Welcome

**Next Generation
Kentucky Information Highway**

Stakeholders

- Wholesale Carriers
- Kentucky Municipals Utility Providers
- Telecommunication Companies
- Investor Owned Power Companies
- Electric Cooperatives
- Cable Television Providers
- Internet Service Providers
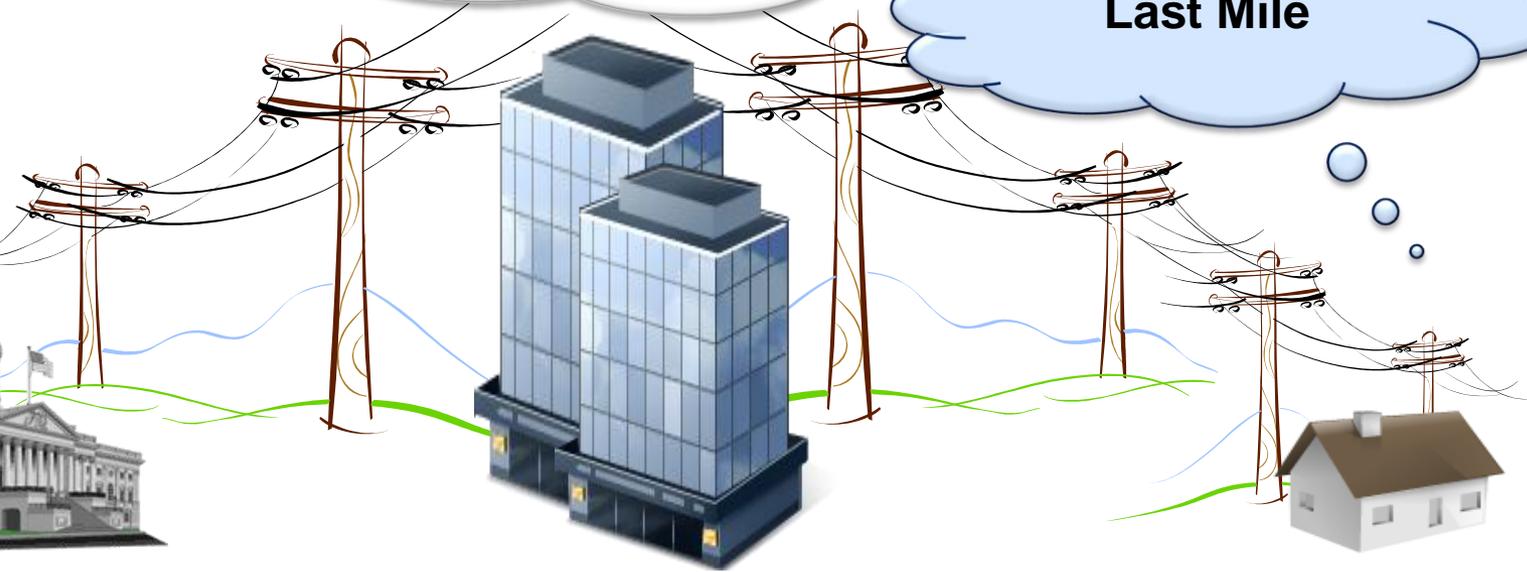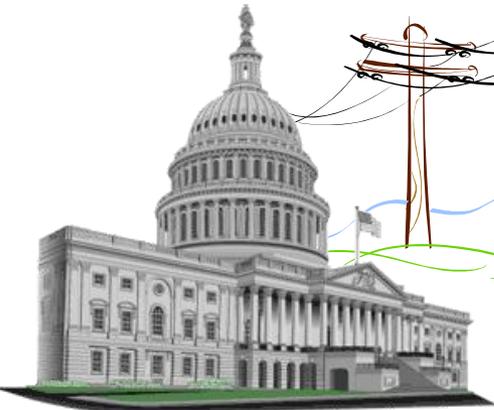- Equipment Manufacturers

Middle Mile vs. Last Mile
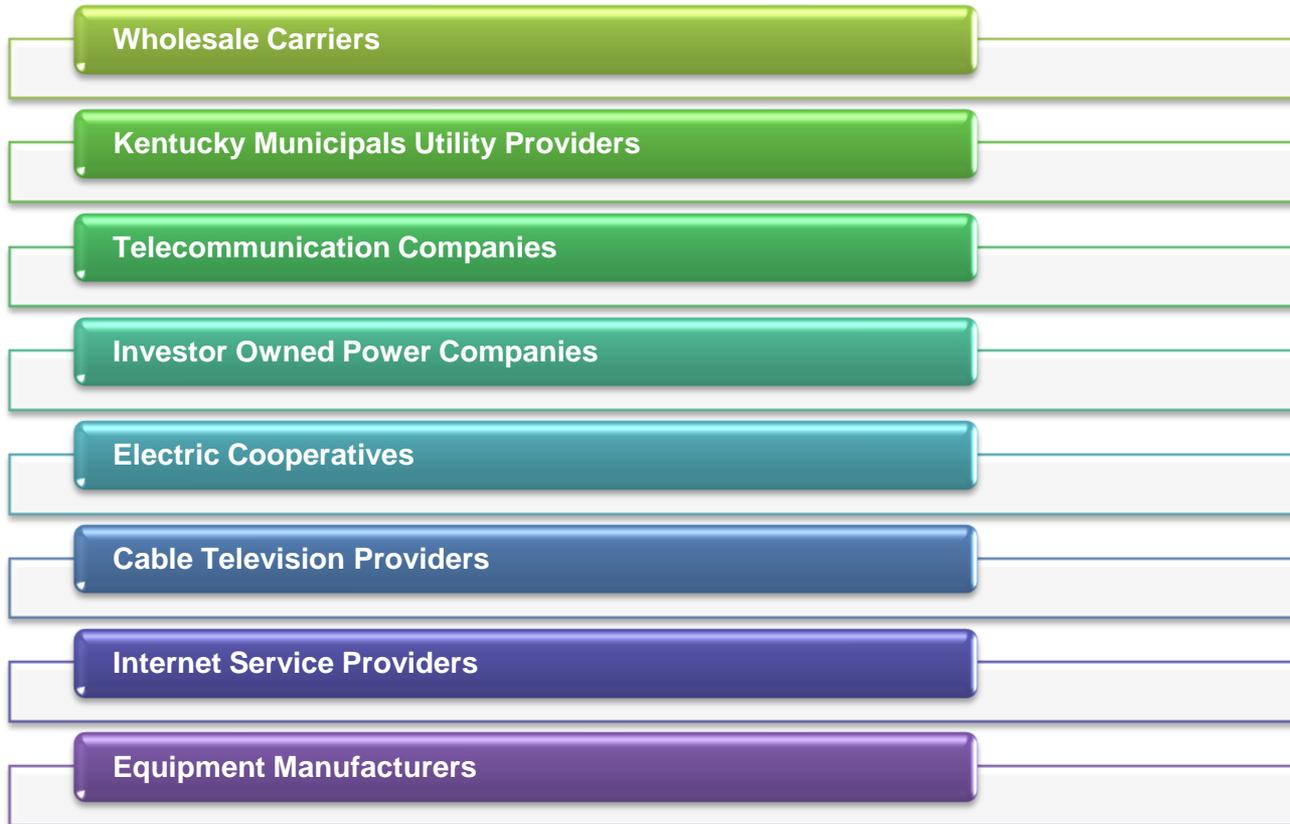
Global Internet

Middle Mile (NG KIH)

Last Mile

Agenda & Introductions

1) **Project Overview**
   - Project scope and key objectives
   - Consortium introduction
   - Letter of endorsement

2) **Network Design & Architecture**
   - Network design

3) **Benefits to Network Stakeholders**
   - Economic development platform
   - Open access business model

4) **How the Stakeholders Can Help**
   - Schedule improvements
     - Access to existing assets, e.g. fiber, conduit, etc
   - Pole attachments
   - Collaboration on last mile construction

5) **Next Steps**
   - Stakeholder questionnaire
   - Engagement process and follow-up sessions

The Macquarie Consortium

MACQUARIE

World's largest infrastructure investor
$23 billion infrastructure equity capital
raised in last 5 years
>$390 billion under management

First Solutions CONNECTING THE DOTS

Over 144 years executive experience
6m+ end users directly served
$3bn+ in total managed P&L experience

BLACK & VEATCH Building a world of difference.®

#1 Ranked Telecommunications Design / Engineering
contractor for past 5 years
10 year operating history in Kentucky
Established network of local subcontractors

FUJITSU

World's 3rd largest IT services provider
Extensive multivendor services
#1 OTN patent holder in the US
>$2bn annual R&D investment

Bowlin GROUP OF COMPANIES

Kentucky-based contractor founded in 1997
Completed over $400m Kentucky projects
Ongoing business development role via Jack Givens

Project Overview

The Macquarie consortium was selected as the preferred partner to develop the Commonwealth of Kentucky's statewide middle mile network

Project Overview

- Middle mile network connecting >1,100 anchor institutions across Kentucky's 120 counties

- Commonwealth issued a competitive RFP in July 2014 with DBFOM scope to develop the NG-KIH
    - Open access network
    - Economic development platform
    - Expedited timeline

- Macquarie consortium selected as preferred proponent late 2014
    - Development agreement executed December 2014
    - Targeting construction start in early 3Q2015

Key Commonwealth Objectives

1. **Statewide network** to promote **economic development** and attract private investment

2. Increase **network access in underserved areas**, in particular Eastern Kentucky

3. **Maximize economies of scale** through the integration of Kentucky's existing infrastructure

4. Create a future proof platform to **service public safety users** (FirstNet, NG911, etc)

5. **Encourage collaboration** between public and private sectors

"We are on **an aggressive timeline** and believe that the **Macquarie team**'s technical capabilities and history of innovative solutions are **the best fit** for this important project [that will] **propel the Commonwealth forward** in education, economic development…and much more"

- Governor Steve Beshear, 23 Dec 2014

Contact: Email: NextGen.KIH@ky.gov, Website: http://finance.ky.gov/initiatives/nextgenkih/ Tel: (502) 782-9549

Endorsement Letter

PPP establishes a long-term, collaborative relationship with the Commonwealth and the Macquarie consortium is committed to the efficient delivery and operation of the project over the next 30 years

✓ Robust, reliable, open access fiber backbone infrastructure…with critical first components to be operational in less than two years

✓ In their contractual role, Macquarie will be acting as an agent of the Commonwealth for the project

✓ The project can be completed with an accelerated timetable and cost savings by leveraging the expertise and innovation of project stakeholders, including Kentucky's businesses, organizations and individuals

✓ Macquarie will seek to partner with local telecommunications companies, municipalities, utilities and major carriers to deliver the open access network more quickly and reduce construction costs

✓ We ask that you facilitate Macquarie and their partners' efforts to the fullest extent you are able in order to ensure this project achieves its goals

✓ In particular, please provide access to appropriate information, relevant infrastructure and other requests in a timely and coordination fashion

Expedited development to **complete priority rings** along I-75 Spine and in Eastern Kentucky **by April 2016**
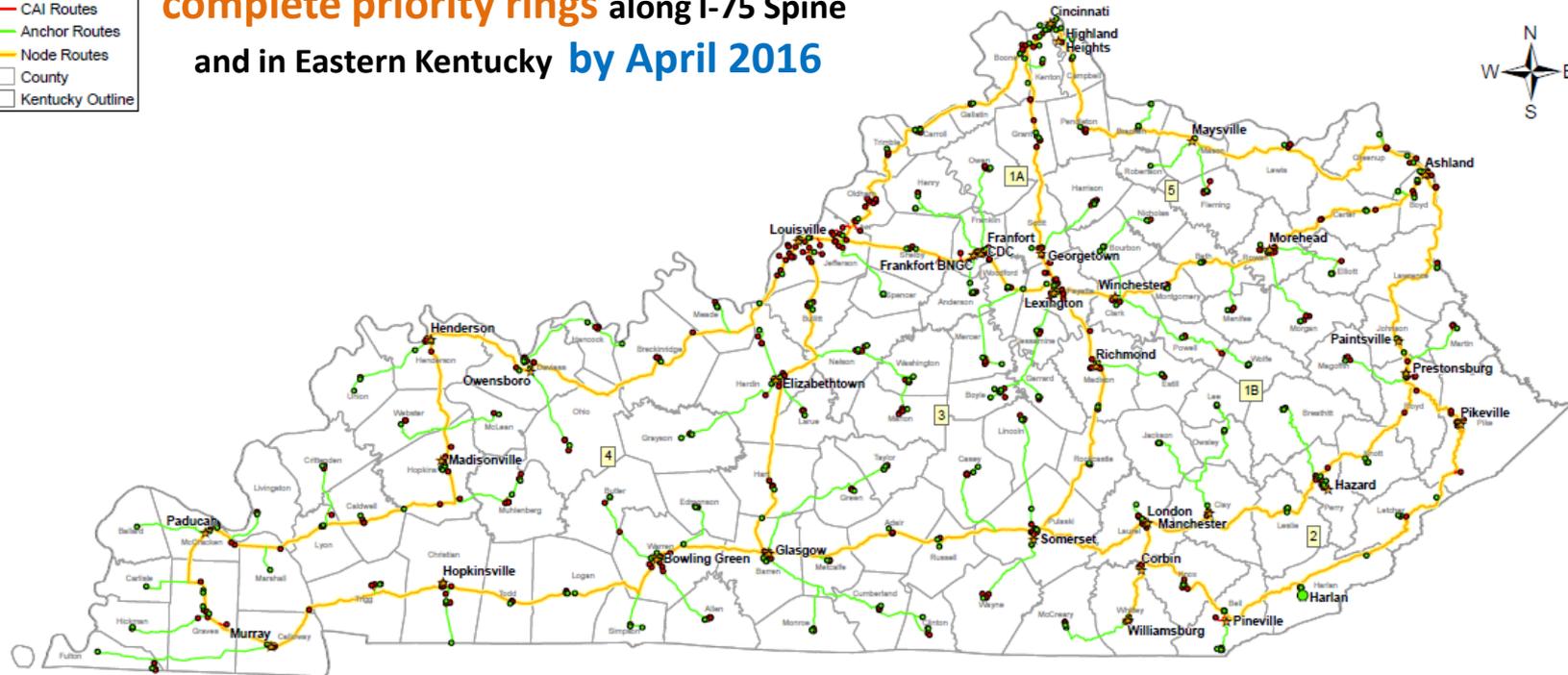
Network completion by October 2018

Preliminary
Not To Be Used for Construction

Stakeholder Help

ACCESS TO INFORMATION

1. Asset maps (fiber, conduit, etc)
2. Near-term development plans / infrastructure builds
3. Near-term / medium-term capacity requirements
4. Assets subject to regulation
5. Pricing sheets
6. Rights of way
7. Attachment process and approval requirements

PARTNERSHIP OPPORTUNITIES

1. IRUs
2. Poles, conduits, etc
3. Co-build / joint trenching
4. Co-locations
5. Network interconnects and expansion of last mile networks
6. Reducing transit costs (regional presence in carrier hotels)
7. Broadband education and awareness programs

Economic Development

Efficiently deployed broadband infrastructure generates significant investment and job creation

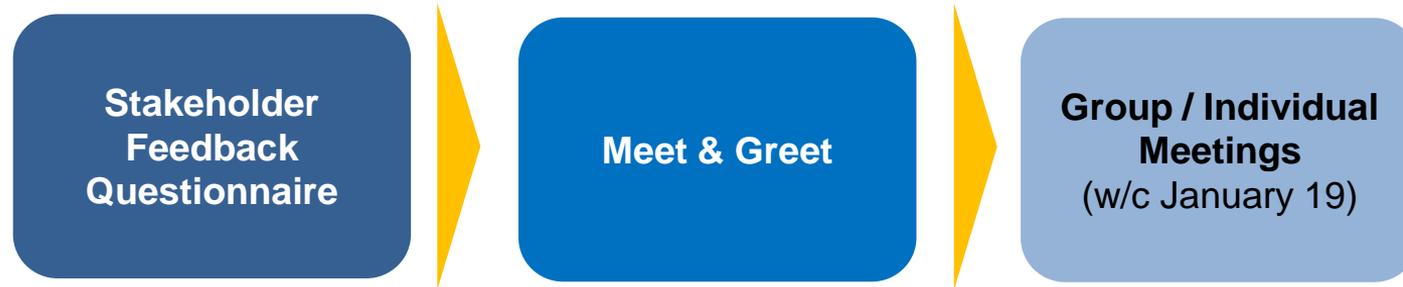| Bristol, Virginia	Chattanooga, Tennessee
NORTHROP GRUMMAN CGI	amazon VW CLARIS NETWORKS
• 1,220 new jobs by 2008 • $50 million in private investment • $37 million in annual payrolls • Diversifying coal-producing counties	Volkswagen plant created 3,200 jobs and $1.4 billion total tax revenues for TN Claris Networks moved data center from Knoxville *'just because of the network'*

"Google Fiber's first ultrafast internet connection **drew about a dozen startups to a single neighborhood** in Kansas City… and over the past 7 months, about **60 startups have presented on a weekly basis** in Kansas City"
-*New York Times, November 2012*

"**They are calling it…Silicon Prairie**"
-*New York Times, November 2012*

Next Steps

Stakeholder Feedback Questionnaire → **Meet & Greet** → **Group / Individual Meetings** (w/c January 19)

PROJECT INFORMATION & CONTACT

Project Website
http://finance.ky.gov/initiatives/nextgenkih/

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