

Holland Community Broadband

Business Plan Overview

Presented to City Council on March 9, 2022

Agenda

- Overview
- Rationale
- Service Description
- Financials
- Timeline

Introduction

This business plan describes how fiber-optic broadband can be expanded throughout the City of Holland to improve Internet connectivity. Recent events have shown the importance of high speed internet connectivity for our constituents. A community-level investment in future-enabling broadband infrastructure would be a step that prepares current and future generations of Holland for new opportunities that require high speed internet connectivity.

Summary

Moving Holland Forward

The City of Holland does not have ubiquitous access to reliable, high-speed broadband service. Recognizing a pressing need to raise the connectivity capability of the community as a whole, City Council made solving this a priority. Holland Board of Public Works (HBPW) and city staff were charged with creating a plan that brings equitable access to high-speed connectivity throughout the City of Holland.

The Plan

With community-level financial support, staff proposes that HBPW builds a fiber-to-the-home broadband network to every address, creating equitable access in the City of Holland. HBPW currently has backbone infrastructure for broadband in place, that primarily serves local institutions, larger businesses, multi-unit dwellings, and businesses in the downtown Holland corridor. Expanding this network, to provide access to the entire city in an equitable way, can be done sustainably and efficiently with a community-level investment.

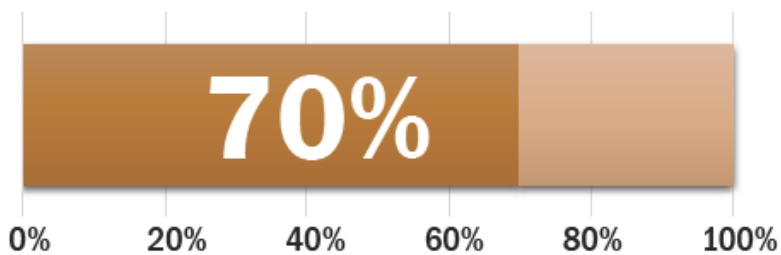
Objectives

- Establish broadband as a utility infrastructure that is available to every address in the City of Holland.
- Offer choices in providers of high speed, reliable, fiber-optic broadband in the City of Holland.
- Invest as a community in broadband infrastructure that will prepare us for the needs of future generations.
- Utilize a sustainable financial model that allows the cost of installation to be stretched over a long period of time, so that access to high-speed internet is more affordable and equitable.
- Create an open-access network that allows for a competitive internet services market.
- Provide local control over infrastructure that will enhance the quality of life, bring more opportunities and increase the value of our city.

Broadband Community Survey

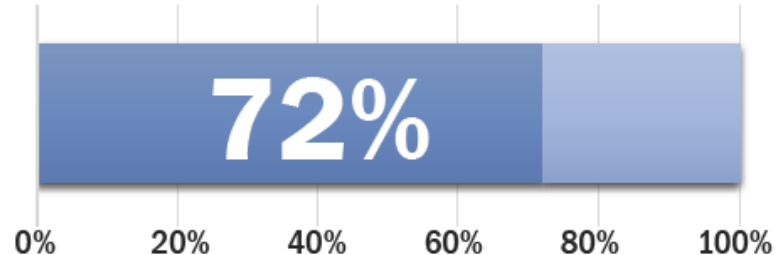
Frost Research (2020)

Broadband Is A Core Utility Service



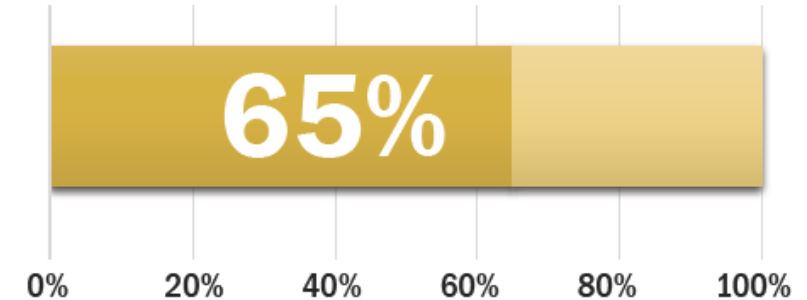
70% report that they agree broadband is a core utility service on the same level of importance to the community as water, wastewater, and electricity.

Community-owned Broadband



72% report that they agree a community-owned broadband network would significantly increase access to services and improve quality of life in the community.

Community Level Investment

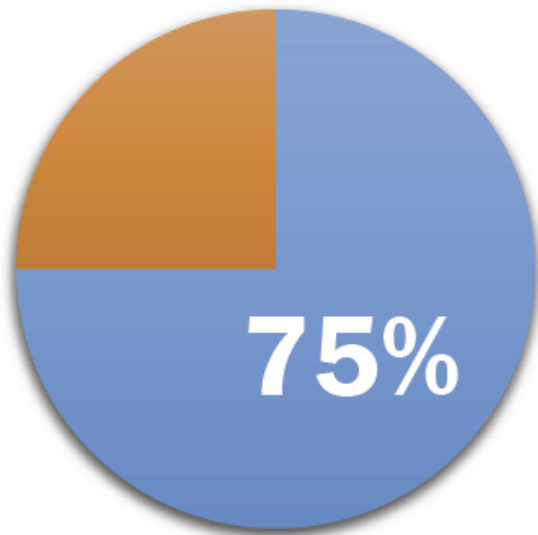


65% report that they agree a community level investment is needed to ensure sufficient broadband access by all.

Holland's Priorities

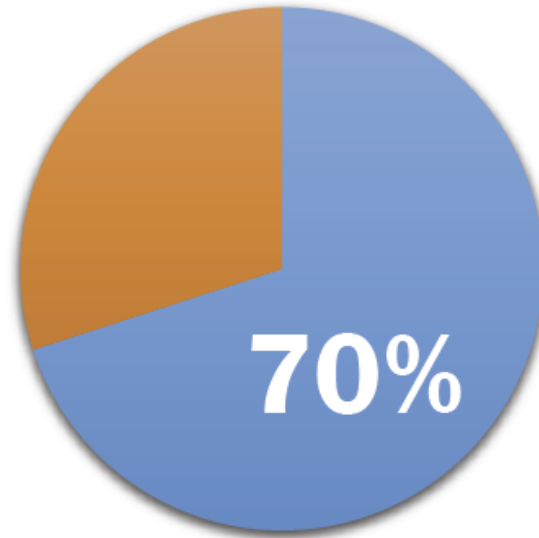
Frost Research (2020)

Ubiquitous Access



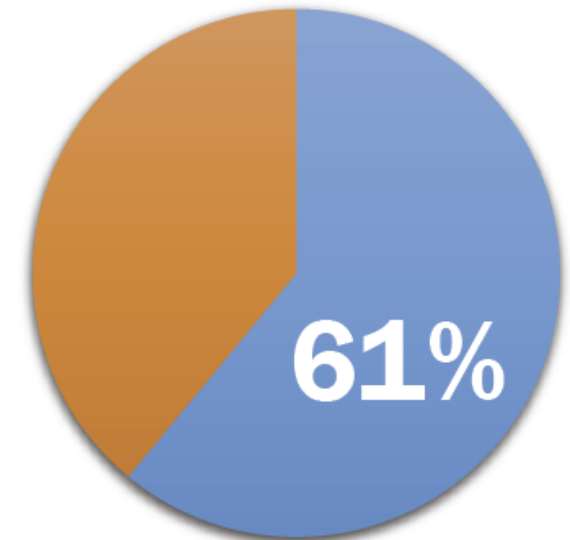
75% report that they support that all residents have access to the Internet.

Cost



70.4% report that they want lower Internet costs.

Reliability



61.1% report that they want more reliable Internet.

Local Market

- Broadband internet providers are limited in the City of Holland. Most residents have one option for broadband service.
- People in the City of Holland desire to have choices in broadband providers.
- HBPW plans to create a competitive market for broadband services by building an Open-Access Network.

Our Strengths

- HBPW is community-owned.
- HBPW has a strong reputation for providing reliable and affordable utility services.
- HBPW has over 30 years of experience building and maintaining fiber infrastructure.
- HBPW's project design is an open access network. That means that Holland BPW builds and maintains the fiber-optic infrastructure and creates a competitive market for those that provide products and services across the broadband network.

What is the project?

Holland City Fiber

- Build broadband as infrastructure in the City of Holland
- Ubiquitous (to every address)
- Fiber-to-the-premise
 - all fiber-optic cable for fastest speeds, no copper
- Open access network
 - invites competition, which can lower cost
 - increases the number of service choices



Why Open-Access?

Open-access means that Holland BPW builds and maintains the fiber-optic infrastructure and creates a competitive market for those that provide products and services across the broadband network.

Allowing a competitive market means that you could have multiple choices for products and services. Competition benefits the community by offering choice, driving prices down, and maintaining a higher standard of quality service.

Incumbent Infrastructure



Closed Broadband Networks

Municipal Infrastructure



Open Broadband Networks
or Broadband as a Utility

Why Fiber-to-the-Home?

Fiber is a worthwhile long-term investment because it sustains for decades without breaking down. Fiber infrastructure will soundly outlast copper-based systems and require far less maintenance in the process. The only thing that limits the speed is the technology that is connected to it, making fiber incredibly future-enabling.

Facts about fiber

- Future advancements in other technologies will rely on fiber
- Reliable, high-throughput, and future-proof

Fiber versus 5G wireless

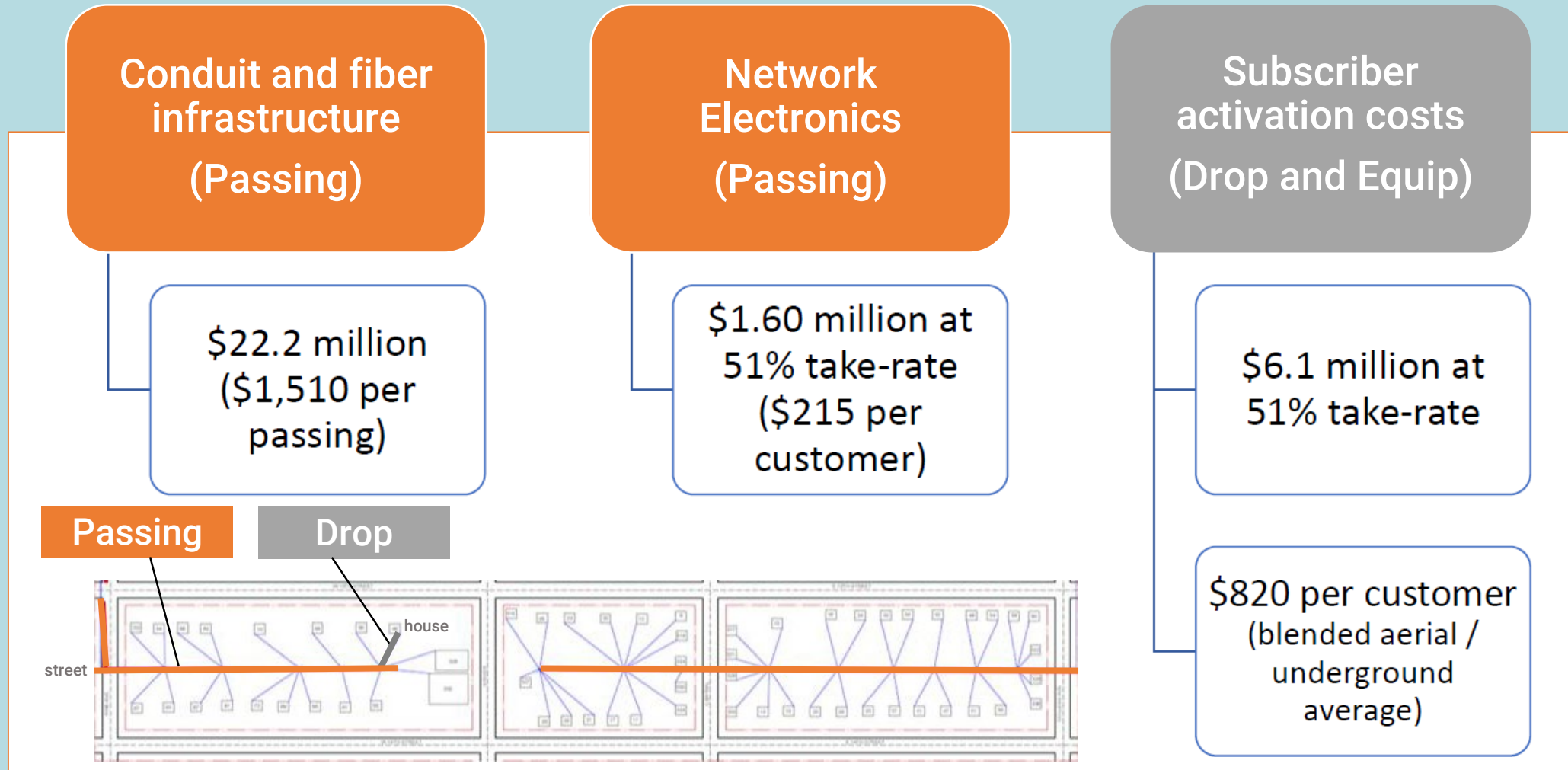
- Wireless depends on fiber-optic access
- Fiber offers high bandwidth; 5G has limited bandwidth
- Wired connections are the most reliable
- Wireless is not compatible with all types of building infrastructure

Proposed Solution

- **Ubiquitous fiber network** available to all addresses in the City of Holland.
- **The passings would be financed by a bond repaid by a millage.** This allows infrastructure costs to be recovered over an extended length of time.
- **Drops would be elective.** Customers who elect to install a drop can choose to pay up front or spread the cost over a period of time.
- **Services would be based on the cost-of-doing-business,** because Holland BPW is a not-for-profit entity.
- The model represents an **open access network** that allows competition to bring services to our community.

Infrastructure Costs

*All costs are best estimates based on 2021 CTC Cost Study.



Estimated Cost of Service

Passing – annual tax bill

Community level investment to ensure ubiquitous fiber access in the City of Holland. (Millage up to 1.5 mils)

Passing

- Fiber past the home

Drop

- Fiber to the home

O&M

- Operations and Maintenance

Service

- Internet Bandwidth

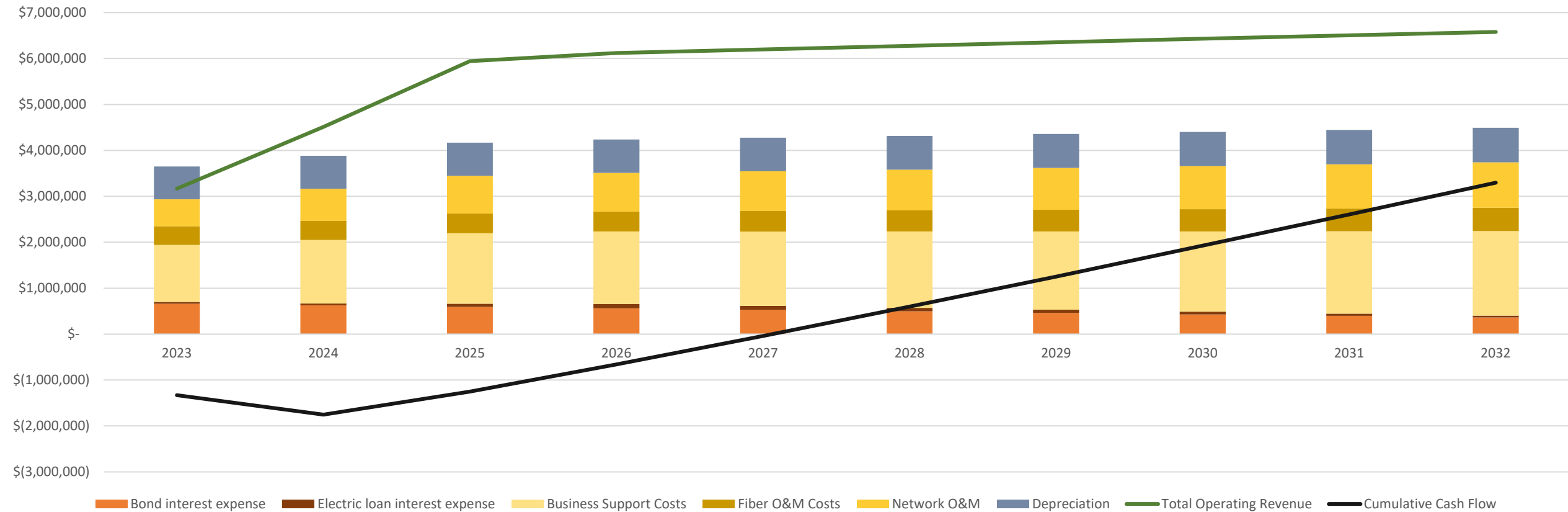
Service Cost - monthly utility bill*

<u>Cost Segments</u>	<u>\$/Month</u>
Drop	\$ 7
O&M	\$ 28
Internet Service	\$ 7
Total monthly service cost	\$ 42*

*All costs are best estimates based on 2021 CTC Cost Study.

Financial Projection

Broadband Financial Projection - Customer Phase-in - Levelized Millage

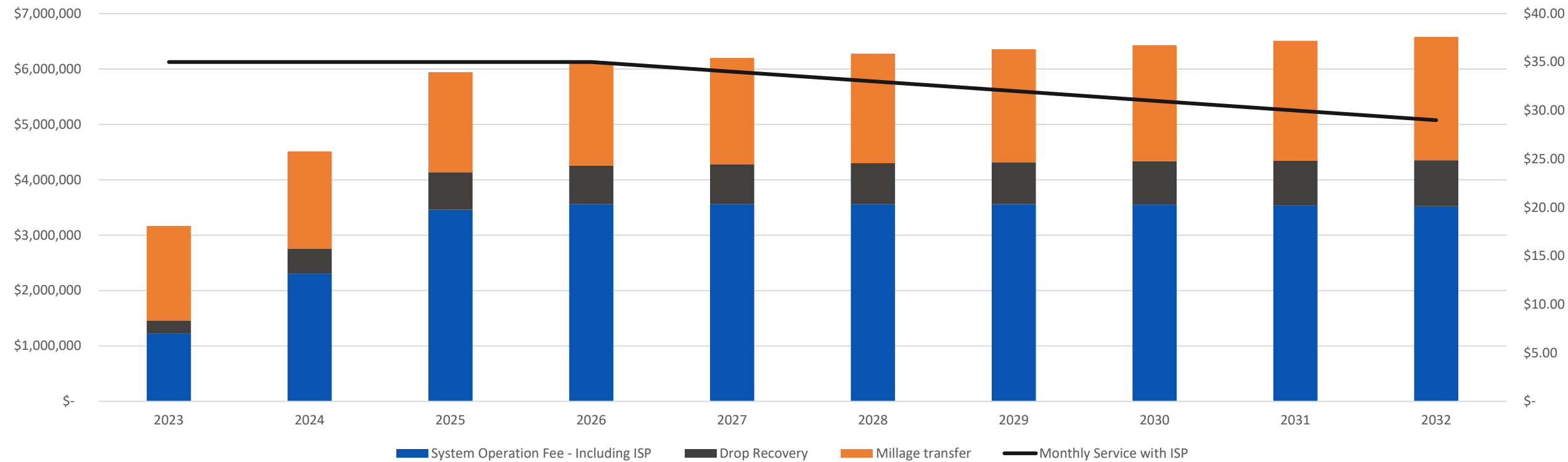


*All costs are best estimates based on 2021 CTC Cost Study plus 10% contingency.

After 10 years drop cost is complete. After 20 years Passing cost is complete. Holland BPW is not-for-profit, so revenue above expenses would be passed on to customers in the form of rate decreases.

Financial Projection

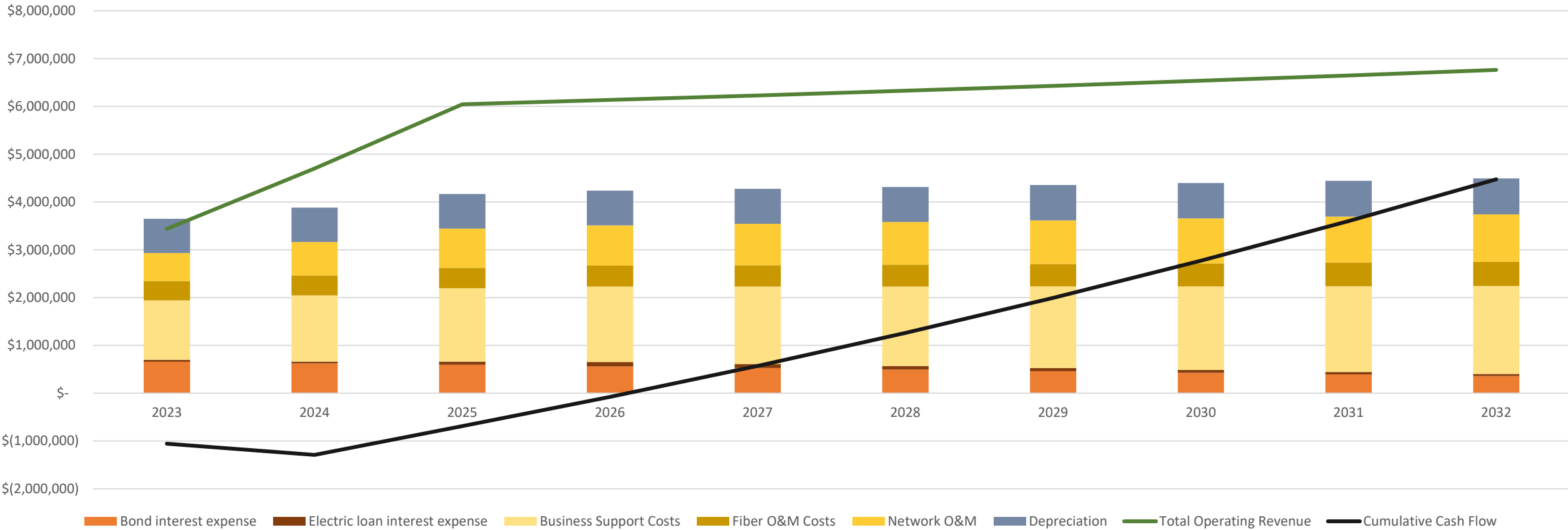
Broadband Financial Projection - Customer Phase-in - Levelized Millage Sources of Revenue



*All costs are best estimates based on 2021 CTC Cost Study plus 10% contingency. Based on levelized millage rate.

Financial Projection

Broadband Financial Projection - Customer Phase-in - Millage Tied to Bond Service

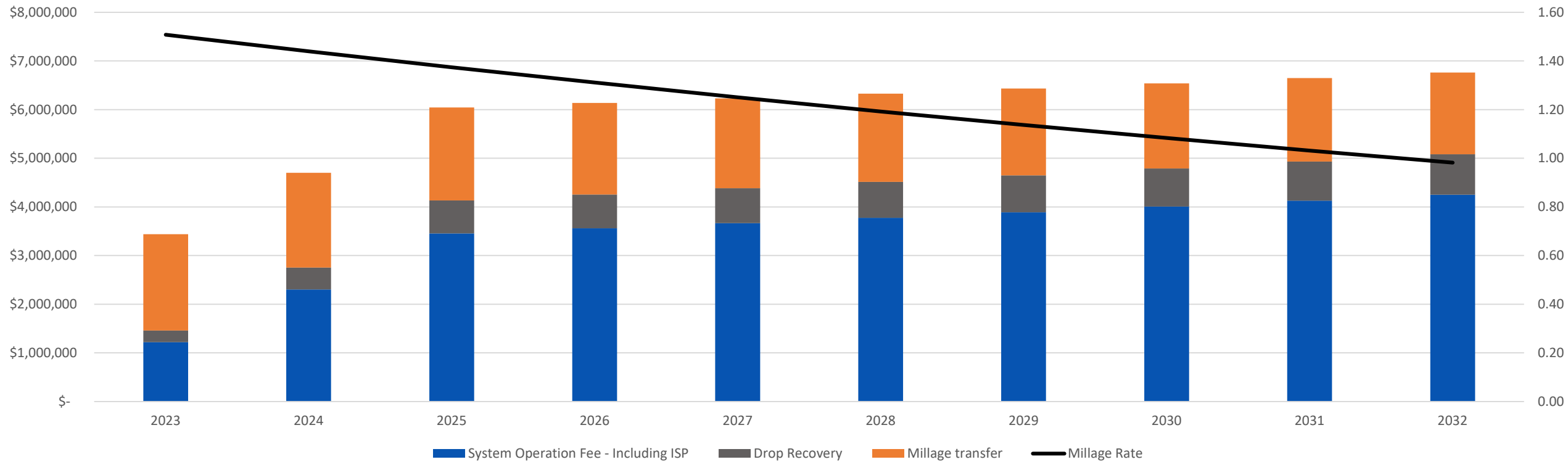


*All costs are best estimates based on 2021 CTC Cost Study plus 10% contingency.

After 10 years drop cost is complete. After 20 years Passing cost is complete. Holland BPW is not-for-profit, so revenue above expenses would be passed on to customers in the form of rate decreases.

Financial Projection

**Broadband Financial Projection - Customer Phase-in - Millage Tied to Bond Service
Millage Transfer (mils)**



*All costs are best estimates based on 2021 CTC Cost Study plus 10% contingency.

Based on a declining millage rate.

Resources

- CTC Estimate 2016
- CTC Estimate – 2021 update
- Holland Community Broadband Executive Summary

Proposed Timeline

- **April 20, 2022:** City Council Meeting
 - Approval of ballot language for millage vote
 - Approval of business plan
- **August 2, 2022:** State Primary Election
 - Broadband Millage Vote
- **Fall 2023 – Fall 2025:** Construction of fiber infrastructure
- **Winter 2023 – Fall 2025:** Service rolls out in phases as it becomes available.

*Schedule is dependent on materials and labor availability.