Fiber & Business
Eastport Fiber Connectivity Initiative (EFCI)

14 February 2023

Rules of the Road

This is a structured, informal conversation

- **Hold your questions 'til the end**
  - Write them down so you remember them, and can submit them if they aren't addressed in the limited meeting time

- This is our first business-focused conversation - **more detail will come** as we continue the process

Outcomes for Today

- Understand the Eastport Fiber Connectivity Initiative

- Understand the benefits of fiber optic Internet access

- Understand the path we're on and general timeline

- Know where to find committee agenda/minutes
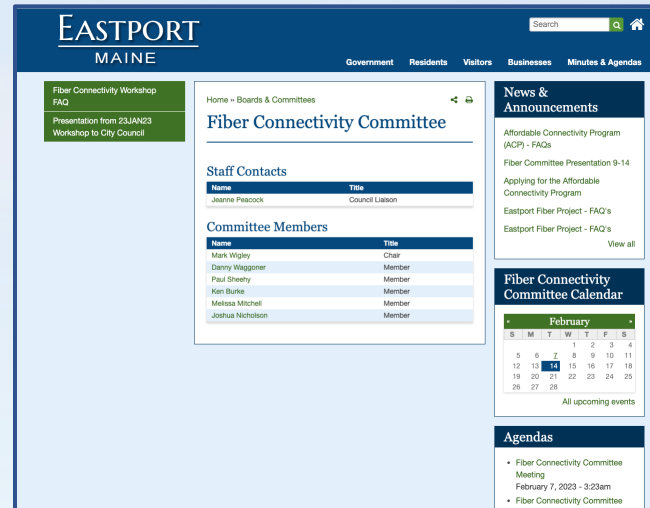
- Know about: fiber survey, speed test

Eastport Fiber Optic Connectivity Committee (EFCI)

Fiber connectivity committee members:

- Ken Burke - vice chair/secretary
- Melissa Mitchell
- Josh Nicholson
- Paul Sheehy
- Mark Wigley – chair

Council liaison

- Jeanne Peacock

https://www.eastport-me.gov/fiber-connectivity-committee

History Repeating Itself

- 1800's U.S. Government wisely invested in **cross-country rail system**

- 1930's U.S. Government invested in **Rural Electrification Act** that brought electricity to every corner of the country

- 1950's President Dwight D. Eisenhower invested in the **Interstate Highway System**

- Now, in the 21st Century, the U.S. is investing in **High-Speed Symmetrical Fiber Broadband Internet**

The need is here. The money is available. The time is NOW.

Why fiber, why now?

When compared to cable, fiber generally:

- Offers **greater bandwidth** than copper cables of the same diameter

- Has **faster speeds** – about 70% of the speed of light with less degradation than cable

- Can **carry signals farther** than copper cable

- Is **more reliable** – immune to temperature, weather, and moisture

- Doesn't carry a current so **not effected by electromagnetic interference** (EMI)

- Is **thinner and sturdier** – withstands more pull pressure than copper, less prone to damage & breakage

- Offers **flexibility for the future**

- Has a **lower total cost** of ownership (TCO)

EFCI Mission

To provide access to **community-driven**, **affordable**, **end-to-end fiber optic-based** Internet connectivity providing **fast, tiered, reliable, <u>symmetrical upload and download</u>** to all residents and businesses

- **Symmetrical**: Same upload (Maine to the world) and download (world to Maine) speeds

- **Tiered**: Multiple offerings providing specific upload/download speeds and pricing to help users select the best cost/performance option for their needs

Eastport Fiber Objectives

- Implement an **end-to-end fiber optic network** providing "future-proof" access for the next 60-75 years
    - *Optical Network Terminals determine system throughput, can be upgraded without touching the fiber*

- **Engage, educate, and involve** residents and businesses from the start

- **Symmetrical (upload/download) performance (**1 GB or better top tier)

- **Tiered services** packaging **cost** and **symmetrical upload/download speeds**

- **Customers select** the best cost/performance option to meet their needs

- Obtain **grants to minimize Eastport costs** (planning, community engagement, implementation, etc.)

- **No local tax impact** to residents   Tax

Eastport Fiber Objectives

- Leverage **state and federal programs** to reduce access costs for qualifying residents
    - Affordable Connectivity Program (ACP)
- **Service Level Agreement (SLA)** with Internet Service Provider (ISP) partner to provide **high availability and performance** regardless of weather, time of day, system maintenance etc.
- **Firm partner commitment to a completion timeline**
- **Eastport-owned infrastructure**
- **Transparency** and **engagement** as the plan matures
- **Out-year revenue** to the City of Eastport once any loans/bonds are paid off
- **Council vote** approves the plan, authorizes partner contract & grant submission
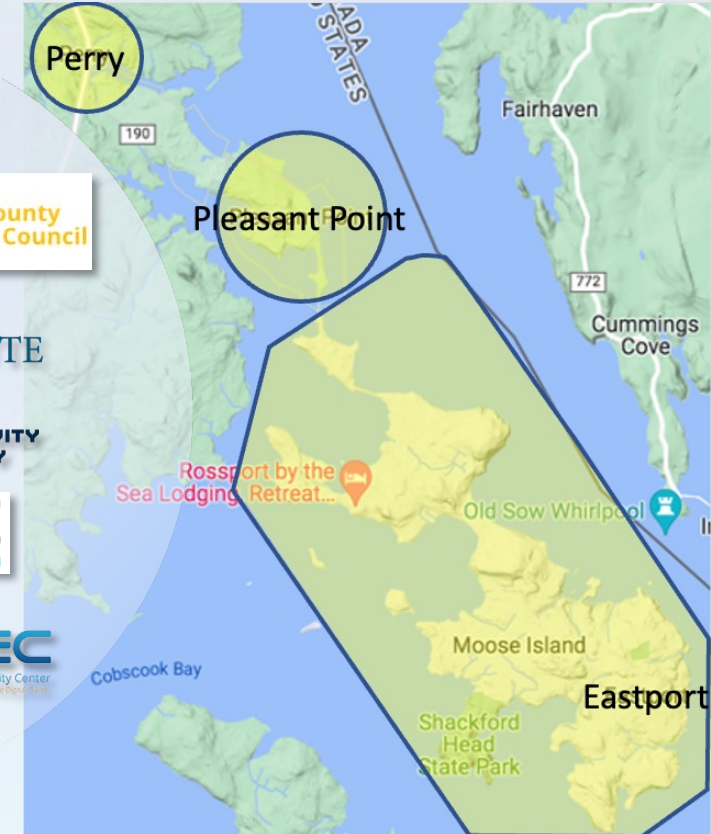
Misconceptions

- Residents/businesses will be *forced* to give up their current ISP
  - **<u>No</u>. If you're happy with your current service/ISP, you can keep it**
- Eastport has to pay ISPs for loss of business with migration to fiber
  - **<u>No</u>. The loss of customers to Eastport Fiber is just the nature of business**
- Eastport faces costs approaching $10M
  - **<u>No</u>. We don't have final costs but current estimates are much lower**
- The only way to pay for Eastport participation is by raising taxes
  - **<u>No</u>. By working with a partner where Eastport owns the infrastructure and receives a monthly percentage of every subscription fee, we can pay off any loans without effecting taxes. The system pays for itself.**
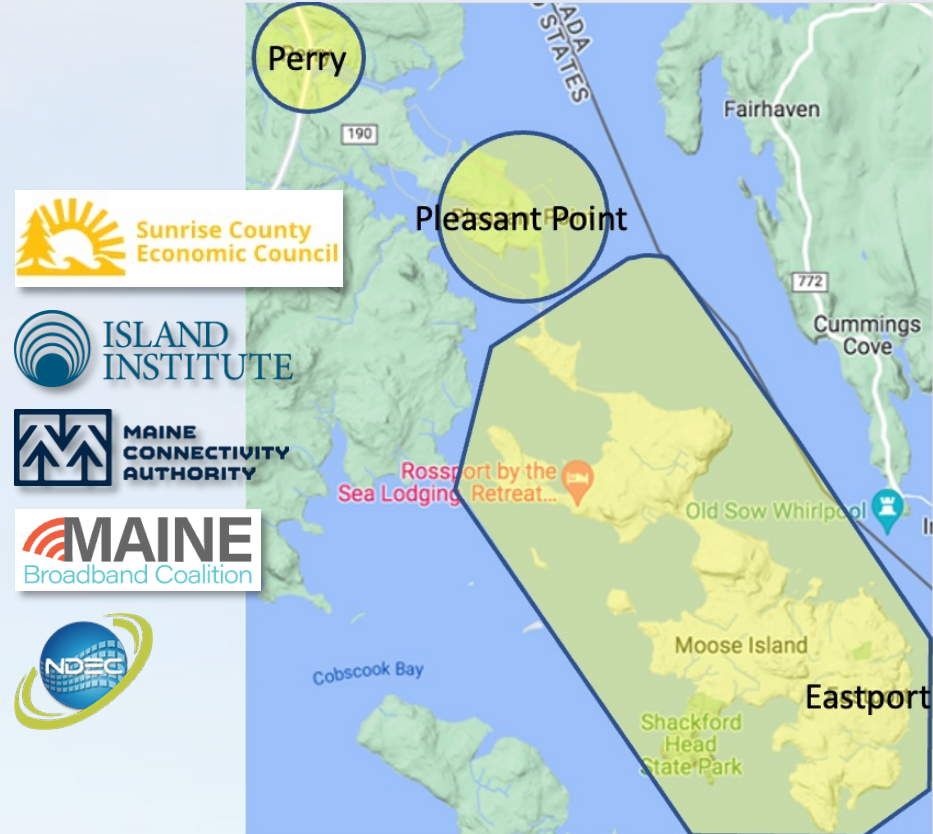
Stakeholders: We're not in this alone

- **Sipayik and Perry – collaborating on fiber initiative**

- Eastport **City Council & government**

- Eastport **residents, schools, and businesses**

- **Sunrise County Economic Council**

- **Island Institute**

- **Maine Connectivity Authority** (MCA)

- **Maine Broadband Coalition**

- **National Digital Equity Center (NDEC)**

- **Industry partner candidates** (ISP: Internet Service Providers)

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- **National Digital Equity Center (NDEC)**

- **Potential Industry partners (installation, support, ISP)**

Planning & Community Engagement Grants

- Island Institute planning grant $ 5,500
  - Eastport matching funds (ARPA) $ 5,500

- Maine Connectivity Authority "Get Ready" grant $10,000

                                               Working Total: $21,000

PLANNED SPEND

$2500 National Digital Equity Center (NDEC) <mark>Digital Equity and Inclusion (DEI) plan</mark>
$4200 Community engagement, education, communications
$1500 Broadband survey
$2000 supporting equipment for event recording/video/communications
                                               Total: $10,200 [$10,800 uncommitted]

ISPs in the Running

- Axiom

- Downeast Broadband Utility (DBU)

- Fidium (Consolidated Communications)

- Spectrum (Charter Communications)

Implementation Cost Planning Estimate

- **Desktop survey** numbers from Pioneer Broadband (no cost to city)
  - Metrics required for grand submission (Connect-the-Ready(
  - Full engineering survey conducted once grant received
  - Reasonably accurate

- Initial cost estimate to begin exploring gap funding options

- Communities averaging +/- 75% of total cost via MCA grant process

- Eastport should plan to cover 25% of implementation cost

Implementation Cost Planning Estimate

- Pioneer Broadband desktop survey: $1,755,929
  - Every house
  - Every small business

- Other costs: $175,600

$1,931,529
Total

$482,882
25% not grant funded

$482,882
Gap

Implementation Cost Planning Estimate

- Pioneer Broadband desktop survey: $1,755,929
  - Every house
  - Every small business

- Other costs: $175,600

- DBU buy-in
- Administration
- System management
- Maintenance
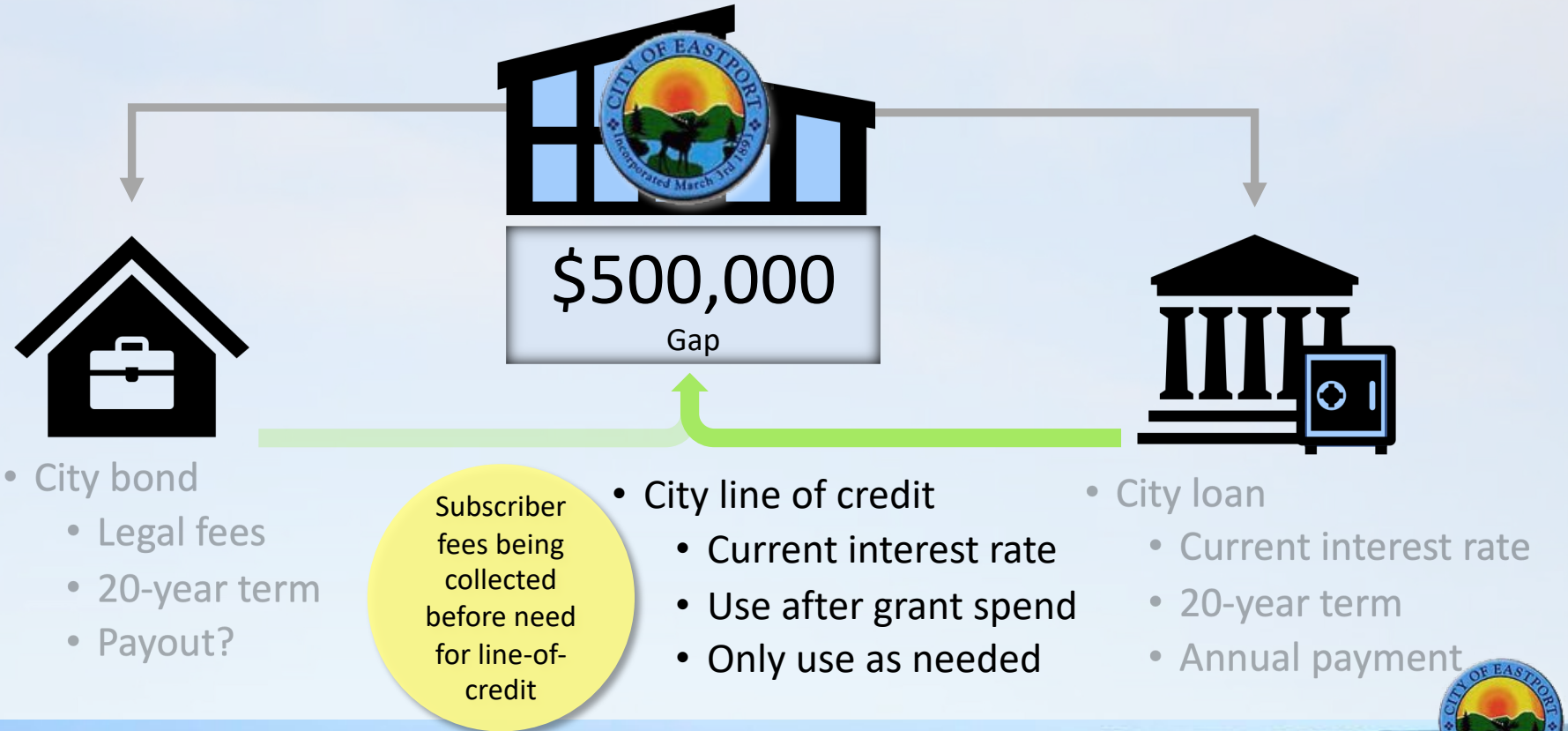- Legal review
- Insurance
- Debt service & city payout

$1,931,529
Total

$482,882
25% not grant funded

$482,882
Gap

Gap Funding Models

$500,000

Gap

- City bond
  - Legal fees
  - 20-year term
  - Payout?

Subscriber fees being collected before need for line-of-credit

- City line of credit
  - Current interest rate
  - Use after grant spend
  - Only use as needed

- City loan
  - Current interest rate
  - 20-year term
  - Annual payment

Business Model to Fund Gap

- Tax No tax impact

- Monthly per subscriber revenue pays loan/bond costs
  - Downeast Broadband Utility
  - Axiom

- Once loan/bond is paid, becomes recurring city revenue
  - Capital asset
  - Money to *enterprise fund* initially for fiber needs/costs only

Business Model to Fund Gap (LOC/Loan)

ISP Partner

Fiber Offer

$59/mo
Average
100/100

Business Model to Fund Gap (Loan)

ISP Partner

Fiber Offer

$59/mo
Average 100/100

12%
Take rate = 135

- Loan payment
  - $3,373/mo
  - $40,475/yr

135 x $25 = $3,375/mo; $40,500/yr

Note: Per subscriber return to Eastport: $25

Business Model to Fund Gap (Loan)

DBU model: ISP bills, collects fees, services loans with city's 25% cut

ISP Partner

Fiber Offer

$59/mo
Average 100/100

30%
Take rate = 327

- Loan payment
  - $3,373/mo
  - $40,475/yr

327 x $25 = $8,175/mo; $98,100/yr

Note:
- 1089 homes and businesses
- Per subscriber return to Eastport: $25
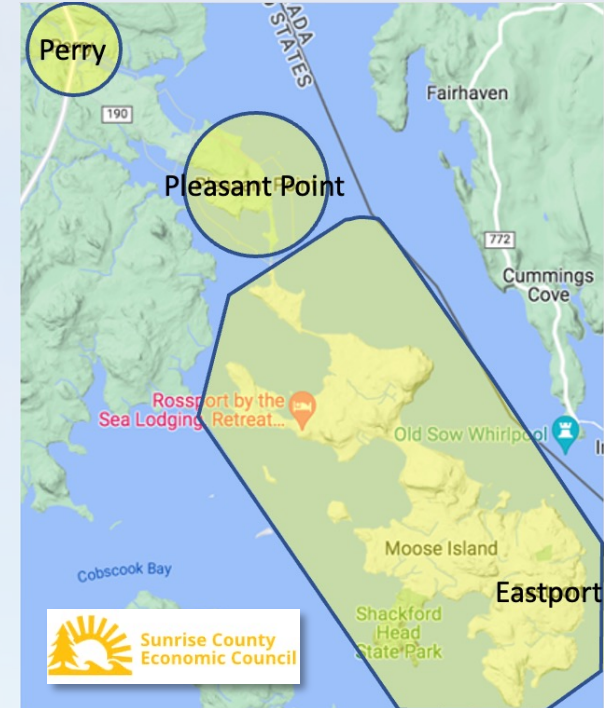- After loans paid, funds to an enterprise fund – sole initially fiber connectivity

MCA Update

- MCA providing a technology & consulting resource

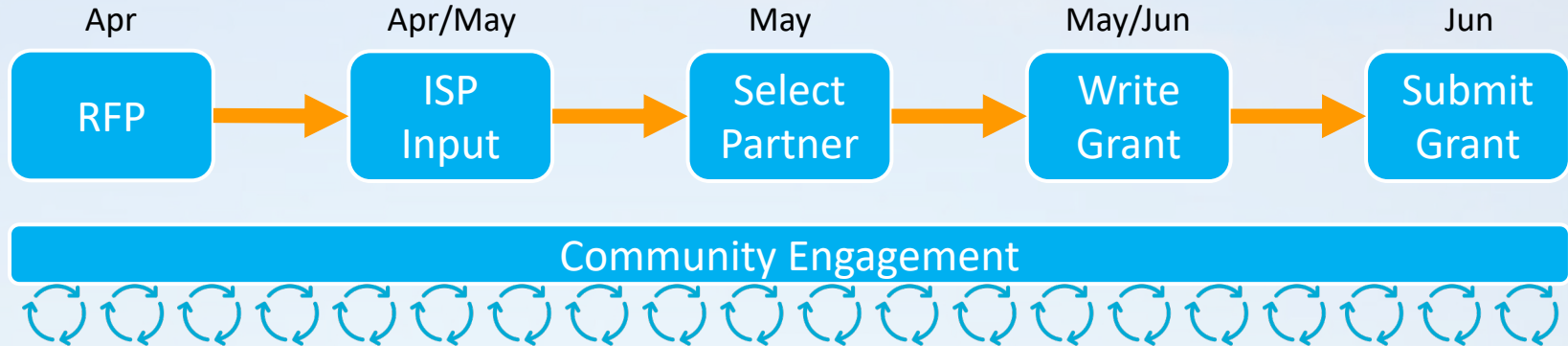- NO COST or obligation to Eastport or its residents

TILSON

- Network deployment + IT professional services & consulting

- High-level engineering design/costs to submit grant

- Request for Proposal (RFP) template to engage ISPs

Bottom Line

- **Delivers high-level design** for RFPs and Connect-the-Ready grant

- Shifts **detailed low-level engineering design/cost** into grant funding

- **Saves Eastport thousands** of dollars of RFP consulting cost

- Provides **RFP & grant request review** prior to submission

Underway

- Chamber of Commerce & business owner breakfast meeting
  - 14 February in the Port Authority
  - Update business stakeholders
    - Chamber of Commerce members
    - Traditional brick & mortar businesses
    - On-line businesses
    - Remote workers

- New Resident and Business Fiber Surveys
  - On-line
  - Paper (city hall, IGA, library, Horn Run and others)
    - Turn-in at city hall

- Coordinating first of a series of Resident events

Resident

Business

Resident Discussion & Questions

Businesses
&Residents

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END

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