



September 2015

To whom it may concern:

This letter attests California State University, Fullerton's (CSUF) **Tri-Generation Plant** as an innovation. The plant meets the main campus property's cooling, heating, and electrical needs while saving the campus money and causing less harm to the environment. With the plant being able to generate its own power, it reduces the campus' dependence on off-campus sources such as Southern California Edison.

The Tri-Gen plant produces by three means: high pressure gas powers a 4.4 megawatt turbine to generate electricity. In turn, waste heat created by the turbine gets distributed to two 1,310-ton absorption chillers generate chilled water and heating hot water, which then can be used to heat and cool the campus. The heating hot water loop also provides heating for the Kinesiology and Health Science swimming pool, and hot potable water for campus needs. The system also uses water in lieu of refrigerants, which is much more environmentally sound compared to the more commonly used chemical refrigerants. This plant generates enough power to potentially supply 5,000 California homes.

The plant is able to operate 24/7 to meet the heating or cooling needs around campus at any time. In the control room, the plant operators are able to respond to almost any energy issues there may be across campus. The automated systems are also making any adjustments to the turbine, chillers, and pumps based on information received from the rest of the campus in real time. Within the secure campus network, engineers can see the campus' energy systems instantly and make any adjustments as needed, increasing efficiency for the campus demand.

Respectfully,

Doug Kind, Interim Associate Director of Projects & Programs, Facilities
Management Engineering & Sustainability