AND YOU MAY ASK YOURSELF: WELL... HOW DID I GET HERE? WHERE DOES THAT HIGHWAY GO?

BRUCE REW, SENIOR VICE PRESIDENT OPERATIONS
OUR BEGINNING

• In 1941, 11 member utilities pooled electricity to power aluminum plant at Jones Mill for critical defense

• Maintained after WWII to continue benefits of regional coordination
THE SPP DIFFERENCE

• Relationship-based
• Member-driven
• Independence Through Diversity
• Evolutionary vs. Revolutionary
• Reliability and Economics Inseparable
MILES OF TRANSMISSION: 66,892

- 69 kV 17,340
- 115 kV 15,846
- 138 kV 9,367
- 161 kV 5,567
- 230 kV 7,534
- 345 kV 11,146
- 500 kV 92
MIN AND MAX PERCENT OF
GENERATION MIX BY FUEL TYPE

June 2018 – June 2019
OUR EVOLVING ENERGY MIX

Trend By Year

Percentage of Generation

- Coal
- Gas
- Wind


63% 59% 61% 60% 55% 48% 46% 42%
TOP 10 CORPORATE BUYERS OF CLEAN ENERGY IN SPP’S MARKET

MW in Power Purchase Agreements

- Google: 1135 MW
- T-Mobile USA: 320 MW
- Facebook: 320 MW
- AT&T: 220 MW
- Royal Caribbean Cruises: 200 MW
- Microsoft: 178 MW
- Anheuser-Busch InBev NV: 153 MW
- Iron Mountain: 145 MW
- Equinix: 125 MW
- Kimberly-Clark: 120 MW

MW in Purchased-Power Agreements
SPP’S IT INFRASTRUCTURE

- 136,000+ data points updated every 2-30 seconds
- Operations model solves 91,400 x 228,948 matrix every two minutes
- Approx. 2,650 servers
- More than 3.6 petabytes of storage
This isn't our parents' electric grid

Evolving grid

Environmental constraints
Smart meters
Generator retirements
Advanced technologies
Cybersecurity
Wind
Energy efficiency
Prosumers
Electric vehicles
Solar
Battery storage
Distributed generation
Demand response
Fuel prices
Microgrids
Consumer demand

Planning for an uncertain future
OUR MISSION:
HELPING OUR MEMBERS KEEP THE LIGHTS ON ... TODAY AND IN THE FUTURE.