

# User-friendly synthesis

A CROSSOVER THAT EARNS THE TERM — By Joe Sage

You would be forgiven for half-thinking Subaru must have had some hybrids for awhile now. After all, they are innovative, and their vehicles are known for frugal operations (even with spirited driving). But this is their first.

There are some probable reasons they have waited. Not only do they have a positive reputation for fuel economy already, but their lineup doesn't include any gas hogs (big pickups, SUVs) that it needs to offset, either in collective CAFE numbers or in brand image. And they keep their purchase costs down, while complex drivetrains could work against this. They would not want to build a hybrid vehicle unless it could still deliver at least as much value as the brand always has.

Motivated by a combination of factors, they have now created exactly this.

The Subaru XV Crosstrek was chosen as the basis—a broadly popular vehicle with all-terrain capabilities, in a package that suits both car and crossover buyers.

One point we came back to repeatedly

during our time with the XV Crosstrek was that this is a vehicle that truly deserves to be called a crossover. Anyone who might just about be happy with a Legacy or Impreza, but wants to tackle some more aggressive activities—or anyone who might just about be happy with a Forester, but wants something a bit lower, smaller and, well, carlike—will be very happy with this cross-category conqueror.

Its tough little outdoor-industrial shape beckons adventure, while carlike enough to raise no eyebrows around town. Much of its character is owed to its aggressive stance. Ground clearance is the same 8.7 inches as in the gasoline model (with its same convenient step-in height).

The XV Crosstrek Hybrid builds off the same core 2-liter boxer engine used in the gasoline model, but with its compression ratio boosted to 10.8:1 (compared to 10.5:1 on the gasoline model) and optimized to further minimize friction. EGR (exhaust gas recirculation) capacity is increased, while its temperature is cooled.

The Hybrid also has a sportier chassis than the gasoline-only XV Crosstrek, with modified suspension and quick-ratio electric power steering. Its parallel hybrid system can power you on pure electricity when accelerating from a stop, or boost acceleration while underway.

The vehicle has an auto start-stop system, but unlike those in many purely gasoline cars, it works well—with more of a sense of purpose—with this hybrid system, bringing you back to electric system readiness when the traffic light turns green. In most cases, this was one of the most transparent start-stop systems we've driven, although when really hot out (we had this in early September), the gasoline engine may restart before you resume motion, for the sake of air conditioning—a fair trade, considering its advantages.

The Hybrid's turning circle of 34.8 feet is the same as that of the gasoline model (tighter than a MINI), but its EPS delivers full lock-to-lock in just 2.8 turns, compared to 3.2 for the gasoline-only model.

The result is U-turn ability or parking agility that is more than the sum of its parts—nimble, quick and tight.

Once you add a 13.4-hp electric unit to the 148-hp, 145-lb-ft gasoline engine, you have at your fingertips and feet a 160-hp vehicle that delivers a full 163 lb-ft of torque very quickly, by just 2000 rpm. This gives it a good kick in the pants during routine maneuvers. As an example noted in our logbook, we were at the top of a freeway overpass, with a red light, at a spot where the next move is a tight (and very competitive) turn, where two lanes merge into one: "We grabbed the green light, gave it some gas and accelerated well through the curve—not a sports car, but not bad! It's really an impressive overall machine."

This is exactly what Subaru has delivered: a vehicle you will appreciate for its sporty, go-anywhere characteristics (and styling), while the hybrid powertrain lives largely in the background, giving you the same 33 MPG highway as a gasoline model, but 29 MPG city (vs 25 with similar CVT, or vs 23 with manual—some 16 to 26 percent better fuel mileage).

The hybrid system does add about 250 pounds to the car, though passenger volume is the same and cargo volume just about the same (trunk liftover height is just three-tenths of an inch higher, about as small a number as imaginable with the addition of a hybrid battery pack).

Subaru is always one of the most user-friendly brands we experience. Instruments and features have few points of confusion, with redundancies only when convenient, and no unnecessary interlinks and interlocks among starts and doors and belts. (Our XV Crosstrek could use a larger backup camera.) The brand is so user-friendly, it's no wonder its users are generally such a genial bunch.

The Subaru XV Crosstrek Hybrid starts at \$25,995—just \$1000 higher than a nicely-optioned gasoline-only Limited. On the other hand, our Touring model starts at \$29,295, while the base (or "Premium") gasoline model starts at just \$21,995—suddenly quite a spread.

If purchase economy is job one—and/or if you want a 5-speed manual transmission, available only on the base model—you are in the game for just \$21,995. (At this price, you can order the distinctive Tangerine Orange Pearl paint,



or several other choices, but not our test car's Plasma Green Pearl.) Available options are numerous, but basically in the "details" department; you can't buy the base (e.g. for its 5-speed) and build your way up to the other, since leather, GPS or other major variables are not options.

If you don't desire that manual transmission, the comparison between a higher-featured gasoline Limited and base Hybrid is tougher. For a thousand dollars less, you do get leather, automatic climate, upgraded audio and such, but no hybrid. For a thousand dollars more, you lose a couple of those creature comforts, but gain the Hybrid's sportier feel, along with its around-town fuel advantage—an advantage that could have you stopping for gas considerably less often.

To have it all, you do approach thirty grand. It's a clever positioning move by Subaru, adding that sporting character of steering, suspension and chassis to the Hybrid. It's just enough to tip your scale to the top XV Crosstrek Hybrid Touring model, with full features, plus an effective system to slash your fuel costs, as a bonus—especially around town.

But, again, fuel economy is not the Hybrid's only trick. Although MPG numbers match on the highway, its enhanced steering and suspension give it an advantage there, too. And either is great off-pavement, but the Hybrid has a steering advantage in tight spots. We suspect Subaru will let the Hybrid maintain these advantages for some time to come. ■

## SPECIFICATIONS

<b>PAINT</b> .....	Plasma Green Pearl
<b>ENGINE/HYBRID</b> .....	2.0L DOHC 4-cyl boxer engine w alloy block and heads. Hybrid system w integrated electric drive motor, starter/generator for auto start-stop
<b>TRANSMISSION</b> .....	CVT (continuously variable)
<b>DRIVETRAIN</b> .....	Symmetrical all-wheel drive
<b>HORSEPOWER</b> .....	Gas engine: 148 hp Electric motor integrated w CVT: 13.4 hp Total hybrid system: 160 hp
<b>TORQUE</b> .....	Gas engine: 145 hp Electric motor integrated w CVT: 48 hp Total hybrid system: 163 hp
<b>STEERING</b> .....	EPS quick-ratio rack & pinion
<b>WHEELS</b> .....	17x7 aluminum alloy (aero)
<b>BRAKES</b> .....	Power 4-wheel disc, 11.6" vented front, 10.8" solid rear, hybrid regenerative.
<b>WEIGHT</b> .....	(Touring) 3484 lb
<b>FUEL CAPACITY</b> .....	13.7 gal
<b>MPG</b> .....	w/9/33/31 (city/hwy/comb)
<b>INCLUDED:</b>	Roof rails, fog lights, privacy glass, power moonroof, auto climate control w filtration, AM-FM-CD/nav, XM radio & USB w/iPod connectivity, wheel-mounted audio controls, Bluetooth, color multifunction display, cruise, tilt/telescope, power locks, power mirrors, rear camera, power windows (driver auto up/down), keyless entry/start, leather-trim upholstery, leather-wrap wheel & shifter, all-weather package, heated front seats. Brake assist, electronic brake-force distribution, TPMS, alarm/immobilizer, DRLs.
<b>WARRANTY</b>	3 years / 36,000 miles basic 5 years / 60,000 miles powertrain 5 years / unlimited rust perf 3 years / 36,000 miles 24/7 roadside assist

<b>BASE PRICE</b> .....	<b>\$29,295</b>
<b>OPTIONS:</b> .....	[ na ]
<b>DESTINATION CHARGE</b> .....	825
<b>TOTAL</b> .....	<b>\$30,120</b>

