Vermont Public Power Supply Authority

ANNUAL REPORT

2015

VPPSA's Vision:

To promote and celebrate public power in Vermont and beyond.

VPPSA's Mission:

VPPSA's mission is to provide exceptional essential services to its member utilities.

Table of Contents

Joint Action at Work

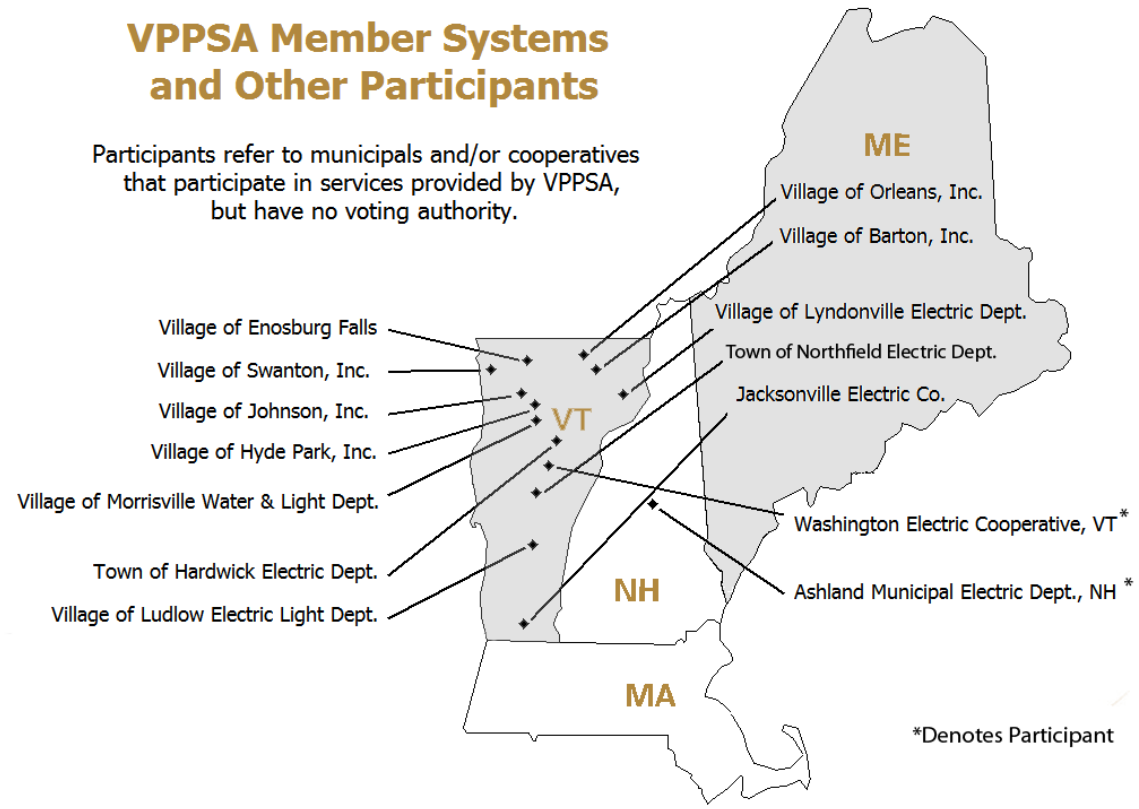
Vermont Public Power Supply Authority ("VPPSA") is a joint action agency established by act of the Vermont General Assembly on July 1, 1979 and codified as Title 30 VSA, Chapter 84. VPPSA is an instrumentality of the State of Vermont, which primarily means that as a governmental agency, bonds or notes issued by VPPSA are exempt from taxation (subject to IRS rules).

In addition, VPPSA is authorized by the State of Vermont to charge sufficient amounts to guarantee recovery of all costs. VPPSA provides its members with a broad spectrum of joint action services, as defined by the VPPSA Board of Directors. VPPSA is governed by a members' Board of Directors. Our membership includes 12 consumer-owned municipals in Vermont. The select board, trustees, or commissioners of each municipality appoints its VPPSA Director. In this way, our member board has equal representation, which consists of one director from each municipality.

VPPSA also provides services to other municipals and cooperatives both within and outside Vermont. These systems are considered participants rather than members. Participants differ from members in that they have no representation on the VPPSA Board. These systems have access to VPPSA's project services at the discretion of the Board. To the extent that participants take part in VPPSA projects, they are bound by the same terms and conditions as the members.

VPPSA Member Systems and Other Participants

Participants refer to municipals and/or cooperatives that participate in services provided by VPPSA, but have no voting authority.



Message from the Chairman

The year 2015 represented a blend of consistency and change for VPPSA and its twelve member systems. During the year, our Board of Directors adopted a Vision: To promote and celebrate Public Power and Beyond, as well as a mission: VPPSA's mission is to provide exceptional essential services to its member utilities. This Vision and Mission recognizes the importance publicly owned electric systems have to their communities and to our society as a whole. VPPSA continues to be in a strong financial position; we have maintained our positive bond rating on our Swanton Peaker plant, and the final payments on our McNeil bonds took place in 2015. The Swanton peaking units again produced positive results for us in 2015, and we continue to hold our longstanding ownership interests in McNeil and in the Highgate converter station. We have also created three specific committees of our Board of Directors, to help us focus on such key organizational areas as risk management, physical asset management and regulatory and legislative relations.

In a time of many regulatory activities on many fronts, VPPSA continues to be very active at the state, regional and federal levels. The addition of a Legislative and Regulatory Affairs Representative position to our VPPSA staff gives us greater presence at the Vermont Public Service Board, Public Service Department and State Legislature. We continue to be very active in Public Service Board matters such as the promulgation of a new net metering rule, revision of Vermont's longstanding PURPA rule, and the establishment of implementation standards and methods under Vermont's comprehensive RES legislation.

I want to thank our VPPSA Board of Directors and staff for the hard and diverse work that has been done this year to continue not only to meet the challenges before us, but to anticipate future ones in this period of change for our industry and our customers. 2015 saw a few changes in staff personnel as well as in the composition of our Board, and I have appreciated working with both familiar and new faces. Lastly, I would like to thank our prior Chair, Duncan Hastings, for his hard work and dedication to VPPSA and to Public Power.

John Morley,
Chairman

VPPSA Members

Barton Village - The Village of Barton is located in the northeast corner of Vermont in Orleans County. It was incorporated in 1789 and its electric department was formed in 1893. Its service area is between fifteen and twenty square miles within the Town of Barton boundaries and portions of the Towns of Brownington, Charleston, Irasburg, Sutton and Westmore. During 2014, the Village provided electrical service to 2,170 customers, most of which were residential customers accounting for 75% of energy sales, followed by commercial customers at 19%, and the remaining 6% from area lighting and other. During 2014, the Town experienced a peak demand in January of approximately 3,074 kW. ***VPPSA Director: Tin (Justin) Barton-Caplin (Alternate Director)***

The Village of Enosburg Falls - The Village of Enosburg Falls is located in the northwest corner of Vermont in Franklin County. It was incorporated in 1886 and its electric department was formed in 1896. It serves a 70 square mile service area within the Village boundaries and the Towns of Enosburg, Sheldon, Bakersfield, Berkshire and Franklin. During 2014, the Village provided electrical service to 1,706 customers, most of which were residential customers accounting for 51% of energy sales, followed by large commercial and industrial sales of 37%, small commercial sales at 7%, and the remaining 5% from area lighting and other. During 2014 the Village experienced a peak demand in January of approximately 4,775 kW. ***VPPSA Director: Jonathan Elwell***

Hardwick Electric Department - The Town of Hardwick is located in the north central portion of Vermont in Caledonia County. It was incorporated in 1894 and its electric department was formed in 1897. The Hardwick Electric Department serves a 174 square mile service area within the Towns of Hardwick, Craftsbury, Greensboro, Woodbury, Wolcott, Calais, Elmore, Hyde Park, Stannard and Walden. During 2014, the Town experienced a peak demand in January of approximately 7,032 kW and provided service to 4,492 customers, most of which were residential customers accounting for 71% of energy sales, followed by small commercial sales at 15%, large commecial and industrial sales at 13%, and other sales at less than 1%. ***VPPSA Director: Mike Sullivan***

The Village of Hyde Park - The Village of Hyde Park was incorporated in 1894 and is located in the north central portion of Vermont in Lamoille County. It serves customers within the Village boundaries and extending throughout the Town of Hyde Park and into a small portion of the Town of Johnson. During 2014, the Village provided electrical service to 1,383 customers, most of which were residential customers accounting for 72% of energy sales, followed by commercial customers at 23%, and the remainding 5% from area lighting and other. During 2014, the Village experienced a peak demand in January of approximately 2,424 kW. ***VPPSA Director: Carol Robertson***

The Village of Jacksonville - The Village of Jacksonville is located in southern Vermont in Windham County. It was incorporated in 1904 and its electric department was formed the same year. It serves a 50 square mile service area within the Village boundaries and the Town of Whitingham. During 2014, the Village provided electrical service to 700 customers, most of which were residential customers accounting for 73% of energy sales, followed by commercial customers at 27%, and less than 1% from area lighting and other. During 2014, the Village experienced a peak demand in January of approximately 1,137 kW. ***VPPSA Director: Joseph Winter***

The Village of Johnson - The Village of Johnson is located in the northern part of Vermont in Lamoille County. The Village was chartered in 1894 and it's electric and water departments were formed the same year. Its service area is the Village of Johnson, extending a limited distance into the Town of Johnson, comprising approximately 30 miles of distribution lines. During 2014, the Village provided electrical service to approximately 944 customers. Of these, residential customers account for 38% of energy sales, followed by small and large commercial customers at 26%, industrial customers at 30% and the remaining 6% from area lighting and other. The largest user by kWh is Johnson State College. During 2014, the Village experienced a peak demand in January of approximately 2,681 kW. ***VPPSA Director: Walter Pomroy (Alternate Director)***

VPPSA Members

The Village of Ludlow Electric Dept. - The Village of Ludlow is located in the south central portion of Vermont in Windsor County. It was incorporated in 1866 and its electric department was formed in 1900. It serves a 23 square mile service area within the Village boundaries and portions of the Towns of Ludlow, Cavendish, Proctorsville and Plymouth. During 2014 the Village experienced a peak demand in December of approximately 12,200 kW and served 3,758 customers. Skiing is an important industry in the area. In 2014, residential customers accounted for 35% of energy sales, large commercial and industrial customers accounted for 28%, and small commercial customers accounted for 36% of energy sales. The remaining less than 1% of sales came from area lighting and other customers. ***VPPSA Director: James Pallotta***

The Village of Lyndonville - The Village of Lyndonville is located in the north east portion of Vermont in Caledonia County, an area known as the Northeast Kingdom. It was incorporated in 1880 and the electric department was formed in 1894. It serves a 246 square mile service area within the Village boundaries and the Towns of Burke, East Haven, Glover, Kirby, Lyndon, Newark, Sheffield, St. Johnsbury, Sutton, Westmore and Wheelock. The Village provided service in 2014 to 5,664 customers, and experienced a peak demand in January of approximately 13,309 kW. In 2014, residential customers accounted for 48% of energy sales, large commercial and industrial accounted for 24%, small commercial customers accounted for 16% of energy sales, and the remaining 12% came from street lighting and other. ***VPPSA Director: Kenneth Mason***

The Village of Morrisville Water & Light Dept. - The Village of Morrisville is located in the north central portion of Vermont in Lamoille County. It was incorporated in 1884 and its electric department was formed in 1895. It serves a 73 square mile area within the Village boundaries and the Towns of Morristown, Elmore, Hyde Park, Stowe, Wolcott and Johnson. During 2014, the Village provided service to 3,986 customers, and had a peak demand in December of approximately 9,446 kW. In 2014, residential customers accounted for 47% of energy sales and commercial and industrial customers accounted for 53% of energy sales and less than 1% came from street lighting and other. ***VPPSA Director: Craig Myotte***

The Town of Northfield Electric Dept. - The Town of Northfield is located in the central portion of Vermont in Washington County. It was chartered in 1781 and its electric department was formed in 1894. It serves a 13 square mile service area within the Towns of Northfield, Berlin and Moretown. During 2014, the Village served 2,223 customers and had a peak demand in January of approximately 5,105 kW. In 2014, residential customers accounted for 36% of energy sales and commercial and industrial customers 57%, with its largest industrial accounting for 29% of energy sales. The remaining 7% of usage came from area lighting and other. ***VPPSA Director: Stephen Fitzhugh***

The Village of Orleans - The Village of Orleans is located near the Canadian border in Orleans County. It was incorporated in 1789 and its electric department was formed in 1925. It serves 38 miles of electric line within the Village boundaries and portions of the Towns of Barton, Brownington, Coventry and Irasburg. During 2014, the Village provided electrical service to 669 customers, most of which were residential customers accounting for 32% of energy sales, followed by commercial customers at 14%, and 4% from area lighting and other. The Village's largest customer is an industrial customer that accounts for 50% of energy sales. During 2014, the Village experienced a peak demand in January of approximately 3,467 kW. ***VPPSA Director: John Morley III***

Swanton Village - Swanton Village is located in the upper northwest portion of Vermont in Franklin County. It was incorporated in 1888 and the electric department was formed in 1894. It serves an area of 56 square miles within the Village boundaries and the Towns of Swanton and Highgate Falls. During 2014 the Village served 3,632 customers, and experienced a peak demand of approximately 10,356 kW in July. In 2014, residential customers accounted for 49% of energy sales, commercial and industrial customers accounted for 48% of energy sales and the remaining 6% from area lighting and other. ***VPPSA Director: Reginald Beliveau, Jr.***

2015 Highlights

Rates and Planning

During 2015 the rates group supported members' ongoing regulatory reporting needs (annual reports, DOE reports, SQRP related reports), and worked collaboratively with the regulators in various areas including ongoing development and filing of multiple member Transmission and Distribution sections for their IRPs; this effort continues into 2016. The department also participated in development of net metering rule revisions, attending workshops and providing analysis and content to be included in VPPSA's formal comments to the PSB.

The department continues to support resolution of day-to-day net metering related billing challenges and continues to refine planning tools used to project retail revenue, anticipate financing, and identify rate increase requirements. The department successfully completed the Swanton Class Cost of Service and Rate Design Study, which, after investigation, was approved and implemented as filed. The one rate case that was required this year is ongoing at year end, with a resolution expected in the upcoming first quarter. Considerable resources were dedicated to following and supporting settlement efforts related to the Docket No. 8492 Standard Offer Wheeling dispute; a favorable settlement was ultimately reached and has been approved by the PSB.

Other highlights from the year include development of a tariff to support implementation of Electric Vehicle charging stations, attendance at a seminar focused on depreciation issues for the electric industry, and participation in a variety of other internal cross training efforts including NERC/NPCC compliance activities. Department members participated closely in the development of the Deep Thunder weather forecasting effort, attended regular MEAV meetings and performed various ad hoc analyses.

During 2015 the environment surrounding rate filing activity continued to require a high level of formality, along with the likelihood of investigation in any given instance. We continue to work to maintain a positive relationship with our stakeholders and regulators. On an internal note, the department has worked to contribute and support the ongoing strategic planning efforts aimed at helping guide VPPSA into the future.

As the group looks toward 2016, we anticipate taking on new challenges while continuing the expectation of success in meeting rate case and rate design workload, enhancing financial planning tools and efforts, and continuation of its usual efforts in the regulatory reporting and ad hoc analysis areas. The group continues to commit resources to cross-training and fostering department members' professional growth.

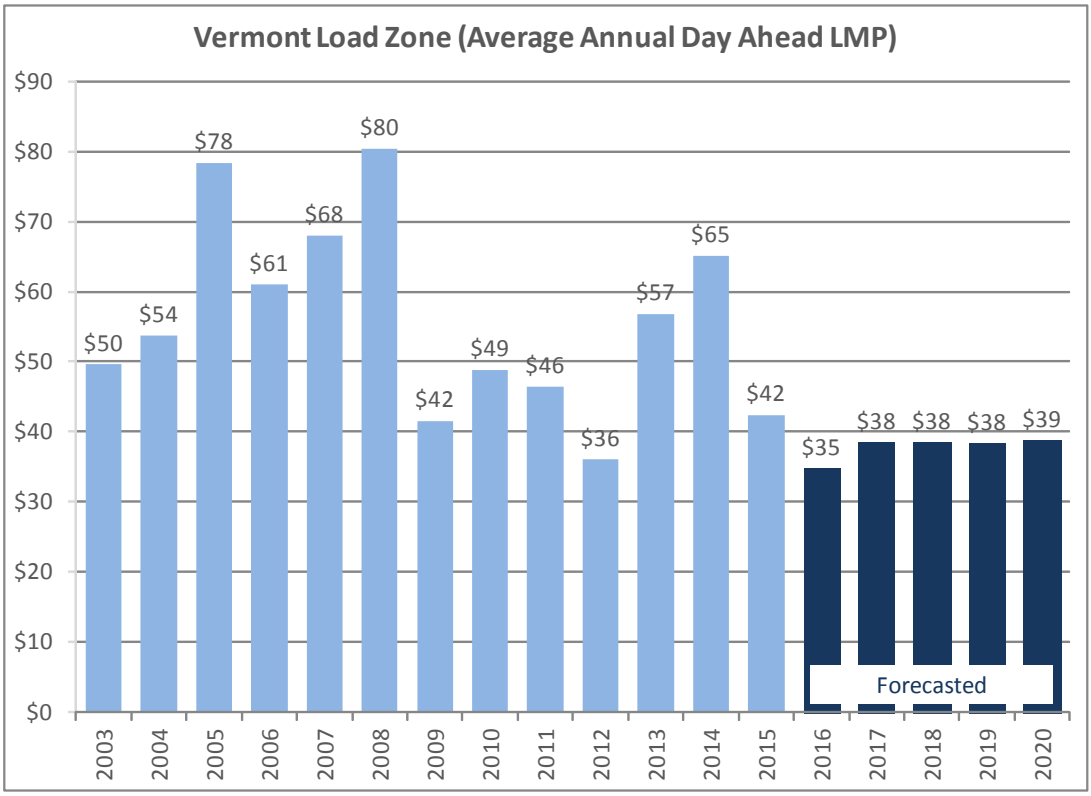
Power Supply

Power Supply Agreements – VPPSA remains active in the New England power markets. Many counterparties brought new and existing projects to VPPSA for possible long term Power Purchase Agreements in 2015. VPPSA currently has resources for roughly 90% of its expected needs through the year 2022. Fuel diversity is an important characteristic of any portfolio. While many renewable attributes have been sold to satisfy other New England State Renewable Portfolio Standards, a diversified fuel mix protects the VPPSA members from sudden price spikes due to fuel price volatility as experienced in the winter periods of 2013 and 2014. Additionally, many of the resources shown above have fixed prices, further insulating the VPPSA members' costs for wholesale power.

Planned Purchasing – VPPSA continued its Planned Purchasing program during 2015. Under the Planned Purchasing approach, VPPSA reviews future market exposure every six months with the intent of avoiding the uncertainty and volatility of very short term (spot) market purchases. Twice a year, in the spring and fall, VPPSA offers its members an opportunity to purchase, for a two year period, one quarter of their future energy needs that are not met by long-term contracts. By staggering the purchases, the market needs of the member

2015 Highlights

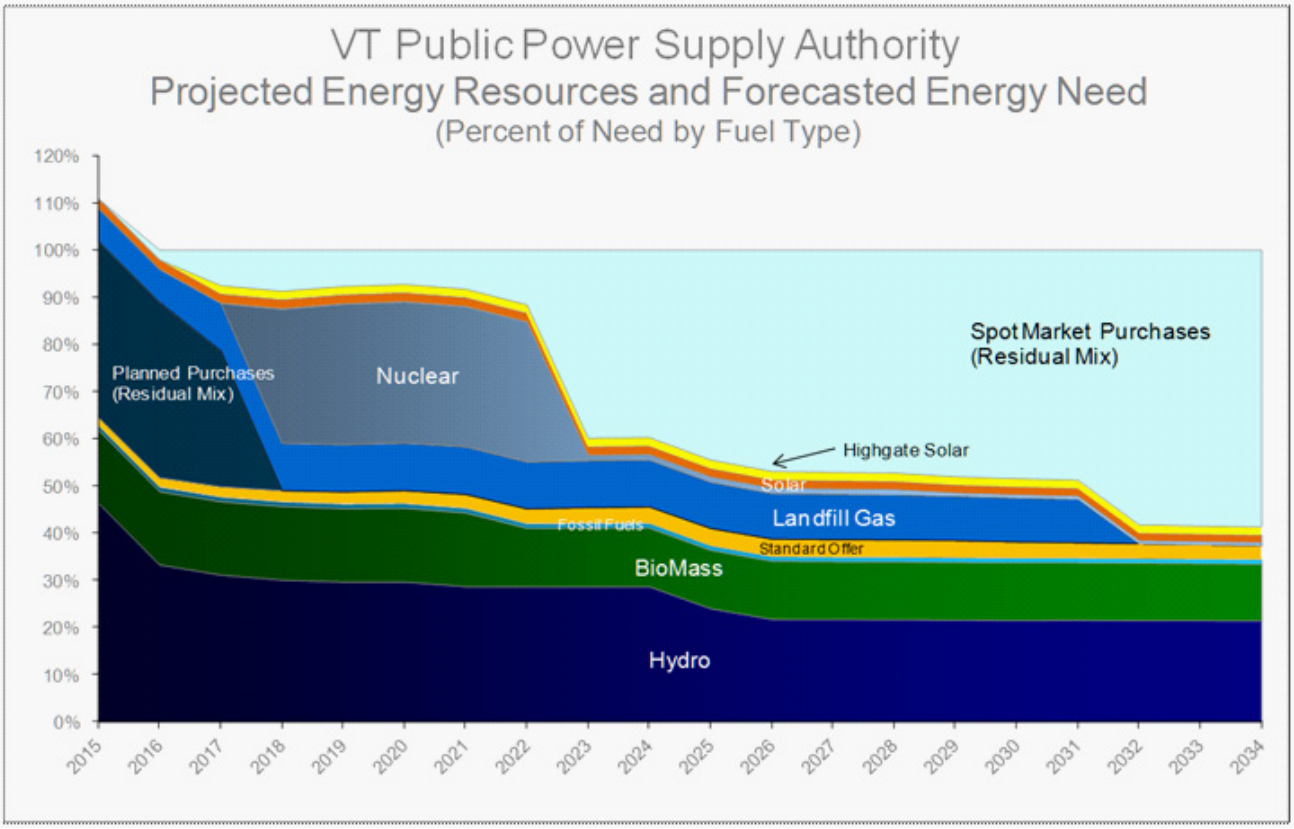
utilities at any given point are met by contracts purchased at four different times. This is very similar to the concept of dollar cost averaging used in investing and results in lower volatility in realized power prices. The implementation of Planned Purchasing is structured and systematic but does not remove the need for continual market monitoring and judgment. As seen below, the future prices for these anticipated energy purchases are currently lower than the average price experienced in 2015, likely reducing the average overall cost of the energy portfolio for VPPSA members.



Project Initiatives — VPPSA has remained active in attempting to secure long-term power purchase agreements during 2015. Future electricity and natural gas prices have declined, helping create an environment for VPPSA to negotiate long term Purchase Power Agreements and secure fixed price contracts at a rate at or below current purchase power rates. VPPSA membership has indicated that fuel diversity is a priority, and Power Supply staff continues to review projects with various fuel technologies. 2015 saw discussions on power generation fueled by solar, wind, and small hydro. Discussion for resources powered by solar energy was the primary focus in 2015, with an agreement for up to 5 MW's of solar generation approaching

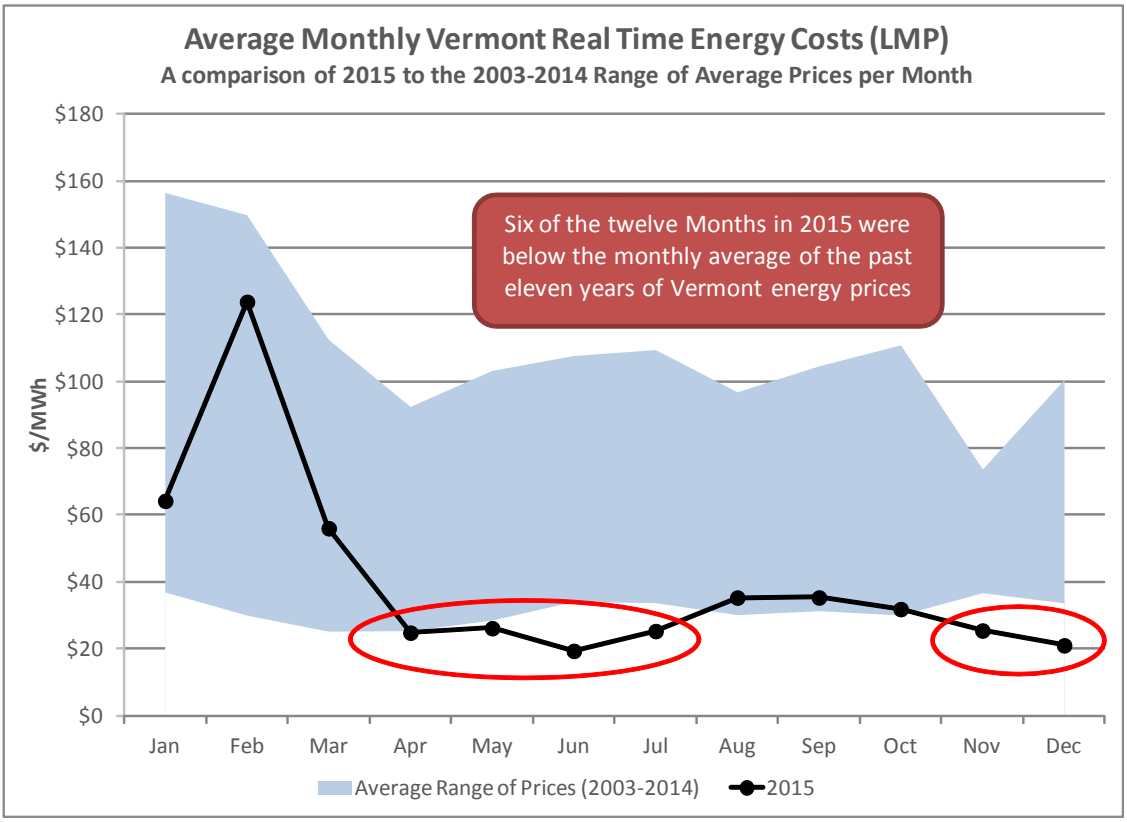
2015 Highlights

the final stages as 2015 drew to a close. The chart below shows VPPSA's overall energy resource position with the addition of this new "Highgate Solar" resource. 2015 also saw VPPSA awarded two Standard Offer contracts for a 485 kW solar facility and a 500 kW solar facility from the State of Vermont. The output from these projects will benefit most of the state's utilities.



Wholesale Market Prices – Average annual wholesale market prices for the Vermont zone decreased in 2015, with dramatic decreases in the last three quarters. Standard Market Design ("SMD") was implemented by ISO New England in March of 2003 to bring competitive market forces into the wholesale electricity marketplace and help spur investment in New England's electricity infrastructure. The chart on the next page shows that prices for energy in the summer and even the beginning of winter have fallen below the average monthly price since the current market began. In contrast, the winter average price for February 2015 was the second highest average price seen since 2003, highlighting the continued volatility of the energy markets with extreme highs and lows in recent years. VPPSA's current portfolio of resources has been able to protect the members from much of this volatility.

2015 Highlights



Information Systems and Support Services

Information Systems staff continued to have a presence in the local offices of the VPPSA member systems throughout 2015. Activities centered on the continued support of the central computer project, regulatory reporting, LAN support and remote metering. The hardware for the central computer project was replaced during 2015, and the Information Systems Specialist supported the conversion to the new Harris platform for the participants. Support was also provided for data conversion activities for those moving off of the platform.

The computing resources at Project 10 continued to be a focus during 2015 and the conversion work was completed. Ongoing tasks are in place to insure NERC compliance.

A great deal of development work was completed to support the ongoing changes to the Power Supply activities at VPPSA. This work will continue into 2016. A major upgrade to the MV90 Metering Interrogation Software is also planned for 2016.

This work complements the efforts of Information Systems staff to facilitate all aspects of maintenance of the VPPSA facilities. These efforts include building maintenance, equipment orders and maintenance, supplies and any other support services that are required.

2015 Highlights

Finance

The overall financial integrity of the Authority continues to remain strong. This is attributable to a sound membership with a commitment to timely payments. This provides the Authority with a strong cash flow position and little need to draw on the Authority's operating line of credit. In 2015 and 2014, the Authority realized an increase in net assets of approximately $2.0M and $2.5M, respectively.

With the addition of approximately $35.2M in assets and liabilities since 2008, VPPSA's balance sheet has seen significant growth, nearly doubling its size (74% increase). This growth is primarily due to the 2009 construction of a new generating facility located in Swanton, Vermont known as "Project #10," the cumulative purchases of membership units in Vt. Transco, LLC, (TRANSCO), Vermont's transmission provider, and more recently, the facility upgrades implemented at the Highgate Convertor Facility, in which VPPSA holds a 9.36% ownership share.

Project 10 became fully operational in 2010, and as of February 1, 2010, the project participants are being invoiced and meeting their obligations as established under the Power Sales Agreements with the Authority. The economic benefits the participants received in 2015 exceeded the participant cost by approximately $973K, making the project beneficial to those participants by reducing their overall power supply costs.

Over the last several years, the distribution utilities have had the opportunity to purchase equity in the form of membership units in Vermont's transmission provider, Vt. Transco, LLC. As an alternative to purchasing the membership units directly, those utilities that are members of the Authority, or are eligible to be a member of Authority, have the option to direct the Authority to purchase the units that are so offered to that utility, should the Authority's Board of Directors authorize overall financing of the purchases. As a result, the Authority has worked with its members and one non-member cooperative, to help facilitate their ability to realize the economic benefits of these offers. As of December 31, 2015, the Authority owns a total of 4,078,994 TRANSCO membership units, at a value of $40,789,940 for the direct benefit of its members and one non-member cooperative. As shown in the Authority's financial statements, TRANSCO equity purchases earn an average rate of return of 12.51%. Currently, this rate of return is significantly higher than the related debt service, resulting in an economic benefit that is passed on to the members and/or non-members. This provides an additional revenue stream that reduces the members' costs and ultimately the cost to their ratepayers.

During 2015 and 2014, the Authority continued to pay down principal on existing debt obligations (bonds and long-term debt) in the amount of $5.5M and $11.6M, respectively. This decline in debt levels further strengthens the Authority's financial position. A major milestone in 2015 was the maturity of the McNeil bonds that were issued in the 1980's, with the final bond payment paid on July 2, 2015.

In 2015, Moody's Investor Services conducted a review of the rating assigned to the Authority's Project 10 project revenue bonds. Moody's maintained the Project 10 revenue bonds rating of Baa1 with a stable outlook. Due to the maturity of the McNeil project revenue bonds, the McNeil rating was not reviewed.

VPPSA Projects

The Authority has knowledge, experience, and access to tax-free bond financings. Its current projects include the following:

The J.C. McNeil Generating Facility (Project #2) - The Authority owns 19% of the J. C. McNeil Generating Facility, located in Burlington, Vermont. The McNeil Station is managed by the Burlington Electric Department, which is the majority owner. McNeil continues to provide a reliable source for the project participants. The following chart identifies the capacity and availability factors for the plant over the last ten (10) years and demonstrates that the plant has been, and continues to be, a dependable resource for its owners. A major VPPSA milestone was realized in July 2015 with the maturity of the McNeil revenue bonds that were issued to construct the project in the early 1980's.

Year	Capacity Factor	Availability Factor
2015	66.3%	82.3%
2014	65.7%	82.5%
2013	72.9%	89.7%
2012	51.3%	83.8%
2011	51.9%	84.9%
2010	62.1%	89.7%
2009	50.8%	89.3%
2008	57.6%	91.9%
2007	64.6%	91.5%
2006	60.4%	92.8%

VPPSA Projects

The Swanton Peaker Generating Facility (Project #10) – The Authority owns 100% of the peaking generating facility located in Swanton, Vermont. This facility was completed and entered commercial operation in 2010. The project consists of two GE Frame 5N turbines, each rated at 24 mW. As a peaking facility, the facility is expected to operate infrequently. In 2015, 2014, 2013 and 2012, Unit one had an availability factors of 99%, 99%, 100% and 96%, respectively; and Unit two had an availability factors of 99%,100%, 97% and 86%, respectively. The two units combined, ran for a total of 126 hours in 2015, 74 hours in 2014, 92 hours in 2013 and 42 hours in 2012 and produced 904.46 MWhrs of energy in 2015, 225.28 MWhrs in 2014, 539.87 MWhrs of energy in 2013 and 318.98 MWhrs of energy in 2012. The two GE Frame 5N turbines are able to produce maximum capable output (24 MW) within ten minutes of being energized from a standing (off) state. This gives the units "Fast-Start" capabilities with the ISO-NE wholesale markets. The units are remotely controlled by the operators of the New England power grid, allowing the operators to quickly dispatch the units to help keep the power grid stable. The following chart identifies the capacity and availability factors for the plant since it began operation in 2010.

Year	Capacity Factor	Availability Factor
2015	.9%	98%
2014	.1%	99%
2013	.2%	96%
2012	.1%	91%
2011	.1%	98%
2010	.6%	96%

The Highgate Converter Station (Project #3) – The Authority owns 9.36% of the 225 mW AC-DC-AC converter station which connects the US and Quebec electric grids at Highgate, Vermont. The converter station provides Vermont with electricity imports from the Hydro-Quebec Trans Energie grid. The converter's availability remains above the industry average of 94-95%, and forced outages have been kept exceptionally low due to proactive maintenance on the facility equipment. Highgate continues to demonstrate outstanding reliability with a 2015 availability rate of 97.5%. The converter station's availability rate is similar to that of prior years (97.6% in 2014 & 2013, 88.8% in 2012, 97.4% in 2011, 97.6% in 2010, 96.6% in 2009, 97.5% in 2008, 98.0% in 2007, 97.7% in 2006, and 98.5% in 2005). The Authority relies on the technical expertise of the Vermont Electric Power Company to provide the operations and maintenance support for the converter station.

This report, along with the 2015 Independent Auditors' Report, is included on the CD attached to the back cover in electronic format for your convenience. Questions concerning any of the information found in this report, requests for additional information, or requests for written copies should be directed to:

Crystal L. Currier, Controller
Vermont Public Power Supply Authority
P.O. Box 126
Waterbury Center, VT 05677
(802) 882-8501

The information may also be accessed on our website: www. vppsa.com

Our Audit was performed by:

Graham & Graham, P.C.
www.grahamcpa.com