

# Street Light Maintenance

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# Purpose of Briefing

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- ❑ Review street light maintenance practices and procedures
- ❑ Present maintenance issues and actions to reduce street light outages

# Overview

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## **Background Information**

- System inventory
- Street lighting costs
- Maintenance responsibilities
- Potential contract revisions

## **Maintenance Issues and Actions**

# System Inventory

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- ❑ **84,000 street lights citywide in public ROW**
  - 71,000 TXUED-owned (TXU Electric Delivery)
    - 12,000 on major thoroughfares (mostly metal poles)
    - 58,000 on residential streets (mostly wood poles)
    - 1,000 in CBD (30' to 40' metal poles)
  - 13,000 Non-TXUED-owned
    - 8,500 TxDOT-owned on freeways
    - 4,500 City-owned (ornamental poles and fixtures)
- ❑ **All lights are maintained by TXUED.**

# Street Lighting Costs

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## ❑ Maintenance for TXUED-owned lights

- Fixed monthly rate corresponds to bulb type, wattage & wiring connection (overhead/ underground)
- North Texas cities served by TXUED negotiate costs & services under a regional rate case & appeal issues to the Public Utilities Commission “PUC”
- Rate cases result in a regional tariff that establishes rates, business procedures and maintenance responsibilities.

## ❑ Maintenance for City/TxDOT-owned lights

- Maintained by TXUED charging labor + materials
- TxDOT contracts with the City to maintain freeway lighting and reimburses the City

# Street Lighting Costs

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## □ Electricity

- Separate from TXUED maintenance contract
- Procured through open market
- Contract recently awarded to GLO/Reliant

## □ Annual cost summary for FY05-06

- Electric Cost = \$7 M
- Maintenance Cost = \$11 M
- Total Annual Cost = \$18 M

# Maintenance Responsibilities

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## □ TXUED responsibilities

- Provides customer service to report outages
  - TXUED Phone: **1.888.313.4747**
  - TXUED Website: [www.txuelectricdelivery.com](http://www.txuelectricdelivery.com)
- Repairs street lights on failure
  - Reactionary maintenance
  - Tariff requires 15 calendar day response time
  - Actual response time averages 2.5 working days
  - Major repairs take longer (i.e., pole knockdowns, cable cuts)
- Keeps a database of outstanding & completed repairs
  - Web database accessible to city staff at all times to view response times and track outstanding repairs
  - Staff periodically selects field outages to track and verify accuracy of database

# Maintenance Responsibilities

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## □ City staff responsibilities

- Resolves complaints from residents or motorists about repeat repairs or lack of service
- Reviews TXUED database and coordinates corrective actions if response times are excessive
- Reviews and approves monthly billings
- Warrants and approves new installations
- Patrols streets and freeways for outages

# Potential Contract Revisions

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## □ Regional street light committee

- Staff participating in committee to revise maintenance practices and service levels prior to the next rate case in June, 2008.
- Staff conducting national survey on best practices to support upcoming rate case negotiations. Survey questions include:
  - Outage percentage standards
  - Average response times
  - Average maintenance costs per street light
  - Preventative maintenance practices
  - Use of city forces or private contractors
- Council Commission on Productivity and Innovation appointed a subcommittee to assist and advise staff during process

# Maintenance Issues

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- Proactive patrolling
- Wire theft on freeways
- Road construction
- Outage reporting by public

# Maintenance Issues

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## □ Issue: Proactive patrolling

- Street light maintenance requests have steadily increased over the past 2 years.
- June -Dec. 2006: Engineering staff conducted citywide sample surveys and found 14% of the lights not working.
- Dec. 2006: The traffic-signal maintenance technician on the night shift was reassigned to proactively patrol streets and report street light outages.
- The traffic signal technician usually performs traffic signal preventative maintenance when there are no outstanding traffic-signal emergency-service calls.
- On a temporary basis, street lighting patrolling will be conducted rather than traffic signal preventative work.
- Since patrolling began, outages dropped from 14% to 9%.

# Maintenance Issues

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## □ Actions: Proactive patrolling

- Recommend restoring street light position cut several years ago.
- Staff will submit a bid for Street Light Maintenance Coordinator in the next budget cycle.
  - Devotes full time position to patrolling and tracking outages
  - Allows monthly review of lights on major streets & freeways
  - Restores traffic signal preventative maintenance levels
- Added the following performance measures in December of 2006:
  - Percentage of lights not working
  - Number of street lights surveyed

# Maintenance Issues

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## □ Issue: Wire theft on freeways

- Cable stolen from 40 miles of freeway over past year
- Theft focused on freeways with wide shoulders, lower traffic volumes and no surveillance cameras.
- TxDOT delayed cable replacement until preventative cable theft measures could be implemented

## □ Actions

- Cable has been restored at 50% of dark freeway segments.
- Implementing steps to prevent future theft.
- Replace cable on all freeway segments by the end of June 2007.

# Maintenance Issues

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## □ Issue: Construction

- Road widening and private development construction projects include street excavations and utility relocations that often destroy wire connections.
- Most issues related to contracts administered by external agencies (i.e., DART, TxDOT, Dallas County).

## □ Actions

- Enhance City contract specifications and procedures to ensure lighting during construction is maintained.
- Work with external agencies to revise their specifications to require temporary lighting during construction.

# Maintenance Issues

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## ❑ Issue: Outage reporting by public

- Outages in neighborhoods can be reported by using the nearest address.
- Outages on major roadways and freeways are difficult to report since motorists cannot stop to determine pole numbers or addresses while driving.
- TXUED crews work during the day, so descriptions need to be specific enough to direct crews to the correct pole.
- Bad location information result in longer response times and repeat visits.
- In the past, the 311 system did not allow for flexibility in reporting outages.

# Maintenance Issues

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## □ Actions: Outage reporting by public

- Recently improved 311 service requests:
  - First time reports are sent directly to TXUED customer service website. Expedites reports to TXUED maintenance staff.
  - Repeat requests and repair issues are sent to city staff.
  - Service request intake will be more flexible and display multiple location description types:
    1. In front of 1201 Main Street
    2. At the intersection of Norris and Mockingbird next to the Luby's
    3. 3rd and 4th lights north of Buckner and Samuell
- Complete street light brochure by May, 2007.
- Coordinate with neighborhood associations in June, 2007, to distribute brochures and include “how to” information in neighborhood newsletters.
- Work w/ PIO to promote street light outage reporting

# Conclusion

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## □ Staff goals

- Reduce percentage of street light outages from 9% to 6% over the next 6 months (94% operational).
- Complete regional street light committee efforts to define service levels and maintenance practices requirements before next rate case in July, 2008.
- Identify potential cost savings or cost impacts if contracts and maintenance practices are revised.