



**Sustainability, Energy
& Resiliency Committee**
City of Salem, MA

**March 1, 2023 6:30 P.M. (Rescheduled from 2/22/23)
Remote Participation**

Board Members Present

John Hayes, Chair
Chris Cantone, Vice Chair
Doug Bowker
Jack Nessen

City Staff Present:

Stacy Kilb, Sustainability Engagement Coordinator (recorder)
Vanessa Pineda, Energy Manager
Andy Varela, City Council Liaison

Absent

Rick Nye
Erin Casey
Elvis Alvarez

Public:

SATV (recording)
Robert Huttig
Meghan Cole (WRNS)
Kate Kennedy, Planning Staff

Introductions

Guest Speakers:

Lori Hammett, Regional Sales Director, VXSmart (formerly WaterSmart) Software Demo
Rich Ames, GIS Cloud Coordinator, Town of Natick and VXSmart Customer



Lori Hammett, VXsmart

<https://www.vertexone.net/products/vxsmart-utility-analytics-engagement>

VXsmart Utility Usage Analytics & Dynamic Customer Engagement

VXsmart, third-party verified as the WaterSmart Program, offers utilities an enhanced layer of customer energy consumption analytics, behavior-based engagement, and personalized insights on top of our VXengage platform. This enhancement is proven to reduce the cost to serve customers, improve operational efficiency, and increase customer satisfaction using targeted communication solutions, automated self-service features, and deep usage insights.

Lori provides a demonstration of the software. This is followed by input from Rich Ames of Natick, who uses the software.

- AMR AMI – real time readings every 15 minutes
- Grants available?
- Demo of VXSmart
 - For all meter classes in a City
- Customer Experience
 - Customer Portal for notifications, leak parameters
 - Leak Resolution to solve it on their own
 - Bill Explainer
 - Features:
 - Will have City logo. Can toggle from English to Spanish or other languages
 - My WaterScore: Compare yourself to average and efficient homes in the area
 - View & Pay Bills
 - Notifications
 - My Daily Use
 - Recommended Actions
 - Continuous Water Use alerts by email
 - AMI = Advanced Metering Infrastructure or “smart meters”/ “fixed networks” - get reads daily to 4-6x/day instead of quarterly or monthly, helps you get of leaks
 - Can walk customer through leak investigation/resolution
 - AMI utilities see 60% customer resolution on own; Non-AMI's see 40% resolution
 - Leads to less calls/complaints
 - Non-AMI leak notification is still available as communities transition
 - Does this cover deduct meters for outdoor water that does not go into sewer/avoids sewer charges for irrigation use? These can be accounted for but there is extra development so would have an additional cost.
 - Many alerts available under “Communication Preferences”
 - Utility can also configure according to meter class



- Can add/link/combine users
 - Customer Tabs:
 - Forms: All forms can also be digitized
 - Usage
 - Take Action
 - Bill Pay
- Utility Experience (Back End)
 - Consumption data analysis
 - 50+ reports and maps
 - Group messenger tool to send targeted, timely messages
 - Dashboard Overview
 - SAAS based: Software as a Service, internet based, optimized for mobile and tablet
 - Analytics
 - Consumption
 - Leak Detection
 - Tier Consumption
 - Water Budgets
 - Drought Restrictions
 - Engagement
 - Mailings
 - Group Messenger
 - Customer Intelligence
 - Portal Registrations
 - Portal Visitors
 - Lists: Build a static or dynamic list of customers (can use a map/polygon to send to affected area) or GIS shape file
- Q&A:
 - City uses thousands of cubic feet; VXSmart is gallons per day (gpd). Would that be the default option if we adopted this software? Yes, most want it presented in gpd.
 - Large entities such as High School: Leak detection and notification could be useful to the City but does the City get detailed info from large facilities like that?
 - City can set up parameters for this. Can reach out to specific accounts
 - Entire golf course and many sports facilities are irrigated
 - Platform is based on meters; from utility perspective, can they read pumps that are pushing water throughout the City to identify leaks in underground pipes? No, more geared towards customers. It does not measure pressure or other indicators. Applies AI to meter reads.
 - As a SAAS, it is a cost for us; are grants available to pay for this? Possibly an infrastructure bill grant? Not aware of any in New England; historically there have been some and Lori will research. Salem's infrastructure is aging, and any level of leak detection would be helpful. VXSmart is working with Worcester, who did get funding.



- Are meter upgrades required? No, even older meters are compatible.
- Origin of Salem Sound Coastwatch was to detect sewage leaks.

Rich Ames:

- Natick wanted a better way to find leaks rather than sifting through data and notifying people they had high usage. Ti Sales told them about WaterSmart. Natick uses the communication piece all the time. Hydrant flushing notifications are run through WaterSmart
- Data set is accessible and downloadable into a spreadsheet
- Is a lift to get going but then an indispensable tool
- What type of privacy and security is in place?
 - SSL encryption, bank-level security
 - 20-page security document can be shared
- Is this a budget line item? Are savings realized?
 - It is an add, a three-year contract. Savings will be on the customer end. Natick sells water, so loses revenue when people conserve. Went live in Feb. 2019
- Uses software to track usage of schools and large entities, but can isolate them to track usage even though they are not billed
- Natick has many classes of use that they track separately than WaterSmart, which tracks single family residential and large commercial
- Salem has many multifamily units, to do water use education, billing must be per unit. How does this work in Natick?
 - Try to have one meter for every service connection. They read monthly and bill quarterly; old filter was read every 3 months. So it took that long to find out about a high bill; Can now find out about leaks monthly
 - Natick has a tiered billing structure; the more you use, the more you pay. Bill is at one price for the first 10 units (100 cubic feet, converted to gallons), which is a base price, then if you use more, you pay more.
 - Natick has irrigation meters but not deduct meters. Domestic reads water and sewer, irrigation is separate. If hand watering with hose, a deduct meter doesn't make sense, if irrigation in the ground, a separate deduct or irrigation meter may pay for itself eventually
- Will need heavy buy-in from the water system for this, who will own the system once it's up and running? Set up is a bit of a lift.
- Natick does NOT use it to provide info about climate change; only use for alerts such as water bans. Don't want people to get messaging fatigue. Sustainability coordinator sends out a monthly newsletter

Discussion

- How much water do City properties use? If we avoid leaks, we can save that way
- VXSmart will help ID infrastructure costs sooner rather than being reactive
- VXSmart is the only SAAS that are the only one that does customer facing programming; there are no other options that do this. Others only do back end. Is this important for City?
- Uncertain how useful the "how to fix your leak" walkthrough really is



- Customer will be relying on decision tree to fix leaks – it's not rocket science, and could set up as an FAQ
- If the Water Dept won't change the bill format, what do we do? How complicated is it to change a bill? Stacy to research other municipalities' bills and if they are more intelligible, and how they did it
- The only changes to our bills were detrimental. The chart of past usage did not include units on the updated bill.

Review of January unofficial meeting topics

City Updates

- New Director Info: Neal Duffy started Monday 2/27
- Energy Manager Project Updates (Vanessa Pineda)
 - Investment Grade Audit by Ameresco began last week; schools are being audited first followed by other facilities
 - New Director Neal Duffy will be visiting all facilities
 - Witchcraft and Bentley have solar panels, but not the high school, which is electric. Bertram Field and Forest River have solar panels
 - Energy audit will be translated into greenhouse gas emissions? No, just an energy audit. Then Ameresco will come out with ECM (Energy Conservation Measure) recommendations for the City to take under consideration to deliver X savings, and these could be converted to GHG savings
 - EV chargers on utility poles: no updates from National Grid
 - Currently implementing ground-mounted level 2 EVCS on Church St. and Crombie St. Parking lots
 - Discussion of pole mounted EVCS functionality
- Open Space & Recreation Plan (John Hayes) <https://www.publicinput.com/salemosrp>
 - Public Meeting 1/24, Online survey open through 3/22: [Survey Link](#)
 - Mission: be smarter with growth, equity, purpose
 - Lenses, demographics
 - Inventory snapshot
 - Issues & Ideas
- Harbor Master Plan Update (John Hayes) <https://harborplan.salem.com/>

City Council Liaison Update (Andy Varela)

- Composting Ordinance: Moving slowly but surely. Meeting w/school committee next week. Schools are largest food waste entity in the City. Want to make a policy within SPS and then roll it into curriculum
- Councilor Cohen's introduction of specialized opt-in code. Spoke to Council and inspector Tom St. Pierre. Some discrepancy between environmental code and what DOER is doing with stretch code. Looking into this; if adopted, the City must make sure it is satisfactory to code and compliance. Code is about zero carbon and must be discussed; intent is there and must be championed



- Must have someone in the building department who is trained and so inspectors understand the changes. When adopted, it must be enforced

New Business

- New SERC Member: Jack Nessen
- Have community solar speaker at next agenda? OK to do at SERC or at Energy fair?? Follow up W/Chris
- 2023 meeting schedule: 4th Wednesday except for Nov. 8th and Dec. 6th
 - Meetings required to be in person or hybrid with an in-person quorum after the end of March if remote participation not extended
 - Find out input dates for harbor plan
- Phil Koch has resigned from the Committee

Public Comment

- **None**

March Invited Speaker: Neal Duffy, Director, Sustainability & Resiliency Dept

Approve Meeting Minutes – December 7, 2022

A motion to approve the minutes is made by Doug Bowker, seconded by Chris Cantone, and passes unanimously.

John Hayes	Yes
Chris Cantone	Yes (seconds)
Doug Bowker	Yes (motions)
Jack Nessen	Yes
Erin Casey	Absent
Elvis Alvarez	Absent
Rick Nye	Absent

Upcoming City Committee Meetings

Recycling Committee: First Tuesday of the month, 3/7/23, 6:30-7:30PM

Tree Commission: Monday, 3/20/23, 6:00 PM

Conservation Commission: Third Tuesday of the month, 3/21/23, 6:30PM

Upcoming Events

National Grid Energy Fair, Thursday, 3/16/23

Salem State University Earth Week Events, 4/10/4/14/23 <https://www.salemstate.edu/earthday>

(tentative) Salem Drive Electric Earth Day Event, April 2023

Living Green Expo, Saturday, 5/13/23

Next SERC Meeting - Wednesday, March 22nd, 2023, at 6:30PM on zoom



Adjournment

A motion to adjourn is made by Chris Cantone, seconded by Doug Bowker, and passes unanimously. The meeting ends at 8:10 PM.

John Hayes	Yes
Chris Cantone	Yes (motion)
Doug Bowker	Yes (second)
Jack Nessen	Yes
Erin Casey	Absent
Elvis Alvarez	Absent
Rick Nye	Absent

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