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State Energy Efficiency Regulatory Frameworks

December 2009

Contents

Policies at the state level continue to help utilities pursue more scalable, and sustainable energy efficiency programs. **This review summarizes ongoing and the most recent policies that promote program cost recovery, lost revenue recovery, and performance incentive mechanisms on a state-by-state basis.** Some recent developments are highlighted below.

- Washington, DC, is the latest addition to a growing list of states that have adopted revenue decoupling for their electric sector (state summary & map, p. 5). Idaho, Massachusetts, Minnesota, Oregon, Wisconsin and Vermont have also approved decoupling measures in the past two years. Delaware, Hawaii, Michigan, New Hampshire, New Jersey and New Mexico are considering some form of decoupling. Lost revenue adjustment mechanisms were recently approved in Ohio, North Carolina, and South Carolina as part of larger cost recovery mechanisms. Utah also recently entered the discussion by passing a law that encourages utilities and the Commission to investigate decoupling mechanisms.
- Twenty states currently have incentives in place, with another nine states pending (p. 9). Colorado, Kentucky, Michigan, Ohio, Oklahoma, North Carolina, Texas, South Carolina, Washington, and Wisconsin have approved new incentive mechanisms in the last two years; Idaho, Indiana, Kansas, Montana, New Mexico, North Carolina, New York, and Utah are each considering some form of performance incentive for efficiency.
- Duke Energy has proposed a "virtual power plant" model, which combines cost recovery, lost revenue recovery and incentives into an avoided cost charge, in each of its five service territories. Ohio approved the program in 2008 and decisions are expected soon in North and South Carolina. ■

State Regulatory Framework Summary Table

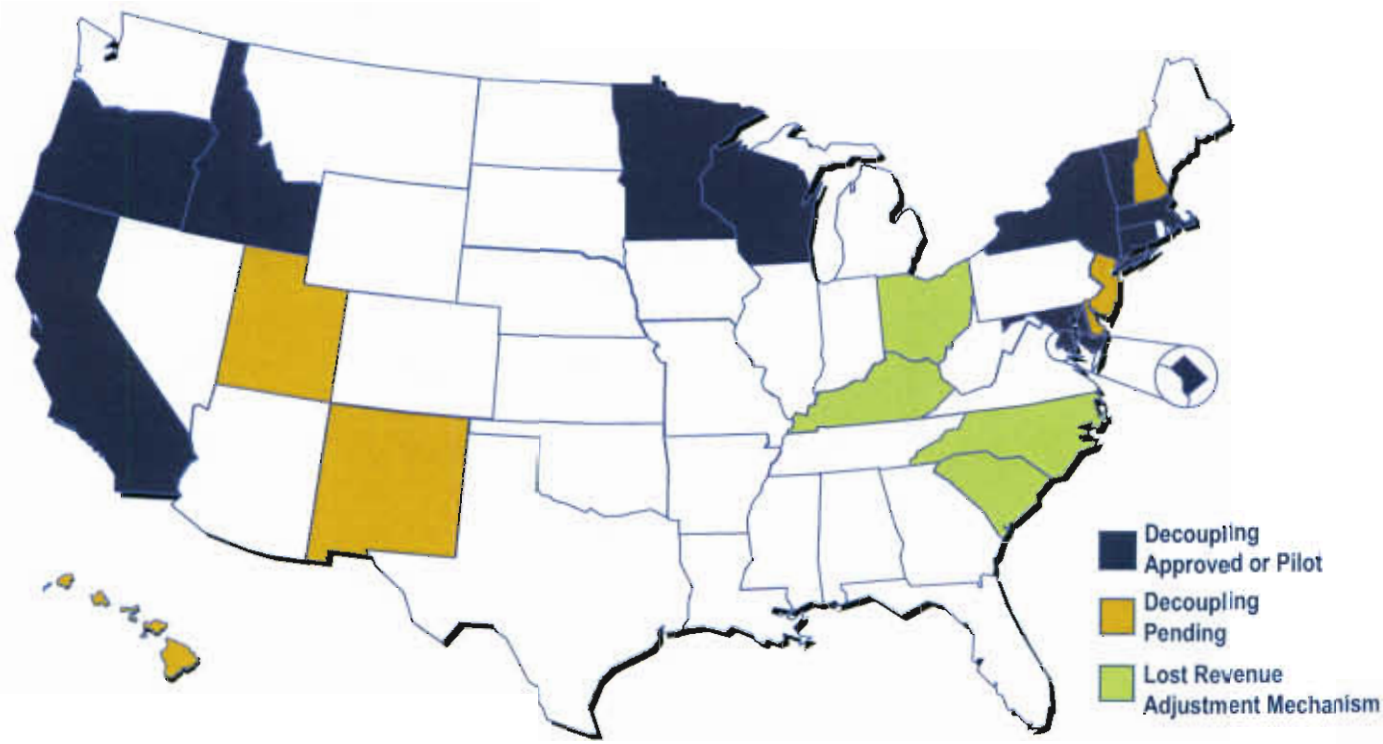
State	Direct Cost Recovery			Fixed Cost Recovery		Performance Incentives	Virtual Power Plant
	Rate Case	System Benefits Charge	Tariff Rider/ Surcharge	Decoupling	Lost Revenue Adjustment Mechanism		
Alabama	Yes						
Alaska							
Arizona	Yes	Yes				Yes	
Arkansas			Yes				
California	Yes	Yes		Yes		Yes	
Colorado	Yes		Yes			Yes	
Connecticut		Yes		Yes		Yes	
Delaware	Yes			Pending			
District of Columbia	Yes			Yes			
Florida			Yes				
Georgia	Yes					Yes (one program)	
Hawaii	Yes			Pending			
Idaho			Yes	Yes		Pending	
Illinois			Yes				
Indiana	Yes						Pending
Iowa	Yes		Yes				
Kansas	Yes					Pending	
Kentucky			Yes		Yes	Yes	Pending
Louisiana							
Maine		Yes					
Maryland			Yes	Yes			
Massachusetts		Yes		Yes		Yes	
Michigan			Yes		Pending	Pending	
Minnesota	Yes			Yes		Yes	
Mississippi	Yes						
Missouri	Yes						
Montana		Yes				Pending	
Nebraska							
Nevada	Yes					Yes	
New Hampshire		Yes		Pending		Yes	

State	Direct Cost Recovery			Fixed Cost Recovery		Performance Incentives	Virtual Power Plant
	Rate Case	System Benefits Charge	Tariff Rider/ Surcharge	Decoupling	Lost Revenue Adjustment Mechanism		
New Jersey		Yes		Pending			
New Mexico			Yes			Pending	
New York		Yes		Yes		Pending	
North Carolina			Yes		Yes	Yes	Pending
North Dakota							
Ohio			Yes		Yes		Yes
Oklahoma		Yes				Yes	
Oregon		Yes		Yes			
Pennsylvania	Yes						
Rhode Island		Yes				Yes	
South Carolina		Yes			Yes	Yes	Pending
South Dakota							
Tennessee							
Texas	Yes					Yes	
Utah	Yes		Yes			Pending	
Vermont		Yes		Yes		Yes	
Virginia							
Washington		Yes	Yes			Yes	
West Virginia							
Wisconsin	Yes	Yes		Yes		Yes	
Wyoming							

Please note that although information in this document was compiled from primary sources, readers are encouraged to verify the most recent developments by contacting the appropriate commission or regulatory agency.

For inquiries, please contact Matthew McCaffree, Manager of Electric Efficiency, at mmccaffree@edisonfoundation.net. For further information, please visit http://www.edisonfoundation.net/IEE/.

Lost Revenue Adjustment & Revenue Decoupling Mechanisms for Electric Utilities by State



State	Description	Status	Codes, Orders & Resources
California	California has had some form of decoupling since 1982. The current "decoupling plus" program is a revenue decoupling program combined with performance incentives for meeting or exceeding energy efficiency targets (performance-based rates). Revenue requirements are adjusted for customer growth, productivity, weather, and inflation on an annual basis with rate cases every three or four years (varies by utility). The incentive structure caps penalties/earnings for energy efficiency programs at $450M.	Approved (Decoupling "Plus" approved in 2007)	CA Code Sec. 9 Section 739(3) and Sec. 10 Section 739.10 as amended by A.B. XI 29; Decisions 98-03-063 & 07-09-043
Connecticut	As of 2007, all electric and gas utilities must include a decoupling proposal as a part of their individual rate cases. The type of decoupling is assigned on a utility-by-utility basis. United Illuminating uses a full decoupling mechanism, adjusted annually. Connecticut Light & Power will submit a proposal for a decoupling mechanism in their next rate case.	Approved (2007)	CT Public Act No. 07-242
Delaware	The Delaware Commission has recognized decoupling as a possible solution for promoting energy efficiency, but no plans have yet been approved for Delaware utilities. Delmarva Power will submit their decoupling plan in the next rate case in 2009.	Pending	DE Docket 59

IEE STATE ENERGY EFFICIENCY REGULATORY FRAMEWORKS

State	Description	Status	Codes, Orders & Resources
District of Columbia	The DC Public Service Commission approved PEPCO's Bill Stabilization Adjustment (BSA) in October 2009. Like the BSA approved for Maryland, an RPC mechanism is employed which adjusts quarterly.	Approved (2009)	DC PSC Order 1053-E-549
Hawaii	An order was issued in October 2008 to investigate implementing a decoupling mechanism that could be structured much like that in California. Utilities are required to submit a 2009 test year rate case.	Pending	HI Docket 2008-0274
Idaho	A three year pilot for a fixed-cost adjustment (an RPC decoupling program) has been instituted and is currently employed by Idaho Power Company. Sales are adjusted for weather and rate increases are capped at 3% over the previous year. The mechanism is only applied to residential and small general service customers.	Approved - Pilot (2007)	ID PUC IPC-E-09-07, Order No. 30829
Kentucky (LR)	Lost revenue recovery mechanisms are determined on a case-by-case basis, but all electric utilities in Kentucky have DSM proposals in place that include similar lost revenue (LR) recovery due to DSM programs. For these utilities, LR is calculated using the marginal rate, net of variable costs, times the estimated kWh savings from a DSM measure over a three-year period.	Approved (2006)	KY Statute Ch. 278, Title 285; Docket 2007-00477; 2008-00473
Maryland	A plan to employ revenue decoupling for Maryland utilities under an RPC mechanism was approved in 2007, which adjusts quarterly. The mechanism is similar to the BSA approved for Washington, DC.	Approved (2007)	MD PSC Case No. 9093; Order 81518
Massachusetts	Gas and electric utilities in Massachusetts must include a decoupling proposal in their next rate case. Target revenues are determined on a utility-wide basis (full decoupling) and can be adjusted for inflation or capital spending requirements if necessary. The Massachusetts DPU expects that all utilities will have fully operational decoupling plans by 2012. In May 2009, National Grid was the first utility to submit a revenue decoupling ratemaking plan (RDR), which proposes an RPC mechanism that adjusts annually.	Approved (2008), full implementation by 2012	MA Docket 07-50; Docket 09-39
Michigan	Act 295 mandates that the Commission consider decoupling mecahnisms proposed by the state's electric utilities. Consumers Energy and Detroit Edison have included decoupling proposals in the rate cases currently before the Commission. A decision in each case is expected in late 2009 or early 2010.	Pending	MI Act 295
Minnesota	A decoupling statute was passed in 2008 that allows for electric and gas utilities to implement decoupling pilot programs of no more than three years. Utilities are required to submit proposals to the state PUC for the structure of recovery mechanisms and frequency of true-ups (none submitted to date). Annual status reports are to be given to the state legislature once the programs are in place.	Approved - Pilot (2008)	MN Statute 216B.2412

State	Description	Status	Codes, Orders & Resources
New Hampshire	The New Hampshire PUC concluded in a January 2009 order that existing rate mechanisms are a barrier to energy efficiency. It has ordered that future rate mechanisms be tailored to individual utilities and be normalized for changes in weather, while not specifying the parameters of those mechanisms.	Pending	NH Order DE 07-064
New Jersey	Atlantic City Electric has proposed a RPC mechanism, or Bill Stabilization Agreement (BSA) as proposed, for their service territory. It is an RPC mechanism that calls for monthly true-ups with changes capped at 10% of previous fixed revenue amounts.	Pending	NJ Docket Eo09010056
New Mexico	HB 305 was signed into law in 2008, requiring that all utilities "include all cost-effective energy efficiency and load management programs in their energy resource portfolios, that regulatory disincentives to public utility devlopment of cost-effective energy efficiency and load managment be removed [...]." As a result, the NM Public Regulation Commission is considering proposals for a lost revenue adjustment mechanism that would compensate the utilities based on lost margins through 2010, at which time the PRC may act to remove disincentives to EE through decoupling or other mechanims (see the incentives summary for more information on the proposed incentive mechanism). A decision is pending.	Pending	NM HB305, Docket 08-00024-UT
New York	Following an April 2007 order, electric and gas utilities must file proposals for true-up based decoupling mechanisms in ongoing and new rate cases. Proposals have been approved for Consolidated Edison and Orange & Rockland utilities, both for revenue-per-class mechanisms. True-ups occur annually.	Approved (2007)	NY Cases 03-E-0640, 07-E-0949, & 07-E-0523
North Carolina (LR)	The Commission approved a proposed lost revenue adjustment mechanism for Progress Energy Carolinas as part of their cost recovery mechanism. Net lost revenues are determined by multiplying lost sales by a net lost revenue rate, which is the difference between the average retail rate applicable to the customer class impacted by the measure and (1) the related customer charge component of that rate, (2) the fuel component of the rate, and (3) the incremental variable O&M rate. True-ups occur annually and the mechanism will expire in 2012.	Approved (2009)	NC Docket E-2, Sub 931

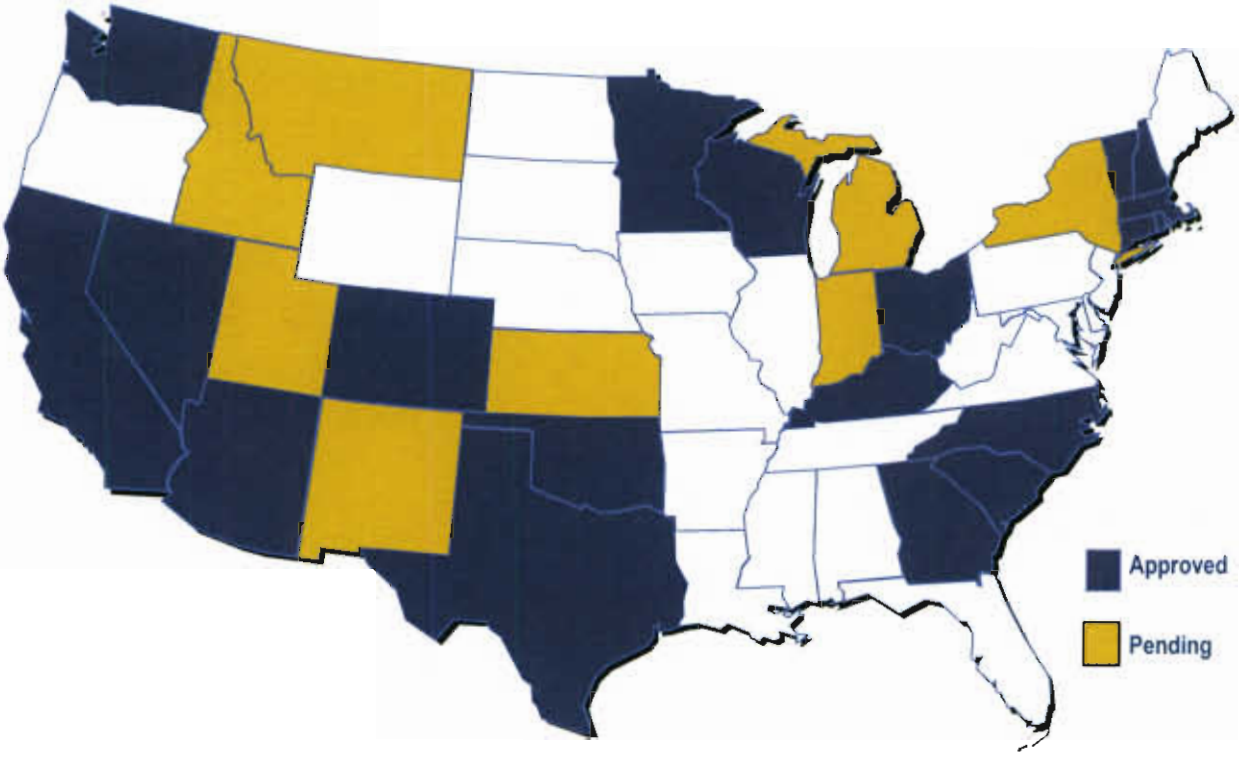
State	Description	Status	Codes, Orders & Resources
Ohio (LR)	As with Kentucky, lost revenue recovery mechanisms are determined on a case-by-case basis. Duke Energy Ohio recovers lost revenues resulting from their portfolio of EE programs through the DSM rider. LR is calculated as the amount of kWh sales lost due to the DSM programs times the energy charge for the applicable rate schedule, less variable costs, divided by the expected kilowatt-hour sales for the upcoming 12 month period. They are collected over a 36 month period. DP&L currently has a case pending. AEP Ohio chose not to seek LR in their prior rate case.	Approved (2007)	ORC §4928.143(B)(2)(h); 06-0091-EL-UNC
Oregon	Portland General Electric was approved for a two year pilot employing an RPC decoupling mechanism. True-ups will occur annually.	Approved - Pilot (2009)	OR Order 09-020
South Carolina (LR)	The Commission approved a proposed lost revenue adjustment mechanism for Progress Energy Carolinas as part of their cost recovery mechanism. Net lost revenues are determined by multiplying lost sales by a net lost revenue rate, which is the difference between the average retail rate applicable to the customer class impacted by the measure and (1) the related customer charge component of that rate, (2) the fuel component of the rate, and (3) the incremental variable O&M rate. True-ups occur annually and the mechanism will expire in 2012.	Approved (2009)	SC Docket 200-251-E
Utah	HJR 9 was passed into law (March 2009), which includes language supporting decoupling: "[T]he legislature expresses support for regulator mechanisms, which might include performance-based incentives, decoupling fixed cost recovery from sales volume, and other rate designs intended to help remove utility disincentives and create incentives to increase efficiency and conservation... ."	Pending - Law passed, mechanisms yet to be proposed	UT HJR009
Vermont	An RPC decoupling program was approved for Green Mountain Power under the Alternative Regulation Plan. Rates can be adjusted up to four times per year with an annual reconciliation on allowed earnings. Changes in base rates cannot exceed ~2% per year. CVPS was also approved for decoupling in 2008.	Approved (2007)	VT Dockets 7175, 7176 & 7336
Wisconsin	Decoupling was approved for WPSC in December 2008 (specified as a "Revenue Stabilization Mechanism"), allowing the utility to pursue a four-year pilot program. WPSC is required to pursue three community-based pilots, which will be regularly reviewed (at 2, 12, 24, and 30 months). True-ups occur annually and over- or under-collection is capped at approximately $14 million. WPL will submit a similar proposal for implementation in 2010.	Approved - Pilot (2008)	WI Dockets 6680-UR-116 (WPL) & 6690-UR-119 (WPSC)

The table of lost revenue recovery mechanims was prepared by the Institute for Electric Efficiency using the latest public data available as of December 11th, 2009. Readers are encouraged to verify the most recent developments in decoupling by contacting the appropriate state regulator or commissioner's office.

For inquiries, please contact Matthew McCaffree, Manager of Electric Efficiency, at mmccaffree@edisonfoundation.net. For further information, please visit http://www.edisonfoundation.net/IEE/.

SMK-ER5-8

Performance Incentives for Energy Efficiency by State



State	Performance Incentive Description	Status	Relevant Statute, Code or Order
Arizona	Arizona Public Service (APS) has performance incentives in place under a shared savings mechanism, set at 10% of DSM program net economic benefits and capped at 10% of total DSM expenditures. An APS proposal to modify the incentive mechanism in 2008 requesting recovery of net lost revenues as well as removal of the cap on the incentive was denied.	Approved (2005)	Decision 67744, Docket E-01345A-05-0816, et al
California	California utilities earn an incentive on energy efficiency programs under a shared savings mechanism called an energy efficiency risk-reward incentive mechanism. Revenue from eligible energy efficiency programs is the product of the Earnings Rate (ER) and net benefits. The ER is 12% if the utility achievement towards CPUC goals is greater than 100%, 9% if the goal achievement is between 85 and 100% and 0% if the goal achievement is between 65 and 85%; if the achievement of goals is less than 65%, the utility pays a penalty. Net benefits are calculated as two-thirds of the TRC Net Benefit and one-third of the PAC Net Benefit. In January 2009, the CPUC instituted a rulemaking (09-01-019) to examine and reform the EE incentive mechanism.	Approved (2007)	R.06-04-010; 09-01-019

State	Performance Incentive Description	Status	Relevant Statute, Code or Order
Colorado	HB 07-1037 (C.R.S. §40-3.2-104) requires investor-owned electric utilities to achieve at least 5% percent reduction of retail energy sales and capacity savings by 2018, based on 2006 sales. The law further states that the Commission shall allow electric DSM investments an opportunity to be more profitable to the utility than any other utility investment that is not already subject to an incentive. The Commission approved the following incentive package to Public Service Colorado: - A "disincentive offset" of $2m/year (after tax) for each year approved DSM plan implemented to offset lost margins; if < 80% of yearly energy goal achieved, the offset may be reduced. - Performance incentives for surpassing "modest" goals; for each 1% of goal reached beyond 80%, company to earn additional 0.2% of net economic benefits, up to 10% at 130% of goal attainment, up to 12% at 150% of goal attainment. Incentives adjusted for 2009 to reflect least-cost planning commitments. - Incentives are allowed via annually trued up DSM Cost Adjustment and are capped at 20% of total annual DSM expenditures.	Approved (2007)	HB-07-1037; Decision C08-560, Docket 07A-420E
Connecticut	The CT PUC requires annual hearings for utilities, where the past year's results for energy savings are reviewed and a performance incentive is determined, which ranges from 1% to 8% of program costs. The minimum threshold of 70% of goals earns the minimum (1%) incentive. Reaching 100% of goals earns 5%, and for reaching 130% of goals earns 8%.	Approved (first in 1988, mechanism changes over time)	Docket 07-10-03
Georgia	Although utilities in Georgia may recover costs and an additional sum for Commission-approved DSM programs, only the Power Credit Single Family Program (Georgia Power) is currently active. The utility may earn an additional sum of 15% of the NPV of the net benefits of the program, contingent on the program achieving at least 50% of projected participation levels.	Approved - Single program only (2007)	Case 24505-U
Idaho	Idaho Power (IPC) was approved for a three-year pilot beginning in January 2007 and ending in December 2009. Under the pilot, the Company receives an incentive payment if the market share of homes constructed under the ENERGY STAR Homes Northwest program exceeds a target percentage of new homes constructed. IPC earns an incentive if the program exceeds the market share goal (7% in 2007, 9.8% in 2008, 11.7% in 2009). Incentives are capped at 10% of program net benefits. Penalties are levied if IPC does not meet a minimum market share percentage. On May 14, 2009, it was ordered that Idaho Power neither earn an incentive nor incur a penalty for the ENERGY STAR related program and that the pilot program be discontinued retroactively as of January 1, 2009.	Approved - Pilot (2007); Discontinued (Jan. 1, 2009)	IPC-E-06-32, Order 30268; IPC-E-09-04

State	Performance Incentive Description	Status	Relevant Statute, Code or Order
Indiana	The state statute allows for either shared savings or adjusted/ bonus ROE mechanisms as DSM incentives. Duke Energy has submitted a proposal for an avoided cost recovery charge for EE programs. Vectren Energy Indiana, Northern Indiana Public Service Company (NIPSCO), and Indianapolis Power and Light have also filed DSM plans requesting performance incentives. All cases are currently pending.	Pending	IN Administrative Code, Title 170, Art. 4; Cause No. 43374; Cause No. 43427; Cause No. 43618; Cause 43623
Kansas	The State Corporation Commission found that it has "broad authority to provide incentives for energy efficiency" in 2007, but did not specify a mechanism in that order. Kansas Statute 66-117 allows a return of 0.5% to 2% on energy efficiency investments above the allowed rate of return. No plans have yet been approved for any utilities.	Pending; law in place, no programs approved	Docket 08-GIMX-441-GIV; Statute 66-117
Kentucky	State law allows for shareholder incentives through the DSM statute, specifically "incentives designed to provide positive financial rewards to a utility to encourage implementation of cost-effective demand-side management programs." Incentive mechanisms are approved on a case-by-case basis and both Duke Energy and Kentucky Power (AEP) have a shared savings mechanism in place where they receive an incentive of up to 10% of program costs for exceeding goals.	Approved (2007)	KY Rev. Stat. 278.285(1)(c); Docket 2008-00473; 2007-00477
Massachusetts	The incentive allows utilities to earn about 5% of program costs for energy efficiency programs that meet established program goals. The incentive structure is determined on a program-by-program basis but generally utilizes a three-tiered structure. The first "design performance" level is defined as performance that a Program Administrator expects to achieve in implementing its energy efficiency programs. The second "threshold performance" level is 75% of the design level. The third "exemplary performance" level is 125% of the design level. Incentives are awarded only if a program achieves the threshold level or above.	Approved (2000)	Docket 04-11; Order 98-100
Michigan	PA 295 contains two provisions authorizing utilities to receive an economic incentive for energy efficiency programs. To be eligible, utilities must request that appropriate energy efficiency program costs be capitalized and earn a normal rate of return. Utilities can request a performance incentive mechanism to provide additional earnings to shareholders if they exceed the annual energy savings target. Incentives are capped at 15% of the total program cost.	Pending	PA 295 (2008); U-15806 (Commission's Temporary Order)

IEE STATE ENERGY EFFICIENCY REGULATORY FRAMEWORKS

State	Performance Incentive Description	Status	Relevant Statute, Code or Order
Minnesota	The PUC approved a performance-based incentive mechanism for utility energy efficiency programs in 1999. Utilities are rewarded based on a specific percentage of net benefits. The percentage of net benefits awarded increases as the percentage of the energy savings goal achieved increases. The threshold to receive incentives is 91% of savings goals; the utility will receive approximately 30% of program costs if it achieves 150% of target savings. The incentives are funded through a rate adjustment the following year.	Approved (1999)	Statute 216B.241
Montana	MT statute allows for the Public Service Commission to add 2% to the authorized rate of return for DSM investments. It has not yet been approved for a specific utility.	Passed into law, but not implemented by utility	MT Code 69-3-712
Nevada	Nevada revised its regulations for IRP and DSM in 2004 to allow utilities to earn as much as 500 basis points above allowed return-on-equity (ROE) for applicable, approved DSM costs (+5%). Utilities must follow approved plans and budgets to earn the incentive amount. The order calls for applying the utility's debt-to-equity ratio to the fraction of capitalized DSM costs, and then applying the extra 5% ROE to that amount.	Approved (2004)	Docket No. 02-5030
New Hampshire	There are two separate incentives in NH. The cost-effectiveness incentive is awarded for programs that achieve a cost effectiveness ratio of 1.0 or higher. The incentive is calculated as 4% of the planned EE budget times the ratio of actual to planned cost effectiveness. The energy savings incentive is awarded when actual lifetime kWh savings are greater than or equal to 65% of projected savings. The incentive is 4% of the planned EE budget times the ratio of actual to planned energy savings. Target incentive amounts are calculated separately for residential and commercial/industrial sectors and are capped at 12% of the planned sector budgets.	Approved (2000)	Order 23,574
New Mexico	A proposed rule making is currently before the PSC that, if approved, would allow utilities to receive an incentive for EE based on energy saved and to receive compensation for revenue lost due to efficiency programs. Additionally, HB 305 was passed in 2008 which requires all utilities to "include all cost-effective energy efficiency and load management programs in the energy resource portfolios."	Pending	Case 08-00024-UT; NM HB 305
New York	New York has recently allowed for performance incentives to be included in utility rate cases and the Commission is in the process of reviewing energy efficiency plans of several NY utilities. The order caps the aggregate incentives at $40M per year statewide and target megawatt-hours will be set for each year at the time of review for the EE plans.	Pending	Case 07-M-0548

State	Performance Incentive Description	Status	Relevant Statute, Code or Order
North Carolina	North Carolina state law states that a utility may propose incentives for demand side management or energy efficiency programs to the Commission for consideration. The commission approved Progress Energy Carolina's incentive mechanism that allows for an incentive of 8% of NPV of benefits from DSM programs and 13% of NPV from EE programs. The Commission is considering an avoided cost recovery mechanism submitted by Duke Energy. Duke's EE programs were approved in May 2009 with an ability to implement June 1, but there was no settlement on the regulatory model. Duke Energy and the environmental intervenors, an alliance of environmental groups, reached a settlement in June 2009. The settlement contains more aggressive performance targets (~2%), with an earnings cap of 5% if Duke achieves <60% of the target and a cap of 15% if it achieves >90% of the target.	Approved for Progress Energy Carolinas (2009); Pending for Duke Energy	NCUC Docket E-2, sub 931; Docket E-7, Sub 831
Ohio	Duke Energy received approval in December of 2008 for its proposed "Save-a-Watt" program, where the utility will receive 50% of the net present value (NPV) of the avoided costs for energy conservation and 75% of the NPV of the avoided costs for demand response. Demand response programs are viewed by the parties as having a useful life of 1 year, while energy conservation programs have useful lives of up to 15 years.	Approved (2008)	OH Docket 08-920-EL-SSO
Oklahoma	A shared savings program has been approved for Public Service Oklahoma (AEP) which allows for two different returns: an incentive of 25% of net savings for programs for which savings can be estimated and 15% of the costs for other programs (e.g. education and marketing programs).	Approved (2008)	OK Cause No. PUD 200700449; Order 555302
Rhode Island	The shareholder incentive mechanism includes two components: performance-based metrics for specific program achievements, and kWh savings targets by sector. The program performance metrics are established for each individual program, such as achieving specific savings or a certain market share for the targeted energy-efficient technology. If Narragansett (d/b/a National Grid) achieves the savings goal, it receives 4.4% of the eligible budget. The threshold performance level is 60% of the savings goal. Once the threshold level has been reached, the utility has the ability to earn an additional incentive per kWh saved up to 125% of target savings. Incentive rates change by customer class.	Approved (2005)	RI Docket 3635, Order 18152
South Carolina	South Carolina law stipulates that the PSC "may adopt procedures that encourage electrical utilities [...] to invest in cost-effective energy efficient technologies and energy conservation programs." The commission approved Progress Energy Carolina's incentive mechanism that allows for an incentive of 8% of NPV of benefits from DSM programs and 13% of NPV from EE programs.	Approved for Progress Energy Carolinas (2009); Pending for Duke Energy	SC Title 58. Public Utilities, Services And Carriers, Chapter 37. Energy Supply And Efficiency; Dockets 2008-251-E (Progress Energy), 2007-358-E, & 2008-251-E (Duke Energy)

State	Performance Incentive Description	Status	Relevant Statute, Code or Order
South Carolina (Continued)	(Continued) Duke Energy's original avoided cost mechanism was rejected, but the Commission invited resubmission. Duke's EE programs that were proposed separately were approved as of June 1, 2009 with all costs deferred. A modified save-a-watt regulatory model will be included in a rate case to be filed in the summer of 2009. A ruling is expected by the end of the year.	(See above)	(See above)
Texas	Texas state code specifies that a utility may be awarded a performance bonus (a share of the net benefits) for exceeding established demand reduction goals that do not exceed specified cost limits. Net benefits are the total avoided cost of the eligible programs administered by the utility minus program costs. The performance bonus is based on the utility's energy efficiency achievements for the previous calendar year. If a utility exceeds 100% of its demand reduction goal, the bonus is equal to 1% of the net benefits for every 2% that the demand reduction goal has been exceeded, up to a maximum of 20% of the utility's program costs. A utility that meets at least 120% of its demand reduction goal with at least 10% of its savings achieved through Hard-to-Reach programs receives an additional bonus of 10% of the bonus calculated.	Approved (2008)	PUC of Texas Substantial Rule §25.181(h); CenterPoint Energy Houston Electric 2008 Energy Plan & Report, Project No. 35440
Utah	HJR 9 was approved in March 2009 and includes language supporting incentives: "[T]he legislature expresses support for regulator mechanisms, which might include performance-based incentives, decoupling fixed cost recovery from sales volume, and other rate designs intended to help remove utility disincentives and create incentives to increase efficiency and conservation... ."	Pending - Law passed but no mechanisms proposed	UT HJR009
Vermont	The operator of Efficiency Vermont, VEIC, is eligible to receive a performance incentive for meeting or exceeding specific goals established in its contracts. There is also a holdback in the compensation received by VEIC, pending confirmation that contractual goals for savings and other performance indicators have been achieved. The initial contract (2000-2002) allowed incentives of up to 2% of the overall energy efficiency budget over the three-year contract period. Incentives increased to 3.5% of the EE budget for the 2006-2008 period.	Approved (2000)	Contract 0337956, Attachment C
Washington	Puget Sound Energy's approved IRP for 2009 includes a shared savings ("Net Shared Incentive") mechanism that either rewards or penalizes PSE for exceeding or not meeting savings targets, respectively. The savings target for 2009 is 278,000 MWh, with a maximum incentive/penalty of +/- 50% and a "dead band" if the utility saves between 90-99.9% of the target. In addition to meeting the overall savings goal, PSE must meet at least 75% of the projected savings targets in both the residential and commercial/industrial sectors. 75% of the full incentive amount will be collected in the year after program implementation, with the remaining amount collected the following year.	Approved (2009)	WA Docket UE-060266

State	Performance Incentive Description	Status	Relevant Statute, Code or Order
Wisconsin	As of 2008, Wisconsin Power & Light (Alliant Energy) may earn the same rate-of-return on its investments in energy efficiency made through its "shared savings" program for commercial and industrial customers as it earns on other capital investments. Utilities may propose incentives as part of their rate cases, but there have been no proposals from other utilities under the most recent version of performance incentives. [Note: Wisconsin dropped performance incentives in the 1990s.]	Approved (2008)	Docket 6680-UR-114

Summary of Incentive Mechanisms

Approach	State
Earn a percentage of program costs for achieving savings target	CO, CT, RI, KY, MA, MI, MN, NH, RI, TX, VT, WA
Earn a share of achieved savings	AZ, CA, GA, OK
Earn a percentage of the NPV of avoided costs	NC, OH, SC
Altered rate of return for achieving savings targets	NV, WI

Note: Information was compiled using the latest public data available as of December 11th, 2009. Readers are encouraged to verify the most recent developments by contacting the appropriate commission or regulatory agency. Other resources used in the preparation of this report were ACEEE's State Energy Efficiency Program Database, document s from EPA's National Action Plan on Energy Efficiency, and resources from the Regulatory Assistance Project.

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Energy Efficiency Incentives for Utilities: Approaches in US, Stakeholder Process in Idaho

Wayne Shirley, Jim Lazar and Lisa Schwartz

Webinar Convened by Idaho State Senator Elliot Werk

November 20, 2009

The Regulatory Assistance Project

Maine ♦ Vermont ♦ Illinois ♦ New Mexico ♦ California ♦ Oregon

Regulatory Assistance Project

- Nonprofit organization founded in 1992 by experienced energy regulators
- Advises policymakers on economically and environmentally sustainable policies in the regulated energy sectors
- Funded by US DOE and EPA, the Energy Foundation, ClimateWorks and other foundations
- We have worked in 40+ states and 16 nations

Today's Webinar

- How sales and conservation affect utility profits
- Role of positive financial incentives for utilities in promoting all cost-effective energy efficiency
- Types of incentives, design features, pros and cons
- Idaho Power stakeholder process
- Principles for legislative actions

How Sales Affect Utility Profits Under Traditional Regulation

- Rates are set to recover the utility's cost of service
  - **Revenue requirement** = expenses + return of and return on investment + taxes (during past or future test period)
  - **Prices** = revenue requirement ÷ *expected* unit sales
- **Utility profit** = *actual* sales - *actual* expenses
  - In reality, profits have little relationship to the allowed revenue or rate of return set in the rate case.
- Increasing sales can increase profits. Conversely, reducing sales through energy efficiency programs reduces revenues to cover the utility's fixed costs, reducing its earnings.

Decoupling
Sales and Profits

- Decoupling is a ratemaking mechanism that breaks the link between energy sales and utility profits.
  - Rate case process remains the same
  - Prices are adjusted periodically, based on actual units sold, to keep utility revenue at its allowed level – no more, no less.
- The Idaho Commission approved a decoupling pilot for Idaho Power for 2007-2009. The company has filed a request to make decoupling permanent.
- Decoupling only removes the utility's disincentive toward energy efficiency; it does not provide an incentive.

Do Utilities Need Energy Efficiency Incentives?

- The energy efficiency program manager functions best with:
  - Clear performance metrics
  - Alignment of financial risks and rewards for those metrics
- Incentives make the manager squarely responsible for developing best program designs, partnerships and marketing strategies.
- Utilities have the opportunity to earn a return on supply-side investments. Absent an explicit incentive mechanism, they have little reason to invest in energy efficiency.*
- Shareholder incentives should be considered when energy efficiency programs are ramping up to high levels or to motivate a utility to continue performing at a high level.

**Except during prolonged periods of high market prices where the utility does not have an automatic power cost adjustment.*

Types of Positive Financial Incentives

- **Performance Based**
  - **Shared Savings:** Earnings based on percentage of "net" benefits (resource savings minus costs) or avoided costs of energy efficiency, often tied to a minimum threshold of energy and capacity savings
  - **Management Fee:** Earnings based on percentage of program costs if manager achieves or exceeds goals – e.g., energy/capacity savings, participation or installation levels, reductions in administrative costs
  - **Standard Performance Contracting:** Incentive payments per kWh and kW of savings from installed measures, under standardized terms
- **Cost Capitalization**
  - Annual energy efficiency program costs included in rate base and amortized over time; utility earns authorized rate of return on equity (ROE), potentially with a bonus ROE

Performance-Based Incentives

- **Pros**
  - Well-designed mechanisms can control utility expenditures by rewarding increased program penetration and minimizing costs
    - Net benefits increase when the utility achieves cost-effective savings and when project costs are reduced
  - Under management fee approach, utility has an incentive for energy efficiency spending
- **Cons**
  - Requires more analysis (determining net benefits)
  - For shared-savings mechanisms, accurate measurement and verification of savings is critical
  - Management fee approach does not necessarily focus spending on cost-effective programs and net benefits
    - Can address by basing incentive rates on carefully vetted and approved budgets, not expenditures, by adopting aggressive goals and clear performance metrics, and through good oversight

Cost Capitalization – With ROE Bonus Option

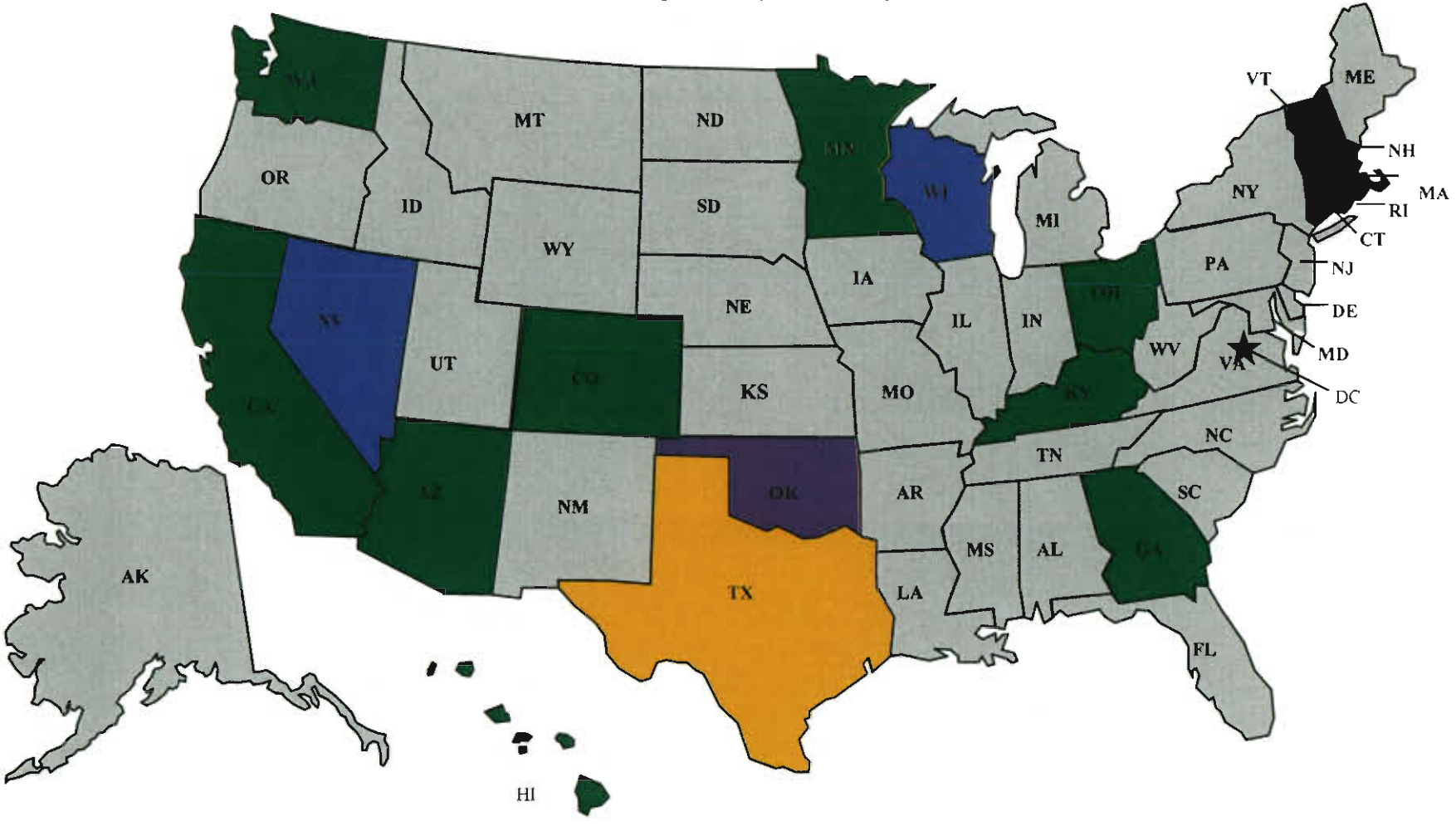
- **Pros**
  - Amortizing instead of expensing better matches cost recovery to the useful life of efficiency measures (7 to 10 years). Amortization period can be less (3 to 5 years).
  - Mitigates initial rate impacts of efficiency expenditures
  - Helps level playing field with utility-owned supply-side resources
    - But a power plant may still be more attractive to the utility
  - Can incorporate an ROE adder to make efficiency the most profitable investment
- **Cons**
  - Approach is generally out of favor among utilities (except in Nevada)
    - Don't want a regulatory asset that increases imputed debt, potentially affecting credit ratings
    - Need capital to finance asset – must raise new capital or use retained earnings or internal cash flow
  - Incentive not tied to performance

A Couple of Ways to Measure Costs and Benefits

- **Utility Cost Test**
  - Measures cost-effectiveness purely from the perspective of utility expenditures compared to supply-side resource costs
- **Total Resource Cost**
  - Measures cost-effectiveness regardless of the split in costs between the utility (ratepayers) and program participants
- Some jurisdictions also include externality costs (those not captured by the market system)
- For both tests, the benefits are the avoided costs of supply-side resources – the reduction in energy, capacity, transmission and distribution costs.

EXAMPLES OF INCENTIVES IN THE U.S.

States With Energy Efficiency Incentives for Utilities*
November 2009



LEGEND

States with shared savings incentives for utilities or third-party administrators

States with a performance-based management fee

States that give utilities a return on investments in energy efficiency

States with performance-based contracting and a utility incentive for achieving goals

*Or incentives for the third-party energy efficiency administrator

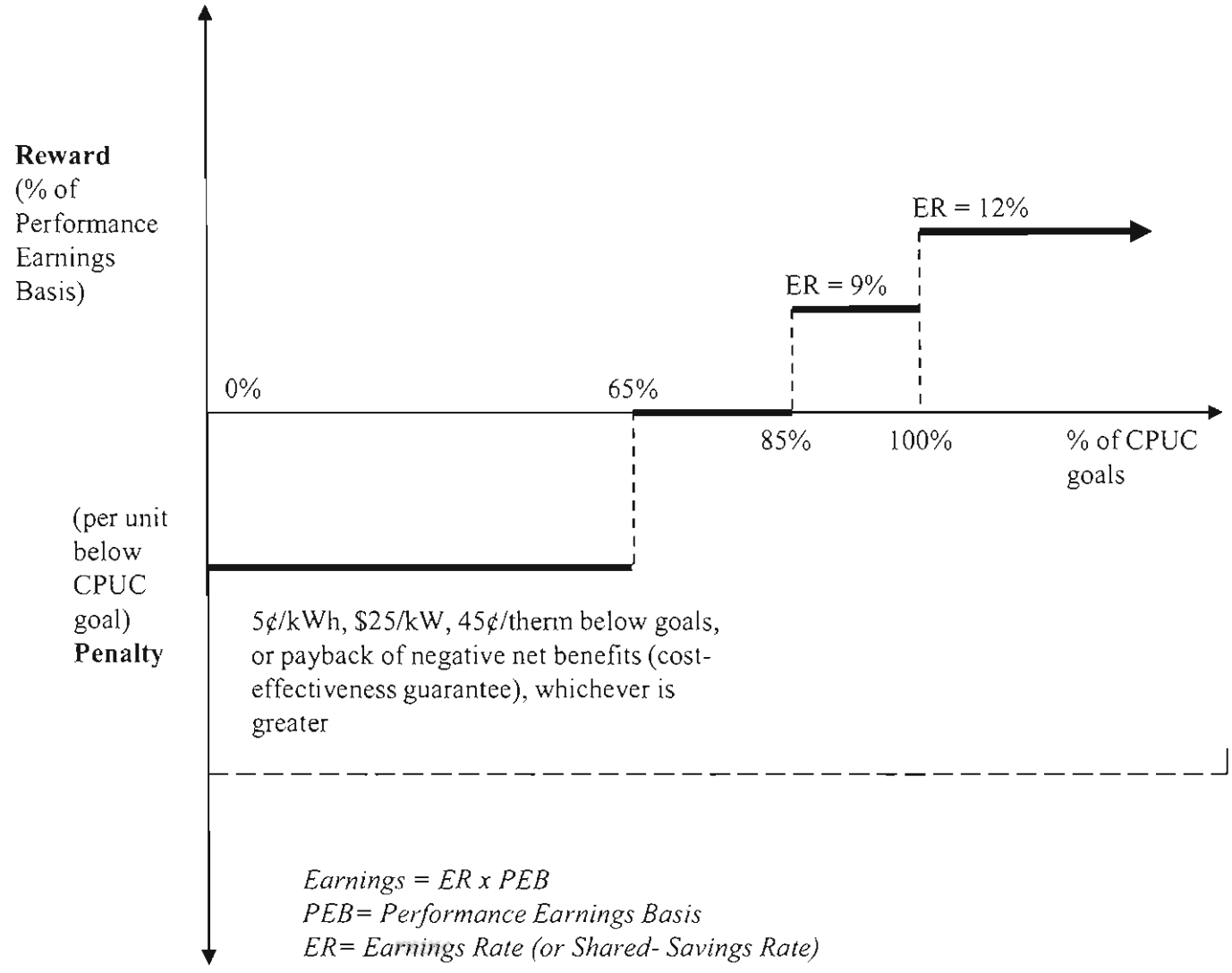
Shared Savings - Arizona Public Service Company

- Demand-side management (DSM) programs funded through base rates, plus adjustor for amounts over/under
- Incentive: 10% of net economic benefits achieved (benefits minus costs)
  - Capped at 10% of program spending

California Risk/Reward Incentive Mechanism

- Commission established savings goals for energy, demand and therms for three investor-owned utilities for 2006-08
  - Levels higher than had ever been achieved
- Incentives for achieving 85% of goals, based on average performance on all applicable measures
  - 9% to 12% of net economic benefits (total dollars capped)
  - No incentive if achievement is below 80% for *any* goal
- Penalties for failure to achieve at least 65% of goals
- Utility gets a portion of incentive after verification of actual *measures installed* and *program costs;* final incentive payment after verification of *savings*
- Program under review to "consider a more transparent, more streamlined and less controversial RRIM program"

California Risk/Reward Incentive Mechanism, 2006-2008



See California PUC D.08-09-043 at 8. Earnings and penalties are capped by utility:
PG&E - $180 million, SCE - $200 million, SDG&E - $50 million and SoCalGas - $20 million

Colorado

- HB 1037 (2007) directed Commission to offer utilities an opportunity to make demand-side management investments more profitable than other investments
  - By 2018, energy savings in aggregate must reach at least 5% of 2006 sales
- Commission rulemaking established performance incentives for natural gas utilities
  - Percent of net economic benefits = Energy Factor x Savings Factor
    - Energy Factor = Zero + 0.5% for each percentage of achieved savings > 80% of savings target
    - Savings Factor = Actual savings achieved ÷ the approved savings target (per $1 million expended)
  - *Example:* 15,000 dth savings target; utility at 106% of target (18,000 dth)
    - Energy Factor is 0.5% x (106 – 80) = 13%
    - Savings Factor is 18,000 ÷ 15,000 = 1.2
    - Percentage of net economic benefits = 13% x 1.2 = 15.6%

Colorado

- Public Service of Colorado performance incentive
  - 0.2% of net economic benefits for each 1% of goal attainment beyond 80%, up to 10% of net benefits at 130% of goal attainment
    - 4% of net economic benefits if 100% of DSM goal is achieved
  - 0.1% of net economic benefits for each 1% of goal attainment beyond 130%, up to 12% of benefits at 150% of goal attainment
- Utility also gets a $2 million (after tax) "disincentive offset" each year it implements an approved demand-side management plan
- Cap: Performance incentive + disincentive offset cannot exceed 20% of total DSM expenditures

Minnesota Shared Savings

- Shared savings incentive since 2000 based on percent of net economic benefits
  - Minimum performance to earn incentive: 91% of savings goal
  - Percent of net benefits awarded increases with savings, capped at 150% of goal
  - Commission is exploring changes to program
- 2007 Next Generation Energy Act for natural gas and electric utilities
  - Achieve energy savings each year equal to 1.5% of retail energy sales by 2012
    - Includes end-use and market transformation programs, rate design, codes and standards, and utility infrastructure improvements
  - Commission may order submission of incentive plans for approval and must consider if the plan:
    - is likely to increase utility investment in cost-effective conservation
    - is compatible with the interest of ratepayers and other interested parties
    - links incentive to performance in achieving cost-effective conservation
  - Commission may:
    - Change allowed ROR on efficiency investment based on utility's efforts and success
    - Share between ratepayers and utilities net savings to extent justified
    - Adopt any mechanism that makes cost-effective conservation a preferred resource choice for the utility, considering impact on utility earnings

Nevada Bonus ROE

- Nevada law gives utility its authorized return on equity plus a 5% bonus for prudent and reasonable conservation and demand management investments
  - If utility's authorized ROE is 8%, energy efficiency investments earn 13%
- Statute also allows utility to request a bonus ROE for "critical facilities" such as reliability investments in the same manner

Management Fee for Vermont EE Utility

- Performance-based contract between Vermont Public Service Board and third-party "Energy Efficiency Utility," currently the Vermont Energy Investment Corporation
- Contract includes performance-based goals
  - Cumulative annual electricity savings, peak demand savings by season and geographic area, total resource benefits, and specific program goals (e.g., increased measure penetration in certain business end uses)
- Incentives capped at 2.6% of total budget for 2009-2011
- Minimum performance requirements
  - Benefit/cost ratio, spending on residential and low income, program participation by small nonresidential customers, and geographic equity

Puget Sound Energy Conservation Incentive Mechanism - Washington

- Washington Commission sets energy savings targets annually
- Incentive for reaching the Baseline Target (100% of goal)
  - "MWh Incentive" *plus*
  - Shared Savings Incentive = Baseline savings target (MWh) * Net Shared Incentive ($10/MWh) * Shared Savings Rate (5%)
    - Shared Savings Rate is the percent of savings eligible for the incentive.
- Additional incentives for incremental savings
  - MWh Incentive = Incremental savings (MWh) * $20/MWh, *plus*
  - Shared Savings Incentive = Incremental savings (MWh) * Net Shared Incentive ($45/MWh) * Shared Savings Rate
    - Shared Savings Rate = 10% for savings between 100% and 110% of target
    - Shared Savings Rate rises incrementally to 100% at 150% of target – e.g., the rate is 20% for savings between 110% and 120% of target
- Penalties below 90% of target (penalties much larger than incentives)
- At least 75% of savings must be achieved in both the residential and commercial and industrial sectors

IDAHO POWER
STAKEHOLDER PROCESS

Idaho Power Stakeholder Process Status

- Two workshops held
  - October 6: Educational on alternative incentive mechanisms
  - November 10: Focus on specific options for Idaho Power
- Final workshop scheduled
  - December 9: Attempt to reach consensus on framework, if not details

November Meeting: Narrowing of Options

- Shared Savings Mechanism
  - Symmetrical incentives and penalties
  - Progressive: Higher % shared savings as performance increases
  - Range of 0% to 15% of savings to company (plus cost recovery for measures and lost margin recovery through Fixed Cost Adjustment)
- Collaborative target setting (with IPUC final authority)
- Balanced performance between sectors required
- Still examining whether incentives should be based on Total Resource Cost (societal savings) or Utility Cost (utility-system only savings)

November Meeting: Narrowing of Options

- Timing of incentives
  - A portion in first year after measures installed; balance after evaluation
- Measures included initially
  - Only those for which utility operates programs
- Evaluation and measurement
  - Utility retains contract with oversight from stakeholder collaborative

Idaho Power Stakeholder Process: Next Steps

- December 9th stakeholder meeting in Boise
- Modeling of options discussed in November to be presented by Idaho Power
- Attempt to reach resolution on:
  - Level of incentives
  - Collaborative structure
  - Evaluation approach
  - Implementation issues

Principles for Legislative Actions

- Setting savings goals for energy and demand
- Ensuring authority and flexibility for the Commission
  - To adopt the most appropriate mechanism
  - To rate-base DSM investments using a shorter amortization period than the life of the measures
  - To make efficiency a competitive investment
  - To use the Total Resource Cost test to determine net benefits
  - To decide whether savings beyond efficiency programs for customers can be included (e.g., codes) to align utility and customer interests
- Addressing extra-jurisdictional gaps for unregulated utilities
- Addressing programs for low-income households
  - Minimum spending levels or higher incentives

Resources

- National Action Plan for Energy Efficiency, *Aligning Utility Incentives with Investment in Energy Efficiency,* prepared by Val R. Jensen, ICF International, November 2007, at http://www.epa.gov/cleanenergy/documents/incentives.pdf.
- Peter Cappers, Charles Goldman, Michele Chait, George Edgar, Jeff Schlegel and Wayne Shirley, *Financial Analysis of Incentive Mechanisms to Promote Energy Efficiency: Case Study of a Prototypical Southwest Utility*, Ernest Orlando Lawrence Berkeley National Laboratory, March 2009, at http://eetd.lbl.gov/EA/EMP/reports/lbnl-1598e.pdf and http://eetd.lbl.gov/EA/EMP/reports/lbnl-1598e-app.pdf (appendices).
- Peter Cappers and Charles Goldman, *Empirical Assessment of Shareholder Incentive Mechanisms Designs Under Aggressive Savings Goals: Case Study of a Kansas "Super-Utility,"* Ernest Orlando Lawrence Berkeley National Laboratory, August 2009, at http://eetd.lbl.gov/EA/EMP/reports/lbnl-2492e.pdf.
- Michael W. Rufo, Itron Inc., "Evaluation and Performance Incentives: Seeking Paths to (Relatively) Peaceful Coexistence," Proceedings of the 2009 International Energy Program Evaluation Conference, Aug. 12-14, 2009, pp. 1030-1041, at http://docs.cpuc.ca.gov/efile/CM/106837.pdf.

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RAP is committed to fostering regulatory policies for the electric industry that encourage economic efficiency, protect environmental quality, assure system reliability, and allocate system benefits fairly to all customers.

AmerenUE Callaway Heat Rate Values - June 2009 (Using ETP-ZZ-01101 Rev 002)

Station Gross Heat Rate (Btu/kWhr)	9540
State Net Heat Rate (Btu/kWhr)	9984

AmerenUE CTG Heat Rate Values - June 2009

Audrain	CGT 1	CGT 2	CGT 3	CGT 4	CGT 5	CGT 6	CGT 7	CGT 8
Time Start	06/23/2009 15:00	06/23/2009 15:00	06/23/2009 15:00	06/23/2009 15:00	06/23/2009 15:00	06/23/2009 15:00	06/23/2009 15:00	06/23/2009 15:00
Time End	06/23/2009 17:00	06/23/2009 17:00	06/23/2009 17:00	06/23/2009 17:00	06/23/2009 17:00	06/23/2009 17:00	06/23/2009 17:00	06/23/2009 17:00
Total Time (hours)	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000
Rated Capacity (MW)	77	77	77	77	77	77	77	77
Average Load (MW)	71.37	71.26	71.83	71.74	71.15	71.24	70.97	71.73
Average Heat Rate (Btu/kWhr)	12346.20	12393.61	12326.03	12379.90	12346.30	12323.87	12482.53	12198.77
Average Inlet Temp (F)	97.46	98.44	97.85	98.51	99.06	97.29	99.36	97.41

Goose Creek	CTG 1	CTG 2	CTG 3	CTG 4	CTG 5	CTG 6
Time Start	06/25/2009 12:30	06/25/2009 15:00	06/25/2009 15:00	06/25/2009 12:00	06/25/2009 12:00	Insufficient
Time End	06/25/2009 14:30	06/25/2009 17:00	06/25/2009 17:00	06/25/2009 14:00	06/25/2009 14:00	Data
Total Time (hours)	2.000	2.000	2.000	2.000	2.000	
Rated Capacity (MW)	74	74	74	74	74	74
Average Load (MW)	72.25	71.41	72.25	73.43	72.80	
Average Heat Rate (Btu/kWhr)	12013.21	12085.29	12050.35	11975.51	11980.89	
Average Inlet Temp (F)	94.06	96.03	96.94	91.59	92.12	

Raccoon Creek	CTG 1	CTG 2	CTG 3	CTG 4
Time Start	Insufficient	06/25/2009 12:30	Insufficient	06/25/2009 12:30
Time End	Data	06/25/2009 14:30	Data	06/25/2009 14:30
Total Time (hours)		2.000		2.000
Rated Capacity (MW)	77	77	77	77
Average Load (MW)		73.77		72.93
Average Heat Rate (Btu/kWhr)		12080.14		12222.62
Average Inlet Temp (F)		91.16		91.63

Peno Creek	CTG 1	CTG 2	CTG 3	CTG 4
Time Start	06/24/2009 15:00	06/24/2009 15:00	06/24/2009 15:00	06/24/2009 15:00
Time End	06/24/2009 17:00	06/24/2009 17:00	06/24/2009 17:00	06/24/2009 17:00
Total Time (hours)	2.000	2.000	2.000	2.000
Rated Capacity (MW)	48	48	48	48
Average Load (MW)	47.89	47.27	46.92	47.02
Average Heat Rate (Btu/kWhr)	10307.46	10424.15	10313.22	10389.81
Average Inlet Temp (F)	82.90	75.93	75.96	82.95

Pinckneyville	CTG 1	CTG 2	CTG 3	CTG 4	CTG 5	CTG 6	CTG 7	CTG 8
Time Start	06/24/2009 13:00	06/24/2009 13:00	06/24/2009 13:00	06/24/2009 13:00	06/24/2009 13:00	06/24/2009 13:00	06/24/2009 13:00	06/24/2009 13:00
Time End	06/24/2009 15:00	06/24/2009 15:00	06/24/2009 15:00	06/24/2009 15:00	06/24/2009 15:00	06/24/2009 15:00	06/24/2009 15:00	06/24/2009 15:00
Total Time (hours)	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000
Rated Capacity (MW)	44	44	44	44	35	35	35	35
Average Load (MW)	44.57	44.98	44.81	44.69	35.81	36.03	35.54	35.56
Average Heat Rate (Btu/kWhr)	9487.55	9589.47	9753.96	9485.13	11003.57	11539.86	12158.24	12288.34
Average Inlet Temp (F)	90.27	87.51	90.93	90.59	91.14	90.10	91.54	91.67

Venice	CTG 2	CTG 3	CTG 4	CTG 5
Time Start	06/22/2009 13:30	06/22/2009 13:30	06/22/2009 13:30	Insufficient
Time End	06/22/2009 15:30	06/22/2009 15:30	06/22/2009 15:30	Data
Total Time (hours)	2.000	2.000	2.000	
Rated Capacity (MW)	49	170	170	117
Average Load (MW)	45.10	157.33	166.33	
Average Heat Rate (Btu/kWhr)	10809.26	10588.99	10651.77	
Average Inlet Temp (F)	100.58	82.92	84.27	

Kinmundy	CTG 1	CTG 2
Time Start	Insufficient	Insufficient
Time End	Data	Data
Total Time (hours)		
Rated Capacity (MW)	117	117
Average Load (MW)		
Average Heat Rate (Btu/kWhr)		
Average Inlet Temp (F)		

Attachment D