



Department of Energy  
Washington, DC 20585

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Federal Communications Commission  
Office of the Secretary

Ms. Donna R. Searcy  
Secretary  
Federal Communications Commission  
1919 M Street, N.W.  
Washington, D.C. 20554

RE: Redevelopment of Spectrum to Encourage  
Innovation In The Use Of New  
Telecommunications Technologies ET  
Docket No. 92-9

Dear Ms. Searcy:

Enclosed for filing in the above-docketed matter are an original and nine (9) copies of the Comments Of The United States Department of Energy.

We request that the additional enclosed copy of the Comments be date stamped and returned for our records. Thank you for your assistance.

Very truly yours,

Lawrence A. Gollomp  
Assistant General Counsel  
The United States Department of Energy

Enclosure

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BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON D.C. 20554

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JUN - 3 1992

Federal Communications Commission  
Office of the Secretary

In the Matter of )  
 )  
Redevelopment of Spectrum )  
to Encourage Innovation ) ET Docket No. 92-9  
in the Use of New )  
Telecommunications Technology )

COMMENTS OF THE UNITED STATES DEPARTMENT OF ENERGY

Pursuant to the Federal Communications Commission's ("the Commission" or "FCC") Notice of Proposed Rulemaking (NPRM) adopted on January 16, 1992, the United States Department of Energy ("the Department" or "DOE") hereby submits comments in the above-referenced docket.

I. PERSONS TO BE SERVED

The names, titles, and mailing addresses of the persons to whom communications concerning this docket are to be addressed are:

Lawrence A. Gollomp  
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## II. DISCUSSION

The Department is providing comments on several issues regarding the communications and control capabilities of the users of fixed microwave equipment operating between 1850 and 2200 Megahertz (MHz). These users include many of the Nation's major energy providers including electric utilities, oil supply companies, and natural gas producers and pipelines. Many of these energy providers need extremely reliable communications systems in order to provide reliable service to the public.

Before the FCC issues a final rule to require these existing users to move and to allocate this part of the spectrum to emerging communications technologies, several issues require the Commission's full consideration. If, as a result of the current FCC notice, the Commission determines that the 1850-2200 MHz band should be reallocated, a more specific FCC proposed rule is needed. The Commission could then consider comments concerning the transition period, the new spectrum to be reserved for existing users, the cost of converting to the new spectrum, and the provisions for reimbursing the costs to existing users.

DOE appreciates the need to designate a portion of the radio spectrum for emerging technologies. However, as noted in the NPRM, action to vacate some portion of the spectrum to allow for

these new technologies would be disruptive to existing users of those frequencies. The decision on which existing users to displace and on how to manage the transition must be based on careful consideration of the best use of limited frequencies and on the importance to the public interest of having a reasonable transition plan.

The Department is concerned that the proposal to select the 1850-2200 MHz sector for emerging technologies may not have given adequate consideration to other portions of the spectrum as candidate bands for emerging technologies, or to the effects of this choice on existing users. Would users in other bands face as much disruption as users in the 1850-2200 MHz band? What would be the timeframe for conversion and provision of compensation? Would other bands better meet the FCC's criteria for the candidate spectrum? The current NPRM should elicit adequate information for this decision.

Other concerns include potential effects on the reliability of energy services and the cost of moving existing users, both of which depend on the timetable for conversion. Also the net cost to existing users, which determines the effect on energy prices, depends on the provisions set by the FCC for cost reimbursement. Analyses of reliability impacts and moving costs require that a more specific proposed rule be developed by the Commission.

Many of the existing users of the 1850-2200 MHz band are energy companies that must meet exacting standards of reliability. In particular, generators and transmitters of electricity depend on communications equipment using these frequencies to provide reliable service across geographic areas spanning thousands of miles. For example, the historic blackout in the Northeast in 1965 was partially caused by inadequate communications among generating facilities. To help protect against such disruptive blackouts, the electric utility industry has invested heavily in communications and control systems designed to enhance the reliability of regional electricity supply networks. The change proposed by the FCC would require another very large investment—over an indeterminate timeframe—to maintain the reliability of the system.

As noted in the NPRM, the prospective cost of moving existing users could be very high. Estimated costs are as high as \$800 million or more. However, the actual cost will depend on the communications medium that would replace existing equipment and the timeframe of the transition. Cost reimbursement provisions need to be set out because unreimbursed costs will be passed on to energy consumers.

In choosing alternatives to the 1850-2200 MHz band for existing users, DOE encourages the Commission to solicit the technical assistance of the existing users. Some of these users already

communicate at higher frequencies and have experience with other communications media. For example, use of higher frequencies may necessitate additional microwave relay towers. If these towers would affect national or state parks, wetlands, navigable waterways, or other sensitive areas it may be impossible to construct necessary communications facilities. The Commission should consider such constraints in choosing alternatives.

If current energy users must be displaced, disruptions to current users would be minimized if:

- Adequate replacement frequencies with appropriate technical characteristics are made available, and
- The current users are given an adequate transition period for moving to the new frequencies (multiple use of the 1850-2200 MHz band is a potential option that may minimize disruptions and should be explored further), and
- Fair cost reimbursement is provided for.

DOE recommends that the FCC issue a more specific proposed rule. The existing NPRM lists some options that could be used to minimize the disruptions that would occur if the proposal to move existing users were to be adopted. But it does not select a specific option, which would permit commenters to analyze cost

and time needed for transition. The Department urges the FCC to solicit comments on a more specific proposed rule before issuing a final rule. This would enable affected parties to quantify the impacts, allowing the Commission to issue a final rule based on more complete information.

The Department appreciates the opportunity to comment on this important subject.

Respectfully submitted,

A handwritten signature in black ink, reading "Linda G. Stuntz". The signature is written in a cursive, flowing style.

Linda G. Stuntz

Acting Deputy Secretary