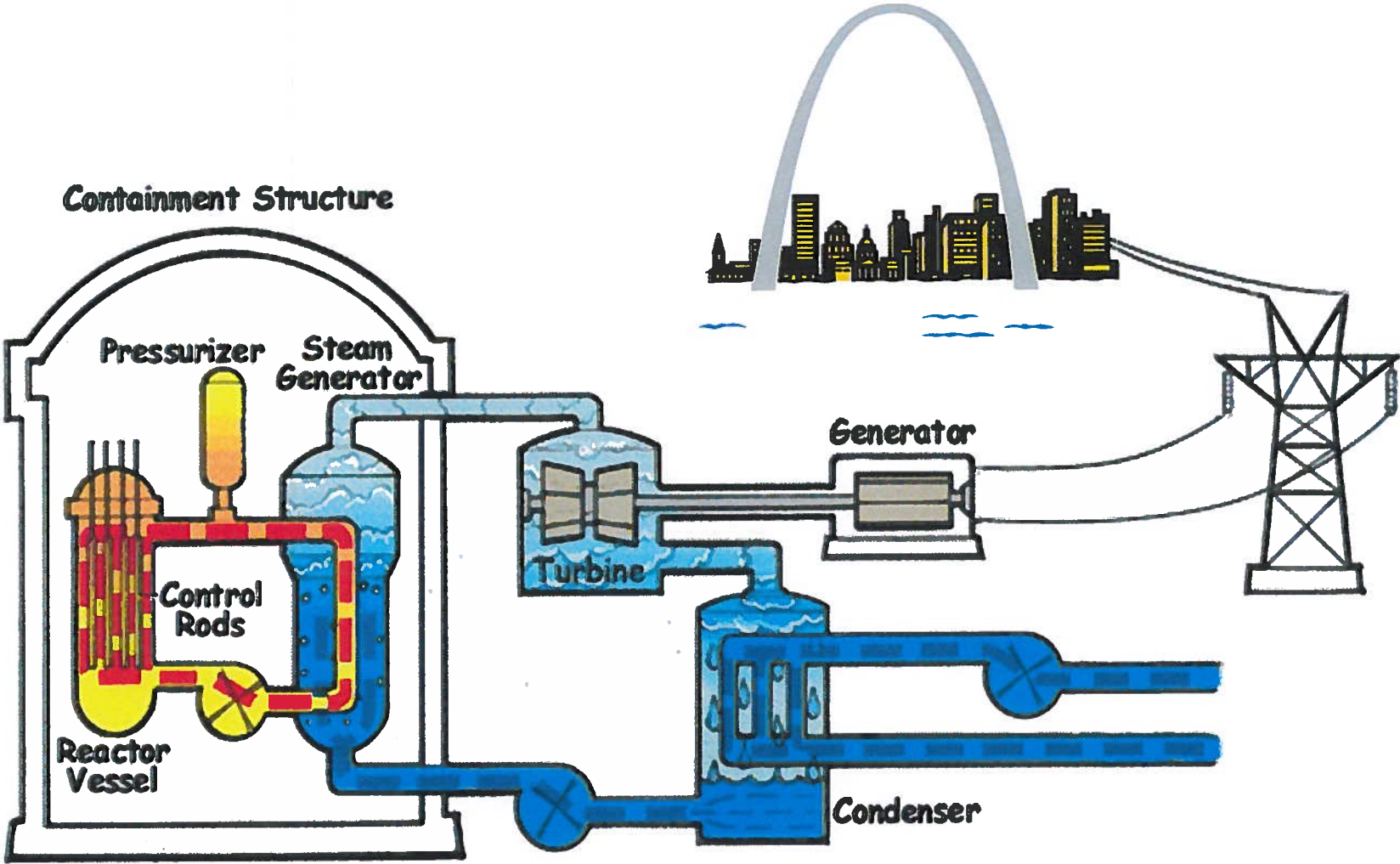


UNITED STATES

- Largest producer of nuclear energy in the world
- Nuclear energy provides 20% of U.S. electricity
- A 1,200 megawatt reactor like Callaway powers 700,000 average households each year
- Oldest operating plant is located in Oyster Creek, N.J. (1969)



HOW DOES NUCLEAR ENERGY WORK?



What you will Do on the plant tour today

- What you will do and see
 - Put on personal protective equipment (hard hat, safety glasses and hearing protection)
 - Walk into the power block of the plant

Safety brief

- Our highest value – three types
 - **Nuclear** – our employees see to that every day – security is highly trained and well armed
 - **Radiological** – special ALARA brief
 - **Industrial** - This is **an industrial environment**
 - Hazards
 - Icy/wet surfaces
 - Trip hazards such as floor grating and concrete curbs
 - Hot pipes
 - High noise
 - Don't touch or bump any plant equipment
 - Personal Protective Equipment will be issued
 - Hard hats
 - Safety glasses
 - Earplugs

Security Brief

- No cell phones – leave them here
- No cameras – we will take pictures for you
- Stay with your assigned escort at all times – within eye sight. If you become separated from your escort, immediately contact Security or the nearest plant employee.
- Ensure your Visitor Badge is displayed in plain view at all times.



FOCUSED ENERGY. *For life.*