

# Fiber and Telecom Public Power Benefit Broadband Update

August 15, 2022

*Board feedback requested*



# Why We're Here

We have made a lot of progress delivering world class broadband services under the Public Power Benefit program.

- We added over 5,000 premises, including some remote areas of the county
- We have an overall take-rate of 45%, and growing under our partnership with local service providers
- Improved our safety posture related to construction activities and standards

# Why We're Here (cont.)

We anticipate a challenge in meeting some PPB expectations and want to take this opportunity to provide the Commission an update of the program and seek guidance on next steps.

- Program update
  - Accomplishments
  - Changes and challenges
  - Program adjustments
  - Status on targets and forecasts
- Program adjustment scenarios:
  - Consideration for change in scope, budget or schedule
- Seeking feedback and guidance
- Next steps

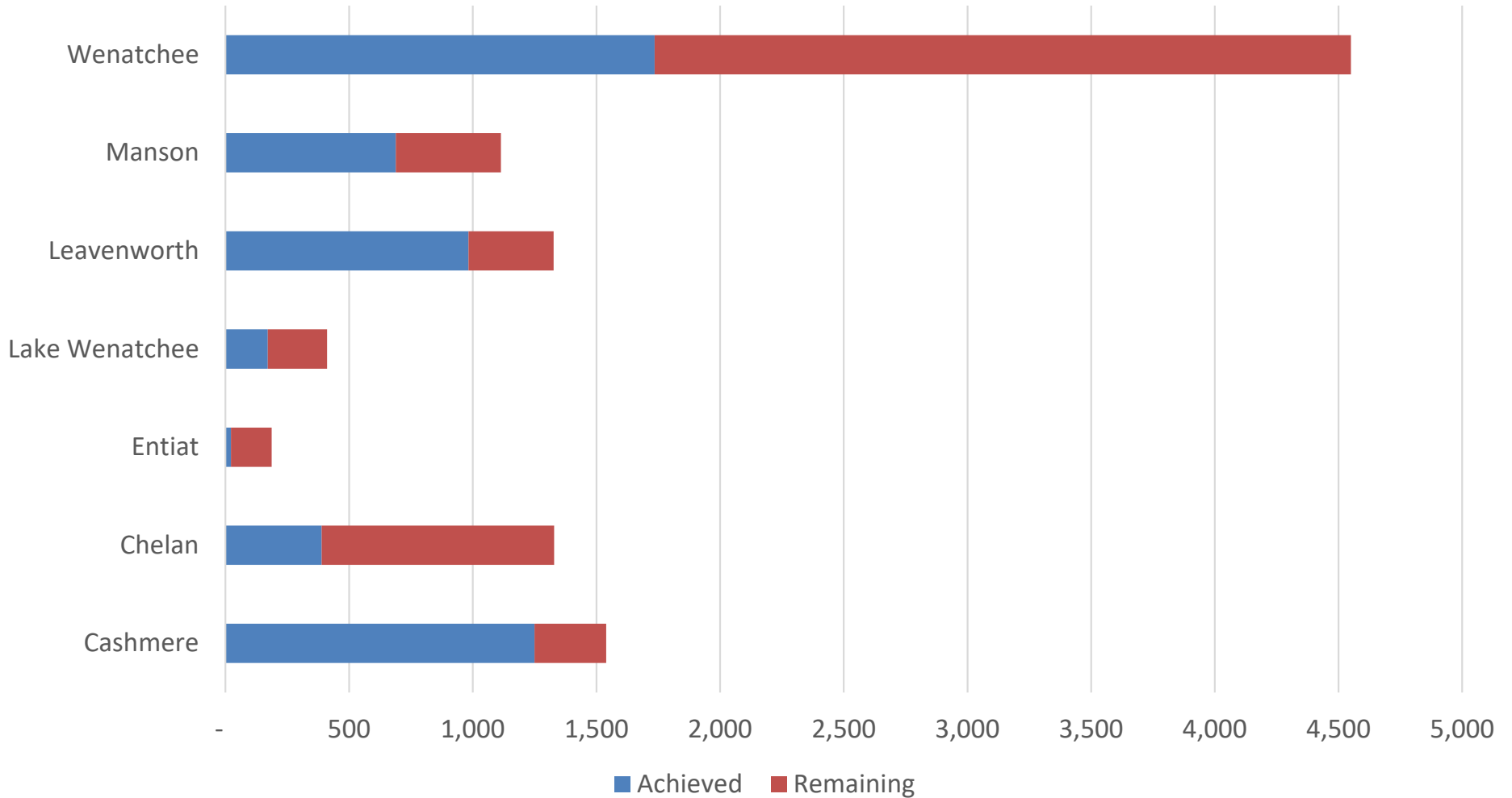
# Strategic Plan Expectations

- \$25M to increase fiber access by 9,256 additional premises
- Resulted in reaching 87% of county
  - Remaining 10-15% of the county under alternative solutions
- Completion by end of 2026, continuing into 2027 for remaining customer connections
  - Fiber Expansion Acceleration on track for completion by end of 2024
    - Leveraging contracted resources for design and construction
    - Added \$2M for project management
    - *Established the time-frame goal of 5,800 premises for 2020-2024*
      - » *Includes the 1,274 accelerated expansion premises*
      - » *Includes committed in-fill premises passed*
- Provided to our customer-owners at no additional cost

# Status Update: Inception to Date

- 5,240 premises added since 2016
  - Forecast indicates total premises passed to be 10,457
    - 1,201 additional premises over 9,256 premises
  - 76% of target for this point in program
- 79% county coverage
- Take rate
  - PPB – 45%
  - Overall system – 55%
- Funding from Public Power Benefit program - \$24.9M
  - Spent - \$11.5M
  - Allocated to tower zones - \$20.7M

# Status Update: Premises Passed Achieved through 7/31/22



# Major Expansion Efforts

- 2016
  - Blue Star Way
  - Manson Blvd
- 2017
  - Mission Creek
  - Yaksum Canyon
- 2018
  - Brender Canyon
  - Merry Canyon
- 2020
  - Eagle Creek
  - Stine Hill
  - Riverbend Dr/Alpensee Strasse
- 2021
  - Totem Pole/Banks Rd
  - Dry Lake
- 2022
  - Chumstick
- 2023\*
  - *Entiat River Rd (Middle)*
  - *Blewett Pass (Lower)*
  - *South Shore Lake Chelan*
- 2024\*
  - *Hollywood Beach*
  - *Yacht Club*
  - *First Creek Rd (North)*

*\*Forecasted Areas*

# Incorporated Changes

- Alignment with National Electrical Safety Code for pole attachments
  - Adopted new construction standards improving safety practices and adding more standardization to operations
  - Telecommunication work performed in the communication zone
    - Emphasis on maintaining a safe zone on the poles for telecom workers
- Implemented pole attachment program
  - Improving effectiveness of asset management
  - Supporting action include performing electrical make-ready work in preparation for attaching fiber
  - Funding by Fiber System of \$1.8M through 2021
- Greater awareness of property rights related to easements
  - Increased due diligence in obtaining telecommunications easements
  - Some property owners decline to sign
    - Results in a redesign or prevents serving a portion of the premises



# Challenges

- Achieving a set county coverage target is an elusive goal. County population growth is higher than expected, growth is everywhere and increasing.
  - Broadband demand is high(est)
  - Large developments adding new premises
    - Real-time response to serve
    - Most cost effective
    - Part of serving the 87%
      - Eligible for the PPB funding
- Supply chain issues on the rise
  - Fiber cable and associated hardware lead times are 2-3 times greater than typical
    - Possible impact to complete construction commitment timelines
- Increase level of effort in support of changes to construction processes for improved safety and NESC best practices

# Challenges (cont.)

- Increased impact to fiber operations for electrical-driven work since fiber and electric are co-mingled
- Increasing demand on Customer Utilities related to county growth and added load growth
  - Substation developments
  - Infrastructure builds
  - New loads
- Other emergent issues that compete for resources
  - Focus on reaching top quartile for electric distribution reliability
  - Mandated projects
  - Fire Safety Outage Management (FSOM) and related activities
  - Economic development / large load impacts

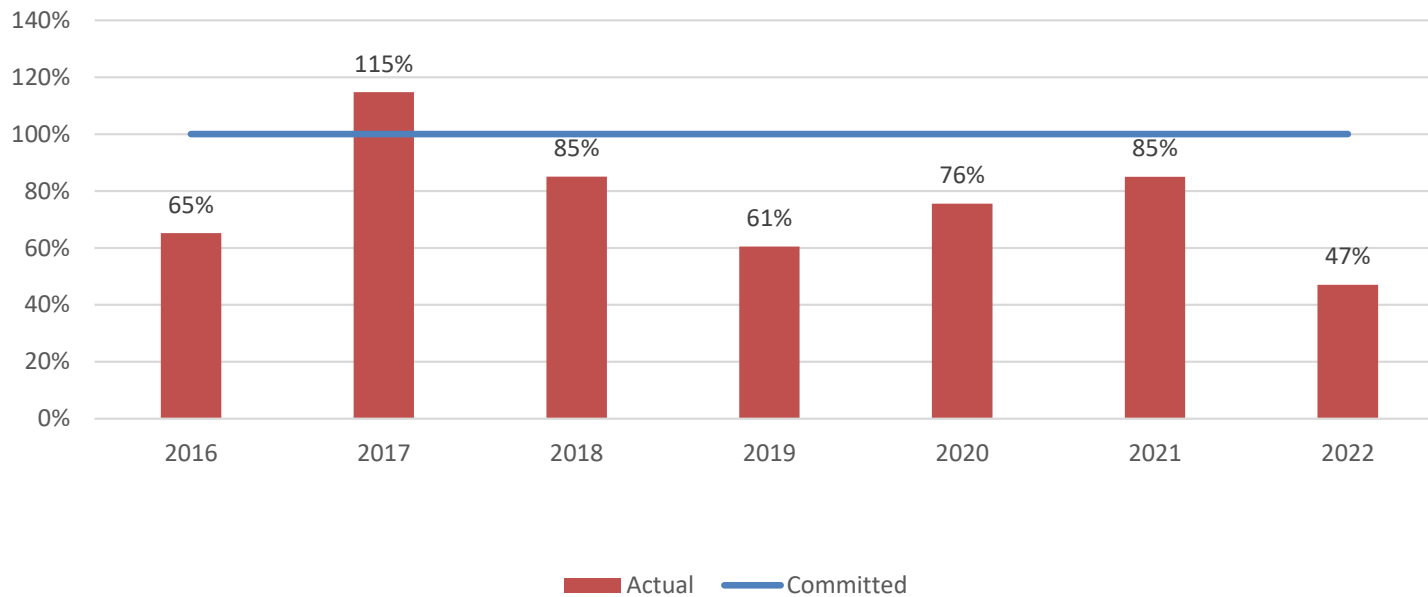
# Program Adjustments

- Constructability levels of effort considered to evenly distribute the work efforts
- Reorganization of the Communications Linemen and Customer Service Engineers into Customer Utilities
  - Utilize their processes and procedures to gain efficiencies and better alignment
  - Added 1.5 FTE Customer Service Engineers to staffing level

# Program Adjustments (cont.)

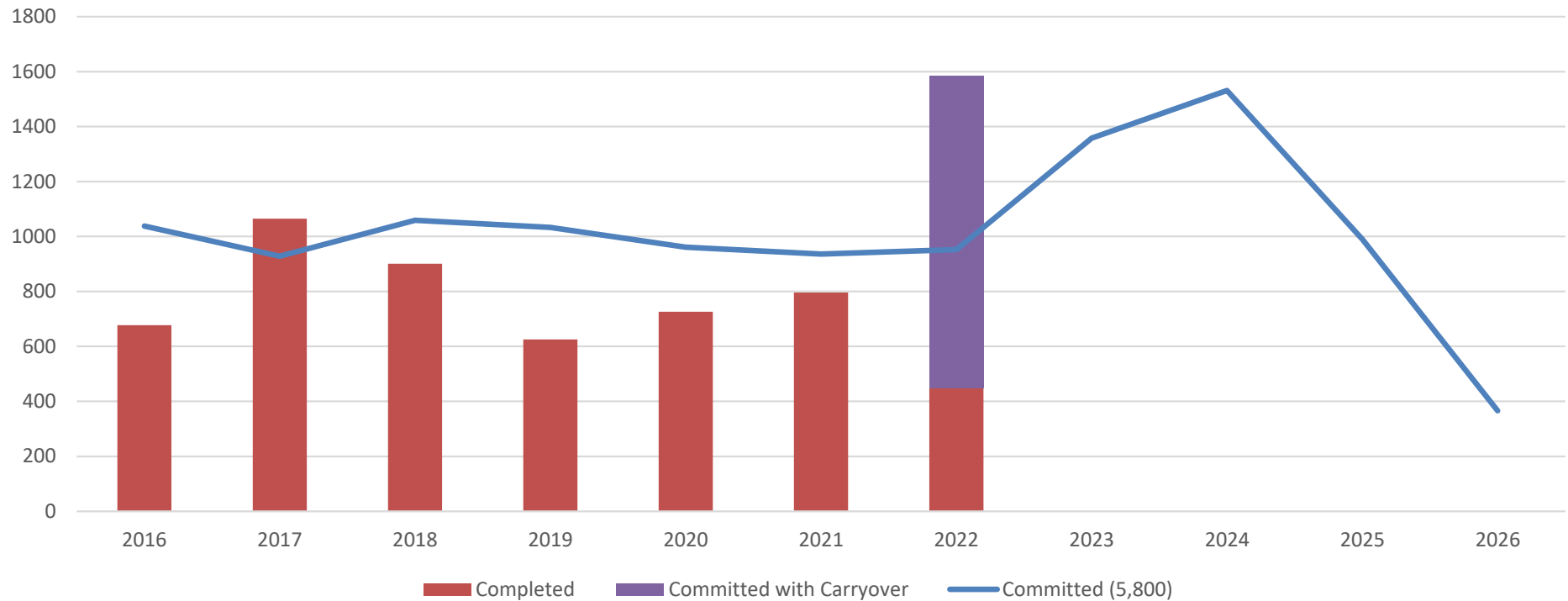
- Increased communication and collaboration between business units
  - Real Estate Services: early sharing of information
  - Engineering and Project Management: strategic updates and variance review
  - Customer Utilities: improved joint planning and scheduling

# Premises Passed: Annual Goals



- Annual goals have been a struggle
  - Overall, we are 76% of target
  - Under our annual target for premises passed
    - Increasing challenge with previous year's commitment carry-over premises

# Challenges: Current Status



Considering the growing bow-wave of work within the time program schedule, changes must be made to the schedule, goals or resources committed, while acknowledging that some factors are largely outside District control.

# Program Adjustments (cont.)

We will continue to make every effort to meet the defined Fiber PPB expectations: *Scope, Schedule and Budget.*

- We have delivered Public Power Benefits to many, and we want to make sure we continue to be successful through proactive planning and execution.

# Program Adjustments (cont.)

- *Percent county coverage is a result of what we construct at any given time*
  - Under the PPB program we estimated a county coverage in the range of 85-90% at completion
  - County growth will outpace our expanding coverage if county growth continues at current pace
    - *We are always playing catch up*



# Program Adjustments (cont.)

County Growth continues to add new premises

- 1% growth anticipated
- Some growth within the existing service area
  - Other growth as PPB

Our goal is to maximize county coverage within the financial target of \$27M.

# Seeking Feedback

We see some opportunities in how we can move forward to best serve our customer-owners. The focus is on delivering the best for the most for the longest time.

- For your consideration, we looked at some variations to scope, schedule and budget to achieve the best outcome
- For discussion purposes, we identified 4 options to help capture what possible actions to take going forward

# Potential Solutions & Focus

	Original Set in 2015	<u>Option #1</u> Original Premises Passed	<u>Option #2</u> County Coverage	<u>Option #3</u> Schedule with Additional Resources	<u>Option #4</u> Schedule No Additional Resources
Premises Passed	9,256	9,256	10,457	10,457	8,246
Funding	\$25M	\$27M	\$27M	TBD	\$22-24M
County Coverage	85-90%	80-81%	85-90%	85-90%	78-80%
Program End Date	2026	2028	2031	2026	2026

# Seeking Feedback

- Staff believes Option 3 provides the most benefit for our customer-owners. Additional financial analysis and District stakeholder outreach is required to fully understand the cost and operational impact
- Eliminate the time-frame goal of 5,800 premises passed goal commitment
  - Not realistically achievable at this point of the program
  - No change in the number of total premises for the program
- Choose the total premises passed target
  - County growth creates a moving premises passed target
    - Staff is recommending between 10,000-10,500 premises
- Other options or expectations for staff to consider?

# Next step

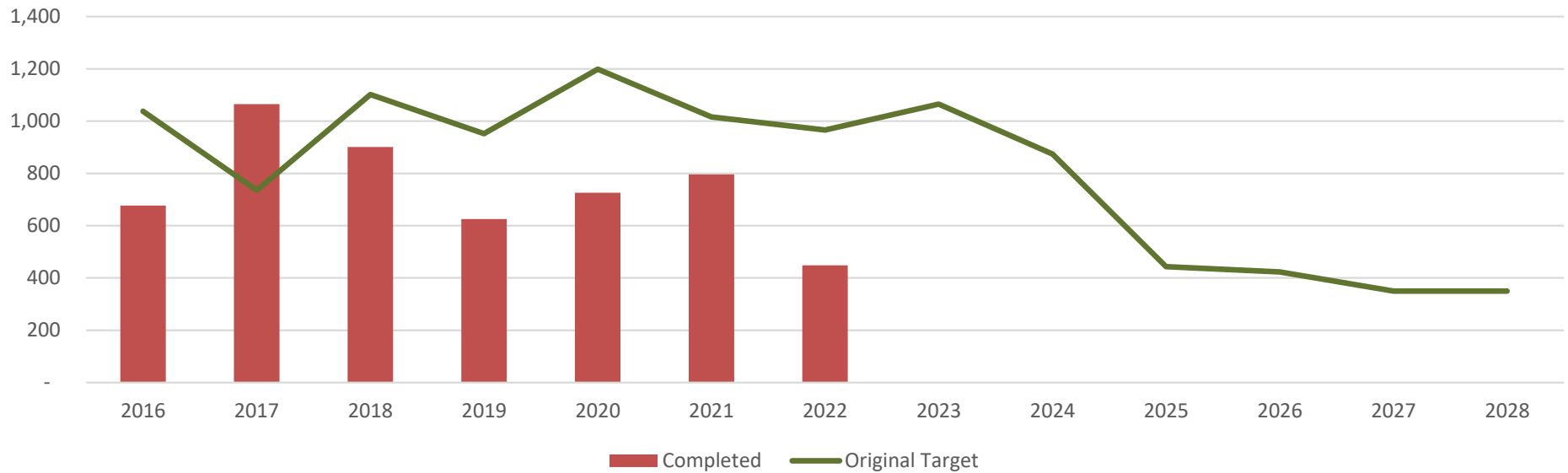
- Return to Board as soon as possible with more detail and information
  - Project additional costs
  - New metrics and goals
  - Schedule update
  - Risks and barriers
- Seek approval

# Questions

# Appendix

# Option #1

## Original Premises Passed

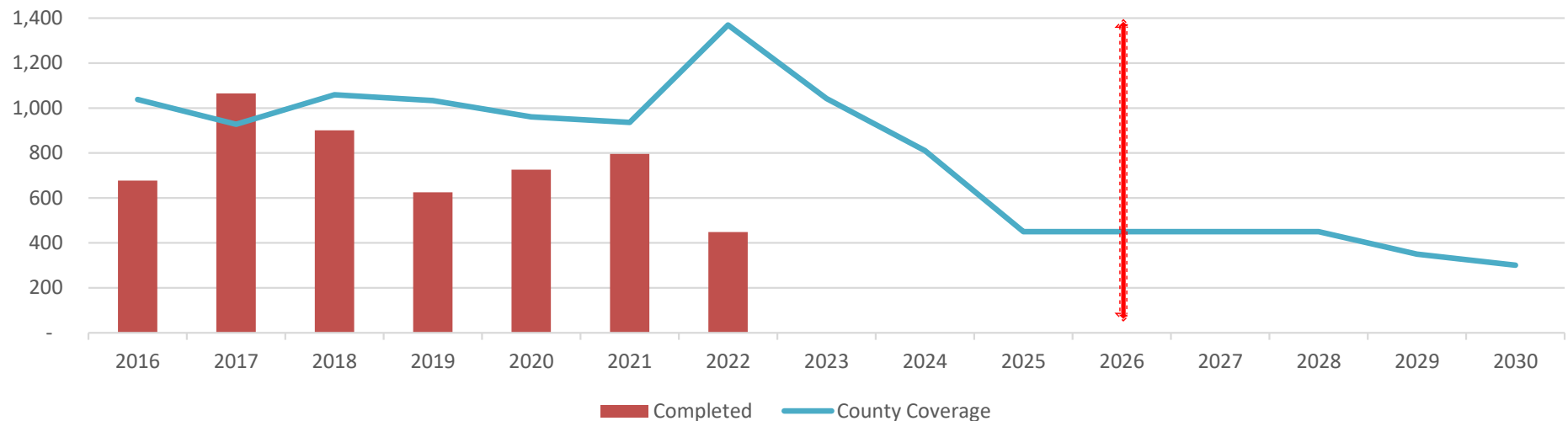


- Maintain premises passed target
  - Total targeted premises passed of 9,256
  - Revised completion date of 2028
  - Decreases county coverage target to 80-81%



# Option #2

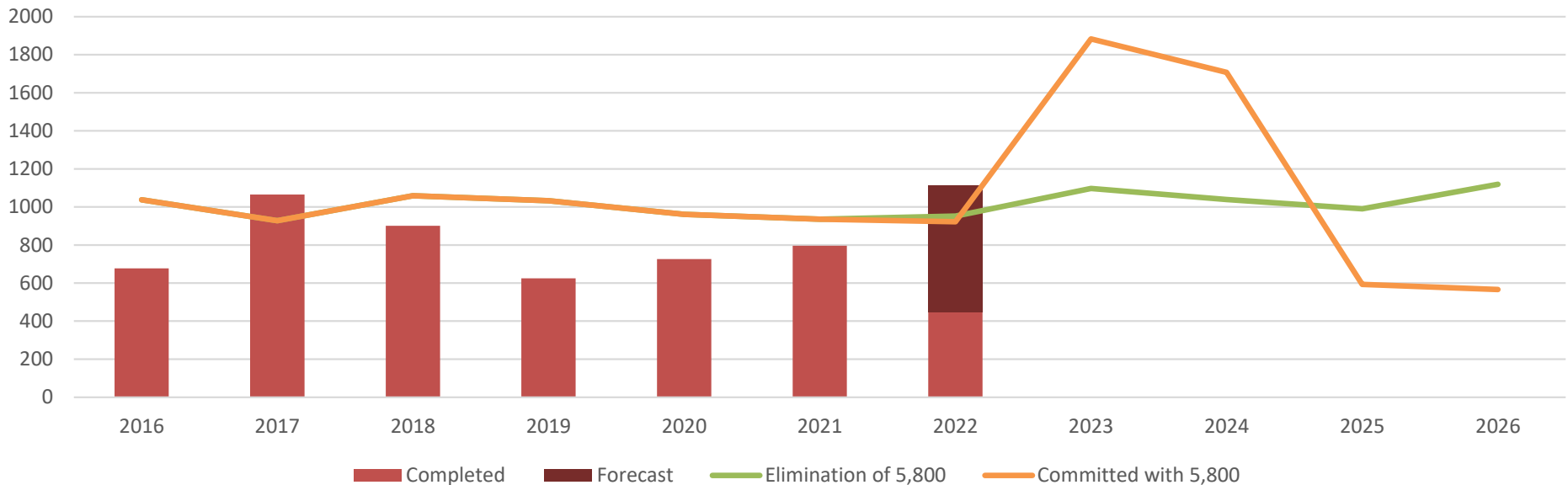
## County Coverage



- Meet county coverage target of 85-90%
- Total estimated premises passed of 9,500 to 10,500
  - Does not meet target of 5,800 premises passed between 2020-2024
- Revised target completion date of end of 2029-2030
  - Uncertainty based on county growth impact to Customer Utilities' resources
  - No additional funding required
    - Roughly same number of premises currently estimated at highest construction costs possible, updated annually
    - Program held at \$27M

# Option #3

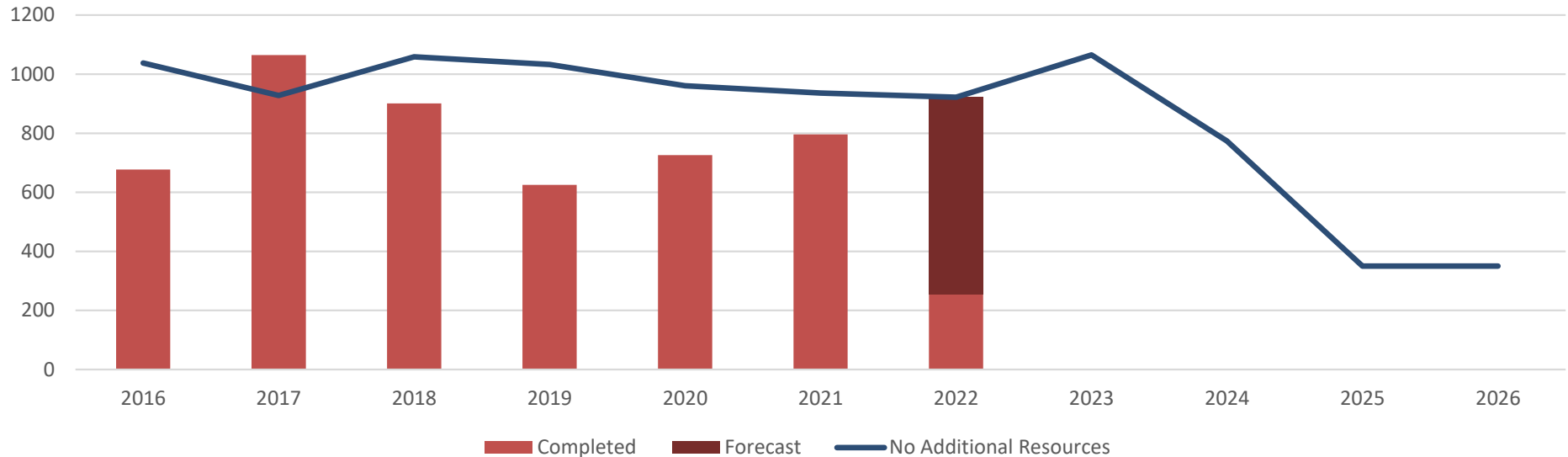
## Schedule with Additional Resources



- Additional resources for infill project management
  - Total estimated premises passed of 9,500 to 10,500
  - Maintain target completion date of 2026
  - Requires additional funding of estimated under development
    - Additional Design Engineer
    - Project management for infill
    - All other construction and assessment costs accounted for in current estimates

# Option #4

## Schedule with No Additional Resources



- Reduction in scope of growth and infill
  - Total estimated premises passed of 7,500 to 8,500
    - Do not meet target of 5,800 premises passed between 2020-2024
  - Maintain target completion date of 2026
  - Requires no additional funding

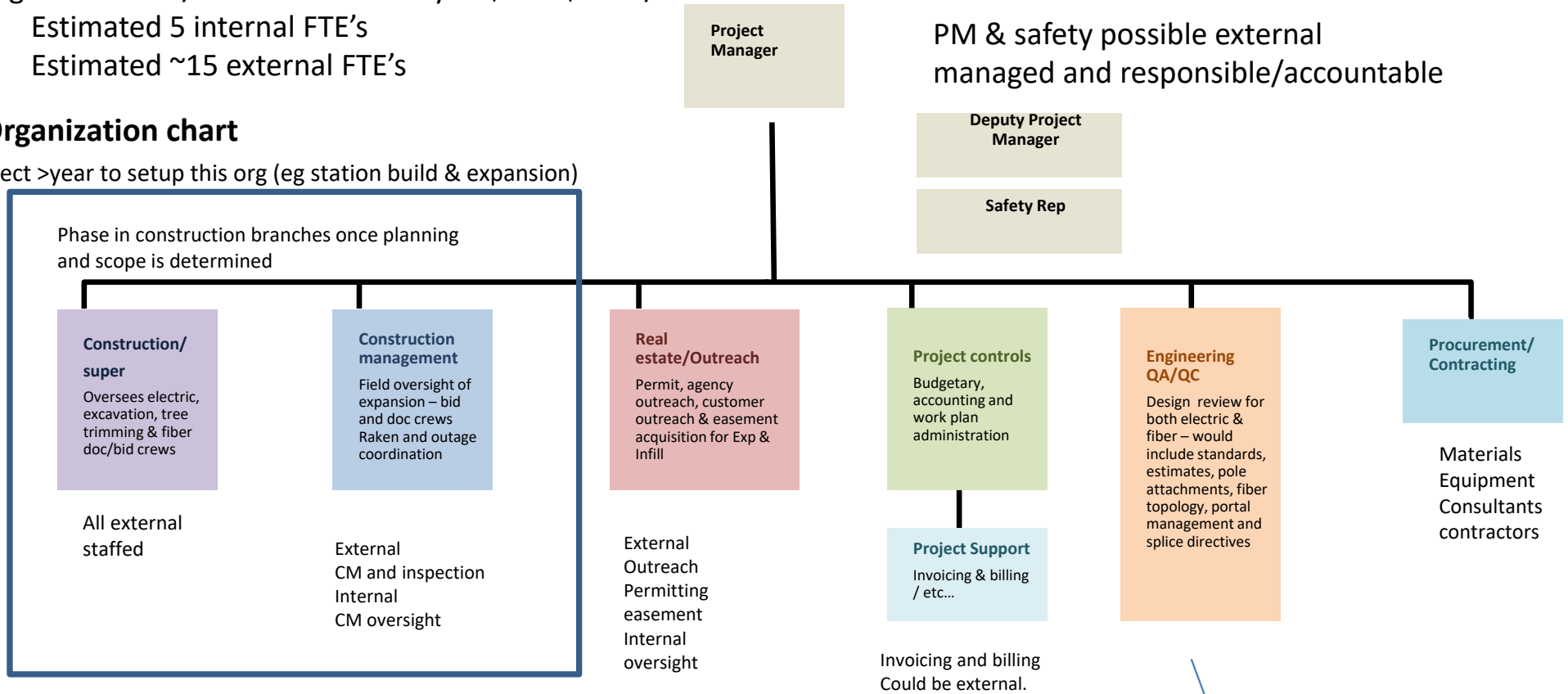
# Fiber PDT

Org structure w/o construction maybe \$350-\$500k/month cost

- Estimated 5 internal FTE's
- Estimated ~15 external FTE's

## Organization chart

Expect >year to setup this org (eg station build & expansion)

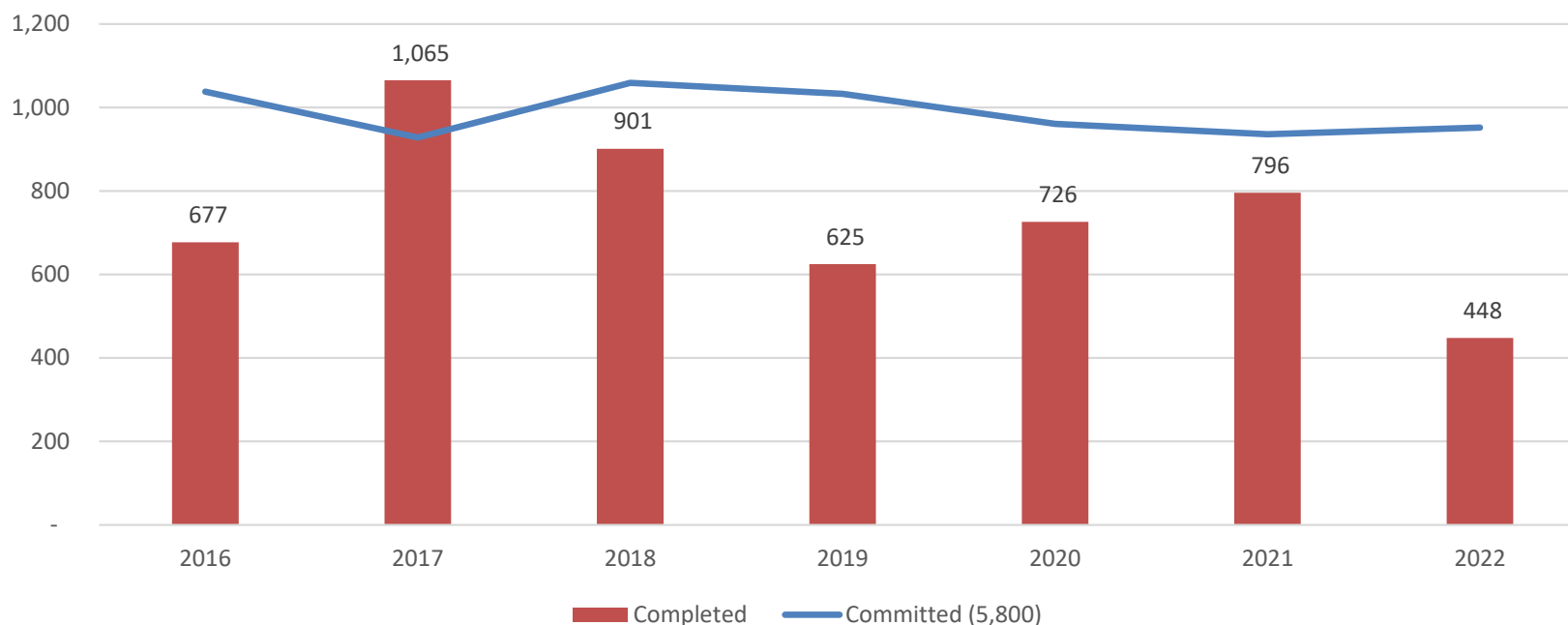


## Guiding concepts

- Reliance on external resources
- Don't let perfection get in the way of good
- Focus on delivering fiber in compliance with our practices, not rebuild the electric distribution system

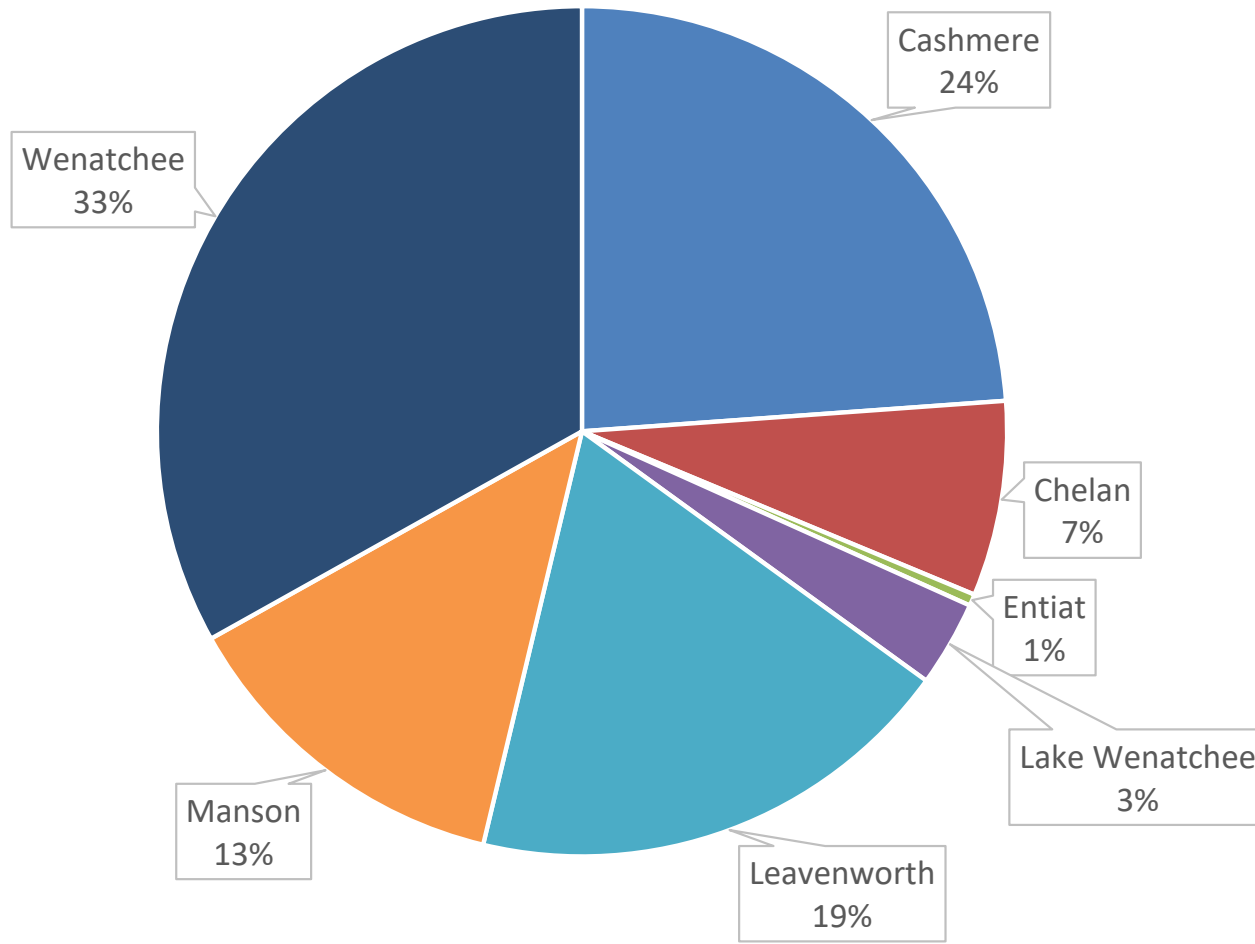
Consider split into two branches/rename to planning  
 1-design (consulted)  
 2- design QA/QC internal staffed

# Program Adjustments...Premises Passed

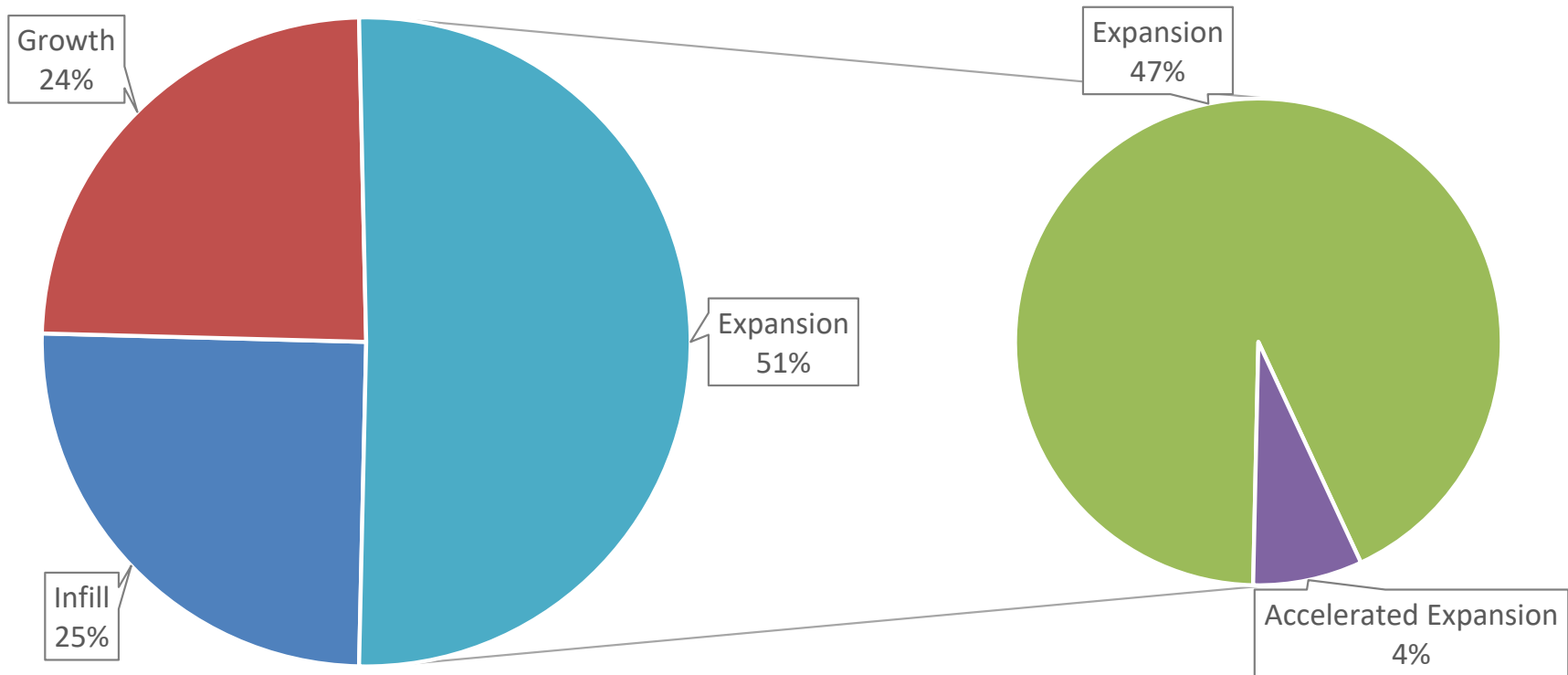


- Goals not fully met
  - Overall, we are 76% of target
  - Missed our annual target for premises passed
    - Increasing challenge with previous year's commitment carry-over premises

# Premises Passed: Achieved through 7/31/22



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# Connection Rates for Major Builds @ 6/30/22

