

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

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In the Matter of )  
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Amendment of Part 2 and Part 90 of the )  
Commission's Rules To Allocate the )  
1427-1432 MHz Band for Automatic Meter )  
Reading and Utility Telemetry Use )

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PETITION FOR RULEMAKING OF ITRON, INC.

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## SUMMARY

In this Petition for Rulemaking, Itron requests that the Commission allocate the 1427-1432 MHz band on a primary basis for automatic meter reading (“AMR”) and utility telemetry operations. AMR and utility telemetry systems represent a significant advance over conventional methods for providing an interface between utilities and utility meters. Congress and the Commission both have recognized the importance of these systems, which reduce energy costs; improve customer service; promote responsible environmental management; make it possible for utilities to defer or avoid new construction; and advance the Commission’s critical infrastructure industry policies.

The 1427-1432 MHz band has been used for AMR and utility telemetry operations since 1993. This use began after Congress in 1992 directed the Department of Energy (“DOE”) to come up with a demonstration plan for AMR and utility telemetry communications, and to consider requesting authority from NTIA to use radio frequencies to carry out the demonstration projects. DOE later issued a report recognizing the vital role that utility communications systems can play in improving customer service, managing energy and water use, reducing costs, and improving public health and safety. DOE determined that there was no need to request an authorization of frequencies from NTIA principally because the Commission already had issued a developmental license to Itron and “other entities are free to apply to the Federal Communications Commission for developmental, experimental, and regular operational licenses in this [1427-1432 MHz] band.”

The 1427-1432 MHz band is a logical home for AMR and utility telemetry systems. These systems have a proven track record of co-existing with sensitive radioastronomy receivers in a band adjacent to 1427-1432 MHz and with co-

channel federal government operations that will continue in many major metropolitan areas until 2004.

For all of these reasons, Itron asks that the Commission initiate a rulemaking to allocate the 1427-1432 MHz band on a primary basis to AMR and utility telemetry systems.

TABLE OF CONTENTS

|      |  |    |
|------|--|----|
| I.   | Background and Statement of Interest.....  | 1  |
| II.  | Itron's Proposed Allocation Would Serve The Public Interest.....   | 4  |
|      | A.    AMR And Utility Telemetry Applications Merit A Permanent<br>Allocation In The 1427-1432 MHz Band ..... | 4  |
|      | B.    The Commission Is Obligated To Foster The Development Of AMR<br>And Utility Telemetry Services.....    | 7  |
|      | C.    The 1427-1432 MHz Band Is Uniquely Well Suited To Use For AMR<br>And Utility Telemetry Functions.....  | 8  |
|      | D.    AMR and Utility Telemetry Operations Could Not Reasonably Be<br>Supported In Other Spectrum.....       | 9  |
|      | E.    Itron's Proposal Would Harmonize the U.S. And Canadian<br>Allocation Plans.....                        | 10 |
| III. | Certain Other Proposed Uses Of The 1427-1432 MHz Band Do Not<br>Preclude An AMR Allocation .....             | 11 |
|      | A.    The Proposed Wireless Medical Telemetry Service .....  | 11 |
|      | B.    The Proposed Land Mobile Communications Service .....  | 12 |
|      | CONCLUSION.....  | 15 |

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**PETITION FOR RULEMAKING OF ITRON, INC.**

Itron, Inc. ("Itron"), by its attorneys and pursuant to Section 1.401 of the Commission's rules, hereby requests that the Commission amend Parts 2 and 90 of its rules to allocate the 1427-1432 MHz band, on a primary basis, for automatic meter reading ("AMR") and utility telemetry operations.

**I. BACKGROUND AND STATEMENT OF INTEREST.**

The 1427-1432 MHz band is allocated on a primary basis internationally for fixed and mobile operations. Domestically, the band is allocated on a primary basis to the federal government for fixed and mobile operations and on a secondary basis to non-government entities for fixed (telemetry) and land mobile (telemetry and telecommand) operations.<sup>1</sup> The band is adjacent to the 1400-1427 MHz radio astronomy band, which imposes certain constraints on operations and emissions within it.

In 1992, recognizing the potential for using communications technologies in combination with utility services to "further the national goals of conserving energy and protecting public health and safety," Congress directed the Department of Energy ("DOE"), in consultation with the National Telecommunications and Information Agency ("NTIA"), to submit to Congress a

proposal for demonstrating the use of “new and innovative communications equipment and services to further the national goals of conserving energy and protecting public health and safety.”<sup>2</sup> The demonstration proposal was to encompass: (i) “the feasibility of using communications technologies to read meters from remote locations; (ii) the feasibility of managing electric power and natural gas consumption; and (iii) “the public safety implications of monitoring utility services outages during earthquakes, hurricanes, typhoons, tornadoes, volcanoes, and other natural disasters.”<sup>3</sup> Congress also instructed DOE to consider requesting authority from NTIA to use radio frequencies to carry out the demonstration projects.<sup>4</sup>

In response to these directions, DOE released a Notice of Inquiry on the “potential for energy conservation and for the enhancement of public health and safety” that could be realized through the use of “new and innovative communications equipment that can automatically read utility meters, manage energy usage and monitor utility system outages.”<sup>5</sup> The DOE inquiry was consistent with the Commission’s own early conclusion that AMR systems “benefit consumers by reducing billing problems, increasing the accuracy of meter readings and, ultimately, lowering utility bills.”<sup>6</sup>

In 1993, the Commission, with Federal government approval, issued a license to Itron to develop and test a nationwide wireless AMR/utility telemetry service in the 1427-1429 MHz band.<sup>7</sup> Shortly thereafter, DOE issued its report to

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<sup>1</sup> 47 C.F.R. § 2.106. The 1427-1429 MHz portion of the band also is allocated both internationally and domestically on a primary basis for satellite uplink (earth-to-space) operations.

<sup>2</sup> Telephone Disclosure and Dispute Resolution Act, Pub. L. No. 102-556, 106 Stat. 4181, § 401 (1992).

<sup>3</sup> Id.

<sup>4</sup> Id.

<sup>5</sup> Innovative Utility Communications Technology, Docket No. CE-NOI-93-001 (Jan. 19, 1993).

<sup>6</sup> Amendment of Sections 22.501(g)(2) and 94.65(a)(1) of the Rules and Regulations to Re-Channel the 900 MHz Multiple Address Frequencies, 3 FCC Rcd 1564 (1988).

<sup>7</sup> File No. 9301081307.

Congress.<sup>8</sup> In the report, DOE reiterated the role that utility communications systems can play in improving customer service, managing energy and water use, reducing costs, and improving public health and safety.<sup>9</sup> DOE also determined that there was no need to request an authorization of frequencies from NTIA, based in large part on the fact that the Commission already had issued a 1427-1429 MHz developmental license to Itron and “other entities are free to apply to the Federal Communications Commission for developmental, experimental, and regular operational licenses in this band.”<sup>10</sup>

In 1994, taking into account the success of Itron’s efforts in developing and testing its system, the Commission upgraded Itron’s license, giving it full operational authority.<sup>11</sup> Itron’s AMR operations also proved successful and in 1998, again with federal government approval, the Commission expanded Itron’s license further to permit it to operate across the full 1427-1432 MHz band. In 1999 the Commission renewed Itron’s nationwide license for an additional five-year term.<sup>12</sup>

After Itron had received its license and began to deploy its network, NTIA included the 1427-1432 MHz band, along with others, in a list of 200 megahertz of spectrum to be transferred to the FCC pursuant to a Congressional directive.<sup>13</sup> This transfer was effective in 1999.

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<sup>8</sup> “Proposal for Demonstrating the Potential of Innovative Communications Equipment and Services for Utility Applications,” United States Department of Energy (Sept. 2, 1993).

<sup>9</sup> *Id.* at 35.

<sup>10</sup> *Id.* at 37 (emphasis added).

<sup>11</sup> File No. 9401115177. In keeping with the allocation plan in effect at the time, Itron’s operations are secondary to federal government operations and, in the case of 1427-1429 MHz, space operation service operations. See 47 C.F.R. § 90.259.

<sup>12</sup> The Commission also has licensed a second service provider, CellNet Data Systems, Inc., to provide AMR and utility telemetry services on an experimental basis in the 1427-1432 MHz band. File No. 0187-EX-RR-1999.

<sup>13</sup> Congress directed the Executive Branch to transfer spectrum from Federal government use to non-Government or mixed Government and non-Government use in two statutes: the 1993 Omnibus Budget Reconciliation Act of 1993 (“OBRA-93”), Publ. L. No. 103-66, 107 Stat. 312

Originally, the FCC concluded that the 1427-1432 MHz band would be part of the spectrum reserve that Congress had required the Commission to establish and that the band would not be allocated finally for additional non-government use until 2006.<sup>14</sup> The band was a suitable candidate for the spectrum reserve because the federal government intends to continue using the band within 14 exclusion zones until 2004, potentially restricting commercial operations in most major metropolitan areas until that time.

The Commission's timetable for allocating the 1427-1432 MHz band, however, has been accelerated due to its proposal to use a portion of the band for a new wireless medical telemetry service. The Commission also has under consideration proposals to use the band for land mobile communications services; for a personal communications and monitoring service; and as expansion spectrum for private wireless services. In light of these proposals, the Commission should move now to adopt a comprehensive allocation plan for the 1427-1432 MHz band, notwithstanding continuing federal government operations in the band through 2004, which takes into account the pressing need for this band as a home for utility meter reading and other utility telemetry uses.

## II. ITRON'S PROPOSED ALLOCATION WOULD SERVE THE PUBLIC INTEREST.

### A. AMR And Utility Telemetry Applications Merit A Permanent Allocation In The 1427-1432 MHz Band.

AMR/utility telemetry applications use fixed and mobile wireless devices to enable a utility to monitor remote equipment (such as business or residential

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(1993), and the Balanced Budget Act of 1997, Pub. L. No. 105-33, 111 Stat. 251 (1997). NTIA identified the spectrum to be reallocated in two reports, the *Special Reallocation Final Report*, NTIA Special Pub. 95-23 (1995) and the *Spectrum Reallocation Report*, NTIA Special Pub. 98-26 (1998). The 1427-1432 MHz band was proposed for reallocation in the 1995 NTIA Report, pursuant to OBRA-93.

<sup>14</sup> *FCC Plan for Reallocated Spectrum*, 11 FCC Rcd 17841 (1996). OBRA-93 required the Commission to hold a significant portion of reallocated spectrum in reserve. Thus, the immediate allocation of this spectrum to any service would require replenishment of this "reserve" spectrum. *See Medical Telemetry NPRM* at n.28.

meters) from a central location. Traditionally, utility company employees had to travel to each device and record measurements manually. With wireless technologies, wireless sensor devices installed in each remote piece of equipment transmit measurements back to a mobile unit (such as a van), to the utility's central office or headquarters, or to an information processing center.

Wireless meter-reading systems – such as those operated by Itron in the 1427-1432 MHz band – represent a significant advance over conventional methods for providing an interface between utilities and utility meters. They enhance dramatically utility productivity and efficiency, in some cases eliminating the need for time-consuming travel and, in others, making it possible for a meter reader to increase by a factor of ten, twenty, or more the number of meters that can be read in an eight-hour shift.<sup>15</sup> They offer reliable meter-reading, eliminating the difficulties both for consumers and utilities that arise as a result of erroneous manual readings. They obviate the need for estimated bills and multiple trips to customer homes, improve a utility's ability to detect meter tampering and theft of services, and reduce a utility's call-center traffic. They make it possible for a utility to automate costly “off-cycle reads” associated with beginning- and end-of-service transactions. Finally, they enable utility customers to monitor or make changes to their equipment from a remote location using wireless sensor devices.

Two-way systems, such as Itron's 1427-1432 MHz systems, provide even greater benefits by establishing a direct link between a utility and its customer premises utility meters. The utility can use this link to offer its customers a variety of strategies to reduce peak demand and shift usage to off-peak hours, as well as encourage conservation by providing customers with detailed, real-time price and consumption data.

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<sup>15</sup> See Yochi J. Dreazen and Jacob M. Schlesinger, *Job Stretching: Raleigh, N.C., Shows A Tight Labor Market Can Spur Productivity — Reading Meters by Computer*, WALL ST. J., Feb. 7, 2000, at A1.

Together, these benefits reduce energy costs; improve customer service; promote responsible environmental management; and make it possible for utilities to defer or avoid altogether the need to construct new generating capacity.

The efficiencies generated by AMR systems have become increasingly important - and demand for these systems will rise - as the utility industry is deregulated and access to competing utility service providers spreads. As states shift their utility rate setting policies away from asset-based rate-of-return systems to performance-based systems, utilities are relying more and more heavily on fixed wireless telemetry services to help them increase efficiency and quality of service while reducing costs.

Fixed network systems are the essential enabling technology of utility deregulation. Under deregulation, the functions performed to date by a single entity, the regulated utility monopoly, are being disaggregated to foster competition in the generation, transmission, wholesaling, and distribution to end users of energy. Reconciling the multiple, overlapping transactions involving these service providers requires consumption information on a daily basis, and in some cases more frequently. AMR is a necessity in this environment.

Independent studies and data confirm the importance of and growth potential for AMR/utility telemetry products and services. As of the end of 1999, only two percent of the more than 270 million utility meters in the United States had been telemeterized.<sup>16</sup> Yet the Strategis Group estimates that 37 percent of those meters will be connected to fixed wireless networks within the next five years, with the majority being electric or gas meters in hard-to-reach

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<sup>16</sup> *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, Fourth Report*, 14 FCC Rcd 10145, Appendix G, Section B (1999).

rural areas.<sup>17</sup> According to a Yankee Group analyst, “telemetry will grow significantly over the next five years, making a noticeable impact on the \$200 billion deregulating energy industry and other industries. The value of telemetry, thought virtually unrecognized today, is increasing as it becomes technologically feasible and cost-effective. Its possibilities are vast.”<sup>18</sup>

As demonstrated above, AMR/utility telemetry applications are an important component of efficient utility operation, utility competition, and responsible environmental management. The Commission, therefore, should take appropriate steps to ensure that adequate spectrum is made available for their operation.

**B. The Commission Is Obligated To Foster The Development Of AMR And Utility Telemetry Services.**

As discussed above, Congress in 1992 expressly directed that the federal government foster the development of new and innovative communications equipment and services, including new communications technologies designed to read meters from remote locations, that would advance the national goals of conserving energy and protecting public health and safety.<sup>19</sup> At the time, the Department of Energy determined that it was unnecessary to seek frequencies from NTIA for this purpose, based on the fact that the Commission already had begun to license AMR systems in the 1427-1432 MHz band.<sup>20</sup> Now that the band has been reallocated from the federal government to private commercial use, the Commission is in a position to carry through on Congress’ directive by making the band a permanent home for AMR and utility telemetry operations.

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<sup>17</sup> Id.

<sup>18</sup> Id.

<sup>19</sup> Public Law 102-556, 106 Stat. 4181 (Oct. 28, 1992).

<sup>20</sup> See n. 10, *supra*.

**C. The 1427-1432 MHz Band Is Uniquely Well Suited To Use For AMR And Utility Telemetry Functions.**

The 1427-1432 MHz band has two characteristics that make it uniquely suited for utility meter reading and other telemetry:

- The band currently is used by military tactical radio relay communications and military test range aeronautical telemetry and telecommand, and will continue to be used for essential military operations at 14 sites until the year 2004. Itron has co-existed with the military users since 1994 without causing harmful interference to the military users.
- The band is adjacent to a radio astronomy band at 1400-1427 MHz, and must be used in a way that protects radio astronomy operations.<sup>21</sup> Unlike the need to protect federal government operations, the need to protect radio astronomy operations will continue indefinitely. Here again, Itron has co-existed successfully since 1994.

These characteristics make the band a relatively inhospitable environment for most services,<sup>22</sup> but an ideal environment for utility meter reading. AMR/utility telemetry systems are characterized by low power and other spectrum efficiencies that enable them to co-exist in the band with federal government and radio astronomy operations. Itron has been licensed to operate in all or a portion of the 1427-1432 MHz band for five and one-half years; during that period, its systems have proven their ability to operate harmoniously with both of these protected users.

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<sup>21</sup> Footnote US311 of the United States Table of Frequency Allocations, and International Radio Regulation 718 (new regulation S5.149) of the ITU's Radio Regulations state that administrations are urged to make every practicable effort to avoid the assignment of frequencies in certain bands that could cause interference to radio astronomy operations.

<sup>22</sup> The Commission has found that "continued Federal operation ... will likely significantly impair the ability of the private sector to implement services in the band until the cessation of Federal operations. *FCC Plan for Reallocated Spectrum*, 11 FCC Rcd 17841, FCC 96-125, ¶ 28 (1996).

**D. AMR and Utility Telemetry Operations Could Not Reasonably Be Supported In Other Spectrum.**

Intense and growing demand for spectrum has required the Commission to accommodate new services either through sharing with existing services or through reallocation of spectrum from existing services to new services and technologies.<sup>23</sup> In the latter case, existing operations either have been relocated to other, generally higher frequency bands or have been removed altogether from the subject bands.<sup>24</sup> Neither of these options is feasible in the case of utility AMR and telemetry operations operating in the 1427-1432 MHz band.

Relocation to other spectrum – assuming alternative spectrum could be found - is not practicable. Itron has invested more than \$100 million in the development of meter-reading systems operating in the 1427-1432 MHz band and has deployed more than 20,000 network nodes nationwide in this band. As of today, Itron has shipped in excess of 16 million AMR units to more than 500 electric, gas, and water utilities. Collectively, Itron's customers have invested more than \$150 million in their networks, and an additional \$650 million in making meters network enabled while reading them with handheld or mobile devices. Utilities rely on these networks for a host of monitoring and related functions and have heavily invested in their future networkability. The 1427-1432 MHz band provides a critical link in these networks between the meters and the utilities.

Removal from the 1427-1432 MHz band also is not a viable option. Removal would be draconian, displacing or curtailing the future growth of crucial utility operations, diminishing substantially or entirely the value of millions of dollars of investments in an established technology, and undermining efficient utility operations on the eve of major transformations in the structure of

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<sup>23</sup> *Spectrum Policy Statement* at ¶ 5.

<sup>24</sup> *Id.*

the power industry. In sum, requiring Itron and utility customers to relocate out of or vacate the 1427-1432 MHz band would be costly, disruptive, inefficient, and contrary to the public interest in that it would impair the operation of critical infrastructure industry systems on which the public depends. Grandfathering existing operations would be similarly inadequate, preventing utilities from securing the new AMR and telemetry services that they so vitally need.

It also is not feasible to require AMR customers to meet their needs by looking to general purpose wireless providers. There are large coverage gaps in these systems that make them unsuitable for this purpose. Meters are located in many areas, including pumps, wellheads, billboards, and gas storage facilities where there are no people, but there are meters to be read. No wireless provider is going to build a system with the density needed by utilities for AMR. In addition, requiring utilities to use general purpose carriers would put a mission critical application in the hands of the success of unrelated businesses and economic considerations.

Finally, the 932/941 MHz MAS channels that the Commission recently made available<sup>25</sup> cannot be used for these purposes. Although other MAS channels have been used for meter reading conducted with handheld terminals or terminals installed in vans, today's two-way systems have higher capacity requirements, and 12.5 kHz and 50 kHz MAS channels would be inadequate.<sup>26</sup>

**E. Itron's Proposal Would Harmonize the U.S. And Canadian Allocation Plans.**

The Canadian authorities have allocated the 1427-1430 MHz and 1493.5-1496.5 MHz bands for a narrowband multipoint communications systems "to

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<sup>25</sup> *Amendment of the Commission's Rules Regarding Multiple Address Systems*, FCC 99-415, ¶¶ 28-43 (Jan. 19, 2000).

<sup>26</sup> Similarly, although channels in the 902-928 MHz band have been used on an unlicensed basis, pursuant to Part 15 of the FCC's rules, for one-way transmissions from a meter module to a handheld or van driven

support fixed telemetry applications for automatic meter reading.”<sup>27</sup> By allocating the 1427-1432 MHz band in the manner Itron has proposed, the Commission would be harmonizing the U.S. and Canadian allocation plans. Although not identical, the frequencies in the two plans are sufficiently similar that equipment manufacturers will be able to develop equipment for both markets and spread their fixed costs over a wider base, thereby lowering prices for end users and encouraging innovation in the industry.

**III. CERTAIN OTHER PROPOSED USES OF THE 1427-1432 MHz BAND DO NOT PRECLUDE AN AMR ALLOCATION.**

**A. The Proposed Wireless Medical Telemetry Service.**

In June of 1999, the American Hospital Association's (“AHA”) Medical Telemetry Task Force filed a petition seeking an allocation for a new wireless medical telemetry service, within which medical telemetry equipment would operate on a blanket licensed, interference protected basis. On July 16, 1999, the Commission issued a Notice of Proposed Rulemaking (the “NPRM”) proposing to allocate spectrum and establish rules for such a service.<sup>28</sup>

The AHA did not request an allocation of the 1427-1432 MHz band. In the NPRM, however, the Commission noted certain concerns that had been expressed by NTIA regarding one of the bands that had been requested by AHA (1432-1435 MHz).<sup>29</sup> In light of these concerns, the Commission raised the possibility of allocating the 1429-1432 MHz band for medical telemetry applications.

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collection device, the low powers permitted under Part 15 cannot satisfy the demands of a wide-area two-way system.

<sup>27</sup> Industry Canada, *Amendments to the Microwave Spectrum Utilization Policies in the 1-3 GHz*, SP 1-3 GHz, p.1 (Oct. 1999).

<sup>28</sup> *Amendment of Parts 2 and 95 of the Commission's Rules to Create a Wireless Medical Telemetry Service, Notice of Proposed Rulemaking*, FCC 99-182, ET Docket No. 99-255, \_\_\_ FCC Rcd \_\_\_ (1999) (“*Medical Telemetry NPRM*”).

<sup>29</sup> *Medical Telemetry NPRM* at ¶¶ 16, 21, 22. The AHA had proposed that the 608-614 MHz, 1385-1390 MHz, and 1432-1435 MHz bands be used for a medical telemetry service. *Id.* at ¶ 13.

As discussed in Itron's comments and reply comments in response to the *Medical Telemetry NPRM*, it is unclear whether medical telemetry users require access to the 1427-1432 MHz band in order to satisfy their needs. It may be that medical telemetry operations can be accommodated in alternative bands, including those originally proposed by the AHA.<sup>30</sup> In the event that an allocation within the 1427-1429 MHz band to medical telemetry proves necessary, Itron is concerned with the impact of medical telemetry transmissions on its AMR services. Itron believes, however, that with cooperation on both sides it should be possible to use the band to satisfy the needs of the medical telemetry and critical infrastructure industry communities. To that end, Itron and medical telemetry representatives have had preliminary discussions and will continue to do so.

**B. The Proposed Land Mobile Communications Service.**

In November, 1999, the Commission released a Policy Statement setting forth certain principles that would guide the Commission's spectrum management activities in the new millennium.<sup>31</sup> Among other things, the *Spectrum Policy Statement* stated that the Commission would consider establishing a new Land Mobile Communications Service ("LMCS") in the 1427-1429 MHz band.<sup>32</sup> This proposal was an outgrowth of a 1998 Petition for Rulemaking filed by the Land Mobile Communications Council ("LMCC"), which had expressed a need for additional spectrum for private land mobile use.<sup>33</sup>

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<sup>30</sup> Itron Reply Comments at 1, 2.

<sup>31</sup> *Principles for Reallocation of Spectrum to Encourage the Development of Telecommunications Technologies for the New Millennium, Policy Statement*, \_\_\_ FCC Rcd \_\_\_, FCC 99-354 (November 22, 1999) ("*Spectrum Policy Statement*").

<sup>32</sup> *Spectrum Policy Statement* at ¶ 24. LMCS also would be allocated the 1390-1395 MHz and 1432-1435 MHz bands, for a total of 10 MHz. *Id.*

<sup>33</sup> *Allocation of Spectrum for the Private Mobile Radio Services*, RM 9267.

Just as Itron recognizes the value of a medical telemetry service, it supports the principle of providing adequate spectrum for private land mobile services. This should not be done, however, at the expense of an established service with few spectrum alternatives.

Indeed, the LMCC Petition that gave rise to the LMCS proposal expressly recognized the importance of AMR systems. In addressing the inadequacy of existing private land mobile allocations, LMCC discussed the plight of Public Service Electric & Gas Company ("PSE&G"). According to LMCC, PSE&G's use of public carrier systems rather than a dedicated utility AMR/telemetry system increased this single utility's operating costs by roughly \$1.2 million per year and forced it to accept service that was less reliable, particularly during emergencies such as bad weather, traffic jams, and traffic accidents (when cellular telephone use increases).<sup>34</sup>

Not only would it be unwise to displace an established operation to make way for another such operation, but any allocation for the land mobile service must include spectrum that is compatible with the needs of this community. This is not true of the 1427-1432 MHz band: as the LMCC Petition recognized, this band's characteristics make its use by the public mobile radio service community at best problematic and at worst completely unworkable.

As discussed above, any service that is granted access to the 1427-1432 MHz band will have to protect essential military operations through 2004, and will have to protect radio astronomy operations indefinitely. These sharing constraints limit the band's usefulness for most private land mobile services. Many of the federal government sites protected through 2004 are in key urban areas; as LMCC concluded in its Petition, the need to operate on a non-interference basis with these sites "would substantially limit any PMRS

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<sup>34</sup> LMCC Petition for Rulemaking, RM 9267, at ¶ 18 (filed April 22, 1998).

deployment in these areas.”<sup>35</sup> Indeed, the Commission has recognized that “continued Government operations limit or may even eliminate coverage of most major metropolitan areas until the year 2004.”<sup>36</sup>

The *Spectrum Policy Statement* expressly recognized that its pronouncements were only a “guidepost” and that the concepts and allocations discussed in it may evolve as specific allocation proceedings unfold.<sup>37</sup> For the reasons discussed above, in moving forward to implement its LMCS allocation the Commission should revise its proposal so as to protect existing AMR/utility telemetry operations and to provide land mobile spectrum that can meet the needs of the private land mobile community.<sup>38</sup>

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<sup>35</sup> LMCC Petition for Rulemaking at ¶ 74; see also Memorandum from MILDEP IRAC Members to Chairman, IRAC, dated May 22, 1998 at 2 (attached to NTIA Comments) (stating that the Army, Navy, and Air Force “strongly oppose” an allocation of the 1427-1432 MHz band for general PMRS operations); NTIA Comments at 3 (due to continued Federal government use of the band, NTIA could support PMRS use of the band only under “appropriate” circumstances); Letter from David Struba, NASA Representative to IRAC, and Tomas E. Gergely, NSF Representative to IRAC, to Edwin E. Dinlke, Executive Secretary, IRAC, dated May 19, 1998, at 1, 3 (attached to NTIA Comments) (opposing the reallocation of the 1427-1432 MHz band for general PMRS use unless it can be “clearly demonstrated” that sensitive radio astronomy operations can be fully protected).

<sup>36</sup> *FCC Plan for Reallocated Spectrum*, 11 FCC Rcd at ¶ 28.

<sup>37</sup> *Spectrum Policy Statement* at ¶ 3.

<sup>38</sup> On November 22, 1999, MicroTrax, Inc. (“MicroTrax”) submitted a petition for rulemaking in which it urged the Commission to allocate spectrum for a new Personal Location and Monitoring Service including, among other bands, the 1427-1432 MHz band. MicroTrax, however, completely ignored Itron’s existing operations in the band, stating only that the band is “[c]urrently used by DOD for radar, tactical radio relay, fixed microwave and aeronautical mobile systems.” MicroTrax Petition at 3. The proposal to have millions of ubiquitous mobile terminals, moreover, appears inherently incompatible with radio astronomy and government operations in the band.

**CONCLUSION**

For the reasons stated herein, the Commission should allocate the 1427-1432 MHz band on a primary basis for AMR and utility telemetry operations.

Respectfully submitted,

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