

VEC at a Glance

Vermont House Natural Resources &
Energy Committee presentation
January 13, 2015

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- Founded in 1938 to serve rural Vermont
- With 38,000 meters, VEC is the largest Vermont-owned electric distribution utility
- Present in 74 towns in 8 counties in northern Vermont (refer to map)
- VEC serves a very rural area with approximately 15 members per line mile over 2056 square miles and with 2823 miles of lines
- 106 employees; approximately 75% belong to IBEW
- Our Mission
 - Vermont Electric Cooperative is a member-owned not-for-profit co-op utility whose mission is to provide energy and other appropriate services to its members

Clean Power Portfolio

- 55% Renewable as defined by VT SPEED goals
- 80% Carbon Free

Technology leader

- smart grid; outage management;
- wattWATCHERS; community solar

Keeping the lights on

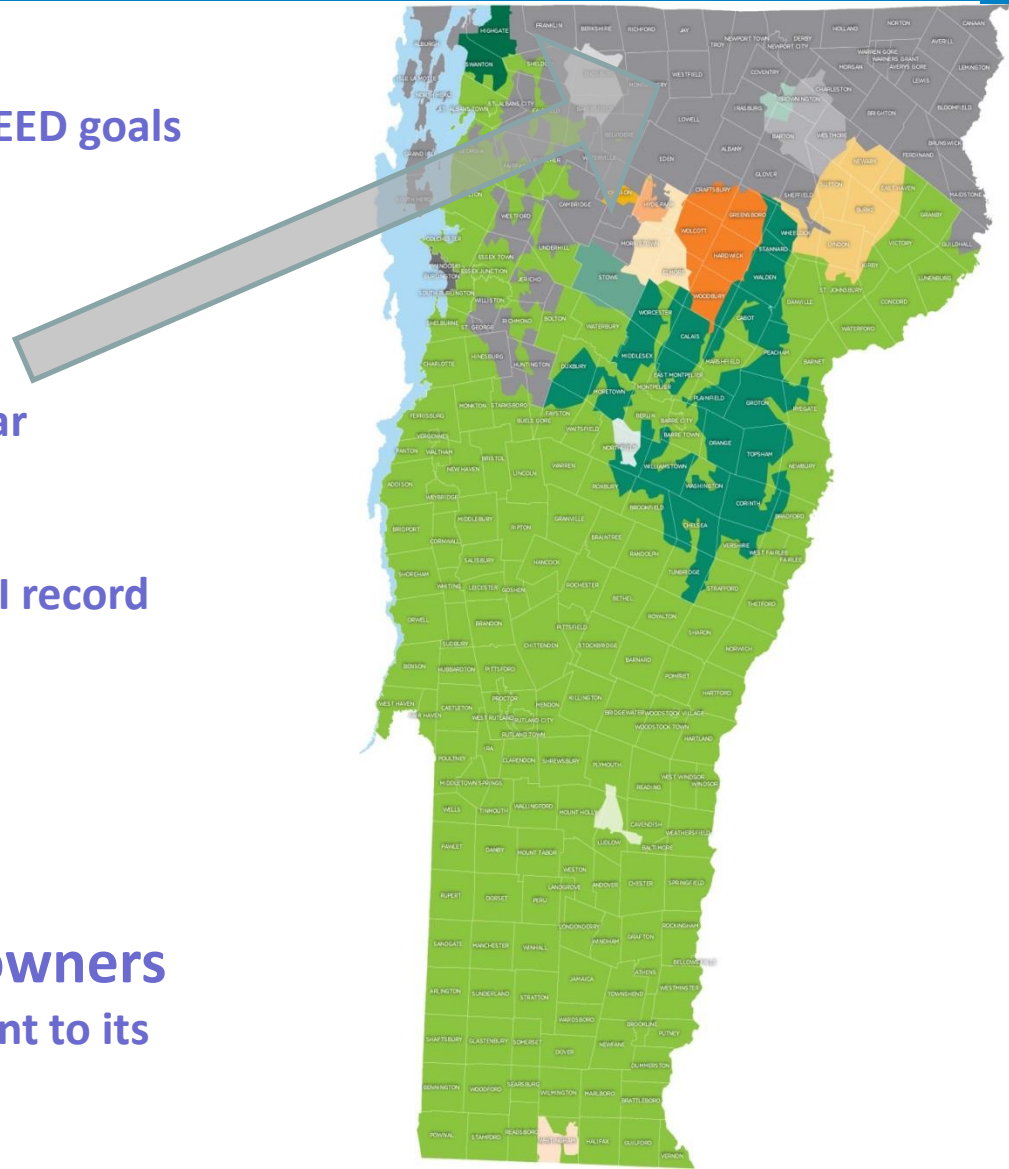
- superior reliability; outstanding SAIFI record (below 1.5)

Strong Financial Position

- “A-” rating by Standard & Poor’s

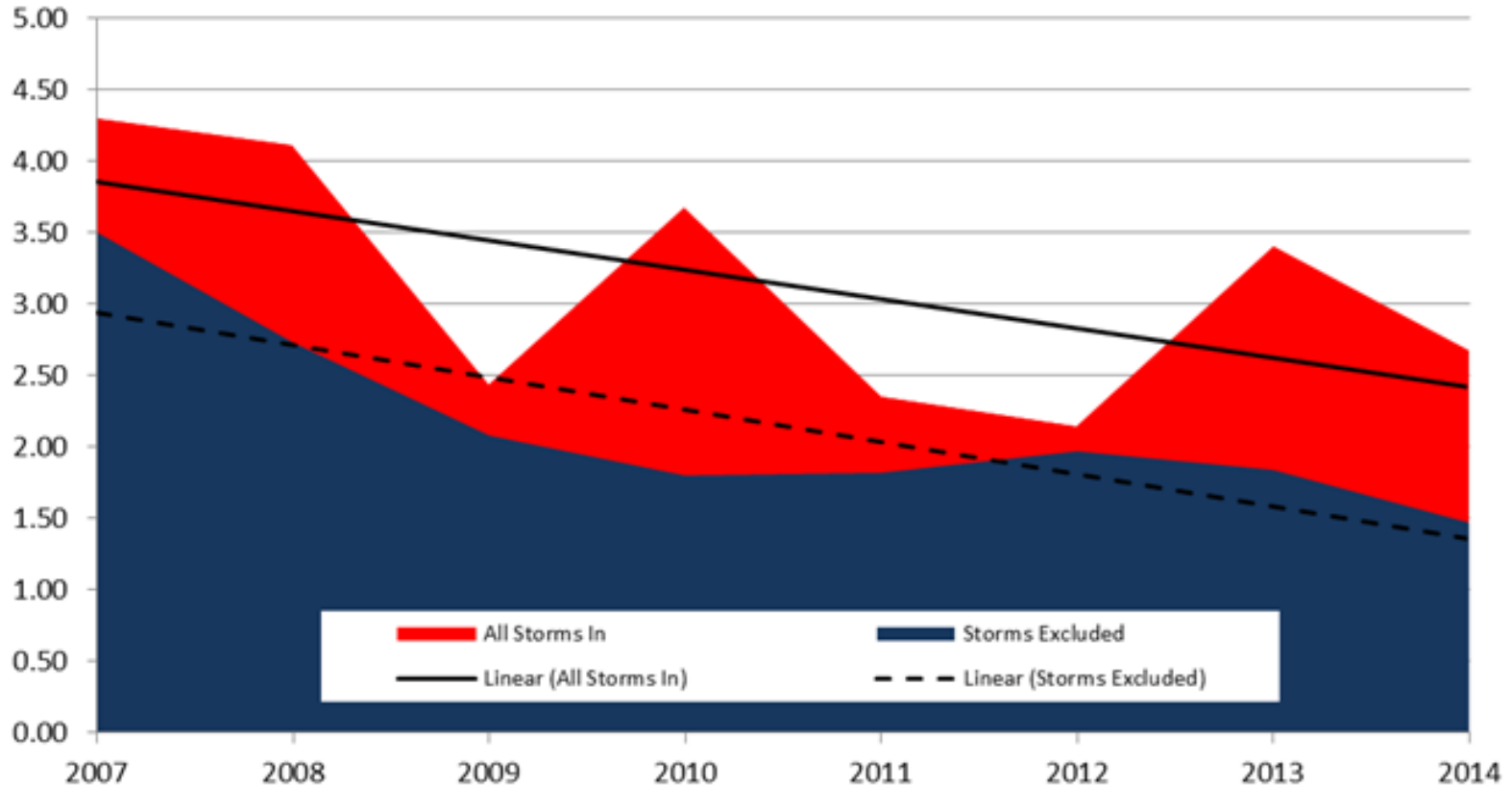
Committed to its member-owners

- Provides capital credit reimbursement to its members



The results have been spectacular.

Outages for all of 2014 dropped to 1.47 per member, less than ½ of where we started in 2007



- **2013 Ice Storm**
 - 10-day outage event
 - Over 500 employees and contractors involved
 - At a cost of \$6.3 million, this was the most expensive outage event in VEC's history
 - Thankfully, FEMA funding offset \$4.3 million to-date of these costs. (Co-ops and muni's are eligible for FEMA)
- **2014 Ice Storm**
- **Preparedness and Tree Trimming**
 - Coordination with state and other utilities essential to weather future events
 - VEC is halfway through tree trimming cycle
 - Five-year vegetation maintenance cycle on transmission rights-of-way
 - Seven to ten-year maintenance cycle on distribution rights-of-way

History of Innovation

- **2000 – Moved to a GPS based asset mapping system**
- **2001 – began experiments with 2-way (smart) metering**
- **2005 – implemented smart metering**
- **2008 - integrated Outage Management System**
- **2009 – Provided hourly usage monitoring to members (developed software in house)**
- **2010 – Received smart grid grant;**
- **2011 – Began DOE consumer behavior study, first in nation**
- **2012 – Implemented GPS truck tracking, new SCADA system, provided Outage estimated time of recovery, Interactive Voice Response, iphones to all field personnel**
- **2013 – Utility partnership with IBM to develop advanced weather forecasting tool, ipads to all field personnel**
- **2014 – smart phone app for usage, reporting, bill pay**

Smart Hub at VEC

Today, more than 1/3 of VEC members manage their bills on-line, through a PC or a mobile device

Date	Amount	Action
May 7, 2014	\$99.94	View Bill
Apr 5, 2014	\$37.26	View Bill
Mar 7, 2014	\$32.64	View Bill
Feb 5, 2014	\$81.60	View Bill
Jan 7, 2014	\$49.29	View Bill
Dec 5, 2013	\$9.85	View Bill
Nov 5, 2013	\$5.76	View Bill
Oct 5, 2013	-\$27.33	View Bill
Sep 5, 2013	\$77.16	View Bill
Aug 6, 2013	\$78.51	View Bill

Last Updated: Jun 3, 2014 09:13:36 AM

PAYMENT SUMMARY

Account: _____

Account Balances: -\$130.06

Total Due: \$0.00

CHOOSE A PAYMENT AMOUNT

Total Due Amount: \$0.00

Other Amount:

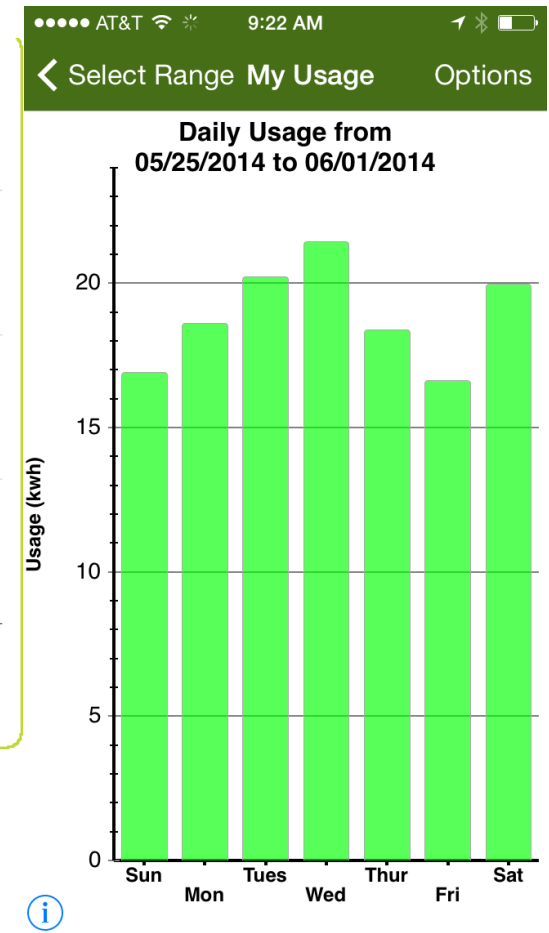
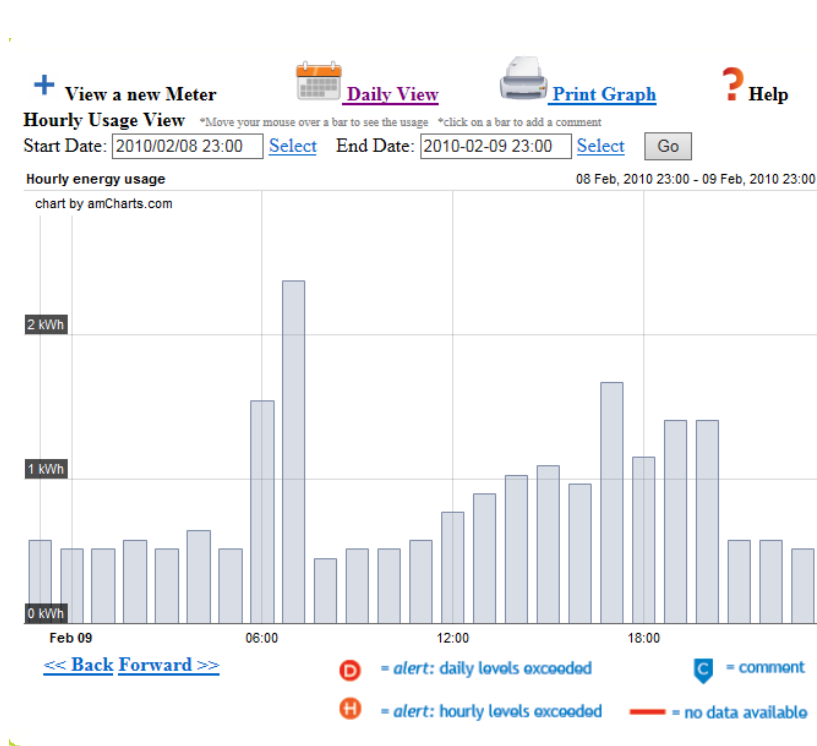
CHOOSE A PAYMENT METHOD

Checking Account: ****1879

Use Other Payment Method

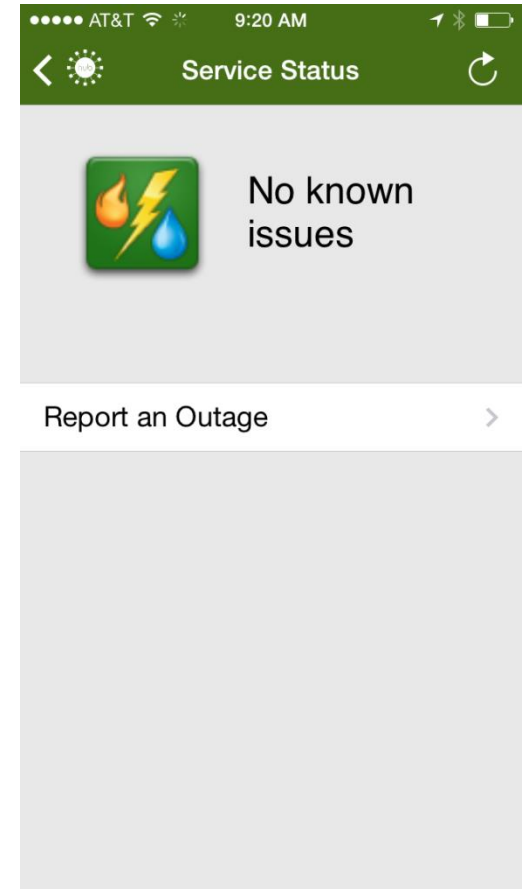
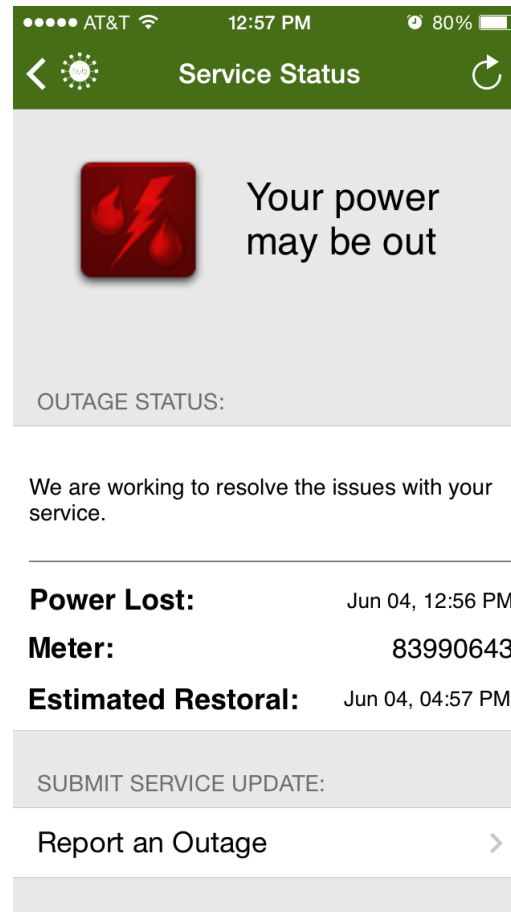
Smart Hub at VEC

VEC members can view their usage on-line and set high usage alerts to send them texts or emails. VEC and members can also use this as a diagnostic tool.



Smart Hub at VEC

Today, VEC can members can report and be notified of an outage, obtain estimated restoration times, and be notified when power is restored. This can be done via mobile device, text and email.



Renewable Energy

- VEC recognizes the desire of many of our members to adopt renewable energy while at the same time we hear the strong concerns about controlling electric rates. VEC serves many low-income Vermonters.
- Challenge is to balance continued renewable energy progress with reasonable rates

2015 Power Supply Portfolio:

Gen Type	MWH	%
Large Hydro	189,198	39.6%
Small Hydro	10,661	2.2%
Farm Methane/Solar/Small Wind	8,238	1.7%
Large Wind	73,044	15.3%
Nuclear	81,363	17.0%
Natural Gas or Oil	101,465	21.2%
Wood	14,250	3.0%

Economic Development is important to VEC

- VEC Load Base = 50% residential; 50% commercial
 - List of larger commercial members – RockTenn; Smuggs; Jay Peak; Blue Seal Feeds; Ethan Allen
- NEK Connector
 - A new 23 mile power line to provide reliable power to the Northeast Kingdom
 - Will enable a number of residents to get power for the first time
 - Provides reliable power to enable industry
 - VEC will donate 120 strands of fiber to the VTA for economic development providing a key data link between NH, NY and Montreal
- Maple Sugar Industry – VEC is making a significant line upgrade for new, large-scale sugaring operation in the NEK that will bring new jobs and new life to the Ethan Allen facility in Island Pond (Brighton)
- Ski Industry – Using VEC's smart grid to automatically switch between on-site generation and the electric grid to keep costs down
- Manufacturing – Advanced metering and technical support to help reduce costs.

VEC Co-op Community Solar

- VEC's Co-op Community Solar is a project born out of collaboration with in the US Department of Energy (DOE) and the National Rural Electric Cooperative Association (NRECA). Along with 14 other electric cooperatives nationwide, VEC is participating in a project to reduce the cost of utility-scale solar through collaboration and information-sharing as part of DOE's SunShot Initiative.
- Utility scale solar project - up to 5 MW – two phases of 2.5MW ea.
- Half will be made available to members as part of net metering pilot; half will become a part of VEC's power supply portfolio
- Phase 1 is currently underway with sites secured in South Hero (1MW) and Alburgh. Both towns support the projects.
- Purpose: provide lowest cost solar to VEC members and demonstrate that net metering can be attractive without current level of incentives
- Solar farms like VEC's Co-op Community Solar broaden access to the solar market by providing a new option beyond the traditional, on-site home installation, to members interested in taking advantage of the benefits of solar. Community solar offers more flexibility in terms of how much the member would like to invest; it doesn't require members to have an appropriate site for solar at their home; and it is available to renters as well as those who own their home.

The VEC Perspective...



We've been providing energy solutions to Vermonters for nearly 75 years.

We want to be a part of the process to develop Vermont's Energy Future!

We know that energy issues are tough – there are no easy answers.

We have knowledge and experience.

Just ask us about Kingdom Community Wind or Community Solar Project

We sit at the intersection where energy policy meets the ratepayers!

We are committed to our nearly 34,000 Member-Owners