

THE CONCERN

Energy is a central aspect to our lives, from air quality and the cost of living to job creation and wages. Renewable energy sources, as well as their cost, directly impact the cost of doing business and thereby economic development efforts to diversify northern Nevada, as well as the sustainability of our natural environment for future generations. And higher wage renewable energy jobs allow individuals and families to be more self-reliant, which in turn provides revenue for public services. The concern, how quickly can we address new and creative ways to attract green investment and train knowledgeable workers to drive economic growth in northern Nevada?

QUALITY OF LIFE INDICATORS

21. Renewable energy

✓	Renewable energy	Trend
	• renewable energy sources	↑
	• alternative fueled vehicles	↔

- ✓ Improving or positive direction
- ◆ Stable or little change over time
- ✗ Declining or needs improvement
- New baseline / survey needed

In 1997, Nevada lawmakers moved to require the state’s largest electric utilities to acquire 1% of the power sold from renewable geothermal, wind, solar, biomass, landfill gas, and waste heat recovery sources. Today, the Renewable Portfolio Standard (RPS) requires NV Energy to supply at least 25% of retail energy sales from renewables by 2025 (up to one-quarter from energy efficiency/conservation and a minimum of 6% from solar).

NV Energy has 1,240 MW under contract in its renewable energy portfolio, including new biomass/biogas projects, waste heat and wind projects. NV Energy met the RPS in 2008, has met the solar energy requirement each year, and surpassed the RPS requirements in 2009 in northern Nevada but missed the mark in southern Nevada due to renewal project delays, cancellations or renewable energy under-production.

According to the Nevada Vision Stakeholder Group, September 2010 report, improved access to federal lands for renewable energy development could increase production by 50% over the next 20-years. The proposed north-south transmission line will provide infrastructure access to the energy grid with geothermal resources from the north and solar from the south. Nevada ranks #1 in installed geothermal energy capacity per capitaⁱⁱ (installed capacity is currently 433 MW but Nevada could add as much as 3,600 MW under development). The Peppermill Resort Casino is the only US resort using 100% geothermal energy for water and heating needs.

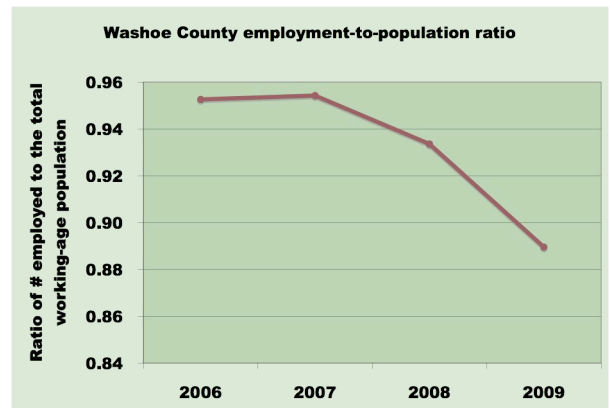
NV Energy fuel mix				
	Renewables & conservation	Gas & oil	Coal	Purchased power
*2007	21%			
2008	9%	51%	24%	16%
2009	10%	51%	16%	23%

**Sierra Pacific Power only prior to merger & change to NV Energy*

Source: NV Energy, Corporate Responsibility & Sustainability Report, 2008 & 2009: <http://www.nvenergy.com/renewablesenvironment/>

8. Economic vitality

Job formation programs and workforce development impact job creation, while unemployment shows how many people are having difficulty getting jobs. The question remains—how many jobs need to be created in Nevada to spur our economy, especially in consideration of the number of individuals no longer looking for work, population changes, and new entrees to the job market? The employment-to-population ratioⁱⁱⁱ is an alternative measure to unemployment capturing the unemployed who leave the labor market over time. The duration of decline overtime is an indication of job growth needed to return to pre-downturn levels. Since 2006, the ratio for Washoe County has declined 7%.

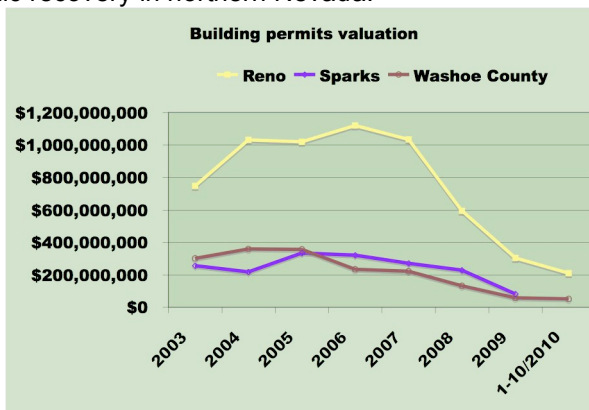


Wages reflect the health of businesses and industry, as well as workforce investment. Leisure and hospitality wages significantly lag the average weekly wage for all industries in Washoe County (\$798 in June 2010; 1.8% drop from 2009). Since 2007, the Reno-Sparks MSA lost almost 36,000 jobs by third quarter 2010, for a 16% decline in all industrial employment. Professional & business services along with trade, transportation & utilities remained steady throughout the decade. According to the Technology Transfer Office (UNR and DRI), there has been an increase in the number of invention disclosures, patent applications and patents issued since 2005. Job creation and entrepreneurship are critical to economic recovery in northern Nevada.

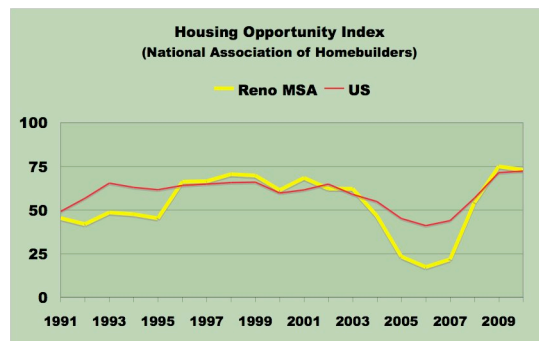
Washoe County average weekly wage (total all industries)								
Super sectors	2004	2005	2006	2007	2008	2009	5-Yr. Δ	1-Yr. Δ
Natural resources & mining	\$985	\$1,087	\$1,742	\$2,927	\$1,194	\$1,385	40.6%	16.0%
Construction	\$777	\$806	\$853	\$929	\$955	\$949	22.1%	-0.6%
Manufacturing	\$866	\$880	\$911	\$988	\$1,037	\$1,018	17.6%	-1.8%
Trade, transportation & utilities	\$685	\$712	\$721	\$724	\$720	\$726	6.0%	0.8%
Information	\$816	\$857	\$918	\$946	\$973	\$991	21.4%	1.8%
Financial activities	\$917	\$956	\$979	\$1,013	\$1,005	\$985	7.4%	-2.0%
Professional & business services	\$809	\$848	\$819	\$895	\$967	\$972	20.1%	0.5%
Education & health services	\$820	\$842	\$880	\$912	\$939	\$944	15.1%	0.5%
Leisure & hospitality	\$404	\$408	\$419	\$428	\$429	\$421	4.2%	-1.9%
Other services	\$516	\$547	\$570	\$588	\$599	\$636	23.3%	6.2%
Public administration	\$1,041	\$997	\$1,051	\$1,076	\$1,124	\$1,144	9.9%	1.8%
Unclassified	\$965	\$1,006	\$985	\$1,067	\$1,120	\$1,278	32.4%	14.1%

Source: Nevada Department of Employment, Training & Rehabilitation, Nevada Workforce Informer, <http://www.nevadaworkforce.com/>

- ✘ Individual & family economic wellbeing
 - [Cost of Living Index](#) ⇄
 - [percentage of families in poverty](#) ↓
 - [median family income](#) ↓
 - [households overpaying for housing & median monthly housing costs](#) ↓
 - [Housing Opportunity Index](#) ↑
- ✘ Economic vitality
 - [employment by industry](#) ↓
 - [employment-to-population ratio](#) ↓
 - [employment wage by industry](#) ⇄
 - [unemployment](#) ↓
 - [average weekly wage](#) ↓
 - [tax revenues](#) ↓
 - [building permits](#) ↓
- ◆ Entrepreneurship
 - [patents](#) ↑



Although tax revenues are an economic indicator just as business growth, taxes are fixed, so it's unclear if it's better if tax revenues go up or down. The proportion of revenues from the gaming tax has decreased since 2004, along with the 2001 decrease on dependence from property taxes, creating a high sales tax burden



for Nevada residents. The housing market and tightening of the commercial loan market has also impacted the demand for building permits and Washoe County and the City of Reno saw valuation reductions by half every year since 2007. Although the number of new building permits is now increasing, valuations continue to fall. These structural deficits are expected to continue.

i Partial indicator data; visit <http://www.truckeemeadowstomorrow.org/indicators> for updated indicator data measures
 ii Geothermal Energy Association's, April 2010, US Geothermal Power Production & Development Update
 iii Source: US Census, American Community Survey, 2006-09, Selected economic characteristics