

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

In the Matter of)
)
Review of the Commission's Rules Governing) WT Docket No. 17-200
the 896-901/935-940 MHz Band)

To: The Commission

Comments of the Hawaiian Electric Companies

Hawaiian Electric Company, Inc.
Maui Electric Company, Limited
Hawai'i Electric Light Company, Inc.

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I. Introduction and Executive Summary

These Comments are being submitted by Hawaiian Electric Company, Inc., Maui Electric Company, Limited, and Hawai'i Electric Light Company, Inc., referred to herein collectively as the "Hawaiian Electric Companies." Like many other public utilities in the nation, the Hawaiian Electric Companies are undertaking significant grid modernization efforts in order to meet emerging regulatory mandates such as a 100% renewable portfolio standard, changing customer expectations and energy needs, as well as completing necessary upgrades to aging infrastructure and operational systems. The much-needed improvements are introducing new and more progressive requirements that must be simultaneously met in order to enable the desired business capabilities for the electric distribution systems of the future. From accommodating high penetration levels of Distributed Energy Resources (DERs), to addressing ever more sophisticated cybersecurity threats, the Hawaiian Electric Companies recognize the importance of having access to dedicated broadband communications capacity to fulfill our mission-critical needs and deliver resilient and reliable quality services to our customers.

While it has been encouraging to follow recent developments toward making broadband communications services available to public utilities, the Hawaiian Electric Companies have become increasingly concerned about the potential outcomes the instant Notice of Proposed Rulemaking¹ will create in the 900 MHz band 8 spectrum at issue in this proceeding (the “900 MHz Band”). For decades, public utilities have had a direct relationship with the FCC for their communications needs, and this has proven to be a successful model that should be allowed to continue. Of utmost concern regarding the NPRM is the potential granting of a nationwide monopoly to a single, private, third-party entity that will become the de-facto “middle man” between public utilities and crucial spectrum resources. The Commission should seriously consider the consequences of creating a windfall for a third-party whose business model is unabashedly based on simply monetizing the resulting spectrum realignment. Instead of adding a few more MHz to the over 240 MHz of spectrum (not even counting millimeter wave spectrum) that is currently available to common carriers to commoditize for commercial purposes, the 900 MHz Band broadband license should be reserved for use by public utilities to provide mission-critical services, and support matters of national security.

The Hawaiian Electric Companies strongly believe that, if the Commission is intent on helping solve a critical industry need, allocating the 900 MHz Band broadband license exclusively for public utilities’ use would most immediately and directly serve the public interest. The less urgent needs of other entities can be adequately served out of other available spectrum resources. While public utilities are not currently classified as first responders, they play a very important role during emergencies and natural disasters in protecting critical

¹ *In the Matter of Review of the Commission’s Rules Governing the 896-901/935-940 Band, Notice of Proposed Rulemaking*, FCC 19-18, rel. March 14, 2019. (“NPRM”).

infrastructure, assisting the affected communities, and even helping first responders. The utility industry is rapidly evolving its capacity to meet these increasingly common challenges and threats, along with its fundamental service missions. The industry's responsibilities are truly no less critical to the health and safety of the public than the needs of first responders such as First Net. Without power, after all, first responders would be hard pressed to do their important work.

With the goal of being a constructive and active participant in this proceeding, the Hawaiian Electric Companies are submitting these targeted comments addressing key issues raised in the NPRM. We remain hopeful for a productive and beneficial outcome for all involved.

II. NPRM Issues of Concern

A. Rules Applicable to the Narrowband Segment

The Commission has asked how access to and use of the narrowband segment of the 900 MHz Band should be handled. The 2 MHz narrowband segment will contain 160 narrowband channels. There is no reason why the Commission should not apply the same rules to the 2 MHz narrowband segment as apply today to normal B/ILT licensing. As B/ILT site licenses will coexist with broadband license, any new sites, whether they are broadband or B/ILT, must not adversely affect existing incumbent systems.

B. Should a Broadband License be Allotted?

The Commission asks if a broadband segment should be created out of the 900 MHz Band and how large such a segment should be. A broadband licensee will require a 3 + 3 MHz channel to take full advantage of 5G LTE-based capabilities and innovations, especially for enabling efficient use of Cat-NB devices defined by 3GPP. The Hawaiian Electric Companies support the designation of 3 + 3 MHz channel in the 900 MHz Band.

C. Eligibility for the Broadband License

The Commission proposes to limit eligibility for the broadband license to holders of all twenty of the geographically licensed 900 MHz SMR licenses in a given county. This limitation excludes every entity in the nation from access to this spectrum resource except pdvWireless. Such a preferential and targeted limitation on eligibility cannot be in the public interest when other companies, particularly public utilities, have legitimate and pressing needs for this resource. Most public utilities' critical infrastructure systems and operations are currently undergoing grid modernization, which exponentially increases the role that broadband communications will play in grid control, safety and security. The new operational requirements and use cases such as real-time situational awareness, distributed control at the edge of the grid, advanced Fault Location, Isolation, and Service Restoration (FLISR), Micro-grid management, emergency response, and adequate cybersecurity controls are simply not feasible over the legacy narrow-band communications networks that the public utilities currently operate. Prioritized access to cost-effective broadband spectrum facilities will be key to the success of this massive grid modernization effort, which is itself decidedly in the public and national interest.

A fair process to apply for broadband licenses can include market driven negotiations as long as it is based on the right conditions – most critically, preventing the gift of a windfall to a single company -- by 1) broadening the eligibility criteria for applicants; 2) returning SMR spectrum licenses to the Commission's inventory upon their expiration; 3) continuing the current freeze on new and modified 900 MHz licenses, and 4) preventing new opportunistic deployments of radio systems.

D. Who Should be Allowed to Apply for the Broadband License?

This NPRM arose from and is driven by the need to provide broadband capabilities to public utilities. With that high-level objective, in mind, *any regulated utility that owns and operates critical infrastructure should* be eligible to apply for the 900 MHz Band broadband license even if it does not currently own any B/ILT or SMR spectrum in that band. Many public utilities have gotten by in the past with 800 MHz band licenses, for example, to meet their previous needs. The Commission's current proposal would unaccountably deny them access to the new broadband license on this basis. The reality is that the challenges facing public utilities in the immediate future have expanded well beyond those which they faced in the past. There is no reason why public utilities should be denied access to 21st century tools and resources to cope with these challenges just because they did not previously use 900 MHz Band spectrum.

E. Should the FCC Make Spectrum from its Inventory Available to the Broadband Licensee?

The FCC should issue as much spectrum as is necessary and available from its inventory to fill out a broadband applicant's 3 + 3 MHz spectrum complement as long as the applicant has satisfied all other conditions. This can be more than 1 MHz. Expanding the eligibility criteria as suggested above, returning unused SMR channels to FCC inventory, and establishing firm incentives to reach relocation agreements will set up the right conditions for incumbents to negotiate on a voluntary basis. It is very important that current SMR licensees do not gain a monopolistic position in any market, including Hawai'i. Otherwise, this will result in only one entity being eligible to apply for a broadband license, freezing out public utilities who are in need of broadband to fulfill their mission-critical needs and deliver reliable, high quality services to their customers.

F. Avoidance of Windfall

The NPRM expresses concern about the possibility of parties reaping a windfall from the reorganization of the Band coupled with the award of spectrum from the FCC's inventory to fill out the broadband segment. Comment is sought on whether and how such windfalls could be prevented. The current proposed rules clearly favor SMR licensees who have acquired heavily discounted licenses in the secondary market. This is because SMR technology is largely discontinued and licenses are being used for narrowband systems, which normally should be licensed under B/ILT rules.

Operators and entities that have purchased SMR spectrum at a discounted rate on the secondary market have a considerable advantage based on the proposed rules. A fair and voluntary, market-driven approach should create an environment to allow eligibility for multiple entities to qualify, allow competitive negotiations to take place, and give all parties a fair chance to be successful in obtaining a broadband license.

To minimize the windfall effect in negotiations and create a fair, competitive environment for broadband licenses, the Commission should phase out SMR licenses upon their expiration and migrate existing operational systems in the SMR blocks to B/ILT.

G. Applications

The NPRM proposes that applicants for the broadband license must submit a Transition Plan describing in detail all information and actions necessary to accomplish the realignment, including: (1) the spectrum frequencies within the broadband segment that the prospective broadband licensee seeks from Commission inventory, (2) the rights to all 20 geographically-licensed SMR blocks, and any site-based SMR or B/ILT licenses in the county that the licensee

is relinquishing, (3) the applications that the parties to the agreement will file for spectrum in the narrowband segment in order to relocate or repack licensees, (4) a description of how the applicant will provide interference protection to, and/or relocate from the broadband segment, all covered incumbents, and (5) any rule waivers or other actions necessary to implement the agreement.

As noted above, eligibility for the broadband license should not be limited to holders of the 20 SMR geographically licensed blocks. The elements required for a broadband license application should therefore be revised to include instead a showing that the applicant is a utility which currently owns and operates a utility network in the county for which the application is made and a proposed plan/schedule for returning all other licenses the applicant owns in 900 MHz Band.

H. Auction of Overlay Licenses

The *NPRM* also seeks comment on whether an auction of overlay 900 MHz broadband licenses, coupled with the right to mandatorily relocate narrowband incumbents in the entire band, might be a viable alternative method to ensure adequate access to broadband spectrum. An overlay auction for a broadband license would be reasonable and fair and would provide a mechanism to ensure the 900 MHz Band is sufficiently cleared to accommodate the new broadband license. The winner would be responsible for negotiating with all incumbents to adequately relocate their systems before any broadband system can be deployed. SMR license holders would be on notice that their licenses will not be renewed at expiration and will be returned to the FCC or converted to B/ILT licenses where there is current service. The Hawaiian Electric Companies therefore support this proposal.

I. Timeframe for Mandatory Relocation

Would a 2-year period for mandatory relocation be appropriate? The Hawaiian Electric Companies believe that two (2) years is a reasonable time frame.

J. An Incentive Auction

The *NPRM* also seeks comment on whether the Commission should consider using its incentive auction authority to reduce encumbrances in the 900 MHz Band. The Hawaiian Electric Companies do not believe that an incentive auction would be fair, as it would instead guarantee a windfall for current SMR licensees. The proposed incentive auction model heavily favors SMR licensees who have only recently purchased discounted licenses in the secondary market. The combination of voluntary negotiations and an overlay auction with mandatory clearing should accomplish the Commission's objectives without the unnecessary delay and complexity of an incentive auction.

K. Should there be Open Eligibility for the Broadband License?

As stated above, grid modernization requirements are rendering wireless broadband an essential, must-have (not just nice-to-have) capability for public utilities. From the need to accommodate large volumes of data from Advanced Metering Infrastructure (AMI) to the ability to perform autonomous switching operations and manage Micro-grids, higher network capacity, performance, and low latency are all necessary to enable the grid of the future. As a result, any regulated, licensed utility that owns and operates critical infrastructure in any part of the county should be eligible to apply for the broadband license in their service area regardless of its current license ownership in the 900 MHz Band. Eligibility should be restricted to only such public utilities. The Commission is here called upon to weigh whether this demonstrable need for a relatively small swath of broadband spectrum dedicated to meeting critical responsibilities that

ensure that our electrical grid is resilient, reliable and secure is more important than adding to the already large trove of wireless spectrum already held by commercial operators. The answer seems clear.

III. Conclusion

The broadband license contemplated here has the potential to satisfy communication needs of critical infrastructure providers that cannot be met through other available spectrum resources. The Commission should therefore recognize the urgent needs which public utilities have identified and take the necessary steps to allow them access to it on a fair and expeditious basis. The public interest demands no less.

Respectfully submitted,

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