

# Commitment to power

BY JOE SAGE

We were struck by the high level of interest this plug-in hybrid generated on social media, with many comments from people who were dyin' to try it and dyin' to buy it. None of them had been in one yet; their enthusiasm was largely grounded in the vehicle's PHEV architecture and its price.

While, as with hybrids themselves, the various implementations of plug-in hybrids vary, the basic idea is to combine the full-time advantages of a hybrid powertrain with the shorter-range benefits of an electric vehicle (EV). When regular doses of EV juice are not available or convenient (as on a road trip), you can drive anyway, on its gasoline engine—all in all, a best-of-both-worlds scenario.

The Outlander PHEV's 117-hp 2.0L gasoline engine is modest, but that's not really the key spec. Add to that two electric motors, front and rear, each rated 60 kW. These equate to about 80 hp each, for almost 280 hp of total system power (though Mitsubishi does not officially state this, as some do). Torque—as with any EV—is even more prodigious, at about 382 lb-ft total. It's a combination used on some race cars and supercars. And this is what you feel as you realize your 117-hp gasoline engine SUV can pass every other vehicle on a freeway on-ramp and choose its lanes freely.

Even if you can't plug in, you'll never lack the power and torque of the EV components, as they remain powered by the gasoline engine, which

also functions as a range-extending generator. Better still, stopping force is not sapped by the regenerative systems, as is all too often the case—the Outlander PHEV has extremely strong brakes.

There are a number of PHEVs in the market, but few SUVs, and Mitsubishi claims to own this price range. An Outlander PHEV SEL costs just \$34,595, while this top GT model runs \$40,295 (before potential tax, registration, insurance or other benefits that may offer significant savings).

The Mitsubishi Eclipse Cross, new last year, delivers the prior Eclipse sports car's persona in crossover form, showing foresight as sedan sales drop and crossovers continue to climb. Outlander PHEV's formula was already partway there: a two-ton SUV with rapid acceleration and solid handling—plus the bonus of a 74 MPGe rating, 310 miles of range on just an 11.3-gallon tank and 21 miles of pure EV range, enough for most daily driving.

The interior is well laid out, though some controls remain highly touch-dependent, as is currently common. The Park button, down low in front of the shift joystick, is hard to reach; and we'd suggest making both front windows one-touch—two things that could be so easily fixed in design-build. We would also work on locks and lock buttons.

The engineers' biggest commitment was to the powertrain, and at this it has done very well. As with any taste of power, you will want to punch the pedal and experience this for yourself.

Mitsubishi is a huge company in the rest of the world, though not so big in the US to date. However, they have recently hired Fred Diaz as North

## SPECIFICATIONS

ENGINE	.....2.0L MIVEC DOHC 16v 4-cylinder
HP/TORQUE	.....117 hp / 137 lb-ft
ELECTRIC MOTOR	.....Twin AC synchronous perm magnet
POWER/TORQUE / FRONT	.....60 kW / 137 Nm
POWER/TORQUE / REAR	.....60 kW / 195 Nm
MAIN DRIVE BATTERY	.....12.0 kWh Li-ion, 300V
AUX BATTERY	.....max generator output 70 kW
TRANSMISSION: FRONT	.....single speed, drive modes
120V / 12A	.....single speed, fixed
DRIVETRAIN	.....S-AWC (AWD)
SUSPENSION	.....F: MacPherson strut w stblzr bar
	.....R: multi-link w stblzr bar
STEERING	.....electric power steering
BRAKES	.....F: 11.6 vented, twin piston / R: 11.9 solid
WHEELS/TIRES	.....18x7.0 alum alloy / 225/55 R18
LENGTH / WHEELBASE	.....184.8 / 105.1 in
TURNING CIRCLE	.....35.6 ft
GROUND CLEARANCE	.....7.3 in
HEADROOM (F/R)	.....40.6 / 38.3 in
LEGROOM (F/R)	.....40.9 / 37.9 in
CARGO CAPACITY	.....30.4 / 78.0 cu.ft
WEIGHT / TOW CAPACITY	.....4178 lb / 1500 lb
FUEL CAPACITY	.....11.3 gal
CHARGE TIME: 120V / 8A	.....13.0 hours
120V / 12A	.....8.0 hours
240V / 30A EVSE	.....3.5 hours
DC FAST CHARGE	.....to 80%: 25 minutes
CHARGE-DEPLETING RATE	.....45 kWh / 100 miles
FUEL ECONOMY	.....74 MPGe / 25 MPG
DRIVE RANGE: TOTAL	.....310 miles
ELEC+GASOLINE	.....21 miles

BASE PRICE	..... <b>\$40,295</b>
OPTIONS:	Diamond White Pearl paint (200); tonneau cover (190); body graphics (285); hood emblem (85); carpeted floor mats & portfolio (135).
DESTINATION CHARGE	.....940
TOTAL	..... <b>\$42,130</b>

American president and CEO. A superstar previously with Nissan and FCA, not only does Diaz's presence itself suggest good things will happen, but also that the company wants 'em to happen. ■

