Before the

Federal Communications Commission

Washington, D.C. 20554

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

To: The Commission

**Comments of Southern California Edison**

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# **Summary**

These Comments submitted by Southern California Edison (SCE) strongly support the Commission’s proposal to create a broadband channel in the 900 MHz band – provided the proposal permits public utilities like SCE and others to have a chance to acquire the license and also that there is a clear path to relocating incumbents out of the band. SCE, one of the largest electric utilities in the United States, details the exigent circumstances that require utilities to have broadband access, including weather conditions like hurricanes on the Gulf and Atlantic coasts, and drought/wildfire conditions on the west coast. Threats from cyberattacks on utilities are also increasing and must be guarded against.

SCE believes that eligibility for the broadband license should not be limited only to entities that hold all 20 SMR licenses. This criterion is unreasonably restrictive and effectively awards the broadband license to a single entity which is not itself a utility. Eligibility should be open to *any* 900 MHz band incumbents. The special public safety and mission-critical service responsibilities of utilities argue strongly for them to have preferential access to this spectrum, as against making this small amount of spectrum available for general common carrier-type usage.

The relocation process should incentivize voluntary agreements among incumbents to clear the broadband spectrum segment by setting a firm deadline for such agreements with mandatory exit without reimbursement after that deadline. Phasing out the MTA-based SMR license category by conversion to B/ILT license status will also free up spectrum for allocation to the broadband segment. The Commission should actively pursue allocation of other available spectrum bands to accommodate the relocation of incumbents where 900 MHz spectrum is scarce.

The transition plan adopted by the Commission should permit an evolutionary process whereby broadband service could be initiated by the broadband licensee when 1.4 x 1.4 MHz channels have been cleared, with expansion to the full 3 x 3 MHz operation as additional bandwidth is relocated or recovered from incumbents. The Commission should also provide for the eventual expansion of the broadband license to 5 x 5 MHz as the band is further cleared.

An overlay auction would provide a fair way to clear the band if voluntary negotiations fail. Hold-out licenses which are not relocated would eventually default back to the Commission’s inventory for consolidation into the broadband license. Conversely, the incentive auction proposed by the Commission would simply either entrench the largest MTA SMR license holder as the likeliest recipient of the band or grant that same entity a huge financial windfall for having accumulated inexpensive 900 MHz bandwidth in advance of the auction. Such an auction is also complicated by the combination of narrowband and SMR licenses which would have to be bought out. If an incentive auction were nevertheless to be adopted, it should preclude the windfall effect by limiting auction credits or payments to an amount that covers the incumbent’s investment cost rather than the highly enhanced value that will result from conversion to a broadband configuration.

Finally, performance metrics should be based on population coverage rather than area coverage, and the Commission should take into account the difference between voice-type coverage and device-type coverage in determining reliable coverage areas. The latter application can achieve quite reliable service at lower signal strengths than other applications.

**Table of Contents**

[Summary i](#_Toc10204859)

[I. Introduction 1](#_Toc10204860)

[II. Questions Posed by the NPRM 5](#_Toc10204861)

[A. The Need for a Broadband Allocation 5](#_Toc10204862)

[B. Size of the Broadband Channel 6](#_Toc10204863)

[C. Eligibility for the Broadband License 7](#_Toc10204864)

[D. The Spectrum Aggregation Process 11](#_Toc10204865)

[E. Broadband Overlay Auction 13](#_Toc10204866)

[F. Incentive Auction 15](#_Toc10204867)

[G. Performance Metrics 17](#_Toc10204868)

[H. Continued Narrowband Use 18](#_Toc10204869)

[III. Conclusion 19](#_Toc10204870)

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**Comments of Southern California Edison**

1. **Introduction**

These Comments are submitted by Southern California Edison (“SCE”) in response to the Commission’s NPRM[[1]](#footnote-1) in the above referenced Docket. SCE is one of the largest electric utilities in the United States, providing service to most of the south-central region of California which includes some 15 million residential and industrial customers across 50,000 square miles. These customers depend on SCE to deliver electrical service to them safely, securely and reliably.

SCE currently holds 100 licenses in the 900 MHz band which it actively employs to provide both secure internal voice communications and data communications in support of its various operations in the region. (The portion of the 900 MHz band at issue in this proceeding shall be hereafter referred to as the “900 MHz Band.”) As a critical infrastructure provider to millions of Californians, SCE shares the view expressed by many commenters that there is an urgent need for improved and expanded telecommunications resources to ensure the reliability, security and safety of the nation’s electrical utility infrastructure.

Just last year, SCE and thousands of its customers experienced the Woolsey wild fire in the Ventura County – Los Angeles region that consumed nearly 100,000 acres of land area and destroyed millions of dollars’ worth of property. The Camp Fire in northern California simultaneously wreaked devastating damage to a large swath of northern California and took many lives. In fact, 10 of the 20 most destructive wildfires in California have happened since 2015. Wildfires like these present an immediate and public threat to California. Broadband visual and data monitoring of electrical facilities in remote locations is critical to mitigate electric infrastructure risk and ensure fire events are detected immediately and extinguished before they grow into major public safety events. While west coast utilities have suffered increasingly from effects of a persistent drought-rain-drought cycle that makes wildfires more frequent, more damaging, and harder to control, utilities along the Gulf coast and the Atlantic seaboard experience the opposite problem – hurricanes and tropical storms that occur with greater frequency than in the past that wreak more widespread damage to the regions affected than ever before

At the same time, the nation’s utilities are coming under increasing threats from hackers and cyberterrorists. As network management functions become more and more digitized, it becomes increasingly important that utilities like SCE maintain a communications network that is impervious to the kind of electronic intrusions that third party networks are susceptible to. High level security of the network against outside manipulation is essential to reliable operations, and that level of security can only be achieved by a closely owned, controlled and protected network structure.

Further complicating the challenges faced by utilities is the fact that the risks associated with negligence or nonperformance are increasing so significantly as to be unsustainable. As the recent bankruptcy of a large utility in northern California demonstrated, the strict liability imposed by law on utilities in California subjects them to catastrophic liabilities when an equipment malfunction causes an uncontrollable fire to start. Resulting damages can be in the *billions* of dollars, and third party service providers have not surprisingly refused to accept the daunting liabilities stemming from non-performance. For this reason, as well as the benefits and security of an internally controlled and operated network, it is imperative that utilities own and operate their own communications systems.

The electrical utility industry in this country is now at a historic threshold. The telecommunications methods, equipment, and networks of the 20th century are no longer up to the task of meeting 21st century climate conditions and security threats, not to mention the increasing complexity of administering the interconnected grids that make up the nation’s electrical infrastructure. SCE views the current proceeding as holding nothing less than the potential to have a defining, once-in-a-generation impact on the ability of utilities to continue to deliver safe and reliable power to their customers for decades to come. As will be detailed below, SCE believes the following broad principles should govern the Commission’s action in this proceeding:

* The specialized needs of the electric utility industry require the availability of significant dedicated broadband capacity. The highly fractionalized channel allocation which currently governs the 900 MHz band will not be adequate for the special challenges now faced by the industry.
* Utilities must have the ability to own and control their own licensed spectrum without being dependent on third party providers.
* Any spectrum reallocation should be flexible enough to allow broadband usage to begin with 1.4 x 1.4 MHz channels which can be implemented relatively quickly, permitting a graduated and smooth transition of incumbents out of the band so that the benefits of a 3 x 3 MHz broadband license can eventually be realized. The Commission should also anticipate and provide for the possibility that a full 5 x 5 MHz broadband license may be needed in the future.
* The continuing need of utilities for narrowband channels at least for a transitional period should be recognized. Service provided by permanent narrowband licensees should retain the same protection from interference that they currently enjoy, unless they agree otherwise.
* In order to accomplish the objectives of this proceeding, it is likely that additional spectrum outside the 900 MHz Band will be needed to simultaneously accommodate the needs of incumbents and the new broadband licensee. The Commission should therefore explore the availability of other relatively low band frequencies for this purpose.
* Eligibility for the broadband license should not be restricted to current large holders of SMR spectrum but should be open to all incumbents in the band.
* The urgent needs of Critical Infrastructure Industry applicants should be prioritized over the possibility of ceding this small spectrum band to non-utilities for generalized broadband purposes that are already being served elsewhere.
* The process of transitioning incumbents out of the broadband channel whether by voluntary agreement or FCC-conducted auction should be expeditious and include strong incentives for incumbents to relocate.
* Incumbents who have provided little or no service over their spectrum should not be granted huge financial windfalls at the public’s expense.

SCE will explain below how these principles can be addressed in the context of issues raised in the NPRM.

1. **Questions Posed by the NPRM**
2. **The Need for a Broadband Allocation**

The current 900 MHz channel plan consists of fragmented narrowband channels that are not adequate for the applications necessary for current and planned utility communications operations, including real-time video monitoring of electrical facilities and instantaneous shut down of current when faults occur. Grid modernization and resiliency requirements call for high capacity, low latency, and robust cybersecurity controls. None of these can be accomplished without the functionality available from a broadband spectrum configuration.

As one of the largest electrical utilities in the country, SCE is being confronted with the urgency of implementing these broadband-based measures more quickly than smaller utilities because the complexity and breadth of its infrastructure demands a capability for instantaneous response over a huge area with millions of customer locations and thousands of critical electrical junctures and installations. Eventually, smaller utilities will also require at least some of the capabilities required by SCE. The Commission has fully recognized the absolute need for ubiquitous broadband access for consumers and small businesses throughout the country. The need for broadband capacity is multiplied exponentially when satisfying both the standard of near-perfect reliability in critical systems and the nature and size of the various loads that the utility telecom network will be required to provision and sustain. The 900 MHz Band is the most cost-effective solution for a critical infrastructure communications network and will incur the least cost for rate-payers. SCE therefore applauds the Commission for recognizing the need for broadband in this particular industry segment and its willingness to rearrange the 900 MHz band to accommodate it.

1. **Size of the Broadband Channel**

The Commission requested comment on the appropriate size of the proposed broadband channel. A broadband licensee requires a 3 x 3 MHz channel allocation to take full advantage of 5G innovations under prevailing LTE protocols. However, in congested regions with considerable narrowband usage, broadband licensees may spend years clearing the entire 3 x 3 MHz broadband channel. In some cases, incumbent utilities have recently installed updates to Phase 2 digital narrowband systems. Under utility regulation accounting requirements, these facilities must be amortized over a period of several years before the systems can be transitioned to broadband. This important fact of regulatory life must be recognized in estimating the speed with which incumbent narrowband systems can be retired and converted to broadband. In order to expedite the rollout of broadband in these situations, therefore, the FCC should allow an interim 1.4 x 1.4 MHz channel deployment within the proposed 3 x 3 MHz broadband segment which the licensee could clear earlier to start operations. 1.4 x 1.4 channel widths are consistent with LTE protocols, though they permit more limited applications. By permitting such a configuration under the umbrella of the standard 3 x 3 MHz channels, the Commission would permit a graduated and less disruptive path to clearing incumbents from the band over a period of several years. At the same time, it would permit the goal of broadband capability to be achieved considerably earlier than would otherwise be possible, with some of the benefits of broadband being available almost immediately.

Over a period of 15 years, SCE expects most of the current narrowband systems to become obsolete or otherwise go out of service. Prudent regulatory foresight suggests that the Commission should anticipate this development now by granting the broadband licensee the right to expand their broadband deployments to a full 5 x 5 MHz at such time in the future as all inband incumbents have been satisfactorily cleared or accommodated, and interference to adjacent band operators has been eliminated or resolved by agreement. If the band does not clear as SCE projects, the Commission will have lost nothing, but if the band does clear, the remaining 4 MHz of the 900 MHz band can be put to immediate use without the need for a further rulemaking process.

1. **Eligibility for the Broadband License**

The Commission proposes to limit eligibility for the broadband license to entities which hold all 20 of the 900 MHz SMR licenses in any given market area. NPRM at ¶ 28. SCE strongly objects to this proposal for a number of reasons.

1. This eligibility criterion effectively limits eligibility for the broadband license as a practical matter to a single company, pdv wireless. While SCE recognizes the important part pdv has played in moving the process of band realignment to its present posture, that contribution should not result in pdv being the sole eligible broadband licensee. As currently proposed, the highly restricted eligibility criterion gives every appearance of being a benefit that is designed to be awarded to only one company without regard to the legitimate needs of other interested parties and without recognition of the benefits to the public which will accrue from making the broadband license more broadly available to utilities.
2. Migrating to broadband for utilities is critical in the next phase of the country’s critical infrastructure grid modernization. This modernization effort will increase safety, security and grid resiliency in the interest of all rate-payers and the general public. A communications network for utilities is the neural network for providing these essential services to the public. Grid modernization requires a highly sophisticated communications network. No non-utility can better grasp the critical nature of these communication systems and the risks to the electric grid and gas distribution systems than the utilities themselves. It is therefore essential that all utilities that own and operate critical infrastructure have prioritized access to broadband spectrum in order to be able to fulfill their public interest responsibility to safely and reliably deliver power and fuel to the people of the United States.

While the driving principle which has moved this proceeding forward is the need to make broadband capability available to utilities, the fact of the matter is that pdv is not an electrical utility, nor has it even committed to make its broadband capacity available to electrical utilities on an exclusive or even a preferred basis. Pdv could sell its license for a handsome profit to a common carrier entity which would simply add this bit of spectrum to its already large broadband spectrum holdings. This eventuality would completely subvert the underlying objective of this proceeding and divert the spectrum’s usage from its best and highest use. SCE recognizes that in many rural markets there may be little interest by smaller utilities in assembling the spectrum package needed to qualify for a broadband license, so in those markets pdv will likely become the default holder of 6 MHz of spectrum marketable to common carriers. SCE asks only that this not be a foregone conclusion in markets where utilities do desire the broadband license.

1. SCE and other utilities have carefully considered the possibility of leasing spectrum from a third party provider, whether pdv or an existing broadband common carrier. The result of this analysis is always that such an arrangement will not work. First, as indicated above, third party providers have been unwilling to assume the virtually unlimited liability which would come with leasing spectrum to a utility. Second, the security and reliability of the broadband network envisioned by SCE and other utilities requires the spectrum license to be owned by the utilities themselves. SCE, for example, contemplates a stand-alone network that is completely sealed off from access from the internet as the strongest firewall against intrusion by outside hackers. The risk from such threats is extremely high and SCE intends to do everything necessary to prevent all outside access. Without complete ownership and control of the spectrum, this high degree of security cannot be assured.

If utilities had to lease their capacity from a non-utility third party, they would be subject to pricing demands that only a single source provider could make. Utilities which are supported by rates approved by state regulators and passed on to their customers must be very judicious about their expense obligations. Just as importantly, utilities must think in time horizons that extend out for decades. They could hardly plan multi-million dollar network installations based on typical leasing timelines with no assurance that the leases would be renewed on reasonable terms at the end of the lease term. Direct ownership of the broadband license is without a doubt the most cost-effective and reliable means of assuring utilities access to the broadband spectrum they need for the indefinite future.

1. Currently the largest operators of 900 MHz systems in some regions in the nation are the electric and gas utilities. These utilities provide a critical and essential service to the public and are obliged to take cybersecurity, safety, and service reliability extremely seriously. The communications network for utilities is an essential element in delivering these critical services to the public. Historically, commercial operators have demonstrated little understanding of the specialized communications needs of utilities, driving the need for utilities to build and operate their own critical infrastructure communications networks. Moreover, because facilities-based utilities do not compete with each other and because they understand each other’s needs, SCE anticipates that utilities will be able to readily reach relocation or interference agreements with other utilities in the markets where they are licensees and in adjacent markets.

1. Just as eligibility should not be limited to one large incumbent, it should be expansive enough to embrace *all* incumbents who currently own spectrum in the band. Given the high-level importance of grid modernization in the decade ahead, all utilities that hold 900 MHz Band spectrum should have the opportunity to acquire broadband licenses.
2. **The Spectrum Aggregation Process**

SCE supports the Commission’s proposal to allow a period of voluntary negotiation whereby eligible entities can attempt to clear incumbents from the 900 MHz band by a combination of relocation or buyout agreements with other incumbents, return of spectrum to the Commission, and release of spectrum held by the Commission from inventory. SCE further supports the two year time period proposed by the Commission to accomplish this process, since in some markets like greater Los Angeles, there are many individual B/ILT licensees who will need to be cleared. While expedition of the process is important, SCE feels that two years may well be necessary to accomplish this complex task. Any further negotiation after that point would probably be useless. Finally, SCE supports county-based broadband licenses rather than larger areas such as MTAs. Larger areas would in some ways simplify the clearing process for very large utilities such as itself, but in many parts of the country MTAs would be far larger territories than smaller utilities would ever need, so an MTA-sized license would be a burden rather than a benefit.

Several other measures would likely make the voluntary process more likely to succeed. (i) First, the FCC should be able to issue as much spectrum from inventory as necessary to comprise a full 3 x 3 MHz channel allotment, provided the broadband applicant has reached agreements to clear at least 1.4 x 1.4 MHz of bandwidth in the market. This can be more than 1 MHz.

(ii) Second, the Commission should allow license relocations agreed to by the parties to take place over a period of not less than five years to accommodate the long term amortization requirement noted above to which many utilities are subject.

(iii) Third, the current freeze on new or substantially modified 900 MHz licenses should be continued until the broadband transition period is complete. This will prevent new or modified licenses from complicating the ongoing clearing process.

(iv) Fourth, SMR licenses that fail to meet and maintain performance requirements or whose licenses come up for expiration during the relocations process would not be allowed to renew them. This is consistent with the statutory principle that no licensee has an ownership right in its license beyond its term, so no licensee can have a legal expectation to hold a license beyond that date.[[2]](#footnote-2) The concept is similar to the “sunsetting” provisions that have been applied to other services such as microwave licenses (47 C.F.R. §101.79) and BRS licenses. (47 C.F.R. §27.1253). The prospect of losing its license entirely at the end of its term would incentivize holdout licensees to agree to reasonable relocations or buy outs before that date. This will also increase the FCC’s inventory in 900 MHz, allowing the FCC more options to facilitate the availability of a full 3 x 3 MHz spectrum compliment for broadband applicants. Incumbents using narrowband channels within the SMR blocks, however, would be relicensed based on B/ILT rules which will ensure uninterrupted service continuity where service actually exists. In 2026, the remaining SMR licenses will be expiring. These should not be renewed but instead returned to the FCC. This looming loss of license should incentivize SMR owners to fairly negotiate relocation without the motivation of a windfall.

(v) Fifth, broadband applicants would provide a schedule to turn in all of their current 900 MHz licenses to the Commission. This surrender of 900 MHz licenses would have to be completely accomplished within the 15 year term of the broadband license but after 5 years the broadband licensee would be required to surrender its remaining narrowband licenses if needed to accommodate new narrowband license applicants. Because push-to-talk technology is needed for utility dispatch-type applications and is not otherwise reliably available from common carriers, these licenses will continue to be needed for vital internal communications purposes until the broadband channels are fully cleared. There is no point in returning them to idle FCC inventory if there is no demand from other users for this spectrum and the broadband licensee is using them constructively, so long as other users have ready access if needed.

(vi) Finally, SMR licenses should immediately be relicensed as individual 12.5 x 12.5 KHz narrowband B/ILT licenses. This is consistent with the phased out obsolescence of 900 MHz SMR service generally and will also simplify the process of trading out narrowband licenses to incumbents as necessary to accommodate their narrowband needs. The addition of these tweaks to the voluntary negotiation regime, together with expanding the eligibility criteria, will set up the right conditions and incentives for eligible applicants to successfully achieve the necessary spectrum aggregation on a voluntary basis.

1. **Broadband Overlay Auction**

If voluntary negotiations do not achieve the clearing of a 3 x 3 MHz band, SCE believes that an overlay auction would be the simplest and a fairest approach to assigning broadband licenses. The winner would be responsible to negotiate with all incumbents to satisfactorily relocate their systems before a full broadband system can be deployed. To make this work, however, incumbents would have to be properly incentivized to relocate. Without reasonable assurance that the 900 MHz Band will be sufficiently cleared to accommodate a full 3 x 3 MHz broadband channel, few bidders would risk significant bids on the overlay.

SMR license holders would have to be put on notice that their licenses will not be renewed upon their expiration and will be returned to the FCC’s inventory. However, as noted above, SMR licensees would be allowed to retain as many narrowband channels carved from their SMR spectrum as are actually needed to maintain any current service offerings. These retained channels would be relicensed as regular B/ILT channels under normal B/ILT rules. The winning overlay bidder would then be required to negotiate for the relocation of these new B/ILT licenses located within the proposed broadband segment in the same way it would with other B/ILT license holders.

Negotiations for the relocation of B/ILT incumbents in the proposed broadband segment will need to be done in good faith. A time limit of the earlier of 2 years or the expiration date of the SMR license is a fair deadline to impose to permit incumbents to agree to relocation terms. After that date, incumbents will be responsible for relocating out of the broadband band at their own expense and risk.

Some SMR licenses will not expire until 2026. To disincentivize SMR licensees from deliberately delaying relocation discussions until close to license expiration, the Commission should require, in the absence of a voluntarily negotiated agreement that for SMR licenses expiring after December 2022, that the licenses must be mandatorily relocated out of the broadband band at the SMR licensee’s own expense and the relocation must be accomplished within 6 months of license expiration.

In all cases, the overlay auction winner is also required to demonstrate good faith efforts to start and conclude voluntary relocation negotiations. The winner has every incentive to conclude negotiations for relocating incumbents in the shortest timeframe as the broadband license term will begin immediately after winning the auction. Absent the strong incentives suggested above to encourage voluntary relocation agreements, the start of the six year performance benchmark period would have to be delayed for years.

For both the voluntary negotiation period and the overlay auction negotiation period, a two year period is appropriate. Allowing a definite period of time for mandatory relocation is problematic where the existing 900 MHz spectrum is quite congested. The relocation process may require relocation to another frequency band as well as the construction of additional radio sites which can take utilities in particular a very long time to get approved (budgets, permits, site acquisition, etc.). Providing a sufficient amount of time to implement relocations is important if the legitimate needs of incumbents are to be fully and fairly satisfied. Based on its own experience in this area, two years is a reasonable time frame to permit completion of voluntary negotiations with incumbents who have been incentivized to reach a good faith agreement and then to complete the physical relocation of the affected stations. After that period, they would be forced to relocate at their own expense.

1. **Incentive Auction**

The Commission has also proposed, as an alternative to the overlay auction, an incentive auction which would pay incumbents to give up their licenses out of auction proceeds. The Commission has proposed this alternative to account for the possibility that the voluntary negotiation and overlay auction approaches might not result in the clearing of the incumbents from the band. As discussed above, however, if incumbents are properly incentivized early in the process by the potential of having to pay their own relocation expenses or losing their licenses entirely, this type of auction should not be necessary.

As proposed by the Commission, however, an incentive auction would too heavily favor existing SMR incumbents to the detriment of other bidders. Some SMR licensees have recently (in the past 5 years) purchased deeply discounted licenses in the secondary market with no apparent intent to actually put the licensed spectrum to immediate use. SMR licenses today have very little value as evidenced in recent secondary market sales. Tying SMR licensee incentive payments to the price per MHz/Pop of broadband auction results would certainly result in a huge windfall for SMR license holders. It would essentially transform the value of SMR and narrowband licenses from fragmented spectrum slivers having little value for non-internal usage into the same per MHz/Pop price as a highly valuable 6 MHz broadband channel. It’s like paying someone who has bits and pieces of an old jalopy sitting on his property to remove it by paying him the price of a new Mercedes. Incumbents would have every incentive to artificially drive up the value of their own cheaply acquired licenses since the credits they would be entitled to would increase at the same percentage rate as bids.

Incentive auctions could possibly be made fair if the incentive payments were tied to the actual value of the SMR licenses today *without* the added value of being a component in a broadband channel. Separating the value of SMR licenses from the value of broadband licenses is essential to eliminating windfall and creating a fair bidding process. This could be done by

following the recent prices paid for SMR licenses rather than linking it to the price per MHz/Pop derived from the broadband auction. Pdv Wireless in one of its shareholder presentations, for example, disclosed that it had paid an average of $0.06 per MHz/Pop for the purchase of SMR licenses from Sprint and other 3rd parties in 2014. To eliminate the windfall which would otherwise be bestowed on incumbents, SMR licensee payment-incentives (credits) should be based on the purchase price originally paid for the SMR license, discounted (linearly) in time for the remaining period of the license. This value can then represent the credits that would be due to SMR licensees in the incentive auction process. The incumbent would be fairly compensated, the treasury would not be funding a blatant windfall, and auction prices would accurately reflect the value of the broadband license without artificial inflation.

Finally, to achieve the goals of the reallocation of this band for the primary purpose of meeting the unique needs of utilities, the Commission should grant bidding credits in the auction to small utilities serving fewer than 100,000 customers (i.e., billing entities) at a 35% level and to larger utilities at a 25% level. This process would ensure that non-utilities would have an opportunity to acquire the broadband licenses if they valued them highly enough while at the same time encouraging ownership by utilities whose needs this spectrum would specifically meet.

1. **Performance Metrics**

The NPRM seeks comment on performance metrics that would require coverage of 45% of the population of the service area within six years of license issuance and 80% coverage within twelve years. SCE believes these metrics are fair and should be adopted, with three provisos. First, setting the performance metric start date at the issuance of the broadband license is only feasible if there is a mandatory relocation deadline for incumbents that will ensure that the band is cleared with sufficient time for the broadband licensee to realistically meet the benchmark. Without such a deadline, it may be difficult or impossible for the licensee to meet its performance obligation. Second, the performance evaluation must take into account that utilities will generally be using the broadband spectrum for a 5G broadband network that will be primarily data driven with considerable device-to-device usage. For such applications, satisfactory signal levels should be measured at an acceptable level for Cat-M and Cat-NB devices as standardized by 3GPP. A reliable signal level can be measured as low as -120 dBm using a 1.5 dBi receive antenna at 1.5 m AGL. These levels would readily serve the intended purpose of the network and licensees should not be held to higher signal level standards that are appropriate to voice-based applications. Finally, once the 80% coverage threshold is reached, the Commission should not require substantially more expansion in later years or later renewal terms. The licensee will have already put the spectrum to very substantial use, and it is already incentivized to put the spectrum to the fullest use feasible. No incentives to artificially create usage are needed.

1. **Continued Narrowband Use**

The NPRM recognizes, as does SCE, that there is a continuing place for narrowband spectrum use by 900 MHz licensees. The proposed 4 MHz narrowband segment will contain 160 narrowband channels. The Commission should apply the same rules to the narrowband segment as it applies today for B/ILT licensing. As B/ILT site licenses will have to coexist with the broadband license, any new sites, whether they are broadband or B/ILT, must not adversely affect existing or relocated incumbent systems.

At the same time, SMR technology has become almost obsolete. Equipment necessary to deliver such technology is no longer being updated or, in some cases, not being manufactured at all. With very few exceptions, there are no 900 MHz SMR operators who provide robust, commercial service over their channels. As noted above, any SMR channels that are not converted to broadband use but are providing internal or commercial service should therefore be converted to narrowband B/ILT channels at the end of their current license terms and be subject to ordinary B/ILT rules and performance metrics, as discussed above.

1. **Conclusion**

The electrical utility industry is enthusiastic about the potential of this proceeding to make available sufficient spectrum to utilities to enable them to meet the serious challenges which confront them. The broadband license contemplated here should not become just a small item in the bulging portfolios of the wireless carriers. It can instead become the backbone for critical infrastructure networks that are dedicated to serving the needs of millions of customers with the reliability, resiliency and safety they deserve. SCE urges the Commission to make this possible by acting expeditiously on the rule changes discussed in the NPRM, as modified by the suggestions above.

Respectfully submitted,

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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”)

   [↑](#footnote-ref-1)
2. Section 301 of the Communications Act (47 U.S.C. 301) expressly provides that a radio license authorizes the use – but not the ownership – of channels of communication for the limited periods of time specified in the license. “[N]o such license shall be construed to create any right, beyond the terms, conditions, and period of the license.” Accordingly, no licensee has any right to the use of a channel once its license has expired. *Transcontinent TV Corp. v. FCC*, 113 U.S. App. DC 384 (1962); *Direct Broadcast Satellite Service*, 1 CR 928 (1995) [↑](#footnote-ref-2)