

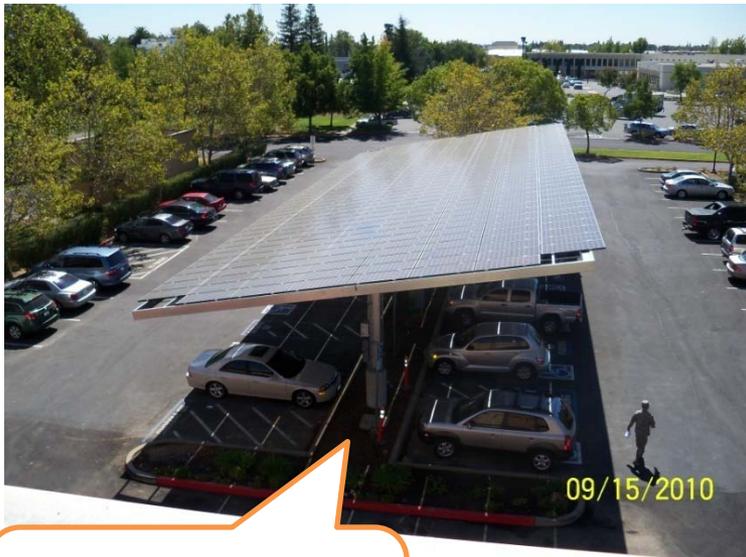
VA's CHP Program

Oct. 2010

Department of Veterans Affairs
Office of Asset Enterprise Management

VA's FY-10 Renewable Projects Awarded

- Solar PV installation Contracts
 - ✓ 20 sites
 - ✓ Total Capacity – 26.6 MW
 - ✓ Total Estimated Generation – 43,743 MWh
 - ✓ Total Contract Cost - \$151.4 million
 - ✓ \$3,500/MWh generation

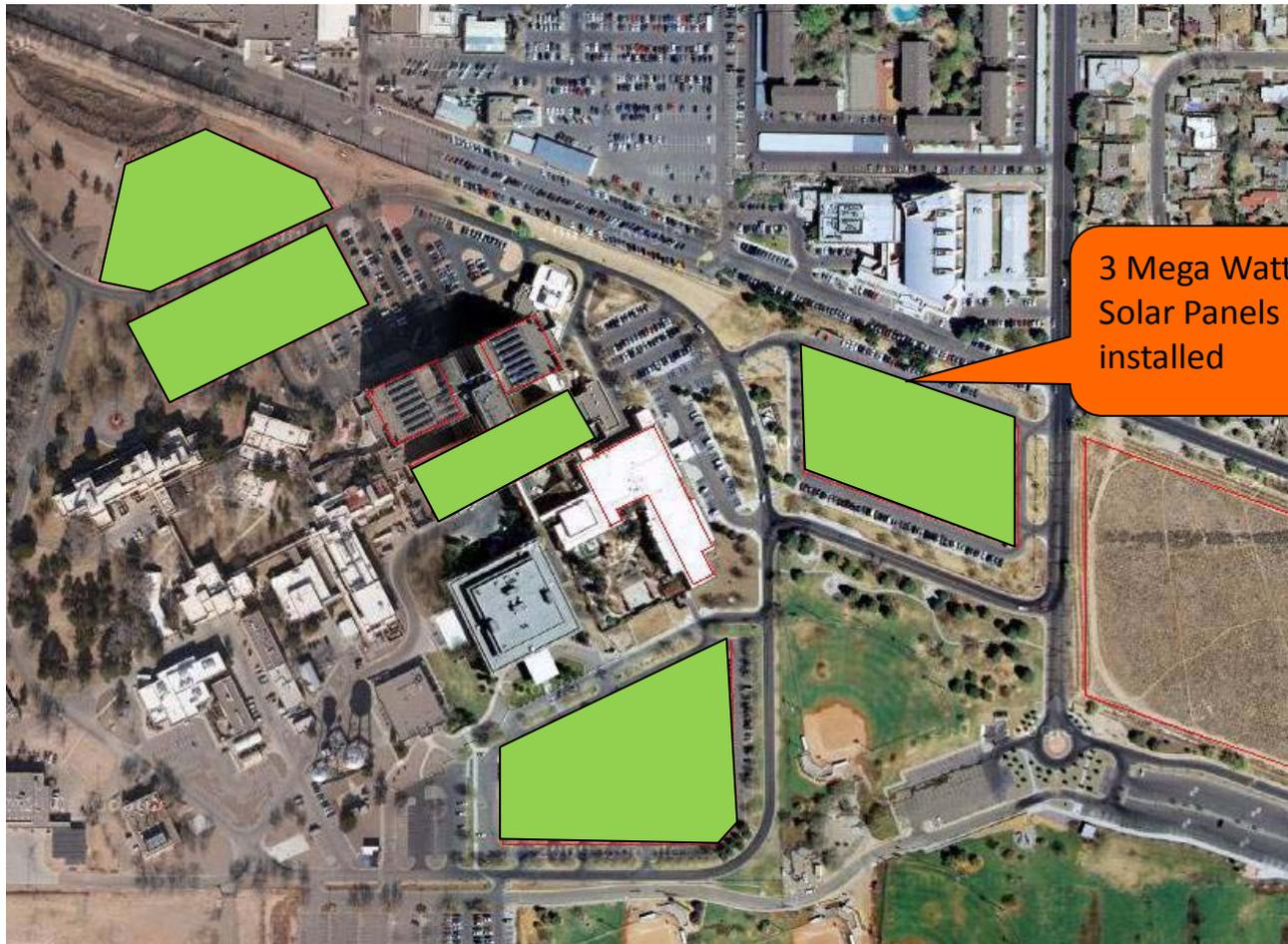


Carport PV at
McClellan facility



Roof top PV at
Honolulu facility

Locations For PV Panels Albuquerque VAMC



VA's FY-10 Renewable Projects Awarded

- Wind Turbine installation Contracts
 - ✓ 2 sites
 - ✓ Total Capacity – 650 kW
 - ✓ Total Estimated Generation – 2,488 MWh
 - ✓ Total Contract Cost - \$3.5 million
 - ✓ \$1,400/MWh generation



Wind Turbine at
Bourne National
Cemetery (50 kW)



600 kW Wind
Turbine at
St. Cloud VAMC

VA's FY-10 Renewable Projects Awarded

- CHP System Installation Contracts
 - ✓ 6 sites
 - ✓ Total Capacity – 4.6 MW
 - ✓ Total Estimated Generation – 36,353 MWh
 - ✓ Total Contract Cost - \$70.3 million
 - ✓ \$1,900/MWh generation + Extra Boilers + **FREE STEAM**

Existing Mt. Homes
VAMC CHP plant



VA's Existing CHP Plants

□ Renewable CHP Plant at Mt. Homes VAMC

- 6 MW CHP system (EUL)
- Generating 18,400 MWh electricity yearly
- Using 60% Natural Gas + 40% Processed Methane Gas
- RE generation – Approx. 7,500 MWh yearly
- Source Energy Savings Credit – 153,000 MMBtu

□ Other Existing CHP's

- 13 MW system at North Chicago VAMC (EUL)
- 4 MW system at West Chicago VAMC (EUL)
- 4.6 MW system at San Diego VAMC (ESPC)

VA's CHP projects in FY-2010

- CHP Installation Contracts Awarded for 7 sites
 - ✓ Togus VAMC, ME (Wood Chips)
 - ✓ White River Junction VAMC, VT (Wood Chips)
 - ✓ Canandaigua VAMC, NY (Wood Chips)
 - ✓ Chillicothe VAMC, OH (Wood Chips)
 - ✓ Murfreesboro VAMC, TN (Landfill Gas)
 - ✓ Loma Linda VAMC, CA (Fuel Cell with Landfill Gas)

- Detailed CHP Feasibility Studies completed for 38 VAMCs
- Awarded 14 more studies
- Sites were selected based on NREL screening, Spark Spread data, renewables availabilities, boiler conditions, etc..

VA's CHP installations for Major Constructions

- CHP Installation planned for Major Constructions
 - ✓ Bronx VAMC
 - ✓ Dallas VAMC
 - ✓ Long Beach VAMC
 - ✓ Orlando VAMC

- VA Energy Directive 0055

Medical centers are ideal candidates for implementation of cogeneration (combined heat and power) systems since both steam and electricity are required yearround. Cogeneration systems will be considered to be the system of choice for all new medical facilities. Documentation will be required for any deviation from this policy.

Questions?



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