energy nevada
economic growth through renewable energy

Energy Nevada Vision

Energy Nevada believes an optimistic energy and environmental future incorporating renewable energies is achievable, and indeed inescapable, worldwide. Nevada is uniquely positioned to take a position of global leadership in reaching the renewable energy future.

World electricity demand has grown an average of 3% per year over the last 20 years, almost doubling over that short period.[1] As the developing world raises its standard of living, this growth rate is projected to continue. Assuming that world population levels off in 100 years and that the developing world reaches a decent standard of living by that time, worldwide energy consumption will grow from its current level of 12 tW to 50 tW, a level which is clearly unsustainable using current non-renewable energy technologies.[2] Long before energy consumption gets to that point, the local and planetary ecosystems will be severely strained by energy consumption and emissions, making it difficult for human social and economic systems to function.

We propose a different future. In an alternate and highly preferable global energy future, ingenuity and intelligent planning are applied to harness the vast, and as yet untapped, available resources in energy efficiency and renewable energy.

Primary industries, energy delivery and end use applications are now highly inefficient, and huge efficiency gains are already being demonstrated across the board. Further advances will come through use of intelligent networks and sensor technologies making routine system control which was previously impossible.

Clean renewable energy sources already compete effectively against coal and natural gas power, especially wind and hydro generation. As wind and solar technologies move from their early stages, they can overtake fossil fueled generation. For example, available wind resources in the American west far exceed the total projected power demand of the US. For another example, an area of desert just 110 miles in diameter could supply the US electricity demand using currently available solar electric technologies.

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1 US DOE Energy Information Administration data, "Table 6.3 World Total Net Electricity Generation, 1980 – 2001" http://www.eia.doe.gov/emeu/international/electric.html#ConsumptionForecasts

2 Arthur H. Rosenfeld, California Energy Commission, December 6, 2002. In *The Universe in a Nutshell* (Bantam Books, 2002), Dr Stephen Hawking projects that, at the current rate of increase, by 2600, electricity consumption will cause the surface of the planet to glow red-hot.

As societies recognize the unrecovered costs of polluting power sources and imbed these externalities in gas and coal prices, energy efficiency and renewable energy will see increased competitiveness and accelerated growth. Since these non-resource extraction industries are inherently high-job and high-paying, local and national economies will benefit.[3]

In the near future we see energy efficiency and renewable energy accounting for the bulk of consumption growth and soon thereafter the bulk of all consumption. Fossil and nuclear energy will be used sparingly and only in applications where other technologies are impractical.

Many parts of the world have committed themselves to taking at least the initial steps toward this future. Several European regions have adopted public policies which encourage the development of renewable energy resources and have raised their level of renewable energy consumption to significant fractions of their total consumption.[4] However, Nevada is uniquely positioned to take a position of global leadership. With its wealth of renewable energy resources, its enlightened public leadership, and its human and intellectual capital, Nevada can accomplish in the next few years a demonstration of the energy future which the world overall will need to achieve in the next century. In doing so, Nevada has the opportunity to invigorate its regional economy, enliven its civic discourse, and achieve a position of global leadership.

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[3] For example, see Environmental Law & Policy Center, *Implementing the Repowering the Midwest Clean Energy Development Plan*, in which it is estimated that renewable energy development will create more than 200,000 new jobs across the 10-state Midwest region by 2020, up to $5.5 billion in additional worker income, and up to $20 billion in increased economic activity. (Job Jolt - The Economic Impacts of Repowering the Midwest: The Clean Energy Development for the Heartland by ELPC, http://www.repowermidwest.org/Job%20Jolt/OHx.pdf)

[4] For example, the National Danish Energy Information Center reports that 13% of Denmark's electricity consumption in 2001 was supplied by wind.