

# Southwestern Power Administration

*Overview of Southwestern's  
operations in the Red River Basin*

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# Southwestern Power Administration

- ◆ Federal agency under the U.S. Department of Energy
- ◆ Congressionally authorized by Section 5 of the 1944 Flood Control Act
- ◆ One of Four Power Marketing Administrations in the United States



# Southwestern Power Administration

- ◆ Markets power generated at 24 Federal, multi-purpose hydropower projects operated by the U.S. Army Corps of Engineers (Corps).
- ◆ Power is cost-based, wholesale power to preference customers: cooperatives(21), municipalities(78), and military bases(3).
- ◆ Over 8 million end-users in 6 states
- ◆ Operates 1,380 miles of high-voltage transmission line, 26 substations, and 46 communications sites.





# Southwestern is not...

- ◆ Southwestern Electric Power Company (SWEPCO)
  - investor owned utility in Shreveport
- ◆ Southwest Power Pool (SPP)
  - regional transmission organization for 14 states
- ◆ A power company
  - Southwestern is a not-for-profit Federal agency that markets power to not-for-profit preference customers



# Southwestern's Federal Power System – Original Investment

- ◆ Southwestern repays the Federal Investment
- ◆ Total estimated Repayment through FY2016 is \$5.3 Billion:
  - ◆ Investment        \$1.2 Billion
  - ◆ Interest            \$0.9 Billion
  - ◆ O&M                \$3.2 Billion
- ◆ \$199 Million current estimated annual revenue to recover:
  - ◆ Initial construction costs plus interest
  - ◆ Annual operation and maintenance
  - ◆ New replacement equipment and interest



# Lake Texoma (Denison Dam)



- ◆ Powerhouse online in 1945
- ◆ 80.5 MW capacity powerhouse
- ◆ 219,000 MWh estimated annual energy
- ◆ \$6.4 Million estimated annual revenue
- ◆ \$15.4 Million estimated annual benefits

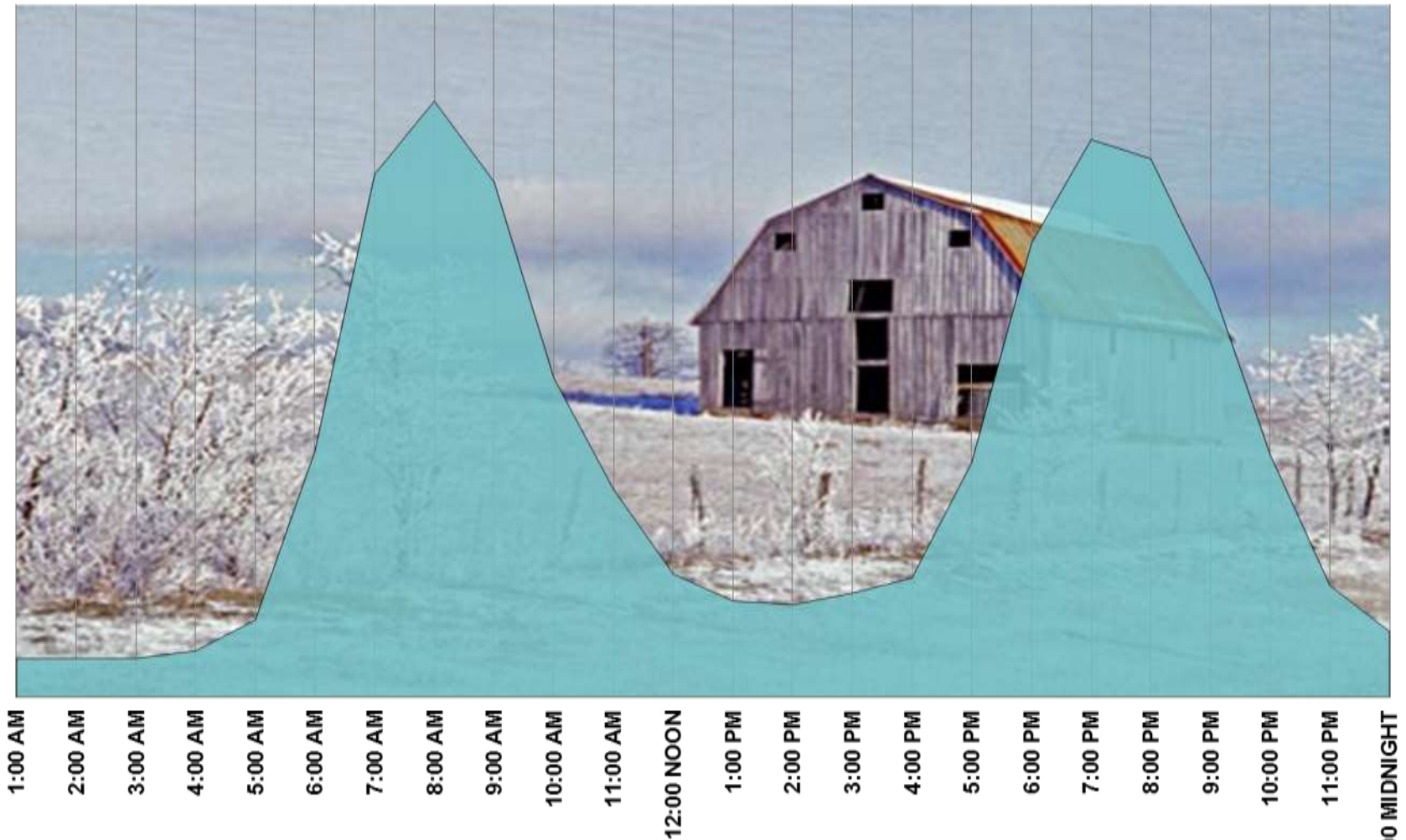
# Broken Bow



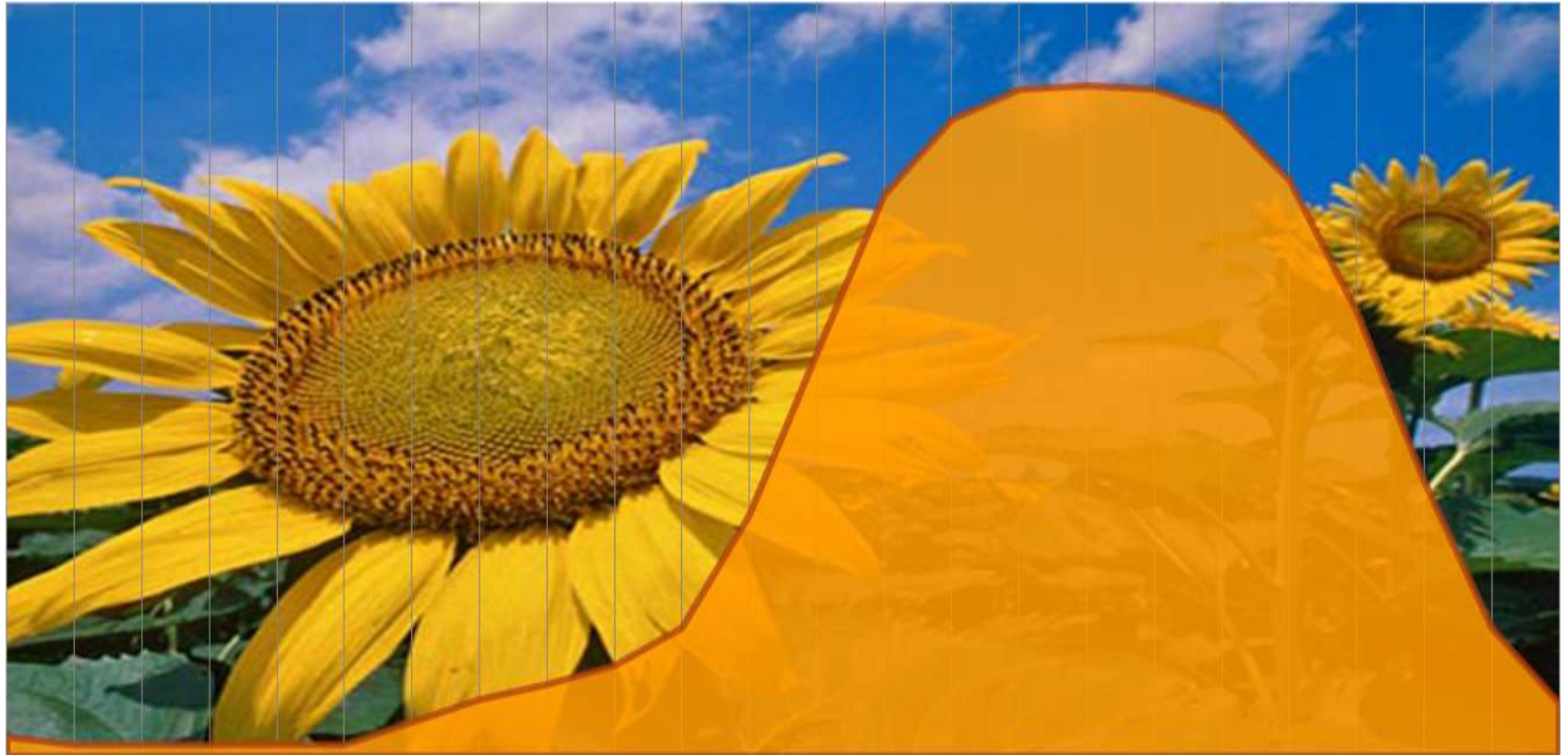
- ◆ Powerhouse online in 1970
- ◆ 115.0 MW capacity powerhouse
- ◆ 129,000 MWh estimated annual energy
- ◆ \$7.0 Million estimated annual revenue
- ◆ \$15.3 Million estimated annual benefits



# Winter Peaking Loads



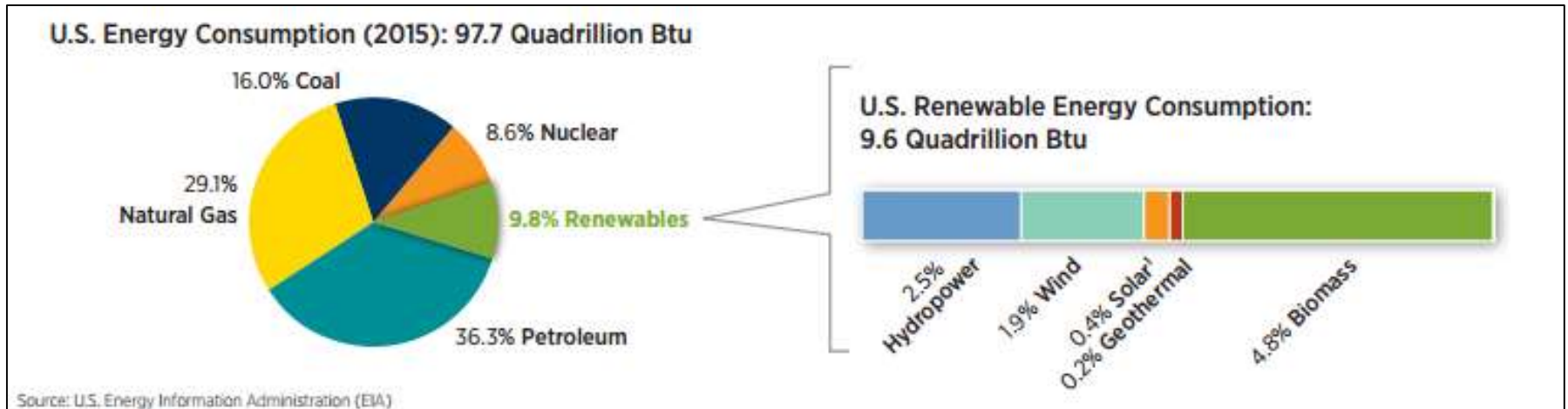
# Summer Peaking Loads



1:00 AM  
2:00 AM  
3:00 AM  
4:00 AM  
5:00 AM  
6:00 AM  
7:00 AM  
8:00 AM  
9:00 AM  
10:00 AM  
11:00 AM  
12:00 NOON  
1:00 PM  
2:00 PM  
3:00 PM  
4:00 PM  
5:00 PM  
6:00 PM  
7:00 PM  
8:00 PM  
9:00 PM  
10:00 PM  
11:00 PM  
12:00 MIDNIGHT



# Renewable Energy



- ◆ Hydropower plays a significant role (25%) in the Nation's renewable resources.
- ◆ The ability to dispatch hydropower on demand is significant when other renewable energy options are considered.



# Estimated Greenhouse Gas Emissions Offset per year

Tons Carbon Dioxide

24 Projects

4.6 Million



# Estimated Fuel to Produce Equivalent Energy per year

Barrels of Fuel Oil, or  
Tons of Coal, or  
Cubic feet of Natural Gas

24 Projects

9.7 Million

3.0 Million

44.7 Billion



# Questions?

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