

Demand	Mean price (\$/MW)
Bottom 25% (Q1)	\$33.339
Lower middle 25% (Q2)	\$43.001
Upper middle 25% (Q3)	\$46.951
Top 25% (Q4)	\$69.940
Top 5%	\$73.029
Top 1%	\$99.404

Δ in price per 100 MW added, for 0-1,500 MW of additional wind			
Demand	Low gas ($g \leq 42.1\%$)	Median gas ($4.21\% < g \leq 53.4\%$)	High gas ($g > 53.4\%$)
Q1	-\$0.268	-\$0.146	-\$0.121
Q2	-\$0.366	-\$0.218	-\$0.188
Q3	-\$0.398	-\$0.261	-\$0.243
Q4	-\$0.658	-\$0.437	-\$0.505
Top 5%	-\$1.681	-\$0.694	-\$0.777
Top 1%	-\$1.218†	-\$1.218	-\$1.334 ($P=0.004$)

Δ in price per 100 MW added, for 1,500-3,000 MW of additional wind			
Demand	Low gas ($g \leq 42.1\%$)	Median gas ($4.21\% < g \leq 53.4\%$)	High gas ($g > 53.4\%$)
Q1	-\$0.382	-\$0.170	-\$0.208
Q2	-\$0.431	-\$0.176	-\$0.128
Q3	-\$0.368	-\$0.206	-\$0.173
Q4	-\$0.528	-\$0.337	-\$0.382
Top 5%	-\$0.904	-\$0.542	-\$0.587
Top 1%	-\$0.965†	-\$0.965	<i>-\$1.036 (P=0.040)</i>

Δ in price per 100 MW added, for 3,000-5,000 MW of additional wind			
Demand	Low gas ($g \leq 42.1\%$)	Median gas ($4.21\% < g \leq 53.4\%$)	High gas ($g > 53.4\%$)
Q1	-\$0.725	-\$0.491	-\$0.433
Q2	-\$0.784	-\$0.172	-\$0.131
Q3	-\$0.449	-\$0.156	-\$0.119
Q4	-\$0.519	-\$0.238	-\$0.258
Top 5%	-\$0.689	-\$0.364	<i>-\$0.383 (P=0.001)</i>
Top 1%	-\$0.686†	-\$0.686	-\$0.655 (P=0.138)

† = collinear with the median gas value

Each one of these coefficients has P=0.00 except for the italicized entries, which have their P-value written beside them.

Table 1: Regression of resource mix on price.

	(1)
	da_ec_avg
% Coal	2.827*** (16.52)
% Hydro	-0.436 (-1.66)
% Nuclear	-0.199 (-1.78)
% Oil	10.41*** (35.29)
% Refuse	-1.795 (-1.54)
% Solar	-2.657 (-0.40)
% Wind	1.117 (1.64)
Day-ahead demand avg.	0.000869 (1.53)
Constant	35.46** (2.74)
Observations	1260

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t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 2: Seasonality of wind's effect on price.

		(1)
		da_ec_avg
% Wind		-2.526*
		(-2.24)
Wind*Winter		29.51***
		(7.95)
Wind*Spring		1.020
		(0.82)
Wind*Summer		0.872
		(0.49)
Winter		-23.11***
		(-6.10)
Spring		-7.463***
		(-4.31)
Summer		-29.23***
		(-10.13)
Day-ahead demand avg.		0.00958***
		(13.16)
Gas spot price		18.70***
		(10.23)
Constant	49	-148.5***
		(-12.22)
Observations		1260

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3: Seasonality of natural gas' effect on price.

		(1)
		da_ec_avg
% Gas		-0.425** (-2.90)
Gas*Winter		-4.163*** (-8.19)
Gas*Spring		0.277 (1.56)
Gas*Summer		-0.365 (-1.48)
Winter		182.4*** (7.96)
Spring		-16.96 (-1.80)
Summer		-4.177 (-0.32)
Day-ahead demand avg.		0.0100*** (14.37)
Gas spot price		8.700*** (5.28)
Constant	50	-100.5*** (-8.37)
Observations		1260

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4: Mean supply of resources by season during 2010-2014, in MW.

Seasons	Coal	Gas	Hydro	Nuclear	Oil	Refuse	Solar	Wind
Fall	13479.75	152704.2	22030.76	96277.12	758.9597	18860.66	242.5975	3965.202
Winter	34411.78	134773.2	25056.74	108011.7	4508.19	18963.97	123.934	3907.812
Spring	14614.7	147656.6	28484.43	90669.28	590.3566	17944.67	297.3843	3198.813
Summer	20529.07	207226.5	18501.92	105771.7	2866.21	19437.71	399.6607	2289.614
Total	20535.79	161104.7	23480.92	100068.4	2144.492	18800.74	268.4474	3329.347

Table 5: Regression of non-wind bids on wind bids.

	(1)
	da_ec_avg
Wind	.00209 (.00335)
Temperature	-19.127*** (.796)
Day-ahead demand avg.	.0429** (.0150)
Day-ahead demand avg., squared	-6.53e-07 (5.56e-07)
Constant	26411.39*** (121.752)
Observations	1822

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 6: Price difference between calculated and actual hourly prices.

	(1)
	da_ec_avg
Day-ahead demand avg.	.00124*** (4.37)
Day-ahead demand avg., squared	-2.47e-08** (-2.49)
Day-ahead congestion constraint	-0.170 (-1.36)
Day-ahead marginal loss component	10.41*** (16.82)
Extreme temperature ($ t - 50 $)	11.180*** (-8.14)
Extreme temperature, squared	0.00696*** (9.30)
Constant	-6.105*** (1.920)
Observations	42859

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$