

Docket
272

FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

28 JAN 1992

IN REPLY REFER TO:

CN9200164

EX PARTE OR LATE FILED

RECEIVED

JAN 30 1992

Honorable Tom Harkin
United States Senate
531 Hart Senate Office Building
Washington, DC 20510-1501

Dear Senator Harkin:

Federal Communications Commission
Office of the Secretary

Your letter to Chairman Sikes has been referred to me for reply. Your constituent, Dennis L. Hill of Northwest Iowa Power Cooperative, expressed concern to you regarding proposals to reallocate frequencies at 2 GHz that potentially would impact the public utilities currently using those frequencies.

On January 16, 1992, the Commission adopted a Notice of Proposed Rule Making (Notice) in ET Docket No. 92-9 that proposes allocating 220 MHz of 2 GHz spectrum for use by providers of emerging technologies. With regard to licensees currently using portions of this spectrum, the Commission proposed to permit state and local government licensees, including public safety agencies, to continue indefinitely their current operations on a primary basis. Other users would be permitted to continue their current operations on a primary basis for a period of time to be established -- such as 10 or 15 years -- and then permitted to continue operating only on a secondary basis. Expansion and new microwave systems also would be permitted only on a secondary basis in this band. Expansion and new systems on a primary basis would be permitted at higher frequencies. In conjunction with the Notice, the Commission will release a staff study of existing use of this spectrum and identify other suitable frequencies available for this purpose. To further facilitate accommodation of the competing demands for this spectrum, the Commission also proposed to permit negotiation of financial arrangements between existing licensees and parties proposing new services that would facilitate access to this spectrum for services employing emerging technologies.

These provisions are intended to prevent disruption to the communications of the existing licensees, yet still provide the spectrum needed by U.S. companies to develop new and innovative telecommunications products and services and bolster U.S. competitiveness in world telecommunications markets. An example of one such new proposed service is the personal communications service (PCS), which the Commission is addressing concurrently in GEN Docket No. 90-314.

The need of the existing users of 2 GHz for reliable communication is of importance to the Commission, and is being taken carefully into consideration. Your constituent's concerns will be taken into account

Honorable Tom Harkin

2.

before a final determination is made, and for that purpose, I am making his letter part of the record in the two dockets discussed above, ET Docket No. 92-9 and GEN Docket No. 90-314.

Sincerely,

A handwritten signature in cursive script that reads "Thomas P. Stanley".

Thomas P. Stanley
Chief Engineer

TOM HARKIN
IOWA

United States Senate

WASHINGTON, DC 20510
January 10, 1992

OET
ET-SPECTRUM
164

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COMMITTEES:
AGRICULTURE
APPROPRIATIONS
SMALL BUSINESS
LABOR AND HUMAN
RESOURCES

Alfred C. Sikes, Chair
Federal Communications Commission
1919 M Street N.W., Room 814
Washington, D.C. 20554

Dear Chairman Sikes:

I have enclosed copies of a number of letters from Iowa Power cooperatives. They are extremely concerned about the proposal to alter the use of the 2 GHz microwave radio spectrum. It appears unfair to me to change the allocation of a portion of the microwave spectrum after an industry has made a substantial investment in the technology to use it. I certainly hope that you will take the concerns expressed in these letters into account as you consider alternative uses for the microwave spectrum.

Please send me your response to these letters in care of my aide, Philip Buchan. Thank you for your consideration of this information.

Sincerely,

Tom Harkin
United States Senator

TH/pwb

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JAN 27 1992
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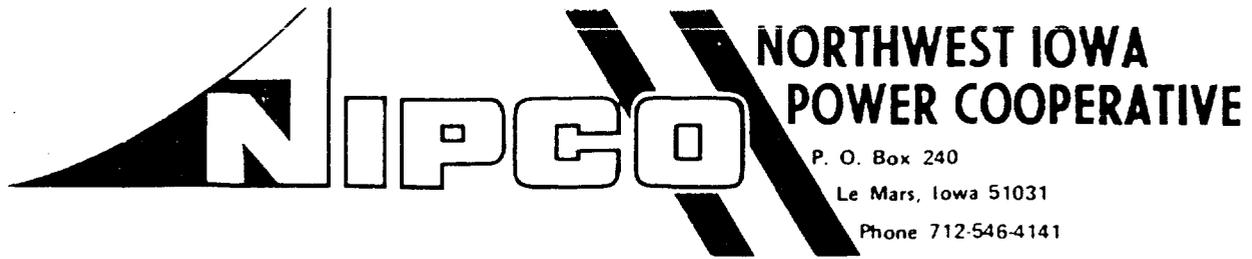
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(712) 252-1550



December 3, 1991

The Honorable Tom Harkin
Attn: Phil Buchan
531 Hart Senate Office Building
2nd & C Streets, N.E.
Washington, D.C. 20510

Sir: In Reply Refer to: Code 105

SUBJECT: Preservation of 2 GHz Microwave Radio Spectrum

It is with deep concerns that we write you today relative to an issue that is currently before the Federal Communications Commission (FCC). The FCC is proposing to reallocate an area of radio spectrum for personal communications networks and also create a spectrum reserve for new developing technologies.

The area of spectrum that this is to take place in is the 1.8 to 2.2 GHz region. That area of spectrum is used very heavily in the United States for operational fixed microwave communications. The current users of these frequencies are wide and varied but the utility industry is by and large the biggest user of these frequencies. In the State of Iowa alone there are 275 of these microwave systems in operation. This represents a value of approximately \$55 million for existing equipment users.

If the FCC has its way, all the 2 GHz microwave users in the United States will be moved out of this band to other frequencies and other technologies. The band will then be clear for the proposed spectrum reserve. In the United States, this represents an all encompassing investment of approximately \$4 billion in equipment that will be totally worthless and need to be replaced.

We, in the utility business, will be hardest hit. Not only because of the dollar value that we will need to reinvest in new equipment (\$3.5 million for my utility alone), but we will lose a great deal of reliability in our power generation and transmission systems.

Our microwave radio systems are used to monitor and control our power transmission network ensuring that all of our customers are receiving an economical and reliable supply of electrical energy. The microwave radio system that we now have in place is by far the most reliable and economical means of controlling the transmission network. If we were forced to move to other frequencies, or find other forms of communication technologies, we might expect periods of brownouts or blackouts. This could result in increased crimes, snarled traffic and possible

The Honorable Tom Harkin
Washington, D.C.
December 3, 1991
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personal injuries or deaths. You might recall the East Coast blackout that occurred a number of years ago. This is the same kind of consequences we are dealing with if we lose these radio frequencies.

The FCC is currently trying to "railroad" this issue through without any consideration for current spectrum users or the consequences that the public will suffer financially and, most important, the reliability of their electrical energy supply. It is proposed that the FCC will rule on this important issue by the end of the year.

Northwest Iowa Power Cooperative and others have done everything possible to relay to the FCC the extreme importance this issue is to the public, but they don't seem to care and appear to have already made up their minds. For example, on December 5, 1991, there will be a hearing on the spectrum reserve. Numerous pro-PCN parties were invited to testify, but only one person was asked to attend to represent existing spectrum users. Our trade association, Utilities Telecommunications Council (UTC), who represents the largest body of existing users, was not even asked to testify. We think that this is unfair and that the FCC has "tipped the table" in their favor.

We are asking your help in seeing that the utility industry and others who use these microwave frequencies in this country for the well-being of the American public are not left out in the cold. There are other frequencies that are available that will serve just as well for personal communications networks or a spectrum reserve other than in the proposed 1.8 to 2.2 GHz band.

Please contact the FCC Commissioners and Chairman and tell them how important these frequencies are to the people of Iowa and the Nation for continued reliable electric service. You, the Congress of the United States, are our only hope to overcome this impending disaster.

I have also included a list of states and the financial burdens that those residents will incur if we lose this radio spectrum.

Because of the time constraints, we are faxing you this letter so that you might start researching this problem as soon as possible. We will follow the fax with the original being mailed. Your immediate and caring attention to this matter will be deeply appreciated by all concerned.

Sincerely,

NORTHWEST IOWA POWER COOPERATIVE



Dennis L. Hill
Data Retrieval Manager

DLH:mrs



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 NORTHWEST IOWA POWER COOPERATIVE
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101 MESNER ...	301 JOENS ...
102 BOWERS ...	302 SHOSTAK ...
103 BREMER ...	303 SODERBERG...
104 FRY ...	304 STREUFERT...
105 HILL /	305 JENSEN ...
106 KOLKER ...	306
201 OORDT ...	400 NELSON...
202	401 ANDERSON...

BASIS FOR IMPACT/COST ESTIMATES

I. The UTC Executive Summary Contains the Statement that:
 [T]he loss of the 2 GHz band would cost utilities... alone, close to \$800 million in equipment purchases and operational transition costs.

II. Basis for Cost Estimates:

A. In a 1990 UTC survey of electric, gas and water utilities operating stations in the 1.85-2.20 GHz band, each licensee was asked:

If you could no longer use the 1.8 or 2.1 GHz bands, what would be the total cost (for engineering, installation, site acquisition, equipment, etc.) to install replacement facilities or to obtain substitute service?

B. 142 utilities responded to the survey, collectively operating about 2,600 microwave stations in this band:

1. Aggregate cost for these survey respondents to replace their stations with other facilities or services -- about \$577 million.
2. Average per station relocation cost -- about \$220,000.

C. Based on UTC's review of FCC licensing records, there are about 3,700 utility-owned microwave stations in the 1.85-2.20 GHz band.

D. Therefore, the total cost to relocate all utility-owned microwave stations would be over \$800 million (i.e., \$220,000 x 3,700).

E. With over 20,000 microwave stations licensed in the 1.85-2.20 GHz band, the cost to relocate all users from the band would be well over \$4 billion.

F. See Reverse for State by State Relocation Costs

COST TO RELOCATE 2 GHz MICROWAVE STATIONS

<u>STATE</u>	<u>NUMBER OF STATIONS</u>	<u>COST TO RELOCATE</u>
Alabama	323	\$65 Million
Alaska	322	\$64 Million
Arizona	561	\$112 Million
Arkansas	364	\$73 Million
California	2,241	\$448 Million
Colorado	629	\$126 Million
Connecticut	93	\$19 Million
Delaware	21	\$4 Million
District of Columbia	31	\$6 Million
Florida	850	\$170 Million
Georgia	443	\$89 Million
Hawaii	158	\$32 Million
Idaho	241	\$48 Million
Illinois	534	\$107 Million
Indiana	310	\$62 Million
Iowa	275	\$55 Million
Kansas	275	\$55 Million
Kentucky	369	\$74 Million
Louisiana	754	\$151 Million
Maine	93	\$19 Million
Maryland	172	\$34 Million
Massachusetts	136	\$27 Million
Michigan	282	\$56 Million
Minnesota	392	\$78 Million
Mississippi	165	\$33 Million
Missouri	505	\$101 Million
Montana	238	\$48 Million
Nebraska	295	\$59 Million
Nevada	384	\$77 Million
New Hampshire	64	\$13 Million
New Jersey	100	\$20 Million
New Mexico	600	\$120 Million
New York	655	\$131 Million
North Carolina	349	\$70 Million
North Dakota	173	\$35 Million
Ohio	430	\$86 Million
Oklahoma	318	\$64 Million
Oregon	414	\$83 Million
Pennsylvania	676	\$135 Million
Rhode Island	44	\$9 Million
South Carolina	198	\$40 Million
South Dakota	159	\$32 Million
Tennessee	257	\$51 Million
Texas	2,215	\$443 Million
Utah	400	\$80 Million
Vermont	46	\$9 Million
Virginia	411	\$82 Million
Washington	568	\$114 Million
West Virginia	146	\$29 Million
Wisconsin	348	\$70 Million
Wyoming	354	\$71 Million



December 13, 1991

The Honorable Tom Harkin
Attn: Phil Buchan
531 Hart Building
2nd & C Street, N.E.
Washington, D.C. 20510

Sir:

In Reply Refer to: Code 105

SUBJECT: 2 GHz Radio Spectrum

Last week we wrote you a letter concerning the 2 GHz microwave radio spectrum that is being used extensively by the utility industry to control their electrical transmission systems. This area of radio spectrum is being viewed by a type of cellular telephone system, personal communications networks (PCN), as a good area to use for their technology. This same area of spectrum is also being viewed as a spectrum reserve by the Federal Communications Commission (FCC). The FCC is proposing to remove all current microwave users and give this spectrum to others for purposes as stated above.

This issue is of great concern to the utility industry because the reliability of our electrical service is directly related to this microwave spectrum.

It is our feeling that the FCC is not aware of the consequences associated with the loss of this radio spectrum and they need to be alerted to the serious situations which could result to the American public if this spectrum is lost to other entities.

The FCC appears to have already made up their minds about the removal of existing microwave users. They have closed the door on our case and have, throughout the course of their investigation, not been receptive to the utility industry's needs.

As we look at the cost of replacing our equipment to comply with the FCC's requirements, we find that our small utility alone will have an investment of \$3.5 million. Nationwide, the price tag will be over \$800 million.

The Honorable Tom Harkin
December 13, 1991
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The consumer will be the one who will be paying for these changes through higher rates. Totally, in the State of Iowa (your home state), we will see an expenditure of \$55 million. You know how oppressed the Iowa farm economy is. How can we justify and afford to pay out an additional \$55 million for replacement of something that already exists and works reliably? We need congressional support in this issue. Please contact the FCC Commissioners and Chairman and pull back on their reins to turn them around before it is too late. They must know that there are other frequencies available for their plans other than in the heavily used 2 GHz microwave band.

You are our only hope. The electric consumers of Iowa need your support in this important matter.

Sincerely,

NORTHWEST IOWA POWER COOPERATIVE



Dennis L. Hill
Data Retrieval Manager

DLH:mrs





Central Iowa Power Cooperative

P.O. Box 2517
Cedar Rapids, Iowa 52406
(319) 366-8011
FAX (319) 366-8626

December 13, 1991

Senator Tom Harkin
531 Hart Building
2nd and C Streets, N.E.
Washington, D.C. 20510

Subject: 1.8 - 2.1 GHz Microwave Radio Spectrum

Dear Senator Harkin:

A hearing by the Federal Communications Commission (F.C.C.) was held this past week to hear comments on their plans to remove the existing users of microwave radio equipment in the 2 GHz frequency band. The F.C.C. plans to use this spectrum for personal computer networks (PCN). We were represented through our industry association, the Utilities Telecommunication Council.

We wrote previously to let you know about the adverse impacts that our cooperative would face if this program goes forth as the F.C.C. intends. A review of the database of over 500 transmitters in Iowa alone which would be affected revealed that the consumer will be hurt in several areas.

In addition to our cooperative and ten other electric utilities in Iowa, the following is a listing of some organizations whom you may recognize using the frequencies.

Iowa State University
Iowa Public Broadcasting
Palmer Communications
U. S. West
AT&T
Garst Seed Company
ANR Pipeline Company
ARCO Pipeline Company
West Central Cooperative
Burlington Northern Railroad
Chicago and Northwestern Railroad
Buena Vista County
Scott County
Monona County
Iowa Department of Transportation

Senator Tom Harkin
December 13, 1991
Page 2

We encourage continued pressure on Mr. Alfred Sikes with the Federal Communications Commission and the other commissioners. Your efforts in this area are appreciated.

Very truly yours,

CENTRAL IOWA POWER COOPERATIVE



Dale J. Krohse
Manager of Engineering

pcd

c: Dennis Murdock
Dick Anderson



December 26, 1991

Senator Tom Harkin
ATTN: Phil Buchan
531 Hart Building
2nd & C Streets, N.E.
Washington, D.C. 20510

Dear Senator Harkin:

In Reply Refer to: Code 105

SUBJECT: Utility Microwave Radio Spectrum

As you are probably aware from previous correspondence, our microwave radio spectrum is under threat of being taken over by Personal Communication Networks (PCN). The Federal Communications Commission (FCC) is also proposing a radio spectrum reserve for new and developing technologies within the heart of America's utility industry radio spectrum.

It is our feeling that the FCC has no idea of the importance this radio spectrum is to us and it is crucial that the FCC understands what the loss of this radio spectrum means to the utility industry.

If NIPCO loses this radio spectrum to developing technologies, it will mean an expenditure of at least \$3.5 million for replacement equipment in a higher radio band or alternate technologies such as fiber optics.

What is even more important is that the country relies on this microwave spectrum to supply a clean, dependable source of electric energy to the end consumer. Our existing microwave radio system is the most reliable means to carry on this necessary communications.

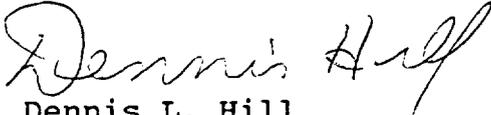
It is for that reason, if your schedule allows, we would be honored if you would visit our Control Center to see first hand the importance of our microwave system and how it is used to ensure that NIPCO's 22,332 members on the western side of the State of Iowa are supplied with electricity. If your schedule would not allow such a trip, we would like to meet with you elsewhere and explain our position.

Senator Tom Harkin
December 26, 1991
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Time is of the essence because the FCC is to rule very soon on this important issue. The Congress of the United States is our only hope to turn this pending disaster around. Please give us your utmost consideration.

Sincerely,

NORTHWEST IOWA POWER COOPERATIVE



Dennis L. Hill
Data Retrieval Manager

DLH:cah





January 3, 1992

The Honorable Tom Harkin
Attn: Phil Buchan
531 Hart Building
2nd & C Streets, N.E.
Washington, D.C. 20510

Sir:

In Reply Refer to: Code 105

SUBJECT: 1.8 - 2.1 GHz Microwave Spectrum

It is with deep concern that we are writing you today regarding the possible takeover of the utility industries' microwave radio spectrum by personal communications networks (PCN).

The frequencies in question are in the 1.8 - 2.1 GHz region. PCN is a form of cellular telephone technology that has developed its roots in Europe and is now attempting to be transplanted in the United States. Northwest Iowa Power Cooperative (NIPCO) and other utilities use these frequencies to control their generation and transmission facilities. The continuity of electrical service to the American public is heavily dependent upon these frequencies. If we lose these frequencies, other means of communications will need to be found. These other means are extremely expensive or unreliable by comparison. The country could find itself in periods of blackouts or brownouts if these unreliable means of communications were to replace our existing microwave networks. This may result in traffic jams, darkened streets, an increase in crime and would seriously jeopardize the public's health and safety.

On the financial aspect, rural America is still under severe economic stress. As you know such situations are presently occurring right here in Iowa.

Our rural electric cooperatives are being faced with declining loads due to the mass migration from the family farm, which has been so much a symbol of America in the past. Those individuals that are left on the farm are the only bearers of the financial burden to pay for a new communications network which will be necessary to keep the lights burning in rural Iowa.

At this point in time, it will cost NIPCO's members alone in excess of \$3 million to replace a perfectly good, reliable microwave communications network. The 22,332 consumers in NIPCO's service area will be hard pressed to carry this additional financial burden.

The Honorable Tom Harkin
January 3, 1992
Page 2

The Chairman of the Federal Communications Commission (FCC), Alfred Sikes, proposes that this frequency band could also serve as a place for "emerging technologies" and has taken it upon himself to see that this proposal is in place sometime after the first of the year. Emerging technologies is defined as new technical developments which will require radio spectrum to function.

We would encourage you to contact Mr. Sikes as well as various key personnel of the FCC staff and encourage them to look elsewhere for this spectrum reserve and a home for PCN.

Alfred C. Sikes
Chairman
Federal Communications
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Washington, D.C. 20554
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Your immediate attention to this impending disaster is encouraged because the FCC is scheduled to make a decision on this issue by the end of January.

Sincerely,

NORTHWEST IOWA POWER COOPERATIVE



Dennis L. Hill
Data Retrieval Manager

DLH:mrs

