

TABLE 1. Cooling and Process Water Requirements by Solar Generation Plant Type, per MWh

Plant Type		Water (Gallons/MWh)	
		Cooling	Process
Coal		670 (a)	– (1)
Combined Cycle		250-300 (b)	– (1)
Combustion Turbine		None	Variable (2)
Nuclear		620 (c)	– (1)
Solar	Power Tower	750 (d)	8.0 (d)
	Parabolic Trough	764 (e)	8 (e)
	Dish Stirling	None	4.4
	Flat Panel PV	N/A	4.4 (3)
	Concentrating PV	N/A	4.4 (3)
Wind		N/A	1.0 (c)
Hydro		N/A	N/A

SOURCE: *Fuel from the Sky: Solar Power's Potential from Western Energy Supply*, Dr. Arnold Leitner, Senior Consultant, RDI Consulting, NREL/SR-550-32160, July 2002, <http://www.nrel.gov/csp/publications.html>. Sources noted in report: (a) MWH Consulting, (b) RDI Consulting and NEWGen, (c) American Wind Energy Association (AWEA), (d) RDI Consulting estimate and (e) KJC Operating Co. NOTE: Evaporative Cooling process water includes that used for make-up water for steam turbines, combustion turbine wash, air inlet fogging, solar mirror wash, wind turbine blade wash, etc. (1) Included in cooling water, (2) The amount of process water for turbine washes and inlet air fogging depends on location and application of turbine, and (3) RDI Consulting estimates based on dish Stirling.