

ENERGYWISE

for your Home



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ELECTRIC VEHICLES

The electric vehicle market is ever evolving. Today, you can buy an electric car in almost every vehicle class. Although electric cars account for roughly 1% of global new-car sales, they are a growing and increasingly competitive segment.

Electric cars offer consumers affordable, efficient, and high-tech transportation. More models, including crossovers, minivans, hatchbacks, and sedans, become available every year. Today, new-car buyers can choose from about 40 models. By 2022, about 90 electric vehicles are projected.

An expanding nationwide charging network enables more consumers to consider electric cars, although most drivers still prefer to charge at home due to convenience and savings over time. At the U.S. national average price of 12.5 cents per kilowatt-hour (kWh), electricity is roughly equivalent to gasoline at \$1 a gallon. Plus, many electricity providers offer special electric vehicle rates.

Displacing gasoline with domestic electricity cuts petroleum use and emissions, which benefits public health. Electrifying the transportation sector can reduce greenhouse gas emissions in 2050 by 57% relative to 2015 levels.


























Electric Vehicle Types

- Plug-in hybrids (PHEVs) are powered by an electric motor(s) and battery, paired with an internal combustion engine. Plug-in hybrid designs differ. Most drive on electricity alone using battery energy, and after the battery is discharged, continue driving using gasoline much like conventional hybrids. (Conventional hybrids have a smaller battery and do not plug in.) On average, plug-in hybrids can travel 10 to 50 miles on electricity before they switch to gasoline. Their gas tanks extend total range to between 300 and 600 miles. Some designs allow the driver to choose when to use electricity or gasoline.
- Battery electric vehicles (BEVs), also called all-electric vehicles, are powered by an electric motor and battery alone, and never use gasoline. All-electric vehicles can travel farther on electricity than plug-in hybrids, but their total range is limited by the battery size. As battery technology advances and costs come down, vehicle range is increasing. Most battery electric vehicles available today promise 100 to 240 miles on a charge, and some can travel even farther. Most future models promise even more range, 200 to 300 miles.

What should I consider in making a purchase?

- Consider your driving needs and lifestyle. If you have only one car, or often drive long distances, a plug-in hybrid with its back-up internal combustion engine can provide a worry-free transition to electric vehicles. If you can charge at work you can effectively double your range.
- Consider costs and benefits. With manufacturer lease options, discounted electricity rates, and government purchase incentives, electric vehicles can be less expensive to operate over their lifetime despite costing more to purchase.
- Consider environmental benefits. Electric vehicles have lower emissions than gasoline-powered vehicles, even in areas where much of the electricity is generated by power plants that use fossil fuels.

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Manufacturer										Range		Charging speed (miles/hr)				Performance			
Name	Model	Photo	Seating	PEV Type	FWD/RWD/AWD	Battery size (kWh)	Base MSRP	Federal tax credit	Price after federal tax credit	Electric Range (miles)	Total Range (miles)	Level 2 Charging Rate (kW)	Level 1 120v	Level 2 240v	DCFC 400+v	MPGe/MPG	Top Spd (mph)	Accel. 0-60 mph (sec)	Crash Rating
Audi	A3 E-Tron		5	PHEV	FWD	9	\$38,900	\$4,168	\$34,732	17	430	3.3	3	8	N/A	86/39	130	7.6	NR
BMW	i3		4	BEV	RWD	33	\$43,600	\$7,500	\$36,100	114	114(180)	7.4	4	27	166	124(39)	93	7.0	4 star
BMW	i8		4	PHEV	AWD	7.2	\$141,000	\$3,793	\$137,207	15	330	3.3	3	7	N/A	76/28	155	4.2	NR
BMW	X5 xDrive40e		5	PHEV	AWD	9	\$62,100	\$4,700	\$57,400	14	540	3.3	2	5	N/A	56/24	130	6.5	NR
BMW	330e		5	PHEV	RWD	7.6	\$43,700	\$4,000	\$39,700	14	350	3.7	3	8	N/A	72/31	130	5.9	NR
BMW	530e		5	PHEV	RWD	9.2	\$52,395	\$4,200	\$48,195	16	370	3.5	3	7	N/A	72/29	146	6	NR
BMW	740e		5	PHEV	RWD/AWD	9.2	\$90,700	\$4,200	\$86,500	14	340	3.7	2	7	N/A	64/27	130	5.1	NR
Chevrolet	Bolt		5	BEV	FWD	60	\$37,495	\$7,500	\$29,995	238	238	7.2	4	25	159	119	98	6.5	NR
Chevrolet	Volt		4.5	PHEV	FWD	18.4	\$33,170	\$7,500	\$25,670	53	420	3.3	4	10	N/A	106/42	98	8.4	5 star
Chrysler	Pacifica Hybrid (PHEV)		7	PHEV	FWD	16	\$42,000	\$7,500	\$34,500	33	570	6.6	3	16	N/A	84/32	107	7.8	NR
Ford	Focus Electric		5	BEV	FWD	23	\$29,170	\$7,500	\$21,670	76	76	6.6	4	22	N/A	110	84	10.3	5 star
Ford	Fusion Energi		5	PHEV	FWD	7.6	\$31,120	\$4,007	\$27,113	21	610	3.3	3	10	N/A	97/42	85	8.5	5 star
Honda	Clarity PHEV		5	PHEV	FWD	17	\$33,400	\$7,500	\$25,900	48	340	6.6	4	22	N/A	110/42	110	8.8	NA
Kia	Niro PHEV		5	PHEV	FWD	8.9	\$27,900	\$4,543	\$23,357	26	560	3.3	4	10	N/A	105/46	107	TBD	NA
Mitsubishi	Outlander PHEV		5	PHEV	AWD	12	\$34,595	\$5,836	\$28,759	22	310	3.3	3	7	53	74/25	106	9.9	NR
Nissan	Leaf		5	BEV	FWD	40	\$29,990	\$7,500	\$22,490	151	150	3.3 or 6.6	4	11 or 22	152	114	90	7.5	NR
Porsche	Panamera S E-hybrid		2	PHEV	AWD	9.4	\$99,600	\$4,752	\$94,848	16	540	3	2	6	N/A	65/25	167	5.2	NR
Porsche	Cayenne S E-hybrid		5	PHEV	AWD	10.8	\$79,900	\$5,300	\$74,600	14	480	3	2	6	N/A	65/25	151	5.4	NR
Tesla	Model 3		5	BEV	RWD/AWD	55-85	\$35,000	\$7,500	\$27,500	220-310	220-310	11.5	4	38	326	110	140	5.1-5.6	NR
Tesla	Model S		5	BEV	AWD	75-100	\$74,500	\$7,500	\$67,000	249-335	249-335	17.3	4	52	300	101	155	2.5-4.3	5 star
Tesla	Model X		7	BEV	AWD	75-100	\$79,500	\$7,500	\$72,000	238-295	238-295	17.3	3	47	273	92	155	2.9-4.9	5 star
Toyota	Prius Prime		4	PHEV	FWD	8.8	\$27,100	\$4,500	\$22,600	25	640	3.3	5	13	N/A	133/54	90	11	NR
Volvo	S90 T8		5	PHEV	AWD	10.4	\$63,650	\$5,000	\$58,650	21	410	3.3	3	7	N/A	71/29	140	4.5	NR
Volvo	XC60 T8		5	PHEV	AWD	10.4	\$53,900	\$5,000	\$48,900	18	370	3.3	2	6	N/A	59/26	140	4.9	NR
Volvo	XC90 T8		7	PHEV	AWD	10.4	\$69,000	\$5,000	\$64,000	19	380	3.3	2	6	N/A	62/27	132	5.3	NR

CONTACT US

Your Cooperative is available to assist you in choosing the right EV for your needs. To learn more, call Nobles Cooperative Electric at: 800-776-0517.