Underground Conversion Program
2018/19 Five-year Plan Update

CITY COUNCIL
JULY 31, 2018
Program Overview

- Established in 1990
- Funded by 4% electric surcharge
- 128 of 240 circuit miles completed to date
Improves Electric Reliability

Improves Resiliency

Improves Roadway Visibility
Underground Conversion Project Funding

Typical Project Cost

- Construction: 60%
- Electrical Materials: 25%
- Utility Labor: 10%
- Design, Fees, Permits: 5%
Selection Criteria for New Projects

- Project Coordination
- Aesthetics
- Funding
- Reliability
- Geographic Diversity
<table>
<thead>
<tr>
<th>Project Coordination</th>
<th>Reliability</th>
<th>Aesthetics</th>
<th>Geographic Diversity</th>
<th>Funding (Construction Cost $)</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sycamore Paving w/ Public Works</td>
<td>Tie points for outage restoration</td>
<td>Residential, poles congested</td>
<td>$9M District 3</td>
<td>$3.9M</td>
<td>1</td>
</tr>
<tr>
<td>Orange</td>
<td>Tie points for outage restoration</td>
<td>Residential, poles congested</td>
<td>$20M District 2</td>
<td>$5.3M</td>
<td>2</td>
</tr>
<tr>
<td>Broadway</td>
<td>Ties w/ 2 prev. UG projects</td>
<td>SCE Towers to remain</td>
<td>$17M District 1</td>
<td>$2.9M</td>
<td>3</td>
</tr>
<tr>
<td>Ball/Euclid</td>
<td>Ball’s Last Transmission</td>
<td>Multiple circuits</td>
<td>$21M District 4</td>
<td>$11M</td>
<td>4</td>
</tr>
<tr>
<td>Wagner</td>
<td>Removes freeway Xing</td>
<td>Residential, poles congested</td>
<td>$32M District 5</td>
<td>$6.9M</td>
<td>5</td>
</tr>
<tr>
<td>SACR/Nohl Ranch</td>
<td>Removes 2 freeway Xings</td>
<td>Minimal Pole Congestion</td>
<td>$13M District 6</td>
<td>$9.3M</td>
<td>6</td>
</tr>
</tbody>
</table>

Priority: Low | Med | High
Proposed Sycamore Project

Lincoln
North
Wilhelmina
Anaheim
Sycamore
Railroad
East
Pearson Park

Funding
Project Coordination
Reliability
Geographic Diversity
Sycamore Street Undergrounding

- Construction Cost: $3.9M
- 0.7 Circuit Miles
- Residential Area
- Construction: Feb 2021 – Jan 2022
- Coordinate w/ Planned Street Improvements
PROJECT UPDATES IN DISTRICTS
Active

Lincoln

Ball

La Palma

Magnolia

Crescent

Beach

Dale

Magnolia

Knott

Ball

Electric complete.

phone, cable TV in progress

Active
BEACH BLVD.

- In Design
- 1.5 Circuit Miles
- Construction Cost: $12M (Anaheim)  
  $4-6M (SCE)
- Construction: August 2019 – May 2021
Lincoln/Dale
Before

Looking North
Customer Notification Process

- District Formation & Approval
- Contact Property Owners for Easements & Access
- Construction Notices
- Roadway Signs
- 48-Hour Advance Notice for Outage
- Customer Surveys

Steps:
- Design & Coordination
- Construction
- Follow Up
Customer Outreach

Recent Customer Survey Results (111 Responses)

- **81%** Customer Notification
- **86%** Clean Jobsite
- **86%** Limit Construction Impact to Public
- **89%** Satisfied with LED Street Lights
- **86%** Overall Satisfaction

**Customer Impact Mitigation**
- Coordinate with other roadway improvements
- Limit work hours during heavy traffic
- Weekend/night work at major intersections
- Provide contact info to address specific needs
Euclid St.

- Construction awarded June 2018
- 1.3 Circuit Miles
- Construction Cost: $11.4M
- Railroad & Flood Channel crossings
- Coordinate w/ Garden Grove Paving
- Construction: Sept 2018 – Dec 2019
La Palma
Active

Broadway
Proposed

Euclid

West

Harbor

Anaheim

Sycamore

Lincoln

Santa Ana

East

91

District 3
Orangewood Ave.

- 1.1 Circuit Miles
- Construction Cost: $9.2M
- Coordinate w/ Ponderosa Family Resource Center Construction
- Construction: May 2017 – Dec 2018
Electric complete.
Phone, cable TV in progress

Active
Planned
Lincoln/Rio Vista

- Construction Cost: $11.3M
- 3.8 Circuit Miles
- Eliminates 2 Freeway Crossings
- Construction: July 2016 – Oct 2018
Miraloma
After

Looking West
Santa Ana Canyon/Royal Oak

- In Design
- 1.8 Circuit Miles
- Construction Cost: $13.1M
- Construction: Jul 2020 – 2022
Before

- Construction: Completed Aug 2017
- 0.5 Circuit Mile
- Construction Cost: $1.9M

Looking North
2018/19 Underground Conversion 5-year Plan Summary

- Approvals:
  - Subcommittee: May 2018
  - PUB: June 2018
  - City Council: July 2018
- Add Sycamore St. as a new project
- Complete construction on Lincoln/Rio Vista and Orangewood
- Start construction on Euclid
- Design Beach Blvd and Santa Ana Canyon / Royal Oak Rd
Underground Conversion Program
2018/19 5-year Plan Update

ANAHEIM

CITY COUNCIL
JULY 31, 2018