

United States Senate

December 1, 2022

Sebastian Mackensen
Chief Executive Officer
BMW of North America, LLC
300 Chestnut Ridge Road
Woodcliff Lake, NJ 07675

Dear Mr. Mackensen,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

AM radio has long been an important source of information for consumers. Before the COVID-19 pandemic, nearly 90 percent of Americans ages 12 and older — totaling hundreds of millions of people — listened to AM or FM radio each week,¹ higher than the percentage that watch television (56 percent²) or own a computer (77 percent³). Forty-seven percent of Americans receive news from the radio,⁴ and tens of millions more listen to music. The car remains a main channel through which consumers listen to broadcast radio, with 89 percent of prospective U.S. car buyers saying a radio tuner should be standard in every car.⁵ Moreover, 33 percent of new car buyers say that AM radio is a very important feature in a vehicle — higher than dedicated Wi-Fi (31 percent), SiriusXM satellite radio (27 percent), and personal assistants

¹ *Audio and Podcasting Fact Sheet*, PEW RESEARCH CENTER (June 29, 2021), <https://www.pewresearch.org/journalism/fact-sheet/audio-and-podcasting/>.

² Lee Rain, *Cable and satellite TV use has dropped dramatically in the U.S. since 2015*, PEW RESEARCH CENTER (Mar. 27, 2021), <https://www.pewresearch.org/fact-tank/2021/03/17/cable-and-satellite-tv-use-has-dropped-dramatically-in-the-u-s-since-2015/>.

³ *Mobile Fact Sheet*, PEW RESEARCH CENTER (Apr. 7, 2021), <https://www.pewresearch.org/internet/fact-sheet/mobile/>.

⁴ Naomi Forman-Katz & Katerina Eva Matsa, *News Platform Fact Sheet*, PEW RESEARCH CENTER (Sept. 20, 2022), <https://www.pewresearch.org/journalism/fact-sheet/news-platform-fact-sheet/>.

⁵ Randy J. Stine, *TechSurvey 2022: The Car is Getting Crowded*, RADIOWORLD (May 20, 2022), <https://www.radioworld.com/news-and-business/programming-and-sales/techsurvey-2022-the-car-is-getting-crowded>.

such as Google Assistant (12 percent) and Amazon Alexa (9 percent).⁶ In other words, broadcast AM and FM radio remain an essential vehicle feature for consumers.

Moreover, broadcast AM radio, in particular, is a critical mechanism for government authorities to communicate with the public during natural disasters, extreme weather events, and other emergencies. AM radio operates at lower frequencies and has longer wavelengths than FM radio, so AM radio waves more easily pass through solid objects. As a result, AM radio signals can travel long distances, making them well-suited for broadcasting emergency alerts. For that reason, the Federal Emergency Management Agency's (FEMA) National Public Warning System — which authorities can use to deliver emergency alert and warning broadcasts, including presidential emergency warnings, to the public — operates primarily through AM radio stations. Thanks to investments by FEMA, these stations are equipped with backup generators and other protections, making them resilient to extreme weather events and other hazards.

FEMA officials — in both Democratic and Republican administrations — have hailed broadcast radio as the most dependable communication medium during an emergency. For example, in 2020, former FEMA Administrator Brock Long, who served under former President Donald Trump, wrote: “No other means of electronic communications in the country is as efficient or reliable as the radio.”⁷ More recently, Craig Fugate, the FEMA administrator under former President Barack Obama, agreed: “The linkage between the local officials and the local radio stations is critical. It’s the one thing we know that will survive a lot of these disasters.”⁸ Despite innovations such as the smartphone and social media, AM/FM broadcast radio remains the most dependable, cost-free, and accessible communication mechanism for public officials to communicate with the public during times of emergency. As a result, any phase-out of broadcast AM radio could pose a significant communication problem during emergencies.

Despite the importance of broadcast AM radio, some automakers have begun discontinuing the feature in new vehicles, particularly electric vehicles. Manufacturers have argued that batteries and other technology in EVs create an electromagnetic interference with AM radio waves, significantly impairing audio quality.⁹ Although this interference is real, automakers have developed innovative technologies to address this problem. For example, research suggests that digital broadcast radio — through which consumers can receive AM stations — is less susceptible to electromagnetic interference than analog AM radio.¹⁰ In 2018,

⁶ *Id.*

⁷ Brock Long, *Opinion: Automakers, don't remove radios from the dashboard*, THE DETROIT NEWS (Mar. 12, 2020), <https://www.detroitnews.com/story/opinion/2020/03/13/opinion-automakers-dont-remove-radios-dashboard/5022902002/>.

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the European Union mandated that all new vehicles be equipped with digital radio.¹¹ In fact, many EVs today are equipped with AM radio, demonstrating that many automakers do not view EVs and AM radio as technologically incompatible. As EVs rightfully become a greater share of new vehicles, automakers cannot defend the elimination of AM radio as necessary due to electromagnetic interference.

Although the auto industry's investments in electric vehicles are critical to addressing the climate crisis and reducing greenhouse gas emissions, automakers need not sacrifice the benefits of radio in the process. Given AM radio's importance for emergency communications and continued consumer demand, I urge your company to maintain the feature in its new vehicles and request that you answer the following questions in writing by December 22:

1. Has your company decided to discontinue access to free AM and/or FM broadcast radio in any of its vehicles?
 - a. If so, please provide the make, model, and manufacturing year of each vehicle that no longer will have AM and/or FM radio and explain why your company decided to omit AM and/or FM radio from those vehicles.
 - b. If not, please explain the type of technology, if any, that addresses electromagnetic interference with AM radio signals from EVs.
2. Does your company have any plans to omit AM and/or FM broadcast radio from future vehicle models? If so, please explain why your company is planning to remove AM and/or FM broadcast radio from them.
3. Does your company include free, digital broadcast radio in its vehicles? If so, please provide the make, model, and manufacturing year of each vehicle equipped with digital broadcast radio.

Thank you for your prompt attention to these questions.

Sincerely,



Edward J. Markey
United States Senator

¹¹ Council Directive 2018/1972, annex xi, 2018 O.J. (L 321) 36, 205 (EC).

United States Senate

December 1, 2022

James D. Farley, Jr.
President and Chief Executive Officer
Ford Motor Company
One American Road
Dearborn, MI 48126

Dear Mr. Farley,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

AM radio has long been an important source of information for consumers. Before the COVID-19 pandemic, nearly 90 percent of Americans ages 12 and older — totaling hundreds of millions of people — listened to AM or FM radio each week,¹ higher than the percentage that watch television (56 percent²) or own a computer (77 percent³). Forty-seven percent of Americans receive news from the radio,⁴ and tens of millions more listen to music. The car remains a main channel through which consumers listen to broadcast radio, with 89 percent of prospective U.S. car buyers saying a radio tuner should be standard in every car.⁵ Moreover, 33 percent of new car buyers say that AM radio is a very important feature in a vehicle — higher than dedicated Wi-Fi (31 percent), SiriusXM satellite radio (27 percent), and personal assistants

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Although the auto industry's investments in electric vehicles are critical to addressing the climate crisis and reducing greenhouse gas emissions, automakers need not sacrifice the benefits of radio in the process. Given AM radio's importance for emergency communications and continued consumer demand, I urge your company to maintain the feature in its new vehicles and request that you answer the following questions in writing by December 22:

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3. Does your company include free, digital broadcast radio in its vehicles? If so, please provide the make, model, and manufacturing year of each vehicle equipped with digital broadcast radio.

Thank you for your prompt attention to these questions.

Sincerely,



Edward J. Markey
United States Senator

¹¹ Council Directive 2018/1972, annex xi, 2018 O.J. (L 321) 36, 205 (EC).

United States Senate

December 1, 2022

Mary Barra
Chair and Chief Executive Officer
General Motors Company
300 Renaissance Center
Detroit, MI 48265

Dear Ms. Barra,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

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Although the auto industry's investments in electric vehicles are critical to addressing the climate crisis and reducing greenhouse gas emissions, automakers need not sacrifice the benefits of radio in the process. Given AM radio's importance for emergency communications and continued consumer demand, I urge your company to maintain the feature in its new vehicles and request that you answer the following questions in writing by December 22:

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2. Does your company have any plans to omit AM and/or FM broadcast radio from future vehicle models? If so, please explain why your company is planning to remove AM and/or FM broadcast radio from them.
3. Does your company include free, digital broadcast radio in its vehicles? If so, please provide the make, model, and manufacturing year of each vehicle equipped with digital broadcast radio.

Thank you for your prompt attention to these questions.

Sincerely,



Edward J. Markey
United States Senator

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United States Senate

December 1, 2022

Noriya Kaihara
President and Chief Executive Officer
American Honda Motor Co., Inc.
1919 Torrance Blvd
Torrance, CA 90501

Dear Mr. Kaihara,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

AM radio has long been an important source of information for consumers. Before the COVID-19 pandemic, nearly 90 percent of Americans ages 12 and older — totaling hundreds of millions of people — listened to AM or FM radio each week,¹ higher than the percentage that watch television (56 percent²) or own a computer (77 percent³). Forty-seven percent of Americans receive news from the radio,⁴ and tens of millions more listen to music. The car remains a main channel through which consumers listen to broadcast radio, with 89 percent of prospective U.S. car buyers saying a radio tuner should be standard in every car.⁵ Moreover, 33 percent of new car buyers say that AM radio is a very important feature in a vehicle — higher than dedicated Wi-Fi (31 percent), SiriusXM satellite radio (27 percent), and personal assistants

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United States Senator

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United States Senate

December 1, 2022

José Muñoz
President and Chief Executive Officer
Hyundai Motor America, Inc.
10550 Talbert Avenue
Fountain Valley, CA 92708

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I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

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such as Google Assistant (12 percent) and Amazon Alexa (9 percent).⁶ In other words, broadcast AM and FM radio remain an essential vehicle feature for consumers.

Moreover, broadcast AM radio, in particular, is a critical mechanism for government authorities to communicate with the public during natural disasters, extreme weather events, and other emergencies. AM radio operates at lower frequencies and has longer wavelengths than FM radio, so AM radio waves more easily pass through solid objects. As a result, AM radio signals can travel long distances, making them well-suited for broadcasting emergency alerts. For that reason, the Federal Emergency Management Agency's (FEMA) National Public Warning System — which authorities can use to deliver emergency alert and warning broadcasts, including presidential emergency warnings, to the public — operates primarily through AM radio stations. Thanks to investments by FEMA, these stations are equipped with backup generators and other protections, making them resilient to extreme weather events and other hazards.

FEMA officials — in both Democratic and Republican administrations — have hailed broadcast radio as the most dependable communication medium during an emergency. For example, in 2020, former FEMA Administrator Brock Long, who served under former President Donald Trump, wrote: “No other means of electronic communications in the country is as efficient or reliable as the radio.”⁷ More recently, Craig Fugate, the FEMA administrator under former President Barack Obama, agreed: “The linkage between the local officials and the local radio stations is critical. It’s the one thing we know that will survive a lot of these disasters.”⁸ Despite innovations such as the smartphone and social media, AM/FM broadcast radio remains the most dependable, cost-free, and accessible communication mechanism for public officials to communicate with the public during times of emergency. As a result, any phase-out of broadcast AM radio could pose a significant communication problem during emergencies.

Despite the importance of broadcast AM radio, some automakers have begun discontinuing the feature in new vehicles, particularly electric vehicles. Manufacturers have argued that batteries and other technology in EVs create an electromagnetic interference with AM radio waves, significantly impairing audio quality.⁹ Although this interference is real, automakers have developed innovative technologies to address this problem. For example, research suggests that digital broadcast radio — through which consumers can receive AM stations — is less susceptible to electromagnetic interference than analog AM radio.¹⁰ In 2018,

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Although the auto industry's investments in electric vehicles are critical to addressing the climate crisis and reducing greenhouse gas emissions, automakers need not sacrifice the benefits of radio in the process. Given AM radio's importance for emergency communications and continued consumer demand, I urge your company to maintain the feature in its new vehicles and request that you answer the following questions in writing by December 22:

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 - a. If so, please provide the make, model, and manufacturing year of each vehicle that no longer will have AM and/or FM radio and explain why your company decided to omit AM and/or FM radio from those vehicles.
 - b. If not, please explain the type of technology, if any, that addresses electromagnetic interference with AM radio signals from EVs.
2. Does your company have any plans to omit AM and/or FM broadcast radio from future vehicle models? If so, please explain why your company is planning to remove AM and/or FM broadcast radio from them.
3. Does your company include free, digital broadcast radio in its vehicles? If so, please provide the make, model, and manufacturing year of each vehicle equipped with digital broadcast radio.

Thank you for your prompt attention to these questions.

Sincerely,



Edward J. Markey
United States Senator

¹¹ Council Directive 2018/1972, annex xi, 2018 O.J. (L 321) 36, 205 (EC).

United States Senate

December 1, 2022

Joachim Eberhardt
President
Jaguar Land Rover North America, LLC
100 Jaguar Land Rover Way
Mahwah, NJ 07495

Dear Mr. Eberhardt,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

AM radio has long been an important source of information for consumers. Before the COVID-19 pandemic, nearly 90 percent of Americans ages 12 and older — totaling hundreds of millions of people — listened to AM or FM radio each week,¹ higher than the percentage that watch television (56 percent²) or own a computer (77 percent³). Forty-seven percent of Americans receive news from the radio,⁴ and tens of millions more listen to music. The car remains a main channel through which consumers listen to broadcast radio, with 89 percent of prospective U.S. car buyers saying a radio tuner should be standard in every car.⁵ Moreover, 33 percent of new car buyers say that AM radio is a very important feature in a vehicle — higher than dedicated Wi-Fi (31 percent), SiriusXM satellite radio (27 percent), and personal assistants

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Although the auto industry's investments in electric vehicles are critical to addressing the climate crisis and reducing greenhouse gas emissions, automakers need not sacrifice the benefits of radio in the process. Given AM radio's importance for emergency communications and continued consumer demand, I urge your company to maintain the feature in its new vehicles and request that you answer the following questions in writing by December 22:

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3. Does your company include free, digital broadcast radio in its vehicles? If so, please provide the make, model, and manufacturing year of each vehicle equipped with digital broadcast radio.

Thank you for your prompt attention to these questions.

Sincerely,



Edward J. Markey
United States Senator

¹¹ Council Directive 2018/1972, annex xi, 2018 O.J. (L 321) 36, 205 (EC).

United States Senate

December 1, 2022

SeungKyu Yoon
President and Chief Executive Officer
Kia Motors America, Inc.
111 Peters Canyon Road
Irvine, CA 92606

Dear Mr. Yoon,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

AM radio has long been an important source of information for consumers. Before the COVID-19 pandemic, nearly 90 percent of Americans ages 12 and older — totaling hundreds of millions of people — listened to AM or FM radio each week,¹ higher than the percentage that watch television (56 percent²) or own a computer (77 percent³). Forty-seven percent of Americans receive news from the radio,⁴ and tens of millions more listen to music. The car remains a main channel through which consumers listen to broadcast radio, with 89 percent of prospective U.S. car buyers saying a radio tuner should be standard in every car.⁵ Moreover, 33 percent of new car buyers say that AM radio is a very important feature in a vehicle — higher than dedicated Wi-Fi (31 percent), SiriusXM satellite radio (27 percent), and personal assistants

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Despite the importance of broadcast AM radio, some automakers have begun discontinuing the feature in new vehicles, particularly electric vehicles. Manufacturers have argued that batteries and other technology in EVs create an electromagnetic interference with AM radio waves, significantly impairing audio quality.⁹ Although this interference is real, automakers have developed innovative technologies to address this problem. For example, research suggests that digital broadcast radio — through which consumers can receive AM stations — is less susceptible to electromagnetic interference than analog AM radio.¹⁰ In 2018,

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Although the auto industry's investments in electric vehicles are critical to addressing the climate crisis and reducing greenhouse gas emissions, automakers need not sacrifice the benefits of radio in the process. Given AM radio's importance for emergency communications and continued consumer demand, I urge your company to maintain the feature in its new vehicles and request that you answer the following questions in writing by December 22:

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3. Does your company include free, digital broadcast radio in its vehicles? If so, please provide the make, model, and manufacturing year of each vehicle equipped with digital broadcast radio.

Thank you for your prompt attention to these questions.

Sincerely,



Edward J. Markey
United States Senator

¹¹ Council Directive 2018/1972, annex xi, 2018 O.J. (L 321) 36, 205 (EC).

United States Senate

December 1, 2022

Peter Rawlinson
Chief Executive Officer
Lucid Group, Inc.
7373 Gateway Boulevard
Newark, CA 94560

Dear Mr. Rawlinson,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

AM radio has long been an important source of information for consumers. Before the COVID-19 pandemic, nearly 90 percent of Americans ages 12 and older — totaling hundreds of millions of people — listened to AM or FM radio each week,¹ higher than the percentage that watch television (56 percent²) or own a computer (77 percent³). Forty-seven percent of Americans receive news from the radio,⁴ and tens of millions more listen to music. The car remains a main channel through which consumers listen to broadcast radio, with 89 percent of prospective U.S. car buyers saying a radio tuner should be standard in every car.⁵ Moreover, 33 percent of new car buyers say that AM radio is a very important feature in a vehicle — higher than dedicated Wi-Fi (31 percent), SiriusXM satellite radio (27 percent), and personal assistants

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Sincerely,



Edward J. Markey
United States Senator

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United States Senate

December 1, 2022

Jeffrey Guyton
President and Chief Executive Officer
Mazda Motor of America, Inc.
7755 Irvine Center Drive
Irvine, CA 92618

Dear Mr. Guyton,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

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⁴ Naomi Forman-Katz & Katerina Eva Matsa, *News Platform Fact Sheet*, PEW RESEARCH CENTER (Sept. 20, 2022), <https://www.pewresearch.org/journalism/fact-sheet/news-platform-fact-sheet/>.

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such as Google Assistant (12 percent) and Amazon Alexa (9 percent).⁶ In other words, broadcast AM and FM radio remain an essential vehicle feature for consumers.

Moreover, broadcast AM radio, in particular, is a critical mechanism for government authorities to communicate with the public during natural disasters, extreme weather events, and other emergencies. AM radio operates at lower frequencies and has longer wavelengths than FM radio, so AM radio waves more easily pass through solid objects. As a result, AM radio signals can travel long distances, making them well-suited for broadcasting emergency alerts. For that reason, the Federal Emergency Management Agency's (FEMA) National Public Warning System — which authorities can use to deliver emergency alert and warning broadcasts, including presidential emergency warnings, to the public — operates primarily through AM radio stations. Thanks to investments by FEMA, these stations are equipped with backup generators and other protections, making them resilient to extreme weather events and other hazards.

FEMA officials — in both Democratic and Republican administrations — have hailed broadcast radio as the most dependable communication medium during an emergency. For example, in 2020, former FEMA Administrator Brock Long, who served under former President Donald Trump, wrote: “No other means of electronic communications in the country is as efficient or reliable as the radio.”⁷ More recently, Craig Fugate, the FEMA administrator under former President Barack Obama, agreed: “The linkage between the local officials and the local radio stations is critical. It’s the one thing we know that will survive a lot of these disasters.”⁸ Despite innovations such as the smartphone and social media, AM/FM broadcast radio remains the most dependable, cost-free, and accessible communication mechanism for public officials to communicate with the public during times of emergency. As a result, any phase-out of broadcast AM radio could pose a significant communication problem during emergencies.

Despite the importance of broadcast AM radio, some automakers have begun discontinuing the feature in new vehicles, particularly electric vehicles. Manufacturers have argued that batteries and other technology in EVs create an electromagnetic interference with AM radio waves, significantly impairing audio quality.⁹ Although this interference is real, automakers have developed innovative technologies to address this problem. For example, research suggests that digital broadcast radio — through which consumers can receive AM stations — is less susceptible to electromagnetic interference than analog AM radio.¹⁰ In 2018,

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Although the auto industry's investments in electric vehicles are critical to addressing the climate crisis and reducing greenhouse gas emissions, automakers need not sacrifice the benefits of radio in the process. Given AM radio's importance for emergency communications and continued consumer demand, I urge your company to maintain the feature in its new vehicles and request that you answer the following questions in writing by December 22:

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3. Does your company include free, digital broadcast radio in its vehicles? If so, please provide the make, model, and manufacturing year of each vehicle equipped with digital broadcast radio.

Thank you for your prompt attention to these questions.

Sincerely,



Edward J. Markey
United States Senator

¹¹ Council Directive 2018/1972, annex xi, 2018 O.J. (L 321) 36, 205 (EC).

United States Senate

December 1, 2022

Dimitris Psillakis
President and Chief Executive Officer
Mercedes-Benz USA, LLC
One Mercedes-Benz Drive
Sandy Springs, GA 30328

Dear Mr. Psillakis,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

AM radio has long been an important source of information for consumers. Before the COVID-19 pandemic, nearly 90 percent of Americans ages 12 and older — totaling hundreds of millions of people — listened to AM or FM radio each week,¹ higher than the percentage that watch television (56 percent²) or own a computer (77 percent³). Forty-seven percent of Americans receive news from the radio,⁴ and tens of millions more listen to music. The car remains a main channel through which consumers listen to broadcast radio, with 89 percent of prospective U.S. car buyers saying a radio tuner should be standard in every car.⁵ Moreover, 33 percent of new car buyers say that AM radio is a very important feature in a vehicle — higher than dedicated Wi-Fi (31 percent), SiriusXM satellite radio (27 percent), and personal assistants

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Although the auto industry's investments in electric vehicles are critical to addressing the climate crisis and reducing greenhouse gas emissions, automakers need not sacrifice the benefits of radio in the process. Given AM radio's importance for emergency communications and continued consumer demand, I urge your company to maintain the feature in its new vehicles and request that you answer the following questions in writing by December 22:

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3. Does your company include free, digital broadcast radio in its vehicles? If so, please provide the make, model, and manufacturing year of each vehicle equipped with digital broadcast radio.

Thank you for your prompt attention to these questions.

Sincerely,



Edward J. Markey
United States Senator

¹¹ Council Directive 2018/1972, annex xi, 2018 O.J. (L 321) 36, 205 (EC).

United States Senate

December 1, 2022

Mark Chaffin
President and Chief Executive Officer
Mitsubishi Motors North America, Inc.
4031 Aspen Grove Drive
Franklin, TN 37067

Dear Mr. Chaffin,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

AM radio has long been an important source of information for consumers. Before the COVID-19 pandemic, nearly 90 percent of Americans ages 12 and older — totaling hundreds of millions of people — listened to AM or FM radio each week,¹ higher than the percentage that watch television (56 percent²) or own a computer (77 percent³). Forty-seven percent of Americans receive news from the radio,⁴ and tens of millions more listen to music. The car remains a main channel through which consumers listen to broadcast radio, with 89 percent of prospective U.S. car buyers saying a radio tuner should be standard in every car.⁵ Moreover, 33 percent of new car buyers say that AM radio is a very important feature in a vehicle — higher than dedicated Wi-Fi (31 percent), SiriusXM satellite radio (27 percent), and personal assistants

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Although the auto industry's investments in electric vehicles are critical to addressing the climate crisis and reducing greenhouse gas emissions, automakers need not sacrifice the benefits of radio in the process. Given AM radio's importance for emergency communications and continued consumer demand, I urge your company to maintain the feature in its new vehicles and request that you answer the following questions in writing by December 22:

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Thank you for your prompt attention to these questions.

Sincerely,



Edward J. Markey
United States Senator

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United States Senate

December 1, 2022

Jérémie Papin
Chairperson
Nissan North America, Inc.
One Nissan Way
Franklin, TN 37067

Dear Mr. Papin,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

AM radio has long been an important source of information for consumers. Before the COVID-19 pandemic, nearly 90 percent of Americans ages 12 and older — totaling hundreds of millions of people — listened to AM or FM radio each week,¹ higher than the percentage that watch television (56 percent²) or own a computer (77 percent³). Forty-seven percent of Americans receive news from the radio,⁴ and tens of millions more listen to music. The car remains a main channel through which consumers listen to broadcast radio, with 89 percent of prospective U.S. car buyers saying a radio tuner should be standard in every car.⁵ Moreover, 33 percent of new car buyers say that AM radio is a very important feature in a vehicle — higher than dedicated Wi-Fi (31 percent), SiriusXM satellite radio (27 percent), and personal assistants

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Edward J. Markey
United States Senator

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United States Senate

December 1, 2022

Thomas Ingenlath
Chief Executive Officer
Polestar Automotive USA, Inc.
777 MacArthur Blvd
Mahwah, NJ 07430

Dear Mr. Ingenlath,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

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Moreover, broadcast AM radio, in particular, is a critical mechanism for government authorities to communicate with the public during natural disasters, extreme weather events, and other emergencies. AM radio operates at lower frequencies and has longer wavelengths than FM radio, so AM radio waves more easily pass through solid objects. As a result, AM radio signals can travel long distances, making them well-suited for broadcasting emergency alerts. For that reason, the Federal Emergency Management Agency's (FEMA) National Public Warning System — which authorities can use to deliver emergency alert and warning broadcasts, including presidential emergency warnings, to the public — operates primarily through AM radio stations. Thanks to investments by FEMA, these stations are equipped with backup generators and other protections, making them resilient to extreme weather events and other hazards.

FEMA officials — in both Democratic and Republican administrations — have hailed broadcast radio as the most dependable communication medium during an emergency. For example, in 2020, former FEMA Administrator Brock Long, who served under former President Donald Trump, wrote: “No other means of electronic communications in the country is as efficient or reliable as the radio.”⁷ More recently, Craig Fugate, the FEMA administrator under former President Barack Obama, agreed: “The linkage between the local officials and the local radio stations is critical. It’s the one thing we know that will survive a lot of these disasters.”⁸ Despite innovations such as the smartphone and social media, AM/FM broadcast radio remains the most dependable, cost-free, and accessible communication mechanism for public officials to communicate with the public during times of emergency. As a result, any phase-out of broadcast AM radio could pose a significant communication problem during emergencies.

Despite the importance of broadcast AM radio, some automakers have begun discontinuing the feature in new vehicles, particularly electric vehicles. Manufacturers have argued that batteries and other technology in EVs create an electromagnetic interference with AM radio waves, significantly impairing audio quality.⁹ Although this interference is real, automakers have developed innovative technologies to address this problem. For example, research suggests that digital broadcast radio — through which consumers can receive AM stations — is less susceptible to electromagnetic interference than analog AM radio.¹⁰ In 2018,

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⁸ *Former FEMA Administrator Craig Fugate On Radio's Role During Disasters*, INSIDERADIO (Sept. 29, 2022), https://www.insideradio.com/free/former-fema-administrator-craig-fugate-on-radio-s-role-during-disasters/article_4fb70f9c-3fc9-11ed-b31c-e78ffbae443b.html.

⁹ See, e.g., Chester Dawson, *Your Tesla Can Go Zero to 60 in 2.5 Seconds But Can't Get AM Radio*, WALL STREET JOURNAL (Nov. 6, 2018), <https://www.wsj.com/articles/your-tesla-can-go-zero-to-60-in-2-5-seconds-but-cant-get-am-radio-1541523098>.

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the European Union mandated that all new vehicles be equipped with digital radio.¹¹ In fact, many EVs today are equipped with AM radio, demonstrating that many automakers do not view EVs and AM radio as technologically incompatible. As EVs rightfully become a greater share of new vehicles, automakers cannot defend the elimination of AM radio as necessary due to electromagnetic interference.

Although the auto industry's investments in electric vehicles are critical to addressing the climate crisis and reducing greenhouse gas emissions, automakers need not sacrifice the benefits of radio in the process. Given AM radio's importance for emergency communications and continued consumer demand, I urge your company to maintain the feature in its new vehicles and request that you answer the following questions in writing by December 22:

1. Has your company decided to discontinue access to free AM and/or FM broadcast radio in any of its vehicles?
 - a. If so, please provide the make, model, and manufacturing year of each vehicle that no longer will have AM and/or FM radio and explain why your company decided to omit AM and/or FM radio from those vehicles.
 - b. If not, please explain the type of technology, if any, that addresses electromagnetic interference with AM radio signals from EVs.
2. Does your company have any plans to omit AM and/or FM broadcast radio from future vehicle models? If so, please explain why your company is planning to remove AM and/or FM broadcast radio from them.
3. Does your company include free, digital broadcast radio in its vehicles? If so, please provide the make, model, and manufacturing year of each vehicle equipped with digital broadcast radio.

Thank you for your prompt attention to these questions.

Sincerely,



Edward J. Markey
United States Senator

¹¹ Council Directive 2018/1972, annex xi, 2018 O.J. (L 321) 36, 205 (EC).

United States Senate

December 1, 2022

Robert J. Scaringe
Chief Executive Officer
Rivian Automotive, Inc.
14600 Myford Road
Irvine, California 92606

Dear Mr. Scaringe,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

AM radio has long been an important source of information for consumers. Before the COVID-19 pandemic, nearly 90 percent of Americans ages 12 and older — totaling hundreds of millions of people — listened to AM or FM radio each week,¹ higher than the percentage that watch television (56 percent²) or own a computer (77 percent³). Forty-seven percent of Americans receive news from the radio,⁴ and tens of millions more listen to music. The car remains a main channel through which consumers listen to broadcast radio, with 89 percent of prospective U.S. car buyers saying a radio tuner should be standard in every car.⁵ Moreover, 33 percent of new car buyers say that AM radio is a very important feature in a vehicle — higher than dedicated Wi-Fi (31 percent), SiriusXM satellite radio (27 percent), and personal assistants

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Although the auto industry's investments in electric vehicles are critical to addressing the climate crisis and reducing greenhouse gas emissions, automakers need not sacrifice the benefits of radio in the process. Given AM radio's importance for emergency communications and continued consumer demand, I urge your company to maintain the feature in its new vehicles and request that you answer the following questions in writing by December 22:

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3. Does your company include free, digital broadcast radio in its vehicles? If so, please provide the make, model, and manufacturing year of each vehicle equipped with digital broadcast radio.

Thank you for your prompt attention to these questions.

Sincerely,



Edward J. Markey
United States Senator

¹¹ Council Directive 2018/1972, annex xi, 2018 O.J. (L 321) 36, 205 (EC).

United States Senate

December 1, 2022

Mark Stewart
Chief Operating Officer
Stellantis North America, LLC
1000 Chrysler Dr.
Auburn Hills, MI 48326

Dear Mr. Stewart,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

AM radio has long been an important source of information for consumers. Before the COVID-19 pandemic, nearly 90 percent of Americans ages 12 and older — totaling hundreds of millions of people — listened to AM or FM radio each week,¹ higher than the percentage that watch television (56 percent²) or own a computer (77 percent³). Forty-seven percent of Americans receive news from the radio,⁴ and tens of millions more listen to music. The car remains a main channel through which consumers listen to broadcast radio, with 89 percent of prospective U.S. car buyers saying a radio tuner should be standard in every car.⁵ Moreover, 33 percent of new car buyers say that AM radio is a very important feature in a vehicle — higher than dedicated Wi-Fi (31 percent), SiriusXM satellite radio (27 percent), and personal assistants

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Despite the importance of broadcast AM radio, some automakers have begun discontinuing the feature in new vehicles, particularly electric vehicles. Manufacturers have argued that batteries and other technology in EVs create an electromagnetic interference with AM radio waves, significantly impairing audio quality.⁹ Although this interference is real, automakers have developed innovative technologies to address this problem. For example, research suggests that digital broadcast radio — through which consumers can receive AM stations — is less susceptible to electromagnetic interference than analog AM radio.¹⁰ In 2018,

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Although the auto industry's investments in electric vehicles are critical to addressing the climate crisis and reducing greenhouse gas emissions, automakers need not sacrifice the benefits of radio in the process. Given AM radio's importance for emergency communications and continued consumer demand, I urge your company to maintain the feature in its new vehicles and request that you answer the following questions in writing by December 22:

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3. Does your company include free, digital broadcast radio in its vehicles? If so, please provide the make, model, and manufacturing year of each vehicle equipped with digital broadcast radio.

Thank you for your prompt attention to these questions.

Sincerely,



Edward J. Markey
United States Senator

¹¹ Council Directive 2018/1972, annex xi, 2018 O.J. (L 321) 36, 205 (EC).

United States Senate

December 1, 2022

Thomas J. Doll
President and Chief Executive Officer
North American Subaru, Inc.
One Subaru Drive
Camden, NJ 08103

Dear Mr. Doll,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

AM radio has long been an important source of information for consumers. Before the COVID-19 pandemic, nearly 90 percent of Americans ages 12 and older — totaling hundreds of millions of people — listened to AM or FM radio each week,¹ higher than the percentage that watch television (56 percent²) or own a computer (77 percent³). Forty-seven percent of Americans receive news from the radio,⁴ and tens of millions more listen to music. The car remains a main channel through which consumers listen to broadcast radio, with 89 percent of prospective U.S. car buyers saying a radio tuner should be standard in every car.⁵ Moreover, 33 percent of new car buyers say that AM radio is a very important feature in a vehicle — higher than dedicated Wi-Fi (31 percent), SiriusXM satellite radio (27 percent), and personal assistants

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Sincerely,



Edward J. Markey
United States Senator

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United States Senate

December 1, 2022

Elon Musk
Chief Executive Officer
Tesla, Inc.
13101 Harold Green Road
Austin, TX 78725

Dear Mr. Musk,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

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Despite the importance of broadcast AM radio, some automakers have begun discontinuing the feature in new vehicles, particularly electric vehicles. Manufacturers have argued that batteries and other technology in EVs create an electromagnetic interference with AM radio waves, significantly impairing audio quality.⁹ Although this interference is real, automakers have developed innovative technologies to address this problem. For example, research suggests that digital broadcast radio — through which consumers can receive AM stations — is less susceptible to electromagnetic interference than analog AM radio.¹⁰ In 2018,

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Although the auto industry's investments in electric vehicles are critical to addressing the climate crisis and reducing greenhouse gas emissions, automakers need not sacrifice the benefits of radio in the process. Given AM radio's importance for emergency communications and continued consumer demand, I urge your company to maintain the feature in its new vehicles and request that you answer the following questions in writing by December 22:

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3. Does your company include free, digital broadcast radio in its vehicles? If so, please provide the make, model, and manufacturing year of each vehicle equipped with digital broadcast radio.

Thank you for your prompt attention to these questions.

Sincerely,



Edward J. Markey
United States Senator

¹¹ Council Directive 2018/1972, annex xi, 2018 O.J. (L 321) 36, 205 (EC).

United States Senate

December 1, 2022

Tetsuo “Ted” Ogawa
President and Chief Executive Officer
Toyota Motor North America, Inc.
6565 Headquarters Drive
Plano, TX 75024

Dear Mr. Ogawa,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

AM radio has long been an important source of information for consumers. Before the COVID-19 pandemic, nearly 90 percent of Americans ages 12 and older — totaling hundreds of millions of people — listened to AM or FM radio each week,¹ higher than the percentage that watch television (56 percent²) or own a computer (77 percent³). Forty-seven percent of Americans receive news from the radio,⁴ and tens of millions more listen to music. The car remains a main channel through which consumers listen to broadcast radio, with 89 percent of prospective U.S. car buyers saying a radio tuner should be standard in every car.⁵ Moreover, 33 percent of new car buyers say that AM radio is a very important feature in a vehicle — higher than dedicated Wi-Fi (31 percent), SiriusXM satellite radio (27 percent), and personal assistants

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Although the auto industry's investments in electric vehicles are critical to addressing the climate crisis and reducing greenhouse gas emissions, automakers need not sacrifice the benefits of radio in the process. Given AM radio's importance for emergency communications and continued consumer demand, I urge your company to maintain the feature in its new vehicles and request that you answer the following questions in writing by December 22:

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Thank you for your prompt attention to these questions.

Sincerely,



Edward J. Markey
United States Senator

¹¹ Council Directive 2018/1972, annex xi, 2018 O.J. (L 321) 36, 205 (EC).

United States Senate

December 1, 2022

Pablo Di Si
President and Chief Executive Officer
Volkswagen Group of America, Inc.
2200 Woodland Pointe Avenue
Herndon, VA 20171

Dear Mr. Di Si,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

AM radio has long been an important source of information for consumers. Before the COVID-19 pandemic, nearly 90 percent of Americans ages 12 and older — totaling hundreds of millions of people — listened to AM or FM radio each week,¹ higher than the percentage that watch television (56 percent²) or own a computer (77 percent³). Forty-seven percent of Americans receive news from the radio,⁴ and tens of millions more listen to music. The car remains a main channel through which consumers listen to broadcast radio, with 89 percent of prospective U.S. car buyers saying a radio tuner should be standard in every car.⁵ Moreover, 33 percent of new car buyers say that AM radio is a very important feature in a vehicle — higher than dedicated Wi-Fi (31 percent), SiriusXM satellite radio (27 percent), and personal assistants

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Sincerely,



Edward J. Markey
United States Senator

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United States Senate

December 1, 2022

Anders Gustafsson
President and Chief Executive Officer
Volvo Car USA, LLC
1800 Volvo Place
Mahwah, NJ 07430

Dear Mr. Gustafsson,

I write to urge your company to maintain broadcast AM radio in its current and future vehicles, including electric vehicles (EVs). Broadcast AM radio remains a crucial, cost-free source of news, sports, and weather, and, more importantly, is an essential medium for public safety officials — including the president — to communicate with the public during emergencies. Although EVs can cause electromagnetic interference with AM radio signals, car manufacturers appear to have developed innovative solutions to this problem. Therefore, as the United States works to meet President Biden’s goal of 50 percent electric vehicle sales by 2030, we urge your company to maintain broadcast AM radio in its vehicles to ensure that consumers have access to critical emergency response information.

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