



Town of Snowmass Village to Cut Energy Use, Carbon, and Costs in Their Facilities



The Town of Snowmass Village, SGM, Clean Energy Economy for the Region, and Engineering Economics, Inc. (EEI) kicked off a deep energy efficiency project to save energy in Town-owned facilities and systems. By commissioning the town's largest buildings (Town Hall, the Snowmass Recreation Center, and the Public Works shop), along with four snowmelt systems, the project will ultimately help the town dramatically reduce their energy use, and improve building comfort.

Currently, the team is installing devices to better monitor energy use of town facilities in real-time. This equipment will allow facility managers and engineers to better understand the performance of energy-using equipment. With this new information, the project team will make adjustments to control software, and recommend actions to achieve further savings. The process is known as 'monitoring based commissioning,' or MBCx.

"You wouldn't consider driving a car without a dashboard that shows how much gas you're using or when you need service. But, we've been running buildings without this information for decades," said Dan Richardson, senior consultant for SGM. "We're approaching the town's buildings and snowmelt the same way we've always approached cars: with the assumption that more information leads to better operation and system management."

The town has taken significant measures to reduce energy use in primary facilities since a 2008 energy audit revealed several cost-effective opportunities. Staff-implemented projects resulted in over 25 percent energy savings. Now, this project builds on these past efforts to target systems that may not be operating as they should to achieve even greater savings.

The town's snowmelt systems for example—which heat pavement along approximately two miles of roadway in the upper village—are powered by four boilers systems at a cost of more than \$440,000 annually. In the winter, due to matters of public safety, these boilers remain on in idle mode to ensure an adequate temperature is maintained to melt snow immediately as a storm hits.

"Eighty to ninety percent of the energy consumed by snowmelt systems is during idle mode," said Jarrell Wenger, principal with EEI. "This means that only 10 to twenty percent of energy is actually used to melt snow. With better sensors and controls, we can automate these systems to use less energy during idle, yet be warmed up and ready as weather approaches."

In addition to saving energy and money, the town hopes that this project helps them lead by example as new regulations (such as the green building code passed earlier this year) force the community to think more about energy use and their impact on the environment.

"Through this project we're creating a baseline of our energy use to show how we're performing against other municipalities locally and across the country. Then, advanced data monitoring shows us what's possible to improve our standing," said Anne Martens, director of public works for the Town of Snowmass Village. "By making this data public and easily accessible while sharing all aspects of this project with community-at-large, we hope to show what kind of cost-effective improvements are out there to save money."

The project is being funded by the Holy Cross Community Enhancement Fund, a fund established by Holy Cross Energy to make a difference in people's lives and the communities in which they reside.

Energy monitoring equipment will be installed over the coming months then data will be made available through ColoradoEnergyNavigator.com beginning in summer, 2014.