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TVC Systems helps Rockingham County save project millions with biomass boiler

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Recently the Rockingham County Complex had a chance to tack 420,000 taxpayer dollars to their bottom line by installing a brand new, energy efficient biomass boiler, they jumped at the chance.

Spearheading the overhaul were two companies with a number of similar joint-projects under their belts: Engineered Construction Services (ECS) and TVC Systems.

Combined with a \$1.9 million grant, the \$400,000 annual savings could mean as little as a five year pay-back for the near \$4 million system, said Jude Gates, director of facilities, planning and IT for Rockingham County.

The new system provides both space and hot-water heating to the county nursing home, house of corrections, as well as attendant administration buildings.

Taken together, the project is expected to reduce the 390,000 s/f campus' fossil fuel requirements by a staggering 260,000 gallons a year, while providing the near 600 residents and employees with a more efficient, locally-harvested heat source.

At the heart of the new-and-improved complex is TVC's own Balance of Plant (BOP) Control System, which helps link the various components together, thereby helping them all operate more efficiently.

Developed in conjunction with the project team, the BOP controls might appear to be operating in the shadows, so to speak. But one peek behind the curtain reveals the wizard behind it all.

"Basically what our system does, is it takes separate entities and brings them together so they can be better controlled and monitored," said Linda Tying, president of TVC Systems. "You can almost liken it to a car. A car has a battery, an engine, and a radiator, all of these different or separately-operating parts - and then you turn the key, and everything works together providing power, heating and cooling."

In the case of the Rockingham Complex, the components linked together by TVC's BOP system include a brand new biomass boiler, a generator, as well as two existing boilers and various other plant instruments.

Tying says that while two existing boilers will remain online, it's not out of the question that improved efficiency - and, as a result, extra money in the county coffers - will result further augmentations down the road.

"Right now, it's perfectly set up for a new, efficient boiler in the near future, should there be a need for one," Tying said. "Once the complex has gone through peak usage - winter, essentially - we'll have a better idea."

"We couldn't be happier with the project," said Gates. "To be able to control the costs that are just not optional is absolutely huge, and in the end is a direct benefit to the taxpayers."

Asked how the Rockingham project ranks in her company's pantheon - TVC has helped put online

similar systems for UNH, UMass, as well as other entities both public and private - Tying's response hinges on one, pride-laced word: local.

"It's a local project through and through," said Tying, "It saves the county money, while at the same time converting their heat source to one reliant on a local resource, which in turn keeps even more money in the local economy."

It's a mantra for which TVC continues to find increasingly creative avenues: The company recently completed a co-generation project at the Fitchburg headquarters of Simonds, the New England manufacturing staple founded in 1832. As a result of their building's new efficiency measures and resulting savings - upwards of 40% annually, according to Tying - Simonds was able to stave off a planned outsourcing that would've resulted in close to 150 jobs lost to overseas factories.

Thanks in part to TVC, the century-old building has a new lease on life, while the city itself - hit harder than most by the recession - gets to keep one of its most iconic hubs humming into the 21st century. Just as important, Simonds, like the Rockingham project here in the Granite State, serves as a reminder of how government and the private sector can work together effectively.

"We hope both can serve as templates for other communities and businesses for how to create jobs, support the local economy, while investing in our energy future," said Tying. "We think projects like these can be win-wins for the public and private sectors alike, so hopefully more communities take notice."

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