



Engineering, Operations, & Technology Committee

Change Order Authority Increase for Termination of CRA Motor Power Cables

Item 7-1

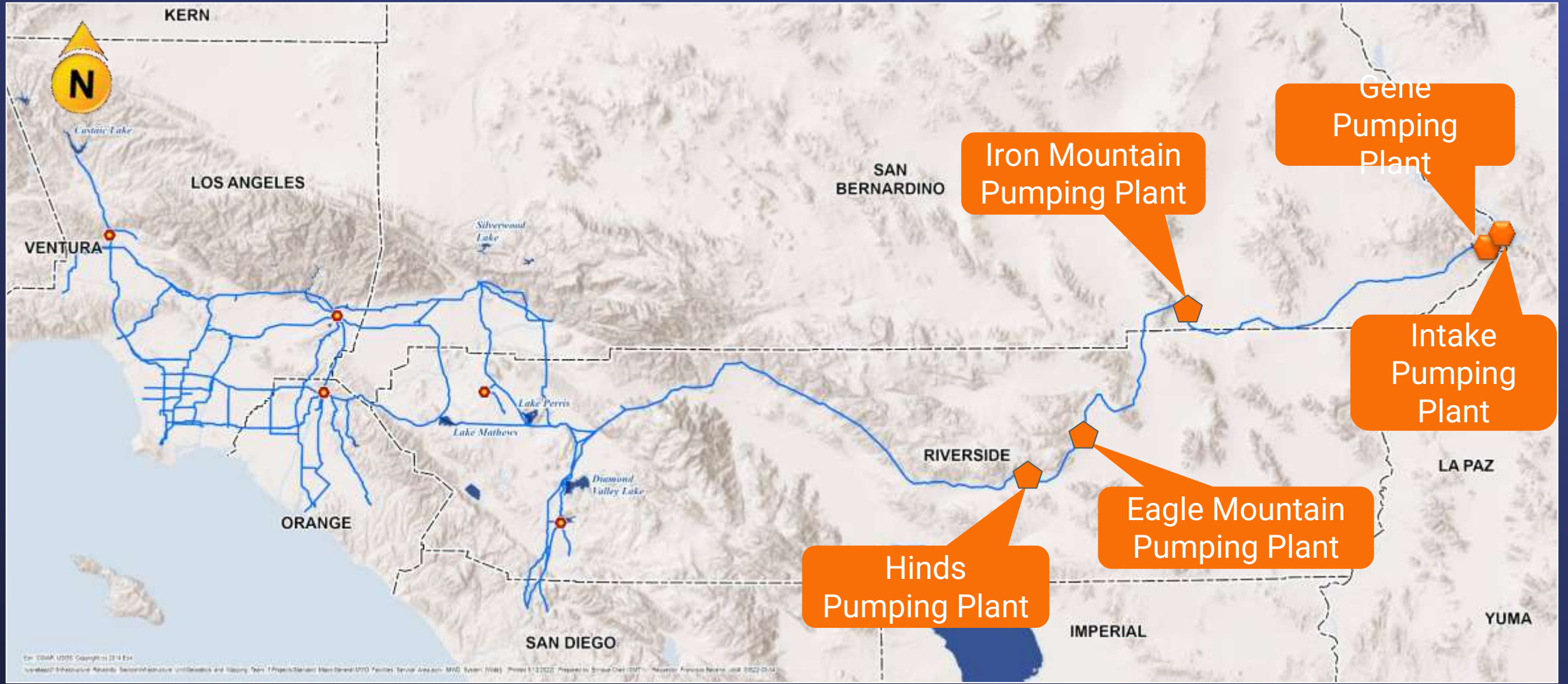
July 10, 2023

Change Order
Authority
CRA 6.9kV Motor
Power Cables
Termination

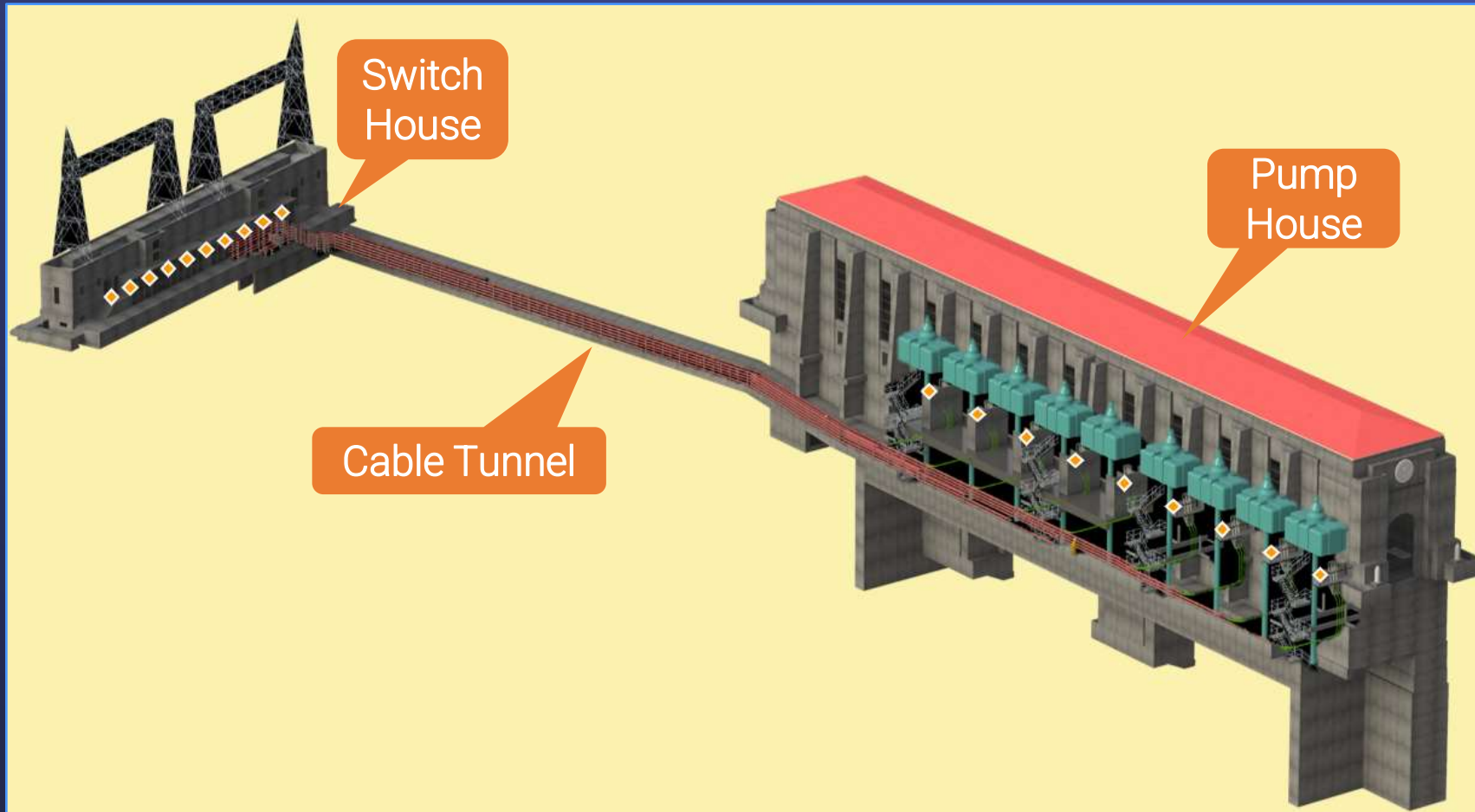
Current Action

- Authorize an increase of \$950,000 in change order authority for the contract to terminate 6.9kV power cables at all five Colorado River Aqueduct pump plants

Project Location



Background



- Installed in the 1930s
- Provide power to main pump motors
- Cables have begun to deteriorate & lose insulative properties

CRA 6.9kV Motor Power Cables Termination



Leaking Termination

Background

- February 2019 – Contract awarded to Baker Electric Inc.
 - Remove & replace power cables
 - Rehabilitate cable tunnels
- Completed 110 of 198 terminations
 - Oil leaks detected in all terminations
 - 0% success rate
- Metropolitan worked closely with contractor to resolve the leaks
- Contractor directed to install temporary cables to power the pumps
- Contract terminated

CRA 6.9kV Motor Power Cables Termination



Temporary cables

Background

- Metropolitan staff began terminating the cables
- Completed 62 of 110 terminations
 - 46 terminations successful (74% success rate)
- Staff redeployed to focus on O&M activities
- Multiple options considered to find qualified termination contractors
 - Proceeded with bid solicitation

CRA 6.9kV Motor Power Cables Termination



W.A. Chester LLC
Terminated Cable

Contract Scope

- Jan. 2023 - Contract awarded to W.A. Chester LLC
- Contract amount - \$250,000
- Contract scope
 - De-termination of existing leaking terminations
 - Re-termination of cables using Metropolitan furnished termination kits
- Contract structured as a pilot project

Change Order Authority
CRA 6.9kV Motor
Power Cables
Termination

Change Order Authority Limits

- Change order authority determined by Admin. Code (Section 8123)
- GM authority to execute change orders is the larger of:
 - 5% of the original contract amount
 - \$250,000
- Board approves any increase in authority
- Change Order Authority – CRA termination of motor power cables project
 - Remaining work for units 1 to 5 exceeds current change order authority



Application of heat to the termination kit



Switch house cable installation

Current Contract Status

- February 2023 – 24 cable terminations completed by W.A. Chester LLC at Hinds Plant
 - 23 terminations successful (96% success rate)
- Upcoming Work
 - October 2023 – Terminate 24 cables at Eagle Mountain Plant
 - January to March 2024 – Repair approx. 16 cable terminations at all five CRA pump plants

Change Order Authority Increase

Contract No. 2061

- Original contract value: \$250,000
- Current change order authority: \$250,000
- Change orders executed to date: \$80,000
- Amount expended to date under contract \$330,000

Requested Action





- Increase change order authority by: \$950,000
- New change order authority: \$1,200,000

CRA 6.9kV Motor Power Cables Termination

Alternatives

- Alternatives to execute the work
 - Train additional Metropolitan staff to perform the terminations
 - Hire temporary employees to perform the terminations
 - Re-advertise to get competitive bids for work
- Selected Alternative
 - Use current contractor to complete change order work
 - Work completed in a timely & cost-effective manner
 - Takes advantage of reduced CRA flows in 2023/2024

Project Schedule

Project	2023	2024
CRA 6.9 kV Motor Power Cables Termination		
 Construction	 Board Action	 Completion

CRA 6.9kV Motor Power Cables Termination

Approach for Units 6-9

- Evaluate performance of cable termination of Units 1-5 over two summers
- Advertise contract for Units 6-9 in late 2024
 - Pull out old cables/pull in new cables
 - Install temporary cables to allow operation of units
- Issue specialty contract for cable terminations
 - Prequalified contractor
 - Likely a time & materials contract

Board Options

- Option #1
Authorize an increase of \$950,000 in change order authority for the contract with W.A. Chester LLC to terminate 6.9 kV power cables at all five CRA pumping plants.
- Option #2
Do not authorize an increase in change order authority.

Staff Recommendation

- Option #1

