

Wireless 20|20



## RDOF Auction 904 Postmortem Summary



Auction

# RDOF Auction 904 Postmortem Report

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2. Overall RDOF Auction 904 Results
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# Executive Summary - RDOF Auction 904 Phase 1

Overall RDOF Results  
\$9.2B for Rural  
Broadband Awarded  
for 49 states covering  
5.2 million of  
5.9 million target  
locations.

The Majority of CGB's  
were won at the Gigabit  
Speed Tier

Gigabit Tier winners  
may be claiming to  
offer speeds that are  
not feasible with  
existing technology.

Even with the reduced  
award, all winners  
must submit a long  
form application by  
January 29

Speed Tier	Percent Won
Gigabit	85% (\$8.285 B)
Above Baseline 100 Mbps/20 Mbps	15%(\$0.938 B)
Baseline 25/3 Mbps	~0% (\$0.007B)

Starlink (SpaceX) won 94% of  
Above Baseline Funds,  
losing only to Gigabit bidders

# Executive Summary - RDOF Auction 904 Phase 1 Results

## Auction 904 RDOF Phase 1

Opened 10/29/2020  
Closed 11/25/2020  
386 Qualified Bidders  
180 Winning Bidders,  
**\$9.2B for Rural Broadband  
Awarded for 49 states**  
5.2 million of 5.9 million  
target locations  
Only 57% of  
\$16 billion

Some WISPs bid on realistic 100 Mbps services only to be outbid by other WISPs that are claiming to offer speeds that are not feasible with existing technology. This raises questions of whether the FCC has any credibility when it makes auction rules.

## Major Winner Results

Company	Auction Winnings	Locations/ States
LTD Broadband	\$1.3 billion	528,000/15
Charter Com CCO Holdings	\$1.22 billion	1 million 24 states
Rural Electric Cooperative	\$1.1 billion	618,000 22 states
SpaceX	\$885.5 million	642,000/35
Windstream	\$522.9 million	192,567/18
AMG Tech	\$429.2 million	206,136/12
Resound Networks, LLC	\$310,681,609	219,239 7 states
Frontier	\$370.9 million	127,188/8
Starry	\$268,851,316	108,506/9
CenturyLink	\$262.4 million	77,257/20

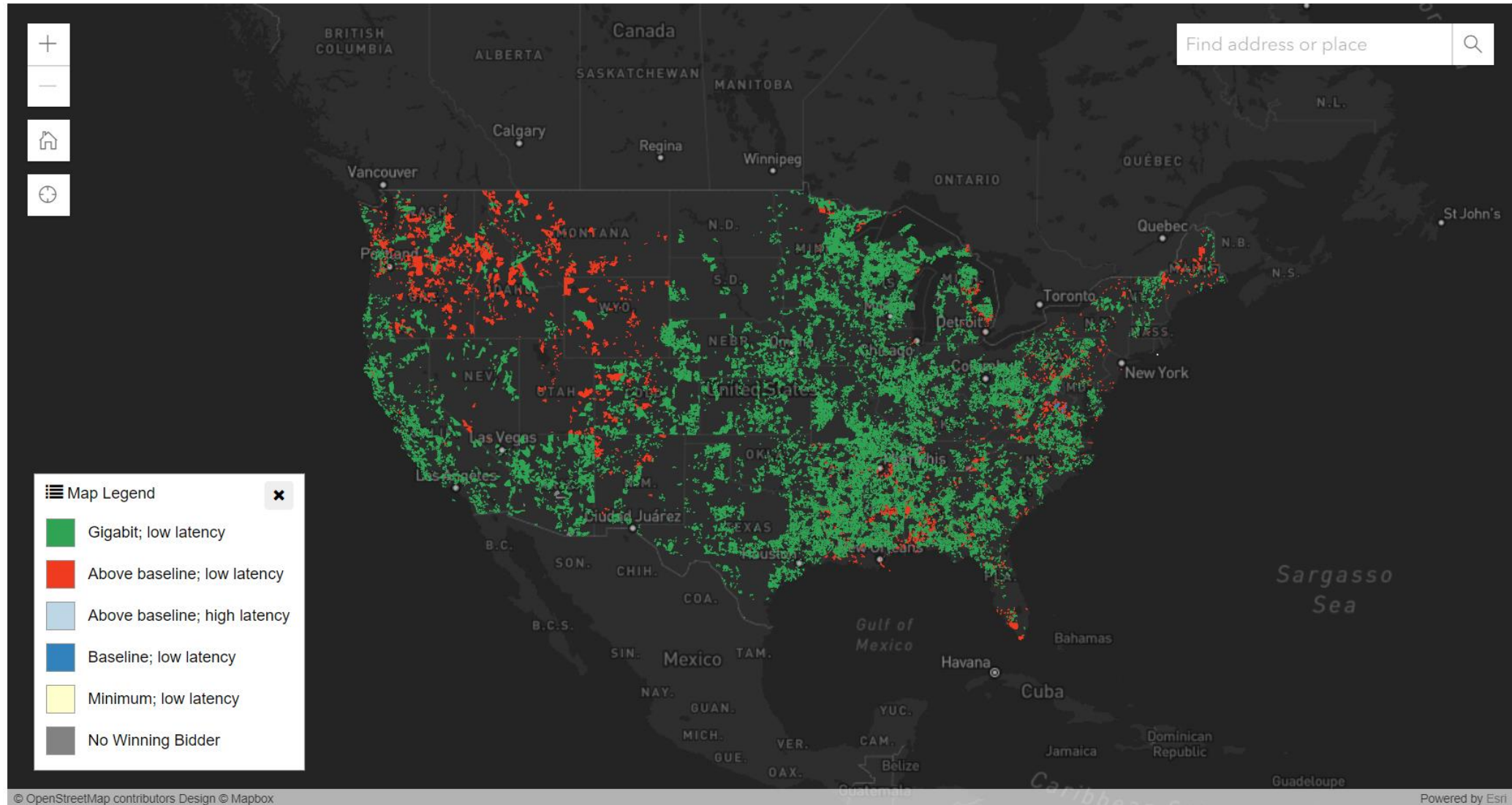
## Market Comparison

Cable operators, electric coops, incumbent telcos, LEO satellite and fixed wireless providers.

85% of locations received lower subsidy than expected. Majority of locations will be receiving Gigabit broadband — far above the 25/3 Mbps minimum level of service that providers could bid on in the RDOF Auction 904.

# Rural Digital Opportunity Fund Phase I Results

Data as of 12/07/20



# RDOF Auction Results by State

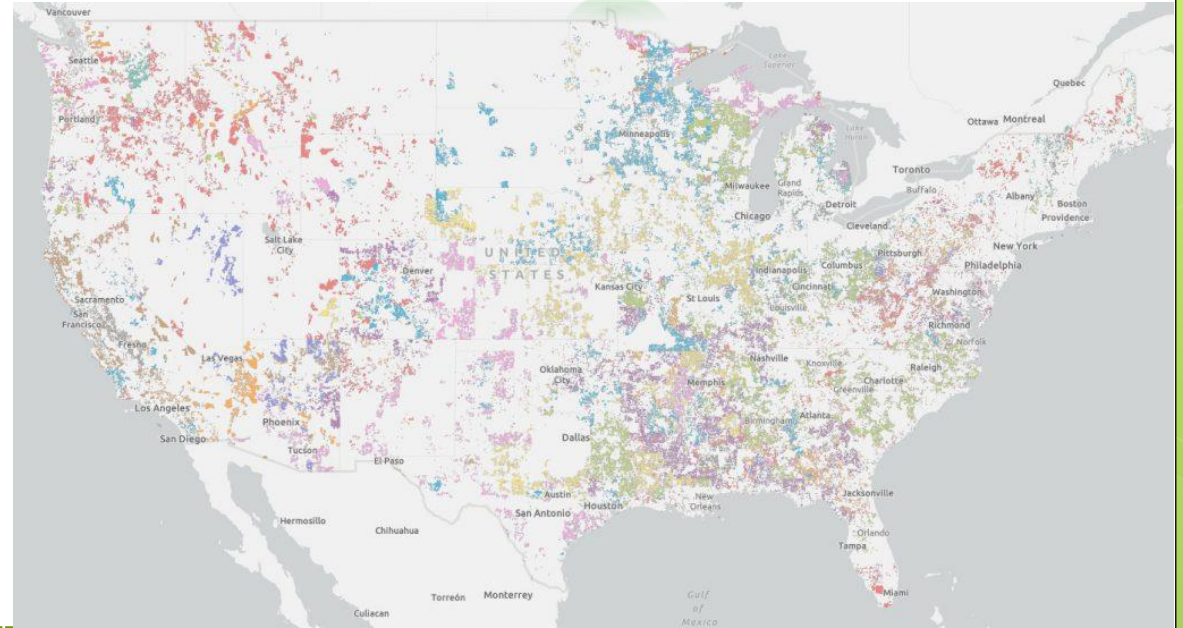
State	RDOF Support	Winning Bidders	Locations	State	RDOF Support	Winning Bidders	Locations
Alabama	\$330,804,827	13	196,460	Maine	\$71,175,908	4	27,755
Arizona	\$195,847,668	7	129,445	Maryland	\$48,023,869	5	37,761
Arkansas	\$424,243,217	15	200,612	Massachusetts	\$32,631,916	2	25,480
California	\$695,158,129	15	364,878	Michigan	\$362,985,055	13	249,263
Colorado	\$249,833,709	8	76,216	Minnesota	\$408,150,745	22	142,841
Connecticut	\$4,210,411	2	2,899	Mississippi	\$495,725,799	12	218,990
Delaware	\$13,302,048	2	7,757	Missouri	\$346,297,660	17	199,211
Florida	\$191,753,609	11	141,625	Montana	\$125,815,439	6	45,984
Georgia	\$326,454,112	15	179,455	Nebraska	\$60,377,536	10	43,435
Hawaii	\$24,740,782	2	8,081	Nevada	\$63,536,610	5	30,584
Idaho	\$112,489,827	8	40,706	New Hampshire	\$25,257,660	4	17,740
Illinois	\$378,310,110	19	159,967	New Jersey	\$10,739,474	1	8,686
Indiana	\$169,379,964	11	152,983	New Mexico	\$165,209,718	18	64,170
Iowa	\$143,892,544	11	53,819	New York	\$99,891,715	10	46,647
Kansas	\$62,107,482	12	46,827	North Carolina	\$166,580,441	9	155,137
Kentucky	\$148,978,767	11	98,909	Ohio	\$170,038,205	11	191,093
Louisiana	\$342,207,315	13	175,692				

## RDOF Auction Results by State (continued)

State	RDOF Support	Winning Bidders	Locations
Oklahoma	\$154,556,450	13	126,153
Oregon	\$212,027,091	10	81,634
Pennsylvania	\$368,743,200	13	184,505
Rhode Island	\$1,273,784	1	3,678
South Carolina	\$121,245,987	9	108,833
South Dakota	\$52,285,517	6	10,051
Tennessee	\$148,625,826	11	155,220
Texas	\$362,662,934	22	310,962
Utah	\$31,384,525	3	10,373
Vermont	\$32,533,635	4	19,330
Virginia	\$238,644,933	16	186,475
Washington	\$222,768,532	9	100,422
West Virginia	\$362,066,660	9	119,267
Wisconsin	\$373,715,051	14	240,546
Wyoming	\$57,471,543	11	18,966
Mariana Islands	\$3,706,235	1	530

## RDOF Auction 904 Phase 1

- Opened 10/29/2020  
Closed 11/25/2020
- 386 Qualified Bidders - 180 Winning Bidders
- \$9.2B for Rural Broadband Awarded  
Only 57.5% of Phase 1 \$16 billion
- 5.2 million of 5.9 million target locations,  
rural census block groups in 49 states
- Top 10 winners won 76% of total \$9.2 billion

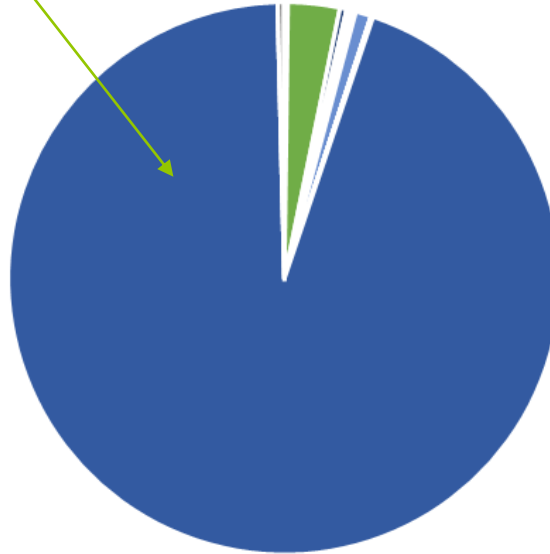


RDOF Winning Company	Bidding entity	Amount	Locations	States	Likely Technology
1. LTD Broadband	LTD Broadband LLC	\$1,320,920,719	528,088	15	Gigabit fiber and fixed wireless
2. Charter	CCO Holdings, LLC	\$1,222,613,870	1,057,695	24	Gigabit fiber
3. Rural Electric Cooperative	Rural Electric Cooperative Consortium	\$1,104,395,953	618,476	22	Gigabit fiber
4. SpaceX Starlink	Space Exploration Technologies Corp.	\$885,509,638	642,925	35	LEO satellites
5. Windstream	Windstream Services LLC	\$522,888,779	192,567	18	Gigabit fiber and fixed wireless
6. Nextlink	AMG Technology Investment Group LLC	\$429,228,073	206,136	12	Gigabit Fiber and fixed wireless
7. Frontier	Frontier Communications	\$370,900,833	127,188	8	Gigabit fiber
8. Resound Networks	Resound Networks, LLC	\$310,681,609	219,239	7	Gigabit fiber and fixed wireless
9. Starry	Connect Everyone LLC	\$268,851,316	108,506	9	mmWave fixed wireless and Fiber
10. CenturyLink	CenturyLink, Inc.	\$262,367,614	77,257	20	Gigabit fiber and fixed wireless



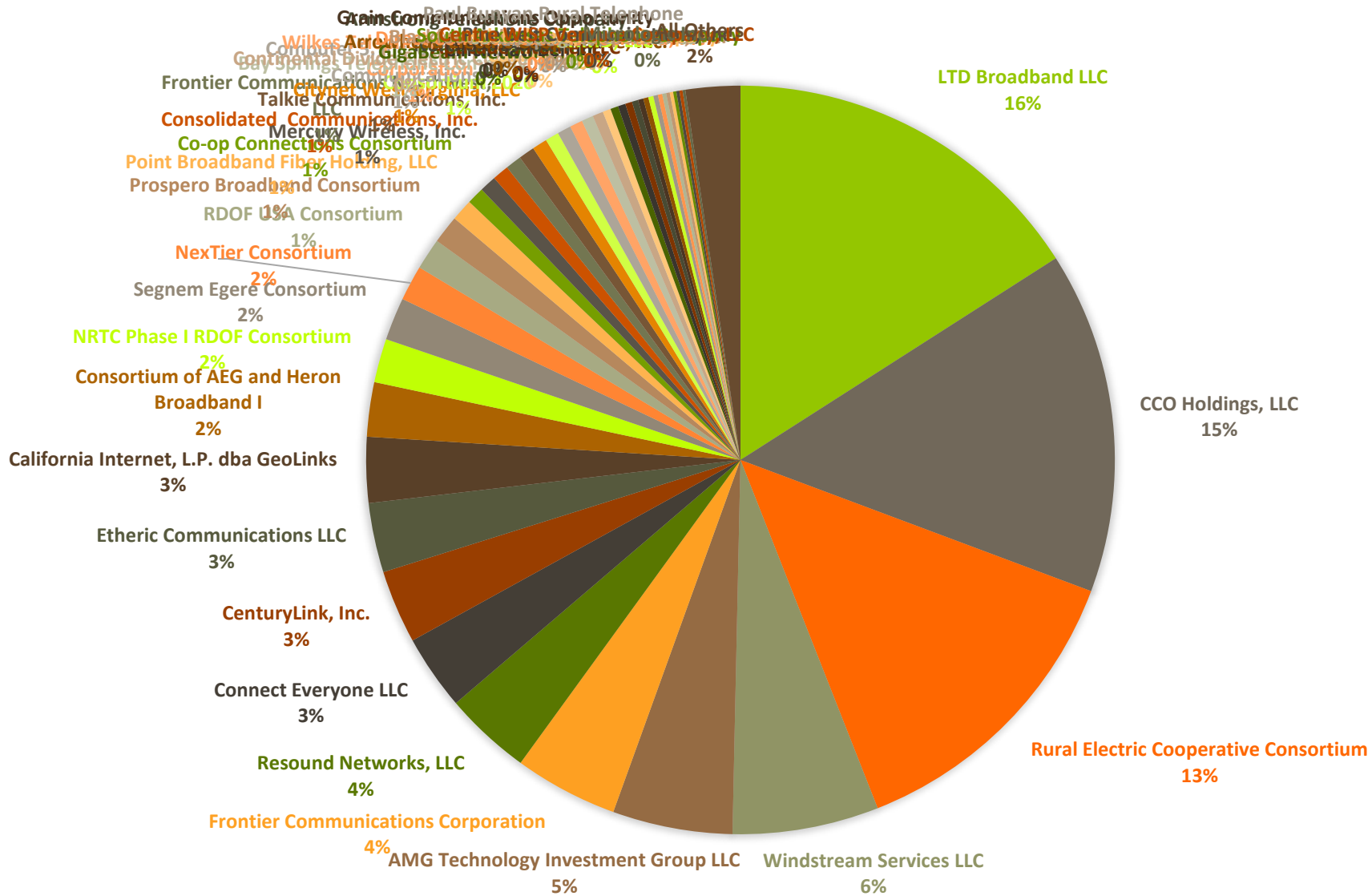
# Above Baseline Winners

SpaceX got 94% of all Above Baseline Awards

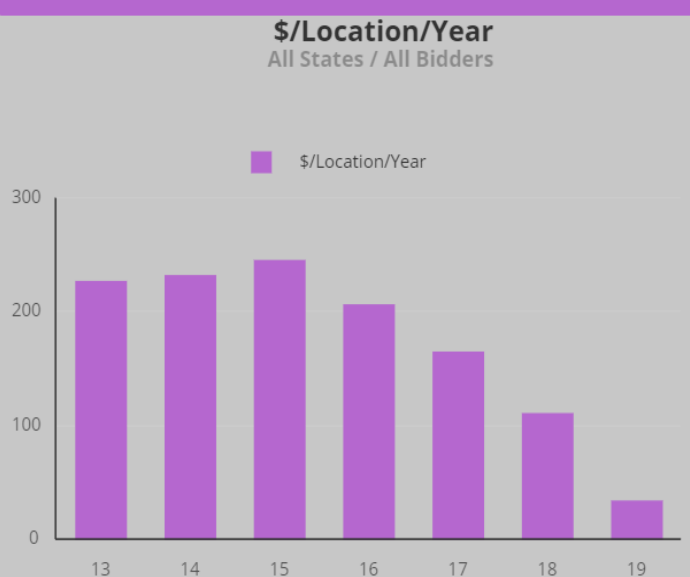
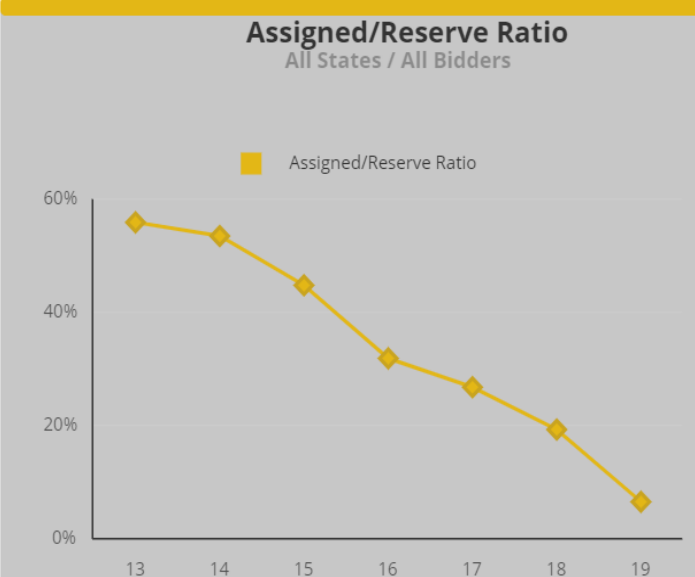
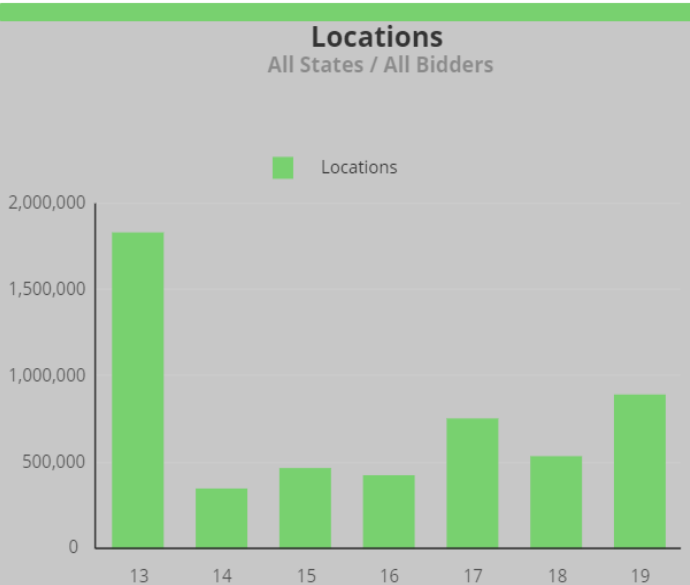
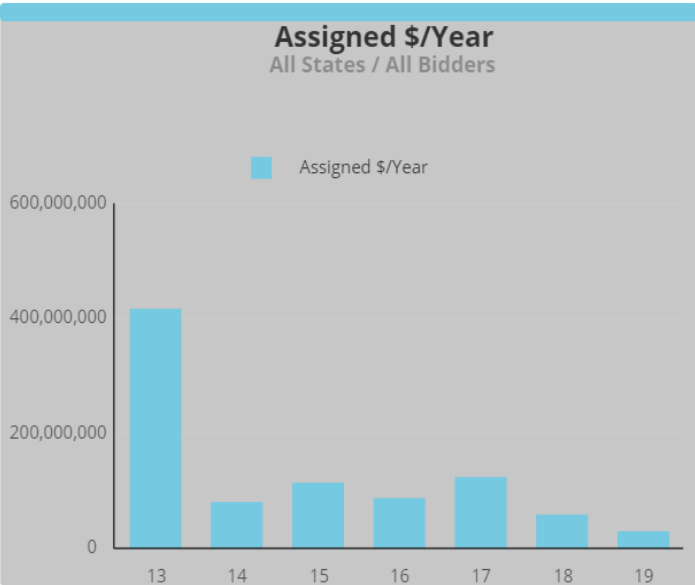


- AB Indiana LLC
- Altice USA, Inc.
- AMG Technology Investment Group LLC
- Cal.net, Inc.
- California Internet, L.P. dba GeoLinks
- Commnet Wireless, LLC
- DoCoMo Pacific, Inc.
- Enduring Internet
- FiberLight, LLC
- GigaBeam Networks, LLC
- HomeTown Broadband, Inc.
- Mediacom Communications Corporation
- Mercury Wireless, Inc.
- Midcontinent Communications
- Mountain West Technologies Corporation
- NexTier Consortium
- NMSURF, Inc.
- SLIC Network Solutions, Inc.
- Space Exploration Technologies Corp.
- Unified Communications Inc.
- Visionary Communications, Inc.
- Windstream Services LLC, Debtor-In-Possession
- Wisper-CABO 904 Consortium

### GIGABIT WINNERS



- Summary
- Assigned \$/Year
- Assigned \$/Year Pie
- Locations
- \$/Location
- \$/Location/Year
- Assigned/Reserve Ratio

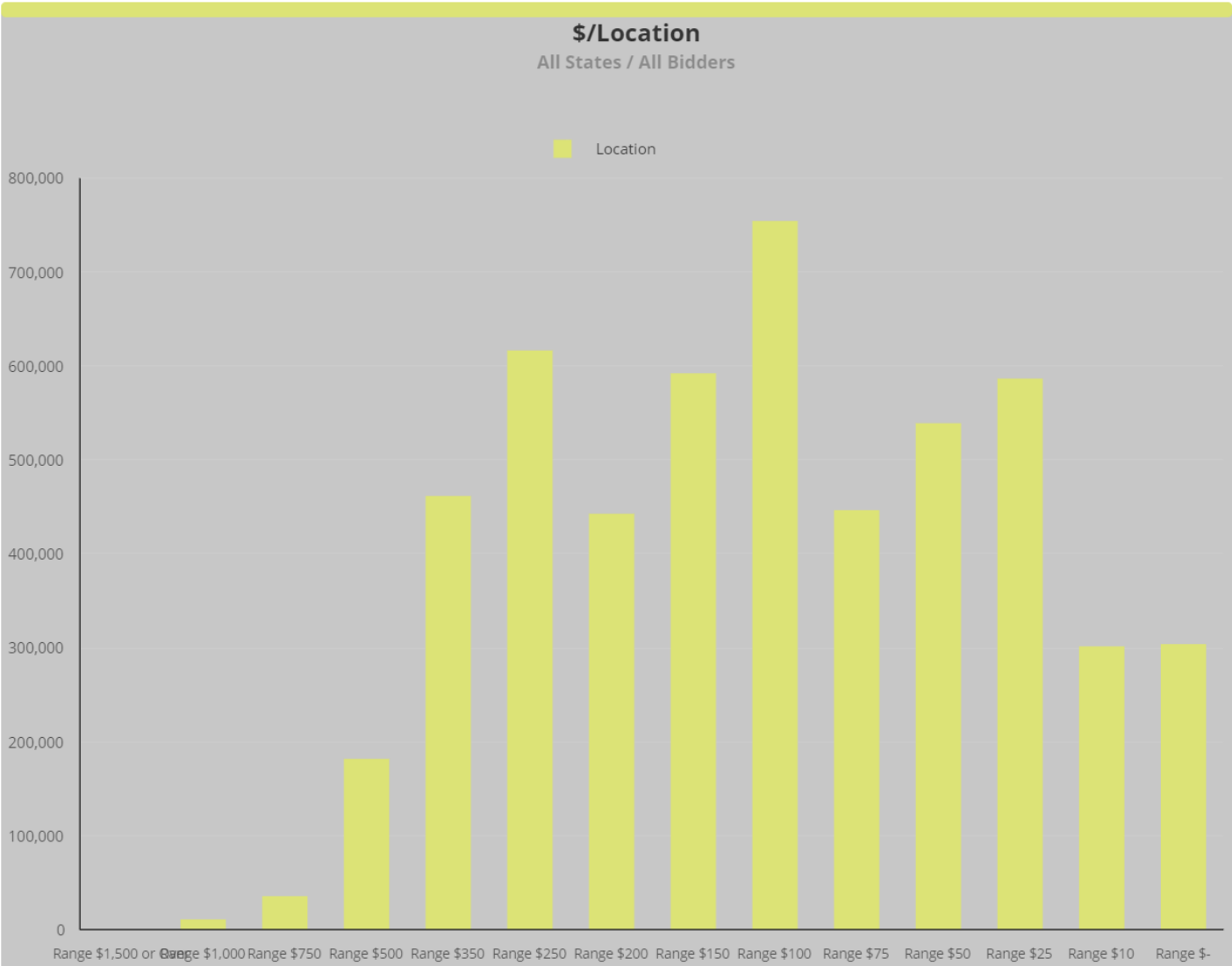


- ✓ All States
- AL
- AZ
- AR
- CA
- CO

- ✓ All Bidders
- 4-Corners Consortium
- AB Indiana LLC
- ACT
- Albion Telephone Company, Inc.
- All West Communications, Inc.
- Allen's T.V. Cable Service, Inc.
- Altice USA, Inc.

Assigned \$	\$923,068,871
Assigned \$ - 10 Year	\$9,230,688,715
location	5,286,477

- Summery
- Assigned \$/Year
- Assigned \$/Year Pie
- Locations
- \$/Location**
- \$/Location/Year
- Assigned/Reserve Ratio

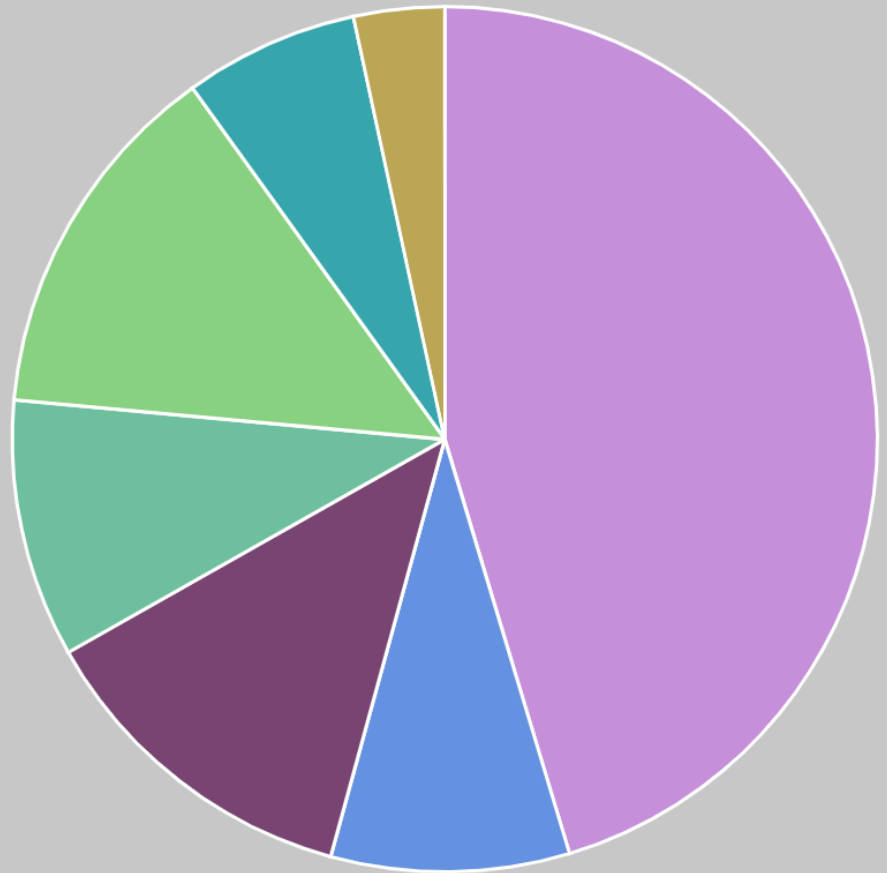


- ✓ All States
- AL
- AZ
- AR
- CA
- CO

- ✓ All Bidders
- 4-Corners Consortium
- AB Indiana LLC
- ACT
- Albion Telephone Company, Inc.
- All West Communications, Inc.
- Allen's T.V. Cable Service, Inc.
- Altice USA, Inc.

Assigned \$	\$923,068,871
Assigned \$ - 10 Year	\$9,230,688,715
location	5,286,477

Assigned \$/Year Pie  
All States / All Bidders



- By Round
- 13
  - 14
  - 15
  - 16
  - 17
  - 18
  - 19

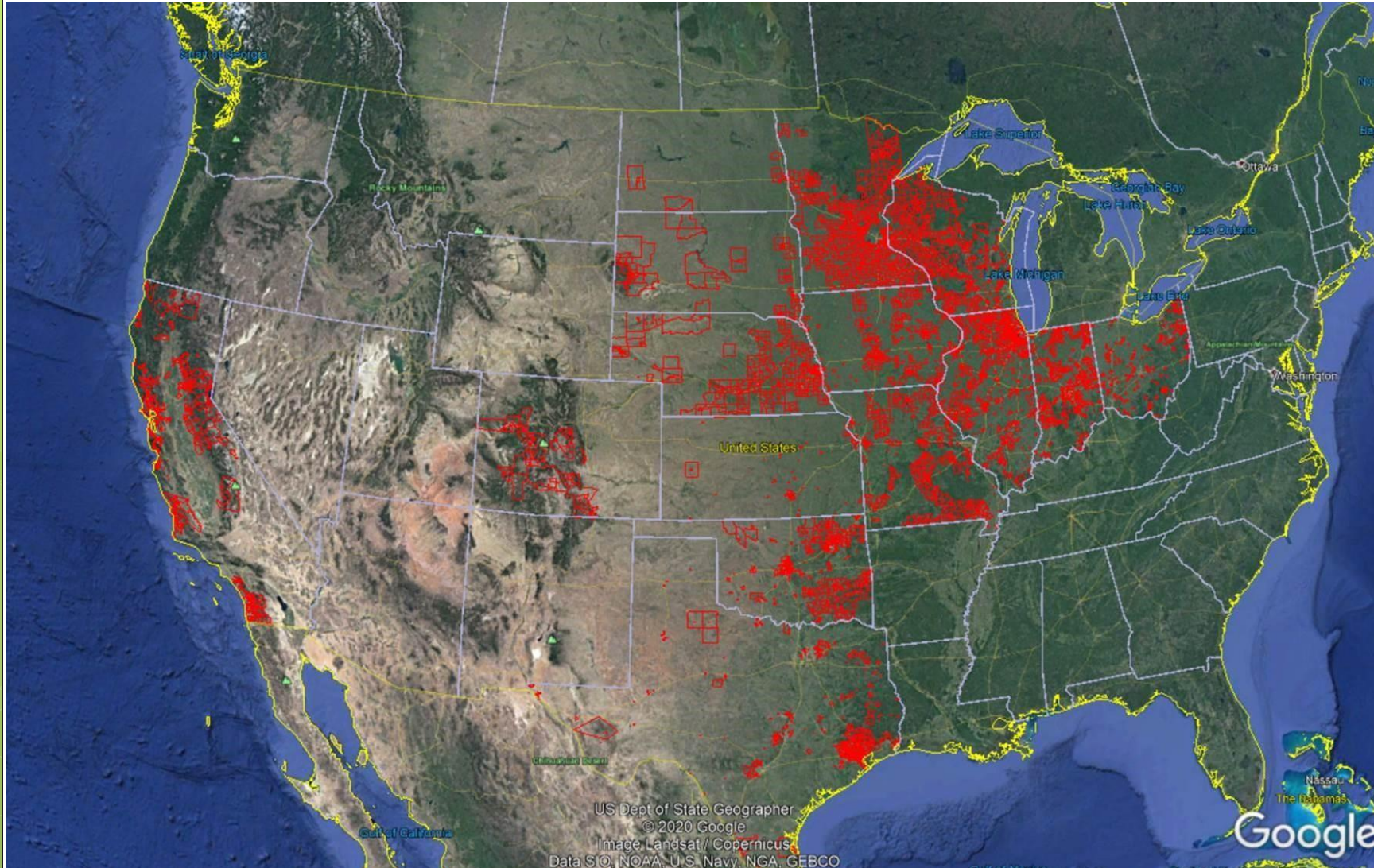
- Summary
- Assigned \$/Year
- Assigned \$/Year Pie**
- Locations
- \$/Location
- \$/Location/Year
- Assigned/Reserve Ratio

- ✓ All States
- AL
- AZ
- AR
- CA
- CO

- ✓ All Bidders
- 4-Corners Consortium
- AB Indiana LLC
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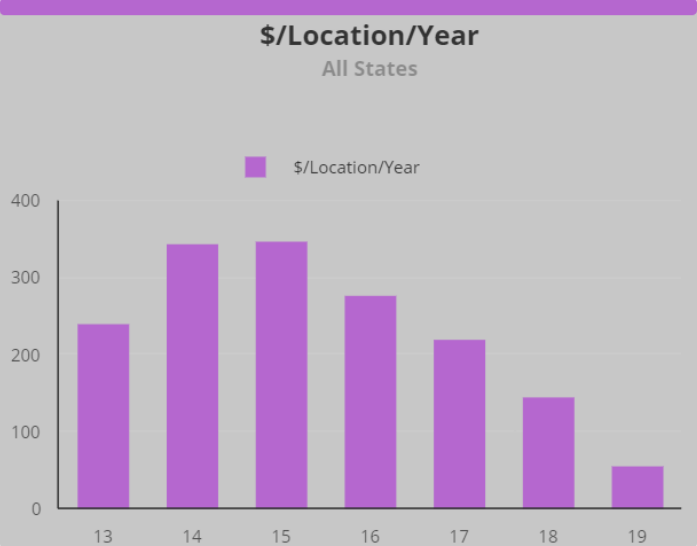
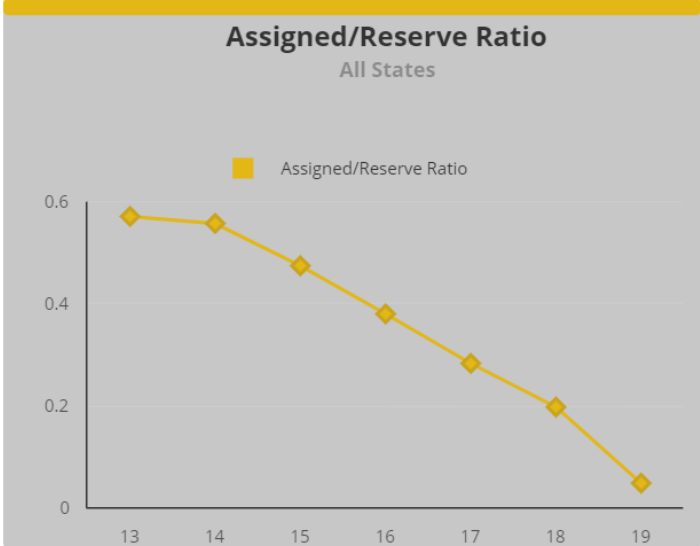
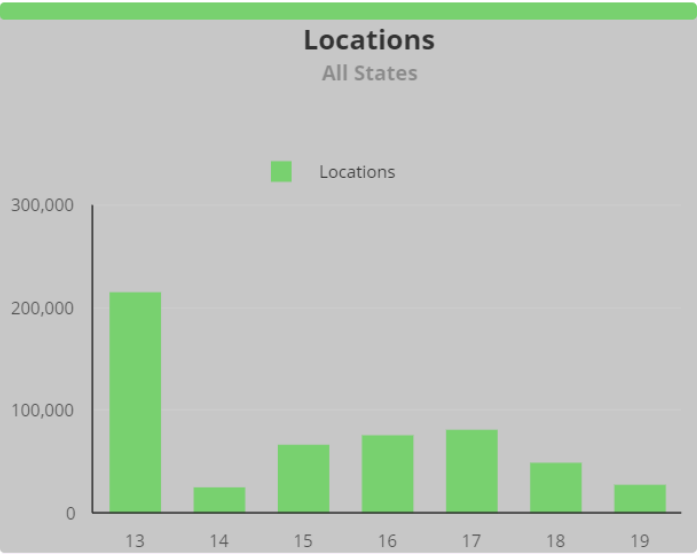
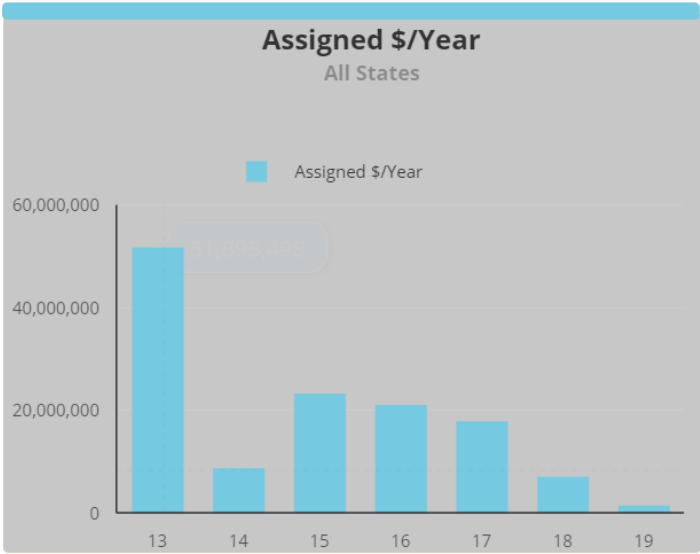
# LTD Broadband RDOF Winnings



- \$1.3 billion
  - 528,000 locations
  - 15 states
1. California
  2. Colorado
  3. Texas
  4. Oklahoma
  5. Kansas
  6. Nebraska
  7. South Dakota
  8. North Dakota
  9. Minnesota
  10. Iowa
  11. Missouri
  12. Wisconsin
  13. Illinois
  14. Indiana
  15. Ohio

# LTD Broadband

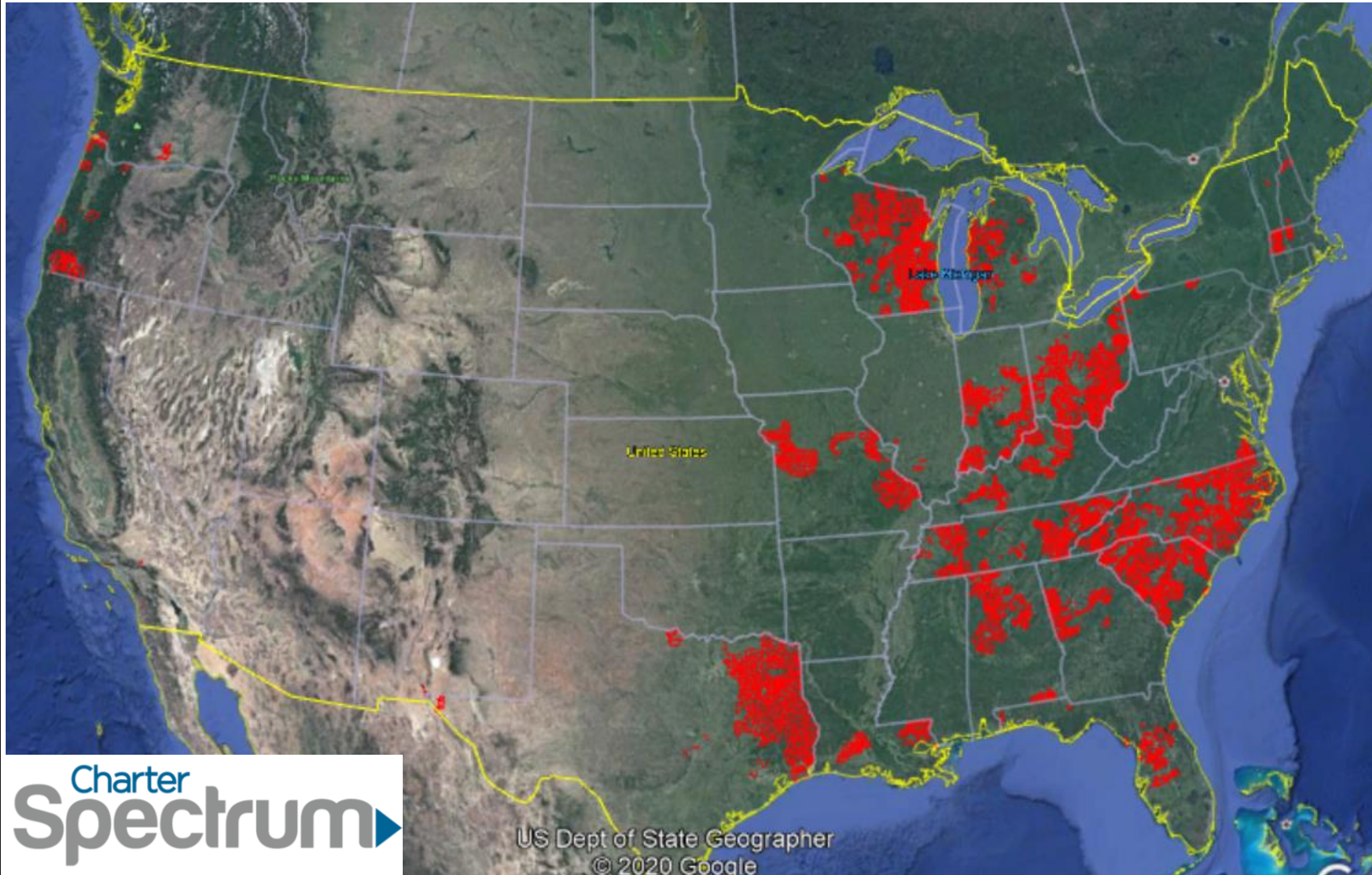
- Summary
- Assigned \$/Year
- Assigned \$/Year Pie
- Locations
- \$/Location
- \$/Location/Year
- Assigned/Reserve Ratio



- ✓ All States
- AL
- AZ
- AR
- CA
- CO
- LLC
- LICT Corporation
- LigTel Communications, Inc.
- LR Communications, Inc.
- ✓ LTD Broadband LLC
- MARQUETTE-ADAMS TELEPHONE COOPERATIVE, INC.
- MCC Network Services, LLC
- Mediacom Communications

Assigned \$ - 10 Year	\$132,092,072
location	544,770

# Charter Communications/CCO Holdings, LLC

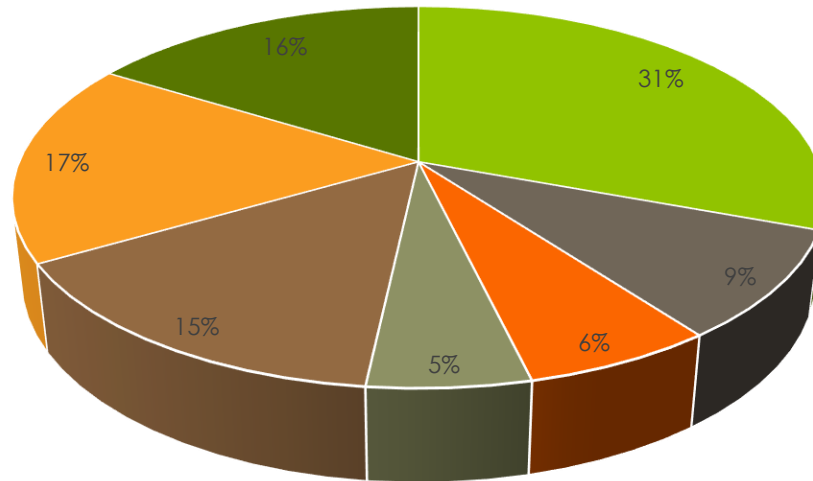


- Charter current coverage 102.7 m HHs in 42 states.
- Charter added 2.3m internet subscribers in the past 12 months
- \$1.2 billion in RDOF funding
- 1.05 million locations 24 states
- Expanding Charter's rural footprint
- All Gigabit/ Low Latency



# Charter Round Analysis

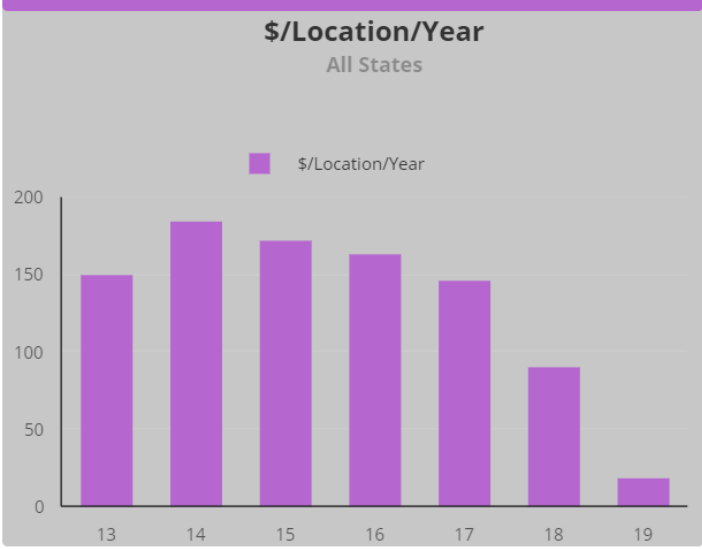
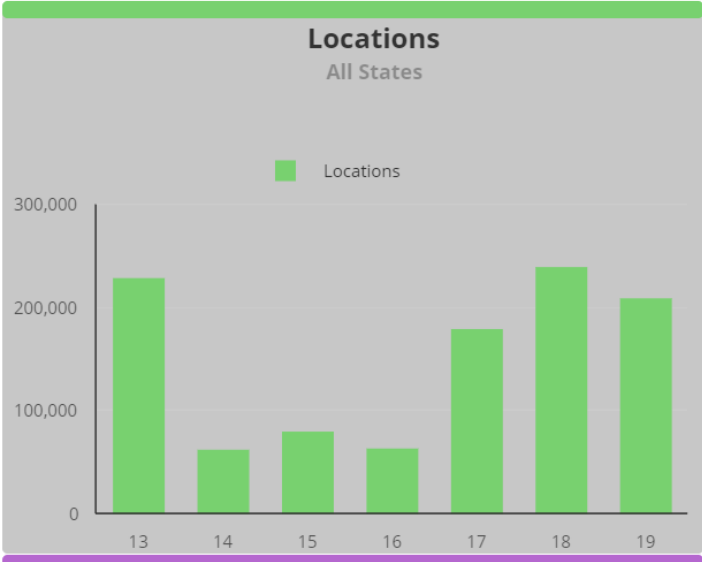
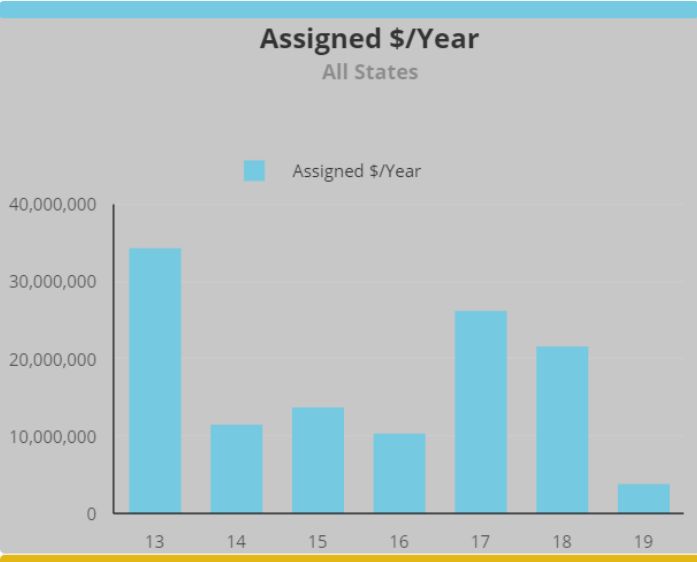
Charter



■ Round 13 ■ Round 14 ■ Round 15 ■ Round 16 ■ Round 17 ■ Round 18 ■ Round 19

# Charter Communications

- Summary
- Assigned \$/Year
- Assigned \$/Year Pie
- Locations
- \$/Location
- \$/Location/Year
- Assigned/Reserve Ratio



- ✓ All States
- AL
- AZ
- AR
- CA
- CO

- Bruce Telephone Company, Inc.
- Cal.net, Inc.
- California Internet, L.P. dba
- GeoLinks
- Carolina West Wireless, Inc.
- ✓ CCO Holdings, LLC
- Cellular Services LLC.
- Central Arkansas Telephone

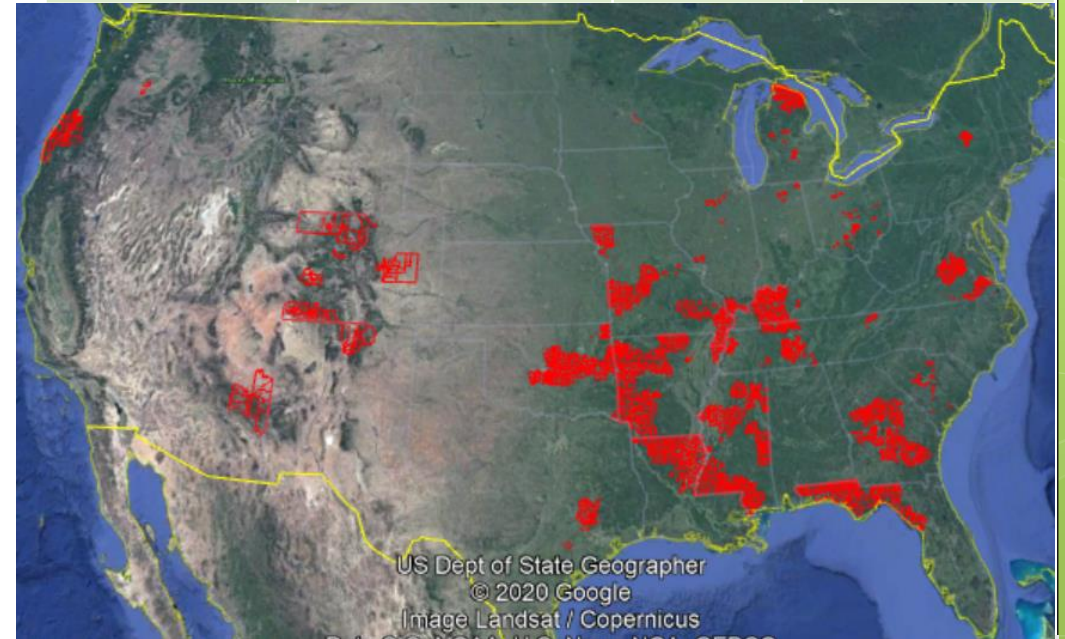
	\$122,261,387
Assigned \$ - 10 Year	\$1,222,613,870
location	1,065,473

## Rural Electric Cooperative Consortium

- 3rd largest recipient of FCC RDOF Funding
- 190 Electric Co-ops formed a consortium and qualified to bid FCC's RDOF Auction
- Rural Electric Cooperative Consortium won \$1.1 billion for 618,000 locations in 22 states

Electric Coops	Location
Arrowhead Electric	Lutsen, Minnesota
Bandera Electric Coop	Bandera, Texas
Barry Electric Co-op	Cassville, Missouri
Blue Ridge Mountain EMC	Young Harris, Georgia
Buckeye Rural Electric Coop	Rio Grande, Ohio
Cloverland Electric Coop	Dafter, Michigan
Concho Valley Electric Coop	San Angelo, Texas
Continental Divide Electric Coop	Grants, New Mexico
Mohave Electric Cooperative	Bullhead City, Arizona
Roseau Electric Cooperative	Roseau-Minnesota

RDOF Winner	Total over 10 Years	Locations States	Technology Service Tier
Rural Electric Cooperative	\$1,104,395,953	618,476 22 states	Gigabit fiber

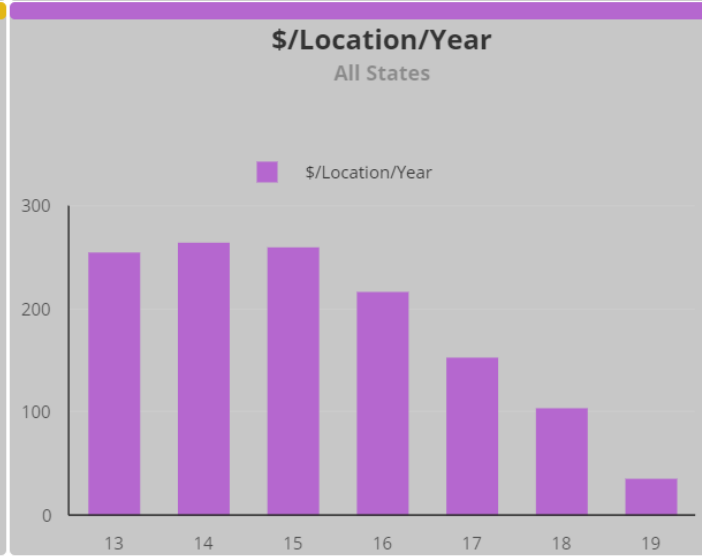
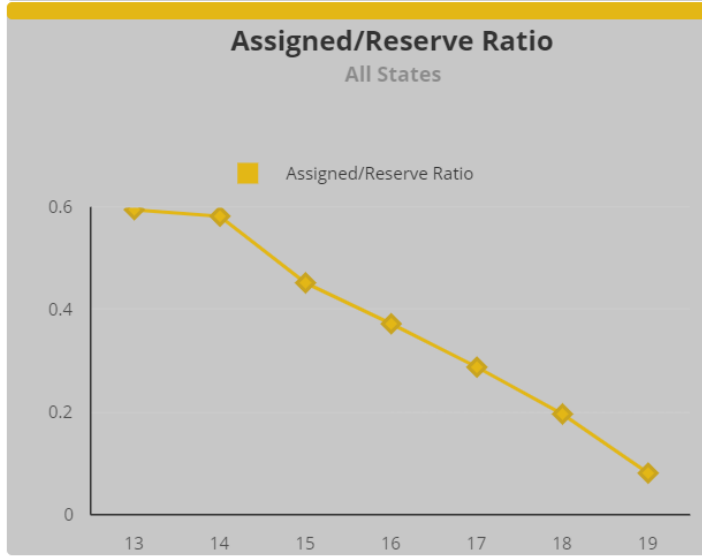
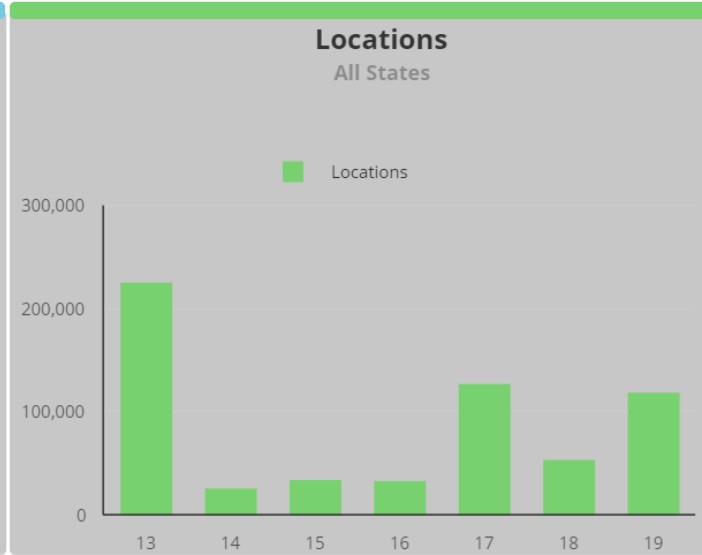
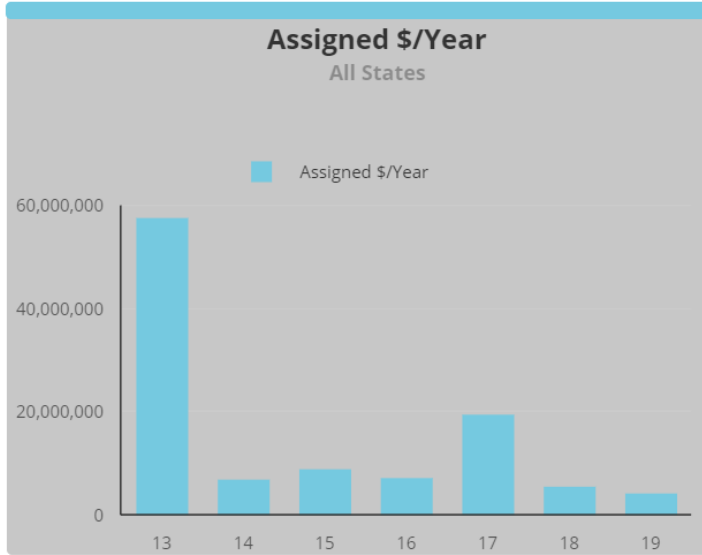


Conexon worked with RECC Rural Electric Membership Cooperatives to bring Gigabit fiber to the home to rural communities.



# Rural Electric Cooperative Consortium

- Summary
- Assigned \$/Year
- Assigned \$/Year Pie
- Locations
- \$/Location
- \$/Location/Year
- Assigned/Reserve Ratio

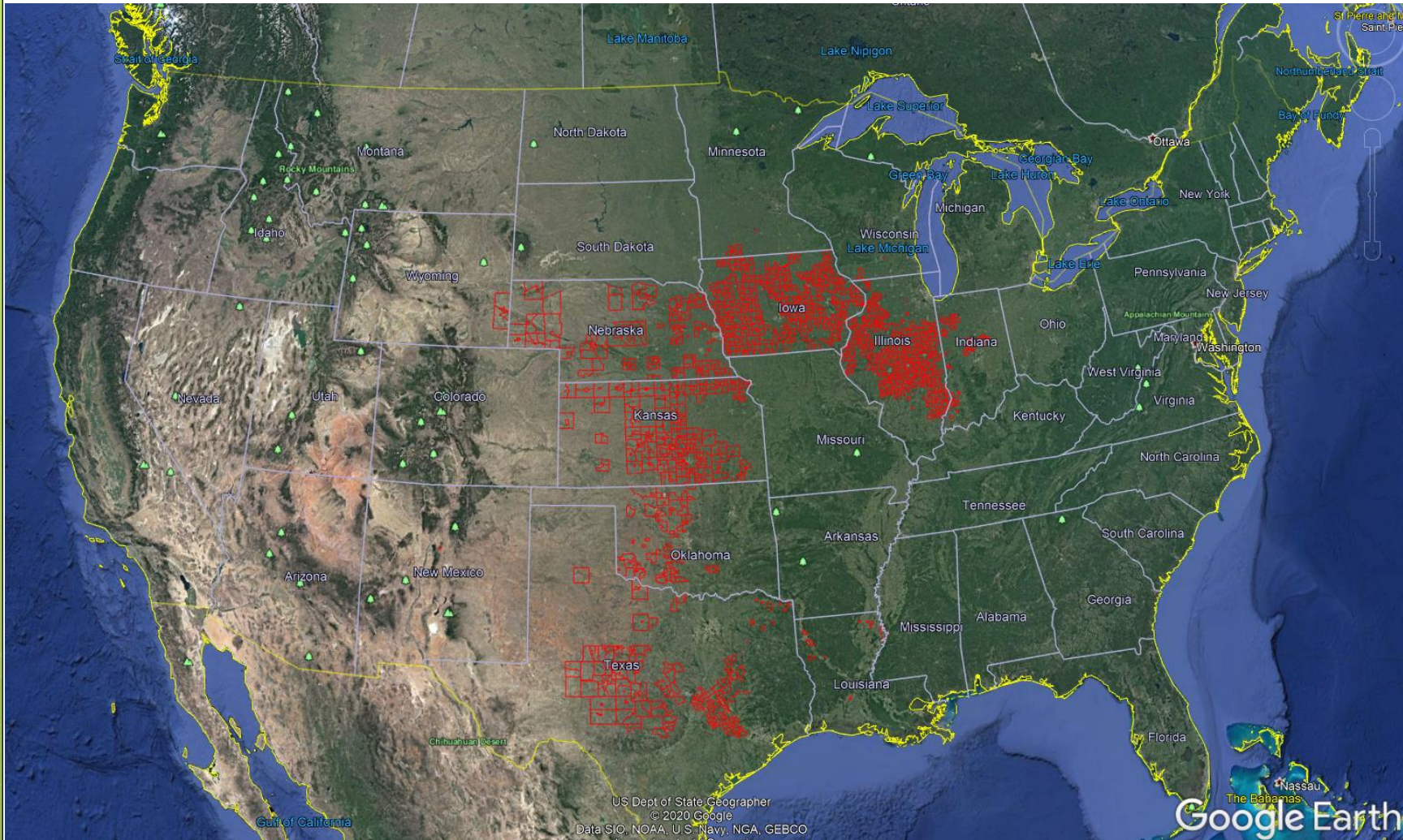


- ✓ All States
- AL
- AZ
- AR
- CA
- CO

- Cooperative
- Resound Networks, LLC
- RHMD, LLC
- Rivers High Group
- Roseau Electric Cooperative, Inc.
- Rural American Broadband Consortium
- ✓ Rural Electric Cooperative

Assigned \$ - 10 Year	\$110,439,595
location	620,865

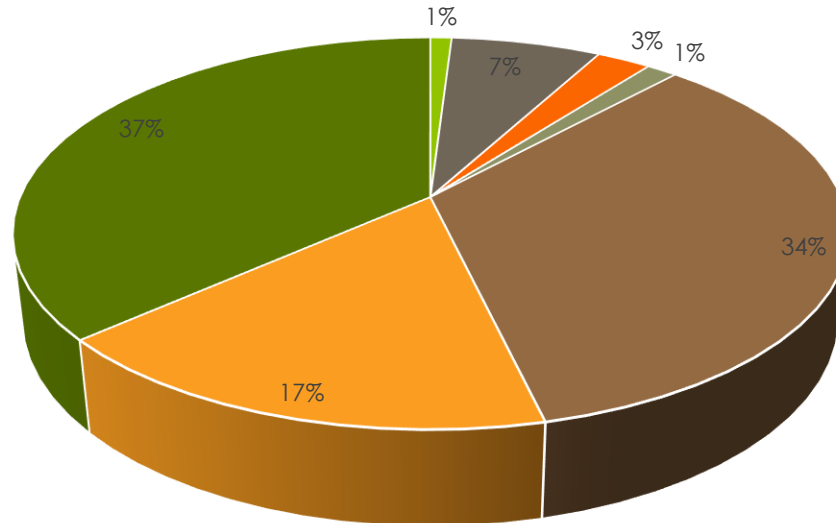
# NextLink/AMG - RDOF Winnings



- \$430 million
  - 206,136 locations
  - 12 states
  - Received FCC permission to bid Gigabit wireless
1. Colorado
  2. Idaho
  3. Illinois
  4. Iowa
  5. Kansas
  6. Michigan
  7. Louisiana
  8. Nebraska
  9. New Mexico
  10. Oklahoma
  11. Texas
  12. Wyoming

# NextLink/AMG Round Analysis

AMG



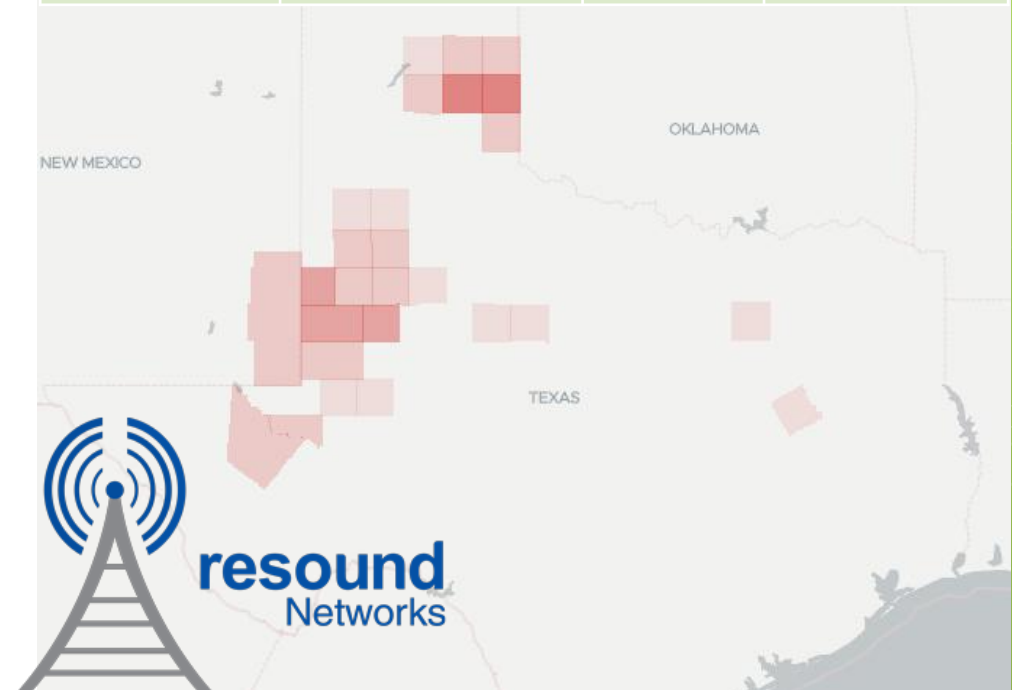
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## Resound Networks, LLC

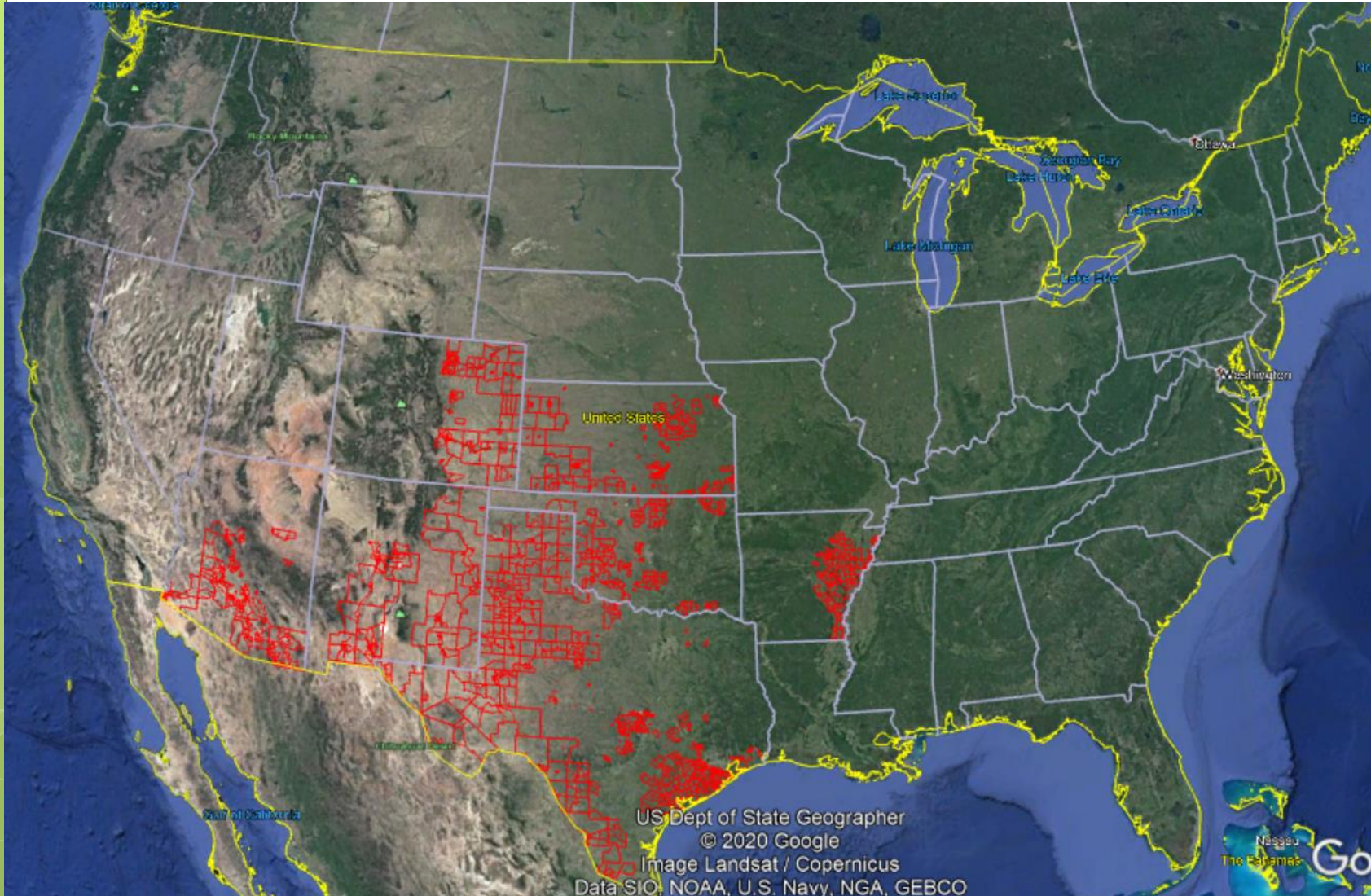
- ReSound Networks is a Fixed-wireless ISP Co-founded in West Texas in 2016 by Bryan Waldrip CEO, Chadd Giles COO and Eric Kingcade, CFO.
- Resound Networks provides broadband wireless internet across five states covering roughly 50,000 sq. miles of eastern New Mexico, Texas Panhandle and Western Oklahoma.
- Central tower systems exist in Hobbs, New Mexico as well as Lubbock, Pampa, Wheeler, Shamrock and Wellington Texas.
  - 10 mbps. \$39.99 per month
  - 25 mbps. \$59.99 per month
  - 50 mbps. \$79.99 per month
  - 100 mbps. \$99.99 per month

- ReSound Networks won \$310 million for 219,239 locations in seven states.

RDOF Winner	Total over 10 Years	Locations States	Technology Service Tier
Resound Networks	\$310 million	219,239 7 states	Gigabit Fiber Fixed Wireless Above Baseline



# Resound Networks, LLC

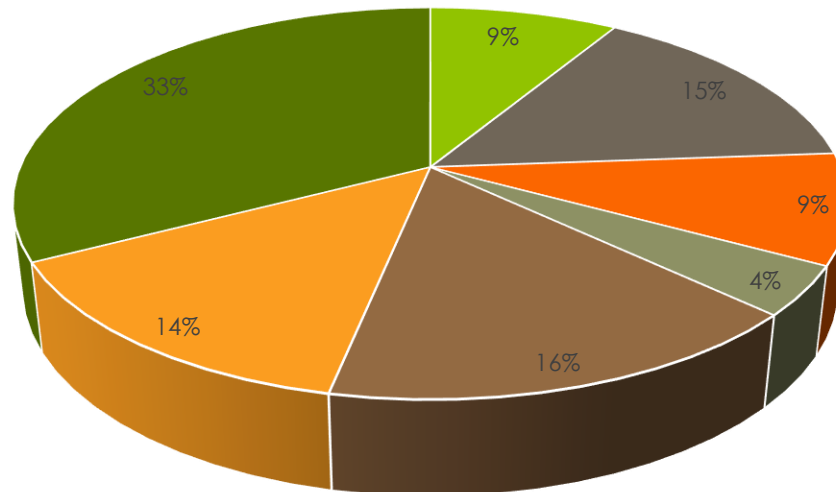


- \$310 million
  - 219,239 locations
  - 7 states
  - All Gigabit/  
Low Latency
  - FWA ISP
  - No fiber experience
1. Arizona
  2. New Mexico
  3. Colorado
  4. Texas
  5. Oklahoma
  6. Kansas
  7. Arkansas



# Resound Round Analysis

Resound

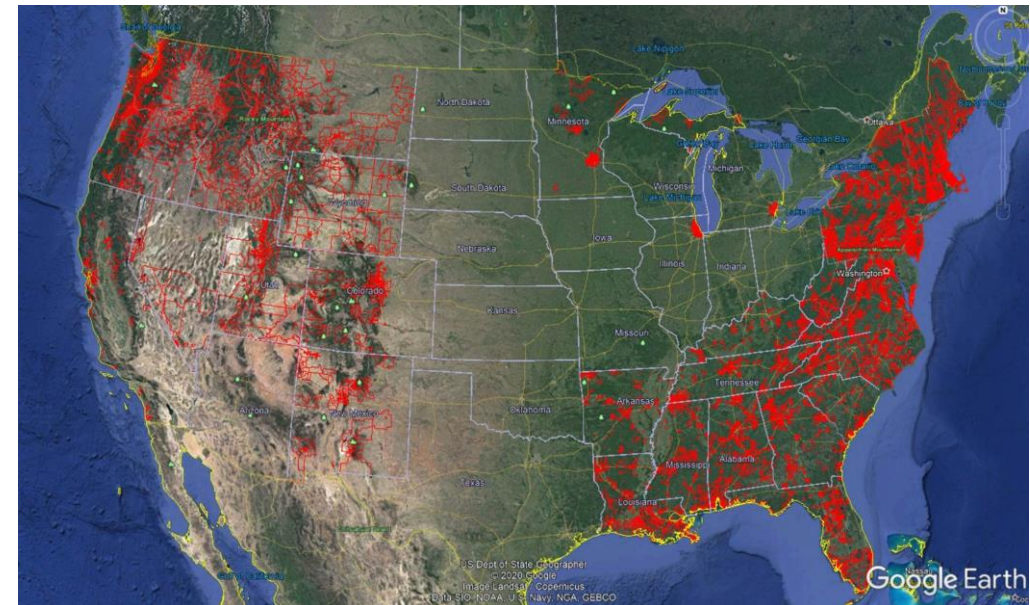


■ Round 13 ■ Round 14 ■ Round 15 ■ Round 16 ■ Round 17 ■ Round 18 ■ Round 19

## SpaceX Starlink

- 4th largest recipient of FCC RDOF Funding
- SpaceX received \$886 million over 10 years from FCC to subsidize Starlink service to 642,925 funded locations in 35 states
- SpaceX will use 1,000 LEO satellites to beam internet from space to high-tech antennas mounted on homes across rural America
- SpaceX's Starlink internet service is currently in beta testing and is not yet fully operational.
- Starlink services in beta costs \$99 per month, plus a one-time fee of \$499 for the user terminal, mounting tripod and router.
- SpaceX could use the FCC funding to lower prices or increase speeds which will vary from 50 Mbps to 150 Mbps.

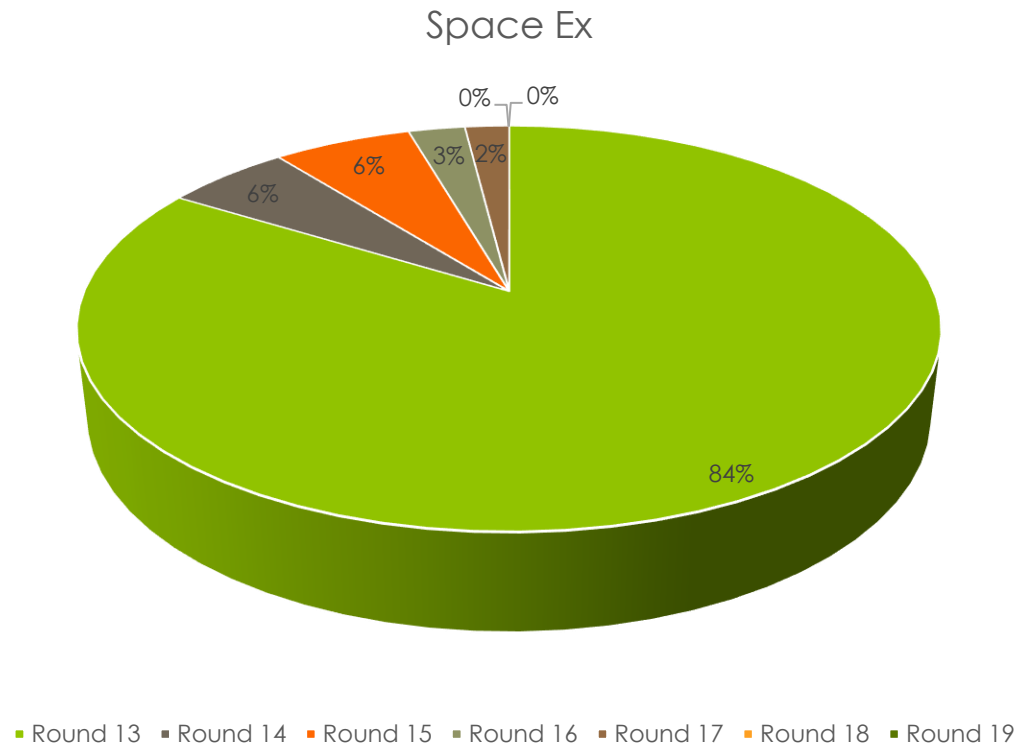
RDOF Winner	Total over 10 Years	Locations States	Technology Service Tier
SpaceX Starlink	\$886 million	642,925 35 states	LEO Satellite Above Baseline



# STARLINK

SpaceX Received 94% of all Above Baseline awards with \$139 average per location and is getting funds to serve 40 locations on Northwestern University campus

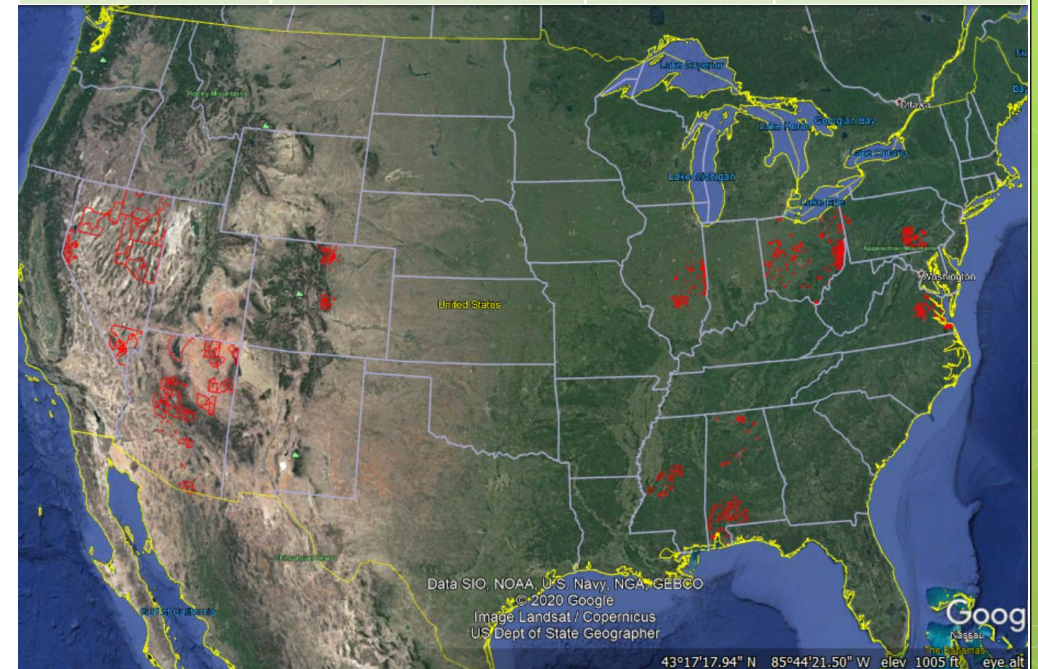
# SpaceX Starlink Round Analysis



## Starry - Connect Everyone LLC

- 9th largest recipient of FCC RDOF Funding  
Connect Everyone LLC from Chet Kanojia and Joe Lipowski who founded Starry in 2016
- Starry received \$269 million over 10 years from FCC to subsidize mmWave fixed wireless service to 108,506 funded locations in 9 states
- Starry internet service is currently focused on multi-dwelling units in urban/suburban areas.
- Starry services cost \$30/month for 100 Mbps or \$50/month for 200 Mbps downloads.
- Starry could use the FCC funding to expand the coverage of its mmWave fixed wireless services using [MU-MIMO technology](#) to rural areas in 9 new states.

RDOF Winner	Total over 10 Years	Locations States	Technology Service Tier
Starry	\$269 million	108,506 9 states	mmWave fixed wireless



## Windstream, Frontier, CCI and CenturyLink - Incumbent Telcos

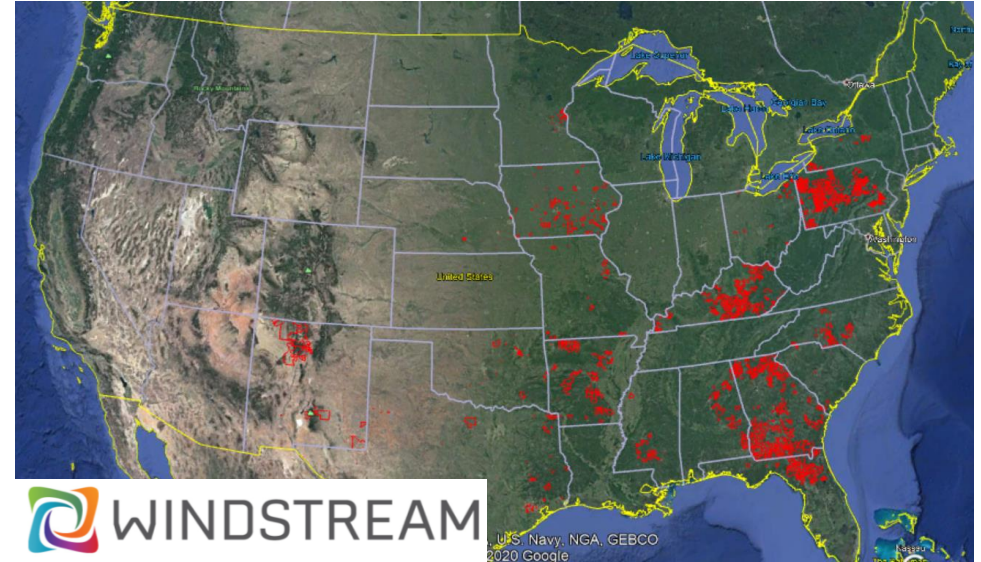
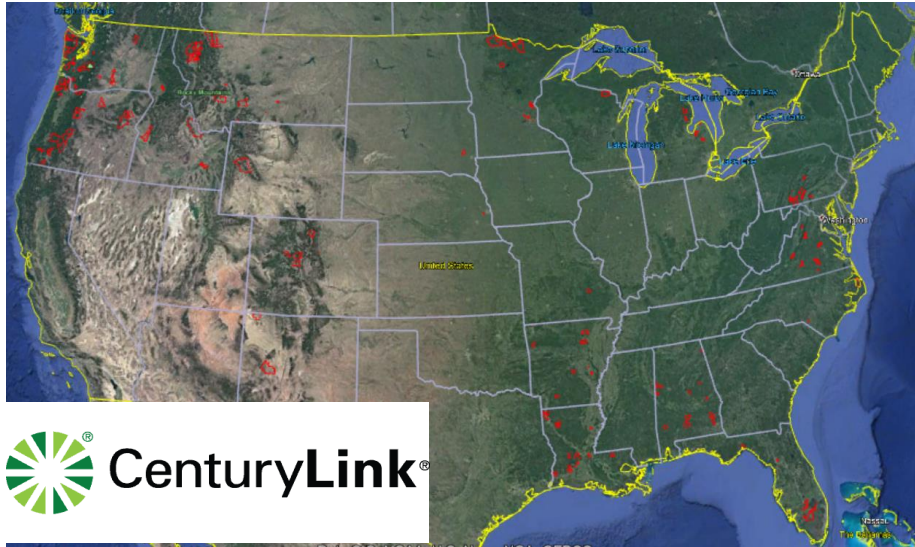
- Windstream won \$522.9 million for 192,567 locations in 18 states
- Frontier received \$370.9 million over 10 years from FCC to subsidize fiber and fixed wireless service to 127,188 locations in 8 states
- Frontier was able to prevent Chapter 11 Bankruptcy from Interfering with RDOF Participation
- CenturyLink won \$262.3 million for 77,257 locations in 20 states
- Consolidated Communications won \$59 million to deploy fiber and bring new gigabit broadband 27,000 locations across 7 states

RDOF Winner	Total over 10 Years	Locations States	Technology Service Tier
Windstream	\$522.9 million	192,567 18 states	Gigabit fiber & fixed wireless
Frontier Communications	\$370.9 million	127,188 8 states	Gigabit fiber & fixed wireless
CenturyLink	\$262.3 million	77,257 20 states	Gigabit fiber & fixed wireless
CCI (Consolidated Communications)	\$59 million	27,000 7 states	Gigabit fiber & fixed wireless

Incumbent Telcos received 1.2 billion in FCC RDOF Funding 425,000 locations with a combination of Gigabit fiber and fixed wireless



# Windstream, Frontier, CCI and CenturyLink RDOF Winnings



## Other RDOF Winners

RDOF Winning Company	Amount	Locations	States	Service Tier/Technology
Etheric Communications	\$248,634,963	64,463	1	California
GeoLinks - California Internet	\$234,889,665	128,297	3	AZ, CA, NV
Segnem Egere Consortium	\$152,854,440	57,387	3	
Point Broadband Fiber, LLC	\$78,414,413	34,472	5	
Mercury Wireless, Inc.	\$68,310,842	167,684	6	
Commnet Wireless, LLC	\$28,436,936	19,028	10	
Pioneer Wireless	\$5,543,142	1,638	1	Maine
Wisper-CABO 904 Consortium	\$4,974,442	3,453	13	
MIDCO	\$4,960,473	6,506	3	
Mediacom	\$2,254,655	9,752	4	
Hughes Network Systems, LLC	\$1,273,784	3,678	1	CBGs in Rhode Island – Above Baseline
Altice USA	\$849,880	5,220	6	
Redzone Wireless	\$507,752	755	1	Maine
Barry Technology Services	\$14,502	26	1	

## WiROI™ Suite of Techno-Economic Models

- WiROI™ Fw – Fixed Wireless Models
- WiROI™ fiber – Fiber Deployment Models
- WiROI™ 5G – Hybrid Fiber Wireless Models

**WiROI™ Fw**  
Fixed Wireless Business Case Analysis Tool

**WiROI™ fiber**  
Fiber Business Case Analysis Tool

**WiROI™ 5G**  
5G Business Case Analysis Tool



# WiROI™ Model

Menu
Market VAS 1 VAS 2 Rollout Backhaul Funding WiFi CPE Spectrum Valuation RAN2 CRAN CBRS

Summary
Income
Revenue
OpEx
OpEx
Cumulative OpEx
CapEx
Cumulative CapEx
FTTH Subs
Total Cost of Ownership
Cost/GByte
BH Traffic/Capacity
Cells (RAN1)
Network OpEx
Economic Summary
Cells (RAN2)

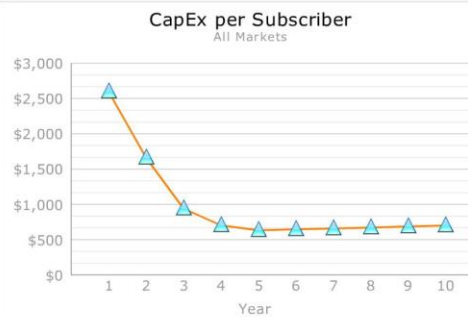
**Economic Summary**  
All Markets



**Number of Subscribers**  
All Markets



**CapEx per Subscriber**  
All Markets



**Wireless 20|20**

Target Market

- TOP 75
- TOP 117
- TOP 170
- TOP 207

Moderate

Target Market Statistics

Market	All Markets
Urban (km2)	
Suburb (km2)	
UNC Rural (km2)	228,258
Urban POPs	
Rest of POPs	11,388,096
UNC Rural POPs	1,878,821
Urban HH	
Suburb HH	
UNC Rural HH	756,961
Urban SME	
Suburb SME	
Rural SME	151,392

Cost of Spectrum (\$/MHz-Pop)

Spectrum Cost: \$26,534,000

IRR: 51.5%

Number of RAN1 LTE Subscribers

359,902

Number of RAN2 (5G) Subscribers

0

Number of Cell Sites


1,388

Maximum Borrowing: (186,705)

TCO (\$K): \$1,411,067

NPV - 10 Year: 212,188 in US\$K

Total 10 Year Cumulative CapEx: \$252,118

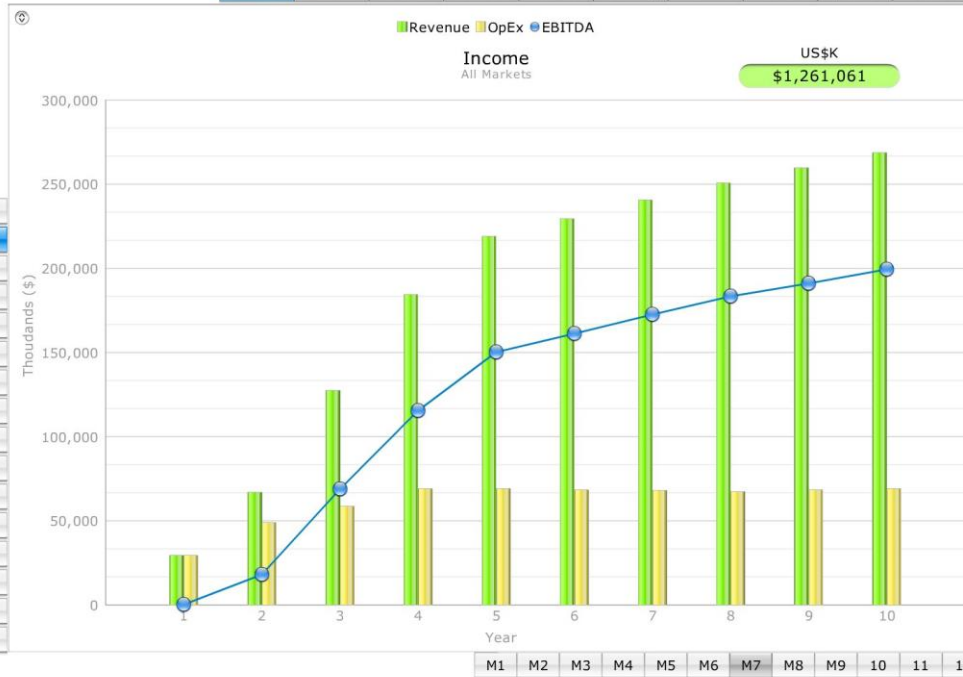


# WiROI™ Model (Income)

Menu

Market VAS 1 VAS 2 Rollout Backhaul Funding WiFi CPE Spectrurr Valuation RAN2 CRAN CBRS

Summary
<b>Income</b>
Revenue
OpEx
OpEx
Cumulative OpEx
CapEx
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NPV - 10 Year 212,188 in US\$K

CapEx Total 10 Year Cumulative CapEx \$252,118

**WiROI 4G**  
The 4G Networks Business Case Analysis Tool

# WiROI™ Model (OpEx)

Menu
Market VAS 1 VAS 2 Rollout Backhaul Funding WiFi CPE Spectrum Valuation RAN2 CRAN CBRS

- Summary
- Income
- Revenue
- OpEx
- OpEx
- Cumulative OpEx
- CapEx
- Cumulative CapEx
- FTTH Subs
- Total Cost of Ownership
- Cost/GByte
- BH Traffic/Capacity
- Cells (RAN1)
- Network OpEx
- Economic Summary
- Cells (RAN2)

**OpEx**  
All Markets

US\$K \$617,819

(\$ Thousand)

Year

**Wireless 20|20**

Target Market

- TOP 75
- TOP 117
- TOP 170
- TOP 207

Moderate

Target Market Statistics

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# WiROI™ Model (CapEx)



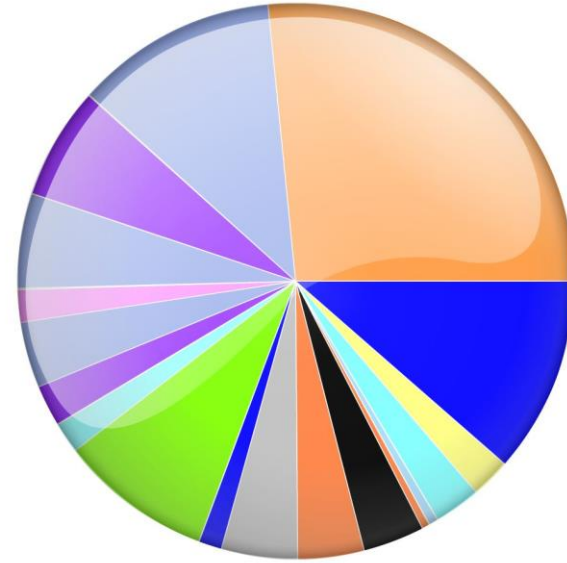
# WiROI™ Model (Cost of Ownership)

Menu
Market VAS 1 VAS 2 Rollout Backhaul Funding WiFi CPE Spectrum Valuation RAN2 CRAN CBRS

- Summary
- Income
- Revenue
- OpEx
- OpEx
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- CapEx
- Cumulative CapEx
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- Total Cost of Ownership
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- BH Traffic/Capacity
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- Network OpEx
- Economic Summary
- Cells (RAN2)

### Cumulative CapEx & OpEx

All Markets



US\$K  
**\$1,411,067**

- Site Rental
- Site Maintenance
- C-RAN Fiber OpEx
- Backhaul Transmission
- Wireless Backhaul
- Transport
- Internet Connection
- Voice Termination Charges
- FTTH Fiber OpEx
- Spectrum OpEx
- CPE Subsidy
- Fixed Marketing Costs
- Promotion Costs
- Billing Cost
- Bad Debt Expense
- Customer Care Costs
- Installation Expense
- Commission-Sales
- Overhead
- RAN1 (LTE) BTS
- RAN2 (5GHz) BTS
- Spectrum
- Fiber Backhaul
- Wireless Backhaul
- RAN1 Site Dev.
- RAN2 Site Dev.
- RAN1 Core
- RAN2 Core
- Maintenance
- CPE CapEx
- CPE Installation

Cumulative As of Year 10

Wireless 20|20

Target Market

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NPV - 10 Year 212,188 in US\$K

Total 10 Year Cumulative CapEx \$252,118



## Wireless 20/20 RDOF Tools and Software

- Wireless 20/20 offers a comprehensive set of tools to support Investors conducting due diligence of FCC RDOF Auction winners and software to help clients prepare for auctions.
- These include:
  - Reverse Auction Simulation Tool – RAST
  - Auction Bidder Behavior
  - WiROI db – US Broadband Database Search Tool
  - WiROI db – KML – Google Earth Mapping Tools
  - WiROI Spectrum Database
  - WiROI Business Case Analysis Tools
  - Auction Results Analysis Dashboard Tools
  - Custom WiROI Analysis and Mapping Tools

# Thank You!

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