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CALIFORNIA ENERGY COMMISSION
REPORT OF CONVERSATION *Page 1 of 1*

Systems Assessment and Facilities Siting Division

FILE: Sun Valley 05-AFC-3

PROJECT TITLE: ~~Walnut Creek Energy Project~~ &

☒ Telephone	654-4640	☐ Meeting Location: Highgrove - 06-AFC-2	
NAME:	Lorne C. Prescott	DATE: 7/17/06	TIME: 1:30
WITH:	GE representatives. (A. Morton, J. Prochaska, J.Peters)		
SUBJECT:	: Data concerning dry cooling for LMS100 in South Dakota (SD)		

Staff members Lorne Prescott, James Reede, and Bob Worl conducted a phone meeting with Andrew Morton, Jim Prochaska, Joe Peters of GE to discuss impacts on performance and plant layout with the use of a fin-fan intercooler.

Prochaska and Peters provided performance data. They are familiar with wet vs. dry cooling for the LMS100. They said they had performed cost benefit analysis on cooling options for various power plants.

Assumption was for a winter peak in SD. Client wanted to run the EGF remotely and they did not want to monitor water cooling system during the winter.

Impacts of wet vs. Dry:

- Size (footprint) required for fin-fan unit is much larger than the wet (cooling tower) configuration. Estimates are 10,500 sq/ft or 0.25 ac per unit.
- Performance is better in hot/dry conditions (California) for the cooling tower. Approximately 10 MW per unit could be lost using the fin-fan unit. Additionally, the auxiliary load is highest when it is hot, this would usurp another (1) MW.

Estimated output provided by Prochaska and Peters assuming 17 percent humidity and 105F:

1. Dry: 85.8mw, heat rate (w/o Aux demand) = 8176
2. Wet: 94.5mw, heat rate (w/o Aux demand) = 8603

- Capital costs are much more for the fin-fan unit, estimated at $2 million in additional costs for each unit.

Water uses (demands) at the SD site are for NOx emissions reductions and air inlet cooling via an evaporative unit. Estimated consumption is 6000 lbs water (per hour) for evaporative cooler and 6000-10,000 lbs (per hour) for NOx. No other significant uses of water. Lube oil is cooled via the fin-fan unit.

According to Prochaska and Peters, One (1) fin-fan unit is required for each turbine.

cc: James Reede, Robert Worl	Signed: RCW for Lorne Prescott
	Name: Lorne C. Prescott