

# 2008 Operating Performance

## Generators Continue Record Performance, Even in Recession

by Teresa Hansen, editor in chief

Although the United States plunged into the worse recession on record, the economy had little impact on top U.S. power generators in 2008—at least in operating performance. Operating numbers for 2008 resemble previous years' numbers.

The recession's impact on generators likely will be evident in the 2009 rankings, said Tom Hewson, principal at Arlington, Va.-based Energy Ventures Analysis Inc., a firm that specializes in energy and environmental market analysis. He generated Tables 1-8 for this annual *Electric Light & Power* report with data from Form EIA 906, "Power Plant Report."

"In the current economic slowdown, power demand has dropped," Hewson said. "At the same time, gas demand outside the power sector also weakened, creating an oversupply of natural gas that was looking for a home. To move the surplus gas into the power markets, suppliers had to drop natural gas prices to displace coal. This did not have a big effect on the top 20 coal units in 2008, but it will in 2009."

In the fourth quarter of 2008, the economy caused demand for generation to fall, so prices softened some, Hewson said. Even so, coal prices were high for most of 2008, which also allowed gas-fired generators to move above coal in the dispatch order.

"Australia couldn't export as much coal as in the past, which caused an increase in prices globally," Hewson said. "Higher global prices allowed domestic producers to export more coal."



**Table 1: Top 20 Coal Generators Ranked by Generation (2008)**

Rank	Owner/Operator	Plant	State	Capacity MW	Generation MWh	Capacity Factor	Electric Fuel Consumption	Heat Rate BTU/KWh	2007 Rank
1	Southern Co.	Scherer	GA	3,413	24,338,546	81.4%	251,776,215	10,345	1
2	Southern Co.	Bowen	GA	3,222	22,224,722	78.7%	214,465,595	9,650	3
3	Duke Energy	Gibson	IN	3,144	21,887,608	79.5%	221,915,343	10,139	2
4	Southern Co.	James H Miller Jr	AL	2,750	21,311,539	88.5%	215,636,751	10,118	5
5	AEP	General James M Gavin	OH	2,640	21,078,023	91.1%	206,219,121	9,784	7
6	AEP	Rockport	IN	2,615	19,874,004	86.8%	192,851,610	9,704	14
7	Detroit Edison	Monroe	MI	3,125	19,524,796	71.3%	186,762,493	9,565	4
8	NRG	Parish	TX	2,460	18,916,508	87.8%	198,611,329	10,499	6
9	FirstEnergy	Bruce Mansfield	PA	2,510	18,520,370	84.2%	181,215,119	9,785	11
10	Luminant	Martin Lake	TX	2,250	17,723,146	89.9%	197,576,829	11,148	10
11	Salt River Project	Navajo	AZ	2,250	17,506,629	88.8%	176,036,080	10,055	12
12	Ameren	Labadie	MO	2,412	17,395,311	82.3%	178,780,817	10,278	8
13	Duke Energy	Belews Creek	NC	2,295	16,320,532	81.2%	150,212,085	9,204	24
14	TVA	Cumberland	TN	2,505	16,224,449	73.9%	158,562,875	9,773	13
15	AEP	John E Amos	WV	2,900	16,109,423	63.4%	157,298,500	9,764	9
16	PPL	Colstrip	MT	2,094	16,074,289	87.6%	174,686,610	10,867	16
17	TVA	Paradise	KY	2,262	15,324,709	77.4%	154,936,274	10,110	39
18	MidAmerican Energy Holdings	Jim Bridger	WY	2,120	15,285,096	82.3%	158,202,929	10,350	21
19	Progress Energy	Roxboro	NC	2,414	15,249,029	72.1%	155,290,028	10,184	17
20	Luminant	Monticello	TX	1,880	14,901,764	90.5%	169,264,882	11,359	18
					<b>Total</b>	<b>Total</b>	<b>Total</b>	<b>Avg</b>	
				51,259	365,790,493	81.5%	3,700,301,485	10,134	
				307,733	1,964,491,195	72.9%	20,340,398,219	10,354	

Source: Energy Ventures Analysis (DOE-EIA 906 data; EPA CEMS data)

## Coal Generation

As expected, there was little change in the top 20 coal-fired plants ranked by generation.

“When we calculate anything based on generation, there tends to be little movement,” Hewson said. “To make the top 20 list, a facility needs to have a lot of installed generating capacity, in other words, a lot of large units on one site.”

This explains why Southern Co.’s 3,346-MW Plant Scherer kept the No. 1 position. Although it generated a little less in 2008 than in 2007, it remained comfortably ahead of No. 2, Plant Bowen, another of Southern Co.’s large, coal-fired plants. Southern Co. plants landed in three of the top four positions on the generation table.

The previous No. 2 plant, Duke Energy’s Gibson Station, was down for a control project during part of 2008, Hewson said, so it fell to No. 3.

“Most large units run at high capacity factors because coal is utilized a lot,” Hewson said. “The largest coal-fired plants in the country remained high on the list. Anything greater than 2,500 megawatts is bound to be on the list.”

It’s hard to break into this list, Hewson said. Duke Energy’s Belevs Creek Steam Station, Tennessee Valley Authority’s Paradise Fossil Plant and MidAmerican Energy Holdings Co.’s Jim Bridger Power Plant were the only plants on the 2008 list that did not make the 2007 list.

Xcel’s Sherburne County (Sherco) Generating Plant, FirstEnergy Corp.’s W.H. Sammis Plant and Progress Energy’s Crystal River Plant fell out of the top 20 in 2008.

**Table 2: Top 20 Coal Generators Ranked by Capacity Factor (2008)**

Rank	Owner/Operator	Plant	State	Capacity MW	Generation MWh	Capacity Factor	Electric Fuel Consumption	Heat Rate BTU/KWh	2007 Rank	
1	AES	AES Hawaii	HI	180	1,590,558	100.9%	15,245,437	9,585		
2	Golden Valley Elec Assn	Healy	AK	25	220,360	100.6%	2,921,670	13,259	5	
3	Constellation	Rio Bravo Poso	CA	33	289,924	100.3%	3,390,153	11,693		
4	AES	AES Thames	CT	181	1,527,083	96.3%	14,408,658	9,435		
5	MidAmerican Energy Holdings	Wyodak	WY	335	2,813,567	95.9%	32,334,736	11,492	1	
6	City of Colorado Springs	Ray D Nixon	CO	208	1,741,913	95.6%	18,386,967	10,556		
7	Reliant	Keystone	PA	1,700	14,136,900	94.9%	135,045,566	9,553		
8	Black River Generation LLC	Black River Generation	NY	56	459,703	94.6%	5,774,288	12,561		
9	AES	AES Warrior Run	MD	180	1,484,039	94.1%	15,736,653	10,604		
10	NRG	Limestone	TX	1,689	13,882,219	93.8%	143,188,878	10,315	3	
11	Deseret Generation & Transmission Co-op	Bonanza	UT	458	3,731,300	93.0%	39,160,587	10,495		
12	Salt River Project	Coronado	AZ	773	6,275,857	92.7%	65,780,912	10,482		
12	TVA	Gallatin	TN	969	7,860,807	92.7%	78,739,116	10,017		
14	Air Products Energy Enterprise	Stockton Cogen	CA	54	434,261	92.3%	3,176,153	7,314		
15	TES Filer City Station LP	TES Filer City Station	MI	60	482,382	91.8%	6,297,522	13,055		
16	Ameren	Joppa Steam	IL	1,002	8,049,369	91.7%	84,256,533	10,467	16	
17	EON	Trimble County	KY	513	4,118,559	91.6%	42,176,123	10,241		
17	City of Los Angeles	Intermountain Power Project	UT	1,800	14,444,378	91.6%	136,426,845	9,445	10	
19	EON	R D Green	KY	454	3,626,344	91.2%	40,327,130	11,121		
20	AEP	Gen. James M Gavin	OH	2,640	21,078,023	91.1%	206,219,121	9,784		
					<b>Total</b>	<b>Total</b>	<b>Total</b>	<b>Avg</b>		
				Of Top 20 Generating	13,309	108,247,546	92.8%	1,088,993,048	10,574	
				Of EPA Reporting	307,733	1,964,491,195	72.9%	20,340,398,219	10,354	

Source: Energy Ventures Analysis (DOE-EIA 906 data; EPA CEMS data)

**Table 3: Top 20 Coal Generators Ranked by Heat Rate (2008)**

Rank	Owner/Operator	Plant	State	Capacity MW	Generation MWh	Capacity Factor	Electric Fuel Consumption	Heat Rate BTU/KWh	2007 Rank	
1	Duke Energy	Belevs Creek	NC	2,295	16,320,532	81.2%	150,212,085	9,204	3	
2	Mirant	Morgantown Generating Plant	MD	1,244	6,872,986	63.1%	64,230,013	9,345	5	
3	Cedar Bay Generating Co. LP	Cedar Bay Generating Company LP	FL	250	1,712,926	78.2%	16,015,924	9,350		
4	SCANA	McMeekin	SC	250	1,789,073	81.7%	16,793,242	9,387	11	
5	AES	AES Thames	CT	181	1,527,083	96.3%	14,408,658	9,435		
6	AES	AES Somerset LLC	NY	681	5,200,716	87.1%	49,119,170	9,445		
6	City of Los Angeles	Intermountain Power Project	UT	1,800	14,444,378	91.6%	136,426,845	9,445	14	
8	Duke Energy	Marshall	NC	2,110	12,803,034	69.3%	121,022,109	9,453	6	
9	TVA	Bull Run	TN	887	4,103,078	52.8%	38,843,970	9,467	1	
10	Reliant	Conemaugh	PA	1,700	11,458,367	76.9%	108,652,559	9,482	13	
11	PPL	PPL Brunner Island	PA	1,466	9,933,508	77.4%	94,550,385	9,518		
12	SCANA	Cope	SC	420	2,616,431	71.1%	24,910,708	9,521	4	
13	PPL	PPL Montour	PA	1,525	9,038,125	67.7%	86,070,397	9,523	8	
14	Reliant	Keystone	PA	1,700	14,136,900	94.9%	135,045,566	9,553		
15	Southern Company	Wansley	GA	1,778	12,075,361	77.5%	115,385,093	9,555	9	
16	Dominion	Brayton Point	MA	1,114	7,872,297	80.6%	75,238,463	9,557		
17	Detroit Edison	Monroe	MI	3,125	19,524,796	71.3%	186,762,493	9,565	10	
18	CMS Energy	J C Weadock	MI	308	1,765,815	65.4%	16,899,527	9,570		
19	AES	AES Hawaii	HI	180	1,590,558	100.9%	15,245,437	9,585	20	
20	Birchwood Power Partners LP	Birchwood Power	VA	240	1,560,754	74.2%	14,977,232	9,596		
					<b>Total</b>	<b>Total</b>	<b>Total</b>	<b>Avg</b>		
				Of Top 20 Generating	23,254	156,346,720	76.8%	1,480,809,871	9,478	
				Of EPA Reporting	307,733	1,964,491,195	72.9%	20,340,398,219	10,354	

# Industry Report

**Table 4: Top 20 Combined-Cycle Plants Ranked by Generation (2008)**

Rank	Owner/Operator	Plant	State	Capacity MW	Generation MWh	Elec MMBtu	Total MMBtus	Heatrate BTU/KWh	Capacity Factor	2007 Rank
1	Florida Power & Light Co.	Martin	FL	2,123	12,074,337	87,734,198	87,734,198	7,266	64.9%	1
2	Progress Energy	Hines Energy Complex	FL	2,054	10,822,413	76,989,617	76,989,617	7,114	60.2%	6
3	Florida Power & Light Co.	Sanford	FL	2,022	10,673,778	78,761,939	78,761,939	7,379	60.3%	2
4	Florida Power & Light Co.	Fort Myers	FL	1,520	9,331,529	67,789,755	67,789,755	7,265	70.1%	3
5	EBG Holdings LLC	Mystic Generating Station	MA	1,658	8,327,160	61,805,132	61,805,132	7,422	57.3%	4
6	Sempra Energy	Mesquite Generating Station	AZ	1,182	8,075,880	57,204,937	57,204,937	7,083	78.0%	7
7	Florida Power & Light Co.	Forney Energy Center	TX	1,762	7,674,986	60,852,833	60,852,833	7,929	49.7%	5
8	Entegra Power Group	Gila River Power Station	AZ	2,212	7,583,324	55,160,635	55,160,635	7,274	39.1%	10
9	Tampa Electric Co.	H. L. Culbreath Bayside	FL	1,737	7,365,702	53,910,586	53,910,586	7,319	48.4%	
10	Florida Power & Light Co.	Manatee	FL	1,151	7,040,938	49,329,537	49,329,537	7,006	69.9%	9
11	Sierra Pacific Resources	Chuck Lenzie Generating Station	NV	1,149	6,855,823	49,404,576	49,404,576	7,206	68.1%	12
12	Edison International	Mountainview Power LLC	CA	1,032	6,691,295	49,996,825	49,996,825	7,472	74.0%	14
13	Florida Power & Light Co.	Turkey Point 5	FL	1,179	6,208,414	44,101,951	44,101,951	7,104	60.1%	
14	Hoosier Energy R E C	Worthington Generation LLC	IN	986	6,185,233	45,144,224	45,144,224	7,299	71.6%	
15	MACH Gen. LLC	Athens Generating Plant	NY	1,244	5,849,781	42,156,961	42,156,961	7,207	53.7%	
16	Calpine Corp.	Deer Park Energy Center	TX	959	5,593,274	32,035,125	66,092,817	11,816	66.6%	17
17	PSEG Fossil LLC	Bergen Generating Station	NJ	1,225	5,327,226	43,727,603	43,727,603	8,208	49.6%	
18	Kiowa Power Partners LLC	Kiamichi Energy Facility	OK	1,233	5,299,855	39,641,341	39,641,341	7,480	49.1%	19
19	Stark Investments	Wolf Hollow I, L.P.	TX	761	5,206,701	37,895,679	37,895,679	7,278	78.1%	
20	GE	Linden Cogen Plant	NJ	1,019	5,204,868	35,376,242	47,696,903	9,164	58.3%	
			<b>Total</b>	<b>Total</b>	<b>Total</b>	<b>Total MMBtus</b>	<b>Avg.</b>	<b>Avg.</b>		
		Of Top 20 Generation		28,204	147,392,517	1,069,019,696	1,115,398,049	7,568	59.7%	
		Of Reporting		185,724	698,327,636	5,191,087,852	5,692,602,884	8,152	42.9%	

Source: Energy Ventures Analysis (DOE-EIA 906 data; EPA CEMS data)

## Coal Capacity Factor

“When it comes to capacity factor, location is important,” Hewson said. “If you are located in a market that allows you to run your low-cost units at full capacity 24/7, you’re on the list. In several markets, units are brought down to partial loads during off-peak hours to keep

a larger number of units online that will be needed the following day. For many western markets, industrial cogeneration or high industrial load areas, the coal units can run all the time they are available.”

No. 1 for coal capacity factor in 2008 was AES Hawaii, Hawaii’s only coal-fired unit, meaning it’s dispatched whenever it’s running.

**Table 5: Top 20 Combined-Cycle Plants Ranked by Heat Rate (2008)**

Rank	Owner/Operator	Plant	State	Capacity MW	Generation MWh	Elec MMBtu	Total MMBtus	Heatrate BTU/KWh	Capacity Factor	2007 Rank
1	TVA	Caledonia	MS	888	2,656,958	17,567,505	17,567,505	6,612	34.2%	
2	Portland General Electric Co.	Port Westward	OR	392	2,834,023	18,929,680	18,929,680	6,679	82.5%	
3	Public Service Co of NM	Luna Energy Facility	NM	585	2,218,384	14,873,243	14,873,243	6,705	43.3%	
4	Calpine Corp.	Columbia Energy Center	SC	535	396,977	2,274,503	2,716,540	6,843	8.5%	
5	Calpine Corp	Metcalf Energy Center	CA	597	3,152,211	21,624,466	21,624,466	6,860	60.3%	
6	Invenergy LLC	Grays Harbor Energy Facility	WA	620	818,325	5,667,885	5,667,885	6,926	15.1%	
7	OGE Energy	McClain Energy Facility	OK	472	2,252,755	15,642,092	15,642,092	6,944	54.5%	
8	Sempra Energy	Palomar Energy	CA	570	3,590,373	24,986,117	24,986,117	6,959	71.9%	15
9	Calpine Corp	Pastoria Energy Facility LLC	CA	744	4,914,751	34,267,796	34,267,796	6,972	75.4%	
10	Avista Corp	Coyote Springs II	OR	296	1,696,319	11,841,987	11,841,987	6,981	65.5%	7
11	Centrica PLC	Bastrop Energy Center	TX	566	2,102,632	14,681,518	14,681,518	6,982	42.4%	
12	Florida Power & Light Co.	Manatee	FL	1,151	7,040,938	49,329,537	49,329,537	7,006	69.9%	13
13	Energy Investors Funds Group	Rathdrum Power LLC	ID	276	1,369,529	9,604,393	9,604,393	7,013	56.6%	12
14	Sempra/Occidental Petroleum	Elk Hills Power LLC	CA	537	3,551,893	24,926,324	24,926,324	7,018	75.5%	5
15	Sacramento Municipal Util Dist	Cosumnes	CA	498	3,838,140	27,111,694	27,111,694	7,064	88.0%	9
16	Southern Co.	Rowan	NC	533	809,540	5,722,618	5,722,618	7,069	17.3%	
17	Sempra Energy	Mesquite Generating Station	AZ	1,182	8,075,880	57,204,937	57,204,937	7,083	78.0%	
18	ArchLight Capital Partners LLC	Effingham County Power Project	GA	544	1,087,738	7,712,101	7,712,101	7,090	22.8%	
19	EPCOR	Frederickson Power LP	WA	269	1,094,880	7,764,923	7,764,923	7,092	46.5%	
20	Southern Co.	McIntosh Combined Cycle Facility	GA	1,239	5,105,765	36,213,478	36,213,478	7,093	47.0%	
			<b>Total</b>	<b>Total</b>	<b>Total</b>	<b>Total MMBtus</b>	<b>Avg.</b>	<b>Avg.</b>		
		Of Top 20 Generation		12,492	58,608,011	407,946,797	408,388,834	6,968	53.6%	
		Of Reporting		185,724	698,327,636	5,191,087,852	5,692,602,884	8,152	42.9%	

Source: Energy Ventures Analysis (DOE-EIA 906 data; EPA CEMS data)

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**Table 6: Top 20 Combined-Cycle Plants Ranked by Capacity Factor (2008)**

Rank	Owner/Operator	Plant	State	Capacity MW	Generation MWh	Elec MMBtu	Total MMBtus	Heatrate BTU/KWh	Capacity Factor	2007 Rank
1	Cal. Energy Co./TransAlta	Saranac Facility	NY	258	2,111,323	15,604,384	17,295,239	8,192	93.4%	2
2	GE	Cardinal Cogen	CA	50	400,904	4,293,336	4,361,334	10,879	91.7%	9
3	Sacramento Municipal Util Dist	Cosumnes	CA	498	3,838,140	27,111,694	27,111,694	7,064	87.9%	15
4	BP	Watson Cogeneration	CA	398	3,016,961	16,293,143	34,947,272	11,584	86.5%	12
5	MidAmerican Energy Co.	Hermiston Generating Plant	OR	486	3,647,624	23,832,802	26,269,556	7,202	85.7%	
6	Sempra Energy	El Dorado Energy	NV	490	3,546,627	25,725,682	25,725,682	7,254	82.6%	
7	John Hancock	Gregory Power Facility	TX	411	2,914,287	10,921,218	30,062,491	10,316	80.9%	
8	Portland General Electric Co.	Port Westward	OR	403	2,834,023	18,929,680	18,929,680	6,679	80.3%	
9	Sempra Energy	Mesquite Generating Station	AZ	1,181	8,075,880	57,204,937	57,204,937	7,083	78.1%	
10	Anchorage Municipal Light and Power	George M Sullivan Generation Plant 2	AK	157	1,049,168	10,555,446	10,555,446	10,061	76.4%	
11	Edison Mission Energy	March Point Cogeneration	WA	154	1,022,959	6,102,345	12,927,327	12,637	75.7%	
12	PPG Industries Inc.	RS Cogen	LA	414	2,739,393	19,814,145	23,056,478	8,417	75.5%	19
13	Calpine Corp.	Pastoria Energy Facility LLC	CA	744	4,914,751	34,267,796	34,267,796	6,972	75.4%	
14	City of Los Angeles	Haynes	CA	497	3,277,428	27,257,511	27,257,511	8,317	75.2%	
15	PSEG/Harbert Power Corp.	Kalaeola Cogen Plant	HI	214	1,402,090	4,882,611	12,067,829	8,607	74.8%	
16	York Research Corp.	Brooklyn Navy Yard Cogeneration	NY	296	1,919,944	10,613,643	21,738,264	11,322	74.0%	20
16	Edison International	Mountainview Power LLC	CA	1,032	6,691,295	49,996,825	49,996,825	7,472	74.0%	
18	Sempra/Occidental Petroleum	Elk Hills Power LLC	CA	549	3,551,893	24,926,324	24,926,324	7,018	73.9%	
19	Sempra Energy	Palomar Energy	CA	570	3,590,373	24,986,117	24,986,117	6,959	71.9%	
20	Chevron/Edison International	Sunrise Power LLC	CA	574	3,604,944	26,194,929	26,194,929	7,266	71.7%	
				<b>Total</b>	<b>Total</b>	<b>Total</b>	<b>Total MMBtus</b>	<b>Avg.</b>	<b>Avg.</b>	
		Of Top 20 Generation		9,376	64,150,007	439,514,568	509,882,731	7,948	78.1%	
		Of Reporting		185,724	698,327,636	5,191,087,852	5,692,602,884	8,152	42.9%	

Source: Energy Ventures Analysis (DOE-EIA 906 data; EPA CEMS data)

“The plant was able to run year round without a scheduled outage,” Hewson said.

A greater than 100 percent capacity factor suggests that whatever conditions used to set the unit’s rated capacity occur only during certain times of the year. For example, some units are limited by their cooling water capacity. During times the cooling water is much colder than design, they can run at higher power output levels.

“It is unusual for a coal plant to move above 100 percent capacity factor, mainly because most coal units need to go down at least once every 12 months,” he said.

In the 2008 list, seven of the 20 plants were merchant plants. In 2007, three merchant plants made the top 20 capacity factor list. In 2008, six merchant plants made the top 10.

“This year’s merchant

**Table 7: Top 20 Nuclear Plants Ranked by Generation (2008)**

Rank	Owner/Operator	Plant	State	Capacity MW	Generation MWh	Capacity Factor	2007 Rank
1	Pinnacle West	Palo Verde	AZ	3,872	29,223,014	86.2%	1
2	TVA	Browns Ferry	AL	3,322	24,919,416	85.6%	3
3	NRG	South Texas	TX	2,560	21,492,749	95.8%	2
4	Duke Energy	Oconee	SC	2,565	20,181,101	89.8%	4
5	Exelon	Braidwood	IL	2,357	19,786,156	95.8%	5
6	Exelon	Byron	IL	2,323	19,357,526	95.1%	9
7	Luminant	Comanche Peak 1	TX	2,300	19,234,621	95.5%	10
8	Exelon Generation	Limerick 1	PA	2,313	19,047,262	94.0%	6
9	PPL Corp.	Susquehanna 2	PA	2,315	19,039,814	93.9%	16
10	Duke Power	Catawba	SC	2,292	18,976,452	94.5%	14
11	Tennessee Valley Auth	Sequoyah	TN	2,300	18,917,308	93.9%	12
12	Exelon	Lasalle Cty 2	IL	2,256	18,848,564	95.4%	7
13	Exelon Generation	Peach Bottom 3	PA	2,250	18,534,783	94.0%	8
14	Southern Co.	Vogtle	GA	2,236	17,777,553	90.8%	15
15	PSEG	Salem 1	NJ	2,304	17,538,406	86.9%	11
16	Pacific Gas & Electric Co.	Diablo Canyon	CA	2,240	17,090,527	87.1%	13
17	Duke Energy	McGuire	NC	2,257	17,069,999	86.3%	17
18	Dominion Resources	Millstone	CT	2,023	15,432,946	87.1%	20
19	Edison International	San Onofre	CA	2,150	15,391,824	81.7%	19
20	AEP	Donald C Cook	MI	2,130	15,036,286	80.6%	18
				<b>Total</b>	<b>Total</b>	<b>Avg.</b>	
		Of Top 20 Generating		48,365	382,896,307	90.4%	
		Of EPA Reporting		101,015	806,181,935	91.1%	

Source: Energy Ventures Analysis (DOE-EIA 906 data; EPA CEMS data)

plant rankings have much to do with the states in which the plants are located,” Hewson said. “It helps to be located in states with high electricity prices.”

Those plants that are cogeneration units also have an advantage. Often, cogeneration facilities

make money from steam sales. Money they make from electricity production is a bonus, he said.

### Coal Heat Rate

“Supercritical boiler technology helps put you on