This poster map is an updated version of OFS 06-03

COAL, ELECTRICITY, AND GAS TRANSPORTATION SYSTEMS IN INDIANA - UPDATE 2009

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July 2009

Electricity Transmission Lines and Natural Gas Pipelines

Explanation of Map Symbols

Coal-burning electric power plants (Table 1)
Generation capacity (MW)

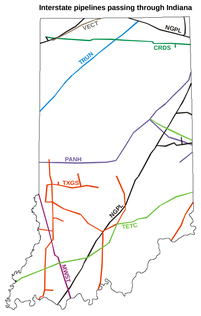
- < 250
- 250 to 500
- 500 to 1,000
- > 1,000

Transmission lines
- 230,000-volt line
- 345,000-volt line
- 765,000-volt line
- Interconnection

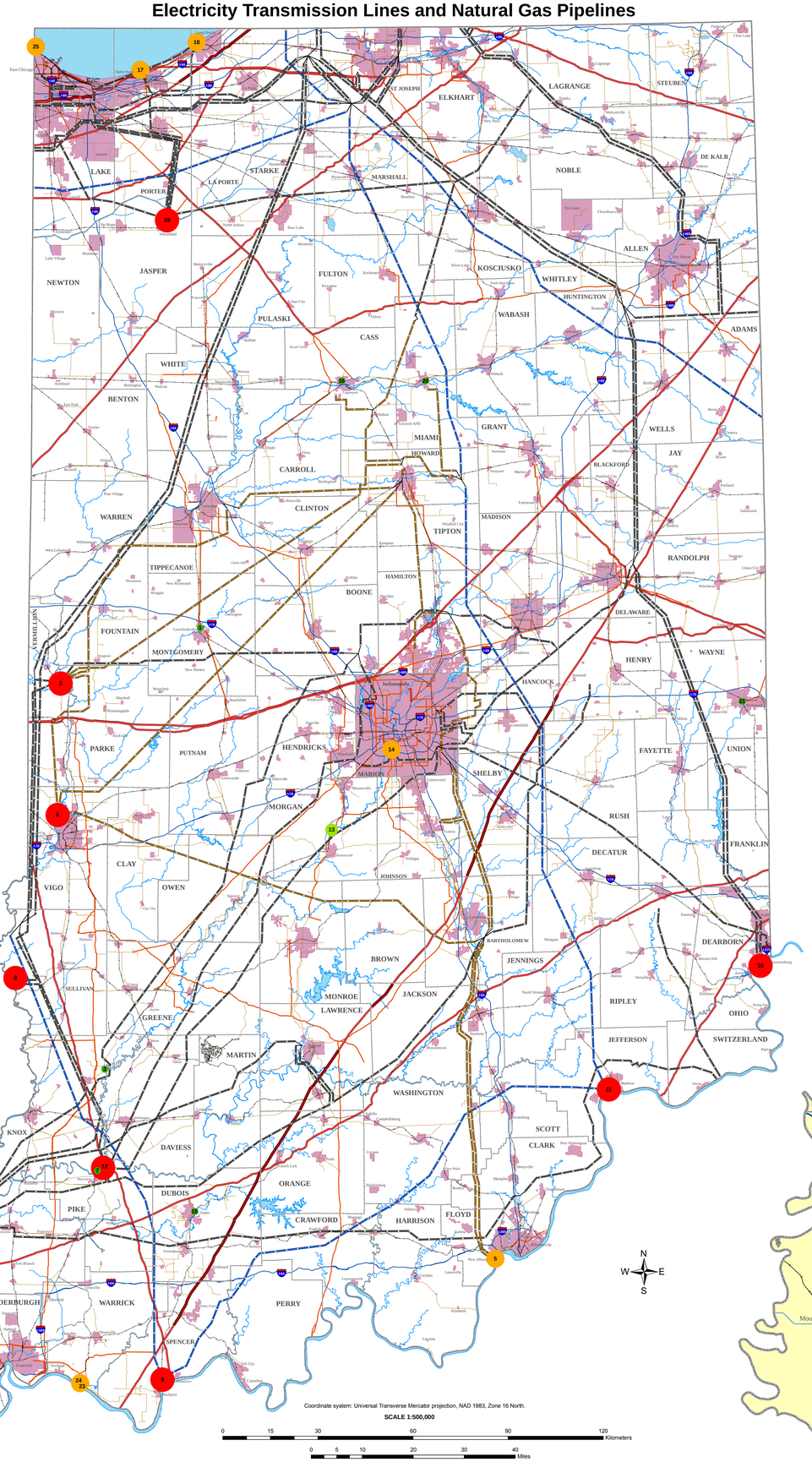
Natural gas pipelines
- ≤10 inches
- >10 and ≤20 inches
- >20 and ≤30 inches
- >30 inches

- Railroad
- Interstate highway
- River
- Lake
- City
- County boundary

Interstate pipelines passing through Indiana



CRDS - Crossroads Pipeline Co.
MWST - Midwestern Gas Transmission Co.
NGPL - Natural Gas Pipeline Co. of America
PANH - Panhandle Eastern Co.
TETC - Texas Eastern Transport Co.
TRUN - Trunkline Gas Co.
TXGS - Texas Gas Transmission Co.
VECT - Vector Pipeline Co.



Coordinate system: Universal Transverse Mercator projection, NAD 1983, Zone 16 North.

SCALE 1:500,000

0 15 30 60 90 120 Kilometers
0 5 10 20 30 40 Miles

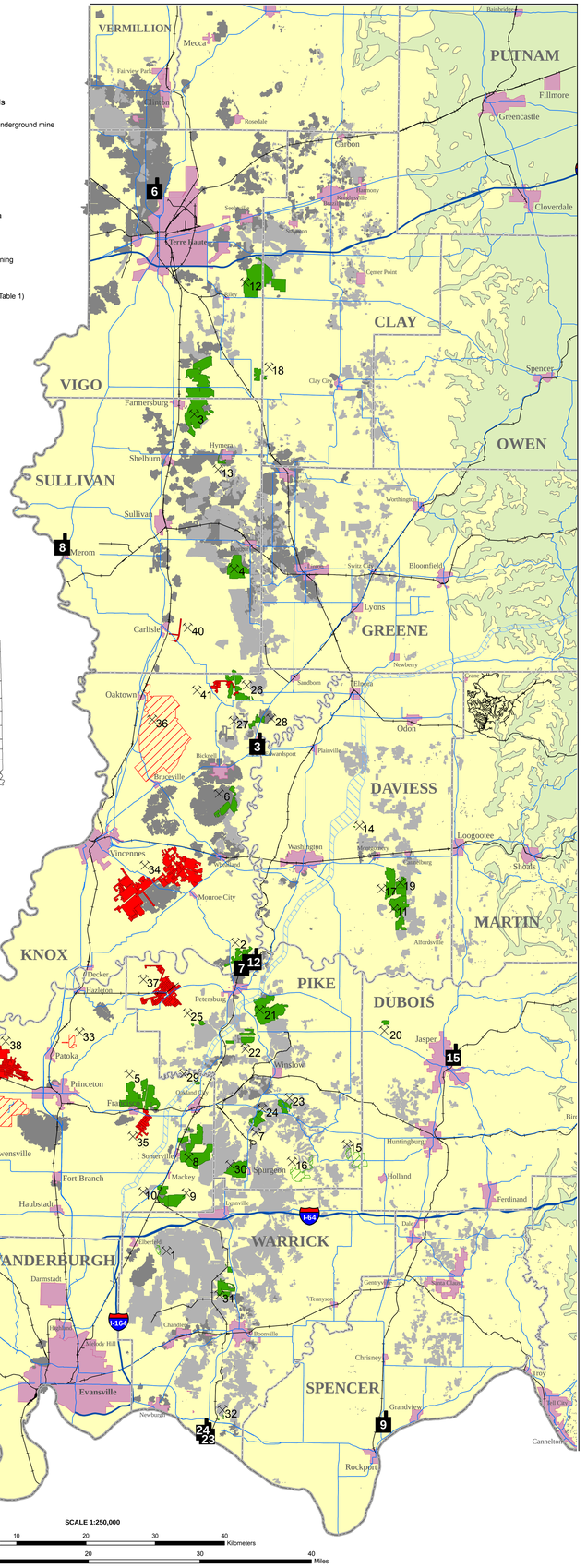
Surface and Underground Coal Mines

Explanation of Map Symbols

- Active and permitted surface and underground mine (Table 2A and 2B)
- Active surface-mined area
- Active underground-mined area
- Permitted surface-mined area
- Permitted underground-mined area
- Coal mined-out by surface mining
- Coal mined-out by underground mining
- Coal-burning electric power plant (Table 1)
- Railroad
- Interstate
- Highway
- I-69 approved corridor
- City
- County boundary

Bedrock systems
- Pennsylvanian
- Mississippian
- Devonian-Mississippian
- Devonian

Index map



SCALE 1:250,000

0 5 10 20 30 40 Kilometers
0 5 10 20 30 40 Miles

Table 1. Investor-owned, cooperative, and municipal coal-burning electric power plants

ID	Company / Plant Name	County	Generation Capacity (MW)	Coal burned (in thousand tons)[2]	Origin of coal received in 2008 (in thousand tons)[2]: Indiana	Other Basins	Eastern	Western
	Crawfordsville Electric Light & Power Co.							
1	Crawfordsville	Montgomery	25	13				
	Duke Energy Indiana Inc.							
2	Cayuga[3]	Vermillion	1,062	2,828	1,849	1,129		
3	Edwardsport	Knox	110	179	194			
4	Gibson[3,6]	Gibson	3,340	9,979	9,818	135		
5	R. Gallagher[7]	Floyd	600	1,247	141	902	131	50
6	Wabash River	Vigo	1,165	2,312	2,266			
	Hoosier Energy R E C Inc.							
7	Frank E. Ratts	Pike	234	778	768			
8	Merom[8]	Sullivan	1,080	3,108	2,641		4	
	Indiana Michigan Power Co.							
9	Rockport	Spencer	2,600	10,962	51		807	9,636
10	Tanners Creek	Dearborn	1,101	2,268			1,074	884
	Indiana-Kentucky Electric Corp.							
11	Clifty Creek	Jefferson	1,304	4,345		40	1,048	3,716
	Indianapolis Power & Light Co.							
12	Petersburg[3]	Pike	1,873	5,488	5,369			
13	Eagle Valley (formerly Pritchard)	Morgan	302	684	658			
14	Harding Street[9] (formerly Elmer W. Stout)	Marion	698	1,579	1,712			
	City of Jasper							
15	Jasper 2	Dubois	15	36				
	City of Logansport							
16	Logansport	Cass	43	109				
	Northern Indiana Public Service Co.							
17	Bailly[3]	Porter	604	1,116	13	985	109	
18	Michigan City	La Porte	540	1,295			187	1,105
19	R.M. Schahfer[3,8]	Jasper	1,944	5,541		1,403	660	3,192
	City of Peru							
20	Peru	Miami	35	13				
	City of Richmond							
21	Whitewater Valley[3]	Wayne	94	214				
	Southern Indiana Gas & Electric Co.							
22	A. B. Brown[3]	Posey	531	1,616	1,272	275		
23	F. B. Culley[3]	Warrick	415	1,218	1,197			
	Southern Indiana Gas & Electric Co. and Alcoa Generating Corp.							
24	Warrick[3]	Warrick	755	1,967	818	1,081	146	
	State Line Energy LLC							
25	State Line Energy	Lake	614	1,975				1,901

1 MW totals include coal-burning units, but not units burning other fuels, so may not match plant totals published elsewhere. Nameplate capacity (Energy Information Administration, 2009).
2 Coal consumption data for privately owned utilities are for the year 2008 (Energy Information Administration, 2009). Coal consumption data for municipalities are for the year 2007 (Energy Information Administration, 2008). Data are available only for plants with generating capacity greater than 50 MW.
3 Owning company has been shown in table. Department of Environmental Management, June 10, 2008.
4 Data unavailable for Stout Generating Station. The plant utilizes western coal and all electricity is used in the Chicago, IL, area.
5 Excludes Indiana.
6 Cayuga and Gibson. Data compiled from a telephone survey (Kathryn R. Shaffer, Indiana Geological Survey, unpublished data, June 18, 2008).
7 Gibson also received 113 thousand short tons of coal from an unidentified source.
8 R. Gallagher also received 82 thousand short tons of coal from an unidentified source.
9 R. M. Schahfer also received 191 thousand short tons of coal from an unidentified source.

Sources for this table:
Energy Information Administration, 2009, Form EIA-860 Database annual electric generator report, 2007 data, <http://www.eia.doe.gov/cneaf/electricity/page/eia860.html>, date accessed, June 26, 2009.
Energy Information Administration, 2009, Form EIA-906, EIA-920, and EIA-923 Databases, EIA-923 January to December preliminary 2008 data, <http://www.eia.doe.gov/cneaf/electricity/page/eia906_920.html>, date accessed, June 26, 2009.
Energy Information Administration, 2009, EIA-423 - Monthly nonutility fuel receipts and fuel quality data, 2002-2007--EIA-923 (Schedule 2)-monthly utility and nonutility fuel receipts and fuel quality data, 2008 and beyond, 2008 (preliminary data), <http://www.eia.doe.gov/cneaf/electricity/page/eia423.html>, date accessed, June 26, 2009.

Table 2A. Active surface mines in Indiana as of June 2009

ID	Company / Surface Mine Name	County	Seam mined	Year opened[1]	2008 Production (in thousand short tons)
	B. B. Mining, Inc.				
1	Five Star #1	Warrick	Danville Hymera	Permitted	
2	Pride[2]	Knox	Springfield	1996	
	Black Beauty Coal Company, LLC				
3	Farmersburg #1	Sullivan, Vigo	Danville Hymera		3,181
4	Farmersburg, Bear Run East Pit[3]	Sullivan	Danville Hymera	1967	
5	Francisco	Gibson	Danville Hymera	1996	1,795
6	Miller Creek, Knox Pit	Knox	Danville Hymera	1991	1,746
7	Somerville East	Pike	Springfield	2005	332
8	Somerville #1[4]	Gibson	Danville Hymera Springfield	1997	5,016
9	Somerville South	Gibson	Danville Hymera Springfield	1996	2,227
10	Somerville South, Discovery Pit[5]	Gibson	Slurry	1993	
11	Viking, Coming Pit	Daviess	Unnamed Staunton Buffaloville Unnamed Brazil	1985	1,500
	Covol Engineered Fuels, LLC				
12	Clayvigo #1[6]	Clay, Vigo	Slurry	1984	116
	Jarvis Coal, LLC				
13	J. C. #1[7]	Sullivan	Danville Hymera	2005	120
	Little Sandy Coal Company, Inc.				
14	Antioch	Daviess	Unnamed Staunton Buffaloville	2005	31
15	Hilsmeyer	Dubois, Pike	Survant	Permitted	
16	Rhodemaker	Pike	Survant	Pending	
	Solar Sources, Inc.				
17	Canneburg	Daviess	Unnamed Staunton Buffaloville Unnamed Brazil	1978	980
18	Lewis	Clay, Vigo	Houchin Creek Survant	2001	453
19	Midway II[8]	Daviess		1993	851
20	Shamrock	Dubois	Unnamed Staunton Buffaloville Unnamed Brazil	2006	800
	Solar Sources Underground, LLC				
21	Charger, Alford Field[8,9]	Pike	Danville Hymera Springfield	1974	
22	Charger, White Church Field[8,9]	Pike	Danville Hymera Springfield	1997	
	Triad Mining, Inc.				
23	Augusta	Pike	Buckhorn Springfield	2002	342
24	Augusta South	Pike	Hymera Buckhorn Springfield	2005	551
25	Flat Creek	Pike	Danville	2006	347
26	Freelandville	Knox, Sullivan	Danville Hymera Buckhorn Springfield	1995	545
27	Freelandville, Center Pit	Knox	Danville Hymera Buckhorn Springfield	2007	83
28	Freelandville, East Pit	Knox		2003	217
29	Hurricane Creek	Gibson	Buckhorn Springfield	2007	253
30	Log Creek[2,10]	Pike	Buckhorn Springfield	1974	
	Vigo Coal Operating Company, Inc.				
31	Cypress Creek	Warrick	Springfield	1998	1,125
32	Red Brush[11]	Warrick	Danville	2002	197
					TOTAL 22,806

Table 2B. Active underground mines in Indiana as of June 2009

ID	Company / Underground Mine Name	County	Seam mined	Year opened	2008 Production (in thousand short tons)
	Baron Coal Company, Inc.				
33	Baron	Gibson	Danville Hymera	Permitted	
	Black Beauty Coal Company, LLC				
34	Air Quality[3]	Knox	Danville	1993	1,811
35	Francisco Underground	Gibson	Springfield	2003	1,428
	Black Panther Mining, LLC				
36	Oaktown Fuels #1	Knox	Springfield	Permitted	
	Five Star Mining, Inc.				
37	Prosperity	Pike	Springfield	2000	2,280
	Gibson County Coal, LLC				
38	Gibson County	Gibson	Springfield	2000	3,640
39	Gibson South	Gibson	Springfield	Permitted	
	Sunrise Coal Company, LLC				
40	Carlisle	Sullivan	Springfield	2007	1,933
	Triad Mining, Inc.				
41	Freelandville Underground[12]	Knox	Springfield	2002	636
					TOTAL 11,729[13]

1 Year production first reported from mine. Current permit may have a different starting date.
2 Idled.
3 Formerly Kindill Mining, Inc., Kindill #3, Pennsliana Pit.
4 Includes North and Central Pits.
5 Active for slurry disposal only. No coal is being extracted from this pit.
6 Coal slurry operation.
7 Formerly Coal Field Development Company, Hymera Mine.
8 A part of the Canneburg Mine.
9 Formerly Kindill Mining, Inc., Kindill #2. Field name did not change.
10 Formerly Kindill Mining, Inc., Kindill #1.
11 A thin-seam auger operation off existing pits from previous mining. Limited pit creation may occur.
12 Mines listed in Table 2A and 2B may not add up to the total number.
13 Includes three underground mines.
14 Production includes some surface production.
Source: Indiana Department of Natural Resources, Division of Reclamation, unpublished data.

REFERENCES

Drobniak, A., Pfitzer, C., Mastalerz, M., 2007, Indiana railroad system: Indiana Geological Survey Open-File Study 07-04.

Gray, H. H., 1987, Bedrock geologic map of Indiana: Indiana Geological Survey Miscellaneous Map 48, scale 1:500,000.

Indiana Geological Survey, 2002, BEDROCK_GEOL_MM48_IN--bedrock geology of Indiana [GIS shapefile]: downloaded from Indiana Geological Survey IndianaMap, <http://inmap.indiana.edu/index.html>, date accessed, June 14, 2009, scale 1:500,000.

Indiana Geological Survey, 2008, COAL_ENTRY--underground coal mine entrances in Indiana [GIS shapefile]: downloaded from Indiana Geological Survey IndianaMap, <http://inmap.indiana.edu/index.html>, date accessed, June 5, 2009, scale 1:24,000.

Indiana Geological Survey, 2002-2008, COAL_MINE_UNDERGROUND_IN--underground coal mines in Indiana [GIS shapefile]: downloaded from Indiana Geological Survey IndianaMap, <http://inmap.indiana.edu/index.html>, date accessed, June 5, 2009, scale 1:24,000.

Mastalerz, M., and Harper, D., 1998, Coal in Indiana--a geologic overview: Indiana Geological Survey Special Report 60, 45 p.

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Transmission lines modified after Indiana Electric Association, June 1, 1990.

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