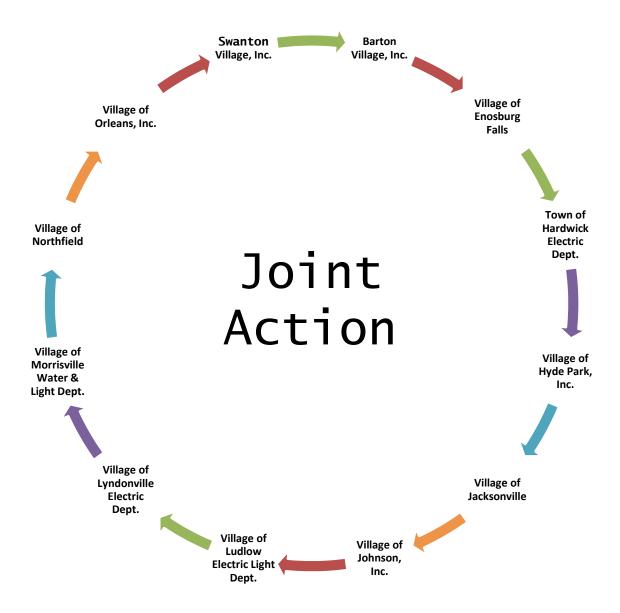
# Vermont Public Power Supply Authority



2013 Annual Report

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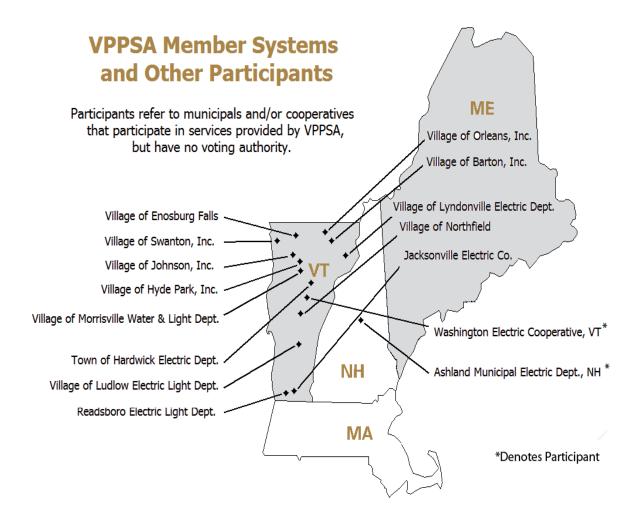
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#### **Joint Action at Work**

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 autho-

rized 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 appoint the VPPSA Directors. 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 our 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.



# Message from the Chairman



Duncan Hastings Chairman

2013 was another busy and diverse year for VPPSA and its twelve municipal electric utility member systems. The challenges involved in maintaining reliable, customer-oriented service at competitive and stable rates are goals that we continue to strive for. Technological advances and changes in the industry, increases in customer owned generation, and evolving and changing regional market dynamics are among the factors influencing VPPSA and its member systems, as well as public power systems throughout the country.

Continuing work started in prior years, VPPSA and its members continue to evaluate and explore distribution system technologies which may be suitable and appropriate for our members. Our continued ownership and operation of the Swanton peaker plant is another key part of our work, and the final bond payments on our McNeil bonds will take place in 2015.

On the regulatory side, we have begun to take a more direct and pro-active role in state legislative matters, so as to advocate for the strongest public power positions with the goal of trying to impact legislation and regulations for the benefit of our customers.

The power supply and other reports contained within this 2013 Annual Report are indicative of our ongoing and proactive efforts in the key areas of VPPSA work. I look forward to the continuation of all of these efforts, and appreciate the hard work that our VPPSA Board of Directors and VPPSA staff have done over the past year.

VPPSA staff continues to hone its skills in the areas of power supply, rates and planning and finance, with demonstrated positive results. The Power Supply group has been diligent in reviewing and analyzing both short and long term power deals and how to best integrate resources into the members' portfolios. The discussions between staff and the board on these opportunities have provided useful exchange of knowledge in these complex matters.

In addition to regular board meetings, the Board continues to be involved and active in the organization through several important committees, including the peaker project advisory committee, general manager advisory committee and by-law review committee.

Lastly, we continue to be actively involved in state and federal legislative matters, testifying and commenting on key bills and in state regulatory proceedings, as well as meeting with our Vermont Congressional delegation during the APPA Legislative rally in March.

**Duncan Hastings** 

#### **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 2012, the Village provided electrical service to 2,186 customers, most of which were residential customers accounting for 73% of energy sales, followed by commercial customers at 20%, and the remaining 6% from area lighting and other. During 2012, the Town experienced a peak demand in January of approximately 3,055 kW. **VPPSA Director: Brian Hanson** 

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 2012, the Village provided electrical service to 1,665 customers, most of which were residential customers accounting for 50% of energy sales, followed by large commercial and industrial sales of 39%, small commercial sales at 6%, and the remaining 5% from area lighting and other. During 2012 the Village experienced a peak demand in July of approximately 4,623 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 2012, the Town experienced a peak demand in December of approximately 6,452 kW and provided service to 4,420 customers, most of which were residential customers accounting for 73% of energy sales, followed by small commercial sales at 14%, 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 2012, the Village provided electrical service to 1,367 customers, most of which were residential customers accounting for 71% of energy sales, followed by commercial customers at 24%, and the remainding 5% from area lighting and other. During 2012, the Village experienced a peak demand in January of approximately 2,272 kW. VPPSA Director: Carol Robertson

#### **VPPSA Members, Continued**

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 2012, the Village provided electrical service to 703 customers, most of which were residential customers accounting for 70% of energy sales, followed by commercial customers at 29%, and the remaining 1% from area lighting and other. During 2012, the Village experienced a peak demand in January of approximately 1,057 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 2012, the Village provided electrical service to approximately 935 customers. Of these, residential customers account for 38% of energy sales, followed by small and large commercial customers at 28%, industrial customers at 29% and the remaining 5% from area lighting and other. The largest user by kWh is Johnson State College. During 2012, the Village experienced a peak demand in January of approximately 2,561 kW. VPPSA Director: Duncan Hastings

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 2012 the Village experienced a peak demand in January of approximately 12,086 kW and served 3,615 customers. Skiing is an important industry in the area. In 2012, residential customers accounted for 29% of energy sales, large commercial and industrial customers accounted for 29%, and small commercial customers accounted for 40% of energy sales. The remaining less than 2% 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 2012 to 5,621 customers, and experienced a peak demand in January of approximately 12,614 kW. In 2012, residential customers accounted for 45% of energy sales, large commercial and industrial accounted for 27%, small commercial customers accounted for 17% of energy sales, and the remaining 11% came from street lighting and other. VPPSA Director: Kenneth Mason

#### **VPPSA Members, Continued**

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 2012, the Village provided service to 3,917 customers, and had a peak demand in June of approximately 8,432 kW. In 2012, 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 Village of Northfield Electric Dept. - The Village of Northfield is located in the central portion of Vermont in Washington County. It was incorporated in 1858 and its electric department was formed in 1894. It serves a 13 square mile service area within the Village boundaries and the Towns of Northfield, Berlin and Moretown. During 2012, the Village served 1,879 customers and had a peak demand in January of approximately 4,973 kW. In 2012, residential customers accounted for 37% of energy sales and commercial and industrial customers 55%, with its largest industrial accounting for 26% 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 2012, the Village provided electrical service to 582 customers, most of which were residential customers accounting for 29% 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 54% of energy sales. During 2012, the Village experienced a peak demand in January of approximately 3,875 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 2012 the Village served 3,640 customers, and experienced a peak demand of approximately 10,576 kW in June. In 2012, residential customers accounted for 47% of energy sales, commercial and industrial customers accounted for 49% of energy sales and the remaining 4% from area lighting and other. VPPSA Director: Reginald Beliveau, Jr.

## 2013 Highlights

#### **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 2013 and 2012 the Authority realized increases in net assets of approximately \$2.0M and \$2.3M, respectively.

With the addition of approximately \$43.2M in assets and liabilities since 2008, VPPSA's balance sheet has seen significant growth, nearly doubling its size (48% 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, 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.

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 the 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, 2013, the Authority owns a total of 4,335,723 TRANSCO membership units, at a value of \$43,357,230 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 of 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 was invoiced to project participants beginning in April, 2013 and those participants are meeting their obligations as established under the Transmission Services Agreements with the Authority.

During 2013 and 2012, the Authority continued to pay down principal on existing debt obligations and entered into one (1) new debt obligation to facilitate an additional purchase of TRANSCO membership units for the benefit of certain of the Authority's members.

## 2013 Highlights, Continued

In 2013, 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.

#### RATES AND PLANNING

During 2013 the rates group supported members' usual regulatory reporting needs and worked collaboratively with our regulators in the areas of ongoing reporting efforts, rate filing and analysis requirements, and on other emerging issues including involvement in State wide collaborative efforts to identify positive modifications to net metering rules. The department continued to invest time supporting members' resolution of net metering related billing challenges, the need to address the net metering cap issue, and has continued to refine planning tools used to project retail revenue, anticipate financing and rate increase requirements and has performed various other analyses as required.

Other highlights from the year include completion of the Lyndonville class cost of service and rate design study which involved a negotiated 2 year rate phase-in and further incorporated significant economic and business rule modifications to selected tariffs. Our first rate investigation since 2008 has been time-intensive and has highlighted changes in the environment regulating this activity and has presented challenges that we continue to work through while maintaining a positive relationship with stakeholders and regulators. We participated in or provided comments to conferences, hearings and workshops related to various dockets and emerging regulatory issues, including proceedings related to a proposed local wheeling tariff, formula rates, and alternative regulation.

As 2013 comes to an end the group looks toward 2014 with the expectation of continued 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.

#### Information Systems and Support Services

Again in 2013, much of the year was spent working with Power Supply personnel to streamline the CDA billing process. The power supply application model was enhanced to directly insert critical billing data from ISO-NE, VELCO and other sources into the power supply billing database. A great deal of change was introduced into this process which we hope will pay dividends in 2014 and beyond.

The computing resources at Project 10 were also in focus during 2013. Much work was done to support the changing environment at the plant. Work will continue through much of 2014 to complete the transition.

Information Systems staff continued to have a presence in the local offices of the VPPSA

## 2013 Highlights, Continued

member systems throughout 2013. 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.

Looking forward to 2014, IT plans to continue the focus on the power supply billing process to enhance the accuracy and timeliness of the billing. Development and maintenance at Project 10 will continue to be a focal point as much work still needs to be completed. A complete replacement of the Central Computer hardware and transition to Microsoft SQL Server platform is also planned.

#### POWER SUPPLY

*Project Initiatives* — VPPSA has been active in securing long-term planned purchase agreements during 2013. 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, benefitting six of the VPPSA members. The initial five MW's is expected to begin producing power in late 2014 and an additional 5 MW's is expected to begin producing energy in 2015. VPPSA membership has indicated that fuel diversity is a priority, and Power Supply staff continues to review projects with various fuel technologies. 2013 saw discussions on power generation fueled by farm and landfill methane, solar, biomass, wind, small hydro, and natural gas.

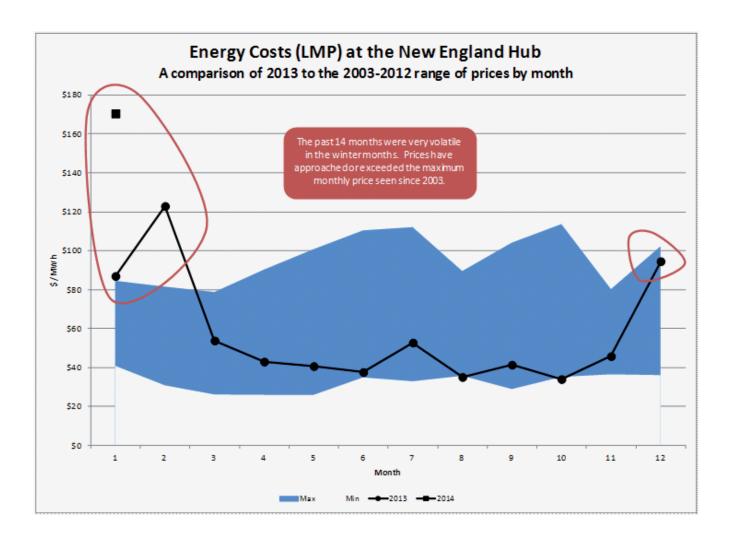
**Power Supply Agreements** – VPPSA remains active in the New England power markets and has secured replacement energy for expiring contracts on behalf of most of its member systems. These replacement contracts have removed much of the members' market exposure through 2017. At this time VPPSA has active agreements to facilitate market transactions with 12 counterparties. VPPSA believes that maintaining a sufficiently large pool of readily available counterparties is important to allow diversity in power transactions.

Planned Purchasing – VPPSA continued its Planned Purchasing program during 2013. 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 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 decline of power prices in 2012 and significant activity in this program during 2010, no purchase recommendations were given to the member systems as many are significantly hedged through

# 2013 Highlights, Continued

2017. VPPSA continues to monitor the market and evaluate the benefit of more favorable resource prices.

Wholesale Market Prices – Average annual wholesale market prices for the Vermont zone increased in 2013, 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 below shows that recent prices for energy have exceeded all monthly averages since 2003 (the beginning of the current wholesale market). VPPSA's current portfolio of resources has protected the members from much of these dramatic price increases.



# **VPPSA Projects**

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

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 2013 availability rate of 97.6%. The converter station's availability rate is similar to that of prior years (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.

In 2011, the Highgate Joint Owners authorized a significant capital upgrade to the facility that was to be implemented in two phases - a smaller one that largely consists of the addition of a warehouse and the other, includes a significant replacement of the control system. The first phase was completed in 2012 and the majority of the replacement of the control system was complete in 2013. It is expected the full implementation of these upgrades will be fully complete in early 2014.

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 2013 and 2012, Unit one had an availability factor of 100% and 96%, respectively; and Unit two had an availability factor of 97% and 86%, respectively. The two units combined, ran for a total of 92 hours in 2013 and 42 hours in 2012 and produced 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.

	Capacity	Availability
<u>Year</u>	<u>Factor</u>	<u>Factor</u>
2013	.2%	96%
2012	.1%	91%
2011	.1%	98%
2010	.6%	96%

## **VPPSA Projects, Continued**

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 who is the majority owner and 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 dependable resource for its owners.

Capacity	Availability
<u>Factor</u>	<u>Factor</u>
72.9%	89.7%
51.3%	83.8%
51.9%	84.9%
62.1%	89.7%
50.8%	89.3%
57.6%	91.9%
64.6%	91.5%
60.4%	92.8%
53.8%	79.9%
50.1%	93.2%
	Factor 72.9% 51.3% 51.9% 62.1% 50.8% 57.6% 64.6% 60.4% 53.8%

This report, along with the 2013 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.