



## **Item 9.5: Technology and Projects Update**

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Reliability and Markets Committee Meeting

ERCOT Public

August 15, 2022

# Technology Working Group Meeting (Aug 4) Update

Projects

Concepts/Charters








Issues

Notices/Awareness

# ERCOT Application Release

Project	Status
Forecast Presentation Platform	Released - June 30
<b>NPRR935(b)</b> - New Solar forecasts and reports	Released - June 30
<b>NPRR1108</b> - ERCOT Shall Approve or Deny All Resource Planned Outage Requests	Released - July 26
<b>NPRR987(a)</b> - Energy Storage Resource Contribution to Physical Responsive Capability	On Track - October
<b>NPRR1002(a)</b> - Energy Storage Resource Charging Restrictions in Emergency Conditions	On Track - October
<b>NPRR863</b> - Fast Frequency Response (FFR) Advancement	On Track - October
<b>NPRR1120</b> – Firm Fuel Supply Service (FFSS)	On Track - October

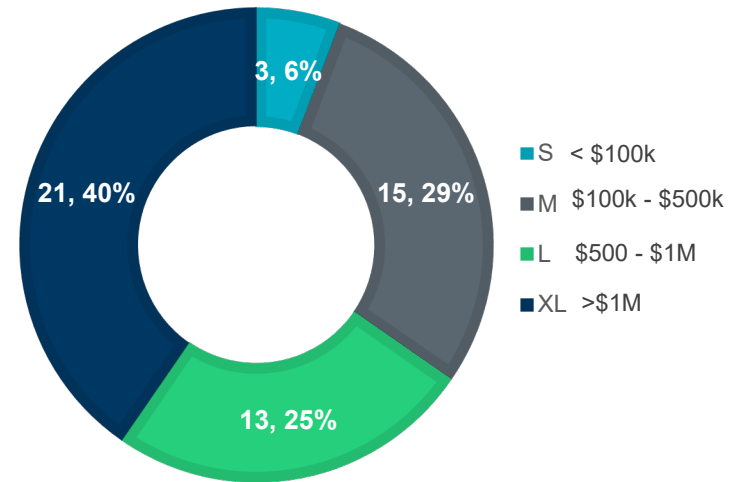
# OKR Projects Update

Status	Project	Update
	Fast Frequency Response (FFR) Advancement	<ul style="list-style-type: none"><li>• On track – market testing starts August &amp; release in October</li><li>• ERCOT working closely with new TWG</li><li>• Market submission testing required, readiness reports to TAC</li></ul>
	Create Firm Fuel Supply Service	<ul style="list-style-type: none"><li>• On track – release in October to support Firm Fuel Supply Service contracts that start in November</li></ul>
	RARF Replacement	<ul style="list-style-type: none"><li>• November release at risk</li><li>• Resource gaps impacted schedule</li><li>• Scheduled release is late against the OKR target (August)</li></ul>
	ERCOT Contingency Reserve Service (ECRS) Implementation	<ul style="list-style-type: none"><li>• On Track – release in late May 2023</li><li>• Release Market Interface Specifications in September</li><li>• Market testing window opens late March 2023</li><li>• Market discussion of technical impacts at TWG</li></ul>
	Energy Management System (EMS) Upgrade	<ul style="list-style-type: none"><li>• On track – release in November 2023</li><li>• Discussion of technical impacts to occur in TWG</li></ul>
	DC5 Infrastructure Refresh Program	<ul style="list-style-type: none"><li>• Subset of Program OKR milestones not trending on budget and/or schedule due to the global chip shortage, revised product end-of-life schedules &amp; additional migration effort</li></ul>
	Treasury Management System Implementation	<ul style="list-style-type: none"><li>• On Track – milestone to enter Planning Phase before Q4</li></ul>

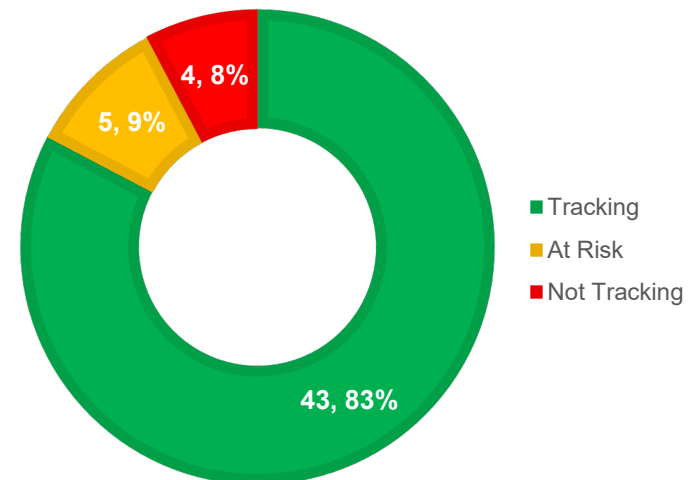
# Active Project Delivery

- 52 active projects
- 2022 project activity outpacing 2021
  - Project initiations through Q3 (29) expected to surpass 2021 project initiations (27)
  - Current active project count higher than at any month in 2021, and still rising
- Majority of projects:
  - Are Large or XL
  - Address technical health
  - Report healthy status

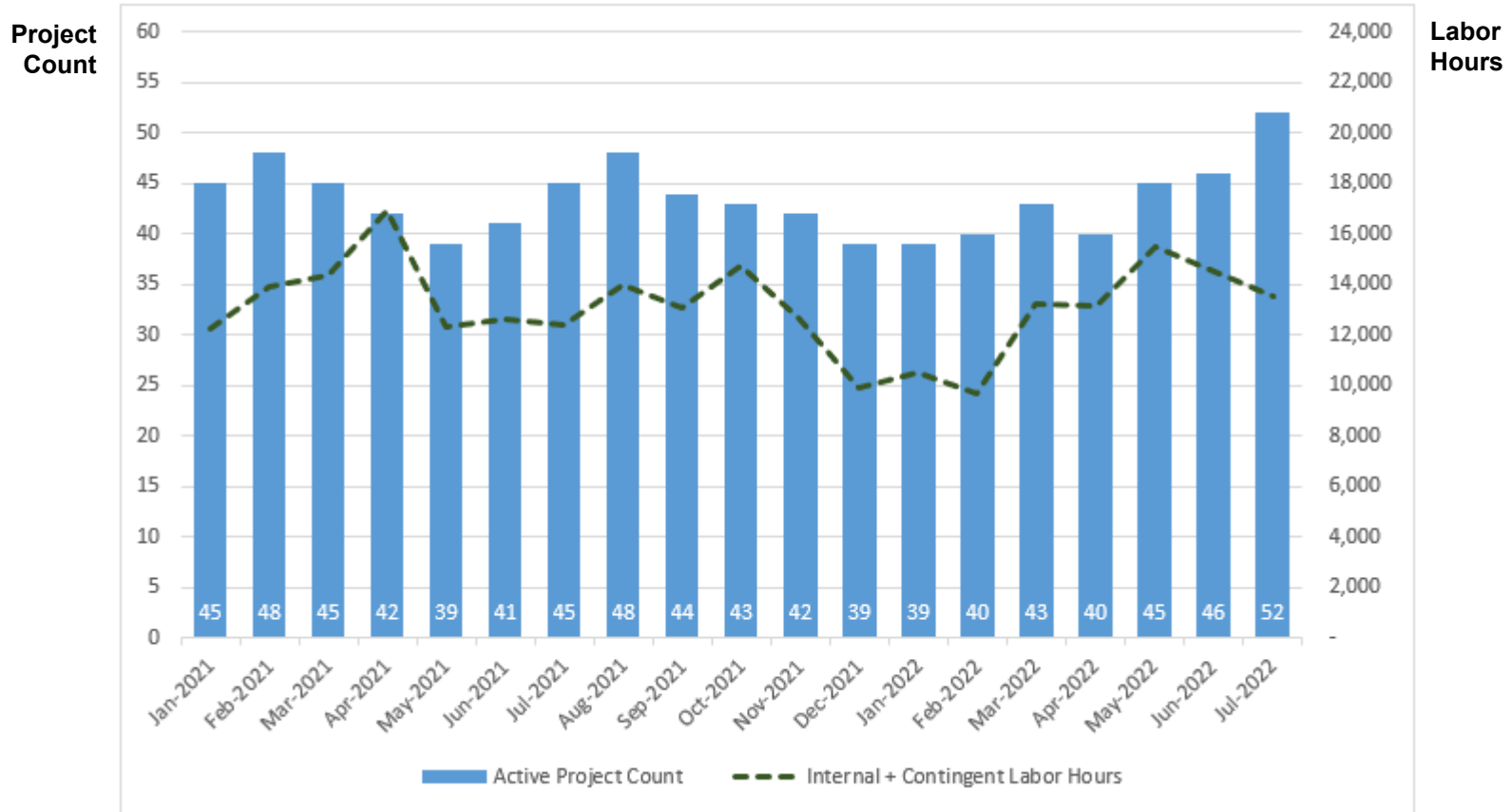
PROJECTS BY BUDGET RANGE



PROJECT STOPLIGHT

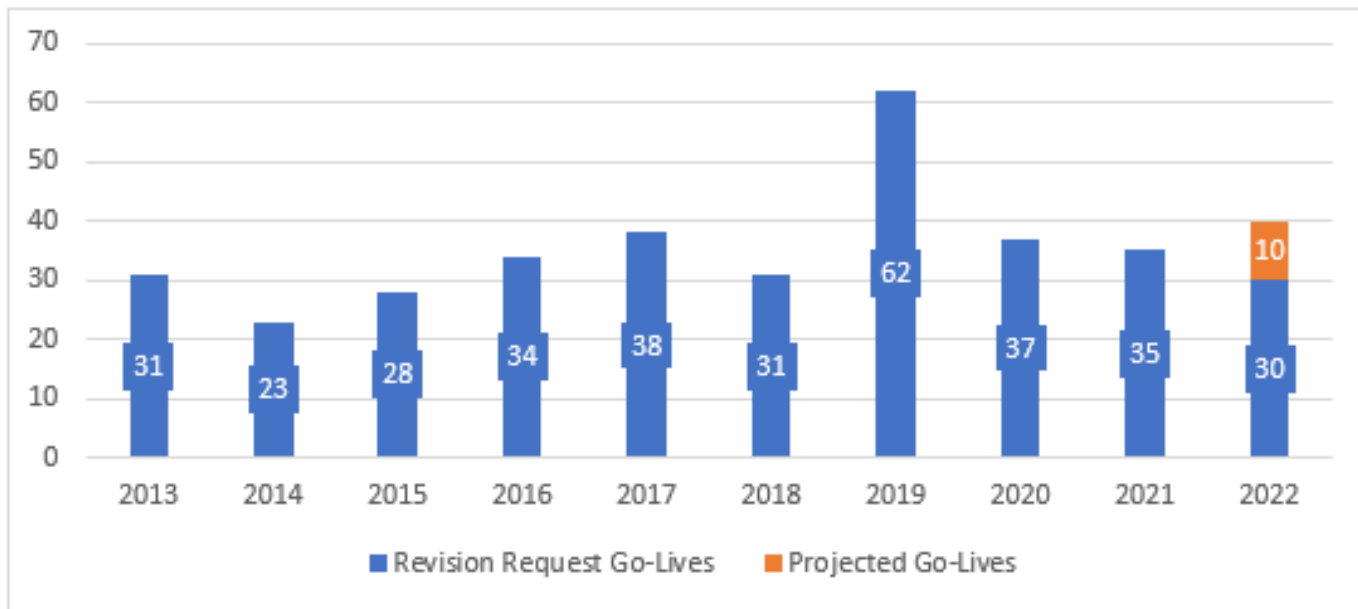


# Project Labor Statistics



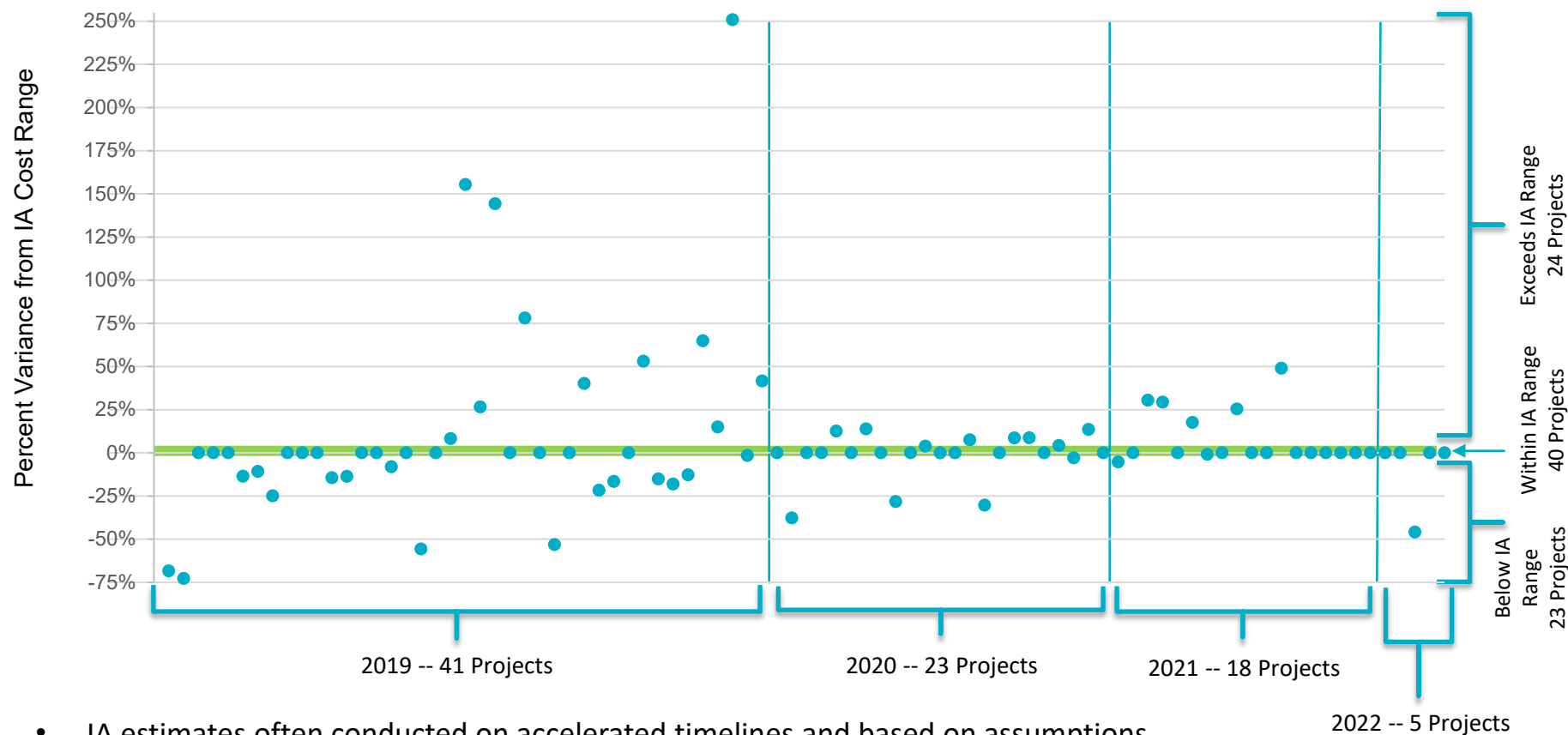
- Current project count higher than historical trends
- 10,000-15,000 labor hours spent on projects each month (10% of total ERCOT labor)
  - Approximately 75 Full-Time Equivalents and 16 contractors per month
  - In the past 12 months, 431 team members have charged time to projects
  - Majority of staff engaged in projects also have O&M responsibilities

## Revision Requests – 10 Year Implementation History



- Many Revision Requests (RRs) are bundled with related RRs
- On occasion, RRs are implemented in stages across multiple releases

# Percent Variance from Impact Analysis Cost Range

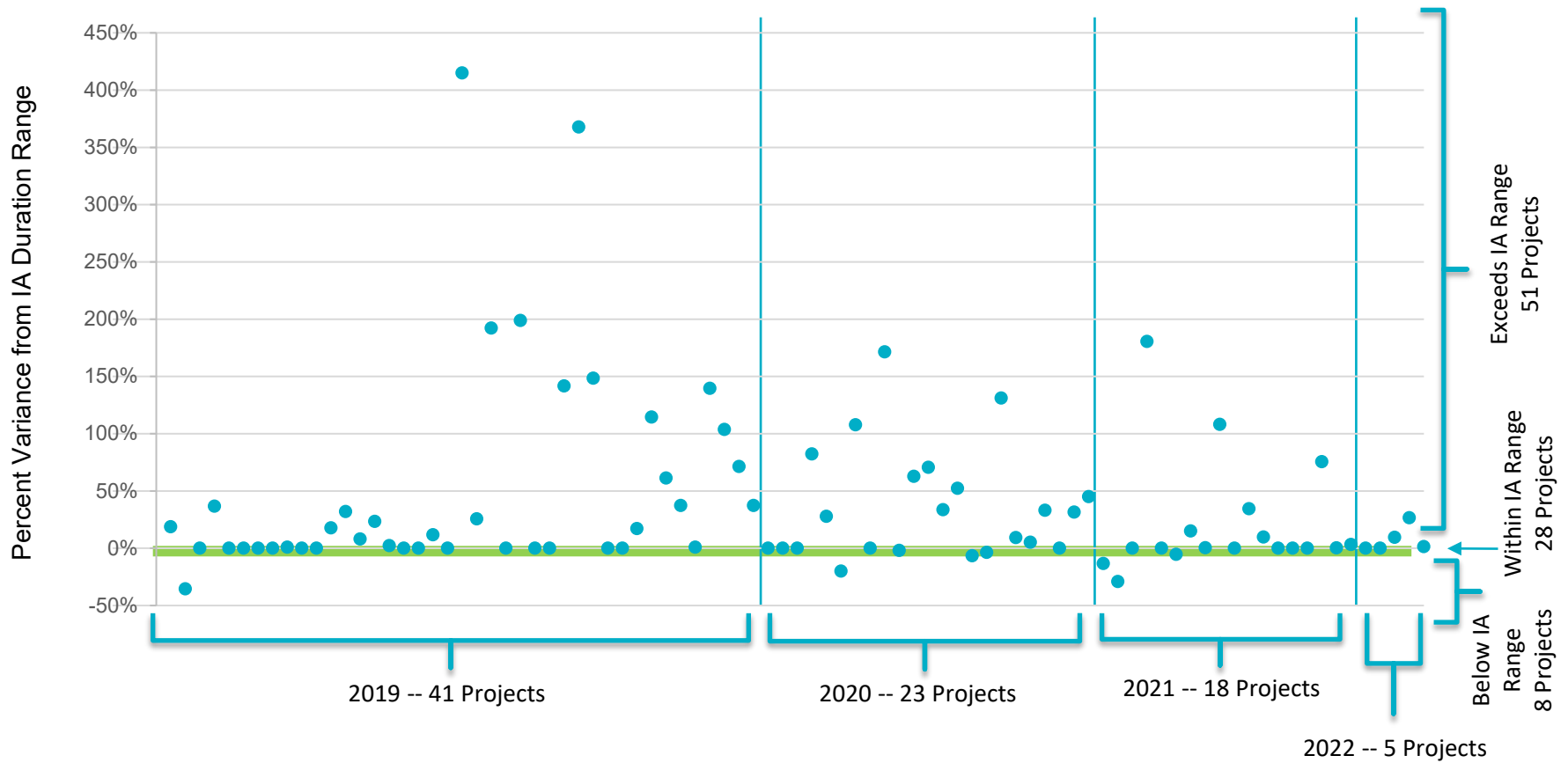


- IA estimates often conducted on accelerated timelines and based on assumptions
- Estimates for new ERCOT systems or capabilities tend to have larger variances due to complexity and/or uncharted work
- Project Planning phase produces a more detailed cost estimate which must be approved by ERCOT management prior to proceeding to Execution phase





# Percent Variance from Impact Analysis (IA) Duration Range



- Multi-phase deliveries often lead to extended timelines but not necessarily higher costs; chart only measures final release
- Changing priorities can divert resources from less time-critical projects, extending duration
- Major releases occur every two months; delays typically happen in increments of two months



# Appendix

# Technology Working Group Meeting (May 19) Update

## Projects

NPRR863/FFRA scope delivery  
NPRR1120 Create Firm Fuel Service  
NPRR863/ECRS scope delivery  
EMS Upgrade

## Concepts/Charter

CIM 16 Upgrade  
Operator Real-Time Messaging SCR820  
Public API and API improvements

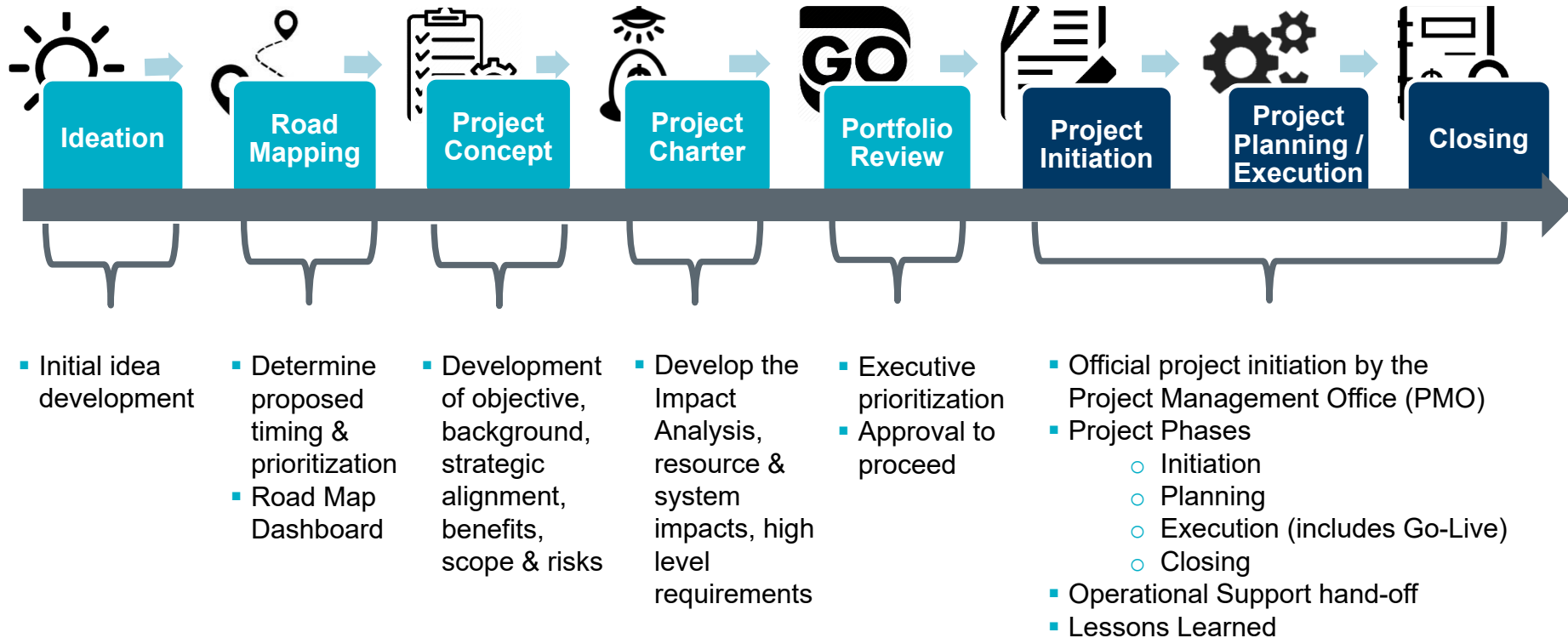
## Issues

IE11 EOL and multiple cert workaround

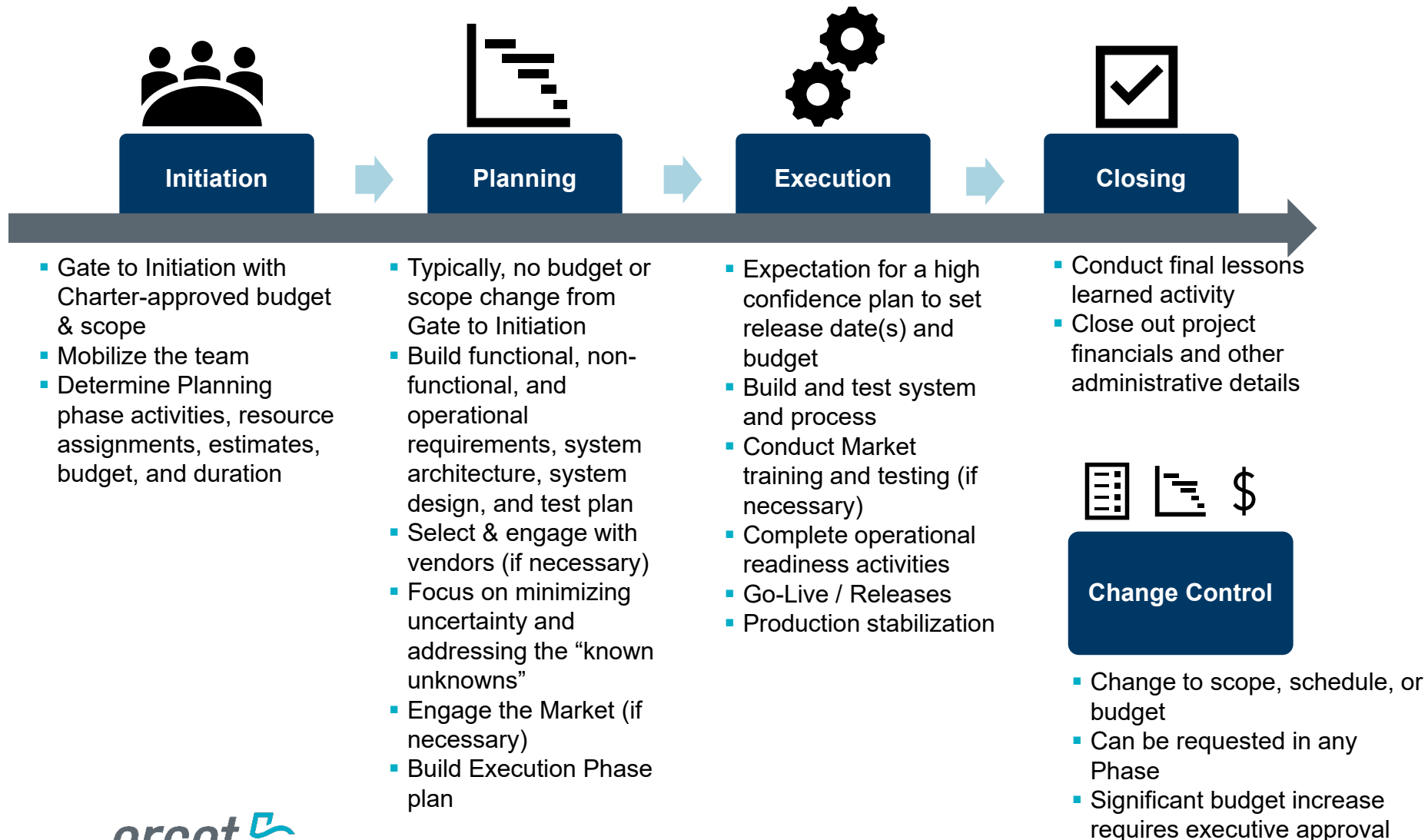
## Notices/Awareness

MarkeTrak system Updates  
Retail API Redesign  
TEXAS SET 5.0 Project  
Retiring Legacy MIS public reports  
TLS 1.2 Certification  
NERC EMSWG update  
ERCOT WAN Infrastructure Update

# ERCOT's Project Portfolio Process

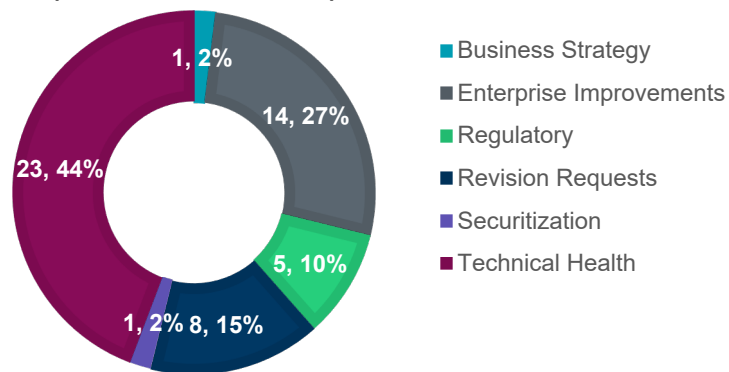


# ERCOT's Project Gating Process



# 52 Active Projects Breakout as of 8/1/2022

ACTIVE PROJECTS  
BY PROJECT CATEGORY  
(PROJECT COUNT)



ACTIVE PROJECTS  
BY BUSINESS AREA  
(PROJECT COUNT)

