

# RZ

## LEXUS Presents the World Premiere of the New "RZ"

- Introducing Steer-by-Wire for Next-Generation Steering Feel, Enhancing the Driving Experience -

- Continuously pursuing the 'The Natural' driving concept to further refine the LEXUS Driving Signature
- Optimizing the battery EV system to achieve a 20%\*<sup>1</sup> increase in driving range and shorter charging times
- Expanding the lineup with the high-output motor-equipped RZ550e F SPORT
- Accelerating the 'Dialogue between Driver and Vehicle' with the adoption of a Steer-by-Wire System for a new driving experience
- Introducing Interactive Manual Drive, a feature enabling manual-like control of drive force for an engaging driving experience



LEXUS RZ 550e F SPORT (NEUTRINO GRAY X BLACK)

LEXUS introduced the new RZ, a dedicated battery EV (BEV) model, in Brussels, Belgium. The release is planned to gradually roll out across various regions beginning in fall 2025.

Since introducing the RX 400h in 2005, LEXUS has led the luxury market in electrification, continuously balancing outstanding driving performance with environmental responsibility. By 2024, electrified vehicles\*<sup>2</sup> accounted for a record-high 52% of our lineup. Looking ahead, we will continue to cater to the diverse needs of customers and markets by expanding the adoption of BEVs, HEVs, and PHEVs, driving progress toward a carbon-neutral society. Additionally, we are pushing the boundaries of electrification to enhance fundamental vehicle performance, revolutionize mobility through cutting-edge engineering, and enrich lifestyles with innovative services. Through these initiatives, LEXUS is dedicated to delivering an unparalleled ownership experience.

The new RZ features a fully redesigned BEV system, delivering increased motor output, an extended driving range, and reduced charging time. It also introduces the next-generation Steer-by-Wire System\*<sup>3</sup>, providing a completely new driving experience. Improvements to the platform enhance fundamental driving performance, while refinements to the DIRECT4 all-wheel-drive system further elevate its characteristics. These advancements refine the 'The Natural' driving concept, deepening the LEXUS Driving Signature for a smoother, more intuitive, and exhilarating drive. A new addition to the lineup, the RZ550e F SPORT, comes equipped with higher-output front and rear motors, achieving a maximum system output of 300 kW for a more powerful and exhilarating driving experience. Furthermore, LEXUS introduces Interactive Manual Drive for the first time, a feature that enhances the excitement

of shifting by synchronizing acceleration and deceleration with immersive sound. This innovation delivers a sportier, more responsive driving feel, offering greater engagement and driving pleasure.

The exterior of the new RZ includes exclusive color options, as well as front and rear spoilers and aerodynamic wheels that enhance performance. Inside, exclusive seats and aluminum pedals contribute to a distinctly sporty ambiance.

With a diverse lineup, the new RZ is designed to meet the needs of a broad range of drivers, from those who prioritize daily convenience and practicality to those who crave an engaging and dynamic driving experience.

\*1: FWD, equipped with 18-inch tires (European prototype values)

\*2: Electrified vehicles include all HEV, PHEV, and BEV models.

\*3: F SPORT

## **<Main Features of the New RZ>**

### **(1) Fully redesigned the BEV System, thoroughly pursuing fundamental performance.**

- Improved dynamic performance through higher output, while offering more options tailored to customer needs.
- Extended driving range, prioritizing practical usability for customers.
- Shortened charging time through an optimized charging system.

### **(2) Deepening the LEXUS Driving Signature and delivering a new driving experience.**

- Enhanced dynamic performance through refinements to the dedicated BEV platform and vehicle fundamentals.
- Incorporating LEXUS' first-ever Steer-by-Wire System.
- Enhanced DIRECT4 all-wheel-drive system to deliver a driving response that faithfully reflects the driver's intent.
- New Interactive Manual Drive, providing a more engaging and enjoyable driving experience.
- Exceptional quietness unique to LEXUS BEVs, achieved through source-level noise and vibration suppression

### **(3) F SPORT exclusive design for a more engaging driving experience.**

Aerodynamics focused F SPORT exclusive exterior design.

- A clean, open cabin space designed to meet customer preferences.
- F SPORT-specific interior, featuring an exclusive steering wheel and sporty design elements.

## **LEXUS International, Chief Engineer, Shinya Ito**

LEXUS is committed to refining electrification technologies to enhance the fundamental joy of driving and deliver new driving experiences. At the Toyota Technical Center Shimoyama (TTC-S), engineers and professional drivers work together on test courses designed to replicate demanding road conditions, rigorously refining the vehicle's core performance. In the new RZ, we have extended electrification technology to the control system with the introduction of a Steer-by-Wire system, optimizing intuitive steering response on winding roads and enhancing maneuverability at low speeds. Additionally, the software-driven Interactive Manual Drive enables a dynamic and engaging driving experience, allowing for deeper dialogue between driver and vehicle. Moving forward, LEXUS will continue to push the boundaries of its signature driving experience by seamlessly integrating cutting-edge hardware and software.

**RZ Main Specifications (Comparison with previous model) \*European prototype values**

		RZ550e F SPORT	RZ500e	RZ350e
Overall Length		4,805 mm ( $\pm 0$ )		
Overall Width		1,895mm ( $\pm 0$ )		
Overall Height		1,635mm ( $\pm 0$ )		
Wheelbase		2,850mm ( $\pm 0$ )		
Vehicle Weight *6		2,135-2,180kg*2	2,100-2,155kg*1	1,995-2,050kg*1
Tire Size		20-inch	18/20-inch	18/20-inch
Cruising Range		Approx. 450km*2*3	Approx. 500km*1*3	Approx. 575km*1*3
Electrical Consumption		Approx. 184Wh/km*2*3	Approx. 166Wh/km*1*3	Approx. 144Wh/km*1*3
Total Electrical Power *5		76.96kWh		
Rapid Charging Standard		CCS2*4		
Front Motor	Max Output	167kW [227PS]*3		
	Max Torque	268.6N•m [27.3kgf•m]*3		
Rear Motor	Max Output	167kW [227PS]*3	-	
	Max Torque	268.6N•m [27.3kgf•m]*3	-	
System Max Output		300kW [407.8PS]*3	280kW [380.6PS]*3	165kW [224.3PS]*3
0-100km/h Acceleration		4.4 sec.*3	4.6 sec.*3	7.5 sec.*3

\*1 Vehicles for the European market with 18-inch tires and WLTP mode

\*2 Vehicles for the European market with 20-inch tires and WLTP mode

\*3 Tentative figures for vehicles being developed for the European market

\*4 Vehicles for the European market

\*5 The new batteries are calculated according to IEC 62660-1

\*6 Specifications may vary by region

## Completely Redesigned BEV System with a Relentless Focus on Core Performance

To meet the diversifying needs of our customers, the new RZ features a fully redesigned battery EV system, pursuing the fundamental performance of a BEV. A newly developed high-capacity lithium-ion battery has been adopted, enhancing output characteristics through improved battery cells and an increased number of cells. Additionally, a high-output motor has been introduced, and the latest eAxle has been implemented on both the front and rear, featuring improved inverter efficiency. This results in significantly higher motor output and substantial reductions in energy loss across the unit. Furthermore, by increasing battery capacity and optimizing the battery pack structure, we have successfully extended the driving range and reduced charging time, enhancing practicality and convenience for our customers.

### <Enhanced Power Performance and Expanded Choices to Meet Customer Needs>

- The new high-capacity lithium-ion battery, featuring improved battery cells and an increased number of cells, enables the integration of a high-output motor and the newly developed eAxle with enhanced inverter efficiency. This supports higher drive motor output (167 kW front/rear), delivering greater acceleration performance and a higher top speed. Additionally, mid-range acceleration has been refined to provide a smoother and more exhilarating driving experience. The BEV system and high-capacity lithium-ion battery utilize a water-cooling system, contributing to excellent dynamic performance. By combining these high-output units with different drivetrain configurations, we offer a diverse lineup tailored to customer preferences, including 165 kW (FWD model) as well as 230 kW, 250 kW, 280 kW, and 300 kW (all AWD models)<sup>\*1</sup> ensuring a range of options to suit various driving needs and preferences.



New BEV System

\*1: The countries where it is introduced will vary by region

### <Increased Driving Range and Faster Charging with an Optimized System>

- The new eAxle significantly reduces power loss, while the higher-capacity battery and optimized control systems further enhance efficiency, ensuring greater confidence in driving range. Despite maintaining high dynamic performance, the AWD model achieves approximately 14% increase in range (500 km<sup>\*1</sup>), while the FWD model sees approximately 20% boost (575 km<sup>\*1</sup>). This allows for a smooth, worry-free driving experience, from daily commutes to long-distance travel.
- Improvements in battery capacity, battery pack structure, onboard charger, and charging functionality have enhanced charging performance, reducing charging time by up to 30 minutes. Additionally, the new Battery Preconditioning Function optimizes battery temperature before charging begins, preventing delays in cold weather and ensuring more efficient charging performance.



New e-Axle



New Battery

\*1: European WLTP (Prototype values)

## Elevating the LEXUS Driving Signature and Delivering a New Driving Experience

The new RZ debuts LEXUS' first-ever Steer-by-Wire System<sup>\*1</sup>, delivering a unique BEV driving experience. Platform enhancements refine fundamental driving performance, while optimization of DIRECT4, LEXUS' exclusive all-wheel-drive system for electrified vehicles, further enhances the 'The Natural' driving concept. These improvements deepen the LEXUS Driving Signature, offering a smoother, more natural, and engaging ride. The lineup has been expanded with the addition of the RZ550e F SPORT, featuring high-output front and rear motor control, generating a maximum system output of 300 kW to achieve even more powerful and exhilarating performance. Furthermore, LEXUS has introduced its first-ever Interactive Manual Drive<sup>\*1</sup>, which, combined with the engaging sound during acceleration and deceleration shifts, delivers a sporty, direct driving feel and an exhilarating sense of control.

### <A LEXUS first Steer-by-Wire System<sup>\*1</sup>>

- LEXUS introduces the Steer-by-Wire System, an innovation that accelerates the brand's core philosophy of 'Driver-Vehicle Dialogue' and is set to revolutionize the vehicle cockpit. To create a seamless unity between driver and machine, LEXUS has implemented advanced steering control along with a dedicated Steer-by-Wire steering wheel. This system allows for precise steering control within approximately 200° from the neutral position, eliminating the need for large steering inputs, ensuring a smoother and more effortless driving experience. Additionally, by dynamically adjusting the steering gear ratio based on vehicle speed, the system enhances low-speed maneuverability, agile handling on winding roads, and high stability at highway speeds. Unlike traditional mechanical steering systems that physically connect the steering wheel and tires, Steer-by-Wire transmits steering inputs via electrical signals, effectively minimizing road vibrations while selectively relaying only essential feedback to the driver. With this innovative Steer-by-Wire System, LEXUS offers a new, intuitive, and seamless driving experience, designed specifically for BEV models—further strengthening the connection between driver and vehicle.

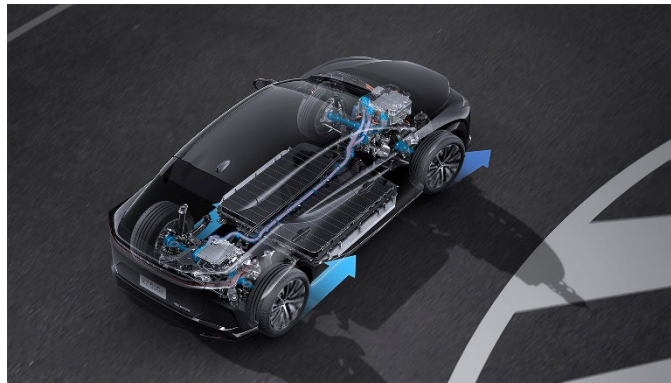


Steer-by-Wire Image

\*1: F SPORT, LUXURY (as an option in select markets)

## <The Evolution of DIRECT4>

- With the integration of high-output motors and a new eAxle featuring enhanced inverter efficiency on both the front and rear axles, LEXUS has further refined the DIRECT4 all-wheel drive system. By optimizing torque distribution control, the system achieves superior traction performance and enhanced driving stability, ensuring a more responsive and confident driving experience. During acceleration and straight-line launches, the system dynamically adjusts torque between 60:40 to 0:100 (front: rear), reducing vehicle pitching and delivering a more direct acceleration response. During cornering, the system optimally adjusts torque distribution between 80:20 to 0:100 (front: rear) based on driving conditions, utilizing data such as vehicle speed and steering angle. During the turn-in phase, torque is directed toward the front wheels to facilitate crisp and precise cornering. At corner exit, torque is allocated according to each wheel's contact load, allowing for seamless acceleration while maintaining vehicle stability. This ensures a smooth, responsive cornering experience and precise line tracing, delivering a more engaging drive. Furthermore, integration with the Vehicle Dynamics Integrated Management (VDIM) system enhances ride stability, providing a flatter, more composed driving experience, while also improving emergency handling at a high level for greater safety and hazard avoidance.



DIRECT4 Image

## <Interactive Manual Drive\*1, elevating the joy of driving and deepening dialogue between driver and car>

- LEXUS introduces Interactive Manual Drive for the first time, a system that allows drivers to control power delivery in a manner similar to operating a manual transmission using paddle shifters (switches). This system features a virtual 8-speed gear system, where drivetrain output is determined by combining the virtual power source torque, calculated based on throttle input and vehicle speed, with the gear ratio selected via the paddle shifters. This enables drivers to shift gears at the perfect moment, enhancing the exhilaration of acceleration when pressing the throttle. To further enrich the experience, the system incorporates engine-like sound, delivering an auditory sensation reminiscent of a conventional internal combustion engine. Additionally, a dedicated shift guide meter provides visual feedback on upshifts and downshifts, allowing drivers to intuitively track gear changes in real-time. With Interactive Manual Drive, drivers can engage with their vehicle on a deeper level, experiencing real-time feedback through throttle response, sound, and visual cues, creating a more immersive and dynamic driving experience.



Interactive Manual Drive

\*1: F SPORT



## <The Deepening LEXUS Driving Signature>

- With the adoption of a newly developed high-capacity lithium-ion battery and the integration of the new eAxle, LEXUS has refined the suspension characteristics to enhance both vehicle dynamics and ride comfort. The front suspension has been optimized by increasing low-frequency absorber damping force, creating a flatter and more stable ride. The rear suspension features an expanded damper variable range, optimizing both low- and high-frequency damping forces to offer excellent handling stability and enhanced ride comfort. Precise control of sprung mass contributes to deepening the LEXUS Driving Signature.

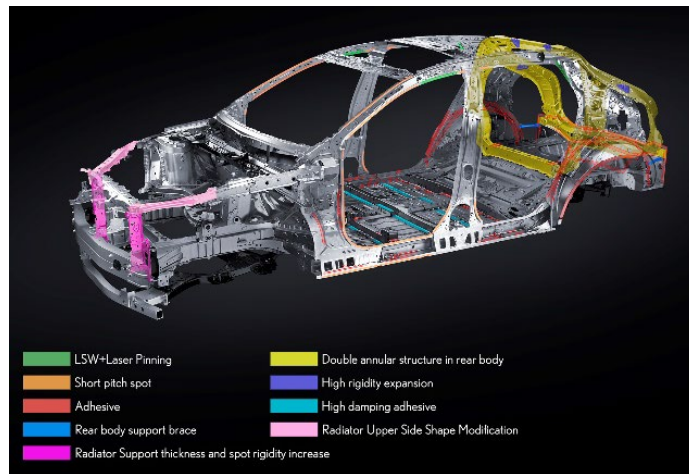


Front Suspension



Rear Suspension

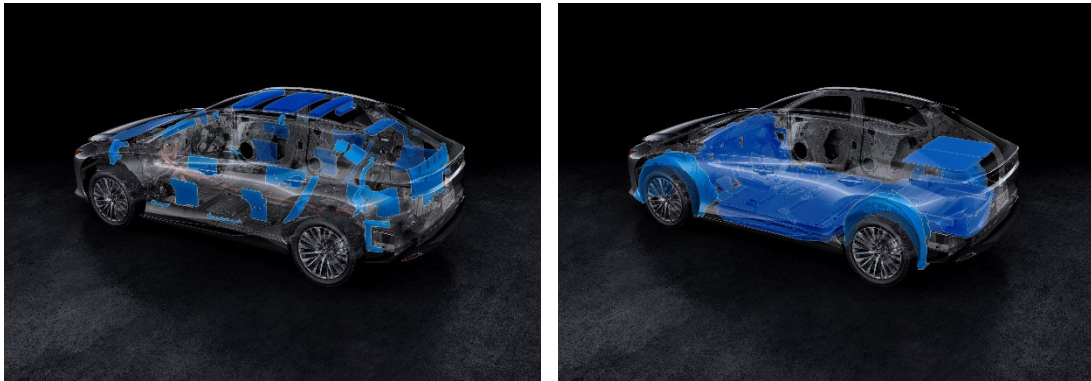
- The new RZ integrates rigidity enhancements applied in other LEXUS models, reinforcing both the radiator support area at the front and the rear end of the body. The front radiator support has been strengthened through increased panel thickness and reinforced joints, while an additional rear brace helps reduce localized torsional deformation. These refinements contribute to a crisper, more linear steering response, enhancing handling precision and steering feedback.



Body Structure

### <Achieving Exceptional Quietness Unique to BEVs>

- To further refine the exceptional quietness of LEXUS BEV models, extensive noise reduction measures have been implemented. A rear floor silencer has been added beneath the rear seats to minimize noise intrusion, while high-performance soundproofing materials have been applied to the door trims, seat side garnishes, and rear door trim, with an expanded seat side garnish coverage area for enhanced insulation. Additional refinements include the introduction of a sound-absorbing tonneau cover and the integration of soundproofing materials in the rear door trim upper section and deck box, effectively suppressing road and wind noise. For vibration control, the body floor panel now features high-damping adhesive, reducing unwanted vibrations and enhancing ride comfort and overall refinement.



Quietness Image

## Exclusive F SPORT Design Evokes the Joy of Driving

To cater to customers seeking a more dynamic, powerful drive and a sportier aesthetic, the new RZ lineup now includes the RZ550e F SPORT. The RZ550e F SPORT boasts a maximum system output of 300 kW (407.8 PS), complemented by sport-tuned suspension, featuring optimized absorber damping force and coil spring rates, ensuring a performance-oriented ride.

Furthermore, LEXUS has introduced its first-ever Interactive Manual Drive in this model, enhancing the dialogue between driver and vehicle.



### <F SPORT Exclusive Exterior Design Inspired by Aerodynamic Performance>

The F SPORT exclusive exterior design enhances aerodynamic efficiency and driving stability through functional elements such as the front lower bumper molding, brake ducts, rear spoiler, rear lower bumper, and 20-inch aero wheels. The 20-inch aero wheels incorporate an aero cover over the aluminum wheel structure, serving as an aerodynamic aid while also reducing weight and improving energy efficiency. A new F SPORT exclusive body color, NEUTRINO GRAY, has been introduced—a solid light gray with subtle metallic highlights that emphasize its dynamic character. The bold contrast between the black F SPORT elements and the light gray body conveys a 'Tough & Sporty' aesthetic. The color lineup includes five monotone and four bi-tone options, all designed to embody the sporty character and inherent strength of a BEV.



Body Color: NEUTRINO GRAY x BLACK (Bi-Tone)



Front Lower Bumper Molding, Brake Ducts



Rear Spoiler, Rear Lower Bumper



20-inch Aero Wheels

## <Creating a Clean and Open Interior Space\*>

- We have further refined the functionality of the dimmable panoramic roof, which contributes to a sense of openness from the front seats to the rear passengers' headspace, creating an even more comfortable cabin environment. When the dimming function is activated, the roof's clarity is enhanced, providing occupants with a greater feeling of openness. When deactivated, its shading performance improves, enhancing comfort in conditions with intense sunlight or strong UV exposure. Additionally, we have minimized reflections on the digital rearview mirror, making it possible to equip both the dimmable panoramic roof and the digital rearview mirror simultaneously.



Dimmable Panoramic Roof

- For the first time in LEXUS, we have introduced a door trim surface featuring Ultrasuede®\*2 with laser-etched graphics. We have taken on the challenge of creating a new expression of luxury by applying precision laser processing to Ultrasuede®\*2, which contains approximately 30% plant-based materials. The seamless, minimalist, and intricately detailed patterns create a sophisticated, futuristic, and premium aesthetic, immersing customers in an extraordinary experience.



Door Trim Surface with Laser-Cut Graphics

- LEXUS' first-ever Dynamic Shadowy Illumination (Multi-Color) enhances the elegance of conventional shadowy illumination with fluid, shifting light patterns. Rooted in LEXUS' design philosophy, 'Time in Design', this gradually evolving interplay of light and shadow evokes the passage of time, providing a soothing and immersive ambiance that harmonizes with the emotions of our customers.



Dynamic Shadowy Illumination (Multi-color)

\*1: Equipped in LUXURY and F SPORT models

\*2: Ultrasuede® is a trademark of Toray Industries, Inc. Each distributor is responsible for trademark checks. Please add/delete trademark notice in each country if necessary.

## <F SPORT Exclusive Interior Design Inspired by Performance>

- The F SPORT exclusive 'BLACK x DK. GRAY' interior color scheme is designed to evoke the unique power and sporty driving dynamics of a BEV while featuring blue stitching accents to accompany the black and dark gray materials. Enhancing the dynamic driving experience, the interior features a bespoke ornament panel with a Micro-Geometric Pattern Film, specially designed front seats crafted with an integrated foam molding process, and exclusive F SPORT details, including F SPORT branded front scuff plates, an F SPORT emblem on the steering wheel, and aluminum pedals with a matching footrest, delivering a truly performance-focused atmosphere.



Interior Color: BLACK x DK. GRAY



Micro-Geometric Pattern Film



Exclusive Front Seat



Exclusive Aluminum Pedals & Footrest

## <LEXUS' First Steering Wheel Designed Exclusively for Steer-by-Wire>

- Vehicles equipped with the Steer-by-Wire System feature a uniquely designed steering wheel optimized for precise, minimal steering input. The open-top and open-bottom design naturally directs the driver's line of sight forward, enhancing focus on the exhilarating BEV driving experience. Additionally, this design improves ease of entry and exit by creating more foot space, combining functionality with driving comfort.



Steering Wheel for Steer-by-Wire