

MAJOR POINT SOURCES OF CO₂ EMISSIONS IN INDIANA – UPDATE 2009

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Table 1. Coal-burning facilities - electric power plants

ID	Company	Plant Name	County	Generation Capacity (MW)	Coal burned (1,000 tons) ²	Percentage of Coal with Indiana Origin ³	Indiana Coal Mines Supplying Coal ⁴	CO ₂ emissions (metric tons) ⁵
1	Crawfordsville Electric Light & Power Co.	Crawfordsville	Montgomery	25	13			35,778
2	Duke Energy Indiana Inc.	Cayuga ^{6,7}	Vermillion	1,062	2,828	62	Cannelburg Clayvigo #1 Farmersburg #1 Freeilandville Gibson County Prosperity Francisco Freeilandville J. C. #1 Prosperity	5,605,899
3	Edwardsport ⁸	Edwardsport	Knox	110	179	100	Air Quality Charger Prosperity	364,457
4	Gibson ⁹	Gibson	Gibson	3,340	9,979	99	Air Quality Freeilandville Gibson County Log Creek Prosperity Somerville #1	18,696,951
5	R. Gallagher ¹⁰	R. Gallagher	Floyd	600	1,247	12	Gibson County Shamrock	2,441,270
6	Wabash River ⁷	Wabash River	Vigo	1,165	2,312	100	Air Quality Clayvigo #1 Farmersburg #1 Francisco J. C. #1	5,364,292
7	Hoosier Energy R E C Inc.	Frank E. Ratts	Pike	234	778	100	Air Quality Miller Creek Knox Pit Viking, Corning Pit	1,677,084
8	Merom ^{6,11}	Merom	Sullivan	1,080	3,108	>99	Cannelburg Carlisle Clayvigo #1 Freeilandville Lewis Somerville #1	6,346,028
9	Indiana Michigan Power Co.	Rockport ¹²	Spencer	2,600	10,962	<1	Air Quality	17,107,923
10	Tanners Creek	Tanners Creek	Dearborn	1,101	2,268	0		4,250,649
11	Indiana-Kentucky Electric Corp. Clifty Creek	Clifty Creek	Jefferson	1,304	4,345	0		7,369,877
12	Indianapolis Power & Light Co.	Petersburg ^{6,13}	Pike	1,873	5,488	100	Air Quality Augusta Cannelburg Carlisle Freeilandville Freeilandville Ungd. Patoka River Prosperity Somerville #1 Viking, Corning Pit	11,649,348
13	Eagle Valley (formerly Pritchard)	Eagle Valley	Morgan	302	684	100	Air Quality Farmersburg #1 Miller Creek Knox Pit	1,114,991
14	Harding Street ⁷ (formerly Elmer W. Slout)	Harding Street	Marion	698	1,579	100	Air Quality Cannelburg Carlisle Clayvigo #1 Farmersburg #1 Freeilandville Freeilandville Ung. Miller Creek Knox Pit Prosperity Somerville #1 Viking, Corning Pit	3,322,460
15	City of Jasper	Jasper 2	Dubois	15	36			98,869
16	City of Logansport	Logansport	Cass	43	109			298,145
17	Northern Indiana Public Service Co.	Bally ⁷	Porter	604	1,116	1	Carlisle	2,868,789
18	Michigan City	Michigan City	La Porte	540	1,295	0		2,312,321
19	R. M. Schaefer ^{6,14}	R. M. Schaefer	Jasper	1,944	5,541	0		11,128,766
20	City of Peru	Peru	Miami	35	13			34,588
21	City of Richmond	Whitewater Valley ⁶	Wayne	94	214			462,725
22	Southern Indiana Gas & Electric Co.	A. B. Brown ⁶	Posey	531	1,616	82	Cypress Creek Prosperity	3,339,295
23	F. B. Culley ⁶	F. B. Culley	Warwick	415	1,218	100	Cypress Creek Gibson County Prosperity	2,816,289
24	Southern Indiana Gas & Electric Co. and Alcoa Generating Corp.	Warwick ⁶	Warwick	755	1,967	40	Augusta Flat Creek Gibson County Somerville #1	5,366,642
25	State Line Energy LLC	State Line Energy	Lake	614	1,975	0		3,663,474
TOTAL								117,736,810

Table 2. Coal-burning facilities - industries and institutions

ID	Name ¹⁵	County	City	Tons of coal	CO ₂ emissions (metric tons/year) ¹⁶
26	A. E. Staley Sagamore Operation ¹⁷	Tippecanoe	Lafayette	68,109	196,598
27	Ball State University	Delaware	Muncie	32,552	89,183
28	Bunge North America (East), L.L.C.	Adams	Decatur	37,434	102,558
29	C.C. Perry K Steam Plant	Marion	Indianapolis	175,108	479,744
30	Colonial Brick Corp.	Vermillion	Cayuga	4,891	13,400
31	Danisco Sweeteners	Vigo	Terre Haute	19,263	52,775
32	Eli Lilly & Company - Clinton Labs	Clinton	Jasper	61,216	167,714
33	Eli Lilly & Company - Tippecanoe Labs	Tippecanoe	Lafayette	56,520	154,848
34	Flexcel - Jasper 11th Ave ¹⁸	Dubois	Jasper	202	553
35	Frito-Lay, Inc.	Clinton	Frankfort	18,033	49,405
36	GE Plastics Mt. Vernon Inc.	Posey	Mount Vernon	238,799	654,239
37	General Shale Corp.	Mooreville	Mooreville	114,714	314,282
38	Griffin Industries, Inc. - Newberry ¹⁹	Greene	Newberry	10,033	27,487
39	Indiana University	Monroe	Bloomington	67,061	183,727
40	International Paper Co.	Vigo	Terre Haute	37,644	103,133
41	Josco Pitt & 2	Dubois	Jasper	122	334
42	Lehigh Cement Company	Lawrence	Mitchell	128,956	353,301
43	Muscatatuck Urban Training Center ¹⁹	Jennings	Butterville	2,362	6,472
44	New Energy Corp.	St. Joseph	South Bend	118,924	325,816
45	Period Ricard USA ¹⁹	Dearborn	Lawrenceburg	59,381	162,686
46	Pfizer Inc.	Vigo	Terre Haute	9,381	25,729
47	Purdue University - Wade Utility Plant	Tippecanoe	West Lafayette	171,112	468,796
48	Saint Josephs College	Jasper	Rensselaer	3,084	8,449
49	Tate & Lyle, Lafayette South (33)	Tippecanoe	Lafayette	85,010	232,902
50	University Of Notre Dame Du Lac	St. Joseph	Notre Dame	76,428	214,869
TOTAL				4,378,999	

Table 3. Major natural gas-burning sources (greater than 100,000 metric tons/year)

ID	Company name ¹⁵	County	CO ₂ emissions (metric tons/year) ¹⁶
51	Steel Dynamics Structural Steel and Rail	Whitley	8,715,788
52	Steel Dynamics / Iron Dynamics	De Kalb	6,830,728
53	SI/GECO - F. B. Culley Generating Station	Warwick	6,005,732
54	DaimlerChrysler Corporation Foundry ¹⁸	Marion	5,496,660
55	Duke Energy - Wabash River	Vigo	1,797,317
56	Ironside Energy, LLC	Lake	1,574,557
57	US Steel Corp. Gary Works	Lake	979,380
58	Writing Clean Energy, Inc.	Lake	769,765
59	ISO Burns Harbor, LLC	Lake	760,643
60	Indiana Harbor East	Lake	719,170
61	Mittal Steel (ISG Indiana Harbor West)	Lake	493,852
62	AEP Lawrenceburg Plant	Dearborn	385,591
63	Portside Energy Corporation	Porter	217,737
64	Mirant Sugar Creek, LLC ¹⁹	Vigo	189,605
65	Duke Energy - Noblesville	Hamilton	180,657
66	Nucor Steel Corp.	Montgomery	165,171
67	GE Plastics Mt. Vernon, Inc.	Posey	157,197
68	Alcoa Inc. - Warwick Operations	Warwick	156,163
69	Grain Processing Corporation ²⁰	Davies	131,424
70	IN TeX IN Kote Combined	St. Joseph	102,855
SUBTOTAL OF LISTED			35,819,991
ALL NATURAL GAS-BURNING SOURCES			39,925,000

Table 4. Major oil-burning sources (greater than 100,000 metric tons/year)

ID	Company name ¹⁵	County	CO ₂ emissions (metric tons/year) ¹⁶
71	Countrymark Cooperative, Inc.	Hamilton	847,000
72	Countrymark Cooperative, Inc.	Miami	507,769
73	Countrymark Cooperative, Inc.	Greene	438,693
SUBTOTAL OF LISTED			1,793,462
ALL OIL-BURNING SOURCES			1,954,741

Table 5. Major wood-burning sources (greater than 100,000 metric tons/year)

ID	Company name ¹⁵	County	CO ₂ emissions (metric tons/year) ¹⁶
74	Rose Acre Farms, Inc. Soybean Processing ²¹	Jackson	337,893
ALL WOOD-BURNING SOURCES			399,672

Table 6. Total emission sources

Emission sources	CO ₂ emissions (metric tons/year)
Coal-burning electric power plants	117,736,810
Major coal-burning industrial and institutional plants	4,378,999
Natural gas-burning industrial generators	39,925,000
Oil-burning industries	1,954,741
Wood-burning industries	399,672
TOTAL	164,395,222

Figure 1. Total emission sources. Diagram corresponds to Table 6.

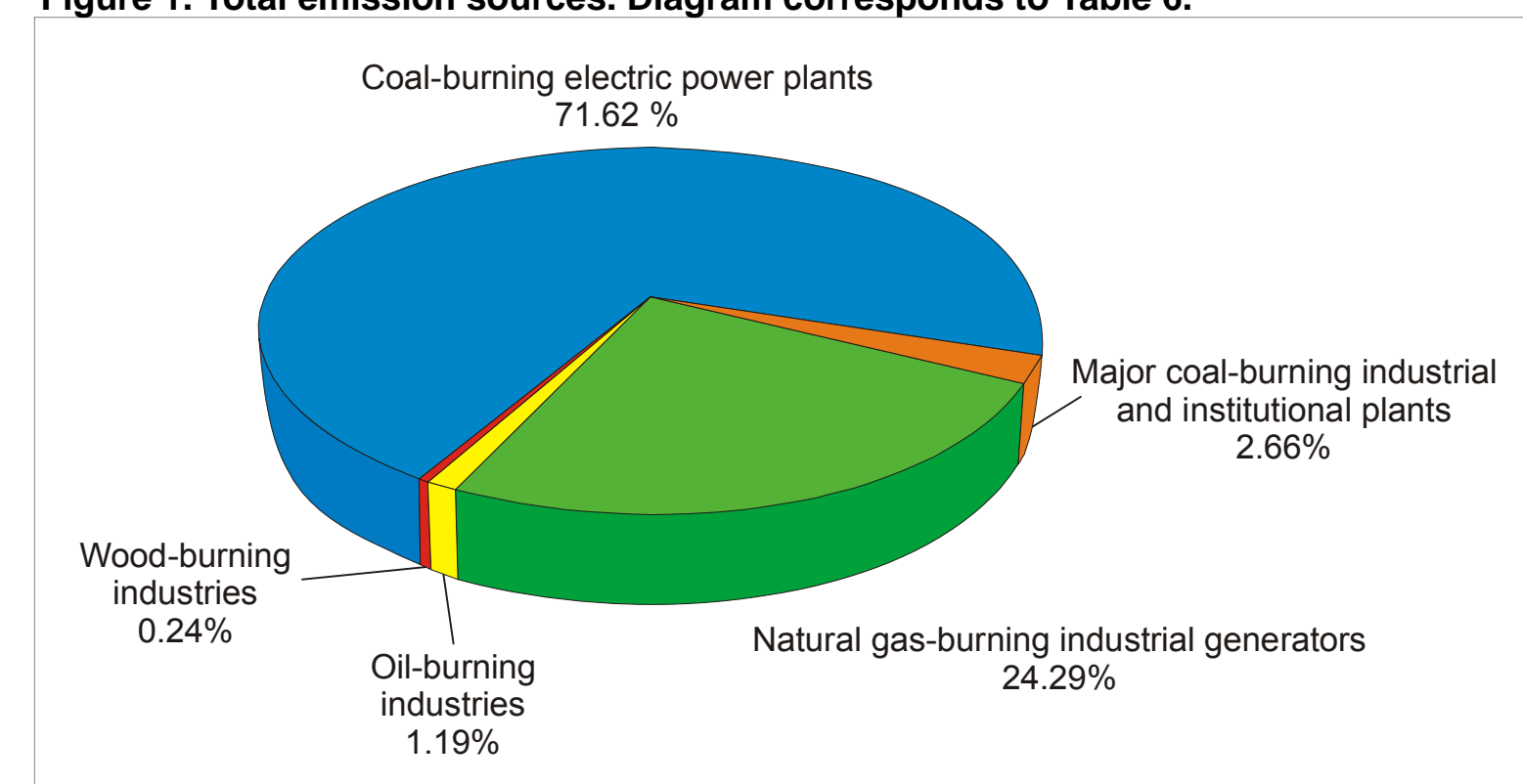


Figure 2. Coal-burning electric power plants (1,000 tons). Diagram corresponds to Table 1.

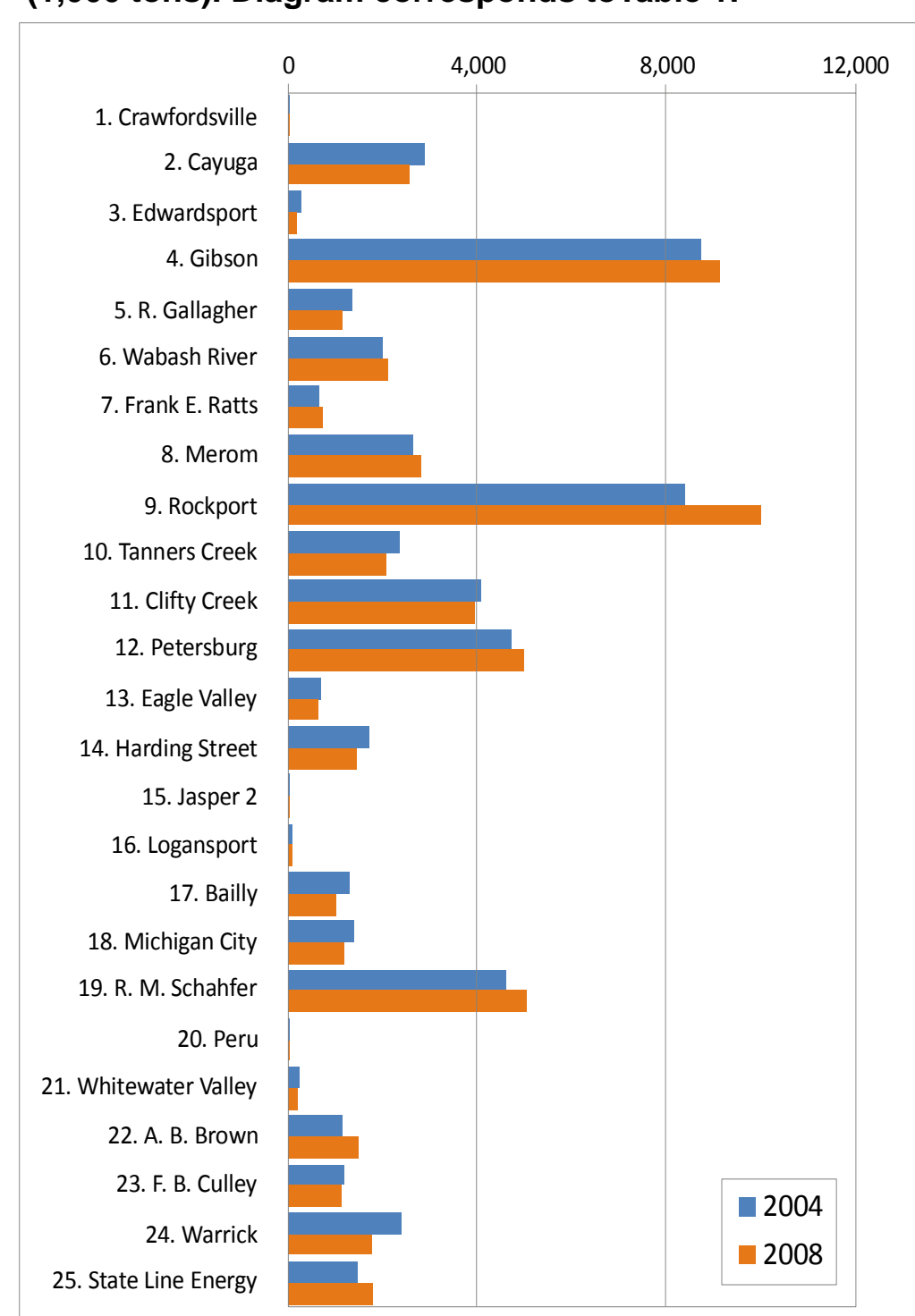
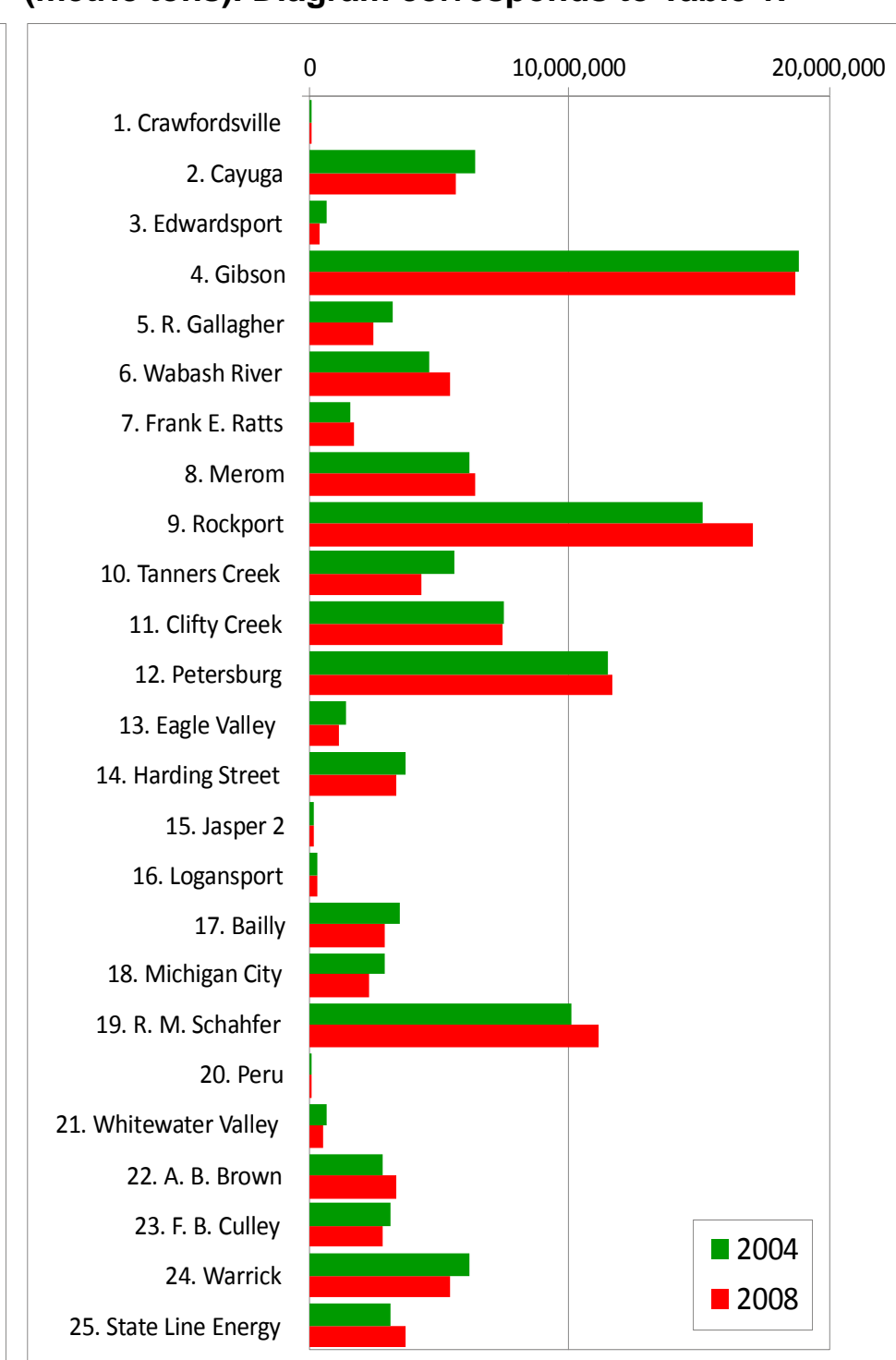
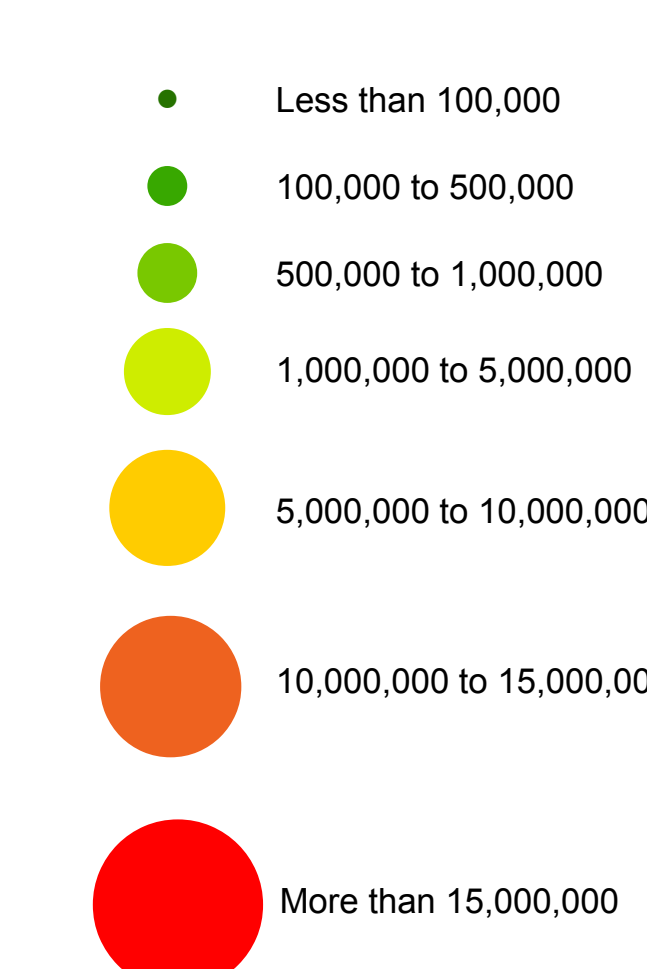


Figure 3. Coal-burning electric power plants CO₂ emissions (metric tons). Diagram corresponds to Table 1.

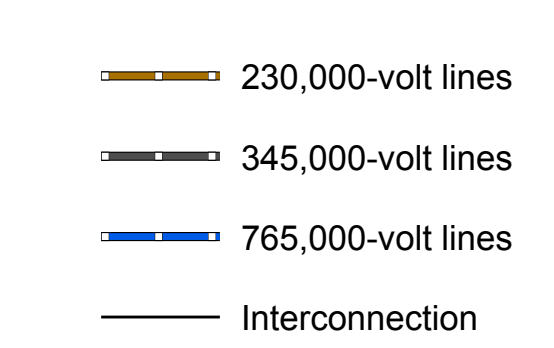


MAP EXPLANATION

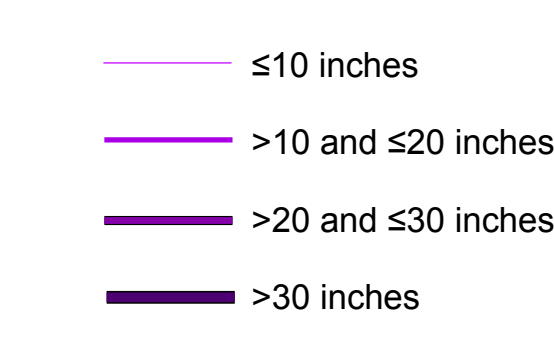
MAJOR SOURCES OF CO₂ EMISSIONS (METRIC TONS/YEAR)



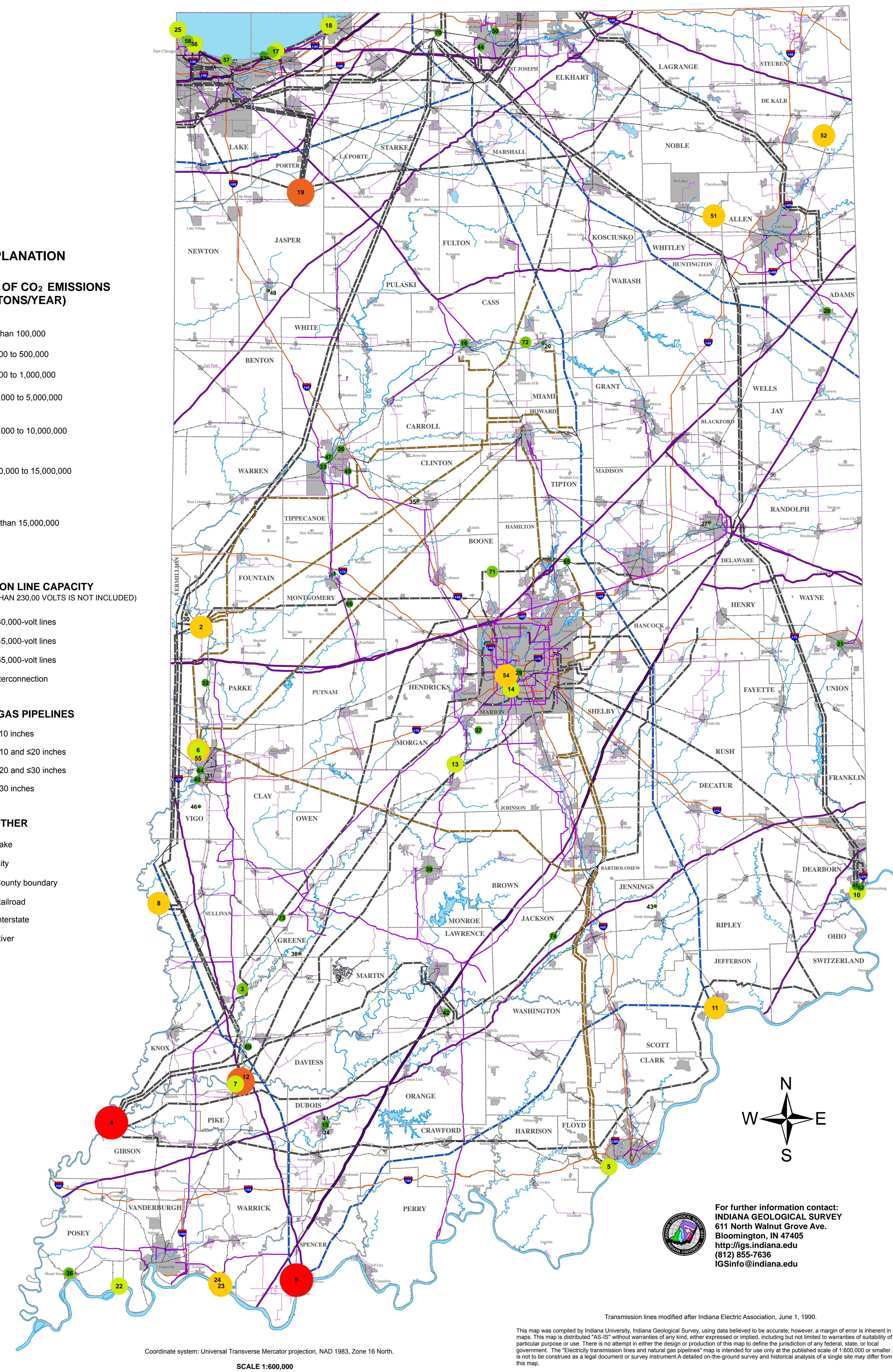
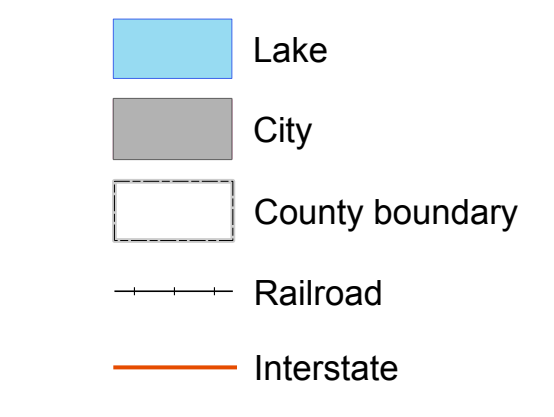
TRANSMISSION LINE CAPACITY (LINE CAPACITY SMALLER THAN 230,000 VOLTS IS NOT INCLUDED)



NATURAL GAS PIPELINES



OTHER



1 MW totals include coal-burning units but not units burning other fuels, so may not match plant totals published elsewhere. Nameplate capacity (EIA, 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 (written comment, Michele Boner, Indiana Department of Environmental Management, June 10, 2009).
 3 As received in 2008. Owing to stockpiling or reduction in stocks, tons of coal received are not identical to tons burned in 2008. Data are available only for plants with generating capacity greater than 500 MW. (EIA, 2009c). All electricity generated by State Line Energy is used in the Chicago, Ill. area.
 4 2008 data. Data are available only for plants with generating capacity greater than 500 MW.
 5 U.S. Environmental Protection Agency emissions data (EPA, 2009). Where emissions data are unavailable through that source, they are calculated from coal consumption data using an emission factor (EPA, 1998a). See note number 2 for data vintage.
 6 Plants with scrubbers. Data compiled from a telephone survey (Kathryn R. Shaffer, Indiana Geological Survey, unpublished data, June 18, 2008).
 7 Some coal received is identified as from Hymera Mine. That mine was acquired by another company and renamed J. C. #1, which is used in this table.
 8 R. M. Schaefer also received 161 thousand short tons of coal from an unidentified source. Charger Mine was idled in 2008, but coal was transported to the plant from stockpiles. Log Creek Mine, but coal was transported to the plant from a third party coal trader from stockpiles (coal source was identified as Kindell #1 Mine, which has been renamed Log Creek under new ownership). Approximately 4 percent of Indiana coal is from an unnamed source.
 9 R. Gallagher also received 82 thousand short tons of coal from an unidentified source.
 10 Some coal received is identified as from Craney Mine. Craney is now a part of Cannelburg Mine and is listed under that name in this table.
 11 Approximately 19 percent of Indiana coal was from an unknown source.
 12 Last year of production for Paroka River Mine was 2007, presumed transported from stockpile.
 13 R. M. Schaefer also received 161 thousand short tons of coal from an unidentified source.
 14 Indiana Department of Environmental Management, unpublished data.
 15 Calculated from Indiana Department of Environmental Management coal consumption data using an EPA emission factor (EPA, 1998a). Coal consumption data are predominantly for the year 2007 (written comment, Michele Boner, Indiana Department of Environmental Management, June 10, 2009). However, see notes 18 and 22.
 16 Most current data available are for the year 2008.
 17 Also known as Lawrenceburg Distillers.
 18 Includes top three CO₂ emitters (by volume of emissions). Total number of natural gas-burning sources in the state is 388.
 19 Calculated from Indiana Department of Environmental Management natural gas data using an EPA emission factor (EPA, 1998b). Natural gas consumption data are predominantly for the year 2007 (written comment, Michele Boner, Indiana Department of Environmental Management, June 10, 2009). However, see notes 18 and 22.
 20 Includes top three CO₂ emitters (by volume of emissions). Total number of oil-burning sources in the state is 27.
 21 Calculated from Indiana Department of Environmental Management oil data using an EPA emission factor (EPA, 1998c). Oil data are predominantly for the year 2007 (written comment, Michele Boner, Indiana Department of Environmental Management, June 10, 2009).
 22 Includes top CO₂ emitter (by volume of emissions). Total number of wood-burning sources in the state is 16.
 23 Calculated from Indiana Department of Environmental Management wood data using an EPA emission factor (EPA, 1998d). Wood consumption data are predominantly for the year 2007 (written comment, Michele Boner, Indiana Department of Environmental Management, June 10, 2009). However, see note 18.

References:
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 Environmental Protection Agency (EPA), 1998b, Compilation of air pollutant emission factors, 5th ed. (AP-42), v. 1-stationary point and area sources, chapter 1-external combustion sources, table 1.4-2: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, p. 1-4-6, available at <http://www.epa.gov/t3/che/ap42/c01/index.html>, date accessed, July 20, 2009.
 Environmental Protection Agency (EPA), 1998c, Compilation of air pollutant emission factors, 5th ed. (AP-42), v. 1-stationary point and area sources, chapter 1-external combustion sources, table 1.3-24: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, p. 1-3-24, available at <http://www.epa.gov/t3/che/ap42/c01/index.html>, date accessed, July 20, 2009.

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