

VILLAGE OF ENOSBURG FALLS
PUBLIC INFORMATIONAL MEETING
HYDROELECTRIC UPGRADE PROJECT & DUFFY HILL PAVING PROJECT
March 3, 2016

Present: Trustees - Guy Breault, Leonard Charron, Walter Scott, Ellen St. Marie
Staff – Jonathan Elwell, Caroline Marcy, Gary Denton, Greg Clark
Consultants – John Lavigne, representing H.L. Turner Group; Garry Atherton
Public – Mary Ann Mercy, Noel Anderson, Denise Anderson, Luke Willey, Scott Mueller,
Michael Manahan

Meeting called to order by Chair, Walter Scott at 6:30 p.m.

Jonathan Elwell, Village Manager, opened the Public Information Meeting by briefly reviewing the two topics as outlined in the Notice:

- Hydroelectric Facility Renovation Bond
- Duffy Hill Road Repaving Project Loan

HYDROELECTRIC FACILITY RENOVATION BOND

Jonathan commenced discussion on the Village's hydroelectric facility by introducing John Lavigne, Lead Engineer from the H.L. Turner Group. In 2012, the Village commissioned the H.L. Turner Group to perform a Hydropower Facility Assessment and Feasibility Study on the Village's hydro facility. At this point, Jonathan turned the discussion over to John Lavigne.

John gave a brief history and description of the two hydroelectric facilities: Village Plant #1 and the Kendall Plant. In the early 1990's, the Kendall Plant experienced a major renovation when the existing turbine/generator was replaced with a 375 kW Flygt pump turbine/generator along with a pneumatically controlled dam crest gate that replaced the wooden flashboards. The Village Plant #1 has only received basic maintenance and minor repairs/upgrades to keep the plant operational. The Hydro Assessment Study has revealed that many components of both plants are past their useful life and are in need of immediate attention. Complicating this issue, many of the replacement parts are no longer manufactured and are obsolete. It is estimated that without major repairs/upgrades, the plant could become inoperable within five years.

John proceeded to walk the audience through a power-point demonstration of each component of the hydro. He carefully explained the purpose and function of each upgrade and why it is critical to the operation of the plant.

At the end of the walk-through, John invited the audience to ask questions regarding the various aspects of the project. Although the audience was relatively small, those in attendance were knowledgeable and had a deep understanding of hydro operations. In particular, a question was raised as to why the project did not include increasing the size of the generators. John Lavigne explained that this option was considered in the assessment study; however, the cost/benefit analysis did not support this option.

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John continued to explain the ramifications of increasing the generator size and how the cost of retrofitting the entire hydro facility would require extensive costs that far outweigh the benefits from increased generation.

After John answered many thoughtful questions regarding technical and engineering aspects of the project, the discussion progressed onto the financial aspects of the project. Caroline Marcy directed the audience's attention to an over-sized color coded spreadsheet which outlined the past 30 years generation of the Village's hydro facility. The first ten years from 1983 to 1992, revealed consistent generation, averaging 3,844,565 kWh annually. As John explained earlier in his presentation, several upgrades were performed on the plant in the early 1990's. As the highlighted orange section shows, the Village consequently enjoyed sixteen years of record breaking generation, averaging 4,755,039 kWh – a 23.6% increase. Hydro generation peaked in 2007 at 5,587,157 kWh. The audience was directed to the years following from 2008 – 2013 where production declined and hit a low of 2,083,795 in 2008.

During those years, in addition to increased failures and breakdowns, obsolescence played a large part in the amount of time the units were off-line. Caroline gave a recent example of one such occurrence this past fall. A 70+ year-old wooden ball bearing in the Village #1 Plant turbine finally crumbled. A polymer ball bearing had to be specially manufactured to replace the wooden ball bearing at a cost of \$500.00. However, the unit was off-line for approximately six weeks while the part was being manufactured – losing thousands of dollars in lost generation.

It is anticipated that this renovation/upgrade project will restore the plant to the operating level of the 1993-2007 production years. The increased production will far outweigh the cost of the financing bond and should even result in a net benefit to rate-payers. However, without the needed repairs, the facility will face reduced generation as the years from 2008-2013 demonstrate. Caroline continued to explain that generation from 2014 and 2015 have increased due to two specific projects:

- A heater/roller gate seal replacement project was performed on the Kendall Plant the fall of 2014. This repair allows the Kendall Plant to safely operate and produce generation during the winter months. This has benefited the electric rate payers in two ways – not only is the Kendall producing extra revenue through increased generation; but, the Village typically receives a higher credit price per kWh produced during the winter months than in the summer or fall months.
- In August, 2015 the Kendall tailrace cleaning project was performed. The return on investment was immediate as production increased almost 20% in the days following removal of large stones that were blocking the tailrace pipe.

A question was raised concerning how the Village acquires and pays for power-related expenses since the hydro units only supply 15% of the electrical needs of the customers. Jon stated that the Village of Enosburg Falls is a member of VPPSA - Vermont Public Power Supply Authority. On behalf of the Village, VPPSA manages the Village's electric power sources and commitments by entering into power purchase

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contracts. Pages 94-98 of the 2015 Annual Report gives a deeper comprehensive description of this process.

Discussion on the hydro renovation project ended with several positive comments from the audience regarding the purpose and need of the project.

DUFFY HILL ROAD PAVING PROJECT

Jon began discussion on the Duffy Hill Road Paving Project by explaining that this is a project to repave Duffy Hill Road from the intersection with Route 108 to the Village/Town line. The total cost of the project is estimated to be \$303,960. The Village has obtained a Vtrans Class II paving grant in the amount of \$175,000 to offset the cost of the project; leaving a balance to finance of approximately \$130,000 over ten (10) years.

The audience was invited to ask questions or voice concerns regarding the proposed project. Michael Manahan asked how much this project will affect the tax rate. Caroline Marcy responded that it will raise the tax rate by \$.0157.

There were no further questions.

There being no further comment, Guy Breault made the motion to adjourn the hearing. Seconded by Leonard Charron. The Public Informational meeting adjourned at 7:55 pm.

Respectfully Submitted,

Caroline Marcy, Director of Finance

These minutes were approved as written at the March 22, 2016 Trustee meeting.