

# ***Improving Link Light Rail Reliability***

## *System and operations resiliency update*

*Rider Experience and Operations Committee*

*6/5/2025*



# ***Why we are here***

Provide quarterly update on operating systems resiliency progress:

- How unplanned disruptions are trending.
- Field work completed since March to reduce unplanned disruptions.
- Plans to complete remaining resiliency work.

***Update only, no Board action requested***

***Unplanned disruptions***

# Unplanned disruptions

Average hours per month of system downtime has decreased.

All 2024



Q1 2025

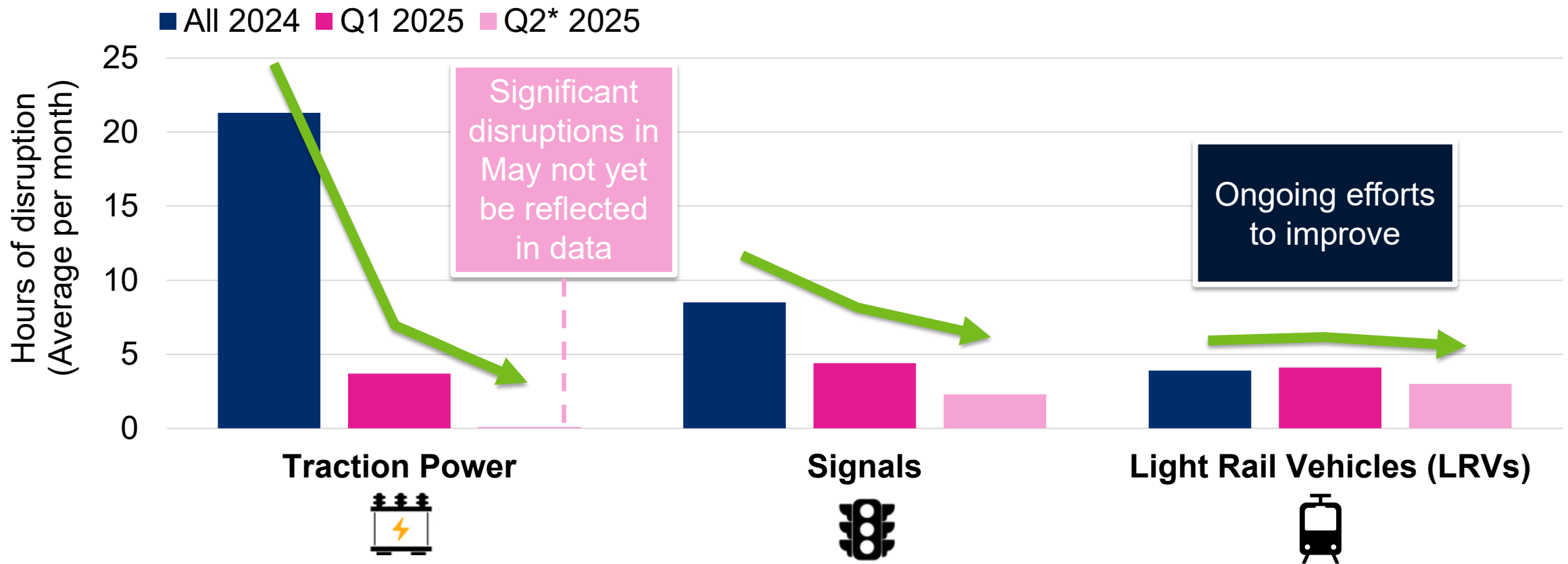


Q2\* 2025



# Unplanned disruptions

Resilience efforts have focused on highest-impact areas.



# ***Focus: May 2025 unplanned disruptions***

While Q1 2025 had fewer unplanned disruptions over 2024, in May we saw significant disruptions due to:

- Two overhead catenary system (OCS) power loss events.
- Signal issues.
- Brake faults on light rail vehicles.

*ST staff have identified actions and are working with KC Rail partners to integrate lessons learned into operating practices.*

*Work completed  
since March to improve  
system resiliency*

# Improvements since March

## Rail

- **Replaced** worn rail to reduce unplanned disruptions due to rail breaks
- **Expanded** scope of signal inspections to catch issues earlier

## Traction power

- **Improved** monitoring from control center to traction power switches along Lynnwood Link Extension for better system management
- **Recalibrating** settings to reduce power outages and improve worker safety
- **Instituted** validation period to establish system stability prior to revenue service at Downtown Redmond Link Extension opening

## Operational response

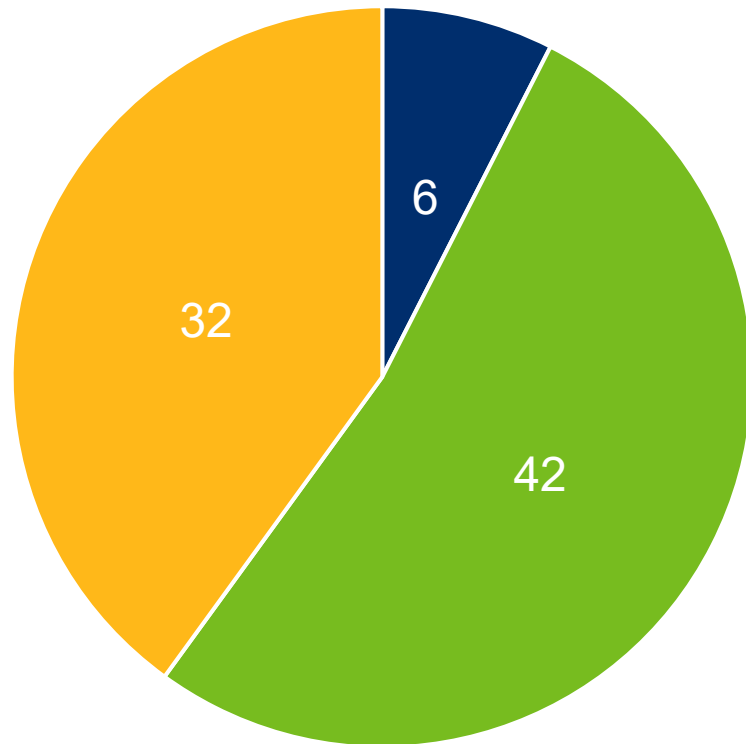
- **Established** IT Operations Center to ensure faster response to network issues
- **Reallocated** KC Rail staff for quicker response times for maintenance and repairs
- **Established** new KC Rail positions to support faster response to power outages



*Completing the remaining  
resiliency work*

# 80 Recommendations Reviewed

*ST staff have identified deliverables and timelines*



■ Complete ■ Near-Term ■ Longer-Term

- Response efforts have been integrated into department workplans.
- Service Delivery and Agency Oversight assigned the majority.
- Over half are expected to be complete within the next 4 years.

# *Advancing the resiliency program*



Smaller  
Projects

To address

Near-term  
state of good repair



Feasibility  
Studies

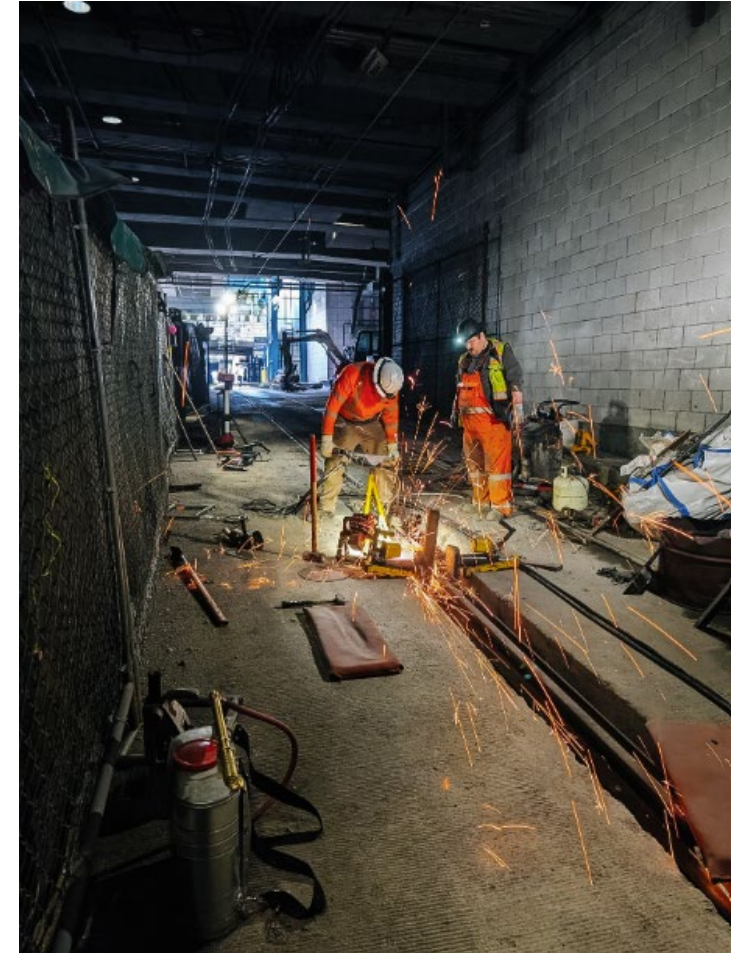
Will inform

Longer-term  
capital investment needs

# Actioning projects for resiliency



- Work progressing as part of state of good repair projects. 22 projects currently identified:
  - 2 complete
  - 13 in-progress
  - 3 new in 2025
  - 4 anticipated to begin in 2026
- All projects will be complete in the next 4 years
- Remaining near-term recommendations are addressed in departmental workplans



# ***Studies to assess capital investments***



## ***Potential investments to improve operational flexibility***

- Feasibility studies required to determine cost-benefit of potential investments such as:
  - Adding crossovers
  - Changes to signaling system
  - Building a Unified Control Center
- We'll return when studies are complete for Board review

# *What's next*

***Work continues.*** We'll continue to aggressively move project schedules forward to improve system resiliency, and to track data to show where progress is seen or not.

***We'll return in Q3*** with an update on the overall health of the system and continued progress.

***We're committed*** to reducing unplanned disruptions for our current riders everyday, as we also prepare the system for increased complexity when more service opens in 2026.

*Thank you.*



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