

**DOCKETED**

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*Comment Received From: Xperi Corporation  
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**Xperi Corporation -- Comments on Flexible Demand Appliance Standards**

*Additional submitted attachment is included below.*

January 4, 2021

California Energy Commission  
Docket Unit, MS-4  
Docket Number: 20-FDAS-01  
1516 Ninth Street  
Sacramento, CA 95814-5512

**Subject: Comments on California Energy Commission Flexible Demand Appliance Standards  
Docket Number 20-FDAS-01**

The utility industry seeks to reduce operational costs and manage load use through flexible demand appliances. Reliable and cost-effective communication to flexible demand appliances will be required to achieve the industry's goals. Radio broadcasting and digital broadcast technology provides a solution to meet these goals. Xperi Corporation ("Xperi") has developed broadcast technology which can be utilized for scalable unidirectional communication and control to devices in large metropolitan areas. A digital radio broadcast network can be created to communicate to devices and appliances with a secure and easy-to-use data service. Simplified setup for devices and reduced operational costs for demand response could help grow consumer participation in Demand Response programs. We propose that digital radio broadcasting on AM and FM bands should be strongly considered as standard for efficient data delivery, providing cost-effective distribution of information in a one-to-many broadcast data service. We encourage the Commission to further review the capabilities and potential of digital radio broadcasting to meet the objectives of Senate Bill 49.

Radio broadcasting is the most cost-effective transmission technology to reach many devices with a common message. The one-to-many efficiency of radio allows operators to scale services to millions of receivers without increasing operational costs. The transmission infrastructure already exists across the U.S. AM and FM radio stations operate in all major markets providing radio services across the entire U.S., including digital radio broadcasts.

Advances in digital radio broadcasting have allowed AM and FM radio operators the ability to efficiently transmit data services over their existing FCC frequency allocations. The In-Band On-Channel (IBOC) digital radio standard NRSC-5-D<sup>1</sup> defines the technology and protocols necessary for radio stations to achieve reliable digital communications on current commercially operated radio stations. Digital radio broadcasting enables higher data transmission rates than analog. Digital data transmission will allow for device-addressable protocols and location-based messaging to manage a wide variety of device applications. Twenty-four hundred (2400) radio

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<sup>1</sup> NRSC-5-D *In-Band/On-Channel Digital Radio Broadcasting Standard*, National Radio Standards Committee, April 2017. <https://www.nrscstandards.org/standards-and-guidelines/documents/standards/nrsc-5-d/nrsc-5-d.asp>



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Ashruf El-Dinary  
Senior Vice President  
Radio Technology Solutions

stations across the United States, including two-hundred thirty-nine (239) radio stations in California, implement Xperi's IBOC HD Radio™ digital broadcast standard and technology.

Digital Radio Broadcasting offers extensive capability and scalable capacity to provide reliable data services to stand-alone devices. This transmission technology has serviced millions of automotive vehicles with real-time traffic messaging data integrated into automotive navigation systems since 2008. The technology offers:

- Service/subscriber scalability
- Affordable service
- Addressable devices
- Geo-targeting
- Existing major-market infrastructure
- Robust and reliable content delivery
- Consumer privacy and security
- Ease of operation

Radio broadcasting has a 100-year history of serving local communities, providing information and messaging to the public. Digital radio's potential for simplified setup and reduced operational costs could help grow consumer participation in Demand Response programs. Xperi Corporation's engineering teams would like to support your further study and analysis for this proposal.

Sincerely,

A handwritten signature in black ink, appearing to read "Ashruf El-Dinary".

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