

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

In the Matter of	)	
	)	
Review of the Commission's Rules	)	WT Docket No. 17-200
Governing the 896-901/935-940 MHz Band	)	
	)	
Realignment of the 896-901/935-940 MHz	)	RM-11738
Band to Create a Private Enterprise	)	(Terminated)
Broadband Allocation	)	
	)	
Amendment of the Commission's Rules to	)	RM-11755
Allow for Specialized Mobile Radio Services	)	(Terminated)
Over 900 MHz Business/Industrial Land	)	
Transportation Frequencies	)	
	)	

**COMMENTS OF WESTAR ENERGY, INC.**

Westar Energy, Inc. ("Westar") respectfully submits the following comments to the Commission in response to the Notice of Inquiry ("NOI") in the above-captioned proceeding. As set forth in more detail below, Westar opposes the proposal of Pacific DataVision, Inc. ("PDV") and the Enterprise Wireless Alliance ("EWA") because it may result in interference that cannot be mitigated without decreasing the coverage that is essential to Westar's safe and efficient operation of its electric transmission and distribution operations. If the Commission does approve PDV/EWA's proposal, it is essential that the Commission make clear that the cost of additional equipment, or relocation of any site, necessary for utilities to achieve the same quality and coverage of service that they have today will be borne in full by the Private Enterprise Broadband ("PEBB") licensee. Further, the Commission should require that PDV/EWA provide their built-to-suit broadband solution at a reasonable cost to urban and suburban utilities alike. Westar endorses and adopts as if fully set forth herein the initial comments of the Utilities Technology Council filed in this proceeding in response to the Commission's NOI. Westar also incorporates

herein by reference its own January 12, 2015 comments filed in Docket No. RM-11738 regarding PDV/EWA's Petition for Rulemaking underlying this NOI.

### **Introduction**

Westar is an investor-owned electric utility headquartered in Topeka, Kansas. Westar delivers electricity to nearly 700,000 customers in 55 counties across the east and east-central regions of the state. Because Westar primarily provides services to customers in high-cost rural areas, its service area is extremely large and geographically dispersed. Westar's dedicated team of more than 2,400 employees operates and maintains over 35,000 miles of transmission and distribution lines across a 10,100 square mile service area. Westar currently holds a number of licenses for spectrum within the 900 MHz band at issue in the NOI, and depends on these radio frequencies for internal communications that enable Westar to construct and maintain a safe, reliable electric system, including two-way radio systems. Westar's personnel depend on these two-way radio systems to coordinate services across Westar's large, rural service area, where alternative forms of communication, such as reliable cellular service, are often not available. Westar's 900 MHz band radio systems are also essential because they allow for Push-to-Talk ("PTT"), point-to-multipoint voice communications, which are required for many of its operations.

Because consistent and uninterrupted access to the 900 MHz band is critical to Westar's ability to maintain reliable electric services for its customers, Westar urges the Commission to reject the proposals discussed in the NOI and maintain the 900 MHz band pursuant to its current rules and procedures.

## **Comments**

### **I. Westar's Current Use of the 900 MHz Band.**

Westar currently operates in both the lower 2/2 and upper 3/3 segments of the 900 MHz band addressed in PDV/EWA's proposal. Westar relies upon this spectrum for its private land mobile radio ("PLMR") system, a PTT radio system that allows multiple personnel to communicate and monitor operations at the same time. This point-to-multipoint voice communication is essential to the performance of many mission-critical tasks and operations. For example, the use of a PTT system is essential to safe high voltage line work, and when switching lines for routine and emergency work. Commercial cell phone service that only allows two individuals to communicate is insufficient to perform such tasks safely and efficiently.

Commercial cellular service is also insufficiently reliable when utility workers are performing storm restoration activities or repairing lines or equipment after other disasters. Westar's service area is vulnerable to wind and ice storms, tornadoes, and flooding. These times of natural disaster are the very times when communication among utility workers is most critical. Commercial cell phone networks are often damaged or lose power in such storms or disasters and lack sufficient back-up power to support restoration efforts. Further, electric utilities do not have priority on commercial networks, so when disasters occur, electric utility personnel are competing with all other members of the public for use of such networks. Thus, commercial networks cannot be relied upon to enable the crucial and time-sensitive work of restoring the electric grid.

The issue of lack of priority on cellular networks is not limited to storm restoration—electric utilities are also unable to rely on commercial cell phone networks during large civic events such as, for example, the recent parade and celebration in Kansas City for the World Series championship, where cell phone services became unavailable due to capacity overload.

Further, Westar cannot rely upon commercial cell phone networks in the event of a “black start.” A black start is required when the regional power system totally fails and a blackout occurs. The entire power system must be restarted and synchronized. A black start involves restarting an individual first-start plant and reconnecting it to next-start plants until eventually the whole system is restored and power can be sent over transmission and distribution lines to customers. A black start must be performed in a carefully coordinated manner, and reliable communications are essential to accomplishing a black start in a timely fashion. Commercial networks cannot be relied upon because they are often damaged in the same events that would cause a blackout, and because they lack sufficient backup power. Westar’s PLMR system, by way of contrast, is protected with battery and backup generator power and can operate in a blackout for several days if necessary in order to ensure that system power is restored.

## **II. Westar Opposes the PDV/EWA Proposal Because the Interference that Could Result Would Endanger Its Provision of Safe and Reliable Electric Service to Its Customers.**

The reorganization of the 900 MHz band proposed by PDV/EWA would deprive Westar and other holders of B/ILT licenses of the flexible guard bands between individual channels that can be used today to protect against interference. With respect to this issue, Westar endorses and incorporates herein by reference the January 12, 2015 comments of both the Salt River Project Agricultural Improvement and Power District and NextEra Energy, Inc. in Docket No. RM-11738 regarding PDV/EWA’s petition for rulemaking underlying this NOI (explaining how PDV/EWA’s proposal’s channel compression will result in interference and reduced coverage).

Westar is currently in the process of replacing and upgrading its existing PLMR system that operates in the 900 MHz band. The existing system is licensed in both the 2/2 and the 3/3 MHz segments. Westar decided to stay in this 900 MHz band because of its favorable propagation characteristics for rural and urban areas, the strategic location of Westar’s existing 40 tower sites

within this frequency band, the possession of the 900 MHz licenses, and proven performance. Westar cannot postpone replacement of its system because the existing system is severely outdated and spectrum inefficient. Over the past two years, Westar has invested millions of dollars in infrastructure, including buildings, generators, power systems, antennas and other equipment, in association with the upgrading of its PLMR system. Westar is currently soliciting bids for replacement of the radio equipment itself, investing millions more in portable radios, mobile radios, tower site radios, and communication equipment.

Westar is concerned that both its investment and the efficient operation of its system may be compromised if the B/ILT licensees, including Westar, are forced to move to the lower 2/2 segment of this band. Concentrating all B/ILT licensees in this limited spectrum would result in closer frequency spacing and a greater chance of interference. Mitigation of the interference would likely require greater filtering, greater cost, and potentially result in less signal strength. The end result could be reduced coverage area and the inability to communicate in certain areas.

It is possible that Westar could mitigate the reduced coverage that would result from the closer channel spacing required by the PDV/EWA proposal by modifying the design of its transmit sites. Should the Commission see fit to realign the spectrum as proposed, the Commission should make clear that PEBB licensees are responsible for the cost of any such modifications, as well as any labor, licensing, or other relocation costs B/ILT licensees will have to incur in association with the relocation.

It appears from PDV/EWA's Petition for Rulemaking in the underlying proceeding that they contemplate PEBB licensees bearing at least certain costs associated with relocation of incumbent B/ILT licensees to the 2/2 band:

The PEBB licensee would be required to fund the relocation to comparable facilities (as defined in FCC Rule Section 90.699, including the same quality of service as the facilities prior to relocation ("Comparable Facilities") and any other criteria the FCC believes appropriate for this spectrum) below 898/937 MHz of all site-based B/IL T licensees in the PEBB allocation, as well as any MTA licensees that wish to continue operating narrowband systems. Comparability for this purpose would include ensuring that the licensee experienced no reduction in system capacity, coverage or signal strength within its coverage area. **If there are instances in which providing Comparable Facilities requires additional equipment, such as antennas, combiners, or even additional sites, that cost would be borne by the PEBB licensee.** Any disputes regarding the comparability of facilities for members of API or UTC would be referred for resolution to the appropriate organization.

*In the Matter of Realignment of the 896-901/935-940 MHz Band to Create a Private Enterprise Broadband Allocation*, Docket No. RM-11738, Petition for Rulemaking of the Enterprise Wireless Alliance and Pacific DataVision, Inc., ii-iii (FCC Dec. 8, 2014) (emphasis added). However, PDV/EWA also states in those comments that:

Once the alternative frequencies have been identified and determined to satisfy the licensee's requirements, the licensee will negotiate a realignment agreement with PDV (or the applicable PEBB licensee) in which PDV or another PEBB licensee will assume all responsibility for the cost of implementing the retuning of the licensee's equipment. The FCC has experience with various models for negotiated reimbursement of such costs in band restructurings. **Because most of these licensees will change frequencies only and will not need to replace or otherwise modify their equipment,** the negotiation of system comparability and cost should be relatively straight forward.

*Id.* at 19 (emphasis added).

Westar is concerned that the NOI does not address how the PEBB licensees would bear the cost of modification of transmit sites such as those that Westar likely would be required to bear in order to achieve comparable service. While the NOI states that "The PEBB licensee would be required to fund the relocation of current B/ILT and SMR licensees...to comparable facilities in the narrowband segment," it does not specifically address the critical issue of equipment that may

be necessary to mitigate the decreased coverage that will result from increased interference and filtering that would be necessitated by the PDV/EWA proposal. (NOI at ¶ 13). Any realignment plan must be unequivocal in its assignment of the cost to PEBB licensees of equipment/infrastructure necessary to achieve comparable service (and not just administrative costs).

### **III. The Built-to-Suit Broadband Solution Proposed by PDV/EWA Must Include Mandatory Access for All Critical Infrastructure Utilities At A Reasonable Price.**

Westar is concerned that the broadband services that PDV/EWA contemplates offering would not, at least in the near term, benefit electric utilities like Westar that operate in mostly rural service territories. Westar is concerned that PDV/EWA will build out their networks in denser areas first, and only thereafter, and assuming such buildouts are a success and there is a financial case to support rural buildouts, will PDV/EWA eventually move on to rural areas such as Westar's service area. PDV/EWA denied that that would be the case in their comments in the underlying rulemaking, stating:

The Petitioners believe, over time, that the demand will reach nationwide proportions but in a manner very different than the traditional commercial wireless system that invariably deploys first in major markets and only gradually expands outward following major freeways. That model is one of the factors that make such networks unusable for the many CII and other PE entities with coverage requirements outside densely populated areas, oftentimes in remote regions. The build-to-suit approach proposed in the Petition means that usage will be driven by identified PE/CII requirements that, literally, could be anywhere in the nation. It is expected that urban entities will turn to this broadband option for its reliability, security, and, most important, priority access features, while coverage will be an equally essential factor for those outside the service areas of commercial networks.

*In the Matter of Realignment of the 896-901/935-940 MHz Band to Create a Private Enterprise Broadband Allocation*, Docket No. RM-11738, Comments of the Enterprise Wireless Alliance and Pacific DataVision, Inc., 5 (FCC Jan. 12, 2015). Any mandatory realignment by the Commission

should be accompanied by a requirement that the PEBB licensee offer broadband solutions to all critical infrastructure entities, whether located in urban or rural areas. Further, any such built-to-suit networks that are cost prohibitive do not represent a feasible solution. There must be further details around and assurances provided regarding the “built-to-suit” broadband solutions proposed by PDV/EWA.

### **Conclusion**

Westar is concerned that the realignment of the 900 MHz band proposed by PDV/EWA could result in interference and degraded coverage in the new proposed 2/2 band, which is unacceptable given the mission critical nature of Westar’s, and other critical infrastructure entities’, uses of this band. Further, Westar anticipates that relocating to the 2/2 band would require Westar to modify the design of its transmit sites to remedy lost coverage resulting from channel compression. To the extent PEBB licensees are not required to bear such costs, the burdensome cost of the proposal combined with the lower quality of spectrum configuration is a losing combination for Westar. Further, any realignment must be accompanied by a requirement that PEBB licensees offer a built-to-suit broadband solution to urban and rural areas alike, and at a cost that is not prohibitive—otherwise, it is no solution at all.

Respectfully submitted this 2nd day of October, 2017.

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