

## Background: "Questionable bidding" in the RDOF auction

- Questionable Bidding drove down the support prices or won support in many of our member areas
- Gigabit Fixed Wireless / irresponsible design allowed to bid in any geography/to any scale without proper FCC due diligence
- Under capitalized and inexperienced companies bidding far beyond their means
- No material impact to our consortium from LEO

#	Questionable Bidding Type	Bidder	10Yr \$
1	Both Gig FWA/Under-funded	LTD Broadband LLC	\$1,321M
2		CCO Holdings, LLC	\$1,223M
3		Rural Electric Co-op Consortium	\$1,104M
4	LEO – Unproven	SpaceEx	\$886M
5	Defaulted - Waiver Needed	Windstream Debtor-In-Possession	\$523M
6	Both Gig FWA/Under-funded	AMG Tech Investment Group	\$429M
7	Defaulted - Waiver Needed	Frontier Communications, DIP	\$371M
8	Both Gig FWA/Under-funded	Resound Networks, LLC	\$311M
9	Both Gig FWA/Under-funded	Connect Everyone LLC	\$269M
10		CenturyLink, Inc.	\$262M
11	Both Gig FWA/Under-funded	Etheric Communications	\$249M
12	Gig Fixed Wireless	California Internet, dba GeoLinks	\$235M

Will these companies deliver on their promises?

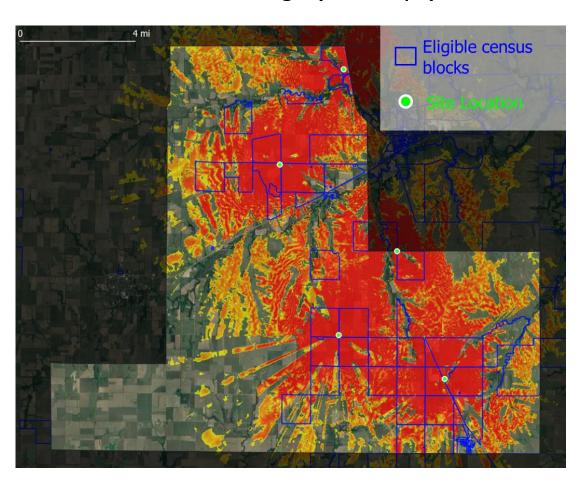
To address these concerns and to articulate the need for long-form scrutiny, NRECA and NRTC collaborated on a white paper for the FCC and subsequent press activity



# Gig Wireless / Irresponsible Design



Above Baseline design (100 Mbps): 5 sites



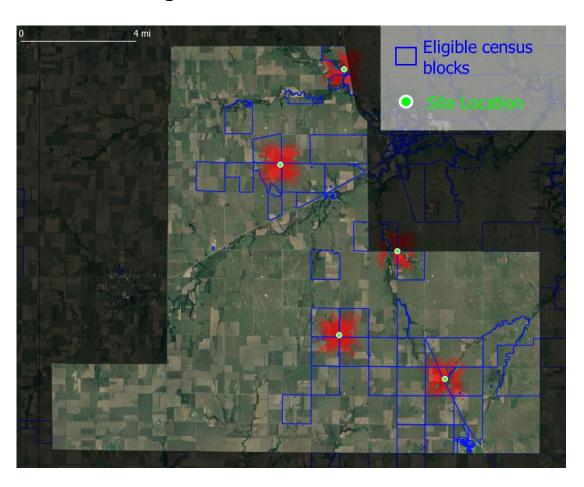
Started with a real NRTC design for RDOF



# Gig Wireless / Irresponsible Design



#### Gigabit service with five sites

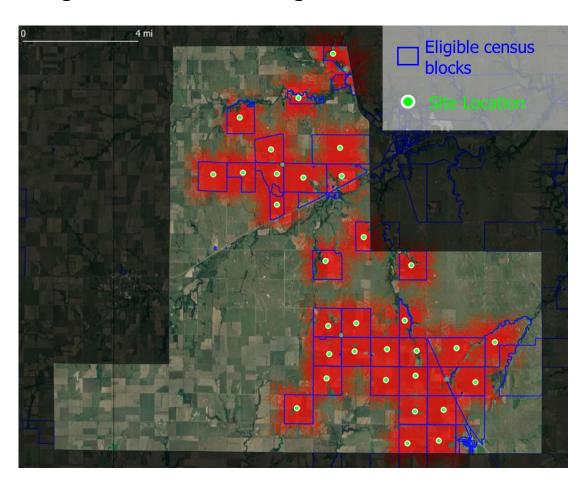


- Started with a real NRTC design for RDOF
- Gigabit wireless is possible but the signal does not travel nearly as far



## Gig Wireless / Irresponsible Design

Gigabit service for all eligible customers: 34 sites



- Started with a real NRTC design for RDOF
- Gigabit wireless is possible, but the signal does not travel nearly as far
- 34 sites needed to cover 177 locations
  - At 50% take rate, that's 2.6 subs per \$50-100K tower! Not economical
  - This is in an ideal RF environment (flat, not many trees or obstructions)
  - This would require full Line-of Sight (LoS)
  - Could you find this many sites exactly spaced like this so close together (at least every mile)?



## Undercapitalized and inexperienced companies



The FCC permitted applicants to bid across many CBGs representing large amounts of the auction's reserve price without demonstrating access to capital and without experience in operating large networks

#### **Questionable Bidding**

- Lack of experience
- No existing infrastructure
- Lack of established customer relationships
- Need private capital

#### **Cooperatives**

- Access to patient capital at attractive rates
- Long return horizons
- Existing assets (lower capital expenditures)
- Existing operations (lower operating costs)
- Intimate knowledge of service territory
- Need for broadband comms for Smart Grid
- Relationships with members (greater take rates)
- Responsibility to serve
- They drove down support in many cases below what is feasible for our members how is it feasible for them?
- The risk that these companies will get funding, build the networks, and build sustainable businesses



## This, and other coordinated efforts, generated press



The Rural Digital Opportunity Fund: Rural America's Broadband Hopes at Risk









I'm really struggling on physics (of gigabit fixed wireless) **and economics** (of undercapitalized startups)

Tim Bryan, CEO, NRTC



We want [the FCC] to actively and aggressively and thoughtfully vet these [long form] applications

Jim Matheson, CEO, NRECA



We need a **transparent vetting process** [to determine] whether winning bidders will be able to **live up to their commitments** 

Shirley Bloomfield, CEO, NTCA



Blocks were lost to other bidders that will **not be able to deliver** service at the level claimed

Bob Hance, CEO, Midwest Electric Cooperative



With all of my advantages as an electric cooperative with over 650 miles of backbone, and I'm dropping out ... who is in behind me that can do it cheaper?

Mike Malandro, CEO, Choptank Electric Cooperative

