Case Study

Tecogen®

Advanced Modular CHP Systems

CM-75 Ultera Cogeneration Modules

Kaiser South Sacramento

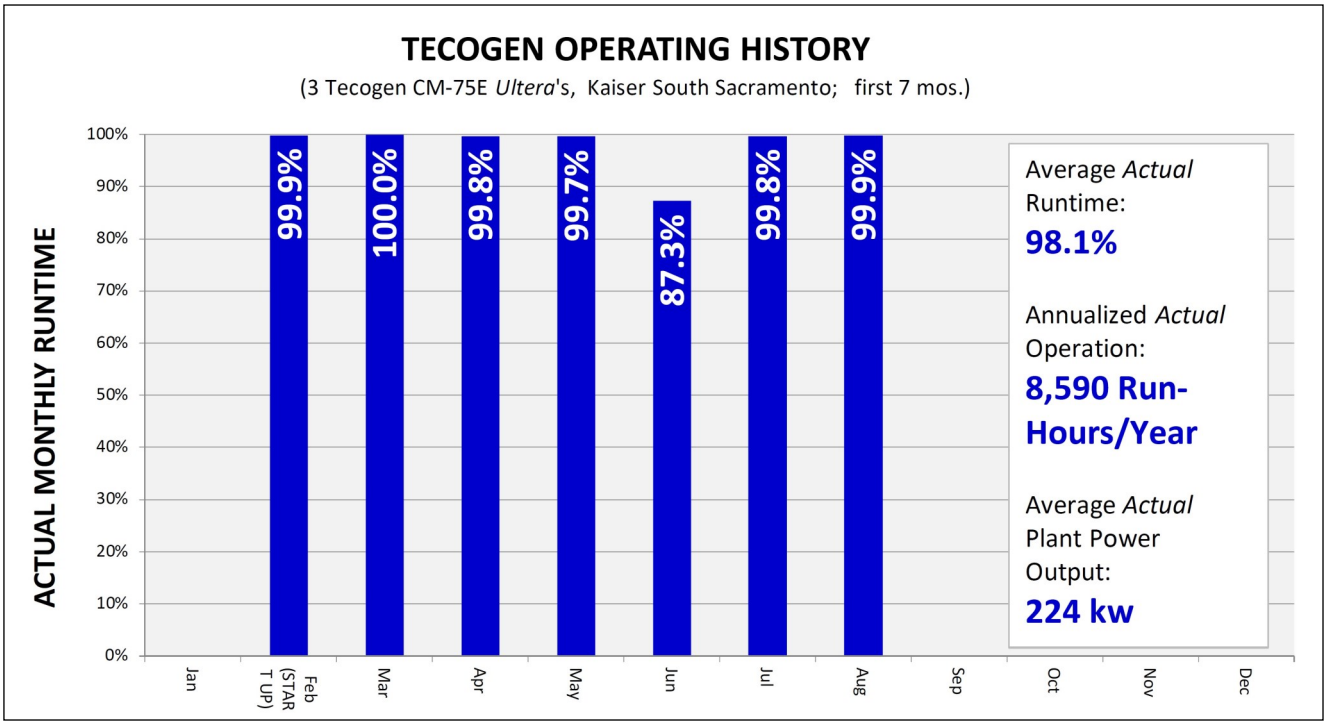
Kaiser Permanente operates three outdoor Tecogen CM-75 *Ultera* CHP Modules at its 217-bed South Sacramento Medical Center. The 225-kw cogeneration system was started up in January 2017.

The cogen system efficiently delivers simultaneous electricity and free heat recovery to satisfy a portion of the hospital's needs. The electricity produced is entirely used on-site, to reduce purchases from the local electric utility. At the same time, the high-quality (225°F) heat that's recovered from the engines' jacket and exhaust systems gets completely used in the campus' heating and domestic hot water (DHW) systems. This reduces operation of the hospital's existing boilers and eliminates the corresponding gas usage.

> "The efficient Tecogen system helps Kaiser reduce its operating costs and carbon footprint, and demonstrates Kaiser's commitment to patients and local communities." - Bill Martini, V.P. of Sales

Through its highly efficient and reliable operation, the Tecogen system provides significant economic savings to Kaiser each year.

The efficient system also helps fulfill Kaiser's widely recognized global environmental objectives, by reducing the greenhouse gas



RESULTS

- **During its first 7 months of operation, the cogen system has operated nearly continuously, achieving an actual on-line factor of 98.1%.**
- **The system's performance to date equates to annualized operation of over 8500 run-hours per year.**

(GHG) emissions that are associated with this portion of Kaiser's electrical and boiler usage by about 40%.

The cogen modules are equipped with Tecogen' s patented *Ultera* emissions controls, which reduce the units' exhaust constituents (such NO_x and CO) to ultra -low levels.

Kaiser selected Tecogen to provide the cogen system for its South Sacramento Medical Center after an extensive, competitive, and rigorous qualification process. Kaiser's evaluation considered a wide variety of engine-based, microturbine-based, and fuel cell-based CHP systems. Kaiser concluded that Tecogen offered the best combination of efficiency, economics, maintenance support, conservative sizing, environmental performance, technical features, and experience/ track record for this facility.

The three CHP modules are fully covered by Tecogen's popular and comprehensive long-term factory service & maintenance program. All work is performed by trained factory technicians based out of Tecogen's Northern California Service Center.

Three Tecogen CM-75 Outdoor cogeneration modules at Kaiser South Sacramento Medical Center.

For more information about Tecogen's
CM-75 Cogeneration Modules
or our other Natural Gas Engine-Driven Products please visit
www.tecogen.com