All-new 2017 Chrysler Pacifica Hybrid Is the First Electrified Minivan, Expands Segment Leadership for FCA US

- 2017 Chrysler Pacifica Hybrid pairs innovative dual-motor eFlite electrically variable transmission (EVT) with a specially modified version of the upgraded 3.6-liter Pentastar V-6 gasoline engine that features an Atkinson cycle combustion system
- First electrified vehicle in minivan segment rated at 84 miles per gallon equivalent (MPGe) in electric-only mode, 33 miles of all-electric range and 566 miles of total range
- Pacifica Hybrid switches between electric and hybrid modes as needed, maximizing efficiency while delivering a seamless driving experience
- 16-kWh battery pack is stored under the second-row floor, keeping the rear cargo area as roomy as ever and preserving third-row Stow ‘n Go seating
- Pacifica Hybrid’s regenerative braking system converts kinetic energy to electricity, helping to provide additional electric range by charging the battery
- Chrysler Pacifica Hybrid qualifies for $7,500 federal tax credit and may qualify for additional state and local incentives

November 16, 2016, Auburn Hills, Mich. - Like its gas-powered Pacifica counterpart, the all-new 2017 Chrysler Pacifica Hybrid features the award-winning 3.6-liter Pentastar V-6 gasoline engine, but this iteration is specially adapted to pair with the innovative, FCA US-designed eFlite dual-motor electrically variable transmission (EVT). As the industry’s first electrified minivan, the Pacifica Hybrid delivers an estimated 260 total system horsepower and an estimated range of 33 miles solely on zero-emissions electric power from a 16-kWh lithium-ion (Li-ion) battery.

In electric-only mode, the Pacifica Hybrid achieved an efficiency rating of 84 miles per gallon equivalent (MPGe), based on U.S. Environmental Protection Agency standards.

eFlite electrically variable transmission (EVT)

The pivotal technology behind the all-new Chrysler Pacifica Hybrid is its innovative eFlite EVT. Designed by FCA US, the device features two electric motors – both of which are capable of driving the vehicle’s wheels.

Conventional electrification schemes dedicate one motor to serve as a generator and a second motor – usually much larger – to deliver torque to the wheels. But the all-new 2017 Chrysler Pacifica Hybrid uses a one-way clutch that allows the motor typically used only as a generator to deliver torque to the wheels, depending on driving conditions. The result is increased efficiency, refinement and improved component packaging.

The blended plug-in hybrid design offers a seamless driving experience for the customer, whether in electric or hybrid mode for typical city and highway driving. Under normal driving conditions, the top speed in all-electric mode is approximately 75 miles per hour (mph).

When the battery’s energy is depleted to a certain threshold, the Pacifica Hybrid becomes a part-time electric vehicle, like a conventional hybrid, to maximize energy and efficiency. Power to the wheels is supplied by the electric drive system or supplemented by a specially adapted new version of the award-winning FCA US Pentastar 3.6-liter V-6 engine.
Unique hybrid engine
Based on the newly upgraded Pentastar engine architecture, the new hybrid engine features an Atkinson cycle combustion system for improved pumping efficiency without compromising vehicle performance, due to its hybrid electric motors working in tandem with the engine when full load performance is required. The Atkinson cycle leaves the intake valve open longer prior to combustion, which helps to reduce pumping losses for increased efficiency.

Unique “handed” pistons provide a compression ratio increase to 12.5:1 for further thermodynamic efficiency improvement.

The front cover and front accessory drive system were re-engineered due to the elimination of the alternator and power steering pump, which is common to most hybrid engines.

Friction reduction improvements, along with ignition and fuel injection improvements found on the upgraded Pentastar V-6 are all part of the specially adapted hybrid Pentastar engine, while two-step valve lift and cooled exhaust gas recirculation have been removed with the addition of the Atkinson cycle combustion system.

Because Pacifica Hybrid owners could feasibly drive for weeks or months using just the battery power, the Pacifica Hybrid constantly monitors the average age of fuel in the tank. If needed, the Pacifica Hybrid will automatically shift from electric to hybrid mode to cycle through any fuel that is more than 90 days old, eliminating the need to add a fuel stabilizer – meaning customers have one less thing to think about.

Recharging
The Pacifica Hybrid’s 16-kWh lithium-ion battery pack, manufactured by LG Chem in Holland, Michigan, is stored efficiently under the second-row floor, keeping the rear cargo area as roomy as ever and preserving the third-row Stow ‘n Go seating and storage, plus room for seven passengers.

The exterior charge port is located on the driver’s side fender for quick and easy plug in after exiting the vehicle. On the inside, a charging indicator light is located on the instrument panel so owners can easily monitor the battery charge process from afar.

The battery pack, covered by up to a 10-year/150,000-mile transferable warranty, may be fully recharged via the 6.6-kWh on-board charger in as little as two hours using a 240-volt (Level 2) charger, available from Mopar through dealers. With a 120-volt (Level 1) charger, which comes standard with the vehicle, the Pacifica Hybrid can be fully recharged in approximately 14 hours. Charging times can be scheduled by the customer for optimal electricity usage, taking advantage of off-peak rates. Level 3 chargers and “superchargers” cannot be used to charge the Pacifica Hybrid.

Regenerative braking
Taking advantage whenever the driver slows, the Pacifica Hybrid’s fully blended regenerative braking system converts kinetic energy to electricity, helping to provide additional electric range by charging the lithium-ion battery. As the Pacifica Hybrid decelerates from a higher speed, the high-voltage motor becomes a generator and charges the battery to extend the electric range. Provided that the driver is not in an emergency braking situation, the Pacifica Hybrid uses regenerative braking down to approximately 8 mph, at which point it switches over to traditional friction braking.

Tech support
The Pacifica Hybrid’s technological capability goes well beyond its innovative powertrain. Features like the all-new Hybrid Electric Pages, Uconnect Access smartphone app and hybrid-exclusive cluster display make it easy for customers to make the most of their Pacifica Hybrid.

Hybrid Electric Pages
The Chrysler Pacifica Hybrid comes standard with the Uconnect 8.4 system, which includes an 8.4-inch touchscreen, available navigation and integrated voice command. In addition, the Pacifica Hybrid includes the all-new Hybrid Electric Pages, providing owners with helpful vehicle information. The Hybrid Electric Pages include:
- **Power Flow**: Provides a dynamic illustration showing how/where power is flowing within the Pacifica Hybrid, from battery to the engine, the wheels or the HVAC system, or from regenerative braking back to the battery.
- **Driving History**: Displays a chart showing distance driven in electric mode and hybrid mode, graphed by day.
- **Charge Scheduling**: Allows owner to schedule the Pacifica Hybrid’s charging times (making the most of off-peak electrical rates) and provides an option to override set times to charge immediately.

**Uconnect Access app**

The Uconnect Access smartphone app for the Pacifica Hybrid delivers remote access to the vehicle’s sophisticated technology, enabling customers to get the most from their ownership experience and making life simpler along the way. Owners can use the app to check the state of charge of their vehicle’s battery, along with vehicle range and estimated time to full recharge. They can also set the charging schedule for the Pacifica Hybrid, receive charge status updates and locate charging stations.

**Hybrid-specific cluster display**

The Pacifica Hybrid’s unique 7-inch color thin-film transistor (TFT) cluster delivers important information at a glance for the driver. The cluster’s display changes color to indicate whether the Pacifica is operating in electric mode (teal) or hybrid mode (blue), while both the battery level and fuel level are always displayed. The Pacifica Hybrid’s total range (combining both battery and fuel) is also displayed. An “efficiency coach” display guides owners to drive more efficiently and maximize the time spent in battery mode.

**Rotary dial e-shift**

Unlike any in its minivan competitive set, all 2017 Chrysler Pacifica Hybrid models are equipped with an e-shift rotary dial shifter located on the integrated center console that electronically actuates shift selection.

Also known as Electronic Transmission Range Selection (ETRS), e-shift applications are commonly found across the luxury vehicle segment and viewed as a “price of entry” feature by many luxury buyers.

The e-shift system replaces traditional shift cables and levers with sophisticated software and electronics. The simple dial shift interface – a dramatic departure from standard mechanical shift systems – brings feel, effort and operation created to compete with best-in-class performance.

The e-shift system also enables more packaging and design flexibility when compared to mechanical shift systems.

Customer benefits include:

- **Technologically Advanced** — The e-shift is a forward-thinking innovation; a premium, sophisticated feature that demonstrates progressiveness.
- **Attractive Design** — The compact design of the e-shift dial shifter enables more appealing interior styling and design cues (when compared to a traditional shifter).
- **Space Savings** — The elimination of cables and mechanical components frees up valuable real estate on and underneath the center console for enhanced storage opportunities.
- **Quiet Cabin** — Removal of the mechanical connection between the shift lever and gearbox reduces noise paths into the cabin.
- **Uncommon Tactility & Simplicity** — The shifting task becomes more a “turn/touch” function than “slot-shift” exercise. Shifting to Drive (D), Park (P) or Reverse (R) is essentially a turn of the dial and nothing more.

**About Chrysler Brand**

The Chrysler brand has delighted customers with distinctive designs, craftsmanship, intuitive innovation and technology since the company was founded in 1925.

The Chrysler Pacifica continues to reinvent the minivan, a segment Chrysler invented, with an unprecedented level of functionality, versatility, technology and bold styling.

The Pacifica Hybrid takes this revolutionary vehicle a step further with its class-exclusive, innovative plug-in hybrid...
powertrain. It's the first electrified vehicle in the minivan segment and achieves more than 80 MPGe in electric-only mode, has an all-electric range of more than 30 miles and a total range of more than 500 miles. The Chrysler 300 lineup delivers on the brand's promise of iconic and elegant design executed with world-class performance, efficiency and quality – all at an attainable value.

Beyond just exceptionally designed vehicles, the Chrysler brand continues to raise the bar by integrating class-leading, high-tech features into its products, including the Uconnect 4 system with Apple CarPlay, Android Auto Uconnect Theater with available streaming, the plug-in hybrid powertrain in the Pacifica Hybrid, the industry-exclusive Stow 'n Go seating and storage system on the Pacifica, and the segment's most advanced all-wheel-drive (AWD) system available on all Chrysler 300 V-6 models, as well as the most powerful V-8 in its class with the 300C's 5.7-liter HEMI® V-8 engine.

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