

GLOBAL TECHNOLOGY MIGRATION PLAN

	NOW (2020–2021)	NEAR (2022–2026)	FAR (2027+)
Policy	<ul style="list-style-type: none"> Part of the Climate Leadership Council (CLC) which is advocating for a specific carbon fee and dividend solution Part of the CEO Climate Dialogue advocating that the President and Congress put in place a long-term federal policy to protect against the worst impacts of climate change Progress cross-industry and government discussions to increase the min. octane rating 	<ul style="list-style-type: none"> Continue to highlight the need for a comprehensive market-based solution to climate change through CLC and the CEO Climate Dialogue Engage in cross-sector GHG mitigation discussions 	<ul style="list-style-type: none"> Continue to highlight the need for a comprehensive market-based solutions where needed Engage in cross-sector GHG mitigation projects Advance progress toward carbon neutrality by integrating vehicle technologies, low carbon/renewable fuels and smart mobility solutions
Electrification	<ul style="list-style-type: none"> Launch targeted EPA-estimated 300-mile range, all-electric Mustang Mach-E SUV¹ Launch all-new, rear-wheel drive hybrid F-150 Launch Electrification Lifestyle customer solutions Develop all-electric F-150 and global commercial vehicles (Transit PHEV) 	<ul style="list-style-type: none"> Launch all-electric F-150 and global commercial van Launch all-electric flexible vehicle architecture Make hybrids and plug-in hybrids available in more than 50 percent of nameplates Expand access to global charging infrastructure Develop next generation Electrification Lifestyle customer solutions Develop Transit BEV (model year 2022) and F-150 BEV Expand EV infrastructure via IONITY in Europe 	<ul style="list-style-type: none"> Expand Electrification Lifestyle customer solutions Integrate Transportation Mobility Cloud and electrified vehicle ecosystem to maximize customer value and environmental benefits
Hydrogen Fuel Cell Vehicles	<ul style="list-style-type: none"> Research and development of fuel cell technology and its integration into vehicles 	<ul style="list-style-type: none"> Limited deployment of test fleets as appropriate for market conditions Continued research and development 	<ul style="list-style-type: none"> First commercial fuel cell vehicle applications
Internal Combustion Engine (ICE)	<ul style="list-style-type: none"> Make EcoBoost engines widely available Continued introduction of advanced engine/after-treatment technology to reduce emissions 	<ul style="list-style-type: none"> Develop advanced, high-value technologies to further improve gasoline engine/EcoBoost® and diesel engine/Ford EcoBlue powertrain efficiency and performance Expand and optimize gasoline engine/EcoBoost® and diesel engine/Ford EcoBlue technologies in conjunction with electrified and alternative fuel applications and improved fuel properties Identify and develop new and innovative solutions to meet future local air quality vehicle tailpipe emission standards, while meeting customer attribute needs 	<ul style="list-style-type: none"> Continue optimizing engine technologies and improving engine efficiency for electrified applications Identify and incorporate advanced technologies that are compatible and synergistic with low-carbon/renewable fuels Incorporate powertrain system technology solutions balancing continued reductions in criteria and particulate emissions along with CO₂/fuel economy improvements
Alternative Fuels	<ul style="list-style-type: none"> Develop spark ignition and compression ignition technologies compatible with low-carbon/renewable fuels Offer flex-fuel vehicles (FFVs) Make CNG-prepared engines available where demand exists 	<ul style="list-style-type: none"> Improve vehicle and powertrain capability to leverage renewable fuels Expand vehicle capability for renewable fuels 	<ul style="list-style-type: none"> Evolve technologies in response to progress in low-carbon/renewable fuels
Energy Management, Electrical Architecture and Efficiency	<ul style="list-style-type: none"> Migrate battery management systems globally Management, Electrical Architecture and Efficiency Make electric power steering widely available Make ongoing aerodynamic improvements 	<ul style="list-style-type: none"> Further develop intelligent energy management technologies Deploy advanced energy efficient climate system technologies for BEV Incorporate additional aerodynamic improvements 	<ul style="list-style-type: none"> Leverage connectivity and advanced driver assistance systems for optimized energy management
Weight Reduction	<ul style="list-style-type: none"> Develop advanced lightweight materials and associated manufacturing processes for significant weight reduction 	<ul style="list-style-type: none"> Optimize vehicle systems for weight and introduce new materials and designs for further weight reduction 	<ul style="list-style-type: none"> Continued focus on weight reduction using advanced materials and processes
Mobility Solutions	<ul style="list-style-type: none"> Develop self-driving vehicles, connected vehicles (CVs) and smart mobility technologies Invest in e-scooter sharing for first- and last-mile journeys Roll-out e-scooter business Spin in U.S. and Europe 	<ul style="list-style-type: none"> Introduce advanced self-driving vehicles, CVs and smart mobility technologies Extend sharing in regions Extend FordPass functionalities including parking finder, etc. Roll out intermodal platforms 	<ul style="list-style-type: none"> Advance progress toward carbon neutrality by integrating vehicle technologies, low carbon/renewable fuels and smart mobility solutions Devise City of Tomorrow solutions
Transmission and Driveline	<ul style="list-style-type: none"> Expand 8- and 10-speed variants to replace 6-speed automatic transmissions 	<ul style="list-style-type: none"> Make advanced conventional driveline technologies widely available Increased advancements in engine, transmission and driveline systems optimization Develop new dedicated electrified transmission and driveline technologies across all platforms and powertrain configurations Start full integration of transmission/driveline with an electrical drive system for hybrid and EVs 	<ul style="list-style-type: none"> Expand the functionality of transmission and driveline technologies in support of next-generation electrified and self-driving vehicles Expand full integration of transmission/driveline with an electrical drive system for hybrid and EVs

¹ Based on full charge when configured with optional extended range battery and RWD. Actual range varies with conditions such as external elements, driving behaviors, vehicle maintenance and lithium-ion battery age. Final EPA-estimated ratings are available in the 2020 calendar year.