Renewable Energy In the Southwest

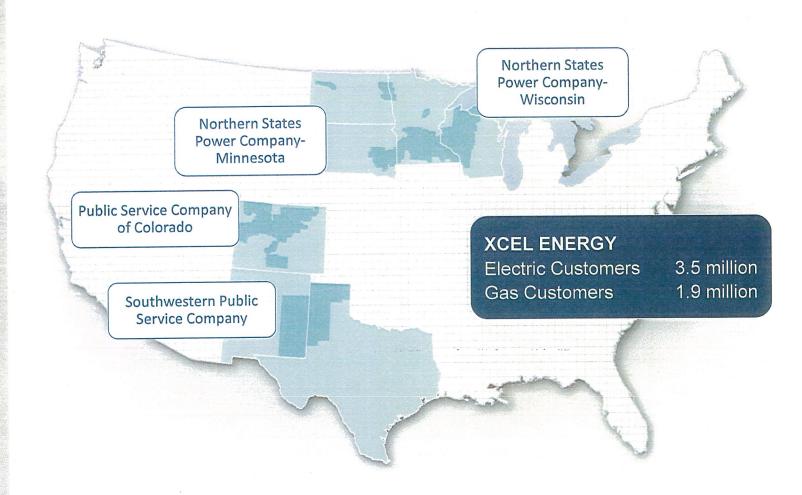
Planning for Our Energy Future

9/81/17

Bernarr Treat & Mike McLeod

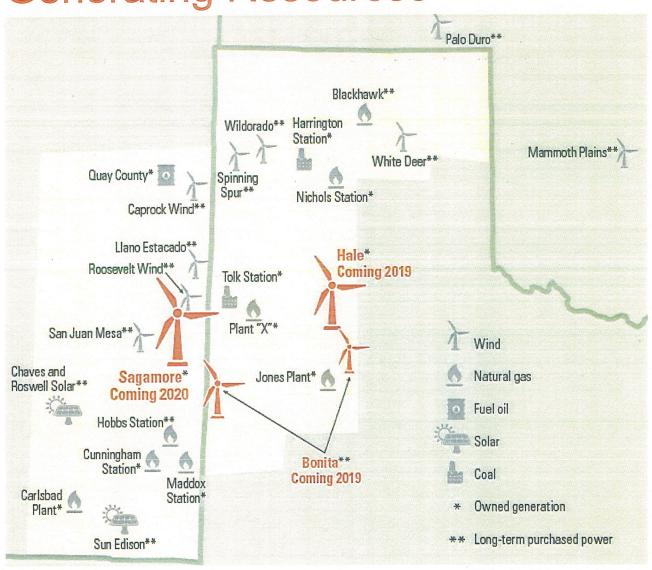


The Xcel Energy System





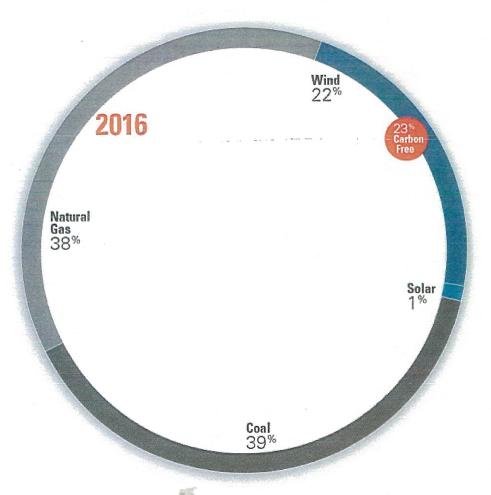
Generating Resources





Regional Energy Mix - 2016

Southwest (New Mexico, Texas)



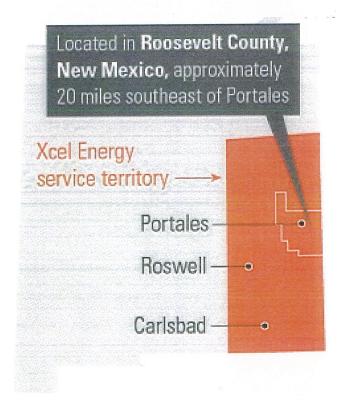


Steel for Fuel

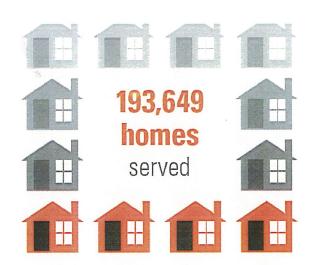
- 1,000 additional MW of wind planned for 2019, 2020, to be built and owned by Xcel Energy
- 522 MW in Roosevelt County, N.M.
- 478 MW in Hale County, Texas
- Another 230 MW to be added in 2019 through long-term power purchase agreement
- New low-cost wind farms (steel) to offset higher-cost production from older natural gas-fueled plants, translating into lower fuel costs.
- Expected savings from new wind farms is \$2.8 billion over 30 years.
- Regulatory approval sought by March 2018, with construction to begin immediately.



Sagamore Wind Project (New Mexico)

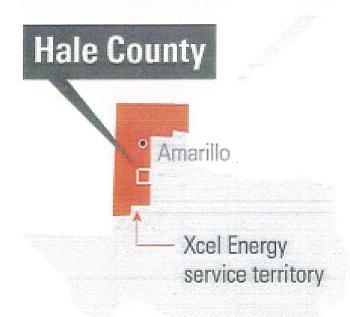


- 522 Megawatts
- More than 300 construction jobs
- 20 to 25 full-time operations careers
- 98 percent of final site footprint can remain in original use





Hale Wind Project (Texas)



- 478 Megawatts
- More than 300 construction jobs
- 17 to 22 full-time operations careers





Timeline of Wind Project Approvals and Construction

- March 2017 Projects filed with Texas PUC and New Mexico PRC
- March 2018 Expected Regulatory approval
- 3rd Quarter 2018 Construction on Hale begins
- 2nd or 3rd Quarter 2019 Construction on Sagamore begins
- 3rd Quarter 2020 All projects completed



Sagamore Construction Jobs

- Contractor
 - Safety Professionals
 - Turbine construction
 - Construct roads
 - Construct Transmission Lines
 - Construct Substation
 - Install Foundations
 - Truck Deliveries
 - Traffic control
 - General Labor
 - Heavy Equipment operators
 - Dust Control Water Truck
 - Cement deliveries
 - Tradesmen
 - Security

Xcel Energy

- Safety Professionals
- Project Management
- Engineering support
- -QA/QC
- Document Control
- Project Controls
- Testing/Performance
- Admin Support



Further Research

- www.xcelenergy.com Xcel Energy
- www.xcelenergy.com/ourenergyfuturesw
- www.awea.org American Wind Energy Association
- www.seia.org Solar Energy Industries Association



Questions

