

**Table 10.22 Reasons that Made Coal Unswitchable, 2006;**  
**Level: National Data;**  
**Row: NAICS Codes;**  
**Column: Reasons that Made Quantity Unswitchable;**  
**Unit: Million short tons.**

Reasons that Made Coal Unswitchable												
NAICS Code(a)	Subsector and Industry	Total Amount of Coal Consumed as a Fuel	Total Amount of Unswitchable Coal Fuel Use	Equipment is Not Capable of Using Another Fuel	Switching Adversely Affects the Products	Unavailable Fuel Supply	Unavailable Environments Restrictions(b)	Long-Term Contract in Place(c)	Unavailable Storage for Alternative Fuels(d)	Another Reason	Combinations of Columns F, G, H, I, J, and K	Don't Know
<b>Total United States</b>												
311	Food	6,603	5,373	4,976	55	0	0	0	0	0	137	204
3112	Grain and Oilseed Milling	5,099	4,323	4,035	55	0	0	0	0	0	114	119
311221	Wet Corn Milling	4,243	3,770	3,714	55	0	0	0	0	0	0	0
31131	Sugar Manufacturing	1,395	1,050	941	0	0	0	0	0	0	23	85
3114	Fruit and Vegetable Preserving and Specialty Food	50	0	0	0	0	0	0	0	0	0	0
3115	Dairy Products	10	0	0	0	0	0	0	0	0	0	0
3116	Animal Slaughtering and Processing	0	0	0	0	0	0	0	0	0	0	0
312	Beverage and Tobacco Products	883	612	594	0	0	0	0	0	0	0	1
3121	Beverages	700	524	507	0	0	0	0	0	0	0	0
3122	Tobacco	183	88	87	0	0	0	0	0	0	0	1
313	Textile Mills	1,428	1,098	0	0	0	0	247	0	0	0	0
314	Textile Product Mills	138	0	0	0	0	0	0	0	0	0	0
315	Apparel	0	0	0	0	0	0	0	0	0	0	0
316	Leather and Allied Products	0	0	0	0	0	0	0	0	0	0	0
321	Wood Products	0	56	56	0	0	0	0	0	0	0	0
321113	Sawmills	0	0	0	0	0	0	0	0	0	0	0
3212	Veneer, Plywood, and Engineered Woods	83	56	56	0	0	0	0	0	0	0	0
3219	Other Wood Products	0	0	0	0	0	0	0	0	0	0	0
322	Paper	9,953	6,596	4,570	54	115	881	127	0	0	624	224
322110	Pulp Mills	278	278	278	0	0	0	0	0	0	0	0
322121	Paper Mills, except Newsprint	5,512	3,588	3,086	0	2	212	127	0	0	0	161
322122	Newsprint Mills	611	581	0	0	0	581	0	0	0	0	0
322130	Paperboard Mills	3,290	1,903	960	54	114	89	0	0	0	624	63
323	Printing and Related Support	0	0	0	0	0	0	0	0	0	0	0
324	Petroleum and Coal Products	2,387	96	96	0	0	0	0	0	0	0	0
324110	Petroleum Refineries	37	34	34	0	0	0	0	0	0	0	0
324199	Other Petroleum and Coal Products	2,351	62	62	0	0	0	0	0	0	0	0
325	Chemicals	7,535	3,704	3,594	0	0	53	0	0	0	0	57
325110	Petrochemicals	0	0	0	0	0	0	0	0	0	0	0
325120	Industrial Gases	0	0	0	0	0	0	0	0	0	0	0
325181	Alkalies and Chlorine	742	297	297	0	0	0	0	0	0	0	0
325182	Carbon Black	0	0	0	0	0	0	0	0	0	0	0
325188	Other Basic Inorganic Chemicals	1,030	19	19	0	0	0	0	0	0	0	0
325192	Cyclic Crudes and Intermediates	0	0	0	0	0	0	0	0	0	0	0
325193	Ethyl Alcohol	855	97	97	0	0	0	0	0	0	0	0
325199	Other Basic Organic Chemicals	2,446	1,862	1,862	0	0	0	0	0	0	0	0
325211	Plastics Materials and Resins	482	482	429	0	0	53	0	0	0	0	0
325212	Synthetic Rubber	289	140	140	0	0	0	0	0	0	0	0
325222	Noncellulosic Organic Fibers	390	151	151	0	0	0	0	0	0	0	0
325311	Nitrogenous Fertilizers	0	0	0	0	0	0	0	0	0	0	0
325312	Phosphatic Fertilizers	76	76	76	0	0	0	0	0	0	0	0
3254	Pharmaceuticals and Medicines	284	121	64	0	0	0	0	0	0	0	57
325412	Pharmaceutical Preparation	227	64	64	0	0	0	0	0	0	0	0
325992	Photographic Film, Paper, Plate, and Chemicals	711	327	327	0	0	0	0	0	0	0	0
326	Plastics and Rubber Products	0	0	0	0	0	0	0	0	0	0	0
327	Nonmetallic Mineral Products	14,429	10,365	7,414	235	46	919	200	0	0	1,339	212
327211	Flat Glass	0	0	0	0	0	0	0	0	0	0	0
327212	Other Pressed and Blown Glass and Glassware	0	0	0	0	0	0	0	0	0	0	0
327213	Glass Containers	0	0	0	0	0	0	0	0	0	0	0
327215	Glass Products from Purchased Glass	0	0	0	0	0	0	0	0	0	0	0
327310	Cements	10,577	7,659	5,772	194	0	677	200	0	0	606	212
327410	Lime	3,539	2,465	1,402	41	46	242	0	0	0	734	0
327420	Gypsum	0	0	0	0	0	0	0	0	0	0	0
327993	Mineral Wool	0	0	0	0	0	0	0	0	0	0	0
331	Primary Metals	950	395	305	0	31	0	0	0	0	59	0

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<b>Reasons that Made Coal Unswitchable</b>
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NAICS Code(a)	Subsector and Industry	Total Amount of Coal Consumed as a Fuel	Total Amount of Unswitchable Coal Fuel Use	Equipment is Not Capable of Using Another Fuel	Switching Adversely Affects the Products	Unavailable Alternative Fuel Supply	Long-Term Contract in Place(b)	Unavailable Storage for Alternative Fuels(c)	Another Reason	Combinations of Columns F, G, H, I, J, and K	Don't Know
331111	Iron and Steel Mills	640	251	161	0	31	0	0	0	59	0
331112	Electrometallurgical Ferroalloy Products	97	0	0	0	0	0	0	0	0	0
3312	Steel Products from Purchased Steel	10	0	0	0	0	0	0	0	0	0
3313	Alumina and Aluminum	4	4	4	0	0	0	0	0	0	0
331314	Secondary Smelting and Alloying of Aluminum	4	4	4	0	0	0	0	0	0	0
331315	Aluminum Sheet, Plate and Foils	0	0	0	0	0	0	0	0	0	0
331316	Aluminum Extruded Products	0	0	0	0	0	0	0	0	0	0
3314	Nonferrous Metals, except Aluminum	200	140	140	0	0	0	0	0	0	0
3315	Foundries	0	0	0	0	0	0	0	0	0	0
331511	Iron Foundries	0	0	0	0	0	0	0	0	0	0
331521	Aluminum Die-Casting Foundries	0	0	0	0	0	0	0	0	0	0
331524	Aluminum Foundries, except Die-Casting	0	0	0	0	0	0	0	0	0	0
332	Fabricated Metal Products	0	0	0	0	0	0	0	0	0	0
333	Machinery	54	26	26	0	0	0	0	0	0	0
334	Computer and Electronic Products	0	0	0	0	0	0	0	0	0	0
334413	Semiconductors and Related Devices	0	0	0	0	0	0	0	0	0	0
335	Electrical Equip., Appliances, and Components	0	0	0	0	0	0	0	0	0	0
336	Transportation Equipment	231	173	160	0	13	0	0	0	0	0
336111	Automobiles	88	85	72	0	13	0	0	0	0	0
336112	Light Trucks and Utility Vehicles	54	54	54	0	0	0	0	0	0	0
3364	Aerospace Product and Parts	14	0	0	0	0	0	0	0	0	0
336411	Aircraft	0	0	0	0	0	0	0	0	0	0
337	Furniture and Related Products	114	29	18	0	0	0	0	0	0	0
339	Miscellaneous	0	0	0	0	0	0	0	0	0	0
	<b>Total</b>	<b>45,729</b>	<b>28,935</b>	<b>22,814</b>	<b>362</b>	<b>465</b>	<b>1,853</b>	<b>573</b>	<b>0</b>	<b>2,160</b>	<b>708</b>

(a) The Bureau of the Census classifies establishments using the North American Industry Classification System (NAICS).

(b) The environmental restrictions related to air quality that limit the amount of the usable alternative fuel that could be used instead.

(c) Long-term contracts are typically with a utility or third-party supplier such as an energy broker and requires the purchase of a fuel for an extended amount of time.

(d) The storage of usable alternative fuels is not available due to the potential environmental impact of storage tanks.

NF=No applicable RSE row/column factor.

\* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.

Q=Withheld because Relative Standard Error is greater than 50 percent.

NA=Not available.

Notes: To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. Totals may not equal sum of components because of independent rounding. Establishment percents may not equal 100 percent because of unknown and/or unreported fuel-switching guesstimate.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy Consumption Division, Form EIA-846, '2006 Manufacturing Energy Consumption Survey.'