



# Laying the Foundation for the Future

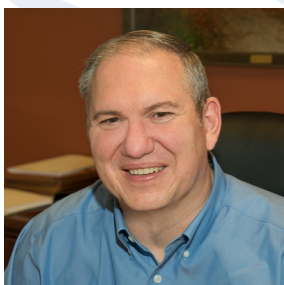
**2020 ANNUAL REPORT**



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# A Message from the Chair and General Manager



**Ken Nolan**  
VPPSA General Manager



**Reginald Beliveau Jr.**  
Chair of the Board

**N**ever before have we seen change occurring in the power and utility industry at the pace it is transforming today. Electric generation is becoming increasingly renewable as policymakers enact statute to protect the environment and reduce carbon emissions. The arrival of innovative electrification technologies onto the marketplace is reshaping how utility customers consume energy. Electric utilities are no longer required to simply supply power and maintain the poles and wires; they play an essential role in promoting environmental policy and managing the local grid as new demand crops up alongside distributed generation.

Joint action agencies around the country are stepping up to help their member utilities navigate this changing utility landscape, and Vermont Public Power Supply Authority (VPPSA) is no exception. VPPSA has always supplied its members with affordable wholesale power and essential services. But those efforts have stayed mostly in the background focused on supporting utility staff. Now, that centralized role is expanding to include more direct contact with retail customers, as well as providing management support of field operations. The accelerating regulatory requirements designed to address climate change, coupled with ever increasing consumer expectations, and an aging workforce are putting more pressure on small municipal utilities than they have ever before experienced. Joint action agencies like VPPSA are increasingly providing access to programs and partnerships that enable each utility to keep stride with these changes while operating efficiently and cost-effectively.

If those challenges weren't enough, 2020 also required a complete rethinking of how to operate for both VPPSA and its member utilities due to the novel Coronavirus pandemic. On Friday March 13, the VPPSA staff went home with instructions to work from home until further notice. As of December 31, 2020 staff was still waiting for that notice to return to the office. Even so, as the report will demonstrate, VPPSA was able to adapt and move nearly all of its strategic priorities forward. VPPSA staff deserves enormous credit for maintaining focus on the utilities and consumers they support during an extremely trying time.

In 2020, VPPSA rolled out multiple new service offerings to the benefit of its members and their customers. In the face of a global pandemic, VPPSA took proactive steps to advocate for member interests, provide financial support, and implement technology that was necessary to ensure our members' economic success. We simultaneously focused on moving forward broader strategic technology upgrades such as centralized GIS mapping and advanced metering infrastructure. We continued to develop affordable renewable generation, bringing the members' aggregate electric portfolio to 60% renewable and 90% carbon free. We also took the first steps in addressing the workforce shortage concerns member utilities face by beginning to assist with office and field operations management.

Despite 2020 presenting numerous challenges, VPPSA took significant steps to ensure our public power utilities will continue to thrive. Our evolving role allows us to focus on laying the foundation for the future.



# About VPPSA

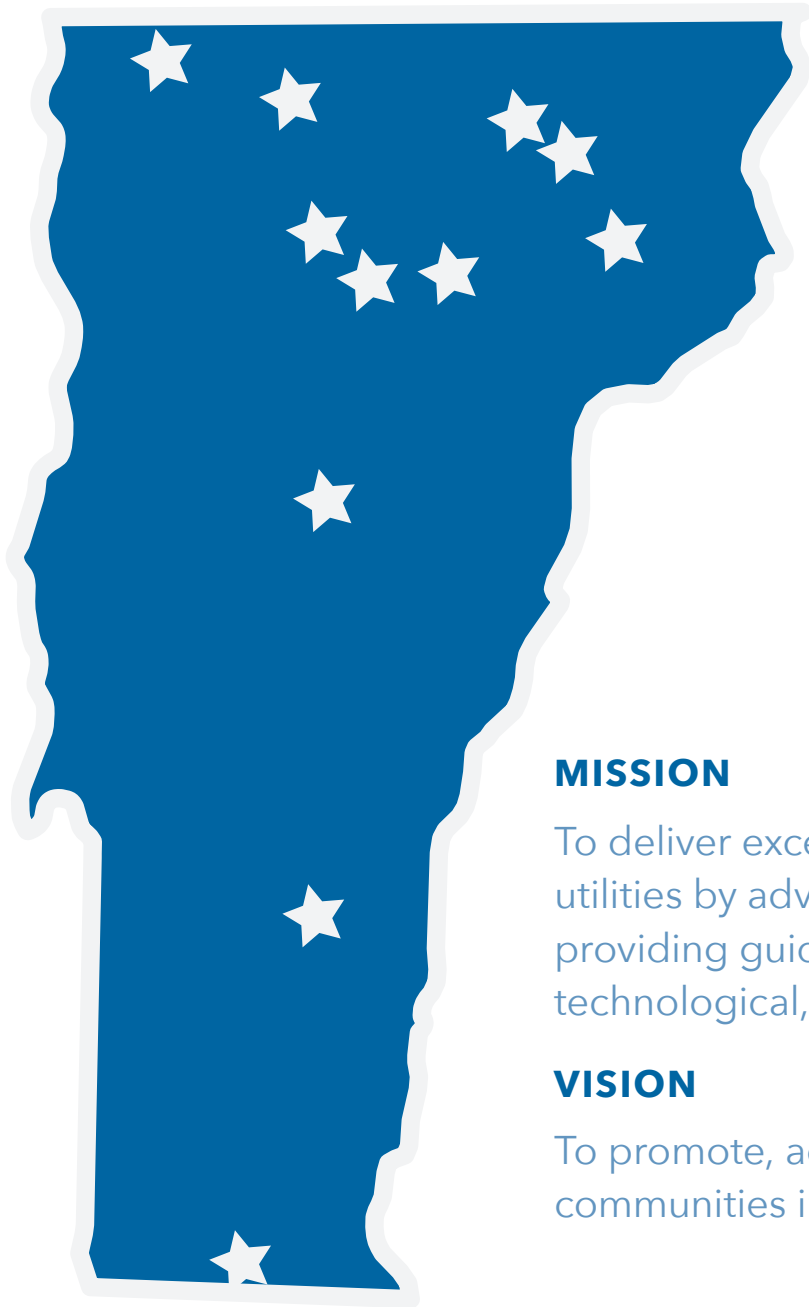
Over four decades ago, Vermont's municipal utility leaders recognized that they would benefit from a support network to deliver exceptional service to their communities. In 1979, the Vermont General Assembly enacted statute to create the Vermont Public Power Supply Authority. Since then, VPPSA has been providing community-owned utilities with beneficial consolidated services and solutions while allowing each municipality to maintain its individual identity.

Today, VPPSA serves 11 Vermont municipal electric utilities. Individually, VPPSA member utilities serve anywhere from 600 to 6,000 customers. Combined, the customer base adds up to nearly 30,000.

VPPSA's services include power supply purchasing, generation operation, information technology support, cybersecurity support, financial and rates planning, legislative and regulatory representation, GIS mapping, and customer outreach.







## Our Members

Barton Village

Village of Enosburg Falls

Town of Hardwick

Village of Jacksonville

Village of Johnson

Village of Ludlow

Village of Lyndonville

Village of Morrisville

Town of Northfield

Village of Orleans

Swanton Village

### MISSION

To deliver exceptional value to community-owned utilities by advocating, educating, collaborating, and providing guidance through the changing economic, technological, and regulatory landscape

### VISION

To promote, advance, and celebrate public power communities in Vermont and beyond



## Board of Directors

**Reginald Beliveau Jr.**  
Chair, Swanton Village

**John Morley III**  
Vice Chair, Village of Orleans

**Jonathan Elwell**  
Village of Enosburg Falls

**Mike Sullivan**  
Town of Hardwick

**Pamela Moore**  
Village of Jacksonville

**Meredith Dolan**  
Village of Johnson

**Thomas Petraska**  
Village of Ludlow

**Bill Humphrey**  
Village of Lyndonville

**Penny Jones**  
Morrisville Water & Light

**Stephen Fitzhugh**  
Town of Northfield

## Officers

**Crystal Currier**  
Secretary

**Amy Parah**  
Assistant Secretary

**Lynn Paradis**  
Treasurer

## VPPSA Staff

**Melissa Bailey**  
Manager of Government  
and Member Relations

**Joshua Bancroft**  
Application Developer

**Crystal Currier**  
Controller

**Heather D'Arcy**  
Power Analyst

**Shawn Enterline**  
Senior Power Analyst

**Steve Farman**  
Manager of Planning and  
Support Services

**David Gagne**  
Project 10 Plant Operator

**Kim Harris**  
Systems Administrator

**Julia Leopold**  
Communications Specialist

**Alex Nicholson**  
GIS Technician

**Kenneth Nolan**  
General Manager

**Amy Parah**  
Accountant and  
Administrative Assistant

**Amanda Simard**  
Senior Analyst

**Ken St. Amour**  
Manager of Technology and  
Security Services



RESPONDING TO THE

# COVID-19 Pandemic

In early 2020, a novel coronavirus began its rapid spread and plunged the globe into an unprecedented public health and economic crisis. As billions of people were urged to stay home, VPPSA took quick action to transition to remote operations. Effective March 16, 2020, all staff were instructed to stay home and were afforded the opportunity to work flexible hours to care for children that were home from school.

## Smooth Transition

VPPSA was well prepared for this overnight transition given the framework of technology already in place. Staff could access company files from home through a virtual private network and scheduled meetings could continue using an existing video conference platform. The change to an all-remote operation occurred over a single weekend and without any significant issues. VPPSA continued its remote operations for the remainder of 2020 with one staff member in-office each day.

## Information Technology Upgrades

The quick transition to remote operations highlighted VPPSA's earlier prioritization of creating a mobile workforce. Staff members were already equipped with laptops with access to company files via a virtual private network. The existing



voice over internet phone system, RingCentral™, allowed for seamless call forwarding and provided the ability to conduct meetings via videoconference.

The Technology and Security Services department quickly jumped into action to ensure member utilities were experiencing the same smooth transition. The department was able to remotely connect utility staff to their files using the same gateway firewall appliances as VPPSA, enabling some utilities to send their workforce home for weeks at a time.

**The quick transition to remote operations highlighted VPPSA's earlier prioritization of creating a mobile workforce.**

The COVID-19 pandemic has prompted some member utilities to explore new technological efficiencies. Several utilities are considering adding

voice over internet phone systems similar to the one VPPSA has in place.

## Electric Load Decline

As Vermont businesses shut down in accordance with Governor Phil Scott's Stay Safe, Stay at Home orders, VPPSA member utilities began to feel the financial pangs of electric demand reduction. Several member



utilities provide a sizable portion of electric service to large businesses and were therefore particularly vulnerable to losses.

The economy within the Village of Ludlow, for example, typically thrives on tourism generated by visiting skiers. Okemo Mountain Resort, the largest customer of community-owned Ludlow Electric Light Department, has a large snow making capability that is partially powered by electricity. In April 2020, Ludlow Electric Light Department experienced a 22.2% overall reduction in electricity use largely due to the resort's early closure.

The hardest hit VPPSA member municipal electric utility was the Village of Orleans. Located in the heart of the Northeast Kingdom, Orleans is home to the only Ethan Allen furniture manufacturing plant in the country. On March 25, Ethan Allen sent 275 Vermont workers home as it temporarily closed its doors. As a result, the Village of Orleans electric department experienced a whopping 43.2% decrease in load as compared with April 2019.

VPPSA took quick action to assist its members through the financial repercussions of load decline. Within the first few weeks of the stay at home order, VPPSA began to outline a plan to expand its line of credit and amend financial policies to assist member utilities. A credit expansion to \$10 million was finalized in June 2020, enough for a worst-case-scenario of covering all members' power bills for three months. Updates to VPPSA's financial policies allowed members to defer paying VPPSA bills if necessary and substantially decreased finance fees.

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Thankfully, these proactive steps coupled with stabilizing economic conditions provided enough support to avoid a dire outcome.

### Customer Assistance Advocacy

The COVID-19 pandemic placed an economic burden on Vermont's households as many were left jobless. In April 2020, the statewide unemployment rate was 15.6%, up from 3.1% in March 2020.

On March 18, 2020, the Vermont Public Utility Commission swiftly ordered a moratorium on utility disconnections due to nonpayment of bills. This prompted VPPSA to ramp up its legislative

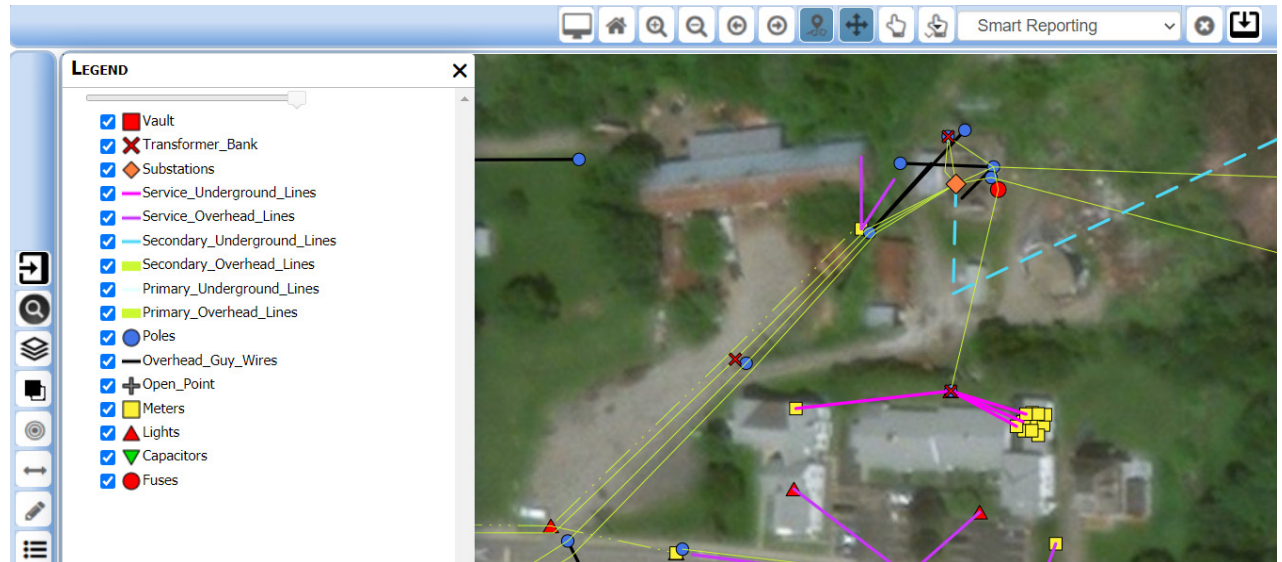
outreach efforts. VPPSA began informing state regulators and legislators about the effects its members were experiencing. VPPSA worked both directly with Vermont's Congressional delegation and in conjunction with the Northeast Public Power Association and American Public Power Association to advocate for federal support to cover past-due balances for struggling customers.

That advocacy culminated in the establishment of an \$8 million statewide fund to assist customers with overdue payments. \$419,311.34 of the Vermont COVID-19 Arrearage Assistance Program was applied to VPPSA member utility customers' past-due bills.



# Technology Upgrades

mPower Integrator™ software provides VPPSA and member utilities with visualizations and data to cost-effectively manage assets.



During 2019 strategic planning sessions, the VPPSA Board of Directors requested an enhanced focus on centralized technology services. In response, VPPSA implemented several new technology offerings in 2020 and progressed projects that were already underway. 2020 represented a significant year in building the technology foundation needed to react to the rapidly changing utility environment.

## Advanced Metering Infrastructure

The business case for upgrading VPPSA member utilities to advanced metering infrastructure (AMI) specifies a whole host of efficiencies for both the utility and the customer. AMI can increase customer satisfaction by providing timely outage-related communication, fewer bill disputes, and quick access to usage and cost information. Hourly data from AMI provides a swath of advantages to the utility. Utilities can use data to make decisions about grid assets, like transformer sizing, and customer service programs, like time-of-use rates. Overall, AMI aids in power quality and reliability of service.

VPPSA continued to lay a foundation for rolling out a radio frequency based AMI network across all member utilities. All member systems will utilize one centralized meter data platform that VPPSA will assist in managing. In 2020, a team of representatives from member utilities and VPPSA managers selected an AMI vendor finalist. Project design and contracting is underway with meter installation expected by early 2022.

## Geographic Information System Mapping

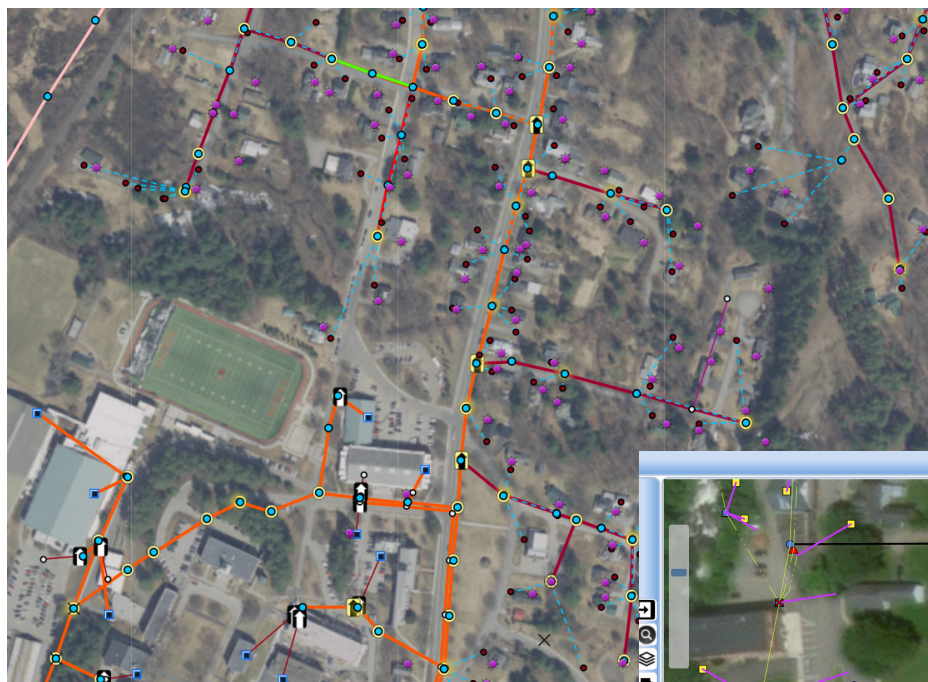
VPPSA took major steps forward in developing centralized geographic information system (GIS) utility mapping. A new 2020 service offering, centralized GIS mapping maximizes efficiencies by standardizing data across member utilities and reducing the amount of time each utility will need to spend maintaining their map data. It additionally allows VPPSA to develop analytics and field applications that will enable member utilities to proactively manage their assets.

The VPPSA GIS program kicked off with hiring a GIS Technician to join the Technology and Security Services Department. The GIS Technician worked with each utility to collect existing data and plan for further data collection where needed. Three categories of GIS maturity were identified across the membership, and a plan was developed to advance each group's status such that all of VPPSA's members will have consistent capabilities.

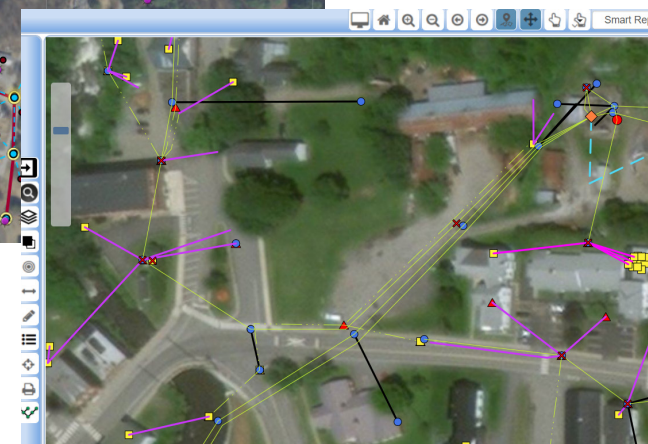
VPPSA then entered a partnership with mPower Innovations to bring affordable mapping and data analytics to member utilities. The partnership provides VPPSA members access to mPower Integrator™ software, which allows GIS maps to be connected to other utility data such as AMI meter readings or billing records to enable geospatially-based load analysis, voltage analysis, interconnection studies, and other insights into energy use trends. VPPSA members can also use the Integrator™ software for field activities including cost-effectively managing utility assets, preventative maintenance, vegetation management, and outage tracking and analysis.

## Cybersecurity Service Offering

2020 was a cybersecurity turning point for many industries around the globe as nefarious digital attacks threatened to hold organizations hostage and utility regulators at the state and federal level increased focus on cybersecurity. VPPSA has spent several years improving its own security posture, but the perceived vulnerability of utilities across the country became an area of increased concern for VPPSA's Board of Directors. In 2020, VPPSA proposed an expansion of the cyber defenses it had deployed internally to the membership as a whole. As a result, The Board of Directors agreed to make cyber security a central offering in VPPSA's operations and the Technology and Security Services Department began working with vendors to enhance the member utilities' cyber readiness.



VPPSA is using a combination of mPower Integrator™ and ArcMap software to map utility assets.



## Utility-Scale Battery Storage

VPPSA members remain committed to keeping costs low for their community members. Recent forecasts indicate that transmission prices will continue to rise significantly over the next decade, leading to increased costs for VPPSA member utilities. In an effort to reduce costs associated with transmission fees, VPPSA has taken proactive steps to establish a new partnership to deploy utility-scale battery storage.

In October 2020, VPPSA released a request for proposals (RFP) for electric storage facilities in VPPSA member territories. Finalists were narrowed down at the end of the year with the second round of the selection process taking place during 2021.





## Utility Management and Field Operations

VPPSA Board of Directors identified succession planning as a priority during 2019 strategic planning sessions, which led VPPSA to explore options to assist with utility management. Early in 2020, VPPSA contracted with a field services management consultant to provide on-call field support. The consultant provides project management support for VPPSA capital projects and is able to work with individual utilities as-needed.

## Renewable Generation

VPPSA's partnership with Encore Renewable Energy brought a new solar project online in late 2020. Lawrence Brook Solar is a 2.2 MW solar array located in Morrisville on land previously

used for corn silage. The 25 year lease agreement provides income to Morrisville resident and landowner, Jeanette Davis, and generates enough renewable energy to power 450 homes.

"Our mission is to keep electric rates affordable for our community," said Morrisville Water & Light General Manager Penny Jones. "Our customers can take pride knowing their electricity is coming from increasingly renewable resources with prices remaining low and stable."

This is the second solar array to be energized under the VPPSA and Encore Renewable Energy public-private partnership. VPPSA and Encore have arranged to build a 10 MW solar portfolio together, accounting for 16% of VPPSA member utilities' peak demand. Solar projects will be sited across multiple VPPSA member utility territories.

"This project was proof that when everyone works together with a common goal, we can do amazing things in a short amount of time," said Morley. "We will feel the benefits of this project for many years to come."

## Strengthening Partnerships

VPPSA and Efficiency Vermont collaborated on numerous successful projects and laid the groundwork for future partnership. VPPSA advocated for the Village of Orleans' inclusion in an Efficiency Vermont program that provides efficiency upgrades to Vermont's communities. Efficiency Vermont provided the village with a \$4,000 incentive bonus, which was used to upgrade the wastewater treatment facility.

"This project was proof that when everyone works together with a common goal, we can do amazing things in a short amount of time," said Morley. "We will feel the benefits of this project for many years to come."

In an effort to bring similar benefits back to more VPPSA members, VPPSA and Efficiency Vermont entered a three-year agreement to conduct efficiency programs tailored to the utility territory's needs. The agreement commits Efficiency Vermont to return 47% of energy efficiency funds raised in VPPSA member communities in the form of incentives. Additionally, it forms a commitment for both VPPSA and Efficiency Vermont to a research and development project.

## Key Accounts

Over the last several decades, Vermont utilities have experienced flat or declining loads. Meanwhile, in 2015 the state legislature introduced statute requiring utilities to participate in energy transformation projects that decrease customer fossil fuel use. VPPSA recognized early on that initiating electrification projects with commercial and industrial utility customers could both combat load decline and meet statutory requirements at the lowest cost possible. Additionally, strengthened relationships with large customers could provide economic development opportunities for the communities where they are located.

VPPSA took its first steps in developing a Key Accounts program that will benefit both the customer and the utility. Select staff began training through an American Public Power Association certificate program, and a consultant was hired to lead the program development process.

VPPSA anticipates launching its fully developed Key Accounts program in 2021.

## Custom Energy Transformation Projects

VPPSA members can tout an electric generation profile that is 60% renewable and 90% carbon free. Customers that switch from fossil fuel to electricity reduce greenhouse gas emissions and save on their energy bills due to the affordable electricity many VPPSA members offer. VPPSA remains committed to encouraging energy transformation projects and provides incentives to customers who choose electric over fossil fuel.

Two commercial and industrial customers completed energy transformation projects with financial assistance from VPPSA members. A furniture manufacturer offset 41,666 annual gallons of diesel by completing a transformer upgrade



From left to right: Village Manager John Morley III (Village of Orleans), Representative Johanna Donovan (Chittenden-6-5), and VPPSA General Manager Ken Nolan

### VPPSA'S ELECTRIC GENERATION PROFILE

**60%**  
renewable

**90%**  
carbon free

with Lyndonville Electric Department. Lyndonville Electric Department provided a financial incentive to cover a significant portion of the project cost. Similarly, a maple sugaring operation in Barton chose to connect to the grid rather than use diesel generators for sap collection from its 12,000 taps. Barton Electric provided 20% of the cost of the line extension, eliminating the need for 2,330 annual gallons of diesel.

## Legislative Advocacy

Prior to the COVID-19 pandemic, VPPSA staff was enthusiastically face-to-face with state legislators on a near daily basis. In February 2020 VPPSA was thrilled to host its first Legislative Reception in decades, during which member utility managers had the opportunity to interact with their



Vermont legislatures, VPPSA Board of Directors, and VPPSA staff gather at the VPPSA Legislative Reception.

local senators and representatives and discuss matters of utmost importance to their utility.

The rapidly spreading novel coronavirus created a quick shift in legislative operation and priorities in late March. As legislators learned to conduct committee meetings virtually and federal funding rolled in to assist Vermonters affected by the economic crisis, energy legislation became rightfully less urgent.

Rather than holding meetings in person, VPPSA met virtually with senators and representatives from its utility territories to discuss a bill proposal to allow for more municipal ratemaking flexibility. The proposed bill includes the ability for public power utilities to make small adjustments to rates through its local governing bodies while maintaining statewide oversight. This would provide significantly reduced administrative costs to utilities, and therefore lower costs for utility customers.

Senator Ann Cummings volunteered to sponsor VPPSA's bill and introduce it to the Senate Finance Committee during the 2021 legislative session.



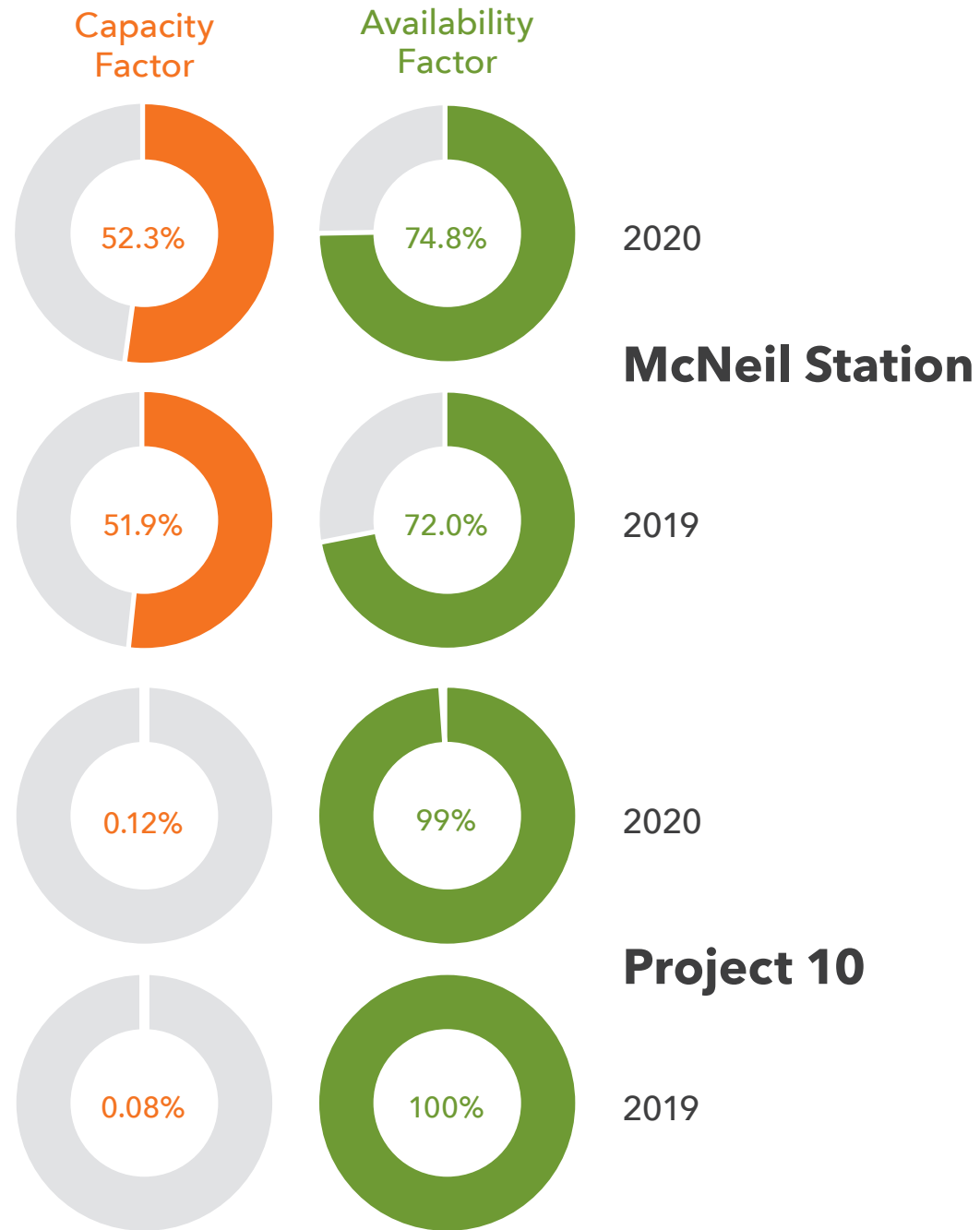
# 2020 Condensed Financial Results

A complete copy of VPPSA's audited financial reports can be found at: <https://vppsa.com/about-vppsa/financial-reports>

	2020	2019
Net Capital Assets	\$15,057,025	\$15,920,689
Current Assets, including cash and cash equivalents, accounts receivable, and other assets	\$18,979,302	\$18,922,541
Long-term assets, including investments	\$34,557,453	\$36,234,706
Deferred outflow of resources	\$25,000	\$25,000
<b>Total Assets and Deferred Outflow of Resources</b>	<b>\$68,618,780</b>	<b>\$71,102,936</b>
Current Liabilities, including accounts payable, short-term debt, current portion of bonds and LTD	\$8,235,420	\$10,239,072
Long-term liabilities, including bonds and long-term debt	\$26,302,080	\$29,162,655
Deferred inflow of resources	\$25,000	\$70,605
<b>Total Liabilities and deferred Inflows of Resources</b>	<b>\$34,562,500</b>	<b>\$39,472,332</b>
Invested in Capital Assets, Net	\$1,660,359	\$1,340,689
Restricted Earnings	\$27,648,731	\$25,792,070
UnRestricted Earnings	\$4,747,223	\$4,531,181
Other Comprehensive Income	\$(32)	\$(33,336)
Total Retained Earnings	\$34,056,280	\$31,630,604
<b>Total Liabilities and Capital</b>	<b>\$68,618,780</b>	<b>\$71,102,936</b>

# Project Operations

VPPSA owns 19% of the J.C. McNeil Generating Facility, located in Burlington. The McNeil Station is managed by Burlington Electric Department, which is the majority owner. Additionally, VPPSA owns 100% of the Project 10 peaking generating facility, located in Swanton. This is a “fast-start” generator within the ISO-NE wholesale market, allowing New England power grid operators to quickly dispatch generation to keep the power grid stable.









**VPPSA**

Vermont **Public Power** Supply Authority



***Putting the **Public** in **Power**.***

P.O. Box 126

5195 Waterbury-Stowe Rd.

Waterbury Center, VT 05677

802.244.7678

[www.vppsa.com](http://www.vppsa.com)