SMART ENERGY ENTERPRISE DEVELOPMENT ZONE
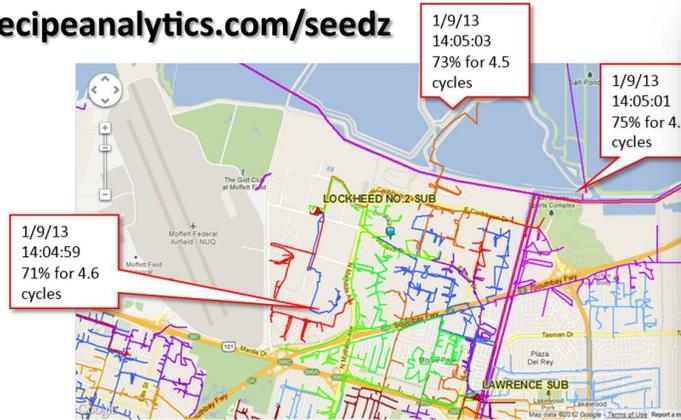
SEEDZ Projects & Elements

In 2013, Joint Venture Silicon Valley launched the 'Smart Energy Enterprise Development Zone' (SEEDZ) initiative, involving leading companies, municipalities and institutions in the area. One of the first projects developed under SEEDZ was creation of a web-based Power Quality Monitoring System, to aggregate and share distributed power meter data. Project goals were to help local high-technology industry customers who require reliable, high quality power to better understand and manage their interaction with the grid, and over time, aid in the effective deployment of new grid assets, such as distributed renewables, storage, and electric vehicle charging.
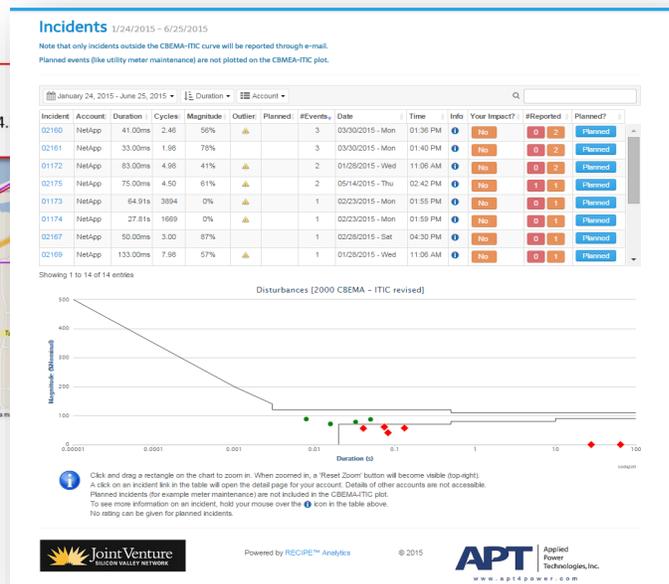
Joint Venture convened an outstanding team of contributing organizations that included Applied Power Technologies, NetApp, Juniper Networks, Pacific Gas and Electric Company, Silicon Valley Power, Accenture, and the Moffett Park Business Group. APT led the software development effort, building a secure, remotely hosted web portal to provide real-time transmission and distribution level power quality notifications, and enable impact report collection and root cause analysis.

ACCESS TO REAL-TIME POWER QUALITY DATA

recipeanalytics.com/seedz

1/9/13 14:05:03 73% for 4.5 cycles

1/9/13 14:05:01 75% for 4. cycles

1/9/13 14:04:59 71% for 4.6 cycles

LOCKHEED NO.2 SUB

LAWRENCE SUB

Incidents 1/24/2015 – 6/25/2015

Note that only incidents outside the CBEMA-ITIC curve will be reported through e-mail.
Planned events (like utility meter maintenance) are not plotted on the CBEMA-ITIC plot.

Incident	Account	Duration	Cycles	Magnitude	Outlier	Planned	#Events	Date	Time	Info	Your Impact?	#Reported	Planned?
02160	NetApp	41.00ms	2.46	56%	⚠		3	03/30/2015 - Mon	01:36 PM	ℹ	No	0 2	Planned
02161	NetApp	33.00ms	1.98	78%	⚠		3	03/30/2015 - Mon	01:40 PM	ℹ	No	0 2	Planned
01172	NetApp	83.00ms	4.98	41%	⚠		2	01/28/2015 - Wed	11:06 AM	ℹ	No	0 2	Planned
02175	NetApp	75.00ms	4.50	61%	⚠		2	05/14/2015 - Thu	02:42 PM	ℹ	No	1 1	Planned
01173	NetApp	64.91s	3894	0%	⚠		1	02/23/2015 - Mon	01:55 PM	ℹ	No	0 1	Planned
01174	NetApp	27.81s	1669	0%	⚠		1	02/23/2015 - Mon	01:59 PM	ℹ	No	0 1	Planned
02167	NetApp	50.00ms	3.00	87%	⚠		1	02/28/2015 - Sat	04:30 PM	ℹ	No	0 1	Planned
02169	NetApp	133.00ms	7.98	57%	⚠		1	01/28/2015 - Wed	11:06 AM	ℹ	No	0 1	Planned

Showing 1 to 14 of 14 entries

Disturbances [2000 CBEMA – ITIC revised]

ℹ Click and drag a rectangle to the chart to zoom in. When zoomed in, a 'Reset Zoom' button will become visible (top-right).
A click on an incident link in the table above will open the detail page for your account. Details of other accounts are not accessible.
Planned incidents (for example meter maintenance) are not included in the CBEMA-ITIC plot.
To see more information on an incident, hold your mouse over the ℹ icon in the table above.
No rating can be given for planned incidents.

Joint Venture SILICON VALLEY NETWORK   Powered by RECIPE™ Analytics   © 2015   **APT** Applied Power Technologies, Inc. www.apt4power.com

Detailed, real-time power quality incident data is provided via email and text, and reported online against the CBEMA-ITIC standard. Energy customers report if they were impacted by the event – creating a rolling record of power quality incidents and impacts.
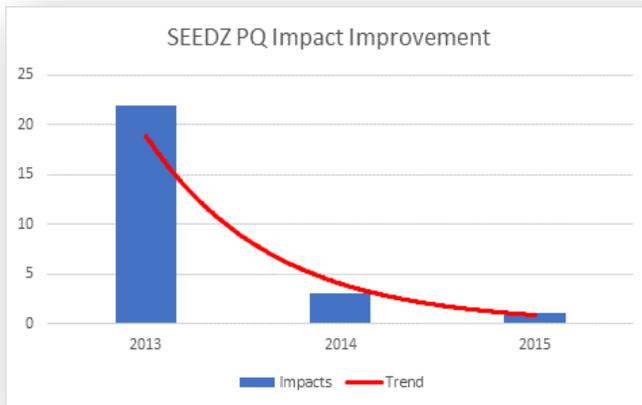
CASE STUDY—NETAPP

NetApp is a Fortune 500 information technology company with over 12,000 employees and $6+ Billion in revenue. NetApp's headquarters are located in the heart of the Silicon Valley, and quality of service from the utility is critical. Significant voltage swells, sags or outages shut down critical equipment, and can cost hundreds of thousands of dollars in lost time and productivity.

NetApp

For high technology companies like NetApp, the quality of electrical service provided by the utility needs to be high. And by understanding power quality incidents in detail, both the utility and the customer can better harden critical assets to reduce events and impacts, and save money.

SEEDZ IMPROVES THE QUALITY OF SERVICE

SEEDZ PQ Impact Improvement

As shown in the figure to the left, there has been a marked reduction of nearly 95% in impact from power quality events from 2013 to 2015.

By becoming collaborators in the SEEDZ Power Quality Monitoring project, NetApp was able to better understand and document power disturbances and how they impacted their business, and PG&E had additional information to use in evaluating system events and possible future system enhancements.

The real benefit I see is the increased collaboration between customer and supplier about these types of issues, which at the end of the day drive performance improvement.

-Rick Turner, Maintenance Manager, NetApp

ABOUT JOINT VENTURE SILICON VALLEY

Established in 1993, Joint Venture Silicon Valley provides analysis and action on issues affecting our region's economy and quality of life. The organization brings together established and emerging leaders—from business, government, academia, labor and the broader community—to spotlight issues and work toward innovative solutions.

Joint Venture's "Smart Energy Enterprise Development Zone" (SEEDZ) initiative unites local energy customers, solution providers, municipalities, institutions and utility interests in building the smart energy network of the future—characterized by the highest levels of power reliability, quality, affordability and sustainability.

ABOUT APPLIED POWER TECHNOLOGIES, INC.

APT is a software integration company in the energy intelligence market serving customers with high cost of energy and high cost of interruption. APT helps customers with critical reliability and high energy costs improve their delivered performance. APT's vendor neutral software and systems integrator approach minimizes capital investment and maximizes usability.

APT leads the way in energy management system integration techniques and expertise. Our unique reporting tools easily prove the value of reliability and green initiatives while providing utility rebate incentives to conserve. APT products and services give customers tools to improve efficiency, reliability and cost.

Interested in joining the power quality community? Check it out at **www.recipeanalytics.com/seedz** or contact **aptsales@apt4power.com** to become a member.

APT