ALLETE Business Mix

Regulated

Generates, transmits and distributes electricity in a 26,000 square mile region of northern Minnesota rich in natural resources.

Provider of electric, natural gas and water service in Northwestern Wisconsin.

8% ownership; ATC owns and operates the electric transmission system in portions of Wisconsin, Michigan, Minnesota & Illinois.

Energy Infrastructure & Related Services

Leverages industry knowledge and innovation to bring clean energy to customers across North America.

Specializes in developing, acquiring, constructing, managing and optimizing clean and renewable energy projects.

Operates a lignite mine near Center, North Dakota, producing about 4M tons annually, under a long-term cost plus contract.

Net income from Regulated Operations is expected to be approximately 80% of consolidated income in 2018.
Focus on renewable energy; wind, solar, future potential storage

**Operate Optimization Extend**
- Investment at Storm Lake 1 & 2, and Lake Benton facilities
- Operate assets in a manner to optimize life
- Community engagement
- Operate under long term contracts with stable partners

**Build, Own, Transfer**
- Thunder Spirit I, 107 MW completed and sold to Montana-Dakota Utilities (MDU)
- Thunder Spirit II, 48 MW sold to MDU in 2018

**Power Sales**
- 106 MW Glen Ullin Energy Center-Xcel Energy-2019
- 80 MW South Peak Wind-Northwestern-2019
- 300MW Diamond Spring in 2020 with commercial customers.
- Pursuing additional 2021-2023 opportunities to utilized Production Tax Credits

**Acquire**
- Genesis of ACE’s current portfolio
- Acquire additional renewable facilities
- Projects or Portfolios
- Greenfield to operating sites
Expanding Nationwide Footprint!
Portfolio Snapshot 2019

MW BY TECHNOLOGY
- Zond: 3%
- Mitsubishi: 36%
- GE: 9%
- Suzlon: 52%

MW BY VINTAGE
- 1998/1999: 52%
- 2001: 21%
- 2003: 18%
- 2006-2009: 9%

MW BY MARKET
- MISO: 73%
- PJM: 18%
- WECC: 9%

MW BY SERVICE TEAM
- Self: 81%
- 3rd Party: 19%
Portfolio Snapshot 2020

MW BY TECHNOLOGY

- Zond: 66%
- Mitsubishi: 28%
- GE: 1%
- Suzlon: 5%

MW BY VINTAGE

- 1998/1999: 47%
- 2001: 28%
- 2003: 9%
- 2006-2009: 11%
- 2019/2020: 5%

MW BY MARKET

- MISO: 49%
- PJM: 29%
- SPP: 12%
- WECC: 10%

MW BY SERVICE TEAM

- ACE: 42%
- 3rd Party: 47%
- OEM/ACE: 11%
Lake Benton

- 104 MW Nameplate
- 139 – Zond 750 kW
- COD in 1998
- Lake Benton, MN
- 14 Employees
- Acquired in 2014
Storm Lake Power Partners

- 186 MW Nameplate
- 246 – Zond 750 kW
- COD in 1999
- Storm Lake, Iowa
- 24 Employees
- Acquired in 2014
Previous Issues/Repairs

- Gearbox Sub-Assembly Failures
- Generator Rotor & Stator Failures
- Blade Leading Edge Erosion
- Blade Lightning Strikes
- Unreliable Copper Communication Network
- Obsolete WTG Switchgear
Gearbox Damage
Gearbox Damage
Blade Damage
ZRI Plan

- New/Refurbished Gearboxes
- New/Refurbished Blades
- New/Refurbished Generators
- New WTG Switchgear
- New Fiber Control Network
New Gearbox
New Blades
Rotor Replacement
Rotor Replacement
Gearbox / Fiber