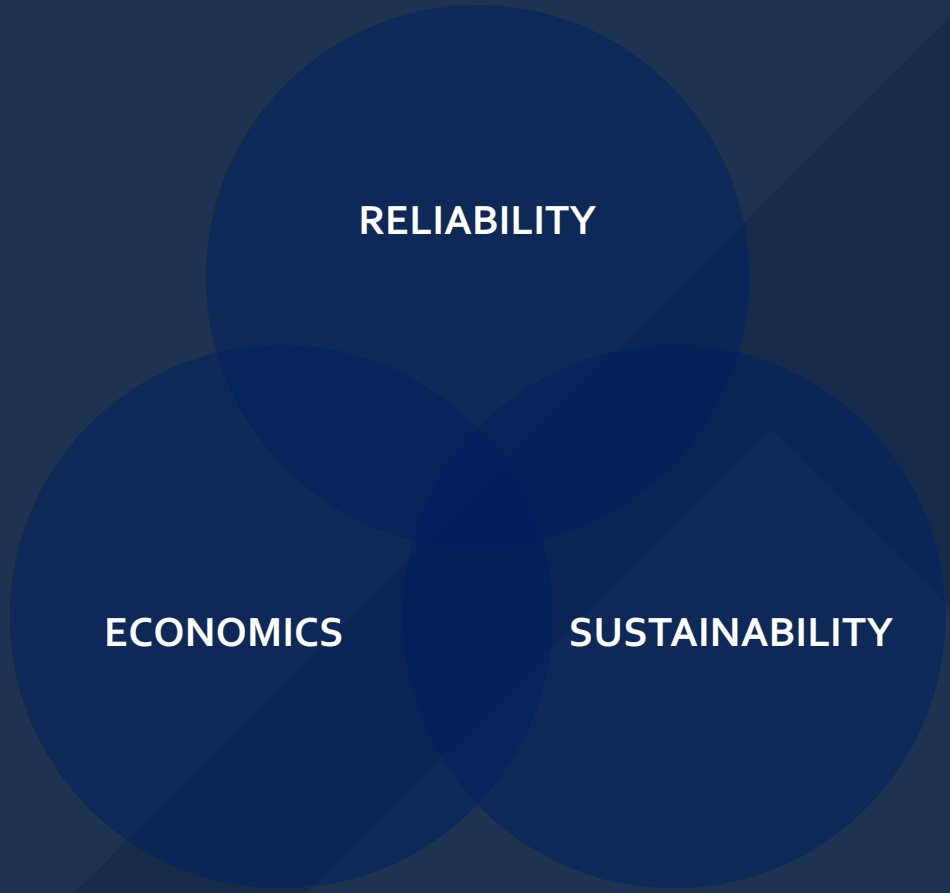
A SMALL CITY

- Population of over 50,000… and growing
- Heavy in research and as a medical institution; two times energy density of commercial buildings
- Over 15 million sqft of buildings
- Peak electricity of 48 MW


CAT

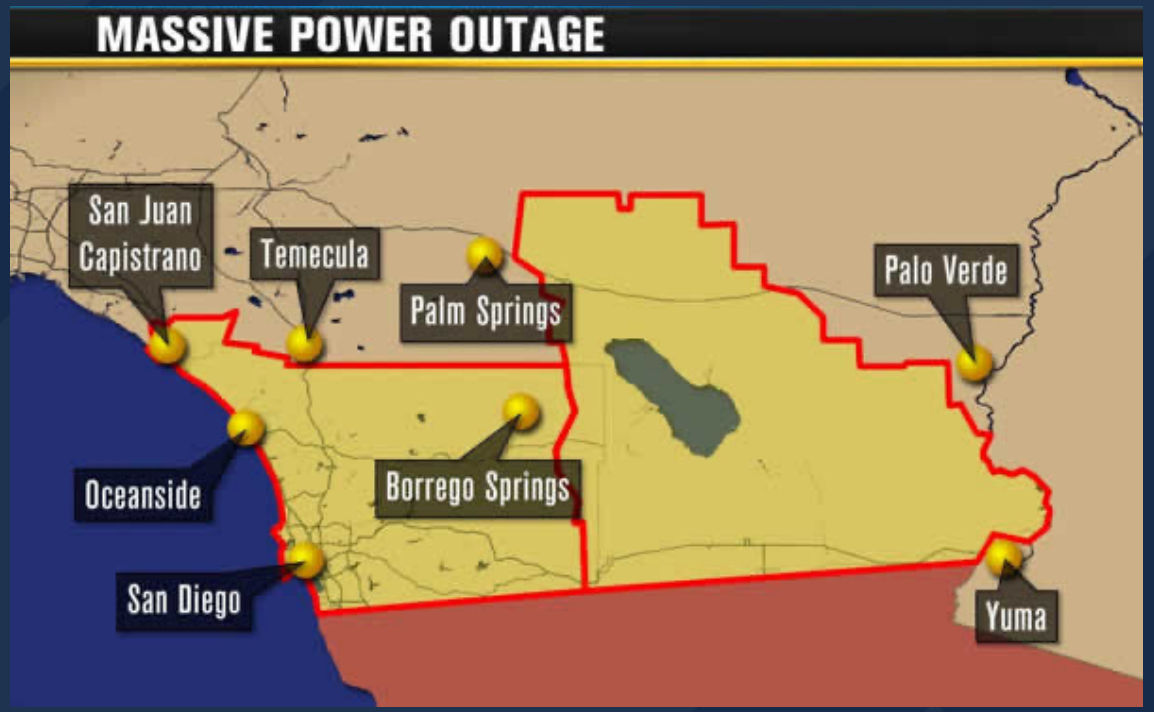
UC San Diego Micro-grid

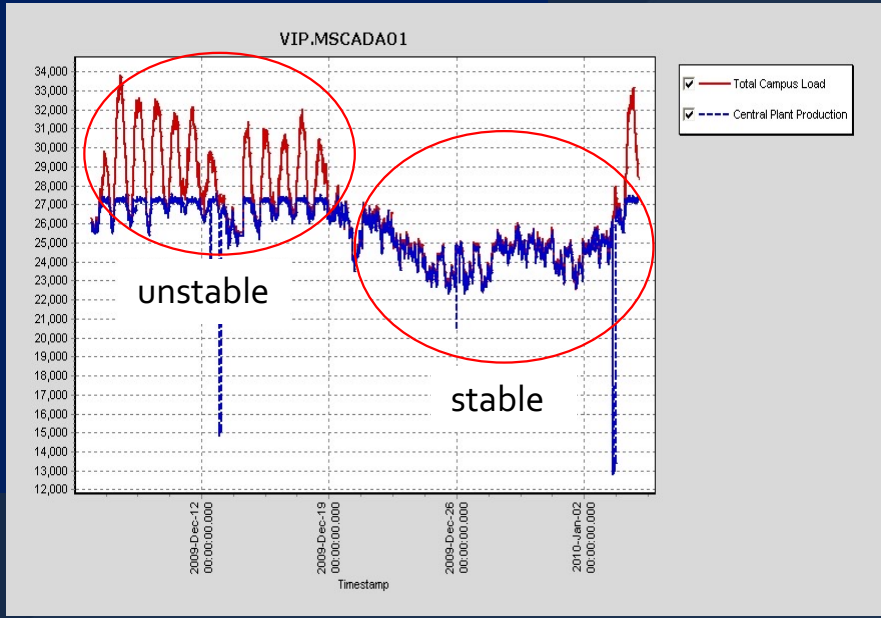
- 30 MW Cogeneration plant
  - 2 x 13.5 MW Gas Turbines Generators
  - 3 MW Steam Turbine Generators
- 2.8 MW Fuel Cell + 300 Ton Absorption chiller
- 3 MW PV (on & off-campus)
- 8 MG Thermal Energy Storage
  - 4 MG on main campus
  - 4 MG on East campus
- 2.5 MW/5 MWh Advanced Energy Storage
- 15 MW Dispatchable Back-up Diesel Generators

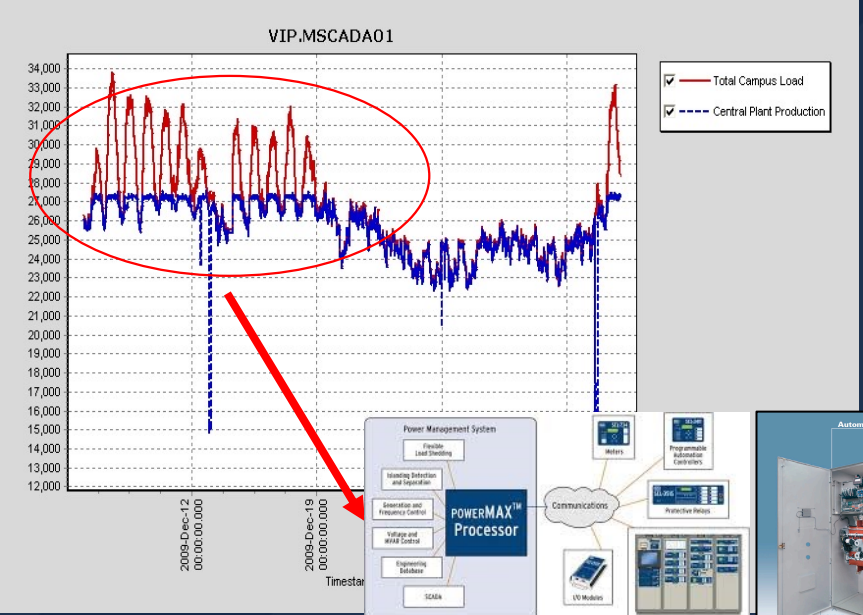


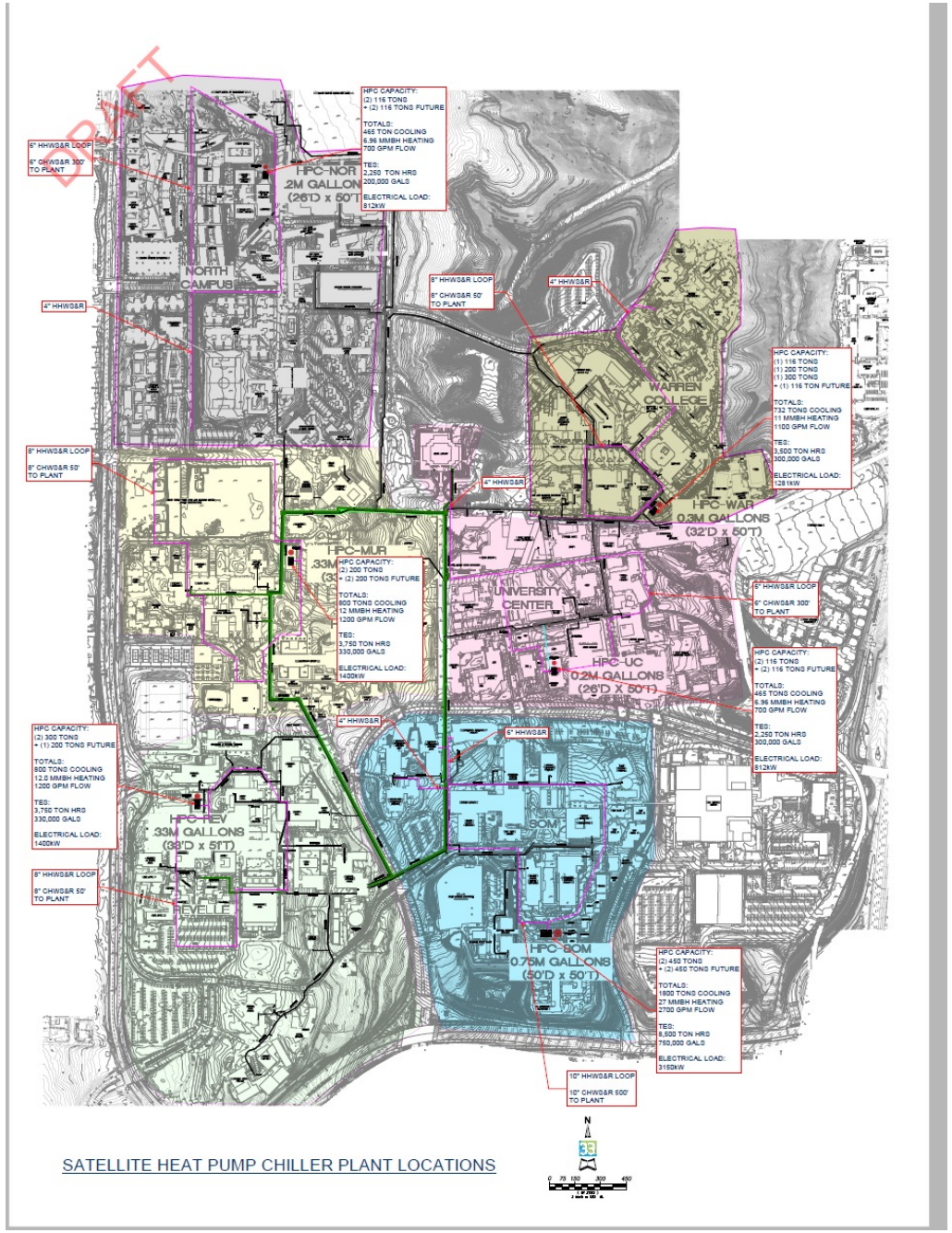
Reliability

- Blackout prevention & recovery
- Smart protective relays (SEL)+ PowerMax
- Emergency generators





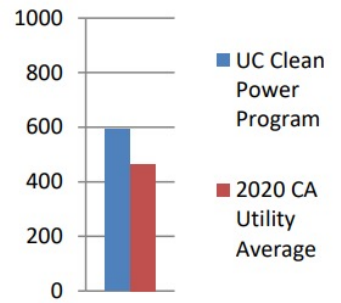




SATELLITE HEAT PUMP CHILLER PLANT LOCATIONS

2020 POWER CONTENT LABEL
The Regents of the University of California

Greenhouse Gas Emissions Intensity (lbs CO_2e/MWh)	
UC Clean Power Program	2020 CA Utility Average
593	**466**



Energy Resources	UC Clean Power Program	2020 CA Power Mix
Eligible Renewable[1]	**35.0%**	**33.1%**
Biomass & Biowaste	0.0%	2.5%
Geothermal	0.0%	4.9%
Eligible Hydroelectric	0.0%	1.4%
Solar	35.0%	13.2%
Wind	0.0%	11.1%
Coal	**0.0%**	**2.7%**
Large Hydroelectric	**0.6%**	**12.2%**
Natural Gas	**0.0%**	**37.1%**
Nuclear	**1.5%**	**9.3%**
Other	**0.0%**	**0.2%**
Unspecified Power[2]	**62.9%**	**5.4%**
TOTAL	**100.0%**	**100.0%**
Percentage of Retail Sales Covered by Retired Unbundled RECs[3]**:**	**63%**	

[1]The eligible renewable percentage above does not reflect RPS compliance, which is determined using a different methodology.

[2]Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source.

[3]Renewable energy credits (RECs) are tracking instruments issued for renewable generation. Unbundled renewable energy credits (RECs) represent renewable generation that was not delivered to serve retail sales. Unbundled RECs are not reflected in the power mix or GHG emissions intensities above.

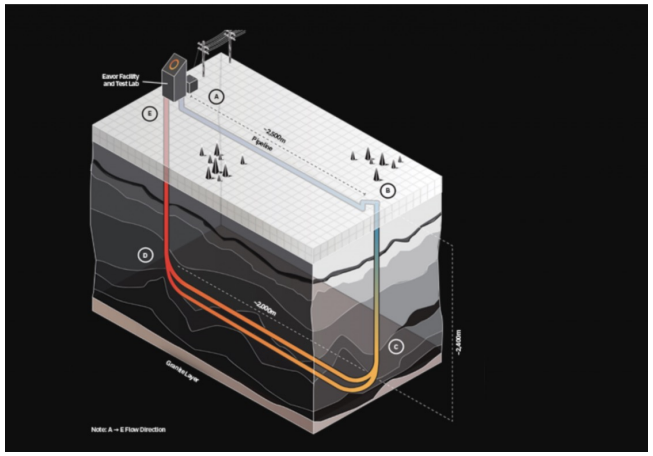
For specific information about this electricity portfolio, contact:	**The Regents of the University of California** **510-287-3360**
For general information about the Power Content Label, visit:	http://www.energy.ca.gov/pcl/
For additional questions, please contact the California Energy Commission at:	Toll-free in California: 844-454-2906 Outside California: 916-653-0237

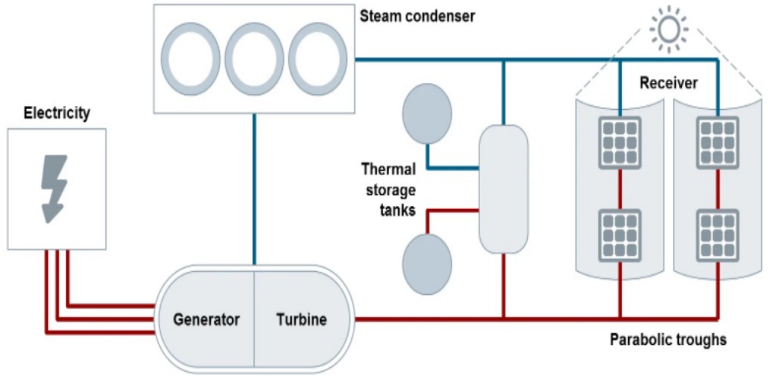
Deep Closed-Loop Geothermal

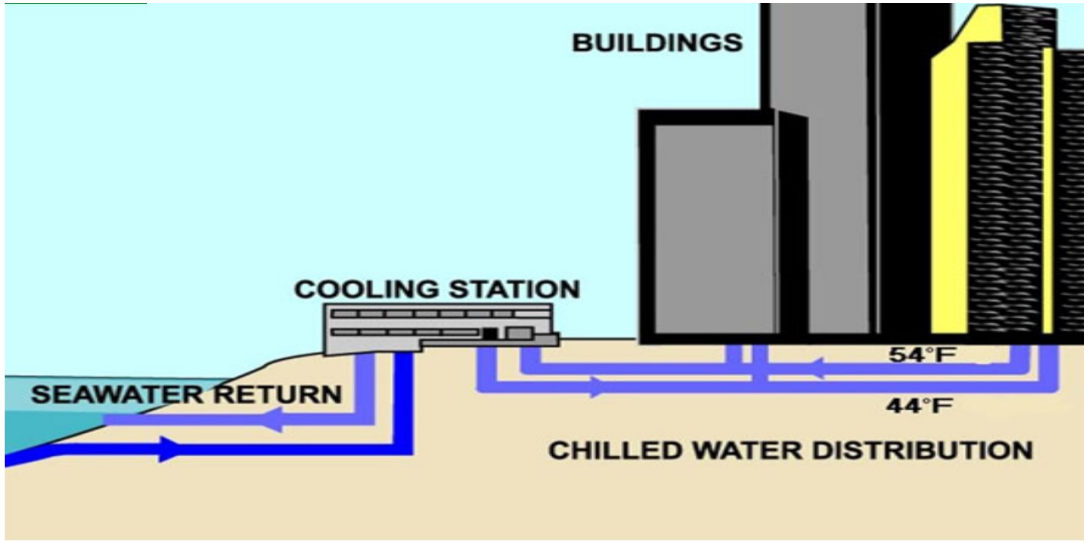
Concentrated Solar Thermal

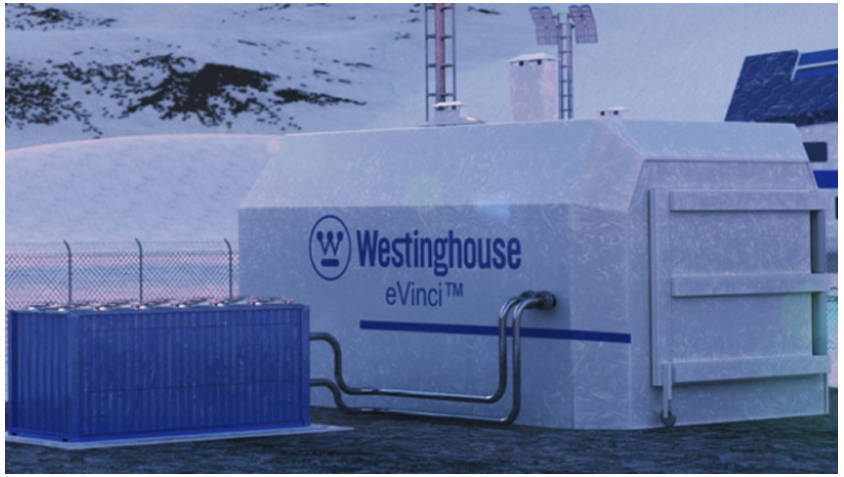
Micro-Reactor

Sea Water Cooling/Desalinization









Equipment Requirements (MEP)

Equipment Requirements	Properties	Unit
Maximum Powered Required- C30 Electrolyzer	236	kVA
Hydrogen Production Rate	65	kg/day
Maximum Water Delivery Requirements	7.5	gal/hr
Delivery Pressure	435	psig
Weight, C30 Electrolyzer	7145	lbs
Noise, @ 1 meter	<75	dB
Storage Pressure	435	psig
Blended Gas Pressure	25-75 psi	psig