

A SUSTAINABLE ENERGY FUTURE

019 Annual Report



HELPING TO KEEP THE LIGHTS ON

American Transmission Co. owns and operates 9,890 miles of electric transmission lines and 568 substations in portions of Wisconsin, Michigan, Minnesota and Illinois.

Our transmission network enables the movement of electricity produced from all forms of generation resources to areas where it is needed.

AWARDS & RECOGNITION

Great Place to Work[™] Certified

2019 Great Place to Work™ Best Workplaces in Manufacturing & Production

2019 Milwaukee Journal Sentinel Top Workplaces

Michigan Clean Corporate Citizen

Tree Line USA Utility

U.S. Green Building Council LEED Gold designation

Wisconsin Green Masters Program



Planning for the future. At American Transmission Co., we help keep the lights on every day and are committed to operating and maintaining the electric transmission system reliably and safely. We are preparing for an energy future that may look much different than today, and are committed to meeting the changing needs of the communities we serve.

ATC OFFICES AND SERVICE AREA

preparing today for

merican Transmission Co. established itself as an industry leader in 2001 as the first multistate, transmission-only utility in the nation. We took what was an idea, turned it into a business, and turned that business into a remarkable success story. We have improved electric system reliability for the more than 5 million electric consumers in our service area and have grown our asset base from \$550 million to more than \$5 billion. Throughout it all, we have achieved industry-leading reliability and safety metrics.

> Part of our success can be attributed to maintaining a strong focus on our customers and a commitment to meeting their needs as the industry evolves. In 2019, we took a comprehensive look at our customer experience and helped work groups across the company better understand what's important to our customers, anticipate their needs and align our actions to support theirs. It made a difference. Our 2019 customer satisfaction survey scores were the highest in our history. I want to thank our customers at our generation, distribution and transmission interconnected entities who take time each year to provide feedback on their experience with us and help us improve our service to them.

success tomorrow

None of our success would be possible without our people. We are one team, with a shared commitment to operating and maintaining the system reliably and safely. We work hard at maintaining a positive culture to keep employees engaged and were again recognized as a Top Workplace by the Milwaukee Journal Sentinel and a Best Workplace in Manufacturing & Production by Great Place to Work[®].

We continue to operate the system well. Our fair-weather outages for 2019 were better than our 5-year average, and our low number of bulk power outages (200-kV lines or above) is among the best in the industry. Although 2019 was a challenging year for weather-related outages, the work we have done in hardening the system, and increasing redundancy and reliability helped us restore the transmission system more quickly than we could have in years past.

The pace of change in our industry is accelerating, and the transition to sustainable energy is occurring rapidly. States and utilities are setting ambitious renewable energy and carbon reduction goals. Battery storage is also emerging as a complementary solution to

I am proud of where we've been and what we've done, and I am excited for what's next for ATC. As we look to the future, we continue to look for ways to improve how we operate and maintain the transmission system to meet the demands of the sustainable energy future. I'm proud to share some of the highlights of those efforts in this report.

Mike Rowe



renewable resources. To ensure we and our customers are in the best position tomorrow, we are working to think differently today. An example of this is an initiative underway to standardize and streamline the design of certain types of substations so we can reduce lead time and enable customers to bring new generation online sooner.

Mike Rove

President, Chairman and Chief Executive Officer



connecting to a sustainable ener

The industry is evolving to greater use of sustainable energy. Requests to interconnect new generation sources to ATC's system are at an all-time high and are expected to continue to increase. As the energy mix continues to change, we're looking at how we can better respond to the needs of our customers. One way is by developing a standard generationto-transmission interconnection substation design that would reduce substation equipment lead time by more than 8 months, without increasing costs. We will soon begin piloting a new design that has the potential to be widely used for greenfield generationto-transmission substation projects, reducing custom engineering needs. Cutting lead time will allow us to respond to customers' needs more quickly and enable them to start capitalizing on their investments sooner.

6,454 MW

of wind and solar in ATC's interconnection queue

292_{MW}

of storage in ATC's interconnection queue

1,249_{MW}

of solar and wind in Generator Interconnection Agreement negotiations

Connecting to a clean energy future

We also reached a major milestone on the remaining link in a region-wide electric network of 345-kV projects identified by the Midcontinent Independent System Operator to improve electric reliability and provide \$12.1 to \$52.6 billion in net economic benefits. The Public Service Commission of Wisconsin approved the Cardinal-Hickory Creek Project, the last of 17 Multi-Value Projects that will enable the interconnection of 52.8 million megawatt hours of renewable energy, meeting the electric needs of approximately 5 million homes. The line will connect Dubuque County, Iowa, to Dane County, Wis. The approximately \$492 million cost of this project will be shared throughout the MISO multi-state region. Pending additional approvals from the Iowa Utilities Board and federal agencies, construction will begin in 2021 to meet an in-service date of 2023.

Supporting tomorrow's economy

In December, we completed the Mount Pleasant Tech Interconnection Project to support Foxconn's manufacturing facility and economic development in Racine County, Wis. The 13-mile, 345-kV transmission lines and substation had an accelerated timeline of under two years. We completed the project ahead of schedule and under budget.

We also upgraded a substation in a densely populated area of Milwaukee south of Miller Park that had been vulnerable to load loss and outages on the distribution system. The Lincoln Substation Project improved electric reliability and enables outages to be taken at the substation when needed to perform maintenance activities.

We rebuilt a 28-mile transmission line along the Wisconsin River in Wisconsin's Grant and lowa counties and crossing the river into Richland County. The 1950s-era line needed to be rebuilt to improve area reliability. A portion of it was rerouted to avoid a bluff where poles were occasionally knocked down due to mud slides. Construction in this environmentally sensitive area was completed in a constrained timeframe to minimize impact on endangered and threatened species. The project was completed ahead of schedule.

EXPLORING WAYS TO PROTECT THE GRID FROM ELECTROMAGNETIC INCIDENTS

When the Senate Committee on Homeland Security and Governmental Affairs held a round table in Washington, D.C., in February 2019 to explore protecting the electric grid from electromagnetic pulse or geomagnetic disturbances, ATC was asked to speak about the Neutral Insertion Device we installed on one of our substations, the first commercially available device of its kind. We have been testing its capability to automatically block geomagnetic induced current during naturally occurring GMD since 2015. We're working to gain confidence and familiarity with this technology should the need arise for more NIDs in the future as a result of GMD studies or system events.

Strengthening electric reliability

We completed the Spring Valley-North Lake Geneva Project to strengthen electric reliability and meet the growing use of electricity in western Kenosha County and Lake Geneva, Wis. An area that was vulnerable to low voltages and outages now has system redundancy. The project included a new 23-mile transmission line from southern Walworth County to western Kenosha County, a new substation in the town of Wheatland and a new line connecting it to a substation in Twin Lakes.



Using technology to enhance customer experience and safe operation of the transmission system

Two initiatives in 2019 are helping to streamline interaction with our customers and support the safe and reliable operation of the transmission system. When the software that integrates outage scheduling activities on the transmission system was being phased out, we took the opportunity to make customized changes in the updated software that will save time and money for us and our customers while improving the integrity of the data stored in the program.

ATC's system operations center receives around 94,000 check-in and -out calls annually from individuals entering and leaving our substations and rights-of-way for vegetation management, construction or maintenance activities. A safety focus group identified distraction from high call volume during switching as a key safety concern, so we implemented a tool that allows these communications to be handled via text and reduced SOC call volume by about 50%.

Improving how we build

We received a patent for Solo-Driver[™] in August, a method and apparatus for improved vibratory installation of caissons that can reduce pole installation costs by one-third to one-half. It is now a preferred construction method at ATC. We continue to look for other ways to improve our construction methods. We are testing a new method that uses a similar process and equipment, but with a less expensive foundation design that is expected to reduce material costs.

We're piloting the use of fiber-reinforced polymer poles across the ATC 69/138kV system. FRPs are significantly lighter than equivalent wood and steel poles, are immune from fungal decay, woodpeckers and corrosion, and have a minimum life expectancy of 80 years (greater than either wood or steel). We are evaluating opportunities to use them to reduce lead times and materials, engineering and construction costs. We're also assessing their impact on construction productivity rates and the potential for new, innovative construction equipment for installation.

Advancing work in the Straits

We continue to make progress on reinforcing the electrical connection between the Upper Peninsula and Lower Michigan, and in 2019 we completed soil boring work in the Straits of Mackinac. After additional regulatory and environmental permits are received, we will remove the existing submarine transmission cables and replace them with cables containing solid dielectric insulation in 2021, re-establishing the two 138-kV circuits. In 2018, a vessel's anchor struck and damaged several of our submarine transmission cables on the lakebed in the Straits. We reconfigured and returned one of the two 138-kV circuits to service.



Harnessing emerging technologies

We continue to seek ways to serve our customers with emerging technologies. Our proposed battery storage-as-transmission project reached a milestone in December when MISO proposed tariff revisions to FERC that would enable storage to be recognized as a transmission asset. The project also was identified in MISO's 2019 Transmission Expansion Plan as the preferred solution to a transmission issue in the Waupaca, Wis., area. Its approval for inclusion in the plan is pending FERC approval of the tariff language. The first-of-its-kind project in MISO would improve electric reliability and operational flexibility. We intend to work with MISO and other stakeholders to enable the battery to also provide market services and use the revenues to reduce costs to ATC customers. We are working with WEC Energy to develop an agreement to serve as our Market Participant Agent to handle market-related aspects of operating the battery.

Leading the way in reliability standards

We received top marks on a recent NERC reliability standards audit, demonstrating to our regulators the strengths of our compliance program. The triennial audit, which examined how we operate, maintain, plan for and secure the transmission system, identified no potential violations. Regulators identified two ATC programs relating to corporate security as "noteworthy," or among the best in the industry, and described our Reliability Standards Internal Controls Program as "best in class."

Validating our approach to incident response

Breaking new ground in safety

We are committed to safety. In June we broke a record set in 2011 when we reached 114 consecutive days without an OSHA recordable injury on our footprint. We went on to set a new record of 151 days. We use data analytics technologies to support safe decision-making to help keep the approximately 900 employees and contractors working on or near our infrastructure at any given moment safe.

Extreme weather and equipment challenges tested our transmission system in 2019. In mid-July, a mechanical malfunction on a transformer caused a fire and outage in downtown Madison, and just days later, severe storms tore through central and northern Wisconsin toppling trees and causing more than 20 system outages. We met these challenges head on, working closely with customers, emergency responders and other agencies to complete restoration activities as quickly and safely as possible. Our response underscored the value of our transition to a National Incident Management System Incident Command Structure, which enables us to work seamlessly with responders from multiple agencies to effectively manage the incidents, regardless of size or impact.

Using innovation to meet unique and changing construction challenges

Extreme high-water levels, ice buildup and erosion created challenges in two areas where our lines are near or cross the Wisconsin River. Both situations required emergency pole replacements, and both were in areas where access with traditional ground construction vehicles was not possible. In March, we collaborated with our contractors to use a small three-piece barge with pipe pile-driving capabilities to erect a temporary structure in 4 feet of water until a permanent structure could be installed.

In April we completed another emergency replacement, this time of a lattice structure with a foundation that had eroded away due to high water levels. ATC crews and contractors used tug boats and

making nature a priority

We care about the environment we all share. We strive to reduce the impact that construction, operation and maintenance of our facilities have on the environment, and pursue opportunities to promote sustainable, healthy ecosystems.

Promoting sustainability, saving money through innovation

We pioneered innovative techniques to reduce waste, save money and foster pollinator habitat as part of the Mount Pleasant Tech Interconnection Project in Racine County, Wis. Instead of directing soil to a landfill, it was used to build a berm. The berm helped address stormwater management issues and was planted with pollinator-enhanced seed mixes. We also worked with our contractor to send junk wood composite mats to a compost company, resulting in significant cost savings and reduction of landfill waste.

HELPING COMMUNITIES GROW

Trees and vegetation are among the features that make communities special places for residents and visitors. In 2019, ATC awarded \$65,000 to 24 recipients across its service area to plant trees and low-growing vegetation through its Community Planting and Pollinator Habitat programs. ATC has given more than 240 community awards through these programs over the past seven years, totaling more than \$425,000.



\$ 65,000

awarded in 2019 to plant trees and low-growing vegetation

240 AWARDS

over the last 7 years totaling over



PLANTING A LEGACY FOR WISCONSIN SCHOOLS

Helping pollinators thrive by controlling invasive vegetation

Our vegetation management efforts along a 5-mile section of Madison's Cannonball Bike Path in early 2019 is an example of how ATC supports pollinator habitat while working to ensure electric reliability. We removed incompatible and invasive trees and shrubs, which opened the dormant seed bed to sunlight to allow native plant species to grow.

ATC is uniquely positioned to help establish habitat for pollinators because of the 9,890 miles of right-of-way we manage. We developed and use a first-of-its-kind model to map and identify existing suitable pollinator habitat and gaps in pollinator pathways along our transmission lines. We also use a specially developed pollinator seed mix as part of our new and rebuild construction efforts where land use is appropriate, seeding 50 acres in our rights-of-way and near substations in 2019 alone. Ensuring regional clean water and ecosystems

Our commitment to the environment exte to precious water resources. In 2019, ATC worked with the Root-Pike Watershed Initiative Network to help restore a portion o the Lamparek Ditch, a critical tributary of the impaired North Branch of the Pike River near the Mount Pleasant Tech Interconnection Project. We provided funds to purchase and plant native vegetation along a new 1.2-mil transmission line corridor to help reduce pollutant runoff, create wildlife habitat, and increase flood water storage capacity for the watershed. In total, we have committed to restoring 46 acres to native vegetation – 30 acres of new transmission line right-of-way and 16 acres of new substation property along the north side of the tributary.

ATC's Trees for Threes program with the Milwaukee Bucks continues to be a winning combination for Wisconsin schools and the environment. For every 3-pointer the Bucks make at home during the regular season, ATC donates one tree to beautify school grounds where children play and grow. As a result of the 2018-2019 season, a record 573 trees were planted around the state, promoting a practice of environmental stewardship for years to come.



40 ACRES

native

NORTH BRANCH, PIKE RIVER

will be restored to native vegetation

committing to our communities

We believe the strength of a community rests on three main areas of need: education, health

and the environment. We focus on these foundational elements when directing our resources and

energy to give back.

747,000

41 organizations

58,000

in matching gifts to support 150 organizations our employees care about.

\$ 200,840

Ionated to United Way to support vital community programs



volunteer hours logged by ATC employees

Caring for our communities

In 2019, we donated nearly \$747,000 to 141 organizations in our service area that help our communities thrive. We also provided \$58,000 in matching gifts to support 150 organizations our employees care about. Our United Way campaign raised \$200,840 to support vital community programs, and our employees donated more than 1,600 volunteer hours for educational, health, environmental and other causes.

Educating our future

When volunteering to help educate the next generation, we focus on helping students learn skills in science, technology, engineering and math that will prepare them to work in our industry. We continue to partner with Milwaukee Public Schools' Fairview School in support of its STEM curriculum. Employees welcomed a visit from students to share information about their jobs and give them a tour of our facility. ATC volunteers helped middle school students with a wind turbine project and helped third and fourth graders design and build carriers made to withstand an egg dropping from the school's second story window. We also sponsored Fairview's first LEGO® Robotics team.

Our employees participated in STEM Forward's Wisconsin Regional Future City Competition, a program where middle school students imagine,

RECOGNIZED FOR OUR COMMITMENT TO STEM EDUCATION



research, design and build cities of the future. The 2019 theme, Powering Our Future, challenged students to design a resilient power grid and was perfect for ATC employees to get involved.

We care about ensuring members of our community have healthy food and the health care they need. In celebration of Superhero Day, employee superheroes at all of our offices assembled more than 600 sandwiches and wrote notes of encouragement for sandwich recipients to be distributed at United Way organizations throughout our service area. In January, employees joined their De Pere office neighbors to collect 17,924 non-perishable food items for Paul's Pantry in Green Bay, Wis.

To help children and families receive the health care services they need, our employees answered phones at the Children's Hospital of Wisconsin Miracle Marathon, helping them raise \$37,000 during our shift. Employees also participated in Briggs & Al's Run & Walk for Children's, American Lung Association Fight for Air Climb, Hank Aaron State Trail 5K Run/ Walk, and Bellin Run 10K to raise awareness and funds for these worthy causes.

Promoting healthy families





We were honored to receive the 2019 Spirit of STEM award from STEM Forward, in recognition of our partnership with Fairview School, our volunteerism and support for STEM Forward's Future City Competition and our involvement with robotics. ATC Vice President Audit & Risk Management ATC, accepted the award on our behalf. We are grateful to be recognized for something we care so much about as an organization.

COMMUNITY





Our employees are dedicated to helping organizations that preserve, protect and educate about conservation and environmental sustainability. In 2019, we donated materials and time to help build a shade house for a native orchid restoration project at Riveredge Nature Center in Saukville, Wis. North American native orchids are endangered and the project cultivates orchids that will be planted in suitable habitats throughout the Midwest.

Employees volunteered to help Clean Lakes Alliance collect native prairie flower seeds at Lake Farm County Park along Lake Waubesa in Madison, Wis. The seeds are processed and redistributed to improve biodiversity throughout the watershed.

Our employees volunteered to do spring cleanup and put down fresh mulch at Bay Beach Wildlife Sanctuary in Green Bay, Wis. Another group of employees supported the annual tree seedling sale to benefit the Dickinson Conservation District in Kingsford, Mich.

PROVIDING REAL-WORLD UTILITY ARBORICULTURE EDUCATION TO COLLEGE STUDENTS



ATC's vegetation management team worked with University of Wisconsin – Stevens Point forestry department to incorporate utility arboriculture into the class curriculum. The team helped develop and teach lectures and supported field labs covering general electrical knowledge, why utilities manage vegetation, working around electricity, career opportunities in the field, and vegetation management tools and technology.

The partnership continues to be a great opportunity to introduce students to utility vegetation management and expose them to job opportunities in the industry.

NET PROPERTY, PLANT AND EQUIPMENT

by the numbers

ATC began operations in 2001 with \$550 million in assets. Nineteen years later, we are a **\$5 billion company operating 9,890 miles of electric transmission lines and 568 substations.** Our cost control, purchasing and benchmarking strategies result in construction cost estimate accuracy that consistently beats the industry standard. This track record assisted us in financing \$300 million during 2019 for our capital program at the lowest interest rates in our history. illions) **5,232**

2019 actual

5,389

2020 projected



FINANCIAL POSITION AND RESULTS	2019	2018	2017
		(\$ thousands)	
Operating Revenues	\$744,371	\$690,510	\$721,672
Operating Expenses	373,527	358,703	346,308
Operating Income	370,844	331,807	375,364
Other Income, Net	48	2,405	7,402
Net Interest Expense	110,490	110,725	110,138
Earnings Before Members' Income Taxes	\$260,402	\$223,487	\$272,628
Distributions to Members (at 80%)	\$208,321	\$178,790	\$218,103
Net Property, Plant and Equipment	\$5,232,181	\$4,921,218	\$4,586,085
Current Assets	84,635	87,250	87,730
Regulatory and Other Assets	12,039	7,575	12,834
Total Assets	\$5,328,855	\$5,016,043	\$4,686,649
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Members' Equity	\$2,214,627	\$2,066,725	\$1,888,525
Short-term Debt	262,834	233,748	288,416
Long-term Debt (including current portion)	2,312,799	2,163,946	1,990,590
Total Capitalization	4,790,260	4,464,419	4,167,531
Other Current Liabilities	239,767	256,343	278,832
Other Long-term Liabilities	298,828	295,281	240,286
Total Capitalization and Liabilities	\$5,328,855	\$5,016,043	\$4,686,649

OWNERSHIP

ATC is a privately owned company. Utilities, municipalities, municipal electric companies and electric cooperatives from Wisconsin, Michigan and Minnesota have an ownership stake in ATC.



12% owned by municipalities, municipal electric companies and electric cooperatives

CAPITALIZATION

Debt	53.8%	53.7%	54.7%
Equity	46.2%	46.3%	45.3%
Total Capitalization	100.0%	100.0%	100.0%
Commerical Paper Program	\$400,000	\$400,000	\$400,000

Adams-Columbia Electric Cooperative

AE Transco Investments, LLC (owned by Alliant Energy)

Alger Delta Cooperative Electric Association

City of Algoma

ALLETE Transmission Holdings, Inc.

ATC Holding LLC (owned by WEC Energy Group)

ATC Management, Inc.

Badger Power Marketing Authority

Central Wisconsin Electric Cooperative

Cloverland Electric Cooperative

City of Columbus

City of Kaukauna

Manitowoc Public Utilities

Marshfield Electric and Water Department of the City of Marshfield

MGE Transco Investment LLC

City of Oconto Falls

Ontonagon County Rural Electrification Association

City of Plymouth

City of Reedsburg

Rock Energy Cooperative

City of Sheboygan Falls

Stoughton Utilities

City of Sturgeon Bay

City of Sun Prairie

Upper Peninsula Public Power Agency

City of Wisconsin Rapids

WPPI Energy



EXECUTIVE TEAM

Mike Rowe, Chairman, President and Chief Executive Officer

Lori Lorenz, Executive Vice President and Chief Administrative Officer

Mike Hofbauer, Executive Vice President, Chief Financial Officer and Treasurer

Mark Davis, Executive Vice President and Chief Operating Officer

Bill Marsan, Executive Vice President and General Counsel

BOARD OF DIRECTORS



Mike Rowe

Chairman, President and Chief Executive Officer, American Transmission Co.



President and Chief Kevin Fletcher Executive Officer, WEC Energy Group

Retired President, **Robert Foster** Southern California Edison

John Jamar Chief Executive Officer, CCI Systems



Jeffrey Keebler

President and Chief Executive Officer, MGE Energy and Madison Gas and Electric Company



(E)		Chief Executive Officer, Alliant Energy Corporatior
Ţ,	Michael Niggli	Retired President and Chief Operating Officer, San Diego Gas & Electric
Q	Gale Norton	President, Norton Regulatory Strategies
	Michael Peters	President and Chief Executive Officer, WPPI Energy
2	Stephen Yanisch	Retired Managing Director Public Finance Departmen RBC Capital Markets

John Larson

Chairman, President and

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Helping to keep the lights on, businesses running and communities strong

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