

**Table 10.23 Reasons that Made LPG Unswitchable, 2006;**  
**Level: National Data;**  
**Row: NAICS Codes;**  
**Column: Reasons that Made Quantity Unswitchable;**  
**Unit: Million barrels.**

Reasons that Made LPG Unswitchable												
NAICS Code(a)	Subsector and Industry	Total Amount of LPG Consumed as a Fuel	Total Amount of Unswitchable LPG Fuel Use	Equipment is Not Capable of Using Another Fuel	Switching Adversely Affects the Products	Unavailable Alternative Fuel Supply	Unavailable Alternative Environments	Long-Term Contract Restrictions in Place	Unavailable Alternative Fuels	Combinations of Another Reason	Columns F, G, H, I, J, and K	Don't Know
<b>Total United States</b>												
311	Food	850	549	351	Q	96	8	1	*	0	*	92
3112	Grain and Oilseed Milling	Q	Q	Q	*	0	Q	1	0	0	0	3
311221	Wet Corn Milling	3	2	1	*	0	0	0	0	0	0	1
31131	Sugar Manufacturing	10	9	5	0	0	0	0	0	0	0	4
3114	Fruit and Vegetable Preserving and Specialty Foo	147	92	66	*	1	2	0	0	0	*	22
3115	Dairy Products	28	21	Q	0	0	*	*	0	0	0	Q
3116	Animal Slaughtering and Processing	239	147	32	*	67	Q	0	0	0	0	Q
312	Beverage and Tobacco Products	251	177	129	Q	Q	0	0	*	0	1	Q
3121	Beverages	244	171	124	Q	Q	0	0	*	0	1	Q
3122	Tobacco	7	6	6	0	*	0	0	0	0	*	0
313	Textile Mills	72	52	51	Q	0	0	0	0	0	0	Q
314	Textile Product Mills	167	Q	Q	*	0	1	0	0	0	0	*
315	Apparel	6	Q	*	0	0	0	0	0	0	0	Q
316	Leather and Allied Products	14	5	4	0	1	0	0	0	0	0	0
321	Wood Products	1,368	732	513	12	66	4	Q	*	0	Q	130
321113	Sawmills	113	62	51	0	*	*	Q	0	0	*	5
3212	Veneer, Plywood, and Engineered Woods	850	416	284	Q	64	Q	0	0	0	0	Q
3219	Other Wood Products	346	200	163	Q	2	Q	Q	*	0	Q	23
322	Paper	1,339	1,007	848	Q	0	8	0	Q	0	Q	42
322110	Pulp Mills	29	28	28	0	0	*	0	0	0	0	*
322121	Paper Mills, except Newsprint	182	149	133	0	0	4	0	2	0	0	10
322122	Newsprint Mills	47	8	5	0	0	0	0	0	0	0	3
322130	Paperboard Mills	117	97	91	0	0	2	0	0	0	0	3
323	Printing and Related Support	183	104	87	*	Q	0	0	Q	0	0	Q
324	Petroleum and Coal Products	7,424	4,267	1,314	975	143	0	0	823	0	*	1,012
324110	Petroleum Refineries	7,307	4,179	1,227	975	143	0	0	823	0	*	1,012
324199	Other Petroleum and Coal Products	2	*	*	0	0	0	0	0	0	0	0
325	Chemicals	1,907	1,717	1,220	*	4	256	195	*	0	Q	12
325110	Petrochemicals	1	1	*	0	1	0	0	0	0	0	0
325120	Industrial Gases	Q	Q	Q	0	*	0	*	0	0	0	*
325181	Alkalies and Chlorine	2	2	2	0	*	*	0	0	0	0	0
325182	Carbon Black	*	*	*	0	0	0	0	0	0	0	0
325188	Other Basic Inorganic Chemicals	26	18	12	0	1	Q	*	0	0	0	Q
325192	Cyclic Crudes and Intermediates	*	*	*	0	0	0	0	0	0	0	*
325193	Ethyl Alcohol	10	2	2	0	0	*	0	0	0	0	*
325199	Other Basic Organic Chemicals	76	11	10	0	0	0	*	0	0	*	1
325211	Plastics Materials and Resins	1,520	1,496	1,046	0	0	252	194	0	0	0	4
325212	Synthetic Rubber	9	8	8	0	0	0	0	*	0	0	*
325222	Noncellulosic Organic Fibers	9	7	7	0	0	*	0	0	0	0	0
325311	Nitrogenous Fertilizers	9	9	1	0	*	0	0	0	0	7	*
325312	Phosphatic Fertilizers	3	2	2	0	0	0	0	0	0	0	0
3254	Pharmaceuticals and Medicines	49	Q	Q	0	0	0	*	0	0	0	*
325412	Pharmaceutical Preparation	44	Q	Q	0	0	0	*	0	0	0	0
325992	Photographic Film, Paper, Plate, and Chemicals	3	3	3	0	0	0	0	0	0	0	0
326	Plastics and Rubber Products	1,316	898	325	0	Q	Q	Q	0	0	Q	Q
327	Nonmetallic Mineral Products	1,327	1,095	Q	*	16	Q	0	5	0	Q	Q
327211	Flat Glass	11	8	8	0	*	0	0	0	0	0	*
327212	Other Pressed and Blown Glass and Glassware	92	Q	Q	0	13	0	0	0	0	Q	3
327213	Glass Containers	31	29	27	0	0	0	0	1	0	*	0
327215	Glass Products from Purchased Glass	68	37	35	*	0	1	0	0	0	*	1
327310	Cements	12	6	5	0	0	0	0	0	0	0	*
327410	Lime	6	5	2	0	0	*	0	3	0	0	*
327420	Gypsum	70	61	61	0	0	0	0	0	0	0	*
327993	Mineral Wool	27	22	16	*	2	*	0	1	0	0	3
331	Primary Metals	979	596	344	4	2	12	2	4	0	3	225

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Reasons that Made LPG Unswitchable

NAICS Code(a)	Subsector and Industry	Total Amount of LPG Consumed as a Fuel	Total Amount of Unswitchable LPG Fuel Use	Equipment is Not Capable of Using Another Fuel	Switching Adversely Affects the Products	Unavailable Alternative Fuel Supply	Environmental Restrictions in Place(b)	Long-Term Contract	Unavailable Storage for Alternative Fuels(d)	Another Reason	Combinations of Columns F, G, H, I, J, and K	Don't Know
331111	Iron and Steel Mills	43	28	23	*	*	1	0	0	0	1	3
331112	Electrometallurgical Ferroalloy Products	1	1	1	0	0	0	0	0	0	0	*
3312	Steel Products from Purchased Steel	69	50	38	2	*	4	Q	*	0	0	5
3313	Alumina and Aluminum	266	66	54	Q	*	3	*	*	0	*	8
331314	Secondary Smelting and Alloying of Aluminum	13	10	6	0	0	0	0	0	0	0	4
331315	Aluminum Sheet, Plate and Foils	237	26	21	0	0	2	*	*	0	*	3
331316	Aluminum Extruded Products	214	23	20	Q	0	1	0	0	0	0	1
3314	Nonferrous Metals, except Aluminum	335	284	100	0	0	Q	0	1	0	2	179
3315	Foundries	265	167	129	1	1	2	1	2	0	1	31
331511	Iron Foundries	95	69	65	*	0	2	0	*	0	0	2
331521	Aluminum Die-Casting Foundries	47	16	13	1	1	*	0	0	0	1	*
331524	Aluminum Foundries, except Die-Casting	49	29	13	0	0	*	1	*	0	0	15
332	Fabricated Metal Products	1,178	729	360	Q	*	Q	Q	Q	0	0	Q
333	Machinery	725	581	535	Q	0	0	0	0	0	Q	Q
334	Computer and Electronic Products	Q	9	7	0	0	0	0	*	0	0	Q
334413	Semiconductors and Related Devices	Q	Q	Q	0	0	0	0	*	0	0	*
335	Electrical Equip., Appliances, and Components	229	133	96	Q	Q	Q	0	0	0	0	Q
336	Transportation Equipment	1,008	626	536	12	Q	6	Q	*	0	12	43
336111	Automobiles	63	14	13	*	0	0	0	*	0	1	*
336112	Light Trucks and Utility Vehicles	10	5	4	0	0	0	0	*	0	0	1
3364	Aerospace Product and Parts	116	85	58	12	0	4	0	0	0	5	7
336411	Aircraft	12	11	2	0	0	3	0	0	0	1	6
337	Furniture and Related Products	140	91	68	0	0	0	Q	0	0	0	16
339	Miscellaneous	152	51	28	*	Q	0	Q	0	0	0	8
	Total	20,669	13,530	7,809	1,040	397	328	238	870	0	Q	2,517

(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.'