



SOUTHERN NEVADA WATER AUTHORITY

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COLORADO RIVER
COMMISSION

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November 21, 2007

Mr. Jason Thiriot
Colorado River Commission of Nevada
555 East Washington Avenue, Suite 3100
Las Vegas, Nevada 89101

SUBJECT: 2007 INTEGRATED RESOURCE PLAN (IRP) ANNUAL STATUS REPORT

Dear Mr. Thiriot:

Pursuant to your e-mail dated October 5, 2007, the Southern Nevada Water Authority ("SNWA") is providing its 2007 Integrated Resource Plan (IRP) status report for incorporation into your IRP submittal to Western Area Power Administration:

2007 Accomplishments

HYDROGEN FUELING STATION PILOT PROJECT. The SNWA, working closely with one of its member agencies, the Las Vegas Valley Water District ("LVVWD"), completed a hydrogen fueling station to demonstrate the feasibility of using hydrogen as an alternative fuel. The fueling station is currently being used to fuel two small utility vehicles. Approximately 14-16 kW of solar power is being used to supply the power necessary for the electrolysis process.

NEW OFFICE BUILDING. In 2007, SNWA personnel occupied a new green building constructed by the Molasky Group. The Molasky Building is LEED (Leadership in Efficiency and Environmental Design) certified.

SMALL CONDUIT HYDROELECTRIC PROJECTS. In 2007, the SNWA completed the installation of three in-conduit hydropower turbines on its water delivery system. The hydropower turbines produce renewable electricity from energy contained in water flowing within the SNWA's water delivery system. The small hydropower units are used to control water pressure and flow as well as convert otherwise wasted energy to electricity. Two of the three units are still in testing. Upon commercial operation, they are expected to generate approximately 3 MW.

DISTRIBUTED SOLAR PROJECTS. In 2007, the LVVWD completed the installation of approximately 3 MW of distributed solar photovoltaic systems at six of its reservoirs.

SNWA MEMBER AGENCIES

Five-Year Forecast (2008-2012)

Loads and Resources

The following tables illustrate the SNWA's and LVVWD's forecasted maximum demand and total energy requirements as well as the resources that are anticipated will be used to satisfy the combined needs of the two entities.

Maximum Demand and Proposed Capacity Resources						
	2007	2008	2009	2010	2011	2012
Maximum Demand (MW)	236	256	266	273	281	287
Capacity Resources (MW)						
Federal Hydropower		3	3	3	3	3
Contracts (Existing)		150	150	150	100	75
Renewables (Existing)		5	5	5	5	5
New Resources/Contracts		98	108	115	173	204
Total Cap. Resources		256	266	273	281	287

Total Energy Requirements and Proposed Energy Resources						
	2007	2008	2009	2010	2011	2012
Total Energy Req. (MWh)	1,008,401	1,114,393	1,164,341	1,209,401	1,249,758	1,286,056
Energy Resources (MWh)						
Federal Hydropower		110,865	112,214	112,997	113,255	113,202
Contracts (Existing)		1,040,400	1,068,400	1,068,400	876,000	658,800
Renewables (Existing)		14,226	14,197	14,168	14,140	14,111
New Resources/Contracts		-51,098	-30,470	13,836	246,363	499,942
Total Energy Req. (MWh)		1,114,393	1,164,341	1,209,401	1,249,758	1,286,056

Renewable Energy Initiatives

Beginning in 2012, the SNWA anticipates that its electrical load will increase with the addition of new water pumping facilities. To meet its projected shortfall, the SNWA will need to acquire new resources. The SNWA is currently working on the following renewable energy/conservation projects. It is anticipated that these projects will be operational within the 2008-2012 planning horizon. The energy from these projects will be used to displace the SNWA's energy purchases from the market.

Solar Covered Carports: This project is projected to be in service in 2008 and will constitute constructing carports at two water treatment facilities (River Mountains and Alfred Merritt Smith) and covering them with solar photovoltaic panels. The installed

capacity will be approximately 250 kW with an annual projected production of 500 MWh. The power generated from the installations will offset load at the water treatment facilities.

Concentrating Solar Photovoltaic Demonstration: Concentrating solar PV is projected to have the greatest opportunity to be integrated into utility-scale installations, competing with market-based energy pricing. This installation will demonstrate this technology along with helping to advance its progress towards being competitively priced. The sole-source procurement will combine Amonix Inc.'s technology with SNWA's efforts and the efforts of UNLV to demonstrate a small utility-scale next generation concentrating technology. The 250 kW system will be installed at River Mountains and will supply power to offset the load at the water treatment facility. The annual production is estimated at 625 MWh. The projected in-service date is late in 2008.

Arrow Canyon Energy Recovery: Water from the MX wells northwest of Moapa will be piped to Overton in a project that is under development. In conjunction with that pipeline will be the 450 kW Arrow Canyon hydro-turbine. Scheduled to be complete in 2010, the turbine generator will produce approximately 3,942 MWh, annually. The power will be tied into a local distribution circuit to serve other SNWA loads.


Cave Valley/Delamar Valley Energy Recovery: Two potential hydroturbine energy recovery facilities have been identified, one in Coyote Spring Valley and the other in Dry Lake Valley. These facilities will recover energy generated by the elevation change along the future in-state pipeline. The hydroturbine energy recovery facilities will consist of a turbine, located in the main pipeline, and a generator. Approximately 126,413 MWh of energy and 6.9 MW of capacity will initially be available in 2015.

Wind and Geothermal: Currently, the SNWA is exploring various options for integrating wind and geothermal resources into its energy portfolio.

If you have any questions concerning the information in this submittal, please contact me at 702-691-5240.

Sincerely,

SOUTHERN NEVADA WATER AUTHORITY



Scott P. Krantz
Director of Energy Management