

# State Regulatory Update: Smart Grid Cost Recovery

October 2009

As state regulators and utilities increasingly seek ways to transition to a smart grid, a trend toward mostly adjustable tariff riders and surcharges is emerging for cost recovery for advanced metering infrastructure (AMI) and related smart grid investment initiatives.

Of the dozen states included in this compilation, four have authorized reconcilable tariff riders and three have approved surcharge mechanisms. The remaining states have taken different or additional approaches as described below.

- Four states have approved tariff riders with periodic true-ups to reconcile actual and estimated costs: **IL, OH, OK, OR**
- Three states have approved customer surcharge mechanisms: **MD, NY, TX**
- Three states have approved base rate recovery, or opportunity for base rate recovery: **CA, IN** (operating costs), **TX**
- One state has approved reconcilable balancing account mechanisms under which costs/benefits are tracked and the net amount is ultimately consolidated into rates on an annual basis: **CA**
- Two states have approved deferred cost recovery: **DE, ID**
- Three states have allowed rate-basing of some capital investment: **CA, MA, OR**
- Three states have acted on smart grid filings but not yet addressed cost recovery in those proceedings: **ID, IN** (capital costs), **MA**
- Three states have linked action on smart grid initiatives to utility pursuit of federal stimulus funding: **IL, OH, NY**

The following abstracts of state decisions are in chronological order, starting with the most recent.

## Regulatory Examples

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### Illinois CC – Commonwealth Edison

Decided 10/14/09

Filed 6/1/09

Case 09-0263

- Tariff rider w/annual true-up

Approves AMI pilot/related cost recovery (totaling approx. \$69m) via previously approved rider w/annual reconciliation. Pilot to expand if DOE grants company-requested \$175m in stimulus funding in separate docket (No. 09-0407). Approved pilot, which runs Nov 2009-May 2010, includes approx. \$15m (capital/O&M) customer applications program (CAP) to examine customer behavior changes. Caps recovery of CAP expenditures @\$16.3m, citing need to ensure prudence of incurred costs. Approves company-requested 10-yr. amortization of retiring meters vs. 13.69 avg. life, citing little impact on ratepayers from difference. Excludes company-requested incentive compensation costs related to pilot, saying proper place for consideration is general rate case; also cites potential for protracted litigation if reviewed in reconciliation

proceeding. Approves company-requested inclusion of inclining block rate for some participants to test customer incentives to reduce peak consumption; requires staff-proposed 5-yr. period of weather normalization and participant residency.

Note: Underlying tariff rider mechanism approved 9/10/08 in Case 07-0566.

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#### **Delaware PSC – Delmarva Power & Light**

Decided 9/16/09      Filed 2/6/07      Case 07-28, et al.

- Deferred cost recovery

Approves creation of regulatory asset for recovery of operating costs related to deployment of AMI/demand response equipment. PSC/staff/others free to challenge level or any other aspects of asset recovery when utility later seeks recovery in base rates. PSC to review/determine per-customer cost in future, taking into account net effect of related costs/savings.

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#### **New York PSC – Central Hudson Gas & Electric, Consolidated Edison, New York State Electric & Gas, Niagara Mohawk Power, Orange and Rockland Utilities, Rochester Gas & Electric**

Decided 7/27/09      Filed 4/17/09      Case 09-E-0310, et al.

- Surcharge, contingent on DOE matching stimulus funds—utility compliance proposals pending

Approves six company-proposed smart grid initiatives, contingent on DOE stimulus awards of 50% of funding. Ratepayer share of project incremental costs to be collected via surcharge, effective when each project is completed. Companies to propose individual surcharge mechanisms after DOE grants announced; surcharges must address rate design/revenue allocation proposals that consider customer impacts. Requires quarterly reporting on surcharge/other info.

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#### **Oklahoma CC – Oklahoma Gas and Electric**

Decided 7/24/09      Filed 2/27/09      Case PUD 200800398

- Tariff rider w/semiannual true-up

Approves settlement providing for tariff rider to recover up to \$20m of capital/O&M costs related to company-proposed SmartPower deployment of 42,000 smart meters in Norman, OK. Collected revenue/actual costs to be trued up semiannually as of Dec 2010. Approves related residential/general service variable peak pricing (VPP) tariffs. VPP to include “best bill” provision under which total VPP charges are compared to what charges would have been under original rate after initial year; customer credit to be issued for amt. paid over what would have been paid under previous rate. Costs to be allocated to/recovered from customers using utility distribution plant allocator. Requires annual reports.

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#### **Massachusetts DPU – Western Massachusetts Electric**

Decided 7/21/09      Filed 4/1/09      Case 09-34

- Cost recovery not yet addressed

Rejects company-proposed 6-mo. smart grid pilot as not in compliance w/2008 state law because it lacks: 1) TOU or CPP pricing, 2) automated load mgt. technologies, and 3) rate treatment for projected \$2.5m of program costs. Requires refile to correct statutory deficiencies and to broaden scope beyond proposed low-income segment. Dismisses proposed pay-as-you-go component under which customers would pre-pay for

electricity, saying related request for temporary waiver of certain billing/termination regs would inappropriately revise consumer protections in too targeted a proceeding. Finds merit in inclining block portion of proposal but does not accept, saying scope of effects to be studied should be broader.

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### Ohio PUC – Dayton Power and Light

Decided 6/24/09      Filed 10/10/08      Case 08-1094-EL-SSO

- Infrastructure investment rider, subject to AMI/smart grid plan approval

Approves settlement providing for utility to present independent business cases for AMI/smart grid plans for review/approval. Company agreed to delay implementation of proposed infrastructure investment rider until such review/approval. Rider would be implemented 1/1/10 to recover prudently incurred costs related to approved AMI/smart grid plans.

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### Ohio PUC – FirstEnergy

Decided 3/25/09      Filed 7/31/08      Case 08-935-EL-SSO, et al.

- Tariff rider w/annual true-up

Approves settlement providing for utility to develop proposal to pursue stimulus funding for smart grid investment and to work w/parties to develop critical peak, TOD, and real-time pricing tariffs. Approves unavoidable rider recovery of smart grid investment, to be trued up annually. Any under-/over-recovery of costs due to time-differentiated rate structures to be passed thru via unavoidable rider and allocated on voltage-differentiated basis. Provides for consideration of load factor pricing for two non-residential rates; any such pricing provisions to be funded w/in specific rate schedule by unavoidable demand charges/unavoidable energy credits.

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### Ohio PUC – American Electric Power

Decided 3/18/09      Reheard 7/23/09      Filed 7/31/08      Case 08-917-EL-SSO, et al.

- Tariff rider w/annual true-up

Approves, as clarified/corrected on rehearing, initiation of Phase 1 of smart grid pilot over 3 yrs. Approves development of annually trued up gridSMART rider to recover related costs, set at \$32m for 2009 vs. company-requested \$64m; cites availability of federal stimulus matching funds as basis for decrease. Notes utility had sought cost recovery via distribution rate increase but agreed to staff-proposed rider. Cites rider benefits, e.g., separate accounting for costs, opportunity to approve/update plan annually, and assurance that expenditures are made before cost recovery. Clarifies it intends to approve recovery of prudently incurred Phase 1 costs once company properly seeks federal stimulus funds.

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### California PUC – Pacific Gas and Electric

Decided 3/12/09      Filed 12/12/07      Case A.07-12-009

- Balancing account w/annual true-up

Conditionally approves company-proposed smart meter program upgrade and cost recovery under which utility to collect approx. \$467m in addition to previously approved \$1.74b smart meter budget. Rates covering upgrade to be set initially to recover forecasted project costs, including incremental costs/benefits of upgrade; annual true-up to actual costs to occur via existing SmartMeter Balancing Account-Electric (SBA-E). Related costs incurred prior to PUC decision and recorded in memo account are to be reviewed

separately for transfer to SBA-E for recovery. Company to seek implementation of smart meter upgrade rate change in conjunction w/other changes as of 1/1/10.

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### Idaho PUC – Idaho Power

Decided 2/12/09      Filed 8/5/08      Case IPC-E-08-16

- Cost recovery not yet addressed

Approves CPCN for 3-yr. phased AMI deployment w/total estimated \$71m cost. Utility to absorb costs above estimate, which is to be adjusted to account for certain additional expected costs that cannot be quantified now. Defers consideration of cost recovery to future proceeding. Approves company-proposed, 3-yr. accelerated depreciation for existing meters, saying ratepayer impact can be adequately offset by anticipated annual O&M benefits. Requires company to seek to maximize amt. of any offset to capital expense thru resale of existing metering infrastructure.

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### Texas PUC – CenterPoint Energy Houston Electric

Decided 12/22/08      Filed 5/5/08      Case 35639

- Surcharge w/true-up

Approves settlement providing for mo. surcharge recovery over 12 yrs. of costs related to 5-yr. deployment of AMS for residential/non-residential customers, starting Mar 2009. Surcharge subject to adjustment per future reconciliations and inclusion of AMS costs in future base rates. If company has not filed base rate case by 12/31/10, it must file for AMS reconciliation in Jan 2011. Approves 10.75% ROE for use in calculating surcharge. Recoverable costs include estimated \$640m capital investment, \$208m of O&M costs, severance pay for meter readers/other affected positions, \$36.4m of costs related to previously approved pilot, and customer education/other costs. Estimated \$121m of savings/benefits to be applied to surcharge. Approves 7-yr. depreciation period.

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### Ohio PUC – Duke Energy

Decided 12/17/08      Filed 7/31/08      Case 08-920-EL-SSO, et al.

- Infrastructure modernization rider w/annual true-up

Approves settlement providing for infrastructure modernization rider for recovery of costs related to proposed smart grid deployment and certain other items. For each annual rider filing, 85% of smart grid revenue requirement to be allocated to residential customers and recovered via mo. price per meter. Remaining 15% to be allocated to non-residential, recovered via mo. price per meter based on currently approved weighted avg. customer charge, capped at \$0.50 in 2009, increasing to annually to \$5.50 in 2013. Parties also agreed to regulatory asset accounting treatment for replaced meters, for which recovery to be made thru existing depreciation rates.

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### California PUC – Southern California Edison

Decided 9/18/08      Filed 7/31/07      Case A.07-07-026

- Balancing account w/annual true-up

Approves settlement allowing recovery of \$1.63b for company-proposed AMI deployment in 2008-12 via new SmartConnect balancing account. Authorizes risk-sharing mechanism under which ratepayers to pay 90%/shareholders 10% of deployment cost overruns up to \$100m w/o additional reasonableness review.

Requires showing in 2012 general rate case (GRC) that company avoided double recovery of requested AMI costs. Approves voluntary programmable communicating thermostat program. Settlement provides for SCE to propose, in 2009 GRC, two-tiered peak time rebate program under which participants w/enabling technology, e.g., automated load reduction devices, to be paid higher incentives than other participants.

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### Illinois CC – Commonwealth Edison

Decided 9/10/08      Filed 10/17/07      Case 07-0566

- Tariff rider mechanism

Approves company-proposed Rider SMP (systems modernization projects) for implementing Phase 0 of AMI pilot under which 200,000 advanced meters to be installed by end of 2009. Deployment to follow 6-mo. series of AMI workshops for defining exact project scope/timing, subject to CC approval. Rider cannot be implemented until company files specific cost recovery request; amortization period for retired meters to be addressed at that time. Directs formation of collaborative to immediately consider IL smart grid policy issues, followed by docket to adopt specific smart grid goals/policy framework. Results of Phase 0 to be analyzed by company/brought to collaborative.

Note: Specific tariff rider approved 10/14/09 in Case 09-0263.

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### Texas PUC – Oncor Electric Delivery

Decided 8/29/08      Filed 5/28/08      Case 35718

- Surcharge w/periodic true-up

Approves settlement providing for mo. surcharge recovery over 11 yrs. of costs related to 5-yr. deployment of AMS for residential/non-residential customers starting in 2008. Surcharge subject to adjustment per future reconciliations, starting no later than 2 yrs. after surcharge implemented, and calculated based on currently authorized 11.25% ROE. Company may not seek to include costs in rate cases filed during deployment period due to settlement agreement on need for simplicity and ease of related cost tracking, but it may seek such recovery in pending rate case (No. 35717). Recoverable costs include estimated \$686m capital investment, \$153m of O&M costs, and customer education/other costs. Estimated \$176m of meter reading savings and \$28m of ad valorem tax savings applied to surcharge. Approves 7-yr. depreciation period. Approves waivers under which metering w/all functionalities not required for certain situations, e.g., when meters w/disconnect function may cause health/safety issues.

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### Oregon PUC – Portland General Electric

Decided 5/5/08      Filed      Case UE 189

- AMI tariff

Approves settlement providing for \$132.2m AMI deployment over 2.5 years, including installation of 850,000 smart meters. Approves 0.8% revenue requirement increase to recover net \$12.9m/yr. via company-proposed AMI tariff (Schedule 111) from Jun 2008 thru 2010. Amount reflects capital costs (\$12.5m), accelerated depreciation of old meters (\$4.5m), and O&M savings (\$4.1m). Says cost recovery incorporates 6-mo. lag, w/rate base adjusted mo., enabling revenue requirement levelization over deployment. Rate impact to be mitigated by previously announced income tax refund to customers. AMI to be included in rate base thru 2010, after which company to file base rate case capturing operating benefits on behalf of customers. Meters to immediately “close to plant” when received by PGE vs. charged to CWIP/closed to plant in service upon project completion. Finds premature early retirement of old meters does not constitute

imprudence. Requires company to perform specified stipulated conditions, some of which require separate approval, e.g., filing of CPP tariff. Notes customer/system benefits, e.g., demand response, will require further investment. Company estimates operational savings @\$18.2m in first year.

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### Massachusetts DPU – Fitchburg Gas & Electric

Decided 2/29/08      Filed 8/17/07      Case 07-71

- Rate-basing of portion of AMI investment

Allows \$4.5m of AMI investment in rate base vs. company-requested \$5.2m, finding allowed portion was placed in service/used and useful in 2006 test year. Cites DPU accounting rule for incomplete projects allowing cost of portion in operation & ready for service to be treated as plant in service. Requires halt to accruing AFUDC as of date plant went in service. Excludes \$700k reflecting post-test year expenditures, saying not significant increase to year-end rate base. Requires related depreciation/property tax adjustments. Requires report w/in 6 mos. on plans for demand response/conservation programs under AMI strategy; ancillary AMI features, e.g., disconnection; future cost/benefit savings for ea. system capability; and master timetable for future application development.

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### Maryland PSC – Allegheny Power, Baltimore Gas and Electric, Delmarva Power & Light, Pepco

Decided 9/28/07      Filed 6/8/07      Case 9111

- Customer surcharge

Establishes parameters of AMI/DSM programs and directs utility participants in previously established collaborative to file comprehensive energy efficiency, conservation and demand reduction plans designed to achieve specified, “aggressive” usage reduction goals by 2015. Adopts cost recovery recommendations in collaborative’s 7/6/07 report as follows: 1) 5-year expense amortization, 2) capital investments amortized over useful life, 3) program costs allocated to rate classes based on participation eligibility and derived program benefits, 4) annual carrying costs of unrecovered expenditures = approved company rate of return, 5) cost recovery via distribution rate surcharge, and 6) opportunity for plans to propose incentive mechanisms. Directs companies to use four cost-effectiveness tests: societal, all ratepayers, rate impact measure, and participant. Sets minimum standards for AMI programs.

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### California PUC – Southern California Edison

Decided 7/26/07      Filed 12/21/06      Case A.06-12-026

- Balancing account w/annual true-up; rate-basing of some pre-deployment capital costs

Approves \$45.22m vs. company-requested \$67m to fund AMI pre-deployment activities, including product mgt., information technology, business process/organizational readiness, field deployment, customer tariffs/programs, systems integration, and program mgt./organization. Allows as-incurred recording in modified AMI balancing account of: 1) \$25.52m in pre-deployment expense, and 2) \$19.7m in pre-deployment capital costs, of which \$5.6m to be added to rate base in 2007 or 2008. Finds ratepayer funding warranted for activities resulting in product useful to SCE and providing ratepayer value regardless of ultimate decision on to-be-filed deployment application. Excludes all proposed contingency-related costs, citing lack of detailed justification.

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## California PUC – Pacific Gas and Electric

Decided 7/20/06      Filed 6/16/05      Case A.05-06-028

- Balancing account w/annual true-up

Following stipulations, approves company-proposed AMI for all electric/gas customers and voluntary CPP as of spring 2007 for residential/small C&I customers < 200 kW who install advanced meters. Allows recovery of \$1.74b of AMI costs over 5 years + stipulated \$100m contingency providing for: 1) 10% shareholder penalty of overruns up to \$100m, and 2) post-fact prudence review for costs above \$1.8b. Adopts company-proposed electric/gas balancing accounts for recording AMI costs/operational benefits as incurred. Accepts company estimate of approx. 89% cost offset via anticipated operational savings/efficiencies, w/remaining 11% offset via demand response savings per CPP. Accepts company demand response estimate ranging from 206 to 448 MW by 2011 w/full AMI deployment and CPP rate.

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## Indiana URC – American Electric Power

Decided 6/13/07      Filed 2/27/07      Case 43231

- Ratemaking treatment of capital costs not yet addressed; ongoing operating costs to be included in next base rate case; company will not earn return on capital investment

Approves depreciation settlement w/unrelated provision for 10,000-meter smart meter pilot, to be developed w/Office of Utility Consumer Counsel (OUCC). Says AEP agreed not to earn return on its capital investment (estimated at \$7m-9m), and not to seek or defer recovery of any pilot expenses incurred prior to filing rate case by 7/1/07. Utility allowed to include ongoing related O&M, tax, and depreciation expenses in revenue requirement in the base rate case, and must show in pro forma adjustment any cost savings from pilot. Ratemaking treatment of capital costs to be addressed in collaborative between AEP/OUCC on a general smart metering program.

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## California PUC – San Diego Gas & Electric

Decided 4/12/07      Filed 3/15/05      Case A.05-03-015

- Balancing account w/annual true-up

Following settlement, approves AMI deployment for electric/gas, related rate recovery of \$572m for 2007-11 w/o prudence review, and risk contingency/symmetrical risk-reward sharing mechanism. Total project costs include additional functionality, e.g., home area network communications system, and extended warranty pricing for equipment, per settlement. Total costs may decrease due to related RFP revisions. Finds \$40m-51m in net benefits. Deployment of approx. 1.4m new AMI-enabled, solid state electric meters to begin mid-2008. Approves AMI balancing account to record project costs. Requires utility to book shareholder rewards/costs in existing reward/penalties balancing account up to \$5m.

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## Idaho PUC – Avista

Decided 10/8/04      Filed 2/6/04      Case AVU-E-04-1, et al.

- Deferred cost recovery

Approves company-proposed plan to install AMR technology over 4 yrs. w/o TOU facilities. Approves deferral accounting treatment for estimated \$16.3m installation cost; specifically, approves company-proposed capitalization of \$16.3m as CWIP until project completed and depreciation begins. Meters to have TOU monitoring capability.

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## Acronym Glossary

AFUDC—allowance for funds used during construction

AMI—advanced metering infrastructure

AMR—advanced meter reading

AMS—advanced metering system

CC—Commerce Commission or Corporation Commission

C&I—commercial and industrial

CPCN—certificate of public convenience and necessity

CPP—critical peak pricing

CWIP—construction work in progress

DOE—U.S. Department of Energy

DPU—Department of Public Utilities

DSM—demand-side management

kWh—kilowatt hour

O&M—operations and maintenance

PSC—Public Service Commission

PUC—Public Utilities Commission or Public Utility Commission

RFP—request for proposal

TOD—time of day

TOU—time of use

Sources: State regulatory commissions; SNL Financial-Regulatory Research Associates; Edison Electric Institute  
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