

Overview of Residential New Homes Programs in the United States and Canada



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Executive Summary

CEE's *Overview of Residential New Homes Programs in the United States and Canada* summarizes currently active voluntary programs for the construction of new homes that meet certain energy performance requirements. These new homes programs establish various guidelines for energy efficiency through a combination of measures, such as insulation, windows, ducts, heating and cooling equipment, lighting and appliances. Through the application of either comprehensive performance-based approaches or prescriptive single end-use specifications, voluntary programs are generally designed to deliver residential buildings that are more energy efficient than homes built to the local building codes.

New homes energy efficiency programs typically provide financial incentives to builders or consumers; the incentives range greatly based on specific measures taken and other details. New homes programs message and market to trade allies, raters, and homeowners about the efficiency as well as non-energy benefits through a variety of channels (i.e., newspapers, online, home shows, magazines, brochures, yard signs, POP materials, and local partners).

The 66 CEE members listed in this document offer programs with a variety of fuel types, predominantly electric and/or natural gas. With a collective budget totaling roughly \$150 million USD, the new homes industry represented in this Program Summary currently includes CEE members across 39 U.S. states and 5 Canadian provinces. Of the 71 programs documented, just over one third were established within the past five years.

The majority of new homes programs rely on REM/Rate™ for energy modeling and RESNET® Home Energy Raters (HERS Raters) for verification. ENERGY STAR® for Homes is the most common platform for new homes programs, although many members develop additional components outside of EPA's specifications. About 80 percent of those members adopting ENERGY STAR in 2012 were either using or moving toward Version 3.0.

Information on the 71 CEE member programs represented in this document was compiled based on a survey fielded in June and July, 2012. Due to the fact that each CEE member uses different program development processes and schedules, this document aims to provide the best available snapshot of these programs as of the date of its publication, and does not attempt to describe how they have evolved to date or how they are likely to change in the future.

For More Information:

Individual contact information is not provided for members represented in the Program Overview, though it may be made available upon specific request. Detailed program information is published in the *CEE 2012 Summary of Residential New Homes Programs in the United States and Canada*. Members may peruse the full summary within the CEE Forum.

We also encourage comments about the document itself, particularly suggestions for information that would be useful to include in future versions. To offer such input or ask any questions, please contact Alice Rosenberg at arosenberg@cee1.org.

Overview of New Homes Programs

ORGANIZATIONAL INFORMATION AND BACKGROUND

Figure 1: Member Sponsorship Types

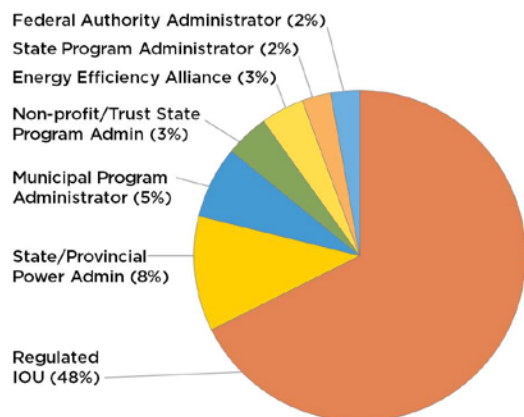


Figure 2: Program Budget Cycle(s)

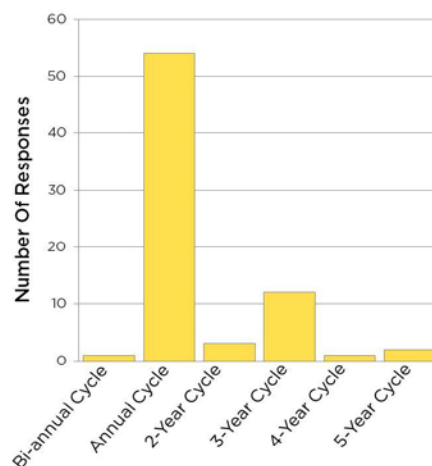


Figure 3: Program Year Established

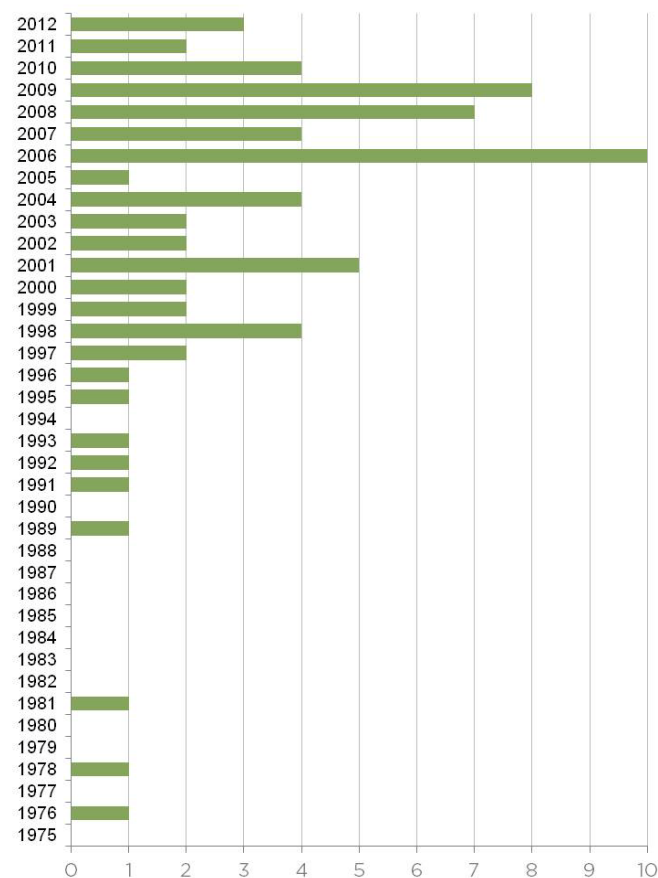


Figure 4: Sponsor Fuel Types

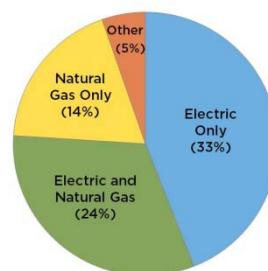
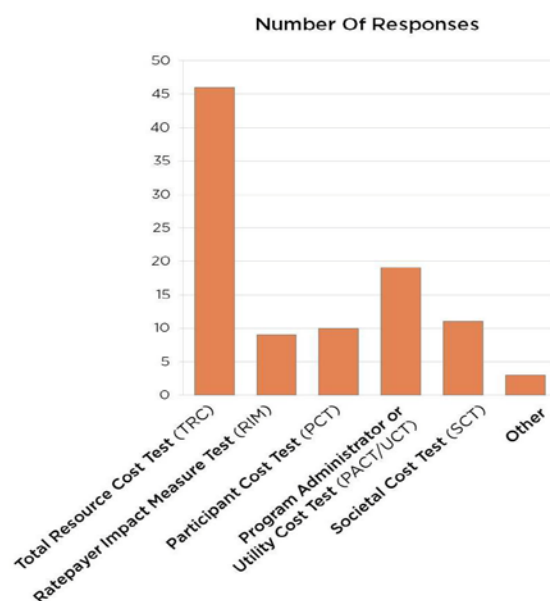


Figure 5: Cost Benefit Tests Used
Analyses used for evaluation purposes



SPECIFIC PROGRAM INFORMATION

Figure 6: Use of ENERGY STAR® Platform

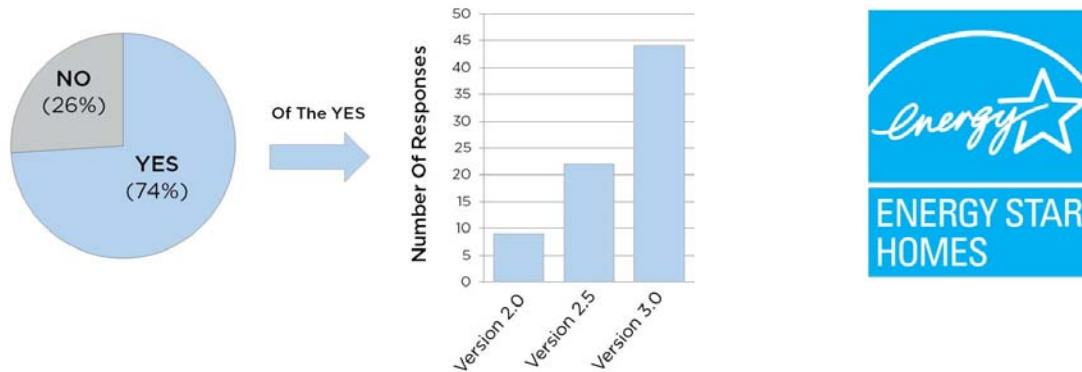
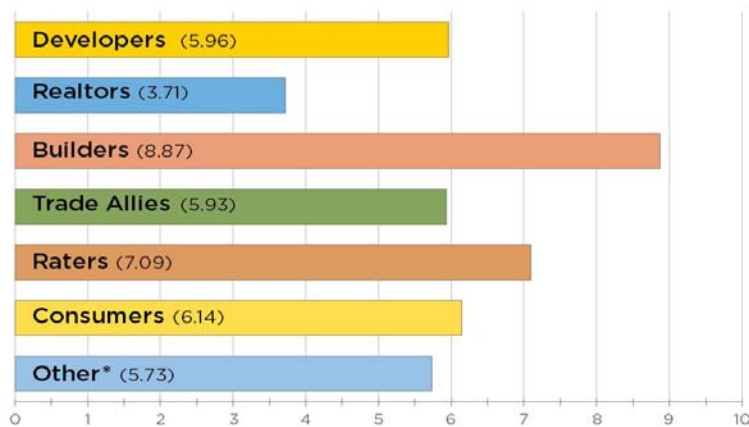


Figure 7: Target Audiences of Program

Where programs work to influence the market stream



*Other Responses Include:
Architects, Contractors, Financing Institutions, Consultants, Analysts,

Figure 8: Program Verification Methods

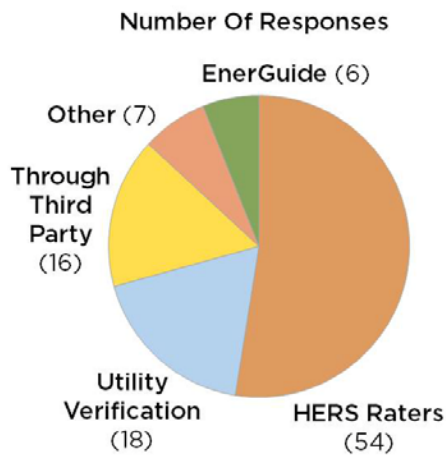
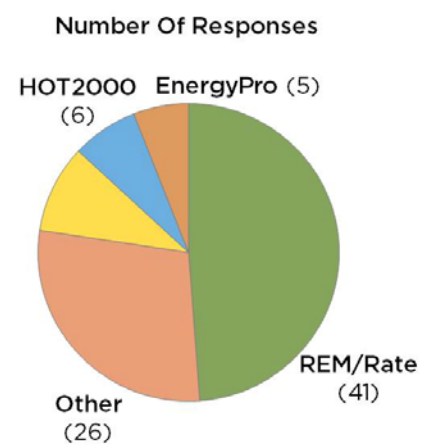


Figure 9: Energy Modeling Used



Summary of Programs

Organization and Website	State/Prov.	BACKGROUND			SPECIFICATIONS		PROGRAM INFORMATION		
		Fuel Type	Year Est.	Annual Budget	E-STAR	Other	Incentive	Verification	Energy Modeling
AEP Ohio	OH	Electric	2010	\$3,000,000	3.0	Energy Path tiers	\$350-\$3,500+	HERS Raters	REM/Rate
Alliant Energy	IA, MN	Electric & Gas	2004	IA: \$2,672,723 MN: 65,700	3.0	IECC 2009 for homes using HERS	\$2,000-\$3,500	HERS Raters	Third Party
Ameren Illinois	IL	Electric & Gas	2009	\$100,000	2.5 3.0	N/A	\$450-\$750	HERS Raters	REM/Rate
Arizona Public Service	AZ	Electric	2006	\$2,800,000	3.0	N/A	\$1,000-\$1,500	HERS Raters	REM/Rate
Austin Energy	TX	Electric	1991	N/A	No	Rated on a star level from 1-5.	N/A	Provided by Austin Energy	IC3-Austin
Avista Utilities	WA, ID, OR	Electric & Gas	2005	\$439,434	No	Single, multi, manufactured and modular.	\$650 - \$900	NEEA Northwest Energy Star	NEEA Northwest Energy Star
Baltimore Gas and Electric	MD	Electric & Gas	2009	\$8,034,252 for 2012-14	2.5 3.0	N/A	N/A	HERS Raters	REM/Rate
BC Hydro	BC	Electric	2006	\$2,500,000 CAD	Yes	All homes in the BC Hydro service area.	\$200-\$1,500	EnerGuide	Other
Berkshire Gas Company	MA	Natural Gas	2006	\$160,194	3.0	N/A	\$750-\$8,000	HERS Raters	REM/Rate
Black Hills Energy	IA	Natural Gas	1992	N/A	2.5 3.0	N/A	\$1,500-\$5,000	HERS Raters and Utility Verification	REM/Rate
Bonneville Power Administration	OR, MT, ID, WA,	Electric	2003	\$1,800,000	3.0	N/A	\$200-\$1,500	HERS Raters	N/A
Cape Light Compact	MA	Electric	2001	\$285,000	2.0	% savings over Mass User-Defined Home	\$750-\$8,000	HERS Raters	REM/Rate
Cascade Natural Gas	WA, OR	Natural Gas	2006	N/A	Yes	Various	Varies by measure, to \$800	Utility Verification	Other
CenterPoint Energy, Inc.	TX, LA, AR, MS, MN, OK	Electric & Gas	2001	\$3,000,000	3.0	Builders may submit homes < HERS 72	Varies by measure	HERS Raters and Utility Verification	REM/Rate
City of Palo Alto Utilities	CA	Electric & Gas	2009	Expect ~\$25,000	No	Must exceed min. Title 24 requirements by ≥ 20%	Up to \$3,000	HERS Raters, Build It Green, Green Point Raters	E3 Calculator
City Utilities of Springfield	MO	Electric & Gas	2006	\$20,000	2.5 3.0	N/A	50% of the rating cost up to \$400	HERS Raters	REM/Rate

Organization and Website	State/Prov.	BACKGROUND			SPECIFICATIONS		PROGRAM INFORMATION		
		Fuel Type	Year Est.	Annual Budget	E-STAR	Other	Incentive	Verification	Energy Modeling
Columbia Gas of Ohio	OH	Natural Gas	2010	\$1,856,717	3.0	Energy Path (ESTAR 2.5 +other specs)	\$350-\$3,500	HERS Raters	REM/Rate
Commonwealth Edison	IL	Electric	2012	\$65,000	Yes	N/A	\$500 to builder, \$300 to rater	HERS Raters and 3 rd Party	REM/Rate & 3 rd Party
Connecticut Light & Power and Yankee Gas	CT	Electric & Gas	1998	Electric: \$1,260,000 Gas: \$500,000	2.5 3.0	Low Load Homes Tier	\$500-\$2,000+	HERS Raters and Utility Verification	REM/Rate
Efficiency New Brunswick	NB	Electric Gas/Oil	2007	\$1,130,000 CAD	No	EnerGuide rating ≥ 83	\$1,500-\$7,500	EnerGuide	HOT2000
Efficiency Nova Scotia	NS	Electric & Gas	2007	\$3,500,000 CAD	No	EnerGuide rating ≥ 83	\$3,000-\$7,000	EnerGuide	HOT2000
Efficiency Vermont	VT	Electric & Other	2000	\$1,200,000	2.5 3.0	Energy Code Plus	Up to \$1,500+	HERS Raters	REM/Rate
Energy Trust of Oregon	OR	Electric & Gas	2004	N/A	2.0 2.5 3.0	Energy Trust specifications in the form of five pathways	Varies	EPS Raters, ENERGY STAR Raters	REM/Rate
Eugene Water and Electric Board	OR	Electric	1976	\$236,000	2.5 3.0	Assist in ETO's program	Varies, up to \$900	Northwest ENERGY STAR Verifier	REM/Rate
Fortis BC	BC	Electric	1989	N/A	2.0 2.5 3.0	EnerGuide 80 and 85	N/A	EnerGuide and Utility Verification	HOT2000 & 3 rd Party
Georgia Power Company	GA	Electric	2011	\$3,700,000	No	HERS Rater qualified	\$150-\$300	HERS Raters	REM/Rate
Gulf Power	FL	Electric	2010	N/A	No	Single, multi, new/existing	Up to \$2,8000	Utility Verification	Energy Gauge Res Rate Pro
LG&E and KU Energy	KY, VA	Electric & Gas	2008	Multi-year	2.5 3.0	HERS label	\$450-\$1,200	HERS Raters and 3 rd Party	REM/Rate
Long Island Power Authority	NY	Electric	2004	\$2,500,000	2.0 2.5 3.0	N/A	\$2,000-\$5,000	HERS Raters	REM/Rate
MidAmerican Energy Company	IA	Electric & Gas	1997	\$7,000,000	3.0	Tier in addition to E-STAR	\$1,000-\$3,000	HERS Raters and Utility Verification	REM/Rate and ESI Common Cents
National Grid (Massachusetts)	MA	Electric & Gas	1997	Electric: \$1,4250,000 Gas: \$3,086,000	3.0	N/A	\$750-\$8,000	HERS Raters	REM/Rate
National Grid (Rhode Island)	RI	Electric	1998	\$1,000,300	3.0	N/A	\$285-\$2,000	HERS Raters	REM/Rate
New Mexico Gas Company	NM	Natural Gas	2009	\$250,000	2.5 3.0	N/A	\$750	HERS Rates and 3 rd Party	REM/Rate
Nicor Gas	IL	Natural Gas	2012	\$315,000	Yes	10% more efficient than current Illinois code	Up to \$500	HERS Raters and 3 rd Party	REM/Rate & 3 rd Party

Organization and Website	State/Prov.	BACKGROUND			SPECIFICATIONS		PROGRAM INFORMATION		
		Fuel Type	Year Est.	Annual Budget	E-STAR	Other	Incentive	Verification	Energy Modeling
Northern Indiana Public Service Company	IN	Electric & Gas	2008	Electric: \$394,000 Gas: \$256,000	3.0	HERS <75 HERS <67	Up to \$1,000	HERS Raters and RESNET Certified	EnergyGauge USA
Northwest Energy Efficiency Alliance	ID, MT, WA, OR	Electric	2004	\$1,800,000	2.5 3.0	N/A	Varies across the region	Through 3 rd Party Verifiers	SEEM
NSTAR	MA	Electric & Gas	1998	Electric: \$2,594,966 Gas: \$1,573,365	3.0	% savings over Mass User-Defined Home	\$750-\$8,000	HERS Raters	REM/Rate
NV Energy	NV	Electric	2008	\$2,500,000	No	Homes must achieve min. HERS 70	\$375	HERS Raters	REM/Rate
NYSERDA	NY	Electric Gas/Oil	2001	\$50,000,000 for portfolio	2.0 3.0	Additional requirements beyond EPA	\$1,200-\$2,500	HERS Raters	REM/Rate and other (pending)
Omaha Public Power District	NE	Electric	2006	N/A	3.0	N/A	TBD	Not yet determined	Not yet determined
Oncor	TX	Electric	2001	\$472,000	3.0	N/A	N/A	HERS Raters	REM/Rate
Ontario Power Authority	ON	Electric	2011	N/A	No	Three or fewer stories, ≤ 600 m ²	All-off switches	EnerGuide	HOT2000
Pacific Gas and Electric Company	CA	Electric & Gas	2006	N/A	Yes	N/A	Tiered incentive structure	HERS Rates and Title 24 compliance	EnergyPro & MicroPas
PacifiCorp (California)	CA	Electric	2008	\$600,000	No	Single-family homes	\$1,500	Utility Verification	No software is used
PacifiCorp (Washington)	WA	Electric	2006	\$1,600,000	3.0	NW Builder Option Package	\$1,000	HERS Rates and Utility Verification	Other
PacifiCorp (Utah)	UT	Electric	2003	\$900,000	3.0	Program component measures	\$25-\$500 (online)	HERS Raters & 3 rd Party	REM/Rate
PacifiCorp (Wyoming)	WY	Electric	2009	\$1,100,000	No	Single-family homes	\$20-\$500	Utility Verification	None Used
PNM	NM	Electric	2008	\$282,791	2.5 3.0	N/A	\$750	HERS Rates & 3 rd Party	REM/Rate
Progress Energy Carolinas	NC, SC	Electric	2008	\$750,000	2.0	N/A	Baseline 5 percent discount	HERS Raters	REM/Rate & 3 rd Party
Progress Energy Florida	FL	Electric	1991	\$2,200,000	2.5 3.0	HERS	Varies	HERS Rates and Utility Verification	3 rd Party: EnergyGauge
Public Service of New Hampshire	NH	Fuel Neutral	2001	\$1,667,533	3.0	Geothermal & Heat Pump Program	Up to \$4,000	HERS Raters	REM/Rate
Puget Sound Energy	WA	Electric & Gas	2006	\$2,585,523 for 2 years	Yes	N/A	By each measure (online)	Utility Verification & 3 rd Party	Other
Questar Gas Company	UT	Natural Gas	2007	\$2,500,000	2.5 3.0	N/A	By each measure (online)	HERS Raters	REM/Rate

Organization and Website	State/Prov.	BACKGROUND			SPECIFICATIONS		PROGRAM INFORMATION		
		Fuel Type	Year Est.	Annual Budget	E-STAR	Other	Incentive	Verification	Energy Modeling
Sacramento Municipal Utility District	CA	Electric	2006	\$382,500	No	Achieve energy savings requirement	\$1,100-\$3,000	HERS Rates and Utility Verification	EnergyPro & MicroPas
Salt River Project	AZ	Electric	1978	\$3,400,000	3.0	Various Qualification	Up to \$750+	HERS Rates and Utility Verification	REM/Rate
San Diego Gas & Electric	CA	Electric & Gas	2002	\$4,398,013 for 3 years	2.0 2.5 3.0	N/A	Up to \$1.29/ kWh \$225/kW \$5.14/Thrm	HERS Rates and Utility Verification	EnergyPro & MicroPas
SaskPower	SA	Electric	2007	\$380,000 CAD	No	EnerGuide 80	\$1,000+	EnerGuide & 3 rd Party	HOT2000
Snohomish County PUD #1	CA	Electric	2008	\$140,000	No	Certified ENERGY STAR NW	\$20-\$2,800	Utility Verification and 3 rd Party	Other
Southern California Edison	CA	Electric	1995	\$3,500,000	2.5 3.0	N/A	calculated based on several factors	HERS Rates and Utility Verification	EnergyPro & MicroPas
Southern California Gas Company	CA	Natural Gas	1998	\$2,700,000	2.0 2.5 3.0	Must be ≥15% better than Title 24	Up to \$1.29/ kWh \$225/kW \$5.14/Thrm	HERS Raters	EnergyPro & MicroPas
Southwest Gas (Arizona)	AZ	Natural Gas	2009	\$950,000	3.0	Tankless water heaters and attic insul	\$450+	HERS Raters	REM/Rate
Southwest Gas (Nevada)	NV	Natural Gas	2010	\$600,000	3.0	Tankless water heaters and furnaces	\$450+	HERS Raters	REM/Rate
Tennessee Valley Authority	TN	Electric	2002	\$2,600,000	No	Prescriptive standard or HER system	\$100-\$800	HERS Raters	REM/Rate
UIL Holdings Corporation	CT	Electric & Gas	1999	N/A	2.5 3.0	4 Tiers based on HERS	Up to \$2,000+ (online)	HERS Raters and Utility Verification	REM/Rate
Union Gas	ON	Natural Gas	2012	\$635,000 CAD	No	Single-family and metered townhouses	\$2,500	Through a Third Party	HOT2000
Vectren Energy Delivery of Ohio	OH	Natural Gas	2009	\$52,500	2.5 3.0	Vectren Gold Star Home (HERS ≤70)	\$750+	HERS Raters	Through a 3 rd Party
Vermont Gas Systems	VT	Natural Gas	1993	\$300,031	2.5 3.0	N/A	\$650+	HERS Raters	REM/Rate
Western Massachusetts Electric Company	MA	Electric	2000	\$350,000	3.0	N/A	Up to \$8,000	HERS Raters	REM/Rate
Wisconsin Focus on Energy	WI	Electric & Gas	1999	\$1,750,000	No	1-3 unit residential properties	Tiered Incentives	HERS Raters	REM/Rate
Xcel Energy (Colorado)	CO	Electric & Gas	2009	\$3,124,000	2.0 3.0	Non-ENERGY STAR homes	Up to \$1,300	HERS Raters & 3 rd Party	REM/Rate
Xcel Energy (Minnesota)	MN	Electric & Gas	1996	\$1,300,000	3.0	N/A	\$500+	HERS Raters	HouseRater RSR Software