W Y O M I N G

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 Wyoming-specific data and results:

Status of Energy Codes

Wyoming had about 1400 new housing starts in 2000, and the state is growing slowly. The 1997 Uniform Building Code is the current statewide code, and while it references the 1995 Model Energy Code (MEC) in an appendix, the Fire Marshal's office, which has code responsibility, has yet to officially adopt the appendix. Accordingly, the code is not in effect. A new policy adopted in April 2003 directs the Fire Marshal to adopt and implement a recent energy efficiency code, such as the IECC 2000, and apply that code to all state buildings by the summer of 2003. The policy also recommends that local jurisdictions add recent versions of the model energy code to cover both residential and commercial privately-owned new buildings.

Status of "Best Practices" Efforts

There are 11 builders active in Wyoming listed by the U.S. EPA as ENERGY STAR® partners, but as of July 2003, there have been no houses labeled as ENERGY STAR homes in Wyoming.

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 (%))
WY	223,854	295,263	32	94	114	21
Region	6,597,710	9,543,226	45	3,969	7,085	79
WY as % of Region	3	3	-	2	2	-

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	0.2	1.9	0.2	0.3	5.0	0.3
Strong Improvement	0.3	3.1	0.3	0.8	12.1	0.7

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	0.08	12.2	0.04	0.12	19.0	0.05
Strong Improvement	0.18	34.0	0.06	0.30	60.0	0.09

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	1.9	4.1	2.3	1.6	7.1	5.4
Strong Improvement	3.5	7.6	4.1	5.0	17.5	12.6

Net Economic Savings during 2001-2020 (billion dollars)

	SCENARIO	
	Moderate Improvement	Strong Improvement
WY	0.04	0.08
Region	2.85	8.36
WY as % of Region	1	0.1