



NEWSLETTER

FEBRUARY 2015

POWER QUALITY IN KIRKWOOD

Power quality issues have been a long-term concern in Kirkwood, with the District receiving a number of inquiries into the quality of their electric service. There have been concerns of consumer devices experiencing loss of performance and clocks running fast.

In 2013, the Board hired Exponential Engineering Co. (EEC) to perform a Power Quality study. This study, completed on April 8, 2014, used District-owned Sensus Power Quality Meters installed at various locations throughout the valley to analyze frequency, voltage and harmonic distortion on each of the three feeders.

Power quality refers to the conformance of frequency, voltage and harmonics to utility standards. The final EEC report concluded that the power quality in Kirkwood was not as bad as feared, with frequency and voltage on each of the three distribution feeds falling within acceptable ranges, as defined in the District's Electric Rules and Regulations, for the duration of the test. The report did find, however, that the total harmonic distortion (THD) exceeds the District's Electric Rules and Regulations (IEEE 519) standard of 5% in some instances.

Power Quality Meters were used to gather power quality data for the EEC report and are now being moved to different locations to determine the extent of the problem at each site.

Collected data will be analyzed to determine if the harmonics standard has been exceeded. Once the new data is collected and analyzed, a new report will be presented to the Board with information and recommendations.

Improvements to system frequency and harmonic distortion have been noted since the Out-Valley energization on November 1, 2014. Figure 1 shows the before (generators) and Figure 2 shows the after (Out-Valley) electric frequency for a comparable two day period. The frequency on Generators ranges between 59.2 and 61.2 while with the Out-Valley system this has been narrowed to between 59.9 and 60.12, with 60 Hz being optimal.

Figure 3 shows the before (generators) and Figure 4 shows the after (Out-Valley) Total Harmonic Distortion for a comparable two day period. The Total Harmonic Distortion is the far left column and reads 2.8 with the generators and has been lowered to 1.54 with the Out-Valley. Total harmonic distortion on the system should be as close to zero as possible.

Obviously huge improvements have been made and the District will continue to research ways to make further improvements to the District's Power Quality.

Figure 1. Frequency on Generators

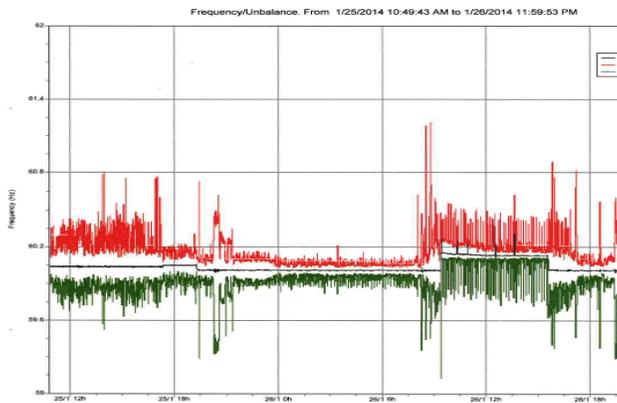


Figure 2. Frequency on Out-Valley

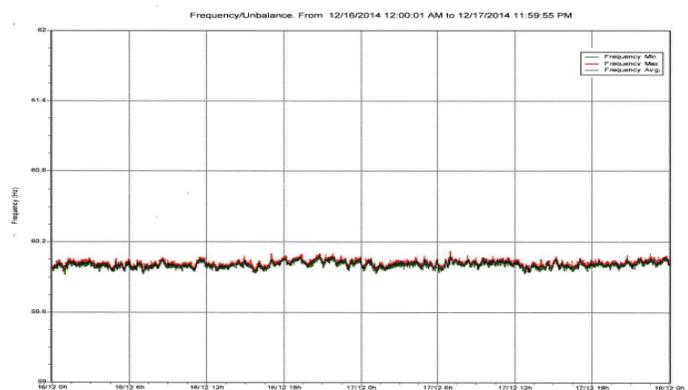


Figure 3. Harmonic Distortion on Generators

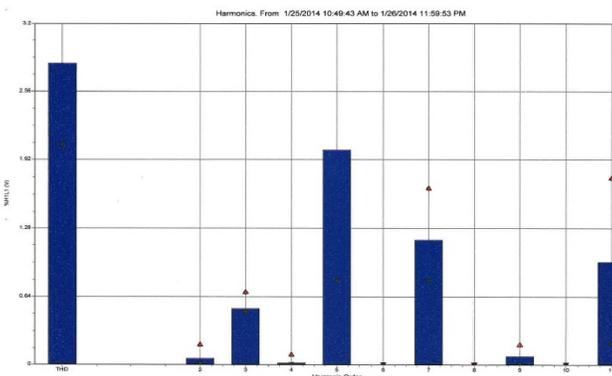
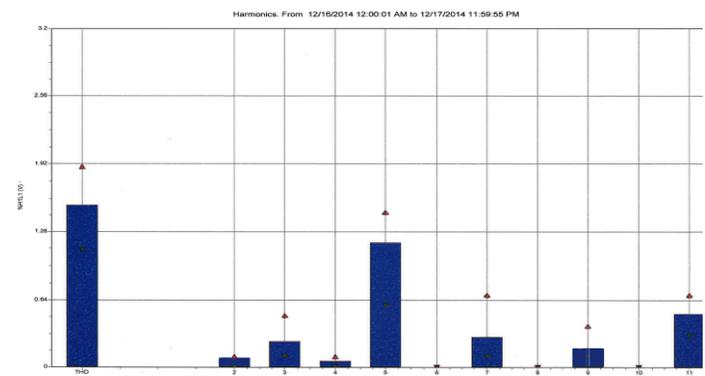


Figure 4. Harmonic Distortion on Out-Valley





Caples Lake

WATER CAPACITY UPDATE

As was mentioned in the December Newsletter, over the last year the District has been analyzing our infrastructure to determine what improvements would be needed to accommodate future growth.

A Services Capacity Analysis was completed in May 2014 which identified Electric, Water and Fire Department as areas needing the most attention.

The District is currently updating the Fire Department Master Plan and looking at ways it can expand its services provided and their presence in the valley.

Developing a plan for securing adequate water supply has been in the works over the last year. Two main approaches have been developed, to pursue water rights to Caples Lake and/or to drill more wells in the valley.

Currently the District's water comes from four groundwater wells in the valley that produce water of exceptional quality, but there is a finite supply. To meet the allowable development in the valley the District will need to nearly double that supply to approximately 42 million gallons per year.

If the District obtains Caples Lake Water Rights it would potentially have the ability, in cooperation with Vail Resorts, to use the snow making line as a raw water source for the valley. Caples Lake is a known, visible source of water, but the project comes with many hurdles including the permitting and the cost of a needed surface water treatment facility. The Board will be reviewing the Project Description at the February 14th meeting and determining next steps.

The District is also investigating drilling more groundwater wells. As stated, groundwater wells are our current source of water and only require minor treatment. Additionally, the construction costs could be much less than the Caples Lake option, but finding water can be very tricky in Kirkwood.

District staff will be meeting with the Department of Health Services, Drinking Water Division to discuss potential drilling locations.

Please let the District know if you have any questions or come to the next Board meeting on February 14th to hear the latest.

NOTICE OF COMMITTEE VACANCIES

The Kirkwood Meadows Public Utility District currently has three Committee vacancies. The Communications, Planning and KVFD Wine Tasting/Barbeque Committees are all looking for members of the community who may be interested in serving on one of these Committees.

For more information about the purpose and responsibilities of each Committee, please visit www.kmpud.com and go to About/Committees.

If you would be interested in serving on one of these Committees, please send a letter of interest and a statement of qualifications to the District at msharp@kmpud.com. If you should have any questions, please contact General Manager Michael Sharp at (209) 258-4444 or msharp@kmpud.com.

SNOW REMOVAL SERVICE PUBLIC HEARING

The District and the Finance Committee of the District has been investigating the possibility of changing the Snow Removal Services program from a Homeowner Association contract based service to a property related service, much the same as a water or electric service. Customers would receive their snow removal services bill for their portion of the common areas of their Association and a driveway bill on their regular utility bill.

The advantages of this change for the community would be to give the District's Board the ability to make long term plans and investments with the knowledge that the revenue stream is constant. There is also a savings in Administrative costs by eliminating the HOA contract management.

The objectives developed by the Finance Committee for converting snow removal from an annual contract to a standard service are:

1. Maintain a consistent level of quality through the ability to do multi-year planning;
2. Reduce overhead for both customers and the District through elimination of annual contracts; and
3. Apply any savings to reduce current prices.

Any plan to move forward would, at the least, have to maintain or lower current rates to owners.

The District must take several steps and complete studies to move this along including preparing a cost of service analysis and service charge report to determine, explain and substantiate the proposed service charge. The report must satisfy these standards: (a) the service charge revenue cannot exceed the funds required to provide the snow removal service; (b) the service charge revenue cannot be used for any other purpose other than the snow removal service; (c) the service charge amount imposed on any parcel cannot exceed the proportional cost of the service attributable to the parcel; and (d) the snow removal service must be actually used by, or immediately available to, the owner of the parcel.

At this point the District is developing this information for distribution to the community. Once the report is complete and distributed, the Board will be looking for community input as to the future direction of this issue. To that end, the President of the Board has called a **PUBLIC HEARING** to receive input on the future of Snow Removal Services for **Saturday, March 14, 2015 at 8:00am in the Kirkwood Community Services Building**. The public are encouraged to attend, or watch online, and give their opinions on this subject. Written correspondence can be sent to msharp@kmpud.com or to:

Michael Sharp
Kirkwood Meadows Public Utility District
P.O. Box 247



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