

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

Enterprise Wireless Alliance and Pacific            )  
DataVision, Inc. Petition for Rulemaking            )     RM-11738  
Regarding Realignment of 900 MHz Spectrum        )

**COMMENTS OF THE UTILITIES TELECOM COUNCIL**

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January 12, 2015

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## SUMMARY

To be sure, there is a broadband revolution, and utilities and critical infrastructure industries (CII) do need access to broadband to support their increasing communications needs in terms of capacity, coverage and reliability. At the same time, utilities and CII continue to rely on narrowband communications as well for many data and voice applications. They have made significant investments in the deployment and operation of many extensive 900 MHz wireless networks throughout the country. These networks support a variety of applications, such as Supervisory Control and Data Acquisition (SCADA) and Advanced Metering Infrastructure (AMI).

While the proposed realignment of the 900 MHz band would provide utilities and CII with an opportunity to access broadband spectrum to support these and other applications, access to this broadband spectrum would come at a cost. These costs must be balanced against the benefits of access to broadband. Different utilities will have different views about the Petitioners' proposal, depending on the extent to which they need access to broadband, as well as the extent that they currently have existing narrowband systems in the 900 MHz band which may be impacted by the realignment. In any event, UTC urges the Commission to promote opportunities for utilities and CII to access broadband spectrum in addition to the opportunity presented by the Petition.

UTC urges the Commission to balance the costs and benefits of the proposed realignment of the 900 MHz band. In order to properly assess the costs and benefits, there needs to be greater certainty about the impact on narrowband systems, including the process and the terms for reimbursing the costs of relocating incumbent narrowband B/ILT and SMR systems from the proposed PEBB block and down below 898/937 MHz to the narrowband allocation of the band. There also needs to be greater certainty about the proposed PEBB itself, including whether PDV

has sufficient channels to accomplish the realignment in specific markets. This will help utilities and CII assess the opportunity for this proposal to provide a broadband solution that will meet their needs, including whether the network may be deployed in rural as well as metro areas. In that context, there also needs to be greater certainty regarding the proposed network, including the PEBB licensee, its prospects for deployment of the network in the near term and the long term, and the utility and CII applications and services that it might support. In any event, the Commission should not adopt Petitioners' recommendation that EWA serve as the exclusive coordinator of the 900 MHz band. Instead, the Commission should consider other coordinators as well as EWA to oversee the realignment process.

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Pursuant to Section 1.405 of the Commission’s Rules, the Utilities Telecom Council (“UTC”) hereby files its comments in response to the Commission’s Public Notice in the above-referenced proceeding.<sup>1</sup> UTC’s comments identify the issues for utilities and other critical infrastructure industries (CII) that are raised by the above-referenced Petition in an effort to help the Commission consider whether and how to proceed going forward. While utilities and other CII do indeed need access to additional spectrum to support their increasing capacity and coverage requirements in order to support a wider array of communications applications, there are significant differences among utilities and other CII about whether realigning the 900 MHz band or relying on a third-party network operator is the appropriate way for utilities and CII to meet their increasing communications requirements.

Specifically, the realignment of the 900 MHz band could significantly impact existing 900 MHz systems both in terms of performance and cost. Similarly, there is uncertainty about how the proposed Public Enterprise Broadband (PEBB) network or networks would operate as a practical matter. That said, UTC is working with its utility and CII members along with other

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<sup>1</sup> Wireless Telecommunications Bureau Seeks Comment on Enterprise Wireless Alliance and Pacific DataVision, Inc. Petition for Rulemaking Regarding Realignment of 900 MHz Spectrum, Public Notice, RM-11738 (rel. Nov. 26, 2014)(hereinafter “Public Notice”).

stakeholder organizations to discuss these issues with the Petitioners to develop greater certainty, both with regard to the PEBB and the narrowband block of spectrum below 898/937 MHz.

Therefore, UTC is pleased to provide the following comments in response to the Commission's Public Notice in order to identify the issues for going forward and to respond to some of the questions posed by the Commission.

## **I. Introduction and Overview**

The Petitioners propose that the Commission realign the 900 MHz Business and Industrial/Land Transportation (B/ILT) channels into two separate blocks – a 2x2 narrowband block of spectrum (896-898/935-937 MHz) and a 3X3 MHz broadband block of spectrum (898-901/937-940 MHz).<sup>2</sup> The proposed realignment would be accomplished by allowing MTA SMR licenses on frequencies below 898/937 MHz to exchange those licenses for equivalent MTA licenses on heretofore site-based B/ILT spectrum above that channel. The vacated MTA spectrum below 898/937 MHz, as well as certain B/ILT channels in that range that have been converted to SMR use, would be reserved for the relocation of site-based systems moving from B/ILT channels above 898/937 MHz.

Licensees above 898/937 MHz could choose to be relocated to comparable facilities in the narrowband spectrum below that channel, and the PEBB would reimburse the licensees for their relocation costs. Licensees that choose to remain above 898/937 MHz would negotiate an agreement with the PEBB licensee, including a pro-rata share of the cost of reimbursing other licensees for relocation. Finally, the PEBB license would be conditioned upon providing any critical infrastructure industry (CII) or B/ILT entities with a build-to-suit broadband solution and

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<sup>2</sup> Petition for Rulemaking of the Enterprise Wireless Alliance and Pacific DataVision, Inc., RM-11738 (filed Dec. 8, 2014)(hereinafter, "Petition").

this build-to-suit solution would provide priority access for CII entities. Petitioners propose that the whole realignment process would be coordinated by the Enterprise Wireless Alliance (EWA) and they urge the FCC to be prepared to reinstitute a freeze on any further licensing in the 900 MHz band in order to prevent speculation and preserve the RF environment during the realignment.

In its Public Notice, the Commission invites comments on the Petition generally and poses certain specific questions regarding the need by B/ILT and CII entities for broadband using the PEBB; the nature of the technical rules that would be required to enable the PEBB licensee to provide the contemplated broadband service, as well as to prevent interference between the PEBB licensee and adjacent-channel operations; the estimated costs of relocation, as well as the capacity requirements for the narrowband spectrum; and alternative options for accomplishing the realignment, such as through secondary market transactions.

UTC is the international trade association for the telecom and information technology interests of electric, gas, and water utilities and other CII, such as pipeline companies. Its members own, manage or control extensive communications networks and infrastructure that they use to support the safe, reliable and effective delivery of essential energy and water services to the public at large. UTC advocates for policies that promote and protect these private internal communications networks, including access to sufficient and suitable spectrum to support the increasing capacity and coverage demands that have been brought on by the advent of grid modernization and similar advancements within the utility industry and other CII. As such, UTC is pleased to have the opportunity to provide its comment on the Petition, as well as the questions posed in the Public Notice.

## **II. The Need for Reliable Broadband Service by Utilities and CII**

### **A. Reliability is paramount and capacity and coverage requirements are increasing.**

UTC agrees with Petitioners that utilities need access to broadband spectrum to meet their increasing communications needs. As UTC has explained in numerous Commission proceedings, utilities and other CII need reliable communications in order to ensure safety, security and operational effectiveness. That is why they choose to operate their own private internal communications networks. These systems are designed, built and maintained to high standards of reliability, which often exceed those of commercial service providers. To illustrate, utilities and CII communications networks have extended back up power, redundant and diverse routing, and extremely low latency in order to meet utility functional requirements. Any failure of these communications networks can have disastrous consequences and could jeopardize worker and public safety.

Utilities and other CII also have increasing capacity requirements which extend further into their networks than before, due to a growing variety of grid modernization applications and security requirements. Utilities continue to deploy advance meters across their entire service territories, which require more robust communications networks to support them. At the same time, they are deploying intelligent electronic devices on the transmission and distribution infrastructure in order to enable greater reliability through distribution automation, power quality monitoring, and synchrophasor and teleprotection systems – all of which must operate with extremely low levels of latency. Finally, increased security requirements are becoming effective that would require additional communications capacity for video monitoring of substations and other critical assets. All of these applications are driving demand for capacity and coverage.

**B. Broadband spectrum is needed to meet reliability and increasing capacity and coverage requirements.**

In order to meet their increasing requirements for reliability, capacity and coverage, utilities and CII need access to broadband spectrum in a frequency range that is sufficiently low to provide favorable propagation characteristics for rural and urban environments. Currently, utilities operate wireless networks that generally rely on narrowband spectrum. What broadband spectrum that utilities do have is either microwave or unlicensed, which limits the capability of utilities to provide reliable wide-area coverage. Fiber does help to provide high-capacity communications for utilities, but there are also practical issues for its deployment, as well as a need for wireless in order to provide back up and cost-effective communications. Finally, utilities have to be able to communicate in challenging RF environments, where remote facilities may be located in areas with rugged terrain, or where buildings and trees can interfere with the propagation of the signal. That is why utilities need access to licensed broadband spectrum below 1 GHz, which permits higher power operation across a wide area and which is protected against interference under the FCC's rules.

As Petitioners explain, access to “greenfield” broadband spectrum that meets utility requirements for reliability is challenging. Most licensed broadband spectrum has been auctioned, and utilities have had limited success competing with commercial service providers in these auctions generally, and virtually no success in metropolitan markets. The problem is simple; commercial services providers can bid more for spectrum than utilities because they can pass along those costs more readily to their customers. By contrast, utilities are highly regulated and have difficulty gaining recovery of auction expenses. As noted by Petitioners, the service territories of the utilities is not tailored to the geographic areas of the licenses that are auctioned, which may be too small or too large for the utility's needs – also complicating the process of

obtaining spectrum at auction. Similarly, utilities face challenges accessing spectrum on the secondary market, because they cannot find licenses that are available throughout their service territories, or it is too expensive, particularly in metropolitan markets. Finally, there is an overall scarcity of any broadband spectrum in a lower frequency range that would provide utilities with the coverage they need, which also adds to the challenge for utility access to broadband spectrum.

**C. CMRS does not provide the necessary levels of reliability for all utility and CII communications applications.**

As Petitioners also explain, CMRS does not meet utility requirements for reliability and resiliency. Their systems are designed for highly populated areas and may not provide coverage into remote areas where utilities have critical assets, such as transmission lines and substations, as well as power plants. At the same time, their networks are subject to outages and congestion, particularly during emergencies such as a hurricane or an ice storm. While CMRS offers priority access and restoration, the effectiveness of such priority is limited as a practical matter, due to technology and contractual issues. CMRS can be overwhelmed during emergencies, making it unavailable due to insufficient capacity. Service restoration is also a potential problem with CMRS; and priority restoration means “best efforts” and doesn’t necessarily mean that service will be restored in acceptable time frames for utilities. While utilities and CII do in fact use CMRS for some of their communications needs, these tend to be limited to applications that are non-mission critical. Utilities continue to rely on their private internal communications networks to handle mission critical communications. Finally, CMRS networks are not designed to support the low levels of latency that would be required for many mission critical utility applications. For all of these reasons, CMRS does not represent a suitable alternative for utility access to broadband spectrum.

**D. The PEBB represents one possible broadband solution for utilities and CII, but clarity is needed to ensure that the network would meet utility and CII requirements.**

For all of these reasons, UTC continues to urge the Commission to provide utilities with access to suitable sufficient broadband spectrum. While the PEBB represents one possible option for utilities and CII, there are some very serious questions that raise uncertainty and may limit it as a solution for many utilities and CII, as more fully described below. At the same time, utilities must balance the opportunity against the potential costs. These costs may outweigh the benefit of the PEBB for certain utilities, as more fully described below. Finally, utilities need access to broadband spectrum now; and they are concerned that the network may not be available soon enough to meet their needs, as more fully described below. For all of these reasons, UTC continues to urge the Commission to promote access for utilities and CII to broadband spectrum. The proposal by the Petitioners should not be considered by the Commission as the *only* broadband solution for utilities and CII. Utilities need other options for broadband spectrum besides the option presented by the Petitioners.

The Commission asks if and why utilities and CII really need the PEBB given the availability of broadband from CMRS and it asks whether utilities and CII need the PEBB nationwide.<sup>3</sup> In response, UTC submits that there is a real need for broadband spectrum by utilities and CII. While not all utilities may sign onto the PEBB, there are some that will. Moreover, even among those who do not use the PEBB or even among those that do, there will still be a need for broadband spectrum as an alternative or in addition to the PEBB. Utilities need reliable high capacity communications to an increasing extent, and the PEBB has the potential to meet that need if it is built to suit utility needs and it provides priority access for CII

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<sup>3</sup> Public Notice at 2.

including during emergencies. To that extent, the PEBB represents a potential broadband solution for utilities and CII.

That said, there is uncertainty about whether the PEBB licensee will provide the reliability, capacity and coverage that utilities and CII need on a cost-effective basis. To be sure, Petitioners propose that the network will be built-to-suit and it will provide priority access for utilities and CII, but it is inherently a commercial network that will be shared with others besides utilities and CII. As such, there is the potential that the network may experience congestion or suffer from power outages if there is insufficient capacity or hardening, as well as related concerns about coverage and network build-out. Similarly, because the utility or CII would be beholden to a third-party provider, in this case the PEBB licensee, there is the uncertainty that goes along with system restoration in the aftermath of an outage, as well as control of the network in general -- particularly as the PEBB would be the sole source provider of service and equipment. The fact that the PEBB would be the sole source supplier of both service and equipment for the band also presents certain business risks, which lead also to the general question of the cost of the service and the equipment, as well as related concerns about reliability and equipment life cycles. The question of cost also raises related questions about whether the network would cover rural as well as non-rural areas, and how those costs would be allocated. These questions need to be clarified in order for utilities and CII to assess adequately and fully the opportunity presented by the Petition.

### **III. Band Plan and Network Management**

The Petitioners propose a band plan that would sub-divide the 900 MHz band into a Private Enterprise Broadband (“PEBB”) allocation (898-901/937-940 MHz) and a narrowband allocation of spectrum (896-898/935-937 MHz). The PEBB allocation would be licensed by MTA, and the narrowband allocation would be licensed both on a site-by-site and geographic basis. Accomplishing this

plan would depend upon MTA SMR licenses swapping their frequencies below 898/937 MHz with equivalent MTA licenses above 898/937 MHz. It would also depend upon using the resulting vacated MTA spectrum below 898/937 MHz along with certain B/ILT channels in that range that have been converted to SMR use in order to accommodate site-based systems that relocate from B/ILT channels above 898/937 MHz. Petitioners state that no incumbent would be required to change frequencies unless it was provided with fully Comparable Facilities on its replacement spectrum.

Petitioners propose that the PEBB license would be awarded in each MTA to the entity holding at least 15 of the 20 geographic licenses in that MTA. The PEBB licensee would be required to fund the relocation of narrowband systems above 898/937 MHz to comparable facilities below that channel, and the costs of the relocation would be shared on a pro-rata basis among the licensees in the PEBB allocation. The PEBB license would include a condition that would require the licensee to offer a build-to-suit broadband solution to any requesting CII or B/ILT entity, including priority access to CII customers. Negotiations for use of the PEBB and/or relocation would be subject to a good faith obligation applicable to both parties.

**A. Utilities and CII continue to need to operate narrowband systems for voice and other applications, and the band plan must ensure that there is sufficient capacity to support existing narrowband operations without interference.**

In assessing the band plan, UTC underscores that the benefits of broadband access must be balanced against the potential impact on narrowband operations in the 900 MHz band. Although utilities and CII need access to broadband spectrum, there is also a continued need for narrowband spectrum to support voice for critical dispatch and other utility and CII applications too. While the Petition offers an opportunity for utilities and CII to access broadband spectrum, it also cuts into the amount of spectrum that is available for narrowband systems in the 900 MHz band. Moreover, the PEBB won't currently support push-to-talk (PTT) voice, because the 3GPP standard used for LTE doesn't currently support PTT. Therefore, until the 3GPP standard is

modified and equipment under that standard is commercially available, utilities and CII would be dependent upon the channels below 898/937 MHz for their narrowband communications needs. It is critical that the band plan provide sufficient channels in the narrowband spectrum allocation to ensure that utility and CII systems can continue to provide reliable mission critical voice and other narrowband applications.

Under the proposed plan, many if not most of the narrowband systems that are currently spread out across the entire 10 megahertz of spectrum in the 900 MHz band would need to squeeze into a 4 megahertz allocation of spectrum below 898/937 MHz. That in itself is a challenge, but it's made more difficult when considering certain other technical issues. For example, combiners require a minimum frequency separation of 250 kilohertz. Finding available frequencies that are that far apart from each other is going to be harder in the proposed 2X2 MHz narrowband block than it will be under the current 5x5 MHz band plan. In addition, the lower part of the 900 MHz band is subject to interference from nearby cellular operations, which also makes it difficult to find available frequencies when coordinating facilities in that part of the band. The band plan needs to consider these practical issues, which will complicate the process of relocating narrowband systems below 898/937 MHz and ensuring there is sufficient capacity to accommodate them, as well as the existing systems that are already in the band.

There is also the issue of the guard band and the potential for interference from the PEBB to the narrowband systems below 898/937 MHz.<sup>4</sup> The key issues for the guard band will be its size and whether the spectrum for the guard band comes from the PEBB block or the narrowband allocation (or both). The Petition does not specify the size or location of the guard band. These parameters need to be clarified in order to determine if the guard band would provide sufficient

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<sup>4</sup> See Petition at 12 (describing how UTC members want “assurance that there will be adequate protection to adjacent in-band and out-of-band narrowband systems from a 900 MHz broadband allocation.”)

separation to protect narrowband operations below 898/937 MHz from interference and to determine the actual number of usable channels in the PEBB and the narrowband allocation. While Petitioners propose that the PEBB will be composed of 240 channels, the guard band may take up a portion of those channels, which may also reduce capacity and contribute to congestion. Thus, the size and location of the guard band will be critical to protecting narrowband operations from interference and to ensure that there is sufficient narrowband spectrum to enable them to be coordinated, particularly in urban areas where congestion and channel availability will be more challenging.

In addition to the need to protect the narrowband allocation below 898/937, there is also the potential for interference between PEBB operations and narrowband PCS operations at 940 MHz – which include utility systems that are used to support AMI and SCADA.<sup>5</sup> These systems are quite large in some cases, including millions of meters. Due to the magnitude of these systems, coordinating around them will be challenging and will likely require a guard band of sufficient size to protect narrowband PCS operations from interference. In the Petition, this issue is noted and Petitioners state that they have met with Southern Company and Sensus to address it.<sup>6</sup> Thus, this is an important issue that must be sufficiently addressed with these and other potential stakeholders in the narrowband PCS spectrum as a part of the proposed band plan.

**B. There must be sufficient channels to support broadband operations in the PEBB.**

In addition to the concerns about sufficient capacity and interference protection for

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<sup>5</sup> See Petition at 12, n. 23 (describing meetings with SouthernLINC Wireless and Sensus USA, Inc. ("Sensus"), Southern Company, and PDV, during which time the parties discussed a variety of approaches that, individually or collectively, could mitigate the potential system performance impact on smart grid systems manufactured by Sensus and deployed in the Narrowband PCS spectrum at 940-941 MHz by Southern Company and CD utilities (e.g., electric, water and natural gas distribution utilities) in other markets that is directly attributable to the presence of 900 MHz PEBB operations.”)

<sup>6</sup> *Id.*

narrowband operations, there are also concerns among utilities and CII whether there are sufficient channels in the PEBB to support the 3x3 MHz block. PDV claims that it holds sufficient spectrum in the top 20 markets to create a 3X3 MHz block in those markets by itself. PDV should be required to show that it does actually have sufficient channels to make this claim. Beyond those top 20 markets, PDV should also show how many licenses and channels under those licenses that it has in the rest of the country. That will provide a greater understanding of the extent to which additional capacity is needed and where it is needed to support a 3X3 MHz block of spectrum in the PEBB.

Understanding the specific amount of spectrum that is available and that is needed to support the PEBB will help utilities and CII to assess whether, to what extent, how long it might take, and how much it might cost to deploy the network in rural areas, as well as in the top 20 markets. If there is insufficient spectrum in a given area, this could lead to a patchwork in which some areas of the country where the PEBB would be available and other parts of the country would not. This concern extends to the Canadian and Mexican border areas, where utilities such as Lower Colorado River Authority and Tacoma Power have significant deployments in the 900 MHz band. There needs to be greater certainty that PDV will have sufficient channels to accommodate the relocation of these systems into the narrowband allocation, if they choose not to use the PEBB.

**C. There needs to be clarity about the network and how it will be managed.**

In order to better understand the proposal, utilities and CII also need clarification about the network itself and how it will be managed. While the Petitioners propose that the PEBB license would be awarded in each MTA to the entity holding at least 15 of the 20 geographic licenses in that MTA, the Petitioners should be able to identify who those entities are in each MTA. Utilities and CII need to know if the PEBB licensee will be legally, technically, and

financially qualified to operate the PEBB network to their standards for reliability. Beyond knowing the identity of the licensee, utilities and CII have larger concerns about using a network that is managed by a third party, as well. Will utilities have any control over the network or will they be completely dependent upon the third party to manage the network, including during emergencies?

Utilities and CII have even larger concerns about the business and operational risks of having to use a single provider for their communications needs. As a legal matter, government entities, such as municipal utilities, may have issues with procuring services from a sole source. Moreover as a practical matter, utilities and CII question whether the PEBB licensee will support the network for the long-term or whether the PEBB licensee will simply sell the network to another entity in a short timeframe.<sup>7</sup> Similarly, there are concerns about whether the PEBB network will be deployed in the near-term or long-term, and just how long that will be.<sup>8</sup> There is no proposed timeframe in which the PEBB network would be operational; and Petitioners could opt to provide only narrowband services for an indefinite period. Finally, utilities and CII question whether a single-source supplier will present risks associated with technical obsolescence and/or proprietary services that are not interoperable with other systems. These issues need to be addressed in order to provide greater certainty for utilities and CII about the long-term prospects for the PEBB licensee and the network.

These concerns go back to the fundamental issue for utilities and CII -- reliability.

Utilities and CII need to understand whether the PEBB network will be designed, built and

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<sup>7</sup> See also Letter from Elizabeth Sachs, Counsel for Enterprise Wireless Alliance, to Marlene H. Dortch, Secretary, Federal Communications Commission in RM-11738 (filed December 30, 2014)(outlining a “near term” and a “long term plan” for the network which described using the spectrum for narrowband dispatch services in the near term and then using the spectrum to provide broadband services for critical infrastructure industries in the long term.).

<sup>8</sup> *Id.*

operated to meet their standards for reliability. While Petitioners have proposed that the network will be built to suit the needs of the PLMR community and provide priority access for utilities and CII, it's unclear exactly who will determine how the network is built and how priority access will be provided. For example, will the PEBB network have the necessary hardening, including extended back up power to continue to operate even during a long-term power outage? Will it have sufficient capacity to provide reliable communications for utilities and CII during emergencies, if it is shared with a large number of other users? Will utilities and CII have the highest level of priority access on the network and what level of reliability would that provide?

Even if it is built to utility and CII specifications, there are still concerns about resiliency and restoration of the PEBB network in the event of an emergency – which is equally critical. Utilities and CII need to know if the PEBB network will be restored to service quickly in the aftermath of an outage. Otherwise, the PEBB network will not be much better than any other commercial carrier network. Will service restoration be provided in hours or days? What resources does the PEBB license have in terms of equipment and personnel to ensure that service is restored within these timeframes?

There are also concerns about the cost of service and the kind of services that would be supported on the PEBB network. The cost of deploying the PEBB network is expected to be high, and utilities and CII are concerned that it may be cost-prohibitive to build the network in rural areas where the business economics and low population density have kept the commercial carriers from deploying networks. Utilities and CII are also concerned about whether the network would be able to support SCADA and other applications for remotely monitoring and controlling operations. Otherwise, the network may only be able to support a limited set of applications, which may not justify the cost of using the PEBB network, especially in rural areas

where the economics for deployment are more challenging. Finally, there is a general question about the extent to which utilities and CII would bear the costs of the network, or whether these costs would be shared with others. These questions and concerns should be addressed by the Petitioners.

#### **IV. Comparable Facilities and Coordination**

As noted above, Petitioners propose to reimburse the costs of relocating B/ILT and SMR narrowband systems from the PEBB block to comparable facilities in the narrowband allocation below 898/937 MHz. The term “comparable facilities” would include ensuring that the licensee experienced no reduction in system capacity, coverage or signal strength within its coverage area. It would also cover additional equipment, such as antennas, combiners, or even additional sites, and that cost would be borne by the PEBB licensee.

However, as Petitioners observe, utilities and CII still want confirmation that relocation to comparable facilities “requires funding of all reasonable costs incurred in realigning incumbent systems to other frequencies, including, specifically, the internal costs associated with realignment and, if necessary, the provision of equipment and sites to achieve comparability.”<sup>9</sup> Utilities and CII also want certainty that relocation is voluntary and that “no licensee will be required to modify its frequencies if comparable facilities cannot be provided,” including a mechanism for resolving disputes that might arise about comparable facilities.<sup>10</sup>

The Petitioners recommend the Enterprise Wireless Alliance (EWA) as the exclusive coordinator of the rebanding process. As such, EWA will identify the alternative frequencies for use by licensees moving from the PEBB allocation. According to the Petitioners, “once the

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<sup>9</sup> *Id.* at 12.

<sup>10</sup> *Id.*

frequencies have been confirmed as satisfying the comparable facilities standard, the licensee will negotiate a realignment agreement with the PEBB licensee (in most cases, Pacific Data Vision, Inc., which holds most SMR MTA licenses in virtually every MTA in the country) in which the PEBB licensee will assume all responsibility for the cost of implementing the retuning of the licensee's equipment.”<sup>11</sup> Finally, the Petitioners recommend using the negotiation process that was used for to relocate the “upper 200” 800 MHz channels.

**A. The term “comparable facilities” needs to be clarified.**

As described above, there are significant utility and CII systems in the 900 MHz band, and some of these systems could need to be relocated to the narrowband allocation under the proposed band plan, if the licensee decides not to participate in the PEBB. One of the concerns that utilities and CII have is that the narrowband spectrum won’t provide as good coverage as the spectrum above 898/937 MHz, due to interference issues. Plus, there are related concerns about whether there are even sufficient channels in the narrowband spectrum to be able to accommodate all the relocated incumbents, particularly when there needs to be sufficient frequency separation between channels in order to avoid interference. In other words, can these relocated systems even be coordinated in the narrowband allocation as a practical matter? These concerns need to be addressed as part of any discussion around comparable facilities in order to provide utilities and CII with the certainty they need that they will be made whole, if they decide not to participate in the PEBB and they need to relocate systems below 898/937 MHz.

**B. The cost of relocating to comparable facilities should be estimated.**

There also needs to be a better understanding of the costs that will be borne by the PEBB to relocate incumbents to comparable facilities. The Petition does not contain any estimate of the

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<sup>11</sup> Petition at iii.

cost of relocating incumbents from the band. Instead, the Petition only states that the costs of the relocation will be borne by the PEBB. By comparison, when the Commission adopted rules for 800 MHz rebanding, it estimated the costs of relocation between \$850 million and \$2.5 billion and required Sprint to provide a letter of credit to cover these estimated costs. The actual costs of 800 MHz rebanding currently stand at \$1,162.7 million and continue to grow.<sup>12</sup> Therefore, in order to assess the relative costs against the benefits of realigning the 900 MHz band, as well as to estimate the costs that would be shared among the PEBB licensees as proposed by the Petitioners, there should be some estimate of the costs of relocating the 900 MHz incumbents from the PEBB to the narrowband allocation part of the band.

**C. EWA should not be the exclusive coordinator of the 900 MHz rebanding process.**

UTC opposes the recommendation of EWA as the exclusive coordinator for the 900 MHz rebanding process. This proposal runs contrary to the Commission’s policies of providing competitive coordination in the land mobile bands generally. Moreover, it would be arbitrary to designate EWA as the exclusive coordinator of the rebanding process. While the Petitioners cite to EWA’s qualifications, the same could be said about the qualifications of other certified frequency coordinators besides EWA. The Petitioners do not explain why EWA is any better than the rest of the certified coordinators, nor does it offer any criteria that could be applied by the Commission to make a determination itself. In the past, the Commission has certified coordinators based in large part upon their “representativeness” of the type of radiofrequency users in the bands that they would be coordinating. The Commission could choose to adopt this

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<sup>12</sup> See Transition Administrator Quarterly Progress Report for the Quarter Ended September 30, 2014 at <http://www.800ta.org/content/reporting/quarterlyreports.asp> (stating that “[a]s of September 30, 2014, Sprint and incumbent licensees had executed TA-approved FRAs [Frequency Reconfiguration Agreements], PFAs [Planning Funding Agreements] and related amendments totaling approximately \$1,162.7 million.”)

criterion and approach to the coordination of users in the 900 MHz relocation process, so that other qualified coordinators that are representative of the incumbents in the band could coordinate frequencies in the 900 MHz band for relocation as part of the realignment process.

Alternatively, if the Commission decided that it would be more appropriate for a single entity to oversee the relocation and coordination process, it could take a similar approach to what it did in the 800 MHz rebanding process. There, the Commission designated members of a search committee for the Transition Administrator. Here, the Commission could select a similar search committee composed of organizations that are representative of the incumbent licensees in the 900 MHz band to designate a single entity that would coordinate the entire relocation process.

#### **V. Potential Licensing Freeze**

Petitioners have requested that the Commission consider imposing a freeze on further licensing in the 900 MHz band to prevent speculation in the band. They request that the Commission should be alert to applications from parties whose eligibility for the channels that are requested is questionable. The Petitioners assert that the proposed realignment of the band may “result in an influx of speculative applications to the detriment of qualified users with a legitimate need for the spectrum in question, as well as to the realignment itself.”<sup>13</sup> In the event of such an influx, the Petitioners suggest that the Commission reinstitute the “incumbent-friendly freeze” that the Commission had previously adopted in the 900 MHz band. That freeze had permitted modification of existing facilities but prohibited any new facilities that were unconnected with existing systems.

Petitioners correctly recognize that utilities and CII have serious concerns about such a

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<sup>13</sup> Petition at ii and 20-22.

freeze and that any freeze that is adopted should not impact existing B/ILT entities.<sup>14</sup> If the Commission were to adopt a freeze, utilities and CII should be able to continue to apply to modify existing facilities and add frequencies to expand capacity. They should also be able to expand coverage by applying for new systems, as well. This would enable utilities and CII to continue to support the safety and reliability of their existing systems, and at the same time, it would prevent entities that are not currently licensees of existing systems in the 900 MHz band from applying for new facilities that are purely speculative and that would complicate the process for the 900 MHz band realignment.

## **VI. Conclusion**

To be sure, there is a broadband revolution, and utilities and CII do need access to broadband to support their increasing communications needs in terms of capacity, coverage and reliability. At the same time, utilities and CII continue to rely on narrowband communications as well for many data and voice applications. They have made significant investments in the deployment and operation of many extensive 900 MHz wireless networks throughout the country. These networks support a variety of applications, such as SCADA and AMI. While the proposed realignment of the 900 MHz band would provide utilities and CII with an opportunity to access broadband spectrum to support these and other applications, access to broadband spectrum would come at a cost. These costs must be balanced against the benefits of access to broadband. Different utilities will have different views about the Petitioners' proposal, depending on the extent to which they need access to broadband, as well as the extent that they currently have existing narrowband systems in the 900 MHz band which may be impacted by the realignment. In any event, UTC urges the Commission to promote opportunities for utilities and

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<sup>14</sup> *Id.* at 13.

CII to access broadband spectrum in addition to the opportunity presented by the Petition.

UTC urges the Commission to balance the costs and benefits of the proposed realignment of the 900 MHz band. In order to properly assess the costs and benefits, there needs to be greater certainty about the impact on narrowband systems, including the process and the terms for reimbursing the costs of relocating incumbent narrowband B/ILT and SMR systems from the proposed PEBB block and down below 898/937 MHz to the narrowband allocation of the band. There also needs to be greater certainty about the proposed PEBB itself, including whether PDV has sufficient channels to accomplish the realignment in specific markets. This will help utilities and CII assess the opportunity for this proposal to provide a broadband solution that will meet their needs, including whether the network may be deployed in rural as well as metro areas. In that context, there also needs to be greater certainty regarding the proposed network, including the PEBB licensee, its prospects for deployment of the network in the near term and the long term, and the utility applications and services that it might support. In any event, the Commission should not adopt Petitioners' recommendation that EWA serve as the exclusive coordinator of the 900 MHz band. Instead, the Commission should consider other coordinators as well as EWA to oversee the realignment process.

Respectfully submitted,

**Utilities Telecom Council**

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January 12, 2015