

ARIZONA DRIVER

THE ENTHUSIAST'S GUIDE TO LIFE BEHIND THE WHEEL

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A sanctuary with sensibility

The 2009 Escalade Hybrid and Platinum Edition deliver the ultimate in large SUV luxury and efficiency



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The term Sanctuary generally means a place of rest, of rejuvenation and peace. It only made sense, then, that Cadillac would choose Paradise Valley's Sanctuary Resort to introduce its ultimate new Escalade, the Platinum Edition, as well as its first foray into the luxury hybrid marketplace with the Escalade Hybrid. After all, the Escalade nameplate has become synonymous with providing luxury, performance and comfort at a level that provides a rolling sanctuary, if you will, for its driver and passengers. The Escalade has also been the benchmark platform for Cadillac to introduce its ultimate technologies for the luxury consumer SUV market. With recent economic times placing environmental and fuel economy concerns at the top of many drivers lists, Cadillac chose the naturally beautiful background of The Sanctuary to introduce its new Escalade Hybrid which represents, according to John Howell, the Director of Global Products for Cadillac, the ultimate blend of luxury and efficiency in a large SUV. While there, we had a chance to drive the hybrid on an urban loop through Scottsdale, as well as Paradise Valley. We also had a chance to drive the Platinum Edition, which is highlighted in a separate sidebar in this article, but the introduction of hybrid technology in the high-profile luxury SUV marketplace places it center stage as the future of large scale personal vehicles.

WHY A HYBRID?

In a time where gas routinely surpasses the \$4 dollar mark, it would only make sense that a manufacturer of large SUVs would see the writing on the wall, and find a way to incorporate the technology into its larger vehicles. Plus, showing some corporate responsibility towards energy and environmental concerns places them in a more enviable market position as being sensitive to a changing world. But, it's also important that, in doing so, they don't alienate their buyers. Fortunately for Cadillac, it had hybrid technology available for the asking. What was more challenging was meeting the requirements of integrating the system without diluting the luxury, performance and comfort that Escalade buyers were accustomed to having. As Howell puts it, "People's needs haven't really changed. Fuel costs have gone up, but there is a segment of the population that needs a large vehicle to meet their needs." Howell adds that the luxury vehicle market is growing because many more Americans are reaching their peak earning years, and want to buy something to reflect their accomplishments. The Hybrid is Cadillac's answer to those buyers who want a large luxury SUV, but are also seeking better fuel economy, or are commit-



ted to making an environmentally positive statement with their vehicle.

DESIGN AND ENGINEERING

The system utilizes GM's patented two-mode hybrid system that was originally developed for transit buses. It consists of an advanced electrically variable transmission (EVT) and 300-volt nickel-metal hydride Energy Storage System (ESS). These systems work in concert with the standard 6.0L V-8 Gen IV gasoline engine with Active Fuel Management (AFM) and late-intake valve closing (LIVC) technology. AFM enables the V-8 engine to seamlessly shut off half of its cylinders when less power is needed, such as during highway cruising. This new hybrid system not only enables the Escalade Hybrid to drive low speeds on electricity alone, it also allows the 6.0L V-8 engine to operate in its more economical four-cylinder mode for longer periods. According to Howell, this translates to an increase of city fuel economy to approximately 20 mpg, which is a huge jump from the 12 mpg rating of the non-hybrid.

The key to the two-mode hybrid system is that the electric power used to propel the vehicle is generated by the hybrid system itself. When the brakes are applied or the vehicle is coasting, the electric motors within the hybrid system create electricity that is stored in a 300-volt nickel-metal hydride Energy Storage System (ESS) located under the second-row seat. The ESS also provides power to the air conditioning compressor and

the Accessory Power Module (APM), which converts the high-voltage supply to 42 volts for the electric power steering system, and 12 volts for the vehicle battery and other 12-volt electrical accessories.

The Escalade Hybrid's 6.0L V-8 engine features Active Fuel Management and late intake valve closing (Atkinson-cycle combustion process) for reduced pumping losses and better overall fuel economy. It uses flat-top pistons, cylinder heads borrowed from GM's 5.3L high-output V-8 and a 10.8:1 compression ratio, producing 332 horsepower at 5,100 rpm and 367 lb.-ft. of torque at 4,100 rpm. It runs on regular unleaded fuel and a unique 3.42 rear axle ratio is utilized. The engine package also includes an Auto Stop mode. Once the vehicle reaches 0 mph, the gasoline engine is automatically shut down. By leaving the engine off and allowing the vehicle to move only under electric power, such as during heavy stop-and-go traffic, fuel consumption and emissions are greatly reduced. However, when extra power is required, such as for wide-open-throttle acceleration from a standing stop, the Vortec 6.0L V-8 is seamlessly restarted so it can deliver the necessary power and torque. In this case, the engine is restarted effortlessly from the Auto Stop mode using the EVT's powerful internal electric motors; there is no traditional starter motor.

The hybrid package is available in 2WD and 4WD configurations and delivers 5,800

KEEP RIGHT >>

2009 CADILLAC ESCALADE PLATINUM EDITION



In every segment of luxury, there are those who simply have to have the very best that a manufacturer has to offer. Cadillac recognized that a select few buyers were willing to pay a premium to have an Escalade that is just a step above the other offerings. Enter the 09 Escalade Platinum.

"The Platinum Edition extends Escalade's continuing status as the large luxury SUV of choice for top consumers," said Jim Taylor, Cadillac general manager.

Offered on Escalade and the extended-length Escalade ESV, the Platinum edition features a signature front end patterned after Cadillac's CTS sport sedan. It also includes unique 22-inch wheels and wears exclusive Platinum exterior badges. It's also the first Escalade to incorporate Magnetic Ride Control technology à la Corvette, and the first production vehicle anywhere to use light emitting diodes (LED) for all of the exterior lighting.



On the interior, the most striking additions are a leather-wrapped-and-stitched instrument panel, center storage console and door trim, unique wood inlays and aluminum trim. Unique Aniline leather is used to trim seating areas. Platinum-specific door sills and floor mats; a heated steering wheel; heated and cooled cupholders and a power liftgate are also included. Also, the DVD entertainment system adds screens integrated into each front-seat headrest, in addition to the existing roof-mounted screen.

The Platinum edition retains the standard 6.2L V-8 rated at 403 horsepower and 417 lb.-ft. of torque, mated to a Hydra-Matic 6L80 six-speed automatic transmission.

Driving the Platinum edition revealed some interesting chassis behavior, as the Magnetic Ride Control clearly made for a much firmer ride over the standard Escalade. This adds to its sporty flavor, but the jury's still out as to whether the boulevard crowd might find the ride quality out of step with the sumptuous presentation of the rest of the vehicle. Inside, the addition of the leather across the dash, combined with the soft Aniline seats, makes it one of the most luxurious SUV rides in business. Combine that with the striking 22-inch wheels, wild LED lighting, distinct grill design, and a price tag in the 80K range, and there is no doubt that other motorists will know that this Escalade is more than just a little bit special. ■

pounds of usable towing capacity on 2WD models and 5,600 pounds on 4WD models. Nearly all of Escalade's standard comfort and convenience features are included as standard equipment on the hybrid model, including an eight-inch, touch-screen navigation system that displays performance readouts of the two-mode hybrid system on the screen.

STYLING

The Escalade Hybrid doesn't look really that much different than any other Escalade, other than the inclusion of Hybrid badges and some controversial stickers that leave no doubt as to the powertrain choice of its driver. At our press drive, GM was still deciding whether or not to keep the large stickers on the sides and windshields of our test vehicles. According to John Howell, market research had the keep/ditch ratio at an even 50-50. Our opinion is to ditch them as they detract from the classy reputation and styling cues that Cadillac has carefully cultivated over the years. Yes, there will be some buyers who want to scream "look, I'm green too" in their full-size luxury SUV, but the stickers add a carnival atmosphere to an otherwise handsome vehicle. Current Escalade owners won't find themselves getting lost on the inside of the Hybrid as the interior is consistent with other models. That is, they are sumptuous, well crafted, comfortable cabins that do an excellent job of making you forget you are piloting a nearly 5800 lb. (2WD) vehicle down the tarmac. About the only real difference in terms of driver information systems is the center mounted multimedia screen that can prominently relay the current status of the hybrid system as you drive.

DRIVING IMPRESSIONS

Speaking of which, driving the Escalade Hybrid creates its own entertainment, mostly due to the aforementioned hybrid information screen. Howell says that the Escalade, when driven smoothly, can be driven up to almost 30 mph in all-electric mode. This can be verified by the center screen, which teases you with a schematic of the drive train in motion that is labeled with "electric mode". Squeeze the throttle too hard, and "electric" is replaced with "hybrid". Squeeze really hard, and the screen jumps right to "Hey, your sucking some real fuel here" mode. So, as I drove the Hybrid on the streets of Paradise Valley, the "game" became one of how fast I could travel in all-electric mode. Howell says 30 mph is about as good as it gets. All I could muster was 29 mph before the gas gremlins appeared, but suffice it to say, the inclusion of the electric mode can be

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very beneficial in slow traffic. So too, is the Auto Stop mode. It initially makes things a little eerie, as there is no engine sound at rest, but a touch of the throttle and the whir of the electric motor moves the Escalade smoothly on its way. This effect didn't go unnoticed by a group of curious golfers during an exploratory stint on the roads at the Camelback Inn. They were, no doubt, intrigued by the sight of an Escalade whirring by them in run silent/run deep mode.

Engine response was very good in the Hybrid. We had a normally aspirated Escalade on hand for comparison, and the combination the Hybrid's maximum-torque-at-any-RPM, and the 6.0 liter engine made for much better throttle response at low speed. The normally aspirated Escalade pulls harder at higher RPM's, but being that most driving these days seems to be stop-and-go, Hybrid owners will appreciate the point-and-squirt advantages of the two-mode system. Where the Hybrid also differs is in the steering. The normally aspirated Escalade uses a mechanical system, but the Hybrid uses an all-electric, 42-volt, rack and pinion system. Again, driving them back to back, the mechanical set-up in the non-Hybrid delivers a more traditional road feel that communicates road and steering feel that one comes to expect with the advantages of rack and pinion configurations. The Hybrid's system feels artificial, with no real sense of what the front tires are doing. The necessity of the electric steering is understandable given that the vehicle must still be able to steer in all-electric or engine-off mode, but those Escalade owners seeking a more sporting experience would be wise to compare the two systems before making their decision.

Ride quality is expectedly good, with the Escalades standard independent, coil over front suspension and rear five-link setup absorbing road imperfections while not being overly cushy or too stiff.

Overall, the Hybrid system works well, with transitions from all-electric to Hybrid to gas-only occurring in a smooth process. In fact, drivers are more apt to know what's going on under the hood by the distinct noises produced by the electric motor than anything they feel in their seat. We didn't get a chance to verify any fuel economy gains during our short drive, but common sense would point to the benefits of an all-electric option for reducing the need for fuel.

Pricing for the Escalade Hybrid had not been announced at the time of our drive, but figure somewhere north of the 70K range since that's where most Escalades are living these days. It's a sizeable bit of coin, but for those buyers interested in reducing their "carbon footprint" while enjoying a top-tier luxury SUV driving experience, the Escalade Hybrid is the only game in town. ■

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