

# Innovative And Creative Energy Solutions

## TitanGen+ Case Study



## Two Problems, One Creative Energy Solution from TitanGen+

### A New Approach

It's a common problem all businesses eventually face, no matter how well budgets are managed or capital improvements are planned: crucial equipment failures at precisely the wrong time.

Whether the timing is fortuitous, or completely unplanned, TitanGen+ exists to solve the recurring problem of costly building system replacements and upgrades, with zero out-of-pocket cost solutions for the end user, supported by the time-tested Power Purchase Agreement (PPA) approach and Combined Heat and Power (CHP) Program from TitanGen.

The following case study documents the process undertaken by TitanGen and our customer to introduce a new approach to critical business system replacement projects **and** cost reduction.

*What do you do when vital building systems fail and a cost-effective, creative solution is the order of the day?*

*TitanGen+ offers our customers the ability to include multiple equipment installations into the traditional Combined Heat and Power contract model. This approach seamlessly brings cost reduction and hassle-free ownership together for the first time.*

# What was old is made new again.

***Keeping the lights on, rain or shine, is non-negotiable when running a primary school.***

While planning a Combined Heat and Power installation at a southwestern Connecticut high school with TitanGen, the emergency generator at the nearby primary school seized and as a result, generated it's final kilowatt with very little notice.

Given the code requirements for public school facilities to have standby generation in the event of an emergency and with the winter of 2016 fast approaching, TitanGen worked together to procure and install a new 200 kW diesel-fired emergency generator, then designed a

cost-saving Combined Heat and Power facility at the school to help support the generator installation during the life of the Power Purchase Agreement associated with the CHP system.

As the name suggests, TitanGen+ coupled the emergency generator with the CHP system into one PPA, thus allowing the customer to quickly replace the failed equipment and benefit from the cost savings associated with generating heat and electricity with one machine, minus the burdens of upfront cost and ongoing maintenance obligations for either machine.



**Keeping the lights on since 1988.**

*Installed in 1988, the above 200 kW emergency power generator served the customer well but was operating well beyond it's useful life.*

*As part of the PPA with TitanGen, the district can rely on Titan to perform all maintenance obligations associated with the Cummins generator featured below.*



**TitanGen**  
*Energize!*



The best is yet  
to come.

**TitanGen**  
*Energize!*

*The Tecogen 75 kW CHP machine creates baseline electrical power and all seasonal heating requirements.*

Together with our partner, Tecogen Incorporated, of Waltham, Massachusetts, TitanGen commissioned and constructed a 75 kW Tecogen CHP system for the purpose of creating domestic hot water, hydronic heating during the winter months and electricity all year-round. The end result for the customer was a truly cost-effective way to create the usable energy they need, on-site, for less than the utility can supply at market prices and with none of the hassles typically associated with owning and operating an energy generation asset.

The projected total cost savings associated with operating the CHP system exceed \$20,000 per year and are anticipated to increase as utility supply and distribution costs continue to rise.

*The Tecogen machine alongside the custom-fabricated heat exchanger figured prominently to the left.*



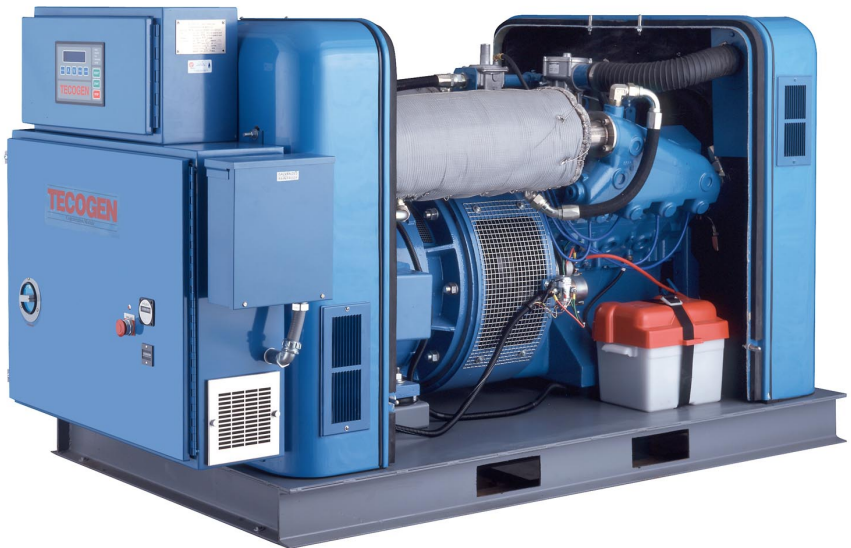




Does your business have the  
power to succeed?

**Contact TitanGen today for your free project analysis**

Adam Teff  
TitanGen General Manager  
2275 Silas Deane Highway  
Rocky Hill, Connecticut  
06067  
Phone: 860-965-2884  
ATeff@titanenergyne.com  
www.titanenergyne.com



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