

# Metronet Presentation

School of Urban and Regional Planning



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**Decorah Metronet**



This project was supported by the Iowa Initiative for Sustainable Communities (IISC), a program of the Provost's Office of Outreach and Engagement at the University of Iowa that partners with rural and urban communities across the state to develop projects that university students and faculty complete through research and coursework. Through supporting these projects, the IISC pursues a dual mission of enhancing quality of life in Iowa while transforming teaching and learning at the University of Iowa.

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**Iowa Initiative for Sustainable Communities**

Provost's Office of Outreach & Engagement

The University of Iowa

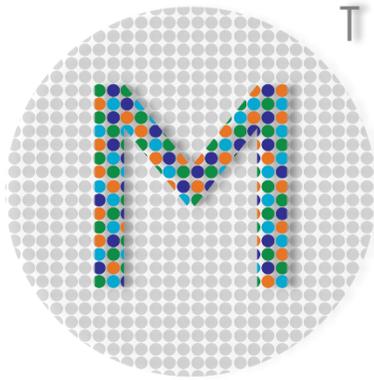
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THE DECORAH

# METRONET

FIBER BROADBAND NETWORK

A 2016 Field Problems Project



# DECORAH METRONET FINAL UPDATE

A 2016 Field Problems Project

May 9<sup>th</sup>, 2016



Presenters: Jeff Gepper & Qilu Chen

Project Team:

Qilu Chen  
Jeff Gepper  
Juliana Lucchesi  
Dea Qatipi

Faculty Advisers:

Dr. Jerry Anthony  
Dr. Lucie Laurian

Community Partners:

The City of Decorah  
Decorah Community School District  
Luther College  
Upper Explorerland Regional Planning Commission  
Winneshiek County  
Winneshiek Medical Center



# PRESENTATION OVERVIEW

Project Overview

Organizational Evaluation

Financial Analysis

Scenario Evaluation

Recommendations

Implementation Plan



# THE DMN FIELD PROBLEMS PROCESS

Scope of Work

Current Organizational Review

Current Financial Summary

Community Needs Assessment



Recommendations

Implementation Plan



Evaluation

# ORGANIZATIONAL EVALUATION

28E

Co-  
op

Non-  
Profit

Public  
Utility

Membership  
Tiers



Open Access  
Policy



Tiered  
**28E**

## Opportunities

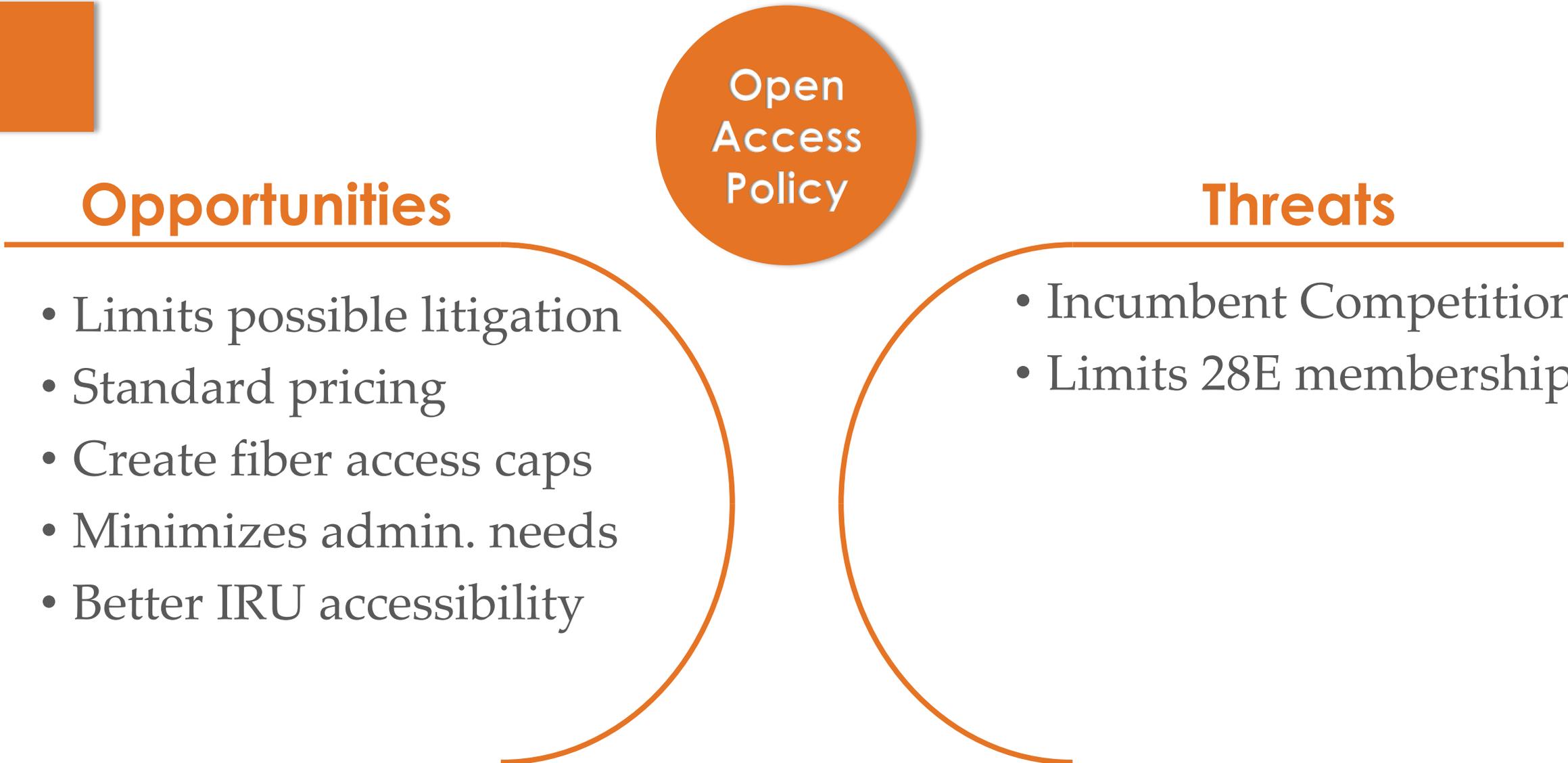
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- Promotes partnership
- Tiered system offers access to new members
- DMN board maintains control of network
- Grant availability
- IRU revenues

## Threats

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- Anchor member downgrade to associate member
- Dilution of control
- Cannot obtain loans



Open  
Access  
Policy

The diagram features a central orange circle containing the text 'Open Access Policy'. Two large, light-orange, rounded shapes extend from the bottom of this circle, one to the left and one to the right. The left shape is titled 'Opportunities' and contains a bulleted list of five items. The right shape is titled 'Threats' and contains a bulleted list of two items. The entire diagram is set against a white background with an orange footer bar at the bottom.

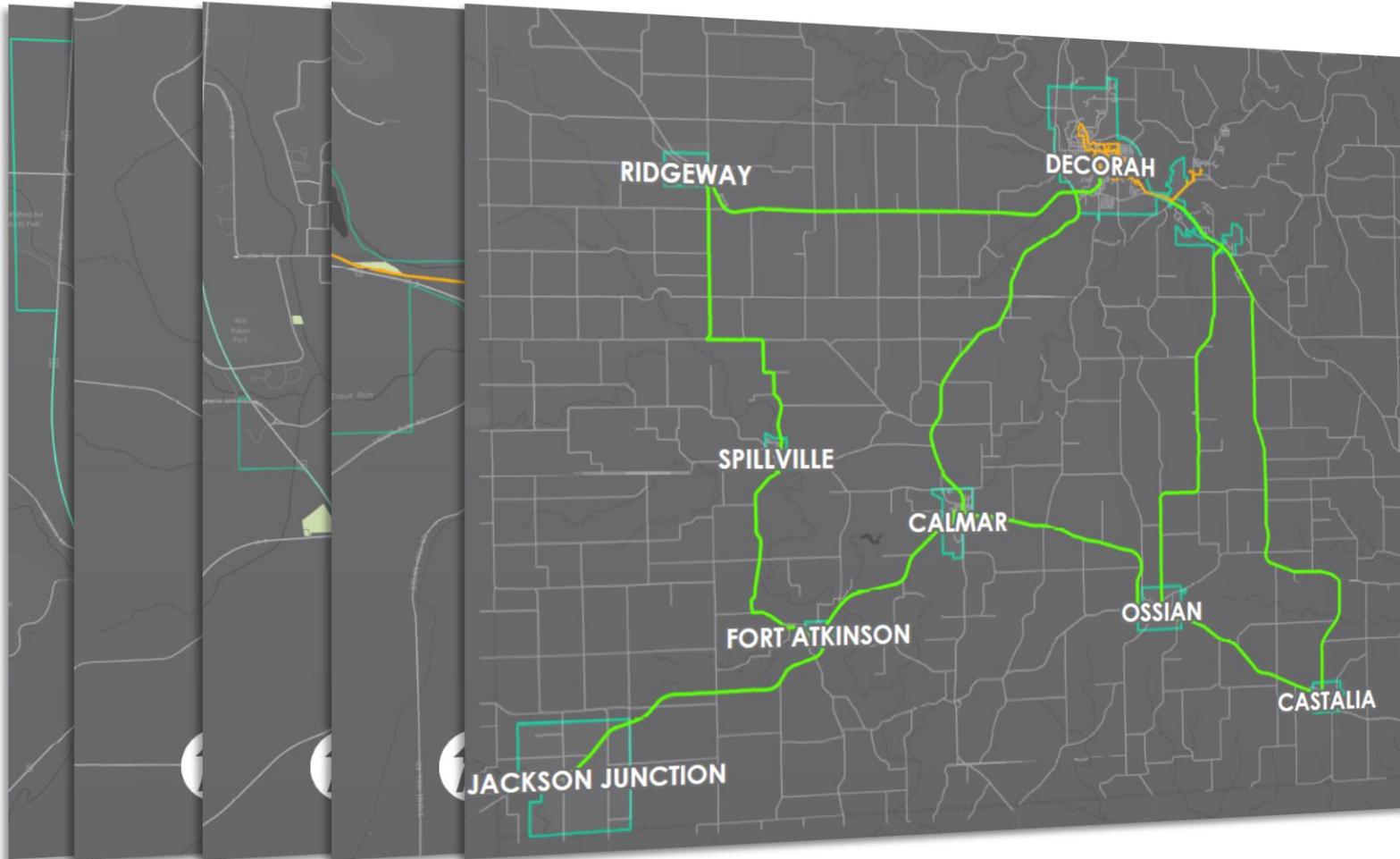
## Opportunities

- Limits possible litigation
- Standard pricing
- Create fiber access caps
- Minimizes admin. needs
- Better IRU accessibility

## Threats

- Incumbent Competition
- Limits 28E membership

# REVIEW OF SCENARIOS



1: No Change (Control)

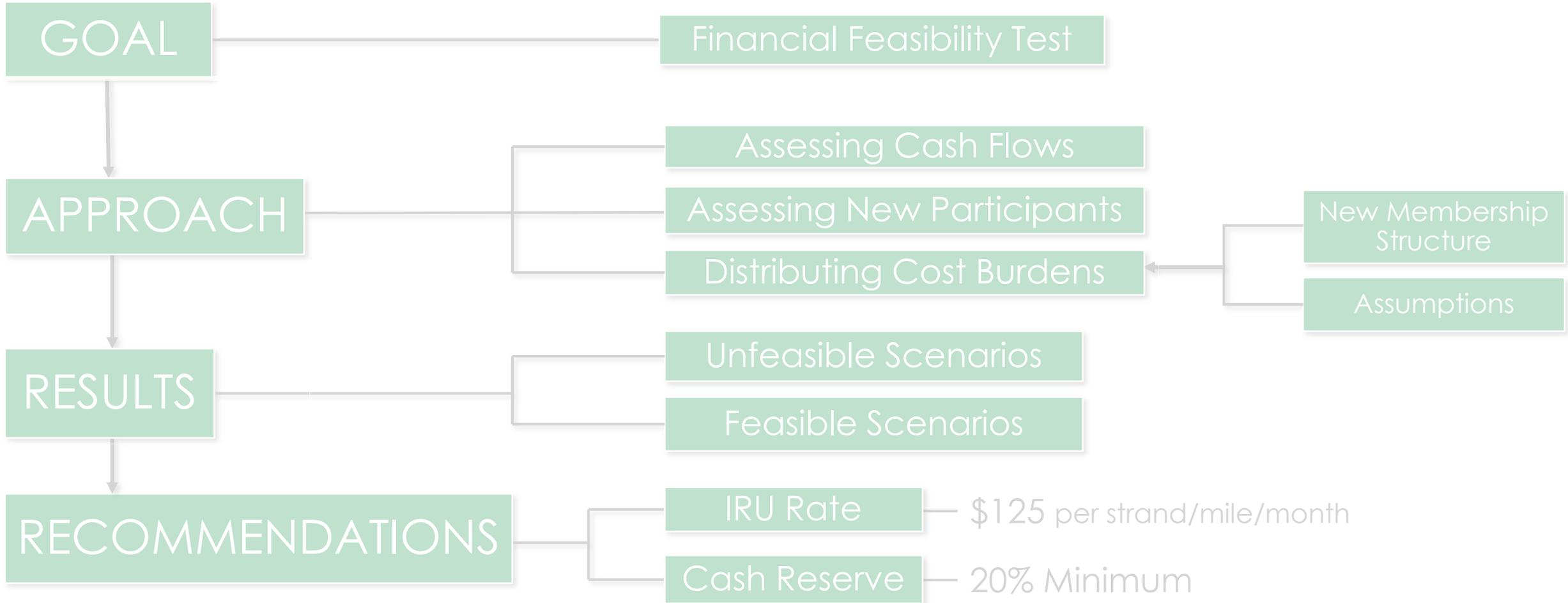
2: Residential Decorah

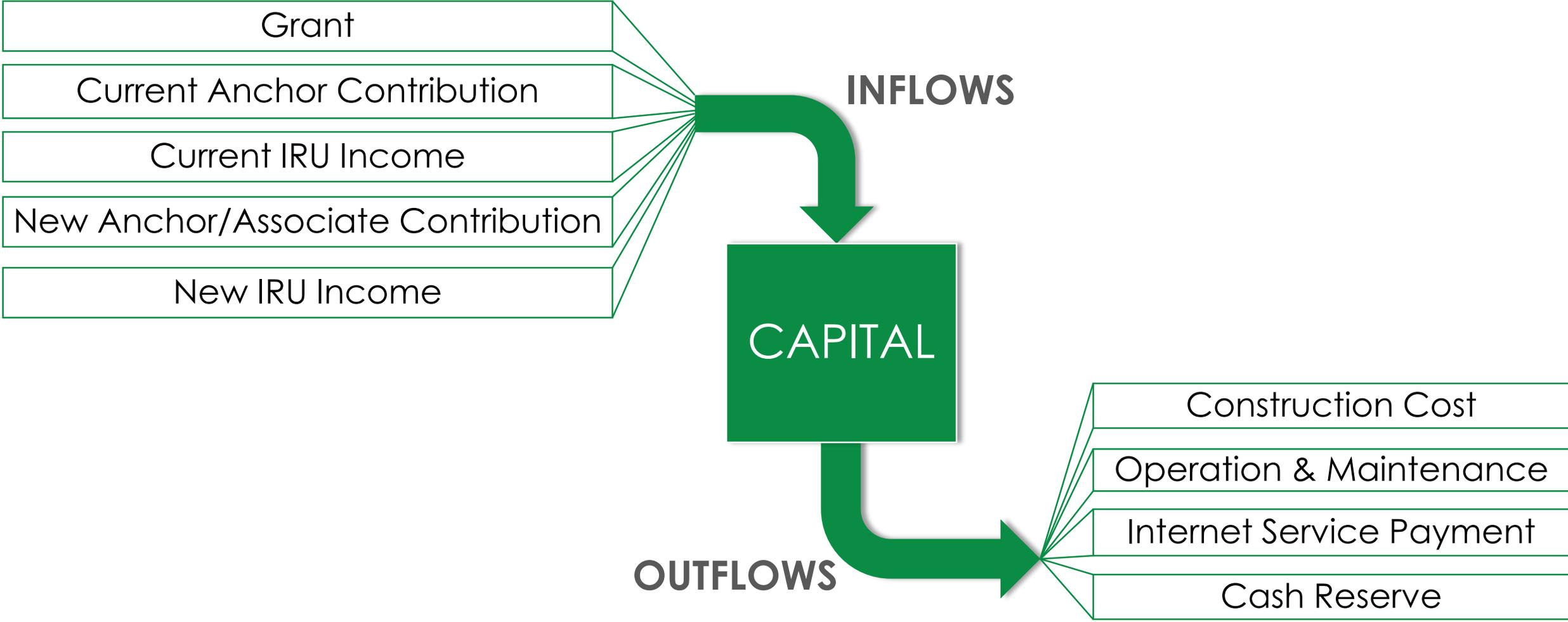
3: Downtown Decorah Businesses

4: Decorah Business Park

5: Greater Winneshiek County

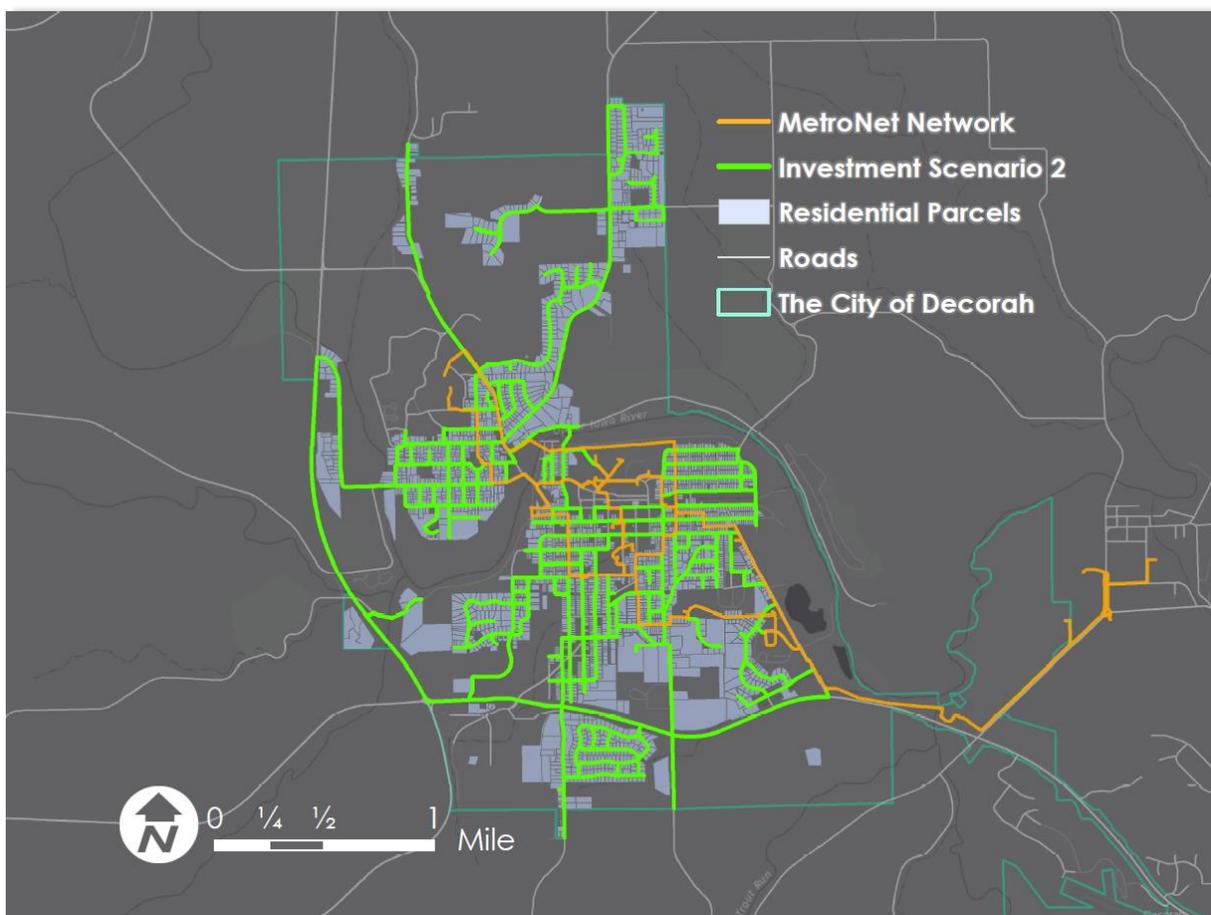
# Financial Analysis





# UNFEASIBLE SCENARIO

## SCENARIO 2



### Residential Decorah

- Miles of fiber added: 38
- Total expansion cost: \$5.5 million

### Financially Unfeasible

- Grant: \$1.6 million
- Gap: **\$4.2 million**

# FEASIBLE SCENARIOS

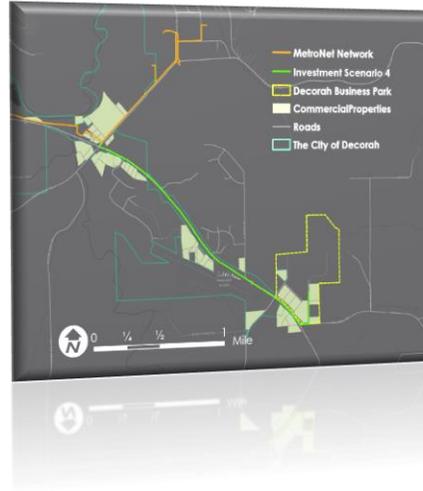
## SCENARIO 3



### **Downtown Decorah Businesses**

- Fiber added: 6 miles
- Expansion cost: \$900,000

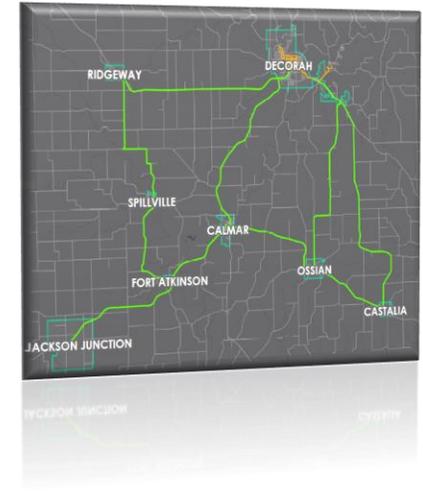
## SCENARIO 4



### **Decorah Businesses Park**

- Fiber added: 2.5 miles
- Expansion cost: \$345,000

## SCENARIO 5



### **Greater Winneshiek County**

- Fiber added: 85 miles
- Expansion cost: \$11 mil.

# SCENARIO EVALUATION



Number of residents served



Number of businesses served



Number of community partners

## Evaluation Criteria



Cost of construction



Cost per user served



Amount of available funding

## Residential Decorah

**UNFEASIBLE**  
FOR DECORAH METRONET

Scenario 2

## Downtown Decorah Businesses

Scenario 3

## Decorah Business Park

Scenario 4

## Greater Winneshiek County

Scenario 5

Awards for criteria\*

= "Best Fit"

= Good

= Poor

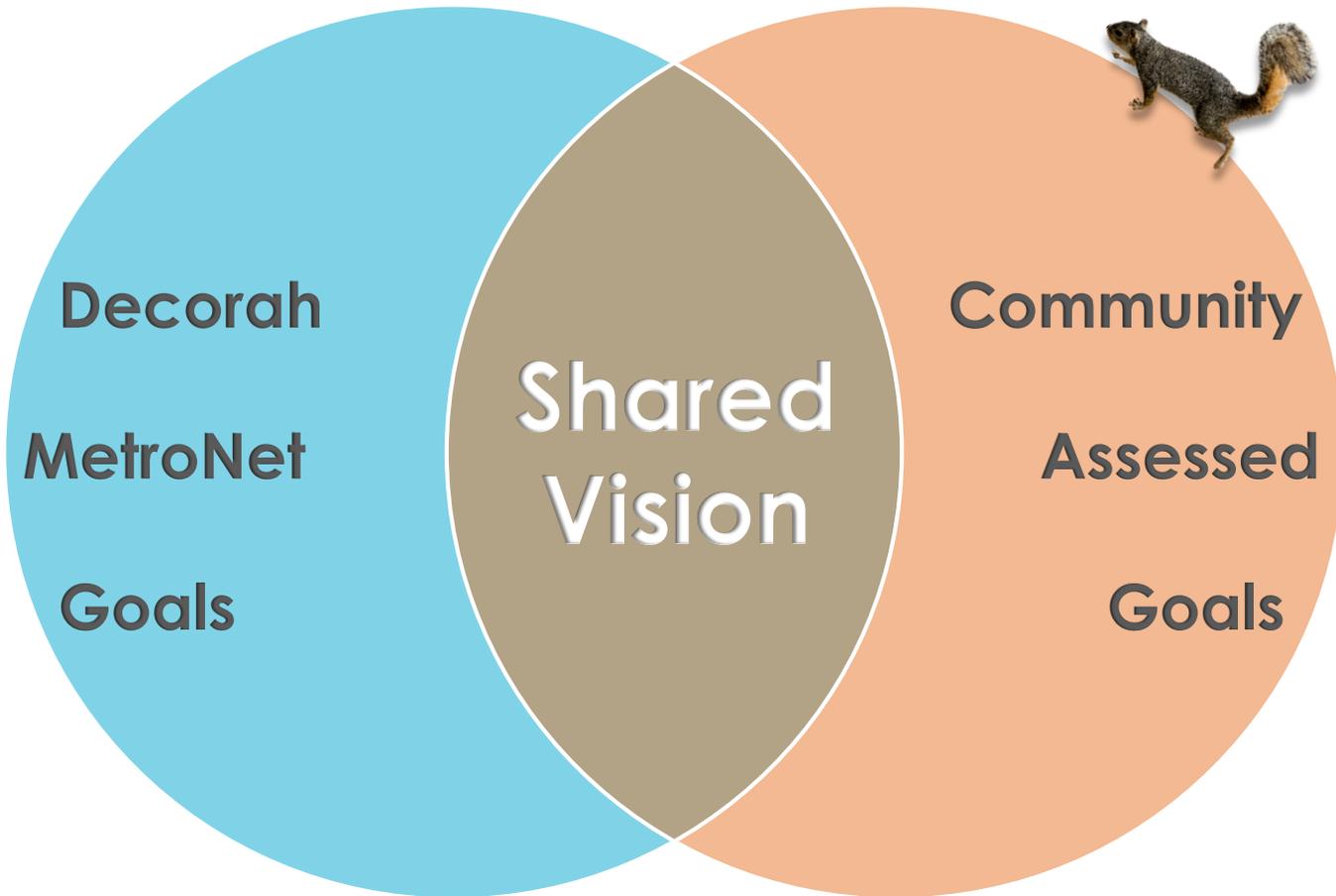
= N / A

# FINAL RECOMMENDATIONS

- ✓ Amend 28E agreement
- ✓ Adopt open access policy
- ✓ Adopt a cash reserve policy
- ✓ Establish IRU rate
- ✓ Amend government/planning documents
- ✓ Best fit scenario = Downtown Decorah Business (#3)
- ✓ Greatest indirect potential= Greater Winneshiek County (#5)



# IMPLEMENTATION PLAN



## Contents

- Goals
- Action Items
- Priority Levels
- Suggested Participants
- Performance Measures

# IMPLEMENTATION PLAN

## Implementation Plan Decorah MetroNet Goals

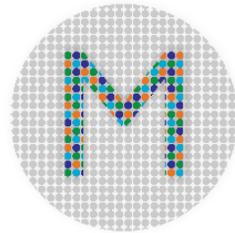
### 2. Collaborate with other organizations to promote economic development

Priority	Action Item	Summary	Duration	Suggested Participant(s)	Performance Measure
High	Create a grant writing team to apply for grant funding	Grant fund is essential to cover initial network construction costs. An interdisciplinary team should be assembled to apply for the maximum amount of funding available per scenario.	0 - 1 year	DMN, City of Decorah, Winneshiek County, and other interested community agencies	A team of professionals from economic development, education, healthcare, and community development sectors should be convened in the next 6 months. A list of 5 prioritized grants should be identified and pursued.
Medium	Establish a connection with the Decorah Area Chamber and Winneshiek County Development Inc.	Establishing a connection with the area economic development organizations (EDO) could help inform the board of economic development opportunities and inform the EDOs of DMN plans.	0 - 1 year	DMN, Decorah Area Chamber, & Winneshiek County Development, Inc.	Has the DMN Board and EDOs established positions on each others' board or other type of connection?

*\*The full implementation table will be provided with the final report*

# Thank You

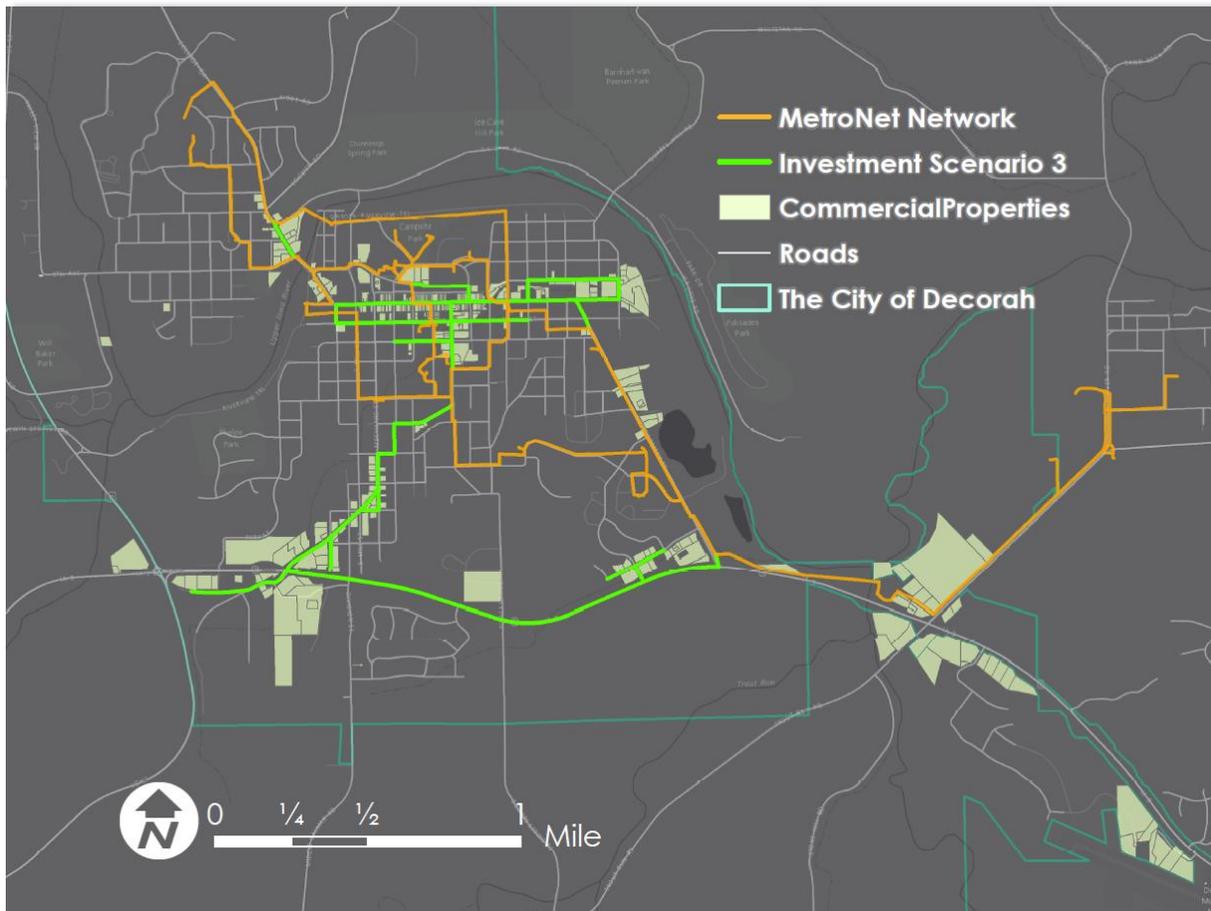
Questions?



# Appendix

- Scenario Descriptions
- Decorah MetroNet Organizational Model
- Decorah MetroNet Tiered Organizational Model

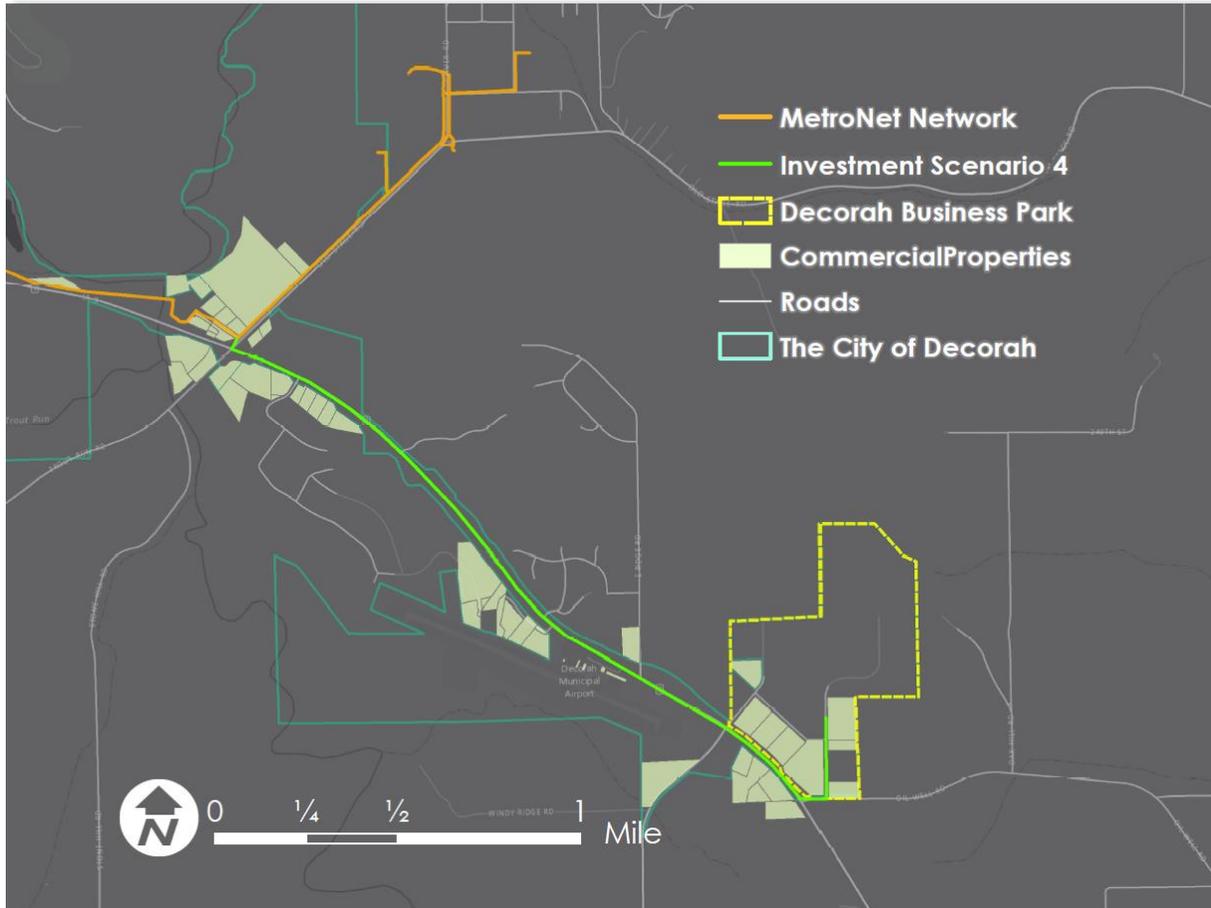
# SCENARIO 3



## Downtown Decorah Businesses

- Miles of fiber added: 6
- Total expansion cost: \$900,000
- Target: Businesses within Decorah City Limits

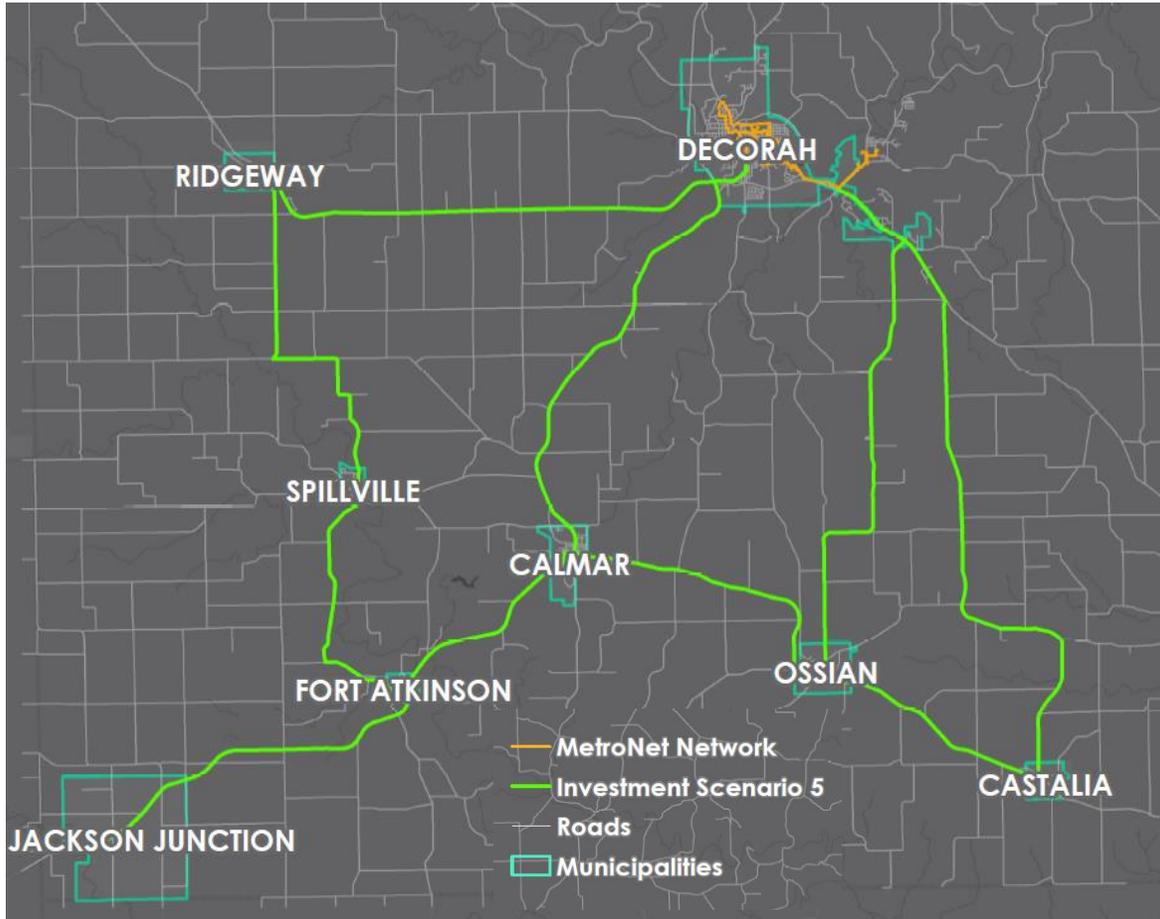
# SCENARIO 4



## Decorah Business Park

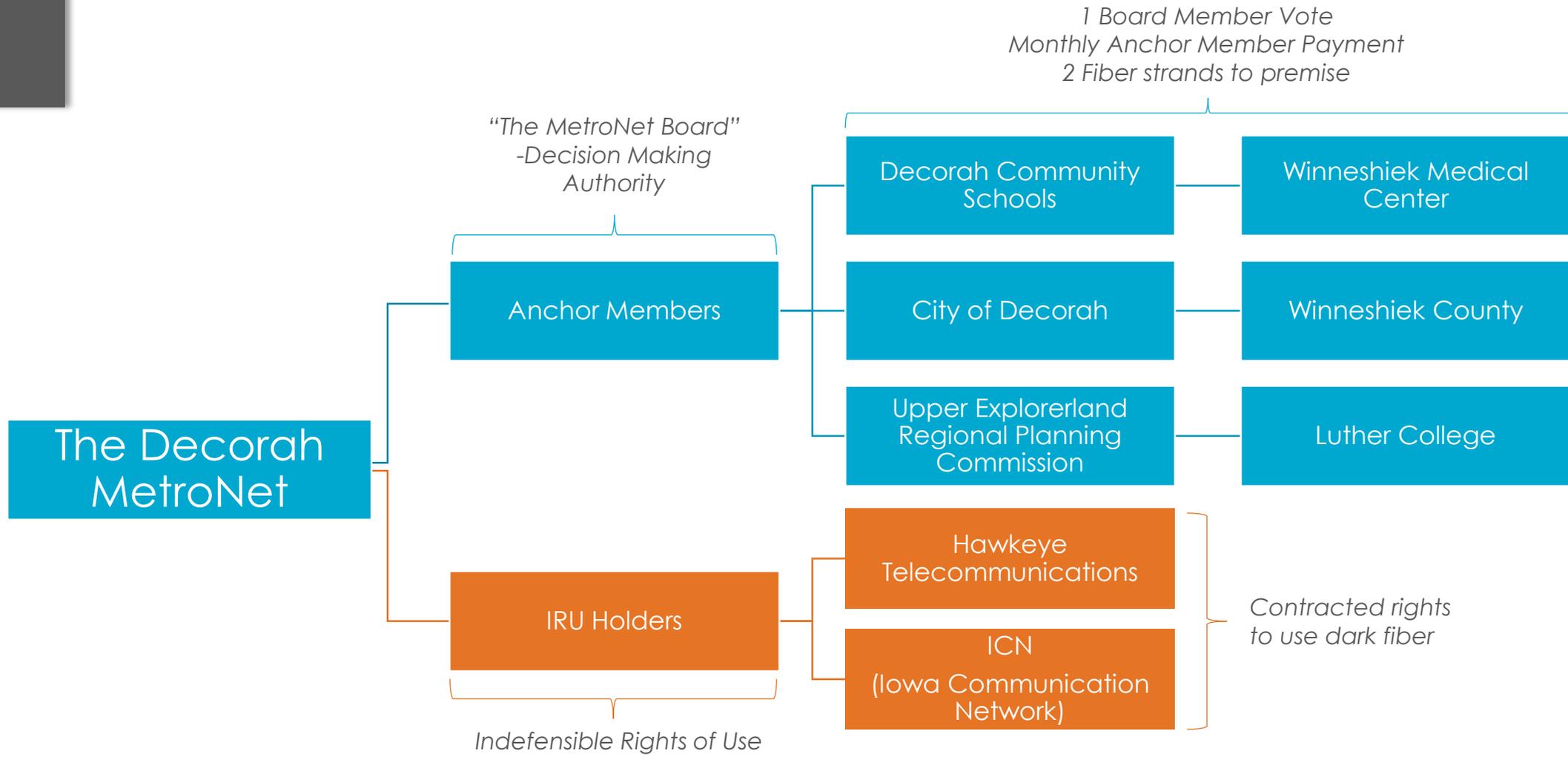
- Miles of fiber added: 2.5
- Total expansion cost: \$345,000
- Target: Businesses within the Decorah Business Park

# SCENARIO 5

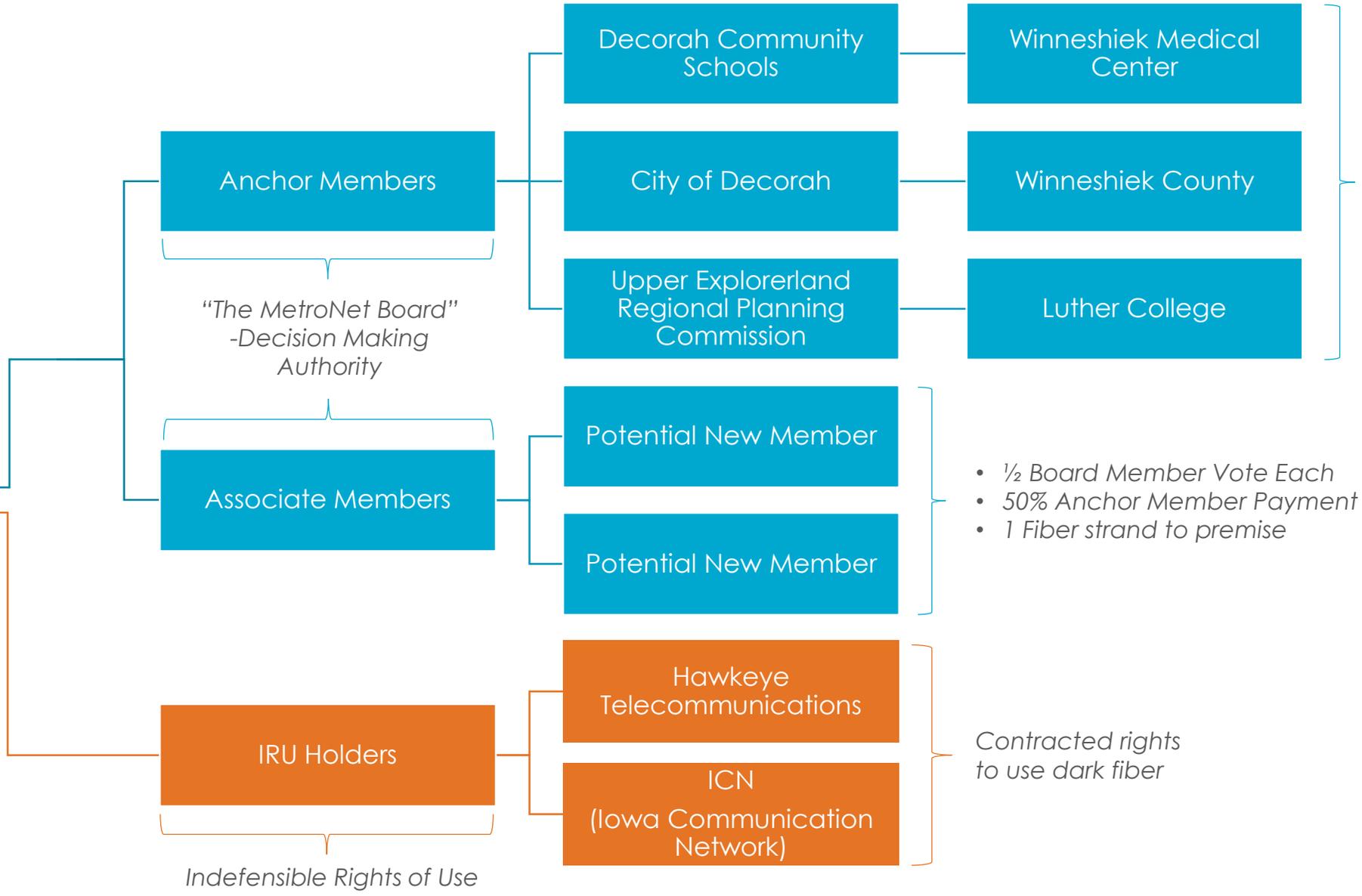


## Greater Winneshiek County

- Miles of fiber added: 85
- Total expansion cost: \$11,000,000
- Target: Municipalities of Winneshiek County



# The Decorah MetroNet



- 1 Board Member Vote
- Anchor Member Payment
- 2 Fiber strands to premise

- 1/2 Board Member Vote Each
- 50% Anchor Member Payment
- 1 Fiber strand to premise

Indefensible Rights of Use