Testimony of Robert L. Hance

President and Chief Executive Officer,

Midwest Energy Cooperative

HOUSE AGRICULTURE SUBCOMMITTEE ON LIVESTOCK, RURAL DEVELOPMENT AND CREDIT

July 29, 2014

Chairman Crawford, Ranking Member Costa, and Members of the Subcommittee:

Good Morning. My name is Bob Hance. Thank you for the opportunity to testify before this distinguished Subcommittee to discuss coordinating future investments in rural broadband.

I am the President and CEO of Midwest Energy Cooperative, an electric cooperative serving more than 35,000 members in Southern Michigan, Northern Indiana and Ohio. I've worked in the electric cooperative business since 1974.

I am also testifying on behalf of the National Rural Electric Cooperative Association (NRECA). NRECA is the national service organization for more than 900 not-for-profit rural electric utilities that provide electric energy to over 42 million people in 47 states or 12 percent of electric customers. Electric cooperatives own and maintain 2.5 million miles or 42 percent of the nation's electric distribution lines, covering 75 percent of the U.S. landmass and serve an average of 7.4 consumer owners per mile.

In the 1930s, rural electric cooperatives, like Midwest Energy, answered the call of rural America to bring electricity to the countryside. Electricity was a vital and

transformative product that larger investor-owned utilities were unwilling and unable to provide to rural America. Today, Midwest Energy and other rural electric cooperatives are again answering the call to develop the next transformative utility, robust broadband, in rural America. I am proud to discuss with you Midwest Energy's rural broadband initiative, offered through our telecommunications subsidiary, Midwest Connections.

According to a recent NTIA study, only 23 percent of rural residents have wireline broadband at a speed of 50 Mbps compared to 98 percent of urban residents.[1] The National Broadband Map and anecdotal evidence from our members suggests that in the Midwest service area, 50 Mbps is even less available.[2] Significant gaps in the availability of broadband in rural America strand our members on the wrong side of the digital divide. Without robust access to broadband, these Americans cannot take advantage of the educational opportunities or employment prospects that most Americans now take for granted. Our members are clamoring for access to the same level of broadband access as urban Americans. For example, professors from both the University of Notre Dame and Western Michigan University live within the Midwest service territory. They enjoy robust broadband at work, but when they come home they lose the ability to work because they lack sufficient broadband service.[3] We've heard similar

[1] Broadband Availability: Beyond the Rural/Urban Divide. (2013). Available at http://www.ntia.doc.gov/files/ntia/publications/broadband_availability_rural_urban_june_2011_final.pdf.

[2] *See* the National Broadband Map. http://www.broadbandmap.gov/speed.

[3] Midwest sent a Call to Action to its members to gauge the interest in deploying broadband. Within days, Midwest received more than 600 responses. One member noted: "We need to finish the job of providing broadband to rural areas even when it

complaints from members who work at the Kellogg World Headquarters in Battle Creek, the Whirlpool World Headquarters in Benton Harbor and at Pfizer's large manufacturing facility in Portage.[4] The modern world demands reliable, affordable access to broadband.

In response to member demand, Midwest began investigating the opportunity to provide this valuable service. It became clear that although billions have been spent in rural telecommunications, little infrastructure exists in rural areas to provide broadband. Midwest explored satellite and broadband over power line solutions, but they all failed to provide reliable, scalable service. Ultimately, Midwest designed a 243-mile fiber ring through utility substations and facilities for the immediate purpose of fostering a smarter grid for our members.[5] Leveraging this key asset provides us a unique opportunity to deploy a high-speed, next-generation broadband solution where one currently does not exist. Construction has begun and will continue to roll out slowly.

Rural electric cooperatives, like Midwest, provide service to more than 42 million Americans. We serve the lowest population density by mile.[6] Electric cooperatives grew out of a need to serve communities where no other utilities saw adequate financial

---

doesn't fit a profit model. The expense to not providing national coverage to all populations is far more costly. Let rural electric cooperatives that are poised to deliver a high-speed broadband solution do what they do so well; provide service to rural America."

[4] There are many other significant educational institutions and world class employers in and near Midwest's service territory. The economic viability of rural areas depends on the extension of broadband.

[5] The Executive Summary for Midwest's fiber project is attached as Exhibit A.

[6] Cooperatives serve an average of 7.4 members per mile compared to Municipal electric companies who serve 48 customers per mile and Investor-Owned Utilities that serve an average of 34 customers per mile.

incentive. We are closely connected to our members and we leverage that relationship to be as responsive as possible to their needs. Today, our members tell us that need is broadband.

Across Co-op Nation, many electric cooperatives are pursuing and implementing plans utilizing different models to deploy broadband to rural America. Through the Recovery Act broadband programs delivered by the Rural Utilities Service and the National Telecommunications and Information Administration, 13 cooperatives in 9 states received funding for system designs that included fiber to the home, middle mile, microwave and wireless technology.

Co-Mo Connect, a subsidiary of Co-Mo Electric Cooperative in Tipton, Missouri is currently in phase two of a four phase fiber to the home broadband project to provide service to the consumer members in its service territory. When complete, Co-Mo's system will include 4,000 miles of fiber across its 2,300 square mile territory which will pass 31,500 homes and businesses, averaging 7.8 customers per mile. Co-Mo Connect offers tiered subscription packages with symmetrical speeds ranging from 5 Mbps to 1 Gbps of symmetrical service at competitive prices ranging from $39.95-$99.95.[7] When determining how to best implement a triple play service offering, Co-Mo partnered with another Missouri provider, Big River Telephone to provide voice service. On the video side, Co-Mo is working with another cooperative in Missouri to share equipment and transport expenses. Eventually, Co-Mo intends to collaborate with other cooperatives in

[7] A full description of Co-Mo's project and service packages can be found at: http://co-mo.net/Co-Mo_Connect/Internet.html.

Missouri and surrounding states to purchase the necessary video equipment and content necessary to provide an even more competitive video service offering. This collaborative effort would allow this group of cooperatives to share the costs of specialized equipment and therefore keep the cost of service more reasonable for its members. Co-Mo Connect has been successful in obtaining affordable access to capital for the first two phases of their project, but because each phase decreases in density it seeks access to the FCC Connect America Fund to support the more rural and costly portions of its territories.

Another example of a cooperative bringing broadband to its members is Northeast Rural Services, a subsidiary of Northeast Oklahoma Electric Cooperative. Northeast Rural Services is building a fiber to the home system throughout its service territory. It is utilizing a Rural Utilities Service Broadband Loan to finance the system which will provide triple play services and broadband speeds up to 1 Gbps.

Midwest, and other rural electric cooperatives need your support to compete for the billions of dollars available to provide broadband in high cost areas. Midwest and more than 100 other electric cooperatives filed Expressions of Interest in response to a request by the Federal Communications Commission to identify if there is interest and ability for non-traditional providers to deploy broadband in rural, high cost areas.[8] The overwhelming response prompted the FCC to move forward and conduct Rural Broadband Experiments. Any company interested in providing robust broadband may

[8] Attached as Exhibit B is Midwest's Expression of Interest, filed on March 14, 2014. Other Expressions of Interest can be found at www.fcc.gov. A map developed by NRECA documenting the areas where a rural electric cooperative submitted an Expression of Interest is attached as Exhibit C.

bid for support at or below what is the support available to the price cap carrier serving eligible census blocks.[9] The Commission is actively considering whether or not to similarly extend the opportunity to compete to areas covered by an unsuccessful Experiment Application. Rural electric cooperatives like Midwest are championing an inclusive process. The FCC will consider the comments of industry, consumers and legislators in conjunction with its experience in the Rural Broadband Experiments to determine whether or not to exempt areas where there is a demonstrated competitor from the Right of First Refusal program described in the 2011 *Transformation Order*.[10] Given the small budget for the Experiments, there could be many communities potentially eligible to compete for federal support if those communities are exempted from the Right of First Refusal and set for a competitive auction.

The FCC is poised to award almost $20 billion Connect America funding to support the high cost areas served by the price cap companies. This is a once in a generation opportunity to deploy broadband in rural communities who deserve to be full participants in our modern economy. Midwest appreciates the efforts of the FCC to

---

[9] *Connect America Fund, ETC Annual Reports and Certifications*, WC Docket Nos. 10-90, 14-58, Report and Order and Further Notice of Proposed Rulemaking, FCC 14-98 (July 14, 2014). Price cap carriers are generally the largest carriers providing local telephone service, like AT&T, CenturyLink and Verizon.

[10] *See Connect America Fund, A National Broadband Plan for Our Future, Establishing Just and Reasonable Rates for Local Exchange Carriers, High-Cost Universal Service Support, Developing an Unified Intercarrier Compensation Regime, Federal-State Joint Board on Universal Service, Lifeline and Link-Up, Universal Service Reform – Mobility Fund*, WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51, WT Docket No. 10-208, Report and Order and Further Notice of Proposed Rulemaking, FCC 11-161 (Nov. 18, 2011).

create an inclusive environment where all eligible providers have an opportunity to compete for support in offering creative solutions and to close the gap between broadband available in urban and rural areas.

The areas that Midwest and other electric cooperatives serve are struggling. For the first time in our history, rural America lost population. Since 2011, net job growth in non-metro areas has been near zero.[11] At least one of the contributing factors is the lack of essential services – like broadband. This notion concerns Agriculture Secretary Tom Vilsack who stated:

> Unless we respond and react, the capacity of rural America and its power and its reach will continue to decline. Rural America, with a shrinking population, is becoming less and less relevant to the politics of this country, and we better recognize that, and we had better begin to reverse it.[12]

In conclusion, cooperatives like Midwest Energy are well suited to build and maintain broadband networks. We have a wealth of experience in building regulated utility networks. We aren't asking for a preferential treatment, just an opportunity to compete. We do not seek to exclude anyone from the conversation, but we do believe that a narrow view of the solution may condemn our communities to the wrong side of the digital divide. I want to repeat this last point: Midwest advocates for an inclusive opening of opportunity to provide broadband service to rural counties. The status quo approach is exclusive and limits opportunity to those who have always received high cost support. Given the current lack of broadband in rural areas, Midwest strongly believes

---

[11] *See* USDA ERS Publication *Rural America at a Glance, 2013 edition*.

[12] *See* http://bigstory.ap.org/article/usda-chief-rural-america-becoming-less-relevant.

that if the Commission and Congress do not open the playing field to competition, rural America may never have the chance to experience the educational opportunities, employment prospects and advanced healthcare that broadband delivers to those lucky enough to live in low cost, high population centers.

Thank you for the opportunity to testify before this distinguished subcommittee. I welcome any questions you may have.

Exhibit A - Hance Testimony

Midwest Energy Cooperative

Executive Status Update Summary of Project Connect-Rural-Michigan

Midwest Energy Cooperative's ("Midwest") board of directors has charged senior management with developing a coalition of allies and appropriate state and federal officials to bring high-speed broadband service to unserved and underserved portions of rural Michigan, in part, by accessing federal funding from the Connect America Fund ("CAF") and similar funding which, to date, have only been available to more traditional incumbent entities who have declined to accept much of the available funds as inconsistent with their business plan. The result is that high-speed broadband service is today only available in more populated areas — and large portions of rural America remain unserved or underserved.

While Midwest's focus is on its service territory in rural Michigan, its goal is to act as a catalyst to bring high-speed broadband to unserved and underserved rural America. To date, Midwest views its allies as including the Utilities Telecom Council ("UTC"), United States Department of Agriculture - Rural Utilities Service ("RUS"), the Michigan Electric Cooperative Association ("MECA"), Michigan Public Service Commission ("MPSC"), the American Farm Bureau Federation ("AFBF") and other similarly situated rural electric cooperatives throughout the country.

Midwest is proceeding with the deployment of a 243-mile fiber communications ring through utility substations and facilities to foster a smarter grid. Not only will this fiber ultimately help member consumers manage their energy use, it will provide the critical infrastructure required to support broadband deployment.

To date, Midwest has taken the following actions to bring high speed broadband to rural Michigan and rural America:

- Power System Engineering (www.powersystem.org) was retained in 2012 to assist in the necessary technical analyses associated with our fiber communications ring; and Pulse Broadband, Inc. (www.pulsebroadbandinc.com) was retained in 2013, along with a host of other contractors, to assist with financial modeling, provisioning of services and deployment of fiber-to-the-premises ("FTTx");

- Orjiakor Isiogu, former MPSC Chairman and former Chair of the National Association of Regulatory Utility Commissioners ("NARUC") Taskforce on Federalism & Telecommunications, has been retained to assist in necessary policy analyses and licensing guidance;

- The national law firm, Dykema (Albert Ernst and Shannon Heim) has been retained to assist with legal input and regulatory compliance;

Exhibit A - Hance Testimony

- Midwest's fiber communications ring represents a $9.5 million investment by the cooperative.. Another $53 million is required to deploy FTTx off that ring to rural un-and-underserved southwest Michigan. Midwest has now been advised by the US Department of Agriculture, Rural Utilities Services, that electric loans can now be used to invest in fiber deployment to the home, thus providing a low-cost matching source for CAF application – assuming smart grid application. Still, access to CAF will help expedite a solution for residents of Midwest's rural service footprint;

- With respect to advancing the notion that CAF be availed to others, the Midwest team has met with senior representatives of the RUS, NRECA, MECA, the MPSC, FCC, NARUC, Pokagon Band of Potawatomi, AFBF and member organizations, and the Michigan Governor's office in both Lansing, MI and Washington D.C. We have done this solely and in tandem with UTC and its Rural Broadband Council ("RBC"), a group consisting of more than 100 of the nation's rural electric cooperatives;

- Over the past year, Midwest and its allies have met several times with FCC Commissioners and staff, their Office of Strategic Planning, Wireline Bureau and IP Transitions Team;

- Midwest and its partners have also met with key members of Congress as well as the United States Government Accountability Office (GAO). The GAO has released a series of reports on rural broadband deployment efforts based, in part, on discussions with Midwest and others (http://www.gao.gov/products/GAO-14-409);

- On December 10, 2013, in coordinated filings, Midwest and UTC requested that the FCC initiate proceedings which will transition access to CAF funds to the country's rural electric cooperatives and other entities serving rural America. On January 30th, the FCC issued an Order that includes rural experiments, inviting interested parties to file expressions of interest ("EOI") by March 7, 2014. On March 7, 2014, Midwest filed an EOI to FCC along with over 100 rural electric cooperatives. All total, 1,000+ EOIs were filed with the FCC. The FCC will now evaluate the EOIs, set a budget for rural experiments, provide application guidance, evaluate applications and begin funding projects late third quarter;;

- On February 12h, 2014, Midwest and its partners secured a resolution from NARUC supporting broader access to CAF by utilities and other critical infrastructure industries;

- Midwest received its permanent competitive local exchange carrier ("CLEC") license in March 2014 and a code of conduct waiver from the MPSC in June 2014. Its application for an eligible telecommunications carrier ("ETC") license is in process.

Exhibit A - Hance Testimony

- A soft launch of Midwest's full project is underway, deploying roughly 21 miles of its communications ring through two Midwest substations. In addition to assessment of smart grid potential, Midwest is building 86 miles of fiber to 951 homes and businesses in the area. Even absent a strong marketing push, our overall take rate is 26% thus far. Service plans range from 25 – 100 mbps down and 10 – 50 mbps up for residential and 25 – 100 mbps of symmetrical service for business. Midwest's service is scalable to a gigabit. Voice Over Internet ("VOIP") will be provided by Big River Telephone and video is being evaluated;

- In June 2014, the FCC issued a Report and Order, Declaratory Ruling, Order, Memorandum Opinion and Order, Seventh Order on Reconsideration, and Further Notice of Proposed Rulemaking (WC Docket No. 10-90), which should make it easier for utilities to gain access to federal funding for rural broadband under CAF.

- On July 11, 2014, the FCC issued an Order detailing the process by which entities may apply for a rural experiment. Applications are due on October 14, 2014. We will be participating in rural experiment workshops and plan to be active in commenting on the FNPRM. Additionally, Midwest intends to apply for rural experiment funding while continuing to push for equal access to CAF going forward.

This Executive Status Update Summary will be updated periodically to keep interested parties advised as to progress. Questions should be directed to either Midwest President and Chief Executive Officer Bob Hance at 269-445-1091 (bob.hance@teammidwest.com) or Midwest Vice President, Regulatory Compliance and Community Development Dave Allen at 269-445-1081 (dave.allen@teammidwest.com).

Exhibit B

DATE: Monday, February 24, 2014

FROM: Robert L. Hance - President & CEO
Midwest Energy Cooperative

TO: The Honorable Marlene Dortch – Secretary
Federal Communications Commission

SUBJECT: Expression of Interest – Midwest Energy Rural Broadband Experiment
WC Docket No. 10-90

Background

Midwest Energy Cooperative is a *member-owned* electric utility serving more than 35,000 residential, agricultural, commercial and industrial customers in southwestern and southeastern Michigan, northern Indiana and Ohio. We also provide propane services under the name Midwest Propane and telecommunications services as Midwest Connections. In the past, Midwest Connections has provided dial-up and satellite Internet as well as broadband over power lines (BPL). We are now fully committed to a next generation fiber solution as we have found other platforms to be less-reliable and of insufficient capacity and speed.

Midwest Energy is one of roughly 840 distribution cooperatives across 47 states providing service to 42 million Americans and 18.5 million businesses, homes, schools, churches, farms, irrigation systems and other establishments. As an industry, we own and maintain 42% of the nation's distribution lines. That said, only 12% of Americans are customers of ours. Whereas publicly owned utilities (municipals) average 48 consumers per mile and investor-owned utilities average 34 customers per mile, electric cooperatives serve an average of 7.4 members per mile. These are the folks in need of a broadband solution.

Our Project

Plans to advance from automated meter reading (AMR) to the deployment of automated metering infrastructure (AMI) provided us the opportunity to explore a smarter grid for our members. In 2012, we contracted with Power System Engineering, Inc. (www.powersystem.org) to help us design and engineer a high-speed communications ring through substations and facilities. The total cost of this 243-mile Midwest-owned network is $9.5 million. Plans are in place to at least finance the roughly $6 million
portion of the ring that serves our southwest district through an already-approved United States Department of Agriculture - Rural Utilities Service (USDA – RUS) work plan loan.

Recognizing the significant potential of this asset, Midwest Energy contracted with Pulse Broadband (www.pulsebroadbandinc.com) to help us design a fiber-to-the-premises (FTTx) product. Utilizing the communications ring as a middle mile backbone, Pulse Broadband designed a portion of the 1,800 mile bi-directional FTTx open network using gigabit passive optical network (GPON) electronics. At the appropriate time, they will assist us in engineering the remainder of our network. Midwest Energy's system is scalable, possessing the potential for a gigabit of service to every home or business in our proposed footprint. Initially, the following plans will be offered:

Residential High-Speed Internet Packages

Basic: Up to 20 mbps downstream and 10 mbps upstream
$49.95/month

Advanced: Up to 50 mbps downstream and 20 mbps upstream
$59.95/month

Ultra: Up to 100 mbps downstream and 25 mbps upstream
$99.95/month

Business High-Speed Internet Packages

Basic: Up to 20 mbps downstream and 20 mbps upstream
$79.95/month

Advanced: Up to 50 mbps downstream and 50 mbps upstream
$129.95/month

Ultra: Up to 100 mbps downstream and 50 mbps upstream
$199.95/month

Unlimited Local and Long Distance Telephone within the U.S., Canada, Dominican Republic, Bahamas, U.S. Virgin Islands, Puerto Rico and Guam. International calling plans and other features are also available.

Residential: Includes three-way calling, caller ID (number), call ID blocking, call return, call forwarding, call waiting and voice mail.
$39.95/month

Business: Includes three-way calling, caller ID (name and number), call forwarding, hunting and voice mail.
$49.95/month

Voice services will be provided through Big River Telephone (www.bigrivertelephone.com) and video service is under consideration. Midwest Energy will offer members a $10 double-play discount for bundling their internet and telephone services with us.

Midwest Energy serves neither cities nor villages in its proposed service footprint. In these areas, incumbent Frontier (DSL) and Comcast (cable) provide voice, data and video. Rural townships in southwest Michigan are mostly devoid of anything other than satellite and Mobile Wi-Fi (MiFi). Bloomingdale Communications, a first and second round stimulus recipient, has deployed fiber in the northern-most, and most-dense, portion of our service area. Our discussions with them have uncovered no plans to expand beyond their existing boundaries.

Timetable

Midwest Energy is "shovel-ready" with its project. We have secured a temporary CLEC license from the Michigan Public Service Commission and will pursue an ETC license and other certifications when our permanent CLEC is granted in March. We have "socialized" our intent with numerous state and federal agencies and regulatory bodies in an effort to be transparent and to learn what is necessary to operate in this complex arena.

Already, Midwest Energy has deployed roughly 21 miles of our communications ring through two substations serving areas adjacent to both Schoolcraft and Edwardsburg, Michigan. In addition to assessment of smart grid potential, Midwest is evaluating the FTTx potential of laying 72 miles of fiber to 953 homes and businesses in the area. The capital requirements for our soft launch are $4,367,452 - $1,482,500 in transmission costs and the balance in FTTx costs. Our first two "beta" customers are receiving service from Midwest Energy. One is testing a 100 Mpbs plan and the other is evaluating 20 Mbps.

Midwest Energy's soft launch project allows us to better gauge member interest and service requirements before full deployment. Full deployment may take up to three years, or more, depending upon the level of support we receive from potential granting agencies. That said, when our permanent CLEC license is secured, we plan to add new customers at a planned, but much more aggressive, pace.

Project Area

Our full deployment area includes *eligible* portions of Cass, St. Joseph, Kalamazoo, Van Buren and Berrien Counties in Michigan. In this area, we estimate there are roughly 24,000 homes and 2,500 businesses. Midwest Energy serves no cities or villages and instead focuses on rural townships. As such, member density in this area is below 9 per mile. We believe there to be 80 critical community facilities and public safety entities, made up of 10 schools, 7 libraries, 23 medical/healthcare providers, 10 public safety entities, one community college, 5 community support organizations and 24 governmental facilities. Additionally, we have one Native American Tribe – The Pokagon Band of Potawatomi. We are confident many of these entities will provide project endorsement letters during the application phase of FCC's rural experiments. One such letter from Mno-Bmadsen, the Pokagon Band of Potawatomi's economic development arm, is attached as an example of partnerships we are developing.

Southwest Michigan is defined by agriculture – particularly seed corn production – and serves as a rural residential haven for those that work and study at Notre Dame, Western Michigan University and area community colleges. Additionally, those that work at Fortune 500 companies like Kellogg, Whirlpool and Pfizer tend to live in our proposed service footprint. Though we were severely impacted by a recent downturn in the recreational vehicle industry, efforts to foster an entrepreneurial environment are bearing fruit and area unemployment figures have moderated somewhat.

Midwest Energy's Midwest Connections intends to provide service to an area encompassing portions of five counties in southwest Michigan totaling 1,668.09 square miles. We will work closely with Pulse Broadband to determine the eligibility of the 42 census tracts, 169 census block groups and 8,484 census blocks within our proposed service footprint.

CASS COUNTY, MICHIGAN – 490.06 square miles to be served
11 Census Tracts
46 Census Block Groups
2,319 Census Blocks

BERRIEN COUNTY, MICHIGAN – 138.98 square miles to be served
5 Census Tracts
20 Census Block Groups
789 Census Blocks

KALAMAZOO COUNTY, MICHIGAN – 146.99 square miles to be served
8 Census Tracts
21 Census Block Groups
928 Census Blocks

ST. JOSEPH COUNTY, MICHIGAN – 374.42 square miles to be served
7 Census Tracts
30 Census Block Groups
1,974 Census Blocks

VAN BUREN COUNTY, MICHIGAN – 517.64 square miles to be served
11 Census Tracts
52 Census Block Groups
2,474 Census Blocks

Project Need

Our service area – often referred to as "Michiana" is losing population. While the volatile nature of the recreational vehicle industry in nearby Indiana has created a home-based entrepreneurial boom; many have chosen to leave southwest Michigan. Seniors are flocking to where health care is abundantly available and the home-bound have diminishing options in rural America. Workers are moving closer to their employers. Young people are seeking entertainment options and basic services like broadband. Parents, concerned for their children's educational opportunities, are abandoning schools that are limited in services they provide. Rather than placing further stress on urban infrastructure, one solution might be to provide broadband where it either doesn't exist or exists in limited scope. If workers can be productive at home, that is good for America. If young people can innovate, we all benefit. America's future truly depends

on closing a digital divide that exists on both a micro (urban versus rural) level and a macro (US versus the world) level as well.

Within Midwest Energy's proposed footprint, residents, schools, libraries, farmers, first-responders, healthcare providers and the Pokagon Band of Potawatomi are seeking an affordable, reliable and high-speed option. This has provided us tremendous opportunity to leverage our investment. For instance, USDA-RUS has stepped up to the plate in helping us finance the cost of our communications ring. Merit Networks, Inc., a non-profit, member-owned organization formed in 1966 to design and implement a computer network between public universities in Michigan, continues to seek a partnership with Midwest Energy. They view us as being a catalyst in helping them reach schools and libraries in the region. The Pokagon Band of Potawatomi's economic development arm – Mno-Bmadsen – is evaluating partnership opportunities that can help us extend service to their members and we're actively engaged with both Michigan Farm Bureau and the American Farm Bureau to help bring broadband to America's farmland. There is little scarcity in leveraging opportunities for this project and we are exploring them all.

The Ask

Midwest Energy continues to refine its project requirements. As mentioned, we are financing our communications ring for smart grid applications through a USDA-RUS work plan loan. Should we fully deploy our ring, the cost will be $9.5 million. It is $6.075 million if construct communications in only our southwest district. Our FTTx capital expenditure requirements are, roughly, $54.2 million. Given the 24,000 homes and 2,500 businesses passed, we will need approximately $2,045 per passing to fully fund this project. That said, our financial model continues to be refined and we'll have solid, defensible numbers to present in our application. These numbers will be in the form of a one-time capital expenditure. We are not seeking an ongoing subsidy from the FCC. Midwest Energy will, of course, review FCC financial models to ensure our numbers are both reasonable and appropriate.

In recent financial modeling, Midwest Energy assumed a 40% take rate for residential and 30% take rate for commercial. This translates into 10,350 customers. Applying standard price points for triple-play, projected net income goes positive in year four at a fifty percent equity injection. Midwest believes fifty percent equity funding is needed to protect company asset-to-equity ratios. That said, we'll apply only for what is eligible and what is required to be successful in providing up to a gigabit of service for rural southwest Michigan.

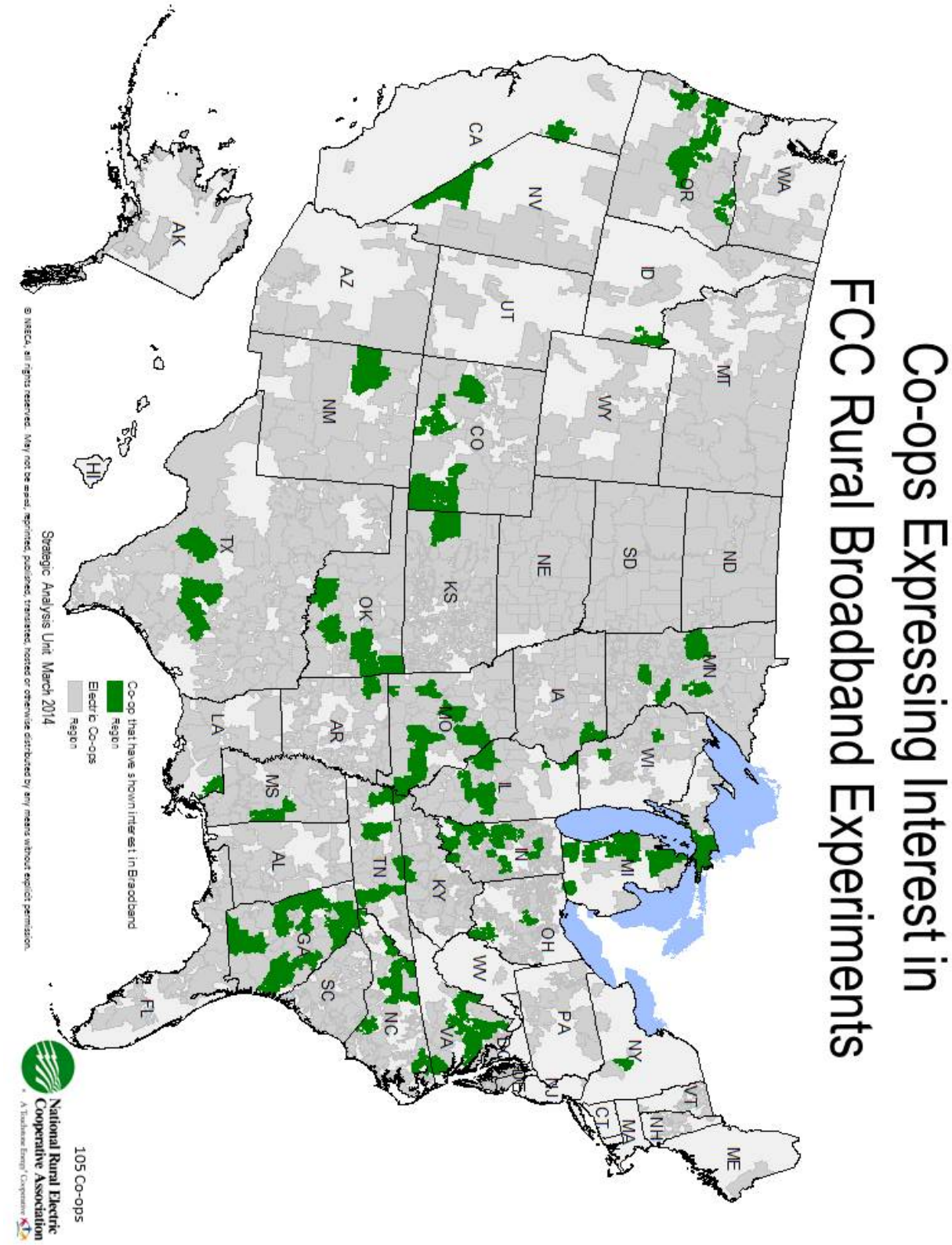
Total Estimated Project Cost:	$63.7 million
Midwest Energy Investment:	$ 9.5 million
Ideal FCC Investment:	$27.1 million (one-time capital expenditure)
Additional Amount to be Financed:	$27.1 million
Leveraging Opportunities:	FCC Rural Experiment s (one-time capital investment only) Connect America Fund (unclaimed CAF) Merit Networks, Inc. (assistance and dark fiber swap) Lynx Network Group (dark fiber swap) Pokagon Band of Potawatomi (financial)

	Regional Economic Development Groups (financial) Michigan Farm Bureau & American Farm Bureau (philosophical) E-Rate Program (grant opportunity) USDA Community Connect Program (grant opportunity)
Total Customers Served:	26,500 (estimated – minimum)
Square Miles:	1,668.09 square miles

For More Information:

Mr. David H. Allen
Midwest Energy
Vice President, Regulatory Compliance
(269) 445-1081 (direct)
dave.allen@teammidwest.com

Exhibit C


Co-ops Expressing Interest in
FCC Rural Broadband Experiments
Co-op that have shown interest in Broadband
Region
Electric Co-ops
Region
Strategic Analysis Unit March 2014
105 Co-ops
National Rural Electric
Cooperative Association
WA
OR
CA
NV
ID
MT
AZ
UT
WY
ND
SD
NE
CO
NM
KS
OK
TX
MN
IA
MO
AR
LA
WI
IL
MS
MI
IN
AL
TN
KY
OH
GA
SC
WV
NC
VA
PA
NY
FL
VT
NH
MA
CT
ME
AK
HI