N E V A D A

Increasing Energy Efficiency in New Buildings in the Southwest: Energy Codes and Best Practices examines the potential for and benefits from adopting and enforcing up-to-date residential and commercial energy codes and "best practice" building techniques in the Southwest states of Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming. The study examines three scenarios – business-as-usual, moderate improvement, and strong improvement – modeling costs and energy savings for all three scenarios in 2010 and 2020. The study also makes a series of policy recommendations to promote energy codes and the construction of highly-efficient buildings.

Following are Nevada-specific data and results:

Status of Energy Codes

Nevada is growing quickly, particularly in the south. The population of the Las Vegas metropolitan area has doubled to 1.5 million since 1990, and Clark County adds about 7,000 new citizens each month—and 25,000 new single-family homes each year. Nevada has a mandatory state-wide energy code consisting of modified versions of the 1986 MEC for both new residential and commercial buildings. As of 2002, State-owned facilities must comply with the 1999 version of ASHRAE 90.1. In addition, many local jurisdictions, including most where substantial numbers of new homes are being built, have adopted more recent versions of the MEC. The 1992 version of MEC has been adopted in the greater Las Vegas area. The 1995 version of MEC is enforced by the City of Reno and Washoe County in northern Nevada.

Status of "Best Practices" Efforts

There are 41 builders that are official ENERGY STAR® partners, ten of which are now producing only ENERGY STAR homes, most of them large production builders. In the last 12 months, these builders have produced 78% of the ENERGY STAR homes in Nevada. As of July 2003, 12,100 homes have been labeled ENERGY STAR since the Nevada program's inception; of these, 61% were labeled in the 12 months preceding July 2003. In addition to ENERGY STAR, Nevada has a very active Environments for Living program, whose builders guarantee that heating and cooling bills will be no greater than an amount specified at the initial sale of the building. Officials estimate that 4,800 Environments for Living homes will be built in Nevada in 2003, at least 50% of which will be platinum level homes designed to exceed the energy performance of MEC 1995 code levels by 50%.

Building Stock and Projected Growth

	Housing units 2000	Housing units 2020	Growth 2000-2020 (%)	Commercial area in 2000 ($ft^2 \times 10^6$)	Commercial area in 2020 ($ft^2 \times 10^6$)	Growth 2000-2020 (%))
NV	827,457	1,226,788	48	588	1,218	107
Region	6,597,710	9,543,226	45	3,969	7,085	79
NV as % of Region	13	13	-	15	17	-

Source: U.S. Census; Tellus Institute

Energy Savings Potential – Residential Sector

	2010			2020		
Scenario	Total Savings (TBtu)	Total Elec Savings (GWh)	Total Gas Savings (TBtu)	Total Savings (TBtu)	Total Elec Savings (GWh)	Total Gas Savings (TBtu)
Moderate Improvement	1.9	375.3	0.6	2.9	318.4	1.8
Strong Improvement	4.3	857.3	1.4	10.5	1,143.7	6.6

Energy Savings Potential – Commercial Sector

	2010			2020		
Scenario	Total Savings (TBtu)	Total Elec Savings (GWh)	Total Gas Savings (TBtu)	Total Savings (TBtu)	Total Elec Savings (GWh)	Total Gas Savings (TBtu)
Moderate Improvement	1.7	367.9	0.4	3.4	755.0	0.8
Strong Improvement	4.4	1,102.0	0.6	10.7	2,804.0	1.2

Combined Residential and Commercial Costs and Savings (millions of constant 2003 dollars)

	2010			2020		
Scenario	Costs	Savings	Net Savings	Costs	Savings	Net Savings
Moderate Improvement	50.8	57.6	6.8	45.4	101.6	56.2
Strong Improvement	107.2	141.0	33.8	131.9	343.1	211.3

Net Economic Savings during 2001-2020 (billion dollars)

	SCENARIO	
	Moderate Improvement	Strong Improvement
NV	0.39	1.39
Region	2.85	8.36
NV as % of Region	14	17