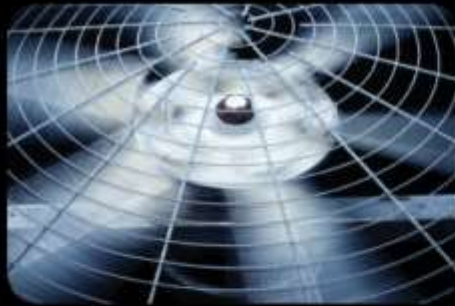




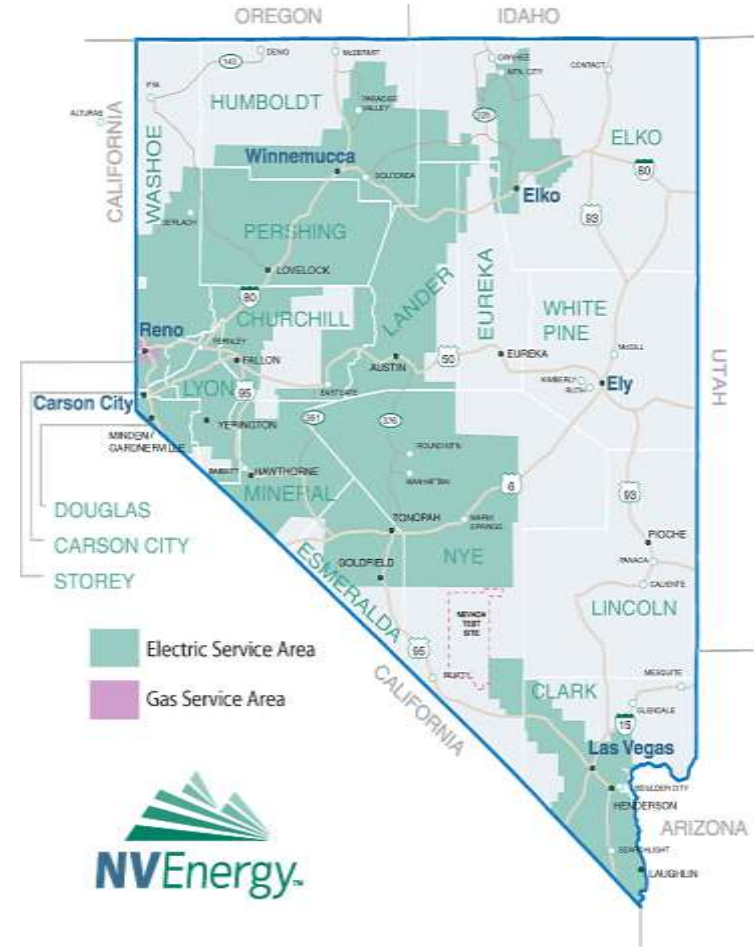
NV ENERGY

SWEEP Tenth Annual Regional Energy Efficiency Workshop



NV Energy Overview

- Two operating utility companies:
 - Nevada Power Company (NV Energy South) (Las Vegas)
 - Sierra Pacific Power Company (NV Energy North) (Reno)
- Serves 2.5 million Nevadans
- 5,700 MW load in South
- 1,600 MW load in North



2013 Budgets & Targets

2013 Approved DSM Programs	South		North	
	Budget	kWh Targets	Budget	kWh Targets
Energy Efficient Pools and Spas	\$1,500,000	8,250,000	NA	NA
Residential High Efficiency Air Conditioning	\$12,000,000	31,000,000	NA	NA
Low Income Weatherization	\$500,000	500,000	NA	NA
Second Refrigerator Collection and Recycling	\$1,200,000	6,200,000	\$500,000	2,950,000
Residential Solar Thermal Water Heating	\$100,000	60,000	\$100,000	50,000
<i>Residential Total</i>	<i>\$15,300,000</i>	<i>46,010,000</i>	<i>\$600,000</i>	<i>3,000,000</i>
Non-Profit Agency Grants	\$100,000	240,000	\$110,000	270,000
Commercial Incentives	\$9,700,000	64,000,000	NA	NA
Commercial New Construction	NA	NA	\$600,000	3,400,000
Commercial Retrofit Incentives	NA	NA	\$3,150,000	26,000,000
Energy Smart Schools	\$1,300,000	6,000,000	\$400,000	1,600,000
<i>Commercial Total</i>	<i>\$11,100,000</i>	<i>70,240,000</i>	<i>\$4,260,000</i>	<i>31,270,000</i>
Energy Education and Consultation	\$400,000	NA	\$250,000	NA
Market and Technology Trials	\$400,000	NA	\$100,000	NA
<i>Total Other</i>	<i>\$800,000</i>	<i>0</i>	<i>\$350,000</i>	<i>0</i>
Total Energy Efficiency	\$27,200,000	116,250,000	\$5,210,000	34,270,000
Demand Response	\$17,350,000	8,170,000	\$800,000	NA
Total Demand Response	\$17,350,000	8,170,000	\$800,000	0
Total Demand Side Programs	\$44,550,000	124,420,000	\$6,010,000	34,270,000

Pool Pumps

- KWh savings up to 80% with most at least 50%
- Savings are mechanical and behavioral
- kW is proportional to the cube of the pump speed
- Flow is proportional to pump speed
- One half flow for twice as long = 50% kWh savings
- High efficiency motor
- Only need 1 turn per day (Full gallon volume of pool)
- Pool pumps are programmed to only operate off system peak hours
- \$2-300 rebate to retailer (Instant rebate at purchase)
- Pool builder participation recovering



HVAC- Check Me

- Co-marketing with mPowered program (Demand Response) to increase customer participation and economies of scale for both programs
- **Target marketing multi-family and mobile homes for duct testing and sealing to increase cost effectiveness and energy savings of the program**
- **Increased threshold for Duct Test and Seal to 18% leakage reduction**
- Early replacement and Western Cooling Control
- Low Income Program
 - Same measures offered



Demand Response mPowered™ Home Energy Management

mPowered Offer:*

- **FREE** intelligent thermostat
- **FREE** professional installation
- **FREE** web-based energy optimization service
- **FREE** online and mobile access to your thermostat

* Limited Time Offer - Basic subscription fee waived for eligible customers who enroll in mPowered by 12/31/13



Anytime, Anywhere Access
Adjust settings from your computer or smart phone.



Energy Savings Reports
See how much you've saved using the service.



Customized Comfort
Set temperature preferences to suit how you live.

Demand Response Education



80 PEOPLE SHOW UP FOR FLIGHT



BOMBARDIER CRJ-700
ONLY SEATS 70 PEOPLE



AIRLINE PAYS (E.G. TICKET
VOUCHERS) 10 PEOPLE TO
TAKE LATER FLIGHT



Demand Response Education



POWER GRID NEEDS **80 MW**



POWER
GRID ONLY
HAS **70 MW**



POWER GRID PAYS
CONSUMERS TO REDUCE
10 MW TO BALANCE
SUPPLY & DEMAND

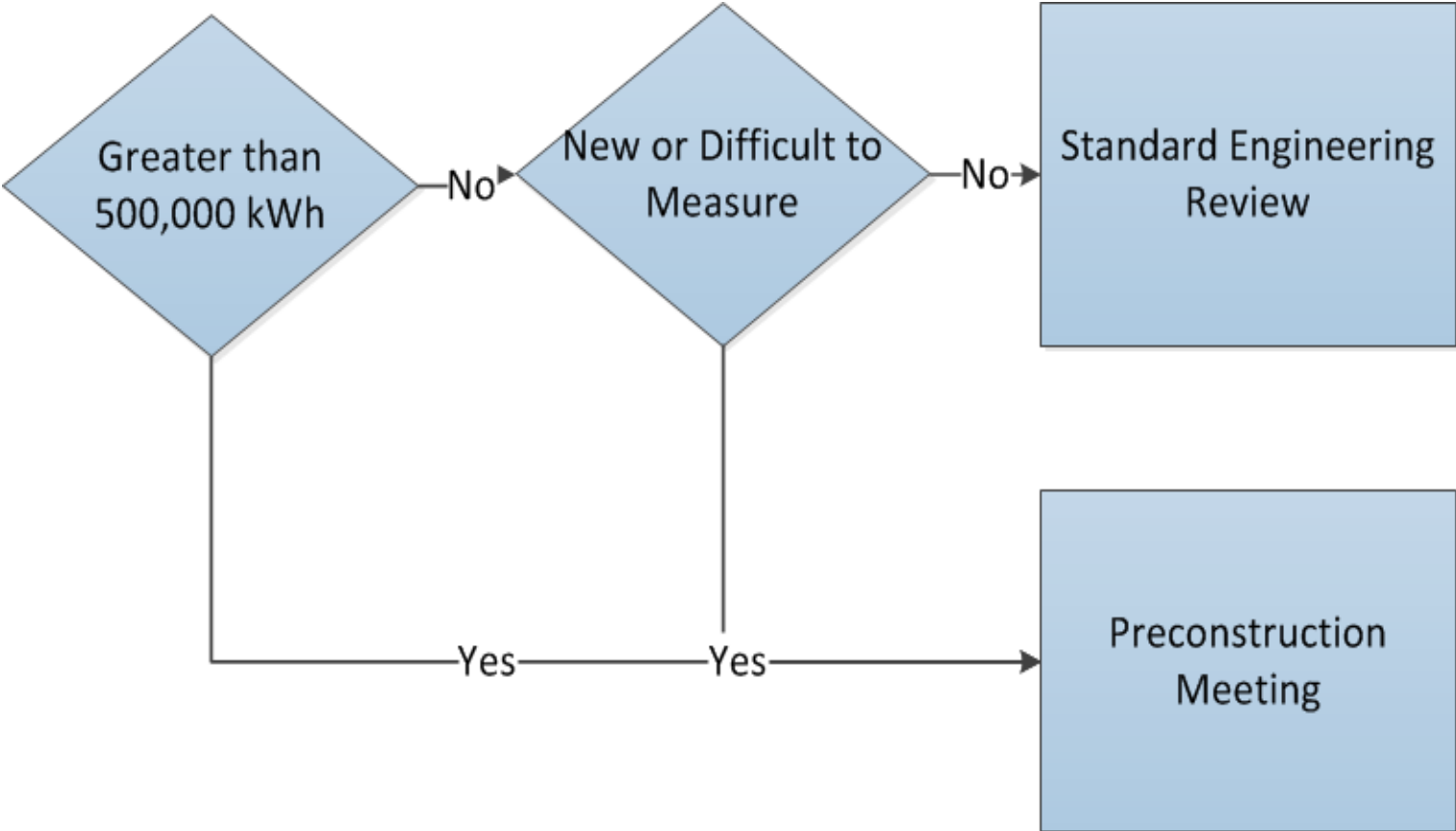
Commercial Incentives

Program Highlights

- Complete:
 - City of Las Vegas LED Street light replacement – 15,000,000 kWh project paid in 2013
- In Progress:
 - Tropicana Chiller Replacement – 4,500,000 kWh
 - Convention Center lighting retrofit – 5,700,000 kWh
 - Monte Carlo lighting retrofit – 4,500,000 kWh
 - Aria Resort lighting retrofit – 3,300,000 kWh
 - Zappos major remodeling project – 1,500,000 kWh
- **EE/DR- Advanced Lighting Control System roundtable with market players**
- **Implemented Pre-Construction Meetings to improve communication between implementer, evaluator, customer, contractor, and utility.**



Preconstruction Meeting



Improved M&V Communications



Project Engineer: _____ Project Name: _____

Project #: _____	Calculated Incentive: _____
Year: 2013	Estimated Annual kWh: _____
	Program Type: 2013 Southern Retrofit

Applied Measures:

Measure Category	Installed Measures	Estimated Annual Kwh	Preliminary Building Type	Notes

Measure Type:	Application Technology Worksheet:	kWh/Therm Breakdown:
Prescriptive <input checked="" type="checkbox"/>	Lighting <input type="checkbox"/> Kitchens <input type="checkbox"/>	Therms _____
Custom <input type="checkbox"/>	Cooling <input type="checkbox"/> Custom <input type="checkbox"/>	Prescriptive kWh _____
Gas <input type="checkbox"/>	Refrige <input type="checkbox"/> Delamping* <input type="checkbox"/>	Custom kWh _____
	<small>*Custom Or Prescriptive measure</small>	

Project Summary (DNV KEMA): _____ (Include type of technology and proposed baseline)

Measure Description (DNV KEMA): _____ (New Tech: Yes/No)

Review Requested:	Date:	By:	Course of Action Recommended:
Baseline Assumption		DNV KEMA:	
		ADM:	
Saving Calculation Approaches		ADM:	
Key Parameters & I.D. Methods		ADM:	
Customer Requirements		DNV KEMA:	
		ADM:	
Other (Please Describe)		DNV KEMA:	
		ADM:	

Non-Profit Grants

- Dedicated resource for non-profit
- Leverage existing contractors
- Streamline application process
- Provide customer & technical support
- Highlight success stories



Energy Smart Schools

- **Technical assistance fills a void**
- Projects have several year lead time and work is cyclical
- Personal Computer Power Management project with several school districts north and south
- Expanding to include Nevada System of Higher Education and private schools
- **Direct install and ESCO options provides program flexibility**

REDUCING ENERGY USE BY SHUTTING DOWN INACTIVE COMPUTERS

Clark County School District (CCSD) has nearly 100,000 computers. The rebate fully funded the program. The power management program will save the district over \$1,000,000 annually!.



Energy Education

Program Highlights

- *Building Industry Support-* Code Compliance Training, Above Code Program, Realtor Training
- *Commercial Customer Education-* Focus Groups, Manufacturing Conference, Association of Energy Engineers- Energy Management Congress
- *Residential Customer Education-* Nevada **EnergyWise Educators, STEM Collaborative,** Community Events



NV EnergyWise Educators

- Community collaboration:
 - NV System of Higher Education- Desert Research Institute
 - Southwest Gas
 - Energy Fit- Home Performance with EnergyStar
 - USGBC Nevada
 - Southern Nevada Regional Planning Commission
- Supported by statewide STEM Teacher Collaborative
- Next Generation Science Standards compliant



Nevada EnergyWise Educators
STEM Energy Efficiency Teacher Training
July 23rd - 25th, 2013 | 8:00 AM - 4:30 PM | DRF Las Vegas Campus | 755 East Flamingo Road

If you're a middle or high-school math or science teacher, this FREE training is for you! Join us for three days filled with energy efficiency STEM content. We'll provide breakfast, lunch, and chocolate each day!

What we give to you:

- A 36-module curriculum aligned with Nevada state and Next Generation Science Standards, including numerous hands-on activities and homework lessons.
- Matching Green \$aves, available for 2013, year-round, to implement the activities in your classroom, which include all standards-aligned curricula, hands-on activities, and all materials for each activity.
- 1.5 professional development credits and In-Service Learning Credits.
- Access to community-wide green experts from architects to engineers for presentations in your classroom; and
- A US Green Building Council Professional Green Classroom Certificate.

What you need to promise us:

- Your feedback and input.
- Commitment to using at least two lessons in your classroom in the following year; and
- A thorough review of our program (2 pages long).

Register soon as space is limited! Sign up today at:
www.dri.edu/greenpower-teacher-resources/workshops-training

Sponsored by:



NV EnergyWise Educators

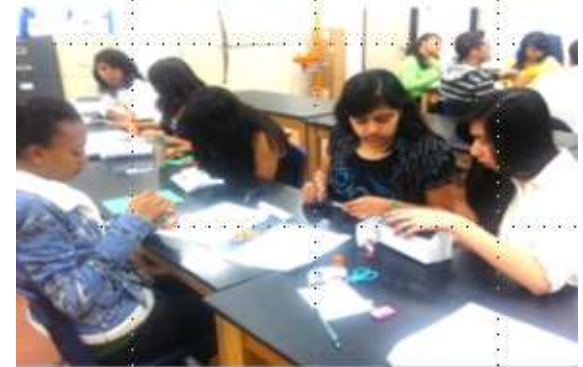
Program Overview:

- Provides teacher training that meets continuing education credits
- Supports classroom implementation of the class materials with Green Boxes shipped at no cost to teachers
- Provides industry speakers to classrooms
- Provides field trips to sustainable commercial facilities such as the Venetian.
- Trained 84 teachers and educated more than 2,800 students statewide




NV EnergyWise Educators

- “Your presentation made me realize that saving the environment can also save money and it got rid of the rumors that being environmentally friendly is costly”
- “Your presentation impressed me because right when I got home I told my parents about your presentation and we checked our house to see if we were wasting energy and now I know what to do later on in years when I am on my own”
- “I actually asked my mom about me buying a new showerhead and light bulbs and her giving me \$20 each month. She agreed!”





Realtor Education

 <p>AI Reports® Form 820.04*</p>	Client File #:	Appraisal File #:	
	Residential Green and Energy Efficient Addendum		
	Client:	State:	Zip:
	Subject Property:		
City:			



Prepare for the
NEW GREEN Era
Client!



UNLOCKING *the full value of* **GREEN HOMES**

*Why Green Multiple Listing Services
are a Key to Residential Energy Efficiency*

A Homebuyer's Top Ten Priorities.

Yesterday

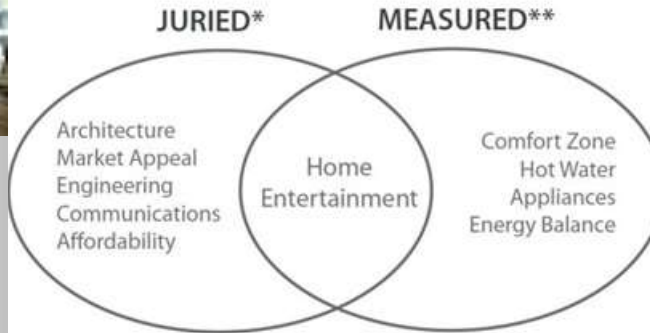
- 1 Square footage? (*larger is better*)
- 2 How many bedrooms/bathrooms?
- 3 What size lot?
- 4 How many stories?
- 5 Is there granite countertops?
- 6 What size garage?
- 7 Does it have a pool?
- 8 Does it have a view?
- 9 Flooring type?
- 10 Are the appliances new?

Tomorrow

- 1 Square footage? (*what is my cost to operate?*)
- 2 How many bedrooms/bathrooms?
- 3 What size lot? (*is it WaterSmart?*)
- 4 Is it ENERGY STAR/LEED/Home Performance w/ ENERGY STAR?
- 5 How efficient is the HVAC System?
- 6 What is the insulation's 'R' Value?
- 7 What is the HERS score on this home?
- 8 How efficient are the window/appliances/pool equipment?
- 9 Is there Renewable Energy Source? (*production of energy*)
- 10 Do I qualify for an Energy Efficient Mortgage? (*green loans?*)

U.S. DOE Solar Decathlon Team UNLV- Desert Sol

10 CONTESTS X 100 POINTS = 1000 POINTS TOTAL
(100 points per contest)



*Contests based on jury evaluation are called juried contests.
**Contests based on task completion or monitored performance are called measured contests.



AWARD SHOWCASE!



THANK YOU

