



**Ithaca Area
Economic
Development**

**Ithaca/Cayuga Data Juice – Broadband
Connectivity Project**

**Request for Proposals to Design, Build, and
Operate a Middle Mile Fiber Optic Network**

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Responses due: November 22, 2021 – 5pm EST

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I. Introduction

Ithaca Area Economic Development (IAED) seeks a qualified partner to build, maintain, and operate a middle mile fiber optic network for use by Ithaca-area companies, internet service providers, and other stakeholders.

The selected partner is expected to be responsible for the installation of the infrastructure as well as the upkeep and operations of the network. Once the network is established and in operation the partner will be responsible for marketing and leasing services over the network, with negotiated fees paid to IAED based on the contractual agreements between IAED and its selected partner.

IAED is working closely with Cayuga Data Juice (formerly Cayuga Operating Company), a subsidiary of Heorot Power Management. Cayuga Data Juice is planning to build a regional data center that – along with broadband providers and other institutional clients – is expected to be a potential client of this infrastructure.

II. Background

As communities in New York seek to modernize their economies, high-speed internet connection is proving to be a necessity. IAED, a 501(c)(6) economic development organization, is actively engaged in developing initiatives to improve broadband internet in the Ithaca area for purposes of economic and other development.

In 2020, IAED was awarded a grant from the Appalachian Regional Commission (ARC) to deploy approximately 17 miles of fiber optic cable from Ithaca to the retired Cayuga Operating Company coal plant in Lansing to facilitate redevelopment of the plant.

Cayuga Data Juice and Tompkins County Development Corporation committed \$350,000 and \$50,000 respectively in matching funds (for a total budget of \$800,000), to further develop the economy of the County through investments in broadband internet infrastructure and those industries adjacent to it.

IAED now seeks a partner who can use these funds to build the fiber network and will sell commercial connectivity services on the network.

Specifically, the Cayuga Data Juice–Broadband Connectivity project is an approximately 17-mile, 100 Gbps, middle mile fiber broadband trunk extension from the Guthrie healthcare campus on Hanshaw Road or an alternative location in Ithaca to the recently retired Cayuga coal plant in Lansing. The project will serve both residents and private industry, with special emphasis on the Cayuga Operating Company’s planned data center and its users. IAED expects to implement a revenue-sharing agreement once the network is operational.

See Appendix A for a conceptual high-level map of the backbone fiber path.

III. About the Ithaca Area, IAED, and Cayuga Data Juice

The Ithaca metropolitan area consists of Ithaca City, the Town of Ithaca, the Village of Cayuga Heights, and other towns and villages that make up Tompkins County. It is also a part of the Cortland-Ithaca Combined Statistical Area, which in addition to Tompkins also includes Cortland County.

Ithaca has residential cable service in most urban areas and scattered around the densest areas of Tompkins County, and fixed wireless connectivity is available in many parts of the County. The region – and the County as a whole – struggles with access to high-speed future-proof infrastructure that can meet the needs of a modern economy.

More than 100,000 people live in the Ithaca metropolitan area. The area’s employment is dominated by the education services sector as the area is home to Cornell University (with about 23,000 students) and Ithaca College (with about 5,400 students).¹ The area boasts a highly educated population with at least 57 percent of residents above the age of 25 holding at least an undergraduate degree.² While median income skews lower than the rest of the state of New York, this is largely attributable to the high number of students, who have low income levels but are robust consumers of broadband services.

Cayuga Operating Company, the owner of the decommissioned power plant in Lansing, is a subsidiary of Heorot Power Management. The company is currently converting the plant into a regional data center. The Cayuga Data Juice middle mile project is designed to connect the data center to the points of presence of a variety of carriers in the region.

The data center will allow the region to take advantage of higher broadband capacity and access to advanced cloud services. It is hoped that the winning respondent will facilitate more extensive high-capacity coverage for the region’s residents and businesses – either by further expanding the middle mile infrastructure or by enabling last mile providers to do so.

It is expected that Cayuga Data Juice will negotiate a separate agreement with the awardee as a preferred customer.

IV. Project Scope and Awardee Tasks

IAED’s selected partner will build, maintain, and operate key networking infrastructure, which will at minimum encompass the approximately 17-mile fiber optic route from the Guthrie healthcare campus on Hanshaw Road or an alternative location in Ithaca to the Cayuga coal plant in Lansing.

¹ <https://www.cornell.edu/about/facts.cfm>, <https://www.ithaca.edu/admission/undergraduate-admission/discover/ithaca-college-glance>

² <https://www.newyorkfed.org/regional-economy/profiles/ithaca>

The IAED contribution shall be no more than the project-allocated \$800,000. Respondents may propose additional buildouts of the middle mile fiber to reach businesses and residences at their own cost.

It is expected that the respondent will offer a variety of services of its own selection over the middle fiber on both a wholesale and retail basis, including wavelengths and managed services.

The awardee will:

- Design and build the middle mile fiber, which at minimum will encompass the 17-mile route, including installing:
 - fiber
 - conduit (if any underground construction is required)
 - pole attachments (for aerial fiber)
 - optical splitters
 - terminals
 - cabinets
 - hubs
 - fiber taps
 - any other passive equipment necessary to support communications networking
- Fund, design, install, operate, and maintain all necessary equipment for the network, including:
 - all access electronics (optical line terminal, customer premises equipment, and switches)
 - distribution electronics (switches and routers)
 - core electronics (switches, routers, and firewalls)
- Provide timely, accurate progress reports to IAED monthly to enable IAED to understand the status of deployment and such other information as may be requested by the project manager assigned by IAED. Following the construction period, the awardee will provide bi-annual reports to IAED certifying that the network is being maintained to industry standards applicable at that time.
- Provide to IAED a project plan prior to beginning construction that will include a timeline, milestones, and a payment schedule.
- Secure any required permits. IAED can work actively with the awardee to facilitate permitting and related efforts if needed or desired. IAED expects much of the right-of-way to be on State roads – depending on the route chosen and designed by the awardee.
- Promote, market, sell, and deliver services over the network to enterprise, ISP, and wireless

internet service provider customers, as well as deliver other retail and wholesale connectivity services, including to the Cayuga Data Juice data center and its users. IAED expects the awardee and the Cayuga Data Juice to negotiate a mutually beneficial agreement to cross-promote each other’s services. IAED will publicize the route through its regular channels to its constituent business community, and to potential institutional clients such as the colleges in the area.

- Throughout the course of the Term, maintain and upgrade fiber and equipment.

V. Proposed Partnership Model

IAED is open to a variety of partnerships and business models. It expects to own all or part of the middle mile fiber and seeks a revenue-sharing arrangement for services the awarded partner sells to its customers.

IAED’s preferred model for the partnership is summarized in the draft term sheet attached as Appendix B, though IAED is open to alternative models that still meet its goals. IAED requests that respondents to this RFP answer the following questions regarding their proposed partnerships:

- Who will own the various elements of the network, including laterals and other infrastructure built in addition to the contemplated middle mile fiber?
- What is the respondent’s commitment regarding financial contributions to the proposed build?
- What kind of leasing and/or revenue sharing arrangement does the respondent propose?

VI. Contract Process and Management

The contract period for the construction phase is anticipated to be 12 months. Payment will be made upon receipt of monthly invoices based on tasks completed. IAED will administer the contract.

IAED anticipates the following project schedule:

RFP release	Friday, October 8, 2021
Question deadline Questions should be directed to: Kurt Anderson Ithaca Area Economic Development KurtA@IthacaAreaED.org	Monday, November 1, 2021 – 5pm EST
Question responses published to IAED website as addendum to this RFP	Friday, November 5, 2021 – 5pm EST

<p>Proposals due</p> <p>Proposals should be submitted in electronic format to: Kurt Anderson Ithaca Area Economic Development KurtA@IthacaAreaED.org</p>	<p>Monday, November 22, 2021 – 5pm EST</p> <p>IAED may reject any proposals submitted later than this deadline</p>
<p>Bidder interviews (potential)</p> <p>IAED may choose to interview any or all bidders, or may proceed immediately to contract award or negotiations</p>	<p>During the week of December 6, 2021</p>
<p>Selection announcement</p>	<p>Wednesday December 22, 2021</p>
<p>Contract negotiation</p>	<p>Subsequent to the selection announcement – estimated for mid-January</p>
<p>Project initiation</p>	<p>Within two weeks of contract execution</p>

VII. Submission Requirements and Evaluation Criteria

Bidders should submit the following information, via email, no later than 5pm EST on Wednesday, November 24, 2021, to KurtA@IthacaAreaED.org:

1. Company description and background
2. Management team resumes
3. Resume of project manager committed for this project
4. Technical approach, describing how you will carry out the tasks contemplated
5. Project proposal, including phasing, proposed construction in addition to backbone route, timeline, and deliverables
6. At least three references for projects similar to the proposed project that have been successfully completed in the past 10 years
7. Detailed contact information for at least three references
8. Proposed fees to IAED
9. Proposed partnership model (Section V)
10. Proposed variations to the draft term sheet (Appendix B: Draft Term Sheet), if any
11. Other information the bidder would like IAED to consider

Proposals will be evaluated based on the following criteria:

1. Bidder experience
2. Bidder management team experience
3. Bidder committed timeline

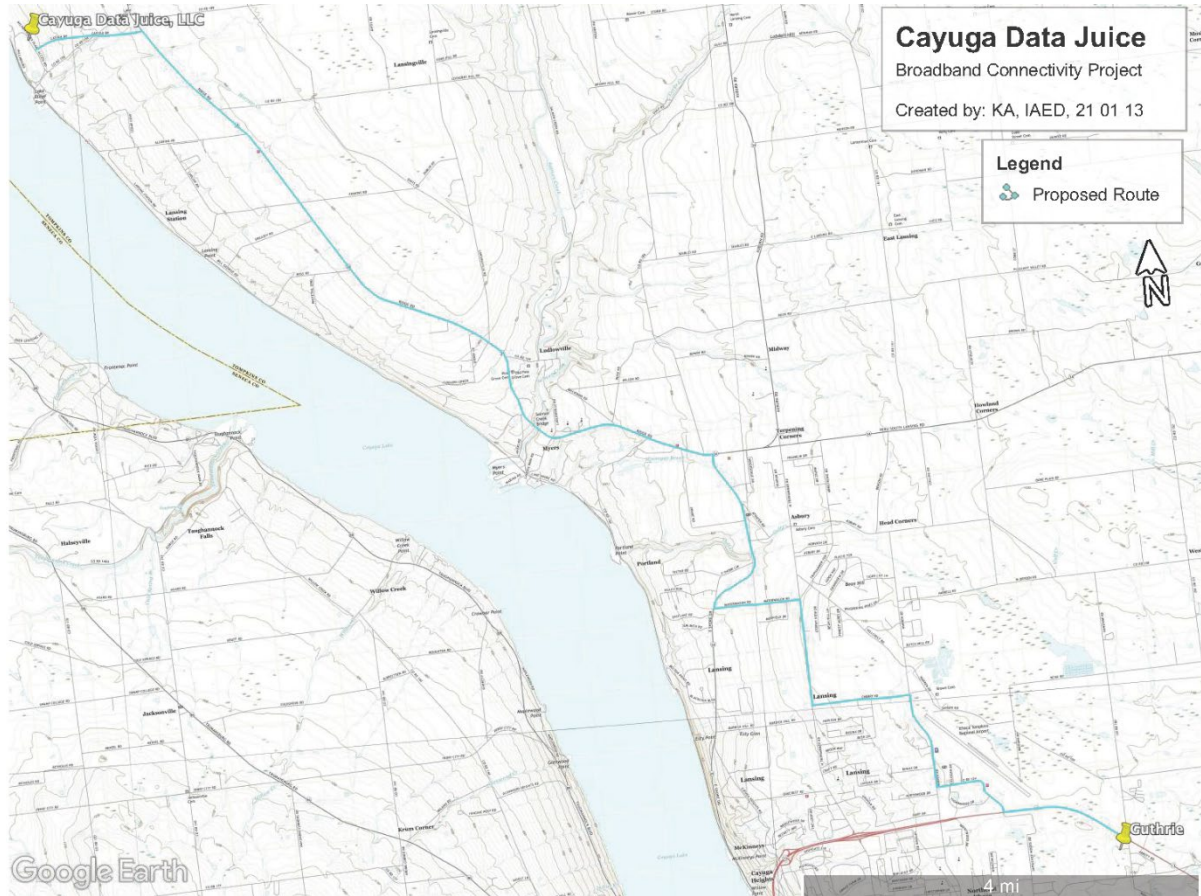
Request for Proposals

4. Extent of proposed construction in addition to backbone route
5. Partnership model
6. Proposed fees

IAED reserves the right to reject any or all proposals and to negotiate with any bidder.

Appendix A: Example Map of Proposed Fiber Network

Figure 1 - Example Route Design



Appendix B: Draft Term Sheet

Ithaca/Cayuga Data Juice Middle Mile Connectivity Project

Partnership Term Sheet

This DRAFT Term Sheet (“Term Sheet”) presents a summary of key business terms for the Ithaca/Cayuga Data Juice Middle Mile Connectivity Project (“Project”) for the purpose of providing a global overview of the Project, including the roles of the key parties involved. The various relevant agreements (“Project Agreements”) between the company selected as partner (“Partner”) and Ithaca Area Economic Development (IAED) is expected to reflect these key business terms. All assumptions in this Term Sheet are preliminary in nature and are subject to change.

1. IAED shall pay to Partner the sum of \$800,000 to design, build, and maintain a middle mile fiber (“middle mile”) network capable of delivering best-in-class services (“NewNet”) and will lease NewNet to Partner for a term of ____ years (“Term”) under the Project Agreements, which shall include an Indefeasible Right of Use (“IRU”) or other mechanism to be agreed upon by the parties.
2. NewNet will traverse a route from Ithaca to the Cayuga Power Plant. An example route is illustrated in Appendix A: Map of Proposed Fiber Network”.
3. During the Term, IAED shall provide Partner with an exclusive IRU for the entirety of NewNet. Partner shall have exclusive use and opportunity to commercialize NewNet for the length of the Term.
4. The payment described in Paragraph 1 shall be subject to approval of this partnership by the Appalachian Regional Commission, which is providing a grant that will provide some of the funding for this initiative.

NETWORK ELEMENTS

1. NewNet will be the property of IAED.
2. Partner will retain IRU control in NewNet throughout the term of the agreement
3. NewNet will include, without limitation:
 - fiber
 - conduit (if any underground construction is required)
 - pole attachments (for aerial fiber)

- optical splitters
 - terminals
 - cabinets
 - hubs
 - fiber taps
 - and any other passive equipment necessary to support communications networking over NewNet
4. NewNet will not include the active equipment necessary to light and operate NewNet or to provide services over NewNet.
 5. Partner will fund, design, install, operate, and maintain all necessary equipment to light NewNet (“Partner Equipment”) and to deliver services over NewNet. Partner will own all Partner Equipment.
 6. Partner Equipment includes all access electronics (optical line terminal, customer premises equipment, and switches), distribution electronics (switches and routers), and core electronics (switches, routers, and firewalls) required for the transport of data between each customer and the internet.

NETWORK CONSTRUCTION

7. Partner will complete construction of NewNet within 12 months after the execution of the Project Agreements with IAED.
8. The selected network access technology and design will be capable of delivering best-in-class backhaul, enterprise, and other carrier-grade service and capable of scaling over time, through upgrades to electronics, to meet evolving industry standards for state-of-the-art services to enterprise and ISP customers.
9. Partner will be responsible for coordination with applicable state and local permitting authorities, utility pole owners, and other utilities to obtain access to rights of way, and easements needed for construction and equipment installation, and maintenance. IAED will use commercially reasonable efforts to work with local governments and utility pole owners to meet Partner’s needs and facilitate reasonable permitting and construction to the greatest degree possible.
10. All additional costs associated with Partner’s obligations under this term sheet and the resulting Project Agreements will be the responsibility of Partner only.
11. During the construction period, Partner will provide timely, accurate progress reports to IAED monthly to enable IAED to understand the status of deployment and such other

information as may be requested by the project manager assigned by IAED. Following the construction period, Partner will provide bi-annual reports to IAED certifying that NewNet is being maintained to industry standards applicable at that time.

12. Prior to beginning construction, Partner will provide to IAED a project plan ("Plan") that will include a timeline, milestones, and a payment schedule. IAED may at its discretion assign a project manager to work with Partner on the Plan and to review and verify progress on the Plan during the phases of the project, including to approve progress payments.
13. Partner will provide an experienced and able management team to design, build, operate, and maintain the proposed network.
14. Partner will only hire qualified and licensed construction firms and personnel to perform design and construction tasks. Preparation and installation activity will be supervised by Partner and equipment vendor personnel to ensure compliance to standard safety and installation practices, and to allow for hands-on training of installation and maintenance personnel. Partner will require contractors, subcontractors, and staff to adhere to federal, state, and local regulations, codes, and standards for electrical and other work, and to comply with all relevant provisions of federal, state, and local law, codes, and standards. All contractors and subcontractors of Partner will be required to maintain minimum insurance coverage deemed acceptable to IAED. All work paid for with NewNet funds provided by the Appalachian Regional Commission will conform to all appropriate payment requirements of IAED's agreement with the Appalachian Regional Commission.
15. Partner may determine the optimal network design and configuration for NewNet. Partner will determine how to build NewNet, subject to the Project Plan process described above and IAED oversight/approval, such approval not to be unreasonably withheld. IAED will have opportunity to review and approve the detailed designs of the Partner, including physical fiber and network electronics components, to ensure the designs reflect the requirements of the Project Agreements.
16. IAED will pay Partner on a reimbursement basis for achievement of agreed-upon milestones in the Project Agreements and Project Plan. IAED will have the option to test and inspect facilities constructed for each milestone in advance of providing payment.
17. All costs to design, build, maintain, and operate NewNet that are not covered by the amount specified in paragraph 1 shall be the sole responsibility of Partner. All costs for Partner Equipment will be the sole responsibility of Partner.

END OF TERM CONTROL

18. Following the end of the Term or in the event of termination of the Project Agreements to be signed between the parties, all control over NewNet will be transferred to IAED.

19. Following the end of the Term or in the event of termination of the Project Agreements to be signed between the parties, IAED will have the right to purchase all Partner Equipment using a predefined valuation mechanism, such as purchase value/installation cost net of depreciation, such that IAED can select another partner to operate NewNet or do so itself.
20. In consideration of the exclusive IRU for NewNet, Partner agrees to pay IAED during the Term a fixed quarterly fee of \$_____ (“Fixed IRU Fee”) and/or a variable quarterly fee of _____ (“Variable IRU Fee”).

NETWORK OPERATIONS AND SERVICES

21. Partner will promote, market, sell, and deliver broadband data services over NewNet to enterprise and ISP customers throughout the NewNet Service Area. Partner may also promote, market, sell, and deliver other connectivity services over NewNet.
22. Partner will provide services over NewNet to all willing and creditworthy customers on a non-discriminatory basis.
23. Throughout the course of the Term, Partner will make financial investments to maintain and upgrade Partner Equipment and will provide services and service quality standards that are equal to or better than what Partner provides in other areas.

NEXT STEPS

24. The Parties agree to jointly explore the potential to expand NewNet further, based on mutually agreeable terms. Expansion of NewNet would be designed to enable new business opportunity by Partner and regional economic development by IAED.
25. The Parties contemplate that the Project Agreements, including the IRU, between IAED and Partner will be negotiated within 60 to 120 days following agreement on these terms.
26. Any assignment or delegation of any rights or obligations under the terms of the Project Agreement and IRU between the parties shall be subject to the approval of IAED.