

Table 38. Light-Duty Vehicle Sales by Technology Type  
(Thousands)

East North Central	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>New Car Sales 1/</b>													
<b>Conventional Vehicles</b>													
Gasoline ICE Vehicles	1319.5	1239.2	1203.0	1168.5	1183.2	1189.0	1170.1	1157.3	1134.9	1109.4	1095.7	1079.6	1072.6
TDI Diesel ICE	1.2	1.0	1.2	2.4	2.4	2.4	3.0	3.0	3.0	3.5	3.5	3.5	3.6
Total Conventional	1320.7	1240.2	1204.3	1170.9	1185.7	1191.4	1173.0	1160.4	1137.9	1112.9	1099.2	1083.1	1076.1
<b>Alternative-Fuel Vehicles</b>													
Methanol-Flex Fuel ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Methanol ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ethanol-Flex Fuel ICE	63.1	58.4	56.9	53.6	54.8	55.1	67.9	67.3	65.7	76.6	75.8	74.9	74.4
Ethanol ICE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Electric Vehicle	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Electric-Diesel Hybrid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.4	7.9	8.2
Electric-Gasoline Hybrid	2.2	3.2	6.4	36.4	38.2	40.2	42.0	43.4	54.5	53.6	63.4	62.7	64.0
CNG ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG Bi-fuel	2.0	1.8	1.7	1.7	1.9	1.9	1.8	1.8	1.7	1.7	1.6	1.6	1.6
LPG ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG Bi-fuel	7.5	6.9	6.5	6.4	6.4	6.3	6.1	5.9	5.7	5.5	5.5	5.4	5.4
Fuel Cell Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Alternatives	75.3	70.8	71.9	98.5	101.8	104.0	118.3	118.9	128.1	142.1	151.2	152.9	154.0
Percent Alternative Car Sales	5.39	5.40	5.64	7.76	7.91	8.03	9.16	9.29	10.12	11.32	12.09	12.37	12.52
Total New Car Sales	1395.9	1311.0	1276.2	1269.3	1287.4	1295.4	1291.4	1279.3	1266.0	1255.0	1250.4	1236.0	1230.2
<b>New Light Truck Sales 2/</b>													
<b>Conventional Vehicles</b>													
Gasoline ICE Vehicles	1125.7	1141.4	1086.2	1096.9	1101.3	1125.6	1094.8	1098.3	1101.4	1102.3	1116.2	1125.6	1140.7
TDI Diesel ICE	58.2	50.4	56.6	88.8	88.4	86.0	86.0	88.1	89.9	101.8	102.0	102.5	106.2
Total Conventional	1183.9	1191.8	1142.8	1185.8	1189.6	1211.6	1180.7	1186.4	1191.3	1204.0	1218.2	1228.2	1246.9
<b>Alternative-Fuel Vehicles</b>													
Methanol-Flex Fuel ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Methanol ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ethanol-Flex Fuel ICE	54.7	55.9	54.2	57.2	61.8	63.2	107.1	107.5	107.8	107.9	109.7	111.0	112.9
Ethanol ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electric Vehicle	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Electric-Diesel Hybrid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electric-Gasoline Hybrid	0.0	0.0	0.0	26.5	49.6	52.5	52.0	53.6	55.2	56.8	58.9	60.9	63.4
CNG ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG Bi-fuel	5.0	5.0	4.8	5.1	5.2	5.3	5.4	5.4	5.4	5.5	5.6	5.6	5.7
LPG ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG Bi-fuel	16.5	16.7	16.0	16.9	17.4	17.7	17.9	18.0	18.1	18.3	18.5	18.7	19.0
Fuel Cell Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Alternatives	76.8	78.1	75.5	106.3	134.6	139.4	183.0	185.1	187.0	189.0	193.3	196.8	201.6
Percent Alternative Light Truck Sales	6.09	6.15	6.20	8.23	10.17	10.32	13.42	13.50	13.57	13.57	13.70	13.81	13.92
Total New Truck Sales	1260.7	1269.9	1218.3	1292.1	1324.3	1350.9	1363.7	1371.5	1378.3	1393.1	1411.5	1425.0	1448.5

Table 38. Light-Duty Vehicle Sales by Technology Type  
(Thousands)

East North Central	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Percent Total Alternative Sales	5.72	5.77	5.91	7.99	9.05	9.20	11.35	11.47	11.92	12.51	12.94	13.14	13.28
EPACT Legislative Alternative Sales	42.89	42.16	40.37	41.91	42.61	43.10	43.15	43.02	42.86	42.92	43.35	43.58	44.12
ZEVP Legislative Alternative Sales	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Vehicles Sales	2656.7	2580.9	2494.5	2561.4	2611.7	2646.3	2655.1	2650.8	2644.3	2648.1	2661.9	2661.0	2678.7

Table 38. Light-Duty Vehicle Sales by Technology Type  
(Thousands)

East North Central	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
<b>New Car Sales 1/</b>													
<b>Conventional Vehicles</b>													
Gasoline ICE Vehicles	1060.0	1049.6	1050.1	1056.0	1060.9	1061.2	1059.4	1045.6	1039.6	1036.9	1036.6	1036.5	-0.8%
TDI Diesel ICE	3.6	3.6	3.8	3.9	4.0	4.2	4.3	4.5	4.6	4.8	5.0	5.3	7.6%
Total Conventional	1063.6	1053.3	1053.8	1059.9	1064.9	1065.4	1063.7	1050.1	1044.2	1041.7	1041.6	1041.7	-0.8%
<b>Alternative-Fuel Vehicles</b>													
Methanol-Flex Fuel ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.2%
Methanol ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Ethanol-Flex Fuel ICE	73.5	72.6	72.5	72.8	72.9	72.7	72.4	71.2	70.5	70.2	70.1	70.1	0.8%
Ethanol ICE	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	3.4%
Electric Vehicle	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	-1.2%
Electric-Diesel Hybrid	10.1	10.3	10.4	10.5	10.6	10.7	10.7	10.6	10.6	10.5	10.6	10.6	N/A
Electric-Gasoline Hybrid	64.2	65.3	65.5	66.1	66.5	66.5	66.4	65.4	65.0	64.8	64.7	64.6	14.0%
CNG ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.9%
CNG Bi-fuel	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	-0.5%
LPG ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
LPG Bi-fuel	5.4	5.3	5.3	5.4	5.4	5.4	5.4	5.3	5.3	5.3	5.3	5.3	-1.1%
Fuel Cell Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Fuel Cell Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Fuel Cell Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Total Alternatives	155.2	155.6	155.8	156.8	157.5	157.4	157.0	154.6	153.4	152.9	152.8	152.7	3.4%
Percent Alternative Car Sales	12.74	12.87	12.88	12.88	12.88	12.87	12.86	12.83	12.81	12.80	12.79	12.78	3.8%
Total New Car Sales	1218.8	1208.9	1209.7	1216.7	1222.4	1222.8	1220.7	1204.7	1197.6	1194.6	1194.3	1194.4	-0.4%
<b>New Light Truck Sales 2/</b>													
<b>Conventional Vehicles</b>													
Gasoline ICE Vehicles	1148.0	1154.0	1170.9	1194.3	1217.7	1234.5	1249.4	1250.0	1261.1	1278.1	1298.8	1323.1	0.6%
TDI Diesel ICE	106.4	108.0	111.4	114.1	118.3	122.1	125.0	127.1	128.8	131.3	135.1	139.2	4.5%
Total Conventional	1254.4	1262.0	1282.3	1308.4	1336.0	1356.7	1374.4	1377.0	1389.8	1409.4	1433.8	1462.4	0.9%
<b>Alternative-Fuel Vehicles</b>													
Methanol-Flex Fuel ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3%
Methanol ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Ethanol-Flex Fuel ICE	113.9	114.6	116.7	119.9	123.2	125.7	127.8	128.0	129.7	132.3	135.4	138.8	4.0%
Ethanol ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Electric Vehicle	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.3%
Electric-Diesel Hybrid	0.0	3.5	3.6	5.3	5.5	5.6	9.7	9.8	10.0	10.1	10.4	10.7	N/A
Electric-Gasoline Hybrid	65.3	65.2	66.3	66.9	68.3	69.3	68.2	68.3	69.0	70.0	71.1	72.4	N/A
CNG ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3%
CNG Bi-fuel	5.8	5.8	5.9	6.0	6.2	6.3	6.3	6.4	6.4	6.5	6.6	6.8	1.3%
LPG ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7%
LPG Bi-fuel	19.1	19.3	19.6	20.0	20.5	20.8	21.1	21.1	21.3	21.7	22.0	22.5	1.3%
Fuel Cell Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Fuel Cell Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Fuel Cell Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Total Alternatives	204.7	209.0	212.8	218.8	224.2	228.4	233.9	234.3	237.1	241.4	246.4	251.9	5.2%
Percent Alternative Light Truck Sales	14.03	14.21	14.23	14.32	14.37	14.41	14.54	14.54	14.58	14.62	14.66	14.69	3.9%
Total New Truck Sales	1459.1	1471.0	1495.0	1527.1	1560.2	1585.0	1608.2	1611.3	1627.0	1650.8	1680.2	1714.2	1.3%

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(Thousands)

East North Central	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002- 2025
Percent Total Alternative Sales	13.44	13.60	13.63	13.69	13.72	13.74	13.82	13.81	13.83	13.86	13.88	13.91	3.9%
EPACT Legislative Alternative Sales	44.31	44.53	45.13	45.97	46.82	47.44	48.00	47.96	48.30	48.87	49.59	50.43	0.8%
ZEVP Legislative Alternative Sales	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Vehicles Sales	2677.9	2679.9	2704.7	2743.8	2782.6	2807.8	2828.9	2816.0	2824.6	2845.4	2874.5	2908.6	0.5%

Table 38. Light-Duty Vehicle Sales by Technology Type  
(Thousands)  
East North Central

1/ Includes personal and fleet light-duty cars.

2/ Includes personal and fleet light-duty trucks.

ICE = Internal combustion engine.

EPACT = Energy Policy Act of 1992.

ZEVP = Zero emission vehicles from the low emission vehicle program.

N/A = Not applicable.

Sources: 2002 derived using: California Air Resources Board (CARB), "Proposed Regulations for Low-Emission Vehicles and Clean Fuels, Staff Report"; CARB, "Proposed Amendments to California Exhaust and Evaporative Emission Standards and Test Procedures for Passenger, Light-Duty Trucks and Medium-Duty Vehicles - LEVII and Proposed Amendments to California Motor Vehicle Certification: Assembly-Line and In-Use Test Requirements - CAP 2000," (El Monte, CA, September 1998); Energy Information Administration (EIA), Describing Current and Potential Markets for Alternative-Fuel Vehicles, DOE/EIA-0604(96) (Washington, DC, March 1996); EIA, Alternatives to Traditional Transportation Fuels 1998, [http://www.eia.doe.gov/cneaf/alt\\_trans98/table1.html](http://www.eia.doe.gov/cneaf/alt_trans98/table1.html); and EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e. Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.