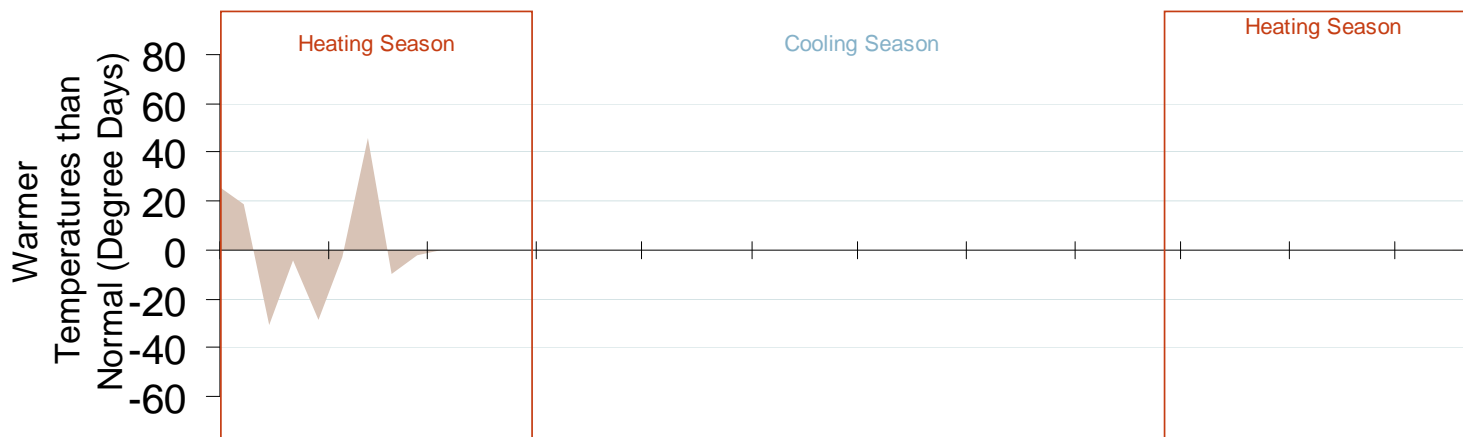
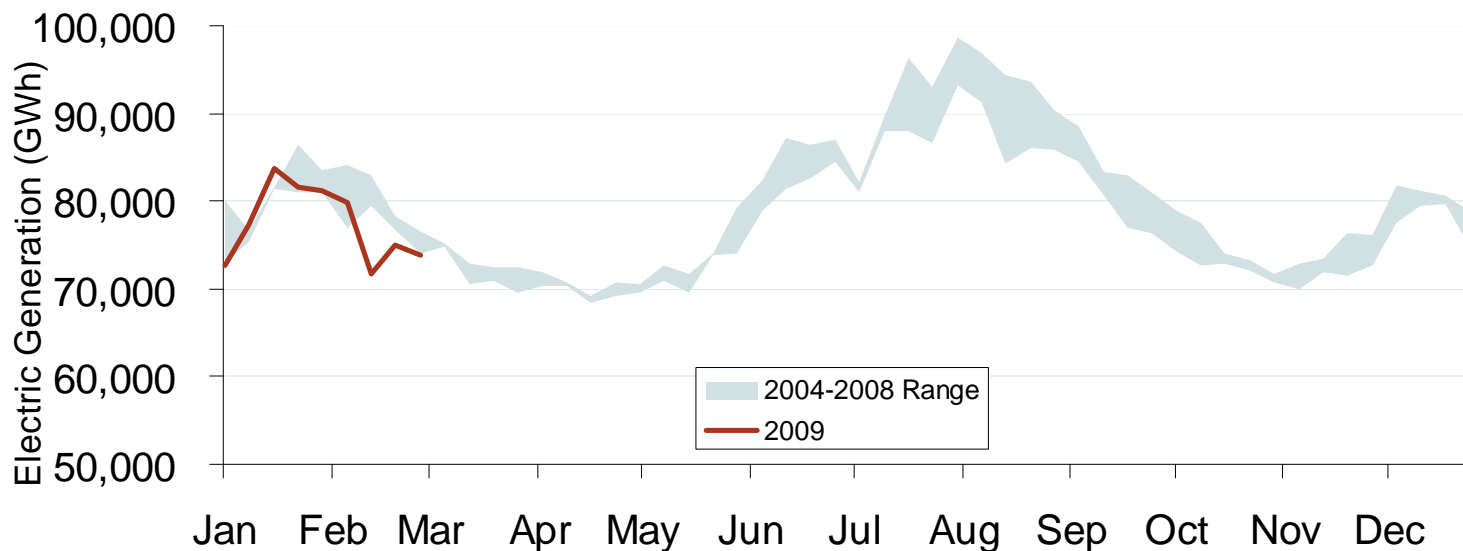


This map was created using
Platts POWERmap, November 2008
March 2009

REGIONAL TRANSMISSION ORGANIZATIONS

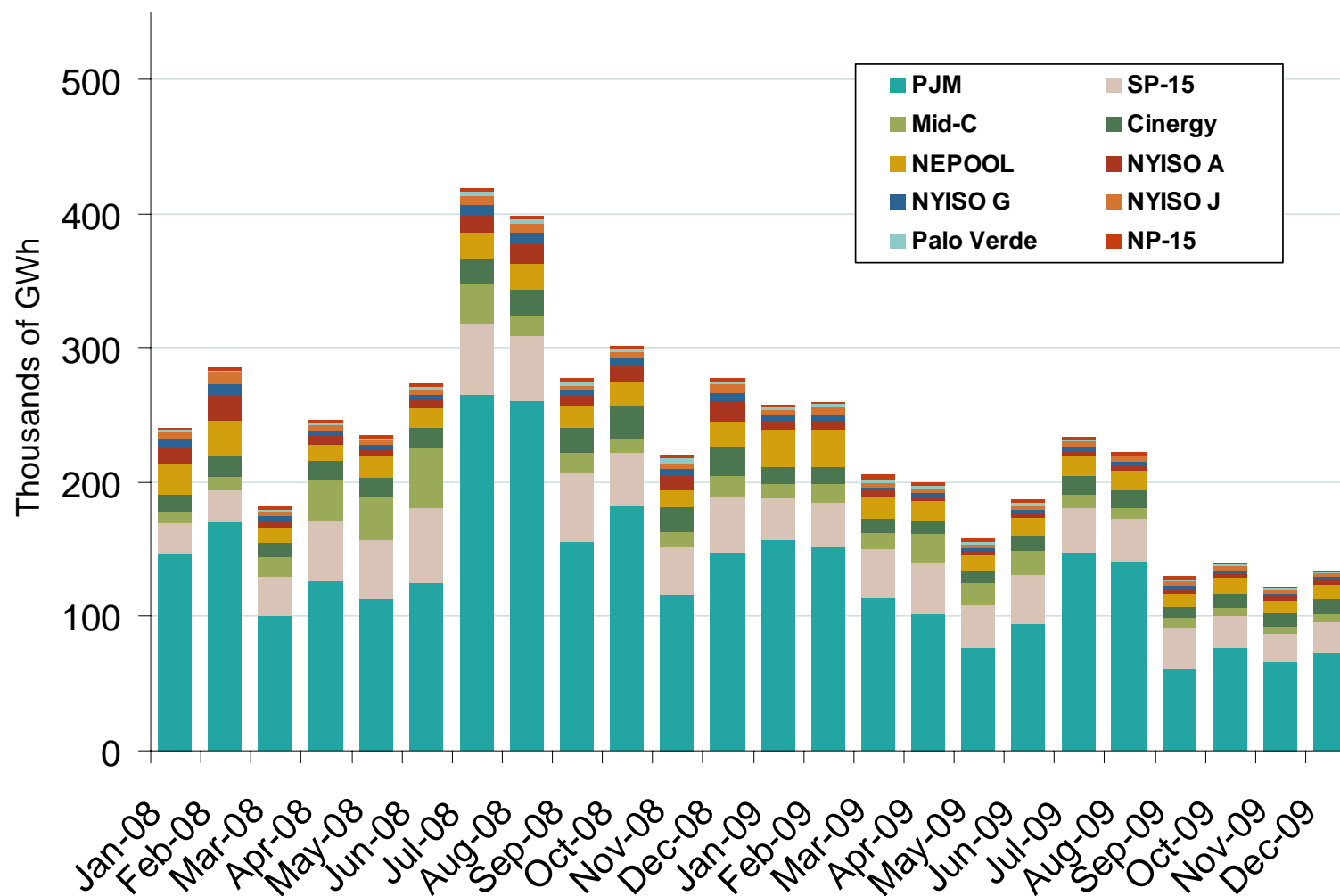
Weekly U.S. Electric Generation Output and Temperatures



Source: Derived from EEI and NOAA data.

Updated March 9, 2009

Financial Trading on ICE by Contract Month



Source: Derived from ICE data. ICE on-peak swaps (financial) volume include monthly, dual monthly, quarterly, and calendar year contracts traded for each month.

Updated March 9, 2009

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Renewable Energy Portfolio Standards (RPS)

29 States including D.C. have an RPS

WA: 15% by 2020

OR: 25% by 2025;
small utilities 5-10%

ID: Priority to DR, EE, and
in-state RE

CA: 20% by 2010;
goal: 33% by 2020

NV: 20% by 2015;
solar 5% per year

UT: 20% by 2025

CO: 20% by 2020;
co-ops & munis 10%;
includes 4% solar

AZ: 15% by 2025;
includes 30% DG

NM: 20% by 2020; co-ops 10%

TX: 5,880 MW by 2015;
goal: 10,000 MW by 2025

HI: 20% by 2020; *proposed
increase to 40% by 2030
agreed to for 2009 session*

MT: 15% by 2015

ND: 10% by 2015

SD: 10% by 2015

NE: studying RPS

KS: goal - 20% wind by 2020

MN: 25% by 2025

Xcel 30% by 2020

IA: 105 MW in RPS

goal: 1,000 MW wind by '11

MO: 15% by 2021;
at least 2% solar

OK: Studying an RPS

AR: Utility IRPs to include RE

WI: 10% by 2015

IL: 25% by 2025

MI: 10% by 2015, and new RE
capacity: 1,100 MW by 2015

OH: 12.5% by 2025; 0.5% solar

IN: 2 bills introduced

KY: Report recommends RPS

ME: 40% by 2017

goal: 3 GW wind by 2020

NH: 23.8% BY 2025

VT: 25% by 2025

MA: 15% by 2020; two goals: 250 MW
solar 2017; 2 GW wind 2020

RI: 16% by 2019

CT: 23% Class I/II by 2020
4% Class III by 2010

NY: 25% by 2013

PA: 8% Tier I, 10% Tier II by
2020; 0.5% solar set-aside

NJ: 22.5% by 2020; 2% solar

DE: 20% by 2019, with 2% solar

DC: 20% by 2020, with 0.4% solar

MD: 20% by 2022, with 2% solar

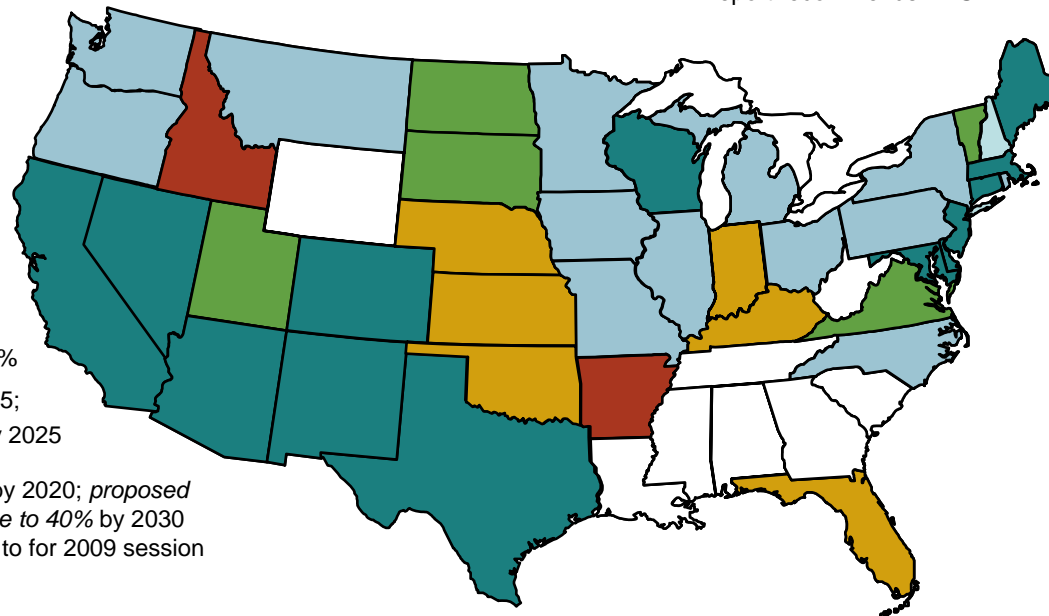
VA: 12% by 2022

TVA: 50% of generation from zero- or
low-carbon sources by 2020*

NC: 12.5% by 2021

co-ops & munis: 10% by 2018

FL: draft RPS to legislature:
20% by 2020

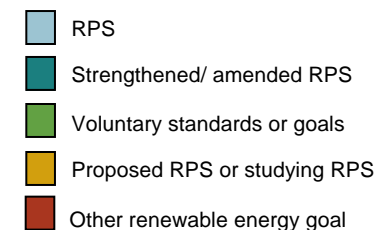


Updates at: <http://www.ferc.gov/market-oversight/mkt-electric/overview/elec-ovr-rps.pdf>

Notes: An RPS requires a percent of an electric provider's energy sales (MWh) or installed capacity (MW) to come from renewable resources. Most specify sales (MWh). Map percents are final years' targets. Details, including timelines, are in the Database of State Incentives for Renewables and Energy Efficiency: <http://www.dsireusa.org>. Alaska has no RPS; TVA's goal is not a state policy: the Public Power Authority called for 50% of generation from zero- or low-carbon sources by 2020.

Abbreviations: DG: distributed generation; DR: demand response; EE: energy efficiency; IRP: integrated resource plan, RE: renewable energy.

Sources: Derived from data in: EEI, EIA, LBNL, PUCs, State legislative tracking services, DSIREUSA, Pew Center, and the Union of Concerned Scientists.



Updated February 6, 2009

Renewable Energy Portfolio Standards

- **A Renewable Portfolio Standard (RPS)** requires a percent of energy sales (MWh) or installed capacity (MW) to come from renewable resources. Percents usually increase incrementally from a base year to an ultimate target. The percents on the map are ultimate targets.
- **29** states – including D.C. – have renewable mandates.
- **Six** have renewable goals without financial penalties: KS, ND, SD, UT, VT and VA.
- **Six** states proposed RPS bills or released studies that propose including more RE in state resources: FL, IN, KS (bills) and AK, KY, NE (state energy reports).
 - **Florida's PSC** sent its draft RPS to the legislature in response to an April 2008 legislative requirement. The legislature will decide how to proceed.
 - **Indiana's** House introduced two bills for an RPS in January. A traditional one has a 20% by 2020 target; the other creates two compliance tiers. An RPS bill did not pass last year.
 - **Kansas** introduced an RPS bill, with a 20% by 2020 target based on a utility's average peak load (in MW) for 2016-18. (Jan 14)
 - **Alaska** issued "Sustainable Energy for Alaskans" as a guide for communities to review local energy sources including in-river hydro, wind, solar, wave, tidal, biomass, and geothermal, in addition to traditional resources. It does not recommend state action or set a RE goal. (Jan 7)
 - **Nebraska's** "Interim 2009 Energy Plan" supports enacting an RPS and stresses EE, RE, and Nebraska's commitment to nuclear power. A final report will identify regulatory and statutory activities following the comment period, which closed Jan 23.

OVERVIEW OF 2008 RPS DEVELOPMENTS:

- **Three states passed a new RPS:** Ohio, Michigan, and Missouri. Ohio's and Michigan's were by state legislation; Missouri's was the third RPS to pass by ballot (after Colorado and Washington state).
- **Five jurisdictions amended or strengthened** existing standards: Washington, D.C.; Maryland; Massachusetts; Minnesota; and New Hampshire.
- **Four states** with an existing goal or RPS strengthened them: ME, VT, CA, HI. Maine enacted an installed wind goal. Vermont increased its goal to 25% RE by 2025. California's goal, set by Executive Order, is to increase RE to 33% by 2020. Hawaii set a goal of 40% of energy from renewable sources by 2030.
- **Four states** adopted a voluntary RPS or renewable goal: SD, UT, KS, and FL. South Dakota (Feb) and Utah (April) enacted goals without non-compliance penalties. An MOU between the Governor and Kansas utilities created its goal. Florida's goal, via Executive Order, is for utilities to produce 20% from RE; the PSC sent a draft RPS to the legislature on Jan 30.
- Kentucky and Oklahoma are working to establishing a renewable standard by legislation in 2009. In 2008, OK passed a bill allowing recovery of wind-related transmission costs.
- **Sixteen** states include energy efficiency in their RPS or renewable goals. Several issued major energy plans or draft plans with goals encompassing renewable energy, energy efficiency, and greenhouse gas reduction, including Kentucky, New Jersey, New York, and Vermont.

Electric Market Overview: Energy Efficiency Resource Standards (EERS) and Goals

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

18 States have Energy Efficiency Resource Standards

NE: Energy Plan stresses multi-sector EE improvements

KS: Advocates voluntary utility programs, not mandate

OK: PSC approved quick-start DR programs, including EE

MN: 1.5% annual savings based on prior-3 years average, to 2015

IA: utilities to submit EE goals to achieve 1.5% annual savings; awaiting approval

MI: 1% annual savings from prior year's sales to 2012

WI: EE in RPS

IL: reduce energy 2% by 2015 (EE) and 0.1% from prior year (DR)

OH: reduce peak 8% by 2018; 22% energy savings by '25, starting 2009

KY: proposed RPS-EE to offset 18% of projected 2025 demand

ME: 10% EE by 2017 – new since 2005; DR & EE as SOS priority resources

VT: 2009 – 2011 goals of 2% annual savings; administered by Efficiency VT

MA: 25% of electric load from DSR, EE by 2020: capacity and energy

NY: 15% electric use reduction by 2015 from levels projected in 2008

CT: 1.5% annual savings 2009-19, from 2007, using all cost-effective EE

RI: reduce 10% of 2006 sales by 2022

NJ: BPU proceeding on EERS to reduce consumption, peak demand

DE: creating a Sustainable Energy Utility; EE, RE, DG, DR as SOS priorities

PA: reduce energy consumption 3% and peak 4.5% by 2013 as percent of 2009-10 sales

MD: reduce per cap electricity use & peak 15% by 2015 from 2007

VA: reduce 10% of 2006 sales by 2022

NC: EE to meet up to 25% of RPS to 2011; later to 40%

TVA: reduce peak demand 1,400 MW by 2012 with EE, DR *

FL: PSC to adopt new goals to reduce electric consumption, peak demand

WA: must pursue all cost-effective conservation

OR: IOU 2008 goals 34 MW; administered by Energy Trust OR

CA: 1% annual energy savings 2004 – 2013 ~23,183 GWh, 4,885 peak MW by 2013

ID: Energy Plan sets conservation, DR, EE as priority resources

MT: Governor's initiative – 20% state agencies energy savings by 2010

NV: EE up to 25% of RPS by 2015

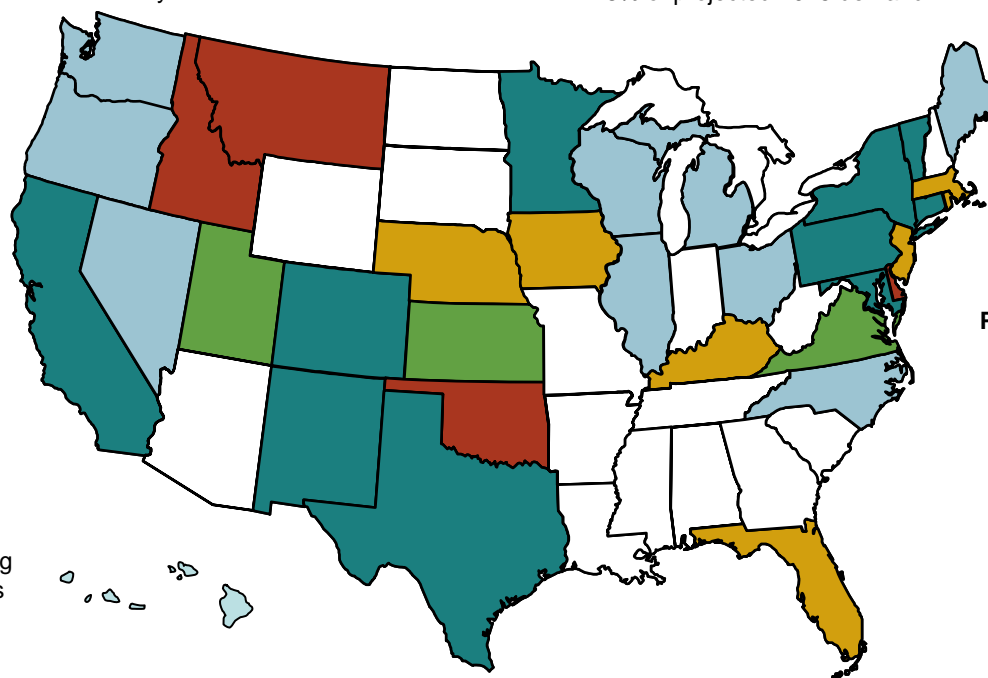
UT: EE incentives in RPS goal

CO: 11.5% energy savings 2009 – 2020 ~ 3,669 GWh

NM: use EE and DR to save 10% of 2005 retail electric sales by 2020

TX: 20% of load growth by 2010, using average growth rate of prior 5 years

HI: 20% savings of net electric sales by 2020; up to 50% of RPS

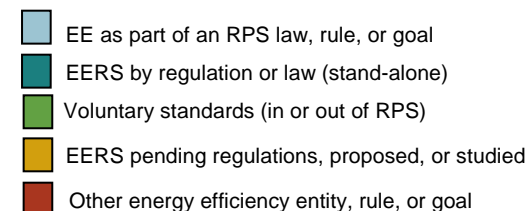


Updates at: <http://www.ferc.gov/market-oversight/mkt-electric/overview/elec-ovr-eeps.pdf>

* TVA's "EE and DR Plan" is from the Public Power Authority, and is not a state policy.

Abbreviations: DG – distributed generation; DR - demand response; DSR – demand-side resources; EE - energy efficiency; E&G: electric and gas utilities; IRP – integrated resource plan; RPS: Renewable Portfolio Standard; SOS: Standard Offer Service

Sources: ACEEE, EPA, Regulatory Assistance Project, Union of Concerned Scientists, State regulatory and legislative sites; State Efficiency Agency reports; trade press



Updated March 10, 2009

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Energy Efficiency Resource Standards (EERS)

- An **EERS** – Energy Efficiency Resource (or portfolio) Standard – aims to reduce or flatten electric load growth through energy efficiency (EE) measures. Goals may specify reductions in energy (MWh), demand (MW), or both. Many specify both overall energy reductions and peak-load reductions.
- **Energy Efficiency** (EE) is using less fuel to produce the same or greater amount of *usable* energy from a given energy source. EE actions usually have a multiple-year effect. EE is different from conservation, which can be temporary energy use reductions.

ENERGY EFFICIENCY IN THE STATES:

- **Eighteen** states have an EERS. Twenty-eight have EE standards or goals as an EERS, a utility goal, or as part of a proceeding. At least 18 include EE as part of a renewable standard or goal.
- **Three** states have a pending EERS while they develop details to implement legislation: FL, MA, and NJ. Utilities in IA and RI must file plans showing EE reduction goals or plans. KY and NE Energy Reports published in late 2008 suggested an EERS.
- **14 states** passed significant energy efficiency legislation or regulations in 2008, including: DC, FL, HI, IA, MA, MD, MI, NJ, NM, NY, PA, OH, OK, UT, and VT.
- Multiple states use special-purpose agencies to administer EE programs and goals, including CT's Energy Conservation Management Board (ECMB); NJ's Clean Energy Board, NYSERDA; Efficiency Maine; Energy Trust of Oregon; and Efficiency Vermont (EV). D.C. and Delaware are creating Sustainable Energy Utilities. Hawaii will use a third – party coordinator.

- ACEEE named 5 states in its *2008 State Energy Efficiency Scorecard* as EE leaders: California, Oregon, Connecticut, Vermont, and New York.
- Energy savings in some states with long-standing programs recently reported results:
 - CA: utilities met 1.5% of the state's electric needs in 2007 – over their annual 1% goals.
 - Energy Trust Oregon anticipates 2008 electricity savings of “a34 MW”* (297,840 MWh equivalent), nearly the “a35MW” saved in 2007.
 - CT: utilities filed plans to average 1.5% of annual needs in response to a requirement to acquire “all cost-effective efficiency.” The ECMB reported 368,000 MWh savings across all sectors for 2008.
 - VT: EV met 1.75% of the state's electric needs in 2007; preliminary 2008 data anticipate 1.8% savings.

NATIONAL ENERGY EFFICIENCY LEGISLATION:

- Rep. Edward Markey introduced an “Energy Efficiency Resource Standard for Retail Electric and National Gas Distributors” on February 2. It proposes national minimum levels of electric and natural gas savings from 2012 – 2020, measured by average annual sales during the two preceding calendar years. Cumulative electric savings would begin at 1% and ramp to 15% in 2020. Cumulative gas savings would begin at 0.75% and reach 10%. The bill specifies that states should consider EE as a resource in utility planning and procurement and seek to procure all EE that is available at lower cost than energy supply options.

* “aMW” is average MW without a time factor; MWh equivalent is: MW saved times the number of hours in a year.

Abbreviations: ACEEE: American Council for an Energy Efficient Economy; ECMB (CT) - Energy Conservation Management Board; EE - energy efficiency; EERS – Energy Efficiency Resource Standard; NYSERDA: New York State Energy Research & Development Authority; EV – Efficiency Vermont

Electric Market Overview: Greenhouse Gas Programs

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

Collaborative Greenhouse Gas (GHG) Programs

Collaborative Regional GHG Programs:

- Three North American groups with goals to lower regional GHG emissions were initiated by state Governors.
- 32 U.S. states, D.C., eight Canadian provinces, and six Mexican states are Participants or Observers.
- Observer jurisdictions do not commit to group GHG reduction goals, but participate in proceedings should they opt to join later. RGGI Observers are not on its Board.

Western Climate Initiative (WCI):

- Created February 2007
- Partners: 7 states, 4 provinces; Observers: 5 states, 1 province*
- WCI announced its design for a market-based, *multi-sector* cap-and-trade program, Sept 2008:
 - 15% CO₂ reduction below 2005 levels by 2020
 - Phase I to take effect Jan 2012

Midwest Greenhouse Gas Reduction Accord:

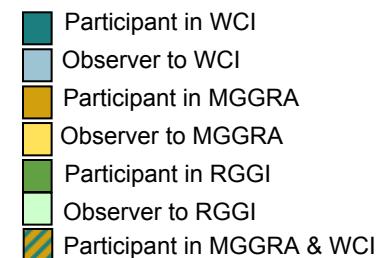
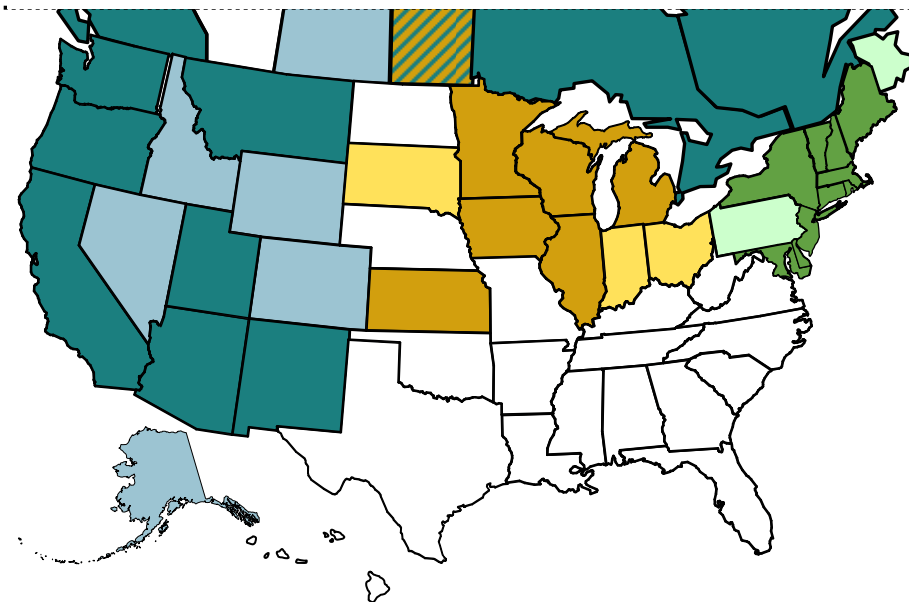
- Established November 2007
- Participants: 6 states, 1 province; 3 Observer states, 1 province
- Preliminary Design Recommendations issued Dec 2008: 15 - 25% reductions by 2020, 60 - 80% by 2050

Regional Greenhouse Gas Initiative (RGGI):

- Compliance period began Jan 1, 2009
- 10 Participant states; 5 Observers jurisdictions
- Market-based cap-and-trade effort to reduce *power-sector* CO₂ emissions.
- 10% CO₂ reduction by 2018 covers over 200 plants
- 188 million allowances (to be) sold in 2 pre-compliance auctions (2008) and 4 compliance auctions (2009)

Auctions:

1. **9/25/08:** 12.5 million allowances sold by 6 states cleared at \$3.07/allowance
2. **12/17/08:** 31.5 million allowances sold by all 10 states cleared at \$3.38/allowance
3. **3/18/09:** 1st compliance auction, 10 states to sell 31.5 million 2009 allowances and 2.2 million 2012 vintage allowances



Updates at: <http://www.ferc.gov/market-oversight/mkt-electric/overview/elec-ovr-ghg.pdf>

Notes: Kansas is a MGGRA participant and WCI observer. Ontario and Quebec are Partners to WCI and Observers to RGGI; Ontario is also an observer to RGGI.

Sources: regional initiatives - www.rggi.org, www.midwesternaccord.org, www.westernclimateinitiative.org, trade press, Pew Center, White House - www.whitehouse.gov/agenda/energy_and_environment

Updated January 27, 2009

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Collaborative Greenhouse Gas Programs

White House Energy & Environment Agenda:

- President Obama has called for an economy-wide cap-and-trade program to reduce emissions to 1990 levels by 2020 and to reduce them an additional 80% by 2050.

RGGI's Auction 2 held on December 17, 2008:

- Six states from 1st auction sell 1/6 of 2008-09 allowances in Auctions 1-6: CT, MA, ME, MD, RI, VT.
- DE, NH, NJ, and NY passed legislation necessary to participate in auctions; they sell 20% of allowances in each of Auctions 2-6.
- 69 entities bid for 3.5 times the available 31.5 million allowances in Auction 2, raising \$106.5 million.
- Of 46 winning entities, 85% were compliance entities (generators), and 12% were financial institutions or traders.
- Shares cleared at \$3.38/allowance, 31¢ higher than Auction 1, although the base price remained at \$1.86/allowance.

RGGI Updates:

- The 1st compliance auction is scheduled for March 18.
- Ten states will sell 31.5 million 2009 vintage allowances and 2.2 million 2012 vintage allowances.
- Ten participating RGGI states and Pennsylvania signed a Letter of Intent that commits them to develop a regional Low-Carbon Fuel Standard (LCFS) they describe as a market-based, technology-neutral policy (Dec 31). It requires reductions in the average lifecycle GHG emissions per unit of energy. Signatories from environment and energy agencies committed to a draft MOU on a regional program to be forwarded to the 11 governors by December 31, 2009.

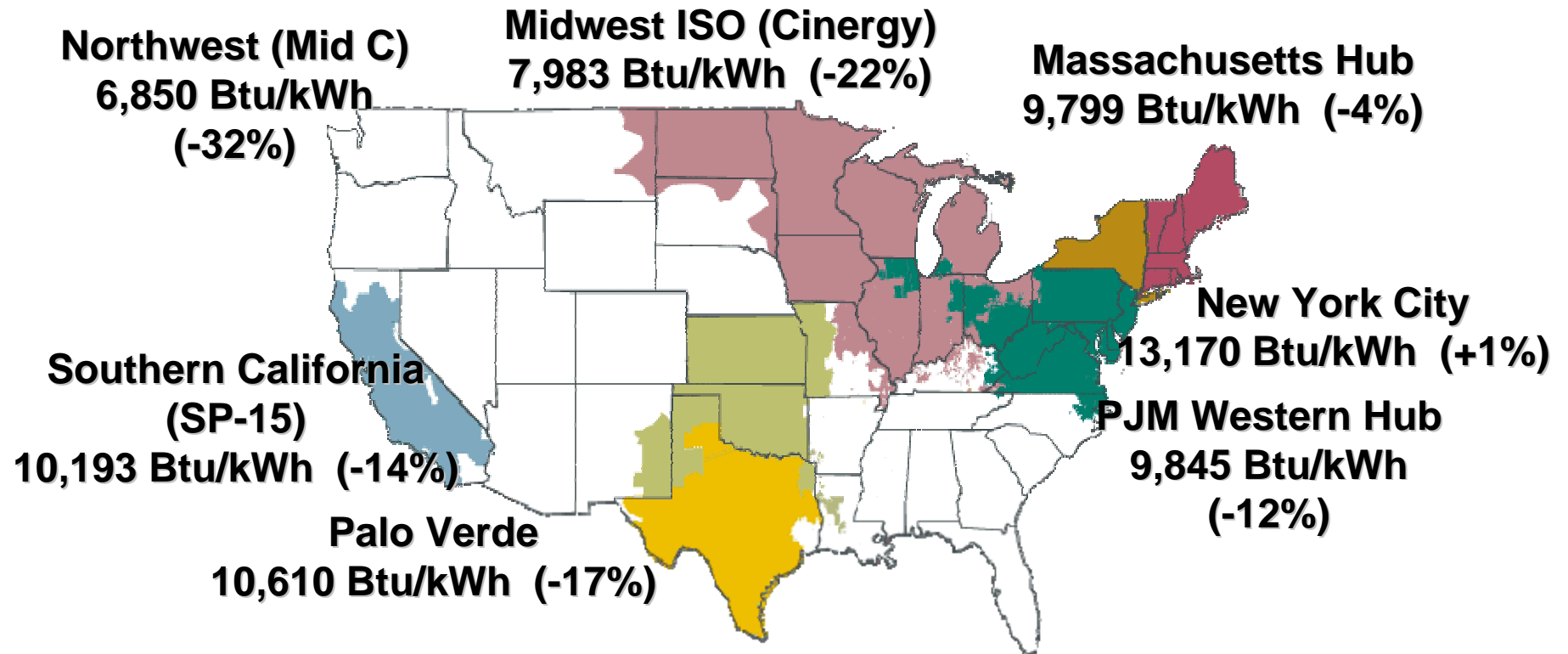
Midwest Greenhouse Gas Regional Accord:

- Signed at Midwestern Governors Association Energy Summit to establish GHG reduction targets (Nov 2007).
 - Participants: IA, IL, KS, Manitoba, MI, MN, WI
 - Observers: IN, OH, Ontario, SD
- Preliminary Design Recommendations issued (Dec 2008)
 - Target reductions from 2005 levels:
 - 15% - 25% reductions by 2020
 - 60% - 80% reductions by 2050
 - Cap-and-trade should cover multiple sectors:
 - electric generation and imports (power plants)
 - Industrial combustion sources (factories)
 - Industrial processes, if measurable and verifiable
 - Transportation fuels, subject to modeling results
 - Each jurisdiction to control allowance distribution methods.
 - Final design pending results of further ICF modeling.
- MGGRA anticipates Model Rule by August 2009.

Western Climate Initiative (WCI):

- Launched by WGA to reduce regional GHG collectively and cooperatively (Feb 2007).
 - Partners: AZ, British Columbia, CA, Manitoba, MT, NM, Ontario, OR, Quebec, UT, WA
 - Observers: AK, CO, ID, KS, NV, Sask., WY
- WCI announced design for a market-based, *multi-sector* cap-and-trade program (Sept 2008):
 - 15% CO₂ reduction below 2005 levels by 2020
 - Covers 90% of regional emissions
 - Phase I to take effect Jan 2012
 - Phase II will begin 2015

June-August Implied Heat Rates, 2008 vs. 2007



Source: Implied heat rates derived from Platts *Megawatt Daily* data.

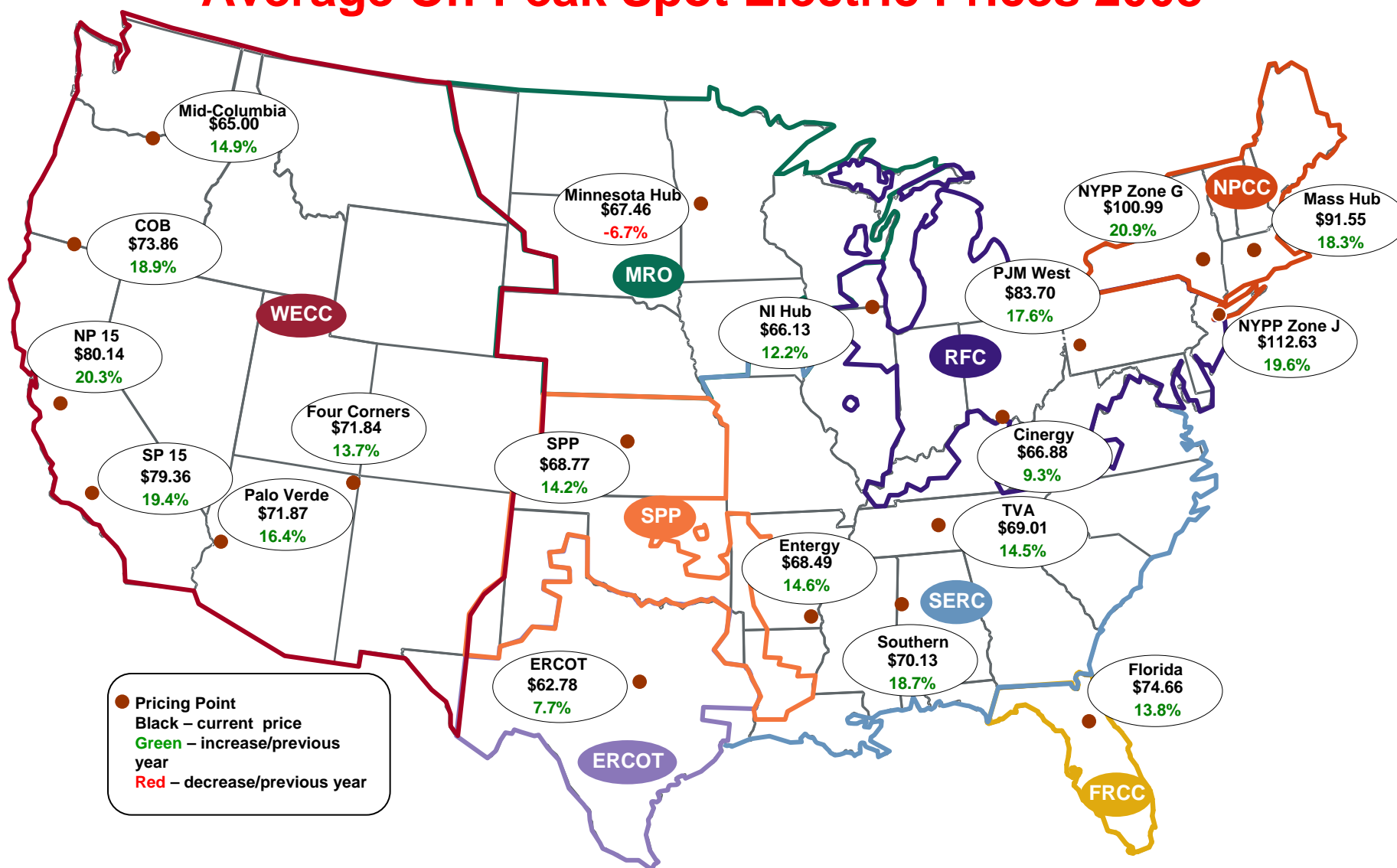
Updated September 9, 2008

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Electric Market Overview: On-Peak Spot Electric Prices

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

Average On-Peak Spot Electric Prices 2008

Source: Derived from *Platts* data.

Updated February 6, 2009

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Electric Market Overview: Regional Spot Prices

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

Regional Spot Prices: 2006-2008

	On-peak Spot Prices					Off-peak Spot Prices				
	2006	2007	2008	% Change 06-07	% Change 07-08	2006	2007	2008	% Change 06-07	% Change 07-08
Northeast										
Mass Hub	69.85	77.39	91.55	10.8%	18.3%	47.93	54.73	66.50	14.2%	17.7%
Ny Zone G*	75.95	83.51	100.99	10.0%	20.9%		48.86	67.32		27.4%
NY Zone J*	85.96	94.15	112.63	9.5%	19.6%		53.66	70.29		23.7%
NY Zone A*	58.70	64.02	68.34	9.1%	6.7%		41.26	50.68		18.6%
PJM West	61.90	71.15	83.70	14.9%	17.6%	37.45	42.23	51.21	12.8%	17.5%
Southeast										
VACAR	56.34	60.52	70.86	7.4%	17.1%	34.98	33.67	39.36	-3.7%	14.4%
Southern	55.50	59.10	70.13	6.5%	18.7%	34.02	33.03	39.82	-2.9%	17.1%
TVA	53.48	60.28	69.01	12.7%	14.5%	33.08	33.56	38.61	1.5%	13.1%
Florida	64.02	65.59	74.66	2.5%	13.8%	39.79	35.80	41.35	-10.0%	13.4%
Entergy	56.28	59.74	68.49	6.2%	14.6%	34.20	31.88	35.26	-6.8%	9.6%
Midwest										
Cinergy	51.81	61.20	66.88	18.1%	9.3%	27.66	28.94	31.14	4.6%	7.1%
Michigan Hub	55.29	64.43	69.15	16.5%	7.3%	30.20	31.04	31.81	2.8%	2.4%
Minnesota Hub	59.47	72.32	67.46	21.6%	-6.7%	27.57	29.32	25.76	6.4%	-13.8%
NI Hub	52.52	58.93	66.13	12.2%	12.2%	29.09	29.32	31.24	0.8%	6.1%
Illinois Hub	51.32	59.88	62.52	16.7%	4.4%	26.41	27.40	26.29	3.8%	-4.3%
MAPP South	55.11	61.18	69.18	11.0%	13.1%	32.73	30.80	34.00	-5.9%	9.4%
South Central										
SPP North	55.84	60.21	68.77	7.8%	14.2%	33.96	31.24	33.66	-8.0%	7.2%
ERCOT	57.83	58.27	62.78	0.8%	7.7%	39.03	38.83	38.36	-0.5%	-1.2%
Southwest										
Four Corners	58.52	63.21	71.84	8.0%	13.7%	37.91	40.19	49.40	6.0%	18.7%
Palo Verde	57.59	61.74	71.87	7.2%	16.4%	38.21	41.94	52.16	9.8%	19.6%
Mead	59.93	64.49	75.63	7.6%	17.3%	39.92	44.15	54.90	10.6%	19.6%
Northwest										
Mid-C	50.18	56.57	65.00	12.7%	14.9%	38.71	44.00	53.70	13.7%	18.1%
COB	55.58	62.14	73.86	11.8%	18.9%	40.71	46.38	55.81	13.9%	16.9%
California										
NP15	61.08	66.59	80.14	9.0%	20.3%	40.77	47.10	59.22	15.5%	20.5%
SP15	61.95	66.48	79.36	7.3%	19.4%	41.62	46.76	57.86	12.4%	19.2%

Note: * Off Peak as of April 2, 2007.

Regional Electric and Input Prices: 2006-2008

Electricity and Input Prices, 2006-08			
	2006	2007	2008
Electric Spot Prices (On-Peak \$ per MWh)			
Mass Hub	\$69.85	\$77.39	\$91.55
Cinergy	\$51.81	\$61.20	\$66.88
SP-15	\$61.95	\$66.48	\$79.36
Input Prices			
Natural Gas (\$ per MMBtu)			
Henry Hub	\$6.74	\$6.94	\$8.85
New York	\$7.37	\$8.46	\$10.13
Southern California	\$6.10	\$6.41	\$7.80
Coal (\$ per ton)			
Central Appalachian (Eastern)	\$51.64	\$45.00	\$92.37
Powder River Basin (Western)	\$13.21	\$10.24	\$13.62
Emissions (\$ per ton)			
SO ₂ Allowances	\$738.12	\$527.58	\$280.43
NO _x allowances	\$1,862.03	\$815.87	\$786.64
Oil			
WTI (Crude - \$ per barrel)	\$66.12	\$72.45	\$99.63
Residual Fuel, New York (\$ per barrel)	\$55.07	\$64.35	\$91.94
Distillate Fuel, New York (\$ per gallon)	\$2.04	\$2.22	\$3.08

Source: Derived from *Platts & Bloomberg* data.

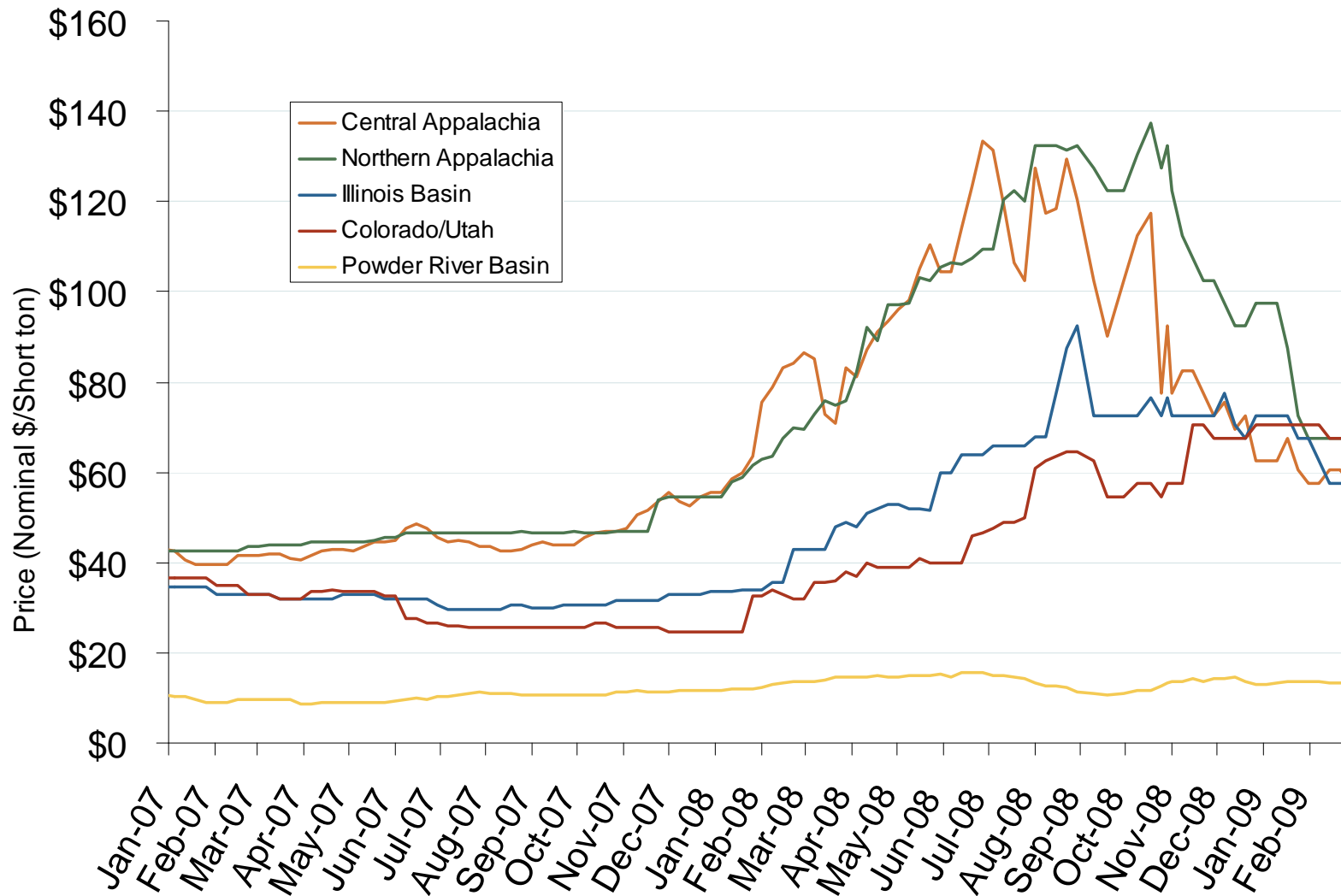
Updated February 6, 2009

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National Electric Market Overview: Coal Prices

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

Central Appalachian and Powder River Basin Coal Prices

Source: Derived from *Bloomberg* data.

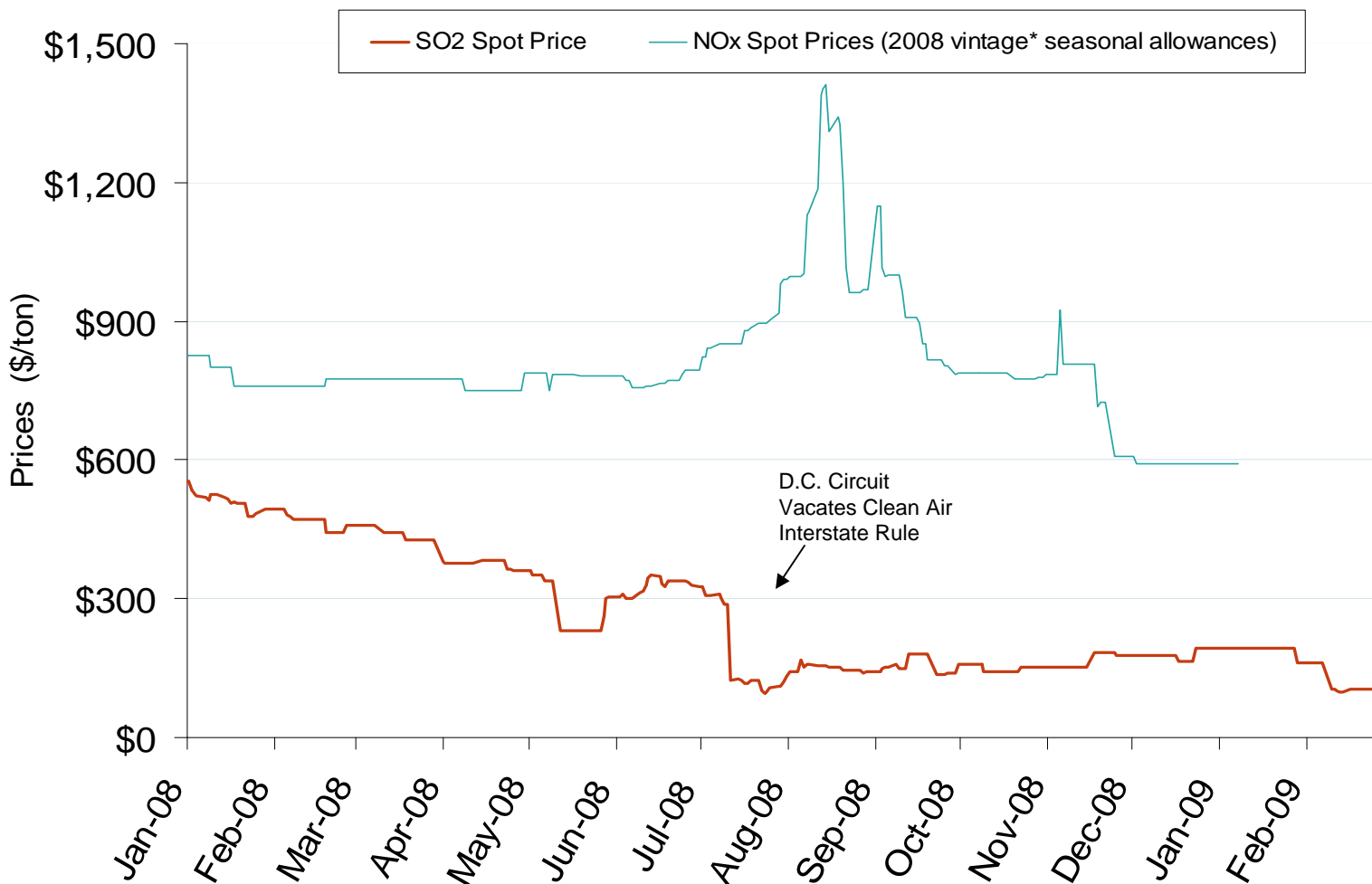
Updated March 9, 2009

1148

National Electric Market Overview: Emission Allowance Prices

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

SO₂ Allowance Spot Prices and NOx Seasonal Allowance Spot Prices

Source: Derived from *Cantor Fitzgerald* data.

* Earliest year an allowance may be applied against emissions.

Updated March 9, 2009

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Brief Overview of the SO₂ and NO_x Emissions Markets

The electric power industry is a major source of sulfur dioxide emissions (SO₂) and nitrogen dioxide emissions (NO_x) – both precursors of acid rain and smog. According to the Environmental Protection Agency's (EPA) 2006 Acid Rain Progress Report, the power sector is responsible for 70% of SO₂ emissions and 20% of NO_x emissions.

Currently US policy encourages reduction in SO₂ and NO_x emissions which can be achieved through a cap and trade program. This market based model also allows for relative flexibility in compliance options. An emitting source may choose pollution control technology such as add-on controls like flue gas desulfurization (FGD) for SO₂ and selective catalytic reduction (SCR) for NO_x, fuel switching, and/or participation in the respective cap and trade markets. The decision is primarily driven by the regulatory environment, fuel input type, the level of emission output, and compliance costs, the latter of which affects wholesale and retail prices.

The Acid Rain Program

<http://www.epa.gov/airmarkets/progsregs/arp/index.html>

EPA's Acid Rain Program (ARP), established under the 1990 Clean Air Act Amendments, requires reductions of SO₂ and NO_x emissions from the electric power industry. The Acid Rain Program was the first cap and trade program implemented nationwide to reduce SO₂ emissions.^[1] The SO₂ program set a permanent cap on the total amount of SO₂ that can be emitted by fossil fuel-fired generating units and allows allowance trading so affected sources have some flexibility in their compliance method. Currently, SO₂ sources must surrender one allowance to emit one ton of SO₂. If a source falls short on the number of allowances it needs to comply with its individual cap, it can purchase allowances from another source that has a surplus of allowances. An emitting source may have a surplus of allowances for several reasons. For example, if it chose to install and/or run scrubbers, it can "bank" those unused allowances for future use or sell the leftover allowances to other emitting sources.

The NO_x Budget Trading Program

<http://www.epa.gov/airmarkets/cap-trade/docs/nox.pdf>

In 2003, the cap-and-trade method was also implemented to reduce seasonal (primarily summer) NO_x emissions from fossil fuel-fired plants. While the EPA administers the program, states are required to share the responsibility for allowance allocation and enforcement. Currently, NO_x sources must surrender one allowance to emit one ton of NO_x.

[1] The Acid Rain Program also required NO_x emission reductions by select coal units but under a rate-based regulatory program [<http://www.epa.gov/airmarkets/progsregs/arp/nox.html>].