

**V**ermont

**P**ublic

**P**ower

**S**upply

**A**uthority

ANNUAL  
REPORT

2014

***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.***

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**Joint Action at Work**

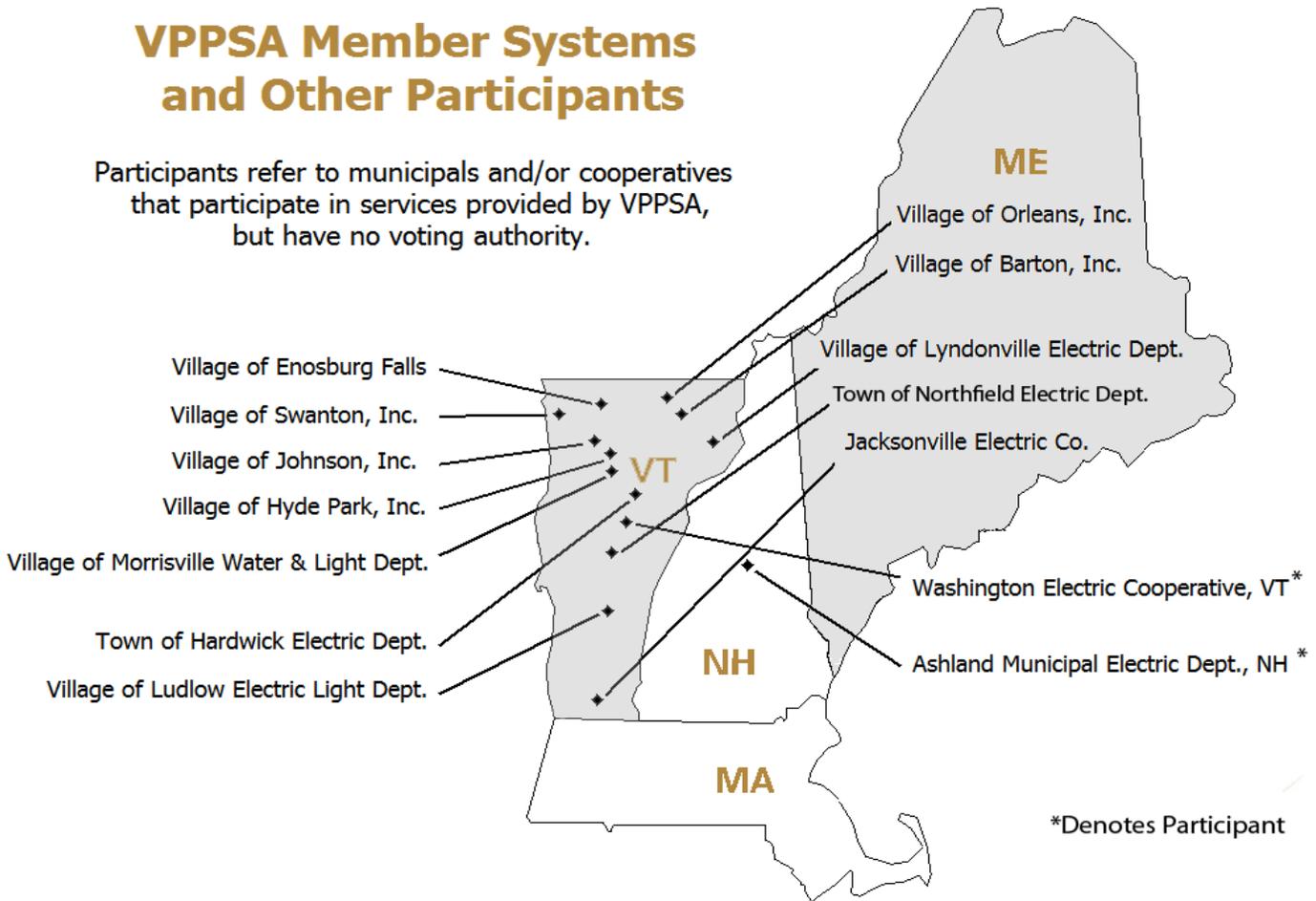
Vermont Public Power Supply Authority (“VPPSA”) is a joint action agency established by act of the Vermont General Assembly on July 1, 1979 and codified as Title 30 VSA, Chapter 84. VPPSA is an instrumentality of the State of Vermont, which primarily means that as a governmental agency, bonds or notes 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.



\*Denotes Participant

## Message from the Chairman



VPPSA and its twelve municipal electric utility member systems continued their collective work on a number of key fronts in 2014, as we continue to meet the ever-present challenges involved in maintaining reliable, customer-oriented electric service at competitive and stable rates. As even the casual observer cannot help but note, the electric industry is one of both rapid changes and intense public interest. Those changes and that interest encompass such diverse areas as renewable resource development generally, self generation by customers, cyber and physical security issues, and a myriad of other changes. VPPSA and its members continue to evaluate and explore technologies and approaches that fit our utility and customer needs in all of these areas. On the financial side, VPPSA continues to be in a strong position, and in 2014 we maintained our positive bond ratings and purchased additional TRANSCO equity units for the benefit of several of our members. Our continued ownership and operation of the Swanton peaker plant is another key part of our work, and the financial performance of that plant was very positive

in 2014. It should also be noted that the final bond payments on our McNeil bonds will take place in 2015.

On the legislative and regulatory sides, we continue to be active at the state, regional and even federal levels. In 2014, we were able to play a key role in a NEPOOL vote to encourage ISO-NE to include solar and other distributed generation in its future load forecasts, thereby lowering those forecasts and benefiting consumers. We have been and continue to be active in the Public Service Board process implementing Vermont's aggressive net metering program, and in state legislative and regional matters involving Vermont's renewable energy programs and other matters, and have attended the American Public Power Association Legislative Rally in March. A number of our VPPSA Board members also serve as Board and key committee members in the Northeast Public Power Association, thereby enabling us to work closely with public power colleagues throughout the region.

The power supply and other reports contained within this 2014 Annual Report reflect our continuing approach of securing a stably priced, diverse and long-term portfolio that reflects the needs and wishes of our member systems as well as the requirements of law, and further reflects our continued efforts to ensure that VPPSA, while perhaps not large in size, is a key and effective voice for its member utilities. I greatly appreciate the hard work that our VPPSA Board of Directors and staff have done over the past year in meeting the many challenges that face our industry in general and the non-profit public power community as an important segment of that industry. Of particular note have been the efforts of Board and staff in the development of new Vision and Mission Statements for VPPSA, and the laying of the groundwork for the strong strategic planning efforts to follow.

Duncan Hastings,  
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 2013, the Village provided electrical service to 2,167 customers, most of which were residential customers accounting for 73% of energy sales, followed by commercial customers at 20%, and the remaining 7% from area lighting and other. During 2013, the Town experienced a peak demand in December of approximately 3,601 kW. *VPPSA Director: Brian Hanson (through September 30, 2014)*

**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 2013, the Village provided electrical service to 1,694 customers, most of which were residential customers accounting for 49% of energy sales, followed by large commercial and industrial sales of 40%, small commercial sales at 6%, and the remaining 5% from area lighting and other. During 2013 the Village experienced a peak demand in July of approximately 5,014 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 2013, the Town experienced a peak demand in December of approximately 6,717 kW and provided service to 4,467 customers, most of which were residential customers accounting for 72% of energy sales, followed by small commercial sales at 14%, large commercial 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 2013, the Village provided electrical service to 1,374 customers, most of which were residential customers accounting for 73% of energy sales, followed by commercial customers at 22%, and the remaining 5% from area lighting and other. During 2013, the Village experienced a peak demand in December of approximately 2,447 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 2013, the Village provided electrical service to 702 customers, most of which were residential customers accounting for 72% of energy sales, followed by commercial customers at 28%, and less than 1% from area lighting and other. During 2013, the Village experienced a peak demand in December of approximately 1,117 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 its 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 2013, the Village provided electrical service to approximately 937 customers. Of these, residential customers account for 38% of energy sales, followed by small and large commercial customers at 24%, industrial customers at 31% and the remaining 7% from area lighting and other. The largest user by kWh is Johnson State College. During 2013, the Village experienced a peak demand in December of approximately 2,710 kW. *VPPSA Director: Duncan Hastings*

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## VPPSA Members

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**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 2013 the Village experienced a peak demand in January of approximately 12,063 kW and served 3,689 customers. Skiing is an important industry in the area. In 2013, residential customers accounted for 34% of energy sales, large commercial and industrial customers accounted for 23%, and small commercial customers accounted for 42% 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 1896. 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 2013 to 5,642 customers, and experienced a peak demand in January of approximately 13,468 kW. In 2013, residential customers accounted for 49% of energy sales, large commercial and industrial accounted for 24%, small commercial customers accounted for 16% of energy sales, and the remaining 11% 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 Morrystown, Elmore, Hyde Park, Stowe, Wolcott and Johnson. During 2013, the Village provided service to 3,896 customers, and had a peak demand in July of approximately 9,160 kW. In 2013, 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 Electric Department is located in the central portion of Vermont in Washington County and was formed in 1894. It serves a 13 square mile service area within the Towns of Northfield, Berlin and Moretown. During 2013, the Town of Northfield Electric Department served 2,231 customers and had a peak demand in December of approximately 5,167 kW. In 2013, residential customers accounted for 36% of energy sales and commercial and industrial customers 56%, with its largest industrial accounting for 28% of energy sales. The remaining 8% 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 2013, the Village provided electrical service to 669 customers, most of which were residential customers accounting for 33% of energy sales, followed by commercial customers at 13%, and 4% from area lighting and other. The Village's largest customer is an industrial customer that accounts for 50% of energy sales. During 2013, the Village experienced a peak demand in January of approximately 3,499 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 2013 the Village served 3,650 customers, and experienced a peak demand of approximately 10,657 kW in July. In 2013, residential customers accounted for 48% of energy sales, commercial and industrial customers accounted for 46% of energy sales and the remaining 6% from area lighting and other. **VPPSA Director: Reginald Beliveau, Jr.**

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## 2014 Highlights

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### Rates and Planning

During 2014 the rates group supported members' ongoing regulatory reporting needs and worked collaboratively with our regulators in various areas including contributing to development of the T&D section of the next IRP iteration, development of net metering rule revisions, clarification of rate filing and rate design requirements, and on other emerging issues. 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 rate increase requirements, and has performed various other analyses as needed.

Other highlights from the year include the revision and filing of all members' Net Metering tariffs to be compliant with Act 99, final implementation of rates from the second phase of the Lyndonville class cost of service and rate design study, successful completion of an investigated rate filing and the subsequent filing of a related Class Cost of Service and Rate Design Study which is an ongoing proceeding at year end.

During 2014 we have seen the environment surrounding rate filing activity stabilize, although the level of formality remains high, along with the likelihood of investigation in any given instance. We continue to work to maintain a positive relationship with our stakeholders and regulators. The department participated in, or provided input to, conferences, hearings and workshops related to various dockets and emerging regulatory issues, including state-wide efforts to create a Vermont Weather Analytics Center. 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 2015 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

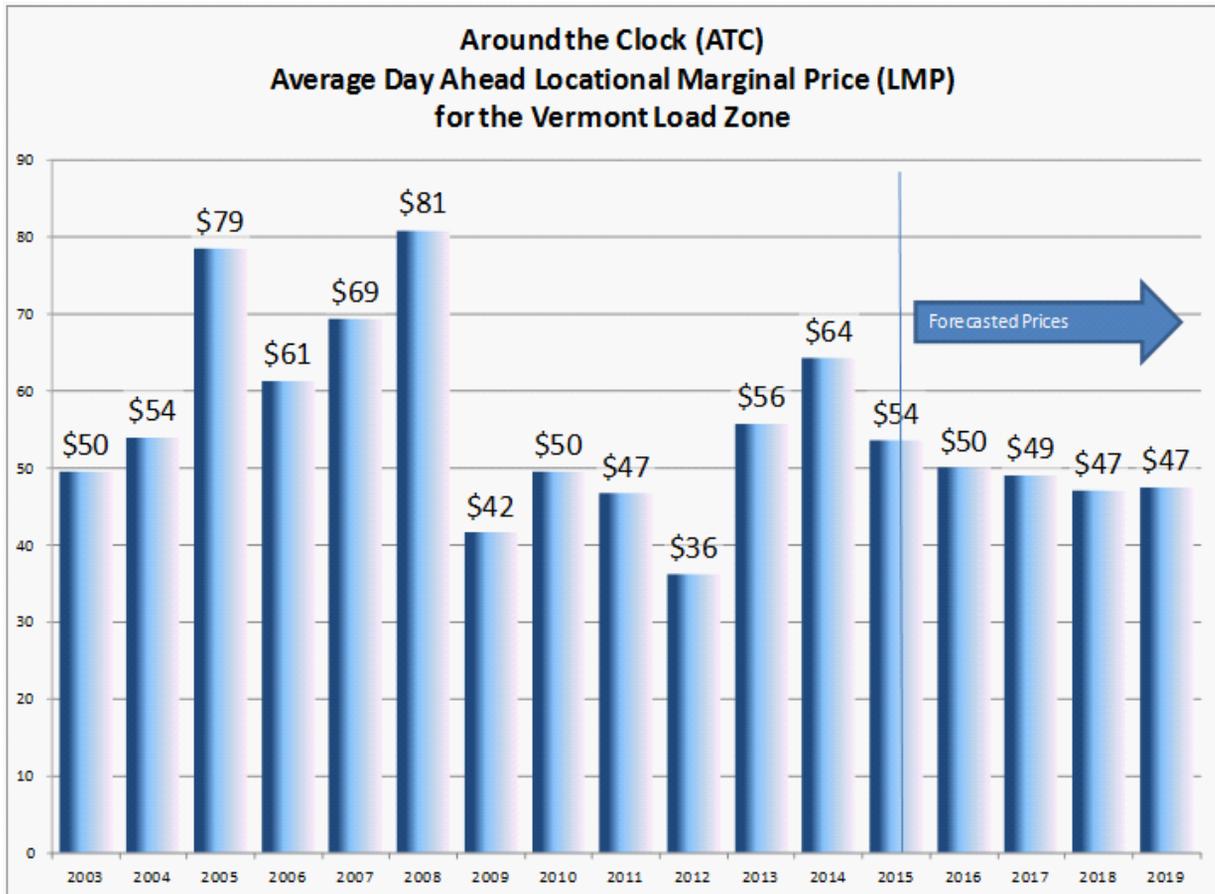
Power Supply Agreements – VPPSA remains active in the New England power markets. Many counterparties brought new and existing projects to VPPSA for possible long term Power Purchase Agreements in 2014. VPPSA currently has resources for roughly 85% of its expected needs through the year 2022. Fuel diversity 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 recently experienced in the last two winter periods for New England. Additionally, many of the resources have fixed prices, further insulating the VPPSA members costs for wholesale power.

Planned Purchasing – VPPSA continued its Planned Purchasing program during 2014. 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 utilities at any given point are met by

## 2014 Highlights

### Power Supply

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. Given the activity of securing long term PPA's and replacement power, no purchase recommendations were given to the member systems in 2014 as many are significantly hedged through 2022. 2015 is expected to bring new recommendations as the VPPSA Board of Directors has requested that at least 95% of expected needs for energy be covered by resources. As seen below, the future prices for these anticipated energy purchases are currently lower than the average price experienced in 2014.

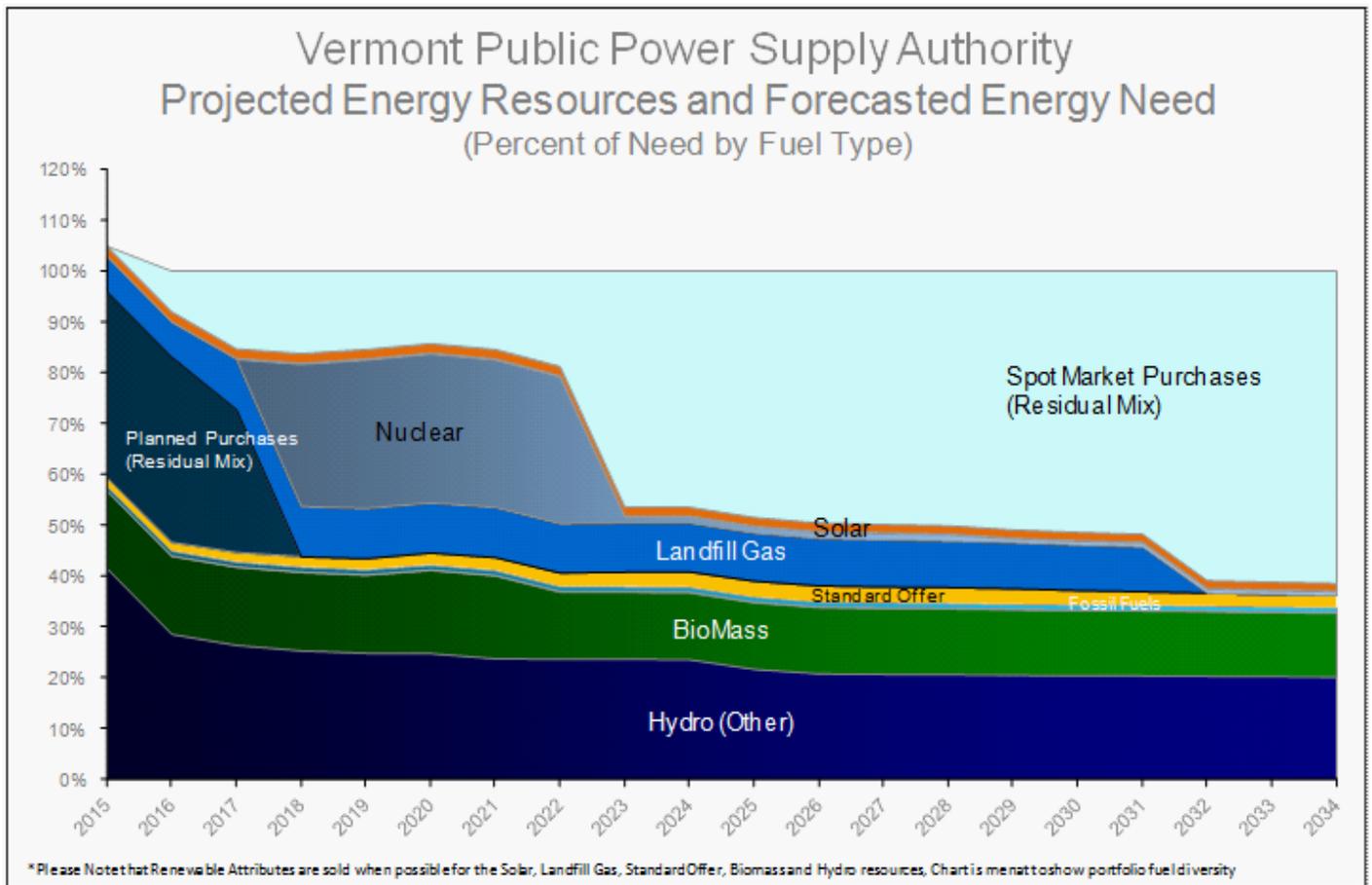


**Project Initiatives** — VPPSA has remained active in attempting to secure long-term power purchase agreements during 2014. Future Electricity and Natural Gas prices have continued to remain stable, allowing VPPSA to negotiate long term Purchase Power Agreements to secure fixed price contracts at a rate at or below current purchase power rates. A 25 year contract for up to 10 MW's of energy and capacity from Massachusetts solar projects was finalized in 2013, benefitting six of the VPPSA members. The initial five MW's began operating July of 2014. The initial contract called

## 2014 Highlights

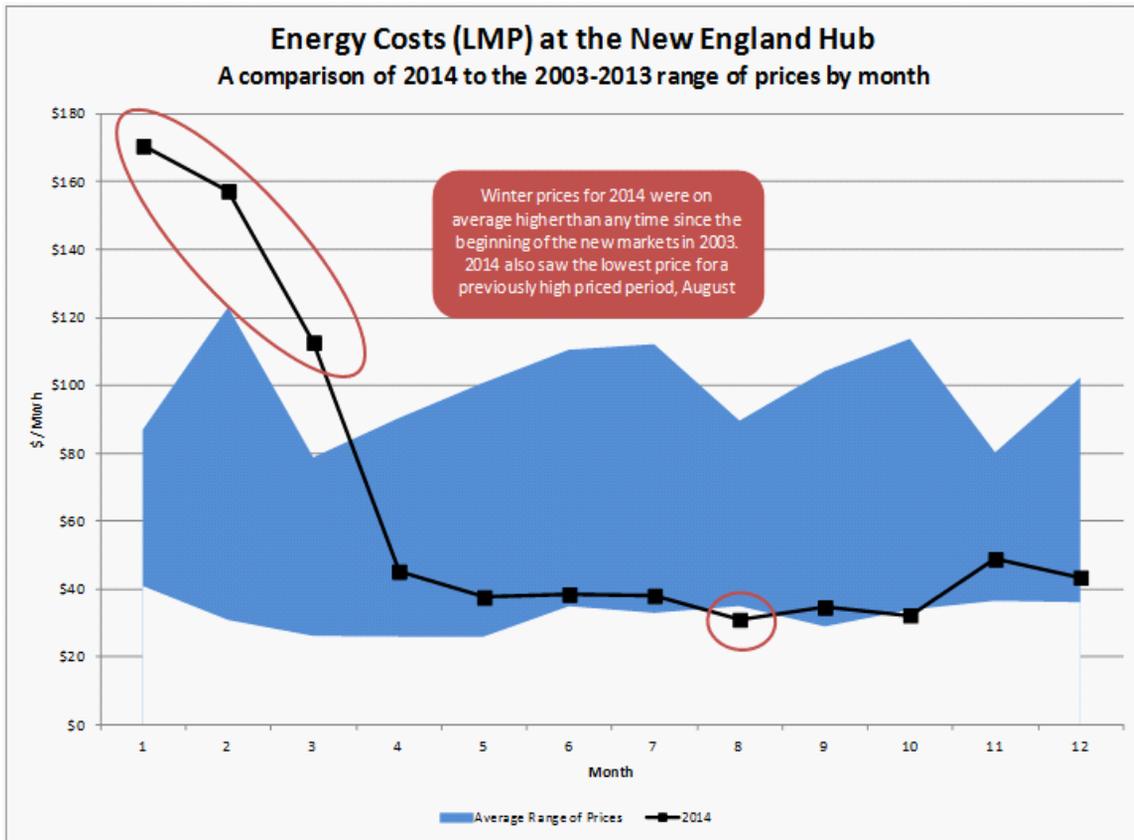
### Power Supply

for five additional MW's to be supplied, but the developer has chosen not to pursue that option. VPPSA membership has indicated that fuel diversity is a priority, and Power Supply staff continues to review projects with various fuel technologies. 2014 saw discussions on power generation fueled by farm and landfill methane, solar, biomass, wind, small hydro, and natural gas.



Wholesale Market Prices – Average annual wholesale market prices for the Vermont zone increased in 2014, with dramatic increases in the winter months. Standard Market Design (“SMD”) was implemented by ISO New England in 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 recent winter prices for energy have exceeded all monthly averages since 2003 (the beginning of the current wholesale market), while setting new minimums in the summer. VPPSA’s current portfolio of resources has been able to protect the members from much of these dramatic price increases.

## 2014 Highlights



## Information Systems and Support Services

The computing resources at Project 10 in Swanton continued to be a focus during 2014. Much work was done to support the changing environment at the plant. Conversion work will be completed in early 2015. Once completed, ongoing tasks will be in place and scheduled to insure NPCC compliance.

Information Systems staff continued to have a presence in the local offices of the VPPSA member systems throughout 2014. Activities centered on the continued support of the central computer project, regulatory reporting, LAN support and remote metering. 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 we are called upon to complete.

The replacement of the hardware for the Central computer was completed during 2014. VPPSA staff is working with the member system staffs to complete the conversions in 2015. We will focus on supporting the new infrastructure as well during early 2015.

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## 2014 Highlights

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### Finance

The overall financial integrity of the Authority continues to remain strong. This is attributed 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 2014 and 2013 the Authority realized an increase in net assets of approximately \$3.0M and \$2.0M, respectively.

With the addition of approximately \$38.6 in assets and liabilities since 2008, VPPSA's balance sheet has seen significant growth, nearly doubling its size (82% 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 most recently, the facility upgrades implemented at the Highgate Converter Facility, of 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.

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. 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, 2014, 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.

The upgrades at the Highgate Converter project are discussed further in the report under "VPPSA Projects, The Highgate Converter Station (Project #3). From a financial perspective, the facility upgrades were funded through the use a line-of-credit specific for this purpose. This line of credit was converted to long-term debt in April of 2013 at a fixed interest rate (fixed through an interest rate swap) at 4.1%, for a period of 10 years. The debt service is invoiced to project participants and those participants are meeting their obligations as established under the Transmission Services Agreements with the Authority.

During 2014 and 2013, the Authority continued to pay down principal on existing debt obligations, paid one (1) debt obligation in full and entered into one (1) new debt obligation to facilitate the additional purchases of TRANSCO membership units for the benefit of certain of the Authority's members. A major milestone will be the maturity of the McNeil bonds that will occur in June, 2015.

In 2014, Moody's Investor Services conducted a review of the ratings assigned to the Authority's Project 10 project revenue bonds and the McNeil project revenue bonds. Moody's maintained the Project 10 revenue bonds rating of Baa1 and the McNeil project revenue bonds rating of A3. Both project ratings maintain a stable outlook.

## VPPSA Projects

**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 milestone will be realized in June 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
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%
2005	53.8%	79.9%

**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 2014 availability rate of 97.6%. The converter station's availability rate is similar to that of prior years (97.6% in 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.

## 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 2014, 2013 and 2012, Unit one had an availability factors of 99%, 100% and 96%, respectively; and Unit two had an availability factors of 100%, 97% and 86%, respectively. The two units combined, ran for a total of 74 hours in 2014, 92 hours in 2013 and 42 hours in 2012 and produced 225.28 MWhrs of energy 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
2014	.1%	99%
2013	.2%	96%
2012	.1%	91%
2011	.1%	98%
2010	.6%	96%

This report, along with the 2014 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:

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The information may also be accessed on our website: [www.vppsa.com](http://www.vppsa.com)

Our Audit was performed by:

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