

**APPENDIX A: Renewable Energy Labor Calculator—Nevada RPS Example, 2003-2013**

<b>User Inputs</b>												
<b>Generation</b>	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
Total Retail Sales (1000 KWh)	27,864,303	28,282,268	28,706,502	29,137,099	29,574,156	30,017,768	30,468,035	30,925,055	31,388,931	31,859,765	32,337,661	
RPS Requirement (% of Total Retail Sales)	5%	5%	7%	7%	9%	9%	11%	11%	13%	13%	15%	
RPS Generation Requirement (1000 KWh per year)	1,393,215	1,414,113	2,009,455	2,039,597	2,661,674	2,701,599	3,351,484	3,401,756	4,080,561	4,141,769	4,850,649	
<b>Renewable Generation Mix (%)</b>	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	
Wind	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	
PV	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	
Biomass Cofiring	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	
Geothermal	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	
<b>Renewable Generation Capacity Factors</b>	Capacity Factor											
Wind	0.35											
PV	0.25											
Biomass Cofiring	1.00											
Geothermal	0.90											
<b>Additional parameters</b>												
Percent co-fire	5%											
Hours per FTE	2000											
Annual growth rate of retail sales	1.5%											

<b>Labor Totals, 2003-2013</b>				
Technology	Manufacturing Jobs (FTE)	Installation Jobs (FTE)	O&M Jobs (FTE)	Total jobs by Technology
Wind	2,476	530	751	3,757
PV	16,662	4,817	1,661	23,140
Biomass Co-firing*	n/a	n/a	89	89
Geothermal**	n/a	n/a	243	243
<b>Total by Job type</b>	<b>19,138</b>	<b>5,347</b>	<b>2,744</b>	<b>27,229</b>

<b>Capacity Totals, 2003-2013</b>		
Technology	Cumulative Installed Capacity (MW)	Cumulative Capacity (%)
Wind	791	50%
PV	664	42%
Biomass Co-firing*	55	4%
Geothermal**	62	4%
<b>Total</b>	<b>1,572</b>	<b>100%</b>

\*Assumes silvicultural wood only, no other biomass fuels. Biomass co-firing does not include O&M of the coal-fired power plant, only the growth, harvesting, transport, and preparation of biomass fuels  
 \*\*Geothermal estimates include O&M labor only

<b>Cost Offset, 2003-2013</b>				
<b>All Jobs (10 years)</b>	\$/FTE	Jobs	Value of jobs	\$/kWh
Unemployment	\$ 16,104	27,229	\$ 438,503,429	\$ 0.01368
Incubator	\$ 1,109	27,229	\$ 30,197,485	\$ 0.00094
<b>Installation and O&amp;M Jobs (10 years)</b>	\$/FTE	Jobs	Value of jobs	\$/kWh
Unemployment	\$ 16,104	8,092	\$ 130,311,537	\$ 0.00407
Incubator	\$ 1,109	8,092	\$ 8,973,888	\$ 0.00028