

Table 10.20 Reasons that Made Electricity Unswitchable, 2006;
Level: National Data;
Row: NAICS Codes;
Column: Reasons that Made Quantity Unswitchable;
Unit: Million kWh.

Reasons that Made Electricity Unswitchable												
NAICS Code(a)	Subsector and Industry	Total Amount of Electricity Consumed as a Fuel	Total Amount of Unswitchable Electricity Fuel Used	Equipment is Not Capable of Using Another Fuel	Switching Unavailable	Unavailability of Alternative Fuel Supply	Restrictions on Environment	Long-Term Contract in Place(c)	Unavailability of Alternative Fuels(d)	Storage for Another Reason	Combinations of Columns F, G, H, I, J, and K	Don't Know
Total United States												
311	Food	73,551	55,824	47,583	162	597	556	849	106	0	1,467	4,505
3112	Grain and Oilseed Milling	15,536	13,245	11,752	W	0	*	Q	Q	0	0	W
311221	Wet Corn Milling	6,801	5,875	W	W	0	0	0	0	0	0	W
31131	Sugar Manufacturing	974	616	477	0	0	16	101	0	0	0	22
3114	Fruit and Vegetable Preserving and Specialty Foo	9,721	6,866	6,322	0	Q	Q	Q	0	0	Q	444
3115	Dairy Products	10,079	7,361	6,730	0	0	146	167	31	0	0	287
3116	Animal Slaughtering and Processing	17,545	13,775	10,384	Q	154	Q	314	Q	0	1,360	1,467
312	Beverage and Tobacco Products	8,822	6,018	5,340	122	4	0	0	*	0	108	444
3121	Beverages	7,572	4,810	W	122	0	0	0	0	0	108	W
3122	Tobacco	1,250	1,208	W	0	4	0	0	*	0	0	W
313	Textile Mills	19,486	14,432	12,052	W	569	0	0	W	0	Q	943
314	Textile Product Mills	5,919	4,988	4,582	W	Q	W	0	0	0	48	Q
315	Apparel	2,013	1,541	1,227	0	Q	0	0	0	0	Q	305
316	Leather and Allied Products	413	315	280	0	0	0	Q	0	0	0	25
321	Wood Products	27,564	21,260	19,013	157	73	192	121	26	0	239	1,439
321113	Sawmills	7,563	5,281	4,390	Q	68	18	57	0	0	128	614
3212	Veneer, Plywood, and Engineered Woods	9,902	7,601	6,991	Q	Q	161	64	0	0	92	267
3219	Other Wood Products	9,736	8,096	7,402	128	Q	13	0	26	0	Q	506
322	Paper	76,719	63,495	52,610	296	401	438	3,601	Q	0	250	5,779
322110	Pulp Mills	1,683	1,515	W	0	3	0	0	0	0	0	W
322121	Paper Mills, except Newsprint	25,561	21,624	18,086	2	188	0	594	0	0	51	2,703
322122	Newsprint Mills	9,294	6,430	6,430	0	0	0	0	0	0	0	0
322130	Paperboard Mills	23,515	19,223	14,551	187	210	438	3,007	0	0	83	746
323	Printing and Related Support	12,995	8,281	6,925	Q	0	0	0	Q	0	Q	1,215
324	Petroleum and Coal Products	43,983	36,773	31,871	W	145	W	1,603	W	0	57	1,729
324110	Petroleum Refineries	40,527	34,189	29,473	W	W	W	1,603	W	0	31	W
324199	Other Petroleum and Coal Products	594	549	523	0	6	5	0	15	0	0	*
325	Chemicals	158,176	116,287	100,718	1,937	1,610	708	2,394	643	0	3,136	5,142
325110	Petrochemicals	W	4,251	4,058	0	0	0	0	0	0	W	W
325120	Industrial Gases	20,925	9,872	9,145	0	0	0	314	0	0	0	413
325181	Alkalies and Chlorine	8,893	8,302	7,706	0	597	0	0	0	0	0	0
325182	Carbon Black	690	690	614	0	76	0	0	0	0	0	0
325188	Other Basic Inorganic Chemicals	24,171	8,519	7,466	72	0	367	0	106	0	165	344
325192	Cyclic Crudes and Intermediates	2,566	592	583	0	0	0	0	0	0	0	9
325193	Ethyl Alcohol	2,717	2,002	1,913	0	1	31	15	0	0	0	43
325199	Other Basic Organic Chemicals	W	20,138	16,527	1,188	0	0	153	0	0	1,146	1,124
325211	Plastics Materials and Resins	20,536	18,583	15,317	0	W	Q	1,236	Q	0	Q	W
325212	Synthetic Rubber	1,715	1,234	1,202	0	8	0	0	0	0	*	25
325222	Noncellulosic Organic Fibers	4,911	4,329	3,372	56	123	0	0	317	0	348	114
325311	Nitrogenous Fertilizers	2,448	2,369	1,788	0	0	7	494	0	0	27	53
325312	Phosphatic Fertilizers	1,827	1,827	W	W	W	0	0	*	0	0	W
3254	Pharmaceuticals and Medicines	9,224	7,301	5,867	0	0	293	83	0	0	404	654
325412	Pharmaceutical Preparation	6,350	5,110	4,467	0	0	110	19	0	0	286	228
325992	Photographic Film, Paper, Plate, and Chemicals	1,059	756	696	0	Q	0	43	0	0	*	16
326	Plastics and Rubber Products	53,404	37,726	31,978	1,347	Q	W	Q	W	0	Q	3,070
327	Nonmetallic Mineral Products	43,914	35,038	31,170	183	54	154	244	Q	0	719	2,452
327211	Flat Glass	1,903	1,565	1,292	0	W	0	0	0	0	W	W
327212	Other Pressed and Blown Glass and Glassware	5,121	Q	Q	0	0	0	0	Q	0	43	102
327213	Glass Containers	3,944	3,518	3,289	142	0	0	0	0	0	0	88
327215	Glass Products from Purchased Glass	3,670	2,886	2,723	27	0	0	14	Q	0	33	88
327310	Cements	12,931	11,120	9,794	0	0	126	193	0	0	286	721
327410	Lime	1,431	1,183	1,029	0	0	W	W	0	0	0	W
327420	Gypsum	1,845	1,757	1,756	0	*	0	0	0	0	*	1
327993	Mineral Wool	4,032	2,734	2,135	0	*	0	Q	0	0	256	335
331	Primary Metals	136,216	111,967	100,815	859	164	199	1,074	275	0	4,540	4,040

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Reasons that Made Electricity Unswitchable

NAICS Code(a)	Subsector and Industry	Total Amount of	Total Amount of	Equipment is Not	Switching	Unavailable	Long-Term	Unavailable	Combinations of			
		Electricity Consumed as a Fuel	Electricity Fuel Used	Capable of Using Another Fuel	the Products Adversely Affects Fuel Supply	Alternative Environmental Restrictions(b)	Contract in Place(c)	Storage for Alternative Fuels(d)	Another Reason	Columns F, G, H, I, J, and K	Don't Know	
331111	Iron and Steel Mills	51,381	43,551	38,929	809	2	2	924	0	0	4	2,882
331112	Electrometallurgical Ferroalloy Products	3,178	2,120	2,113	7	0	0	0	0	0	0	0
3312	Steel Products from Purchased Steel	4,396	3,428	3,034	0	0	0	0	0	0	Q	338
3313	Alumina and Aluminum	45,796	35,335	31,180	39	23	0	15	1	0	3,937	140
331314	Secondary Smelting and Alloying of Aluminum	611	473	383	0	0	0	0	0	0	28	62
331315	Aluminum Sheet, Plate and Foils	3,871	2,916	2,901	0	2	0	0	0	0	0	13
331316	Aluminum Extruded Products	1,994	1,442	1,275	12	21	0	0	0	0	88	47
3314	Nonferrous Metals, except Aluminum	14,683	12,681	11,952	0	75	W	0	0	0	396	W
3315	Foundries	16,781	14,852	13,606	5	65	W	135	274	0	149	W
331511	Iron Foundries	8,563	8,047	7,366	0	58	Q	0	225	0	149	240
331521	Aluminum Die-Casting Foundries	1,937	1,644	1,324	0	7	72	135	49	0	0	58
331524	Aluminum Foundries, except Die-Casting	1,134	843	662	2	0	2	0	0	0	0	177
332	Fabricated Metal Products	41,965	30,508	26,208	Q	Q	Q	1,685	Q	0	Q	1,438
333	Machinery	32,394	17,757	12,279	Q	Q	Q	Q	Q	0	Q	Q
334	Computer and Electronic Products	27,508	20,094	12,798	Q	Q	1,037	1,036	Q	0	1,685	3,247
334413	Semiconductors and Related Devices	12,746	11,308	5,992	24	0	1,037	390	Q	0	1,334	2,530
335	Electrical Equip., Appliances, and Components	12,869	9,373	8,469	Q	Q	0	Q	0	0	Q	731
336	Transportation Equipment	57,250	44,838	38,346	Q	1,132	260	839	Q	0	Q	2,256
336111	Automobiles	3,899	2,813	2,266	0	1	W	0	0	0	*	W
336112	Light Trucks and Utility Vehicles	4,495	3,920	W	0	0	0	0	0	0	0	W
3364	Aerospace Product and Parts	11,519	8,742	6,972	Q	518	157	Q	Q	0	108	959
336411	Aircraft	3,446	2,994	2,224	0	518	0	0	0	0	23	229
337	Furniture and Related Products	9,264	4,544	3,973	Q	0	0	Q	0	0	Q	539
339	Miscellaneous	9,677	6,532	5,137	Q	Q	Q	Q	0	0	Q	891
	Total	854,102	647,591	553,374	6,926	5,696	5,951	13,575	2,478	0	15,528	44,064

(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.'