Good afternoon and thanks for joining us I’m Judy Simpson. There’s a lot of buzz about the planned smart grade upgrade to Vermont Electric System. The new technology allows both consumers and utilities to manage electricity more efficiently by saving energy reducing costs and increasing reliability. The Vermont Electric cooperative based in Johnson is the first utility in the state to make smart grid upgrades. This afternoon we’re going to learn more about what the Co OP has done and find out how things are working especially in light of the power issues caused by a tropical storm Irene. Joining me are the Co OP’s managers of corporate services Elizabeth Gamache and chief operating officer Jeffrey Wright welcome to both of you. Let’s start off by talking a little bit about Vermont Electric Co OP. Can you give us some background?

Liz.: Sure where the third largest electric distribution utility in the state of Vermont. We serve about 34,000 members or customers and we have a presence in 74 towns and eight counties.

Judy.: How does being a Co OP make you different from Vermont’s other larger utilities?

Liz.: We came into existence back in the 1930s as part of the rural electrification act. It was an effort to solve rural Vermonters problems in terms of getting electricity to the homes and businesses and we are cooperatives so that means each one of our customers which we call members are actually an owner of the Co OP.

Judy.: One of the important decisions involves smart grid. Going to talk specifically about that in a minute. Give us some of the basics of smart grid and Liz and Jeff you can both talk about that.

Liz.: Smart grade is the way to bring the 20th century electric grid into the 21st century using technology. It allows us to operate the system more affective and efficiently and get more out of the system.

Jeff.: One of the advantages that this Margaret has given us is we have a very rural territory where we only have about 14 members per mile to compare it to a more urban utility Burlington a lecture for example has about 90 customers per mile. So we really need to look at all forms of technology to work more efficiently and to be able to serve are consumers with a competitive Electric Service.

Judy.: How exactly does it work?

Jeff.: The up but smart grid is not just about meters. The meters are the things that most people think about but it’s really a platform for all of our business solutions. The meter is the end device that set the home that we can communicate with but smart grid is more than just about that. It’s
about total System Automation and having visibility to all pieces of your system so as the operator sit in the control room they know what’s going on in the system at all times.

Judy.: When and why did Vermont Electric Co OP decide to adopt smart grid technology?

Liz.: We started looking at it back in the year 2000. We saw an opportunity with technology to introduce operational savings. We saw that if we could develop smart meters and develop a smart grid we could take meter readers off the road and take vehicles off the road and read meters remotely from our headquarters. It made good common sense to us from a business perspective to use technology to save and operations. What we found is that it was so much more than just those operational savings as we moved ahead.

Judy.: Take us through some of the changes that you've made.

Jeff.: Some of the changes that have recently come about is that we fully integrated our smart meters with their outage management system. We've done that and just last few years. Ironically we were doing that to be more effective in our late response and we ended up becoming one of the leaders in the industry at the same time. It's really given us the ability to major outages like hurricane Irene much more effectively and at the end of the storms it's a much safer restoration effort for both the employees and the consumer.

Judy.: Do you think that probably one of the reasons why your utility took a leadership role in this is because you are so were old and you had to really be creative with how you do business?

Liz.: That's right being rural presents challenges. If you can imagine when the power goes out in the old days with the old system we might have to send a line worker out in the middle of the night on a 30° below winter evening to find the source of an outage. Now we diagnose it remotely from our headquarters. We're in communication with the meters in the system so we can see where the problems are. It still takes the same line worker to go out and fix the pole or string the line but now we can save time by sending them directly to the source of the problem.

Judy.: So you don't have to wait for your customers or your members to call and say I don't have power on this particular road?

Jeff.: That's correct. One of the biggest advantage is that the smarmy there's give us is we have a lot of members who have seasonal homes war camps. If they’re not at the residence when the power goes out they don't have the ability to call us and tell us that. Today we now know that and we can go out and restore the power so when they do come to visit their vacation home the powers there and ready for them.

Judy.: You brought along the video clip that shows viewers how this works let's take a look.

This is the control center. This is where the two way communication begins. Before they were out there somewhat blind. Now are able to be their eyes from in the control room instead of having them drive around looking for the problem.

I can see the 50 mile radius around me butter dispatch center can. With smart meters the control center can find out if Mrs. Jones does or does not have power and then Wells on the street may also be affected and actually trace it all the way back to a source for us. We have a GPS and what we call Matt view which is on laptops and every single one of our vehicles. Just one more way that map view ties in with smart grid metering is integrated into everything we do.
Judy.: If you just joining us we're discussing smart grid technology with our guests from the Vermont Electric Co OP. The colt was the first utility to embrace a smart grid technology and I have to ask you how did everything work during tropical storm Irene?

Jeff.: Hurricane Irene again another test of our systems we had the big December windstorm which we used to this technology. Hurricane Irene is a great example. We didn't dare send our crews out during the storm to restore power. The only took care of emergencies and lines across roads. What the smart grid really did for us was allow us to develop a restoration plan during the night hours. When our crews came in at 6:00 AM we fed them breakfast in their able to get out on the road and get power restored very quickly. We had about 12,000 members affected during a storm and we have all but 1000 back within about 12 hours.

Les.: There's another aspect about smart grid in the adage management system that's really important to our members. When the power goes out there's two things that are most critical for the customer. Get the power back on and if you can get on right away help me understand what the expectation is. When will it come back on? With our system were able to diagnose the outages and provide estimated restoration times. We can give folks an indication of whether we're talking about an outage that may be only a few minutes or a few hours or in the case of something more severe like Irene we can diagnose the system and tell there were some areas that would take longer than others to restore. That helps people to plan accordingly. The best thing we can do is get the power back on safely and quickly but one were in those situations when that can't happen we can provide useful relevant information for planning purposes.

Judy.: The meters can give customers some information as well? How does that work?

Liz.: That's right. We have a program that was developed in house it's called BECU watt watchers. That members with smart meters can go online and they can look at their consumption patterns. They can look it daily consumption and we can break your right down to hourly consumption. I could take a look and see if things are making sense or not and that may give me a really important information about how to manage my electricity consumption. If I'm showing a spike in the middle of the day when no one's home up. But that might be a trigger to say something's not right we've had many instances where our customers have found they have malfunctioning appliances for example. They've been able to correct that and now they're not paying for energy they don't need.

Judy.: Interesting. But this isn't without controversy because some people think that smart meter's might be a way for big brother to keep tabs on what they're doing in their home what TV shows they might be watching or what their habits are. What you have to say about that?

Jeff.: The one thing that all utilities agree on is that public engagement or the consumers being engaged is something were all striving to do. Granted there's concerns around cyber security and other issues but what the utility's all want to make sure that we do is that we get the public engaged all for their comments so we can address any concerns that they have in the beginning stages of the project

Liz.: That's right. We were able to do our deployment of a smooth process and pre seamless. We've been able to provide added benefits towards are members. It's been very well received.

Judy.: The cost of electricity is especially important for Vermont's small businesses. I'd like to play another video that you folks have brought that shows how a company in your service territory is using smart grid information to lower their costs.
Smart grid has helped us control our costs so we can continue doing business. During the day we watch it and if it goes low enough then we start another piece of equipment. We strongly rely on power. Where 24/7 operation and we cannot afford to be down and our power has been really reliable.

Judy.: Once again up an important issue in any business really.

Liz.: That's right that's a key to economic development and vitality.

Jeff.: One of the things that we credit smart grid with in our company is we've been able to cut our audit rate to just about in half in the last three years. Customers like Jay Peak Blue Seal Rock 10 and smart grid for us really has been able to help raise our reliability indexes.

Judy.: What are some of the other benefits of smart grid?

Liz.: We're just scratching the feature right now. We're excited about that. We've seen some of the demonstrated benefits that we've discussed some of the future will hold more information for our consumers to decide how do they want to manage their consumption. For example the future could hold a time when if I'd like to take advantage of lower a lector rates the smart grid up can help me run my dishwasher in the middle of the night when prices are lower. Collectively as consumers we may be able to take advantage of using when capacity excuse me. When consumption is lower so we can save on prices up together we can reduce the peak electricity consumption.

Jeff.: There's a couple things that most utilities are absolutely insane about and one of the roses safety up the other is reliability. At the Co OP what we've learned is that the smart grid it's really helped us provide a good experience for the consumer.. Something you don't normally think about when you think about electric utility.

Judy.: Is it really important to get people on board with this kind of technology? I noticed for you folks may be because you are smaller and more rural it was easier to have a communication with your members because you use to that but for a large utility to actually get people to care and take interest in this it can be a daunting task I would think.

Jeff.: Yes.

Liz.: I think as consumers discover the value of smart meters it will become more commonplace and more accepted. Think about other industries 10 to 15 years ago the banking industry and paying bills electronically was more foreign to us and now we've adjusted and adapted to that. I think that will be a transformation that takes place in our industry over the next several years. One of the things that's exciting in Vermont is that the utilities have worked collaboratively to put forward a smart grid effort up by put enjoyed application for funding to deploy any smart grid that will encompass 80% of Vermont.

Judy.: As you know Vermont Electric Co OP was the first to make the smart grid upgrades up now as you mentioned up most of Vermont Utilities up are starting to make the changes. What's on the horizon what do you think we will be seen next?

Jeff.: I can tell you that all the utilities right now have goals that includes smart meters. In most of their systems by the end of 2013. Right now we're at about 96% so we do have a little of an edge there. The one thing we're doing is helping other utilities learn from our experience both good and bad he

Judy.: Do you envision that this is going to be something that's going to be commonplace in the state?
Liz.: It will be commonplace. How we use it to is being determined as we move ahead. We're doing a groundbreaking consumer behavior study this fall and it will take place over the next couple of years. We will be doing a pilot program to see how we can offer tools to our consumer up that will help them to save on energy up if they want.

Judy.: Can you give me some examples of that that sounds interesting?

Liz.: that gets back two up what I talked about earlier that technology will enable us to make choices to use energy when it's less expensive. running those appliances up at less expensive times that would be a piece of it. Also the relationship between the utility and the consumer changes. We may be able to offer a lower rate in the future if the consumer is willing to let us have the ability to control that dishwasher and not let it run at a time when we need has the capacity. Imagine days and this summer when all the air conditioners are on up and we hear the message that going out throughout New England cut down on your consumption we're hitting peak demand. What we're really trying to do is to find opportunities where together we can work and reduce that peak demand to get more out of the system.

Judy.: Once again that puts a lot more responsibility on the consumer. Do you think that's a good thing?

Jeff.: I do think it's a good thing. Back to one of your earlier questions about how to get the consumers engaged is in stable electric rates. I think people are going to become engaged and at the end of the day if we can have our consumers help manage their usage especially on those peak days when our system is strained we're all going to benefit from it.

Judy.: Do think people are surprised to see how much they can save.

Jeff.: Yes.

Judy.: If people want more information or if they have questions on what they've heard today what should they do?

Liz.: We have a web site with a smart energy page. They can go to WWW.Vermont Electric coop.com.

Judy.: I want to thank you both for being with me today. That's our program for today I'm Judy Simpson we will see you again next time on across the fence.

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