

2010 Cadillac XTS Platinum Concept

Cadillac unveiled the Cadillac XTS Platinum Concept at the 2010 North American International Auto Show, suggesting a new paradigm for the luxury sedan of the future. The concept showcases Cadillac's emerging top-of-the-line Platinum series of models, emphasizing new expressions of luxury and technological features, including a plug-in hybrid propulsion system.

The Cadillac XTS Platinum Concept was designed from the inside out, re-imagining the luxury sedan as a personal headquarters, built for efficiency, luxury and connectivity. The concept introduces a new approach to in-car electronics that improves the form and function of the car's entertainment, navigation and information systems.

"The Cadillac XTS Platinum concept is the next expression of Cadillac's Art and Science execution philosophy, reflecting our drive to deliver the latest innovations in the most artful manner," said Bryan Nesbitt, Cadillac general manager. "We envisioned this concept as an automotive personal headquarters, using advanced technology to enable new levels of connectivity and luxury."

The Cadillac XTS Platinum Concept uses Cadillac's 3.6L V-6 Direct Injection gas engine, paired with a plug-in hybrid system. The plug-in technology enables the battery to fully charge from a standard electrical outlet, enabling pure electric propulsion in many driving situations, especially urban commutes in which fuel efficiency may double that of a conventional hybrid.

Traditional luxury sedans were defined by elegant interiors and Cadillac XTS Platinum Concept propels that formula into the future. It delivers new approaches to luxury within a design that combines fine craftsmanship with customer-driven innovation. Like the current Platinum Edition products, such as Escalade Platinum and the STS and DTS Platinum sedans, the interior is based on hand cut-and-sewn materials. The Cadillac XTS Platinum Concept injects more contemporary forms and themes into the interior design, including the use of Organic Light-Emitting Diode (O-LED) displays in place of traditional gauges and screens.

The concept previews a new integration philosophy guiding the development of future models with respect to in-car electronics. The intent is to progress Cadillac's intuitive in-car electronics systems, typified by the deployable touch-screen navigation system that has been highly acclaimed in the brand's CTS and SRX product lines. The Cadillac XTS Platinum Concept previews this strategy via the minimization of traditional buttons and switches. Designers blended the display screens into a flowing instrument panel. They call it a "dead front" design, because the panels appear black until the car is turned on and the screens illuminate. The instrument panel itself reflects the Cadillac XTS Platinum's other focus - uncompromising luxury and attention to detail on the interior.

"The Platinum distinction in Cadillac means the fullest extent of luxury and technology and we've tried to reach even further with this concept," said Clay Dean, Cadillac design director. "Just as the technology pushes the boundaries of what a Cadillac can offer, so do the details that make the Cadillac XTS Platinum Concept an uncompromising experience."

The interior takes inspiration from nature, specifically the intricate layers of petals that combine to form an orchid. Cadillac designers translated that into a layered and detailed interior. Light cream is the cabin's primary color and is contrasted with darker elements, such as the steering wheel and an overhead console motif that runs the length of interior's roof. The console is made of a richly finished wood and houses lighting features.

Premium leather seats include a new style of automotive suede, with a laser-etched pattern. The patterned material adorns the center sections of the seats and accents the door trim. Thoughtfully detailed stitching is used throughout the interior, including the seats, instrument panel and door panels. Passengers in the spacious rear compartment of the Cadillac XTS Platinum Concept also have access to the car's connectivity feature, along with a range of infotainment choices.

"We never lost sight of the fact that a large luxury sedan needs to be spacious and accommodating," said Dean. "Passengers will find generous headroom, legroom and knee space, along with the technology elements that make the drive more productive."

A new proportion

The Cadillac XTS Platinum Concept has a distinctive proportion that transcends the traditional aesthetic of luxury sedans and carries the brand's Art and Science design in a more progressive manner. The unique proportion supports the "inside out" design priority, while creating a sleek profile that complements the car's advanced technology elements and necessary aerodynamics.

"The Cadillac XTS Platinum Concept design artfully conveys its focus on functionality through technology," said Dean. "It is the antithesis of the conventional three-box sedan, suggesting the active evolution of Cadillac's design language."

A sweeping profile culminates in a short, high deck lid that meets the Cadillac XTS Platinum Concept's aerodynamic needs - including a rear spoiler mounted on the deck lid, incorporating the center high-mounted stop lamp. A high, sloping beltline gestures the vehicle forward, suggesting motion, while the fenders flare outward wrapping tightly around 20-inch wheels and tires. The wheel-to-body proportion was carefully

tailored to visually communicate the car's all-wheel-drive chassis.

Like the interior, the exterior elements are precisely tailored and elegantly detailed. Brushed billet aluminum trim is used selectively and the 20-inch, 11-spoke wheels feature a brushed aluminum face accented with bright inserts within the spokes. The wheels are wrapped with special Bridgestone tires that were created specifically for the Cadillac XTS Platinum Concept.

Signature elements essential to Cadillac's Art and Science design language include vertical headlamp and taillamps, with integrated light pipes and richly detailed lighting components. The headlamps feature light-emitting diode technology for bright illumination that requires less energy, as well as Cadillac's Adaptive Forward Lighting technology, which turns the headlamps with the direction of the front wheels for greater visibility in turns.

Purposeful and efficient performance

The Cadillac XTS Platinum concept's plug-in hybrid electric propulsion system (PHEV) builds on the experience Cadillac has gained with the Escalade Hybrid and Escalade Platinum Hybrid flagship models. The plug-in capability boosts the car's electric-only driving capability, offering additional battery energy capacity and enabling it to recharge from a standard external electrical outlet. The key benefit of external plug-in recharging is that in many situations - such as overnight parking - the battery can fully recharge in roughly five hours while the car is not in use. The plug-in system operates at maximum efficiency when operating on power the battery has drawn from the electric grid. In some conditions, such as urban commutes, drivers can experience efficiency that doubles that of conventional hybrids.

At higher speeds or when conditions demand it, such as brisk acceleration, a combination of engine power and electric power or engine power only, propels the vehicle. The combination of the Direct Injection V-6 engine and the PHEV system featuring fully electric variable drive provides a spirited driving experience. The system provides an estimated 350 horsepower (260 kW) and 295 lb.-ft. of torque (400 Nm).

Magnetic Ride Control (MRC) enables the Cadillac XTS Platinum Concept to deliver superior road-holding performance while maintaining luxury car composure in "regular" driving conditions. It uses shocks controlled by advanced magneto-rheological technology, rather than mechanical valves, to greatly accelerate response time and precision.

MRC uses electronic sensors at all four wheels to literally "read the road" every millisecond, making constant adjustments to damping to create virtually instantaneous and extremely precise control of body motions.

An advanced, specially calibrated all-wheel-drive system ensures optimal traction in wet and slippery conditions, and helps deliver maximum traction while cornering. Four-wheel disc brakes, with four-channel ABS, StabiliTrak stability control and full-function traction control complete the drivetrain details.

"The Cadillac XTS Platinum Concept was designed to deliver an engaging driving experience without compromising the functional features, space and comfort customers seek in a luxury car," said Nesbitt. "It is a new vision of luxury that uses advanced technology to deliver functionality efficiently and rewardingly."

Source: GM Press Release

CADILLAC XTS PLATINUM CONCEPT SPECIFICATIONS

Vehicle type: luxury sedan concept

Wheelbase: 111.7" / 2837 mm

Length: 203.5" / 5170 mm

Width: 74.8" / 1900 mm

Height: 59.1" / 1500 mm

Track:

front: 62.6" / 1589 mm

rear: 62.8" / 1594 mm

Powertrain: plug-in hybrid system with 3.6L Direct Injection gas engine (with variable valve timing); lithium ion battery

Suspension: four-wheel independent with Magnetic Ride Control.

Brakes: four-wheel disc with electric park brake system

Wheels: 20"

Estimated power: 350 hp (260 kW) / 295 lb.-ft. (400 Nm)

GM cancels luxury plug-in hybrid, sources say

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<http://www.autonews.com/apps/pbcs.dll/article?AID=/20110527/OEM04/305279821/1260&plckCurrentPage=1>

DETROIT (Reuters) - General Motors has canceled plans to develop a plug-in hybrid vehicle based on the current Cadillac SRX crossover platform, deciding the project was not financially viable, three people with direct knowledge of the project said.

While two of the sources said the plans could still be revived on a future platform, they and two other people familiar with the matter said engineers involved had been reassigned to other projects.

The Cadillac plug-in shared much of the same technology that GM developed for its battery-powered Chevrolet Volt, which has been the centerpiece of the automaker's effort to convince consumers of its turnaround after its bankruptcy and government bailout in 2009.

Reuters spoke with six people about the GM decision. They could not be named because the project was never made public by the company. GM officials declined to discuss the company's plans.

"I'm not going to comment on specific products or timing for applications, but we still see promise in the technology," GM spokesman Kevin Kelly said.

Reuters reported in December that GM was working on the Cadillac hybrid crossover, citing people with direct knowledge of the work. In January, GM Chief Executive Dan Akerson said the introduction of the plug-in hybrid was "likely."

But over the past two to three weeks, engineers and others working on the program were told the program was on hold. As recently as this week, GM sent participants cancellation e-mails and thank-you notes, two sources said.

Since becoming CEO in September, Akerson has driven GM more aggressively toward electric vehicles, a strategic area where he has left a mark, executives have said.

The push has centered on rolling out the plug-in hybrid technology GM developed for the Volt in a broader range of vehicles to recoup the company's investment more quickly.

GM's push into electric vehicles also is aimed at seizing the green mantle Toyota Motor Corp. earned with the roll-out of its popular Prius hybrid vehicle. In the United States alone last year, Toyota sold almost 141,000 Prius hybrids. GM recently boosted its 2012 production plans for the Volt by a third to 60,000 vehicles.

The Cadillac plug-in was drawn from an abandoned project to launch a rechargeable crossover vehicle that GM considered in 2008 and 2009 under the Buick and since-scrapped Saturn brands, three people familiar with the project said.

GM had developed prototypes of the luxury hybrid that were being tested on the company's proving grounds, three sources said.

The plug-in would have been based on the current SRX platform, which is two years old. In the auto industry, the life cycle of a platform, which dictates the size and body construction of a vehicle, is typically about five years.

By the time the Cadillac plug-in was ready for production, the platform would have been nearing the end of its life, adding to the costs of developing the vehicle, two sources said.

The costs of the program were already high, and the vehicle was expected to lose money, two people with direct knowledge of the program said.

GM has made engineering advances since the program was initiated, so it made more sense to focus on the next platform with the improved, more cost-efficient technologies, one source said.

"If you're this far along on a program and you find a better mousetrap through engineering, should you continue on with something that may not be the most benefit for the customer or should you maybe shift your thinking?" the source, who has direct knowledge of the program, told Reuters.

Three people familiar with the plan said parts shortages after the March 11 earthquake and tsunami in Japan also plagued the program, but played only a minor role in GM's decision to cancel it.

The earthquake, which triggered disruptions in the flow of key electronics to automakers worldwide, caused a shortage of microprocessors used in the luxury hybrid's internal battery charger, two of the sources said.

But two other people insisted the parts shortages played no role in GM's decision.

GM has said that "extended-range electric vehicle technology" will be more popular with consumers than pure electric vehicles because of the additional range provided by the traditional internal combustion engine.

The Volt has a 400-pound lithium-ion battery to provide an electric-only range of 25 to 50 miles. After the battery is depleted, a 1.4-liter gasoline engine can power the car for nearly another 350 miles.