

. Discussion of Policy Ideas Relating to Energy Efficiency



Overview/ Presentation to the Clean Energy Technical Advisory Committee

Governor's New Energy Industry Task Force

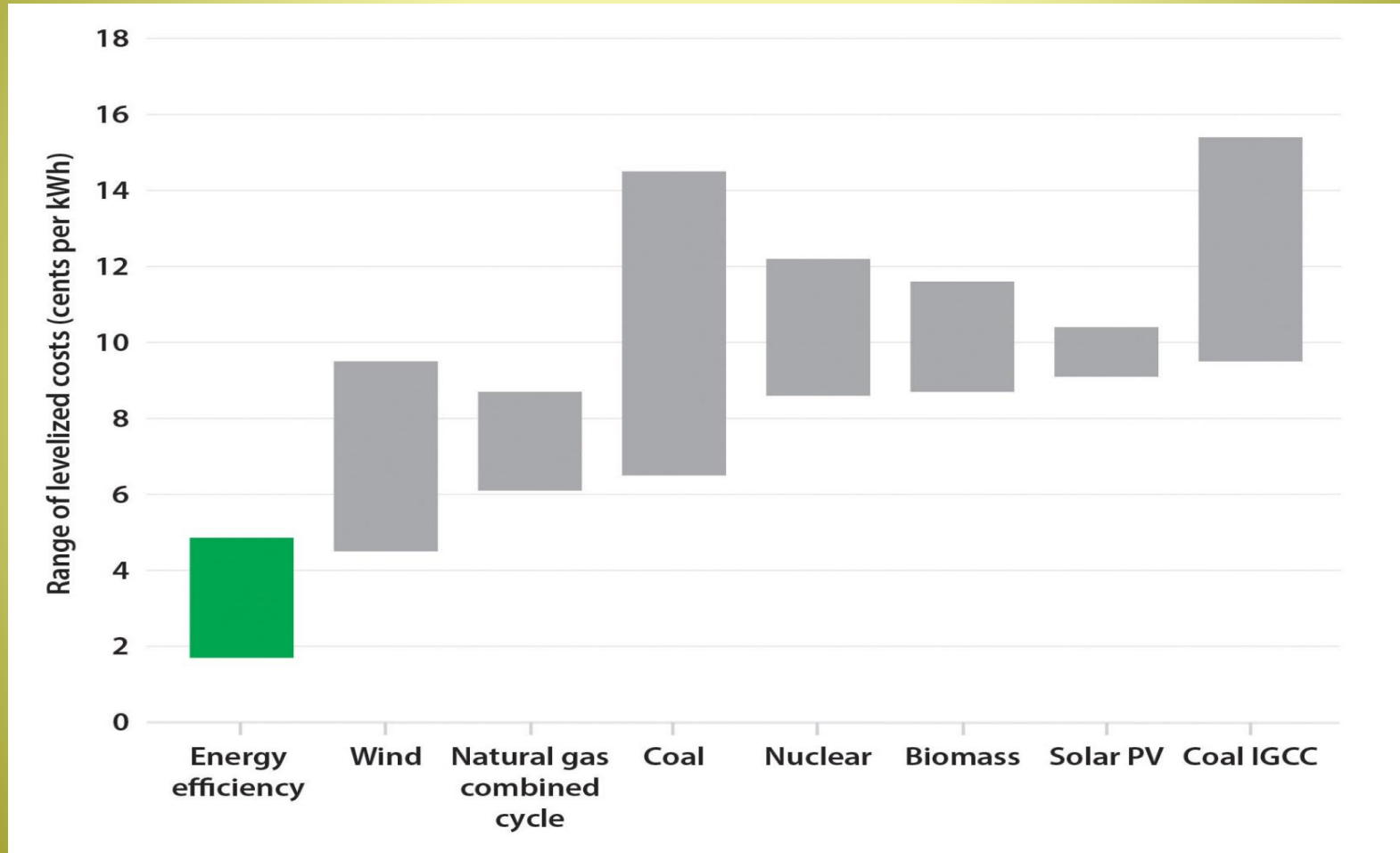
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Southwest Energy Efficiency Project**

Energy Efficiency Includes a Broad Set of Options and Measures



Energy Efficiency: Our Least Costly Energy Resource



Source: American Council for an Energy-Efficient Economy (ACEEE)

Manufacturing Jobs in Nevada through EE

Two manufacturers of insulation have plants in Fernley, NV.



ElectraTherm (Reno, NV)

(www.electratherm.com)



@ 30 Jobs in Waste Heat Recovery Technology and Products

Please Reference Handout:

“How Does Energy Efficiency Create Jobs?”

(JOBS ANALYSIS 101)



Energy efficiency creates jobs



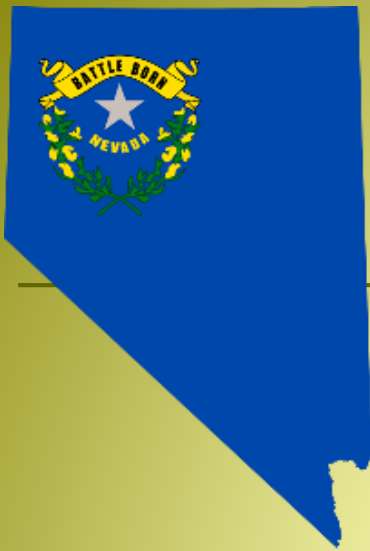
DIRECT JOBS are created through sale and installation of lighting retrofits, HVAC upgrades, home insulation jobs, window replacements, energy management and control systems, and many, many more energy efficiency measures that pay for themselves in the energy (and money) they save.

INDIRECT JOBS through respending energy bill savings in the local economy



RETAIL
means
JOBS





Nevada Savings Potential Over Next Decade

The Bottom Line: Households and businesses in Nevada can save \$3.4 billion through greater commitment to energy efficiency.

Energy efficiency is the lowest-cost, cleanest, and least risky resource available to electric utilities in Nevada. By implementing best practice energy efficiency programs, electric utilities in Nevada would:

- Save their customers **\$3.4 billion net**
- **Cut electricity use in 2020 by 22%** and peak demand by 21%
- **Avoid 4 large power plants**
- Save 7 billion kilowatt hours per year by 2020, equivalent to **the electricity use of 550,000 typical households**
- Support **4,680 new jobs** and boost economic activity in the state
- Cut air pollution and **improve public health**
- Reduce CO₂ emissions by nearly 4.4 million metric tons per year by 2020, equivalent to taking **870,000 passenger vehicles off the road**
- Reduce water consumption by **2.4 billion gallons** per year by 2020

Policy Recommendation 1:

Provide PUCN with Important Additional Tool/

Clarify Authority/Legality of Decoupling in Nevada

Authorize the PUCN to adopt revenue decoupling for NV Energy if it determines that doing so is in the public interest, and direct the PUCN to consider adopting revenue decoupling in future rate cases or via a rulemaking.

Revenue decoupling means that:

- NV Energy would receive the amount of revenue (or revenue per customer) that is approved by the PUCN in rate cases, and no more or no less.**
- It changes the utility's business model and aligns NV Energy's financial interest with that of its customers.**
- It also means that the company is not harmed financially when its customers improve their energy efficiency or adopt rooftop solar PV systems.**
- Decoupling has been successfully adopted in Nevada for Southwest Gas Company, and it has been adopted for electric utilities in 15 other states.**

Allow the PUC to decide the details about what form of decoupling to adopt, the frequency of true-ups, whether or not there should be caps on true-ups, etc.

Revenue Decoupling: What Is It?

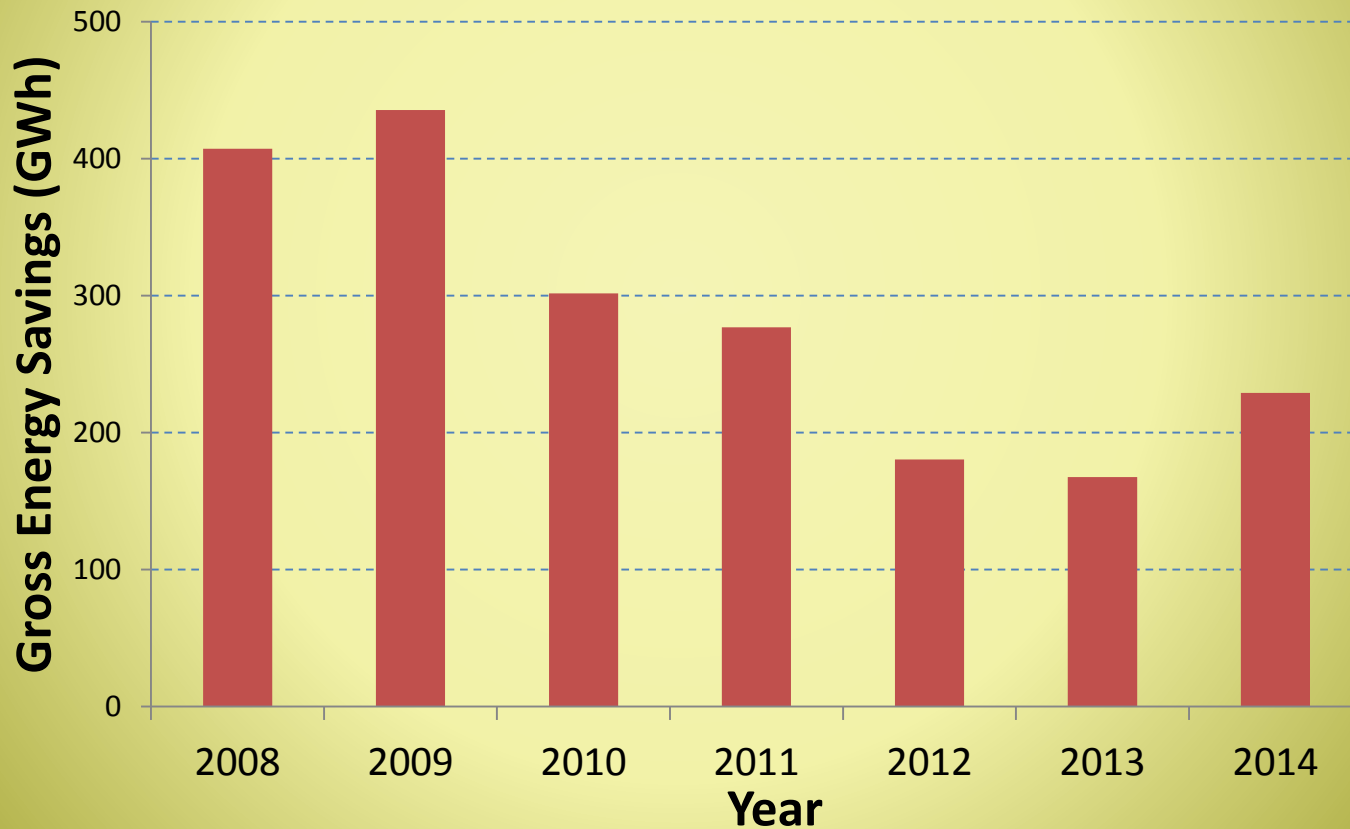
- Ensures that a utility's authorized revenues (or revenues per customer) are collected, no more and no less
- Establishes an annual true-up to adjust collected revenues so that they are equal to authorized revenues
- True-up can be refund or surcharge—it can go either way
- Done by rate class with separate true-ups for residential and small business customers (usually not larger customers)
- True-up usually capped (max. adjustment of say 3% per yr)
- Protects against utility overearning for any reason
- Does not penalize utility if energy efficiency programs are successful and its electricity sales/revenues are reduced

(Please reference additional Handouts on Decoupling:

Alliance to Save Energy, Solar Energy Industry Association)

Decoupling is already in place and working well for Southwest Gas Company!

Trends in Energy Savings from NV Energy's Efficiency Programs, 2008-2014



Homeowners benefit from the lower energy costs/energy codes



Homeowners benefit from the lower energy costs made possible through more recent International Energy Conservation Codes (IECC). For example, the U.S. Department of Energy finds that “Moving from a baseline of the 2006 IECC to the 2009 IECC reduces average annual energy costs by 10.8%, **while moving from the same baseline to the 2012 IECC reduces them by 32.1%.**”

Policy Recommendation 2:

Prioritize Energy Efficiency in Integrated Resource Planning

Direct the PUCN and the regulated utilities to make energy efficiency improvement and DSM programs the top priority in Integrated Resource Planning and environmental compliance planning, given that energy efficiency improvement provides a wide range of economic, environmental and social benefits in Nevada (e.g., energy efficiency improvements save households and businesses money, reduce all types of pollutant emissions, and support jobs in local economies).

- This policy would also direct the PUCN and utilities to maximize cost-effective DSM resource acquisition in resource plans before approving acquisition of other more costly energy supply resources.
- In addition, it could direct NDEP to maximize the contribution of cost-effective energy efficiency improvements in state environmental compliance plans pertaining to utility sector pollutant emissions.

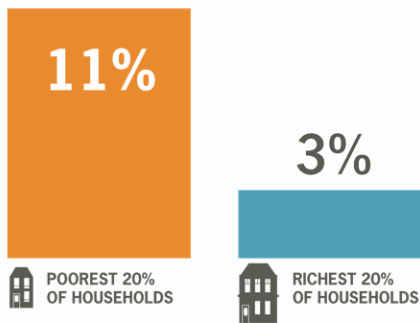
Policy Suggestion 3:

Modify the Primary DSM Cost Effectiveness Test

- Direct the PUCN to revise the primary cost effectiveness test it uses to evaluate demand-side management (DSM) programs, in particular directing the PUCN to adopt either the Utility Cost test or a version of the Total Resource Cost test that includes valuation of environmental and other non-energy benefits in the test.
- Either of these alternative tests are preferable to the test currently used, which is the Total Resource Cost test without valuation of environmental or other non-energy benefits.
- The recommended tests for the PUCN to consider are fairer tests and adopting either one should enable NV Energy and Southwest Gas Co. to expand the range of energy efficiency and demand response programs they offer to their customers.
- A growing number of states including Utah, Colorado and New Mexico have adopted either the Utility Cost test or the Total Resource Cost test with valuation of environmental and other non-energy benefits as their primary DSM program cost effectiveness test.

The poorest households spend nearly four times as much of their income on fuel as the richest

PERCENTAGE OF DISPOSABLE INCOME SPENT ON ENERGY



Explaining the data

The chart is taken from household energy spending in the UK 2002-2012, available from the Office for National Statistics via <http://www.ons.gov.uk/ons/rei/household-income/expenditure-on-household-fuels/2002-2012/full-report-household-energy-spending-in-the-uk-2002-2012.html>

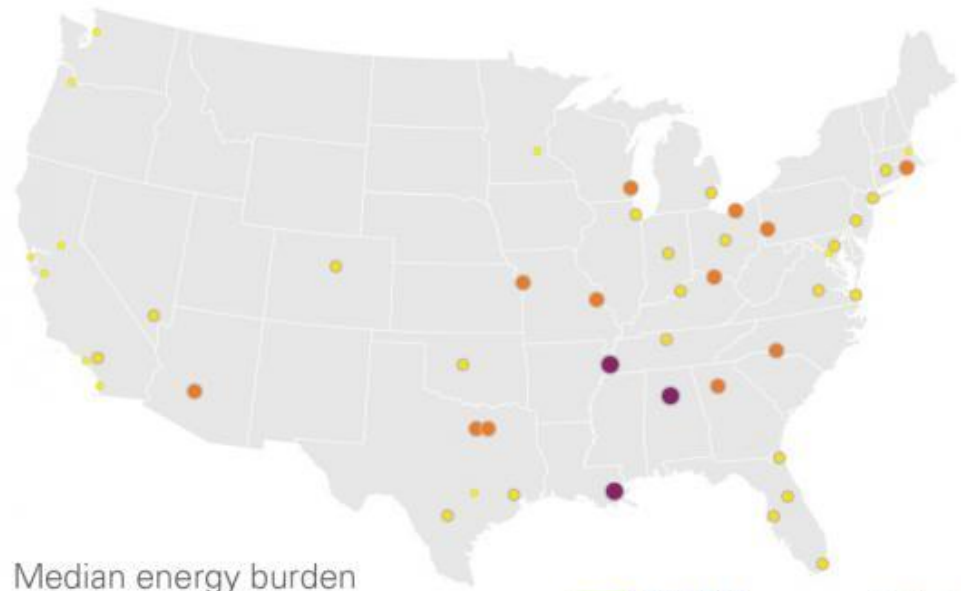
What does this mean?

Even though they live in much smaller properties, the poorest fifth of households spend much more of their income on heating and lighting their home. Historically, the Government has classified households as being in 'fuel poverty' if they need to spend more than 10% of their income to heat their home. When such a significant chunk of a household budget is required to provide adequate heating, poorer households can be forced to choose between heating and other basic necessities like food and housing.

IN 10 U.S. CITIES, A QUARTER OF LOW INCOME HOUSEHOLDS SPEND 15% OR MORE OF THEIR INCOME JUST ON ENERGY



Median metro-area energy burden for all households



Median energy burden
 ● 5+ % ● 4-5 % ● 3-4 % ● 1-3 %

ENERGY EFFICIENCY FOR ALL

ACEEE American Council for an Energy Efficient Economy



Policy Suggestion 4:

Increase utility efforts/programs to help low-income Nevadans, renters, residents in Multi-Family Housing

- **Cost-effectiveness tests for low-income efficiency programs can be given a multiplier**
- **Programs can be bundled with other EE programs for overall cost-effectiveness**

Low-income energy efficiency programs may offer other economic benefits to Nevada through the Clean Energy Incentive Program (CEIP)

Policy Recommendation 5:

Require a State Energy Efficiency Strategy Direct the Governor's Office of Energy to convene key stakeholders and prepare a state energy efficiency strategy that would achieve at least 20% energy savings by 2030.

The strategy should:

- 1) consider all forms of energy use in the state (electricity, natural gas and transportation fuels
- 2) include energy savings goals for 2020, 2025, and 2030
- 3) include a specific set of initiatives for achieving the goals that would involve actions by both the public and private sectors, and
- 4) propose a system for tracking progress towards the goals. The strategy should include both current policies and programs, enhancements to current policies and programs, and new policies and programs.
- 5) The Nevada energy efficiency strategy should review and draw from similar strategies in other western states, as appropriate. Key stakeholders should be invited to assist in the preparation of the strategy including businesses, consumer groups, utilities, relevant state agencies, local governments, energy efficiency experts, and environmental groups.

Other EE Policy Recommendations?

- “Green Bank?”
- EERS/EERG?
- Public Benefits Charge?
- Other?
- Discussion