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Before the  
Federal Communications Commission  
Washington, D.C. 20554

JUL 27 1998

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of	)	
	)	
1998 Biennial Regulatory Review --	)	ET Docket No. 98-80
Conducted Emissions Limits Below 30 MHz	)	
for Equipment Regulated Under Parts 15	)	
and 18 of the Commission's Rules	)	
	)	

**Comments of UTC**

Pursuant to Section 1.415 of the Commission's Rules, UTC, The Telecommunications Association,<sup>1</sup> hereby respectfully submits the following comments on the FCC's *Notice of Inquiry (NOI)*, released June 8, 1998, in the above-captioned matter regarding the conducted emissions limits in Parts 15 and 18 of the Commission's rules for carrier current systems.

**I. Introduction**

UTC is the national representative on telecommunications matters for the nation's electric, gas and water utilities, and natural gas pipelines. US electric utilities are exploring the viability of deploying carrier current telecommunications systems along their electric distribution networks. Accordingly, UTC has an interest in this proceeding and welcomes the opportunity to provide the following comments.

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<sup>1</sup> UTC was formerly known as the Utilities Telecommunications Council.

## II. The FCC's Rules Should Encourage The Development Of Carrier Current Systems

This inquiry has been undertaken to review the FCC's "conducted emissions limits" which control the levels of radio frequency voltage that equipment may conduct onto (AC) power lines. The purpose of these limits is to protect against interference to radio services operating below 30 MHz. The conducted emissions limits apply to a wide variety of products, including various electronic devices and radio transmitters. The *NOI* notes that certain systems use carrier current techniques to deliberately couple RF energy to the AC electrical wiring for communication. Interference from carrier current systems is controlled primarily by requiring compliance with radiated emissions limits. The FCC seeks to examine whether the carrier current regulations continue to be necessary, and if so, whether any changes to the limits may be appropriate.

As UTC's member utilities move into a competitive environment, many of them are actively exploring advanced telecommunications technologies in order to better control their electric systems, interact with their customers and provide value-added services. Among the various telecommunications technologies being explored by utilities are carrier current systems that would enable the provision of high-speed data services via their electric distribution systems.

In the United Kingdom, a carrier current technology has been developed that shows great promise to provide high-speed data, entertainment and Internet service over existing electric distribution lines. The distribution power line carrier technology being developed would provide a dedicated broadband connection capable of transmitting data over power lines at speeds up to 1 Mbps or 10 times faster than ISDN lines. Equipment manufacturers and electric utilities are attempting to adapt this power line carrier technology to operate efficiently on the electric distribution systems of US utilities.<sup>2</sup>

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<sup>2</sup> There are differences in electric system architectures between the US and European markets that may alter the economics of deploying these systems in the US.

The development of distribution power line carrier technology in the US holds out a significant potential opportunity for real facilities-based competition in high-speed data services to the end-user customer. As this work progresses, it is vital that the FCC's carrier current requirements or other regulations not unnecessarily impede the development or deployment of this technology. However, because this technology is still in the developmental stage for the US market it is premature to propose specific modifications to the FCC's Rules at this time.

Currently utility use of power line carrier technologies is restricted to systems that are located on the transmission side of their electrical networks. For years, electric utilities have utilized power line carrier systems as a form of "protective relaying" to control and protect the interconnected electric transmission grid. Rather than subjecting these systems to licensing requirements or strict interference criteria, the FCC has wisely allowed the industry to be self-policing and has designated UTC to act as a "coordinator" for power line carrier systems pursuant to a "Memorandum of Understanding" among the FCC, the National Telecommunications and Information Administration (NTIA) and UTC. This system has allowed power line carrier transmission systems to operate with a minimum amount of government involvement or regulation.<sup>3</sup> UTC would suggest that once distribution power line carrier technology is proven to be viable in the US market, consideration be given to use of similar industry coordination procedures in lieu of restrictive government regulation. As the utility industry representative on telecommunications matters, UTC stands ready to assist the FCC in this process.

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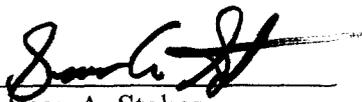
<sup>3</sup> See 47 C.F.R. §§ 15.113 and 90.35(f).

**WHEREFORE, THE PREMISES CONSIDERED,**UTC urges the Commission to take action on this *Notice of Inquiry* in accordance with the views expressed in these comments.

Respectfully submitted,

**UTC**

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