



CM-75 Ultera Cogeneration Modules



Kaiser Roseville

Kaiser Permanente operates seven outdoor Tecogen CM-75 *Ultera* CHP Modules at its 340-bed Roseville Medical Center. The 525-kw cogeneration system was started up in November 2015.

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.

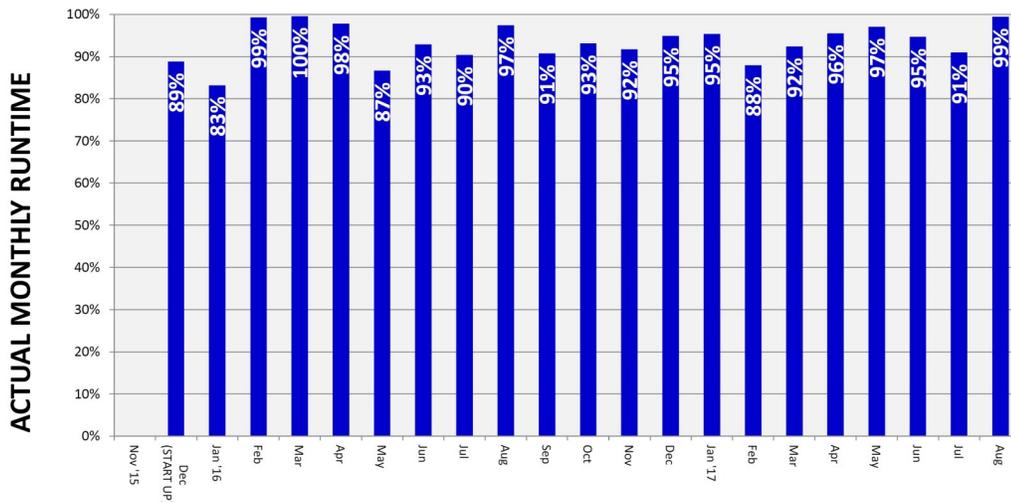
"Kaiser selected our cogen modules for its Roseville campus after having run Tecogen systems successfully at several other hospitals for many years." - Bill Martini, V.P. of Sales

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

TECOGEN OPERATING HISTORY

(7 Tecogen CM-75E *Ultra*'s, Kaiser Roseville; first 2 years)



Average Actual Runtime:
93.3%

Annualized Actual Operation:
8,176 Run-Hours/Year

Average Actual Plant Power Output:
520 kw

RESULTS

- During its first two years of operation, the cogen system has operated nearly continuously, achieving an actual on-line factor of **93.3%**.
- The system's performance to date equates to annualized operation of about **8200** run-hours per year.

The cogen modules are equipped with Tecogen's patented *Ultra* 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 Roseville 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.



Seven outdoor CM-75 cogen modules installed on the roof at Kaiser Permanente Roseville Medical Center.

The seven 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.

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