



Seattle City Light

Customer Service & Energy Delivery Overview

City Light Review Panel

Presenter: Phil West, CSED Officer

July 21, 2010



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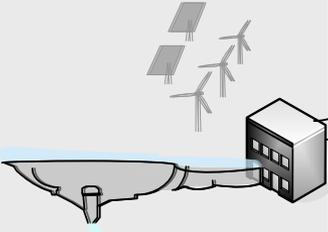
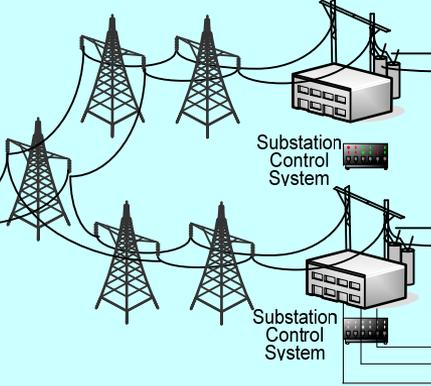
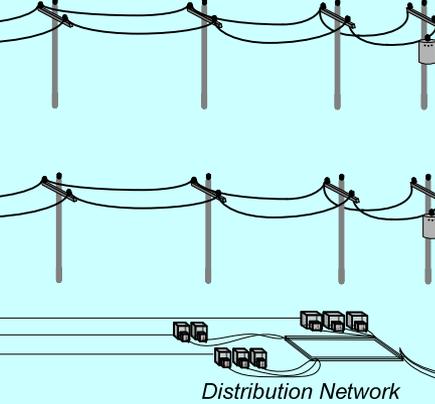
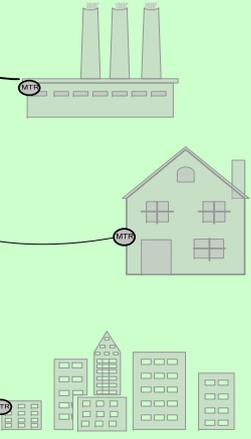
Customer Service & Energy Delivery (CSED) Overview

Responsible for:

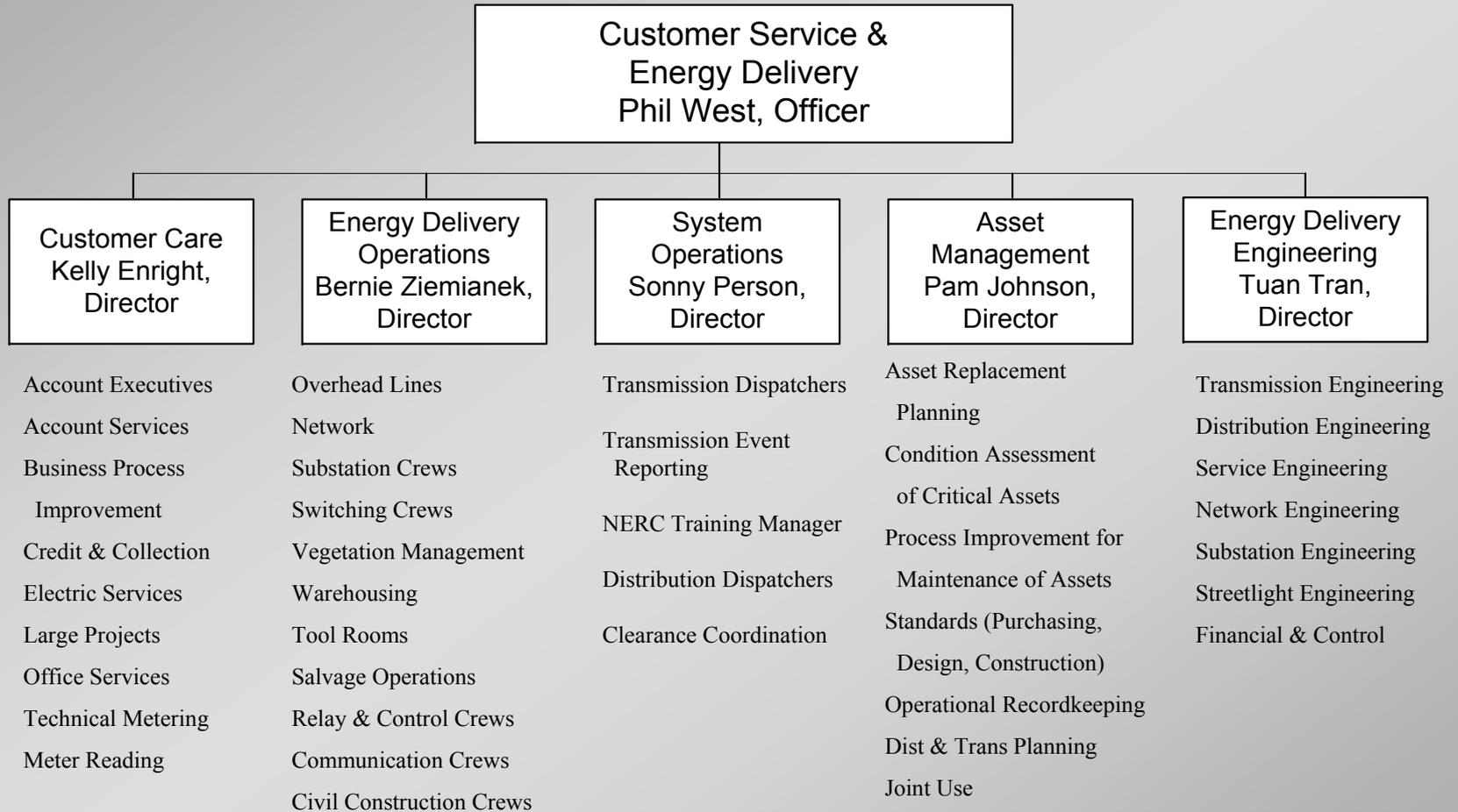
- **Design, build, operate and maintain the transmission & distribution system**
- **Broad range of customer service functions in the areas of service connections and relocations, account management and complaint resolution**



Utility Infrastructure and Assets

<p>Generation</p> 	<p>Transmission System</p> 	<p>Distribution System</p> 	<p>Customer</p> 
<p>7 Dams</p> <p>7 Generation Stations</p> <p>26 Powerhouse Transformers</p>	<p>660 Circuit Miles</p> <p>1,200 Steel Lattice Towers</p> <p>700 Wood Poles</p> <p>15 Major Substations</p>	<p>53,700 Transformers</p> <ul style="list-style-type: none"> • 1200 Network • 52,500 Distribution <p>168 Electrical Feeders</p> <p>108,000 Poles</p> <p>84,000 Street Lights</p> <p>2,400 Miles of Line</p> <ul style="list-style-type: none"> • 500 mi UG Radial • 160 mi UG Network 	<p>~ 400,000 Meters</p> <p>71,500 in Suburban Cities (Shoreline, Lake Forest Park, Tukwila, Burien) & Unincorporated King County</p>

CSED Overview



CSED Budget

\$ in millions

Division	Employees	O&M	Capital
Customer Care	280	\$24.2	\$14.9
Energy Delivery Operations	595	\$41.9	\$22.0
System Operations	31	\$5.4	\$0.8
Asset Management	53	\$11.0	\$13.8
Energy Delivery Engineering	105	\$5.5	\$115.0



Customer Care



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Customer Care

- ◆ Account Executives
- ◆ Account Services
- ◆ Business Process Improvement/Redesign
- ◆ Credit and Collections
- ◆ Electric Services
- ◆ Large Project Management
- ◆ Office Services
- ◆ Tech Metering and Meter Reading



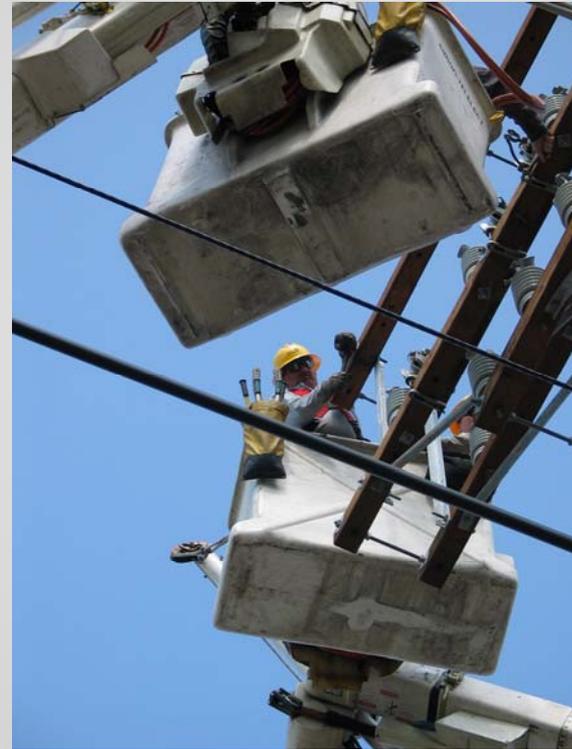
Customer Care

Focus Areas:

- ◆ Coordinating Key Stakeholder Initiative with Seattle City Light's Executive Team
- ◆ Call Center Responsiveness and business process improvement initiatives
- ◆ Implement Outage Management System Streetlight Process for Repairs and Maintenance
- ◆ Implement WAMS Phase 1 module for Customer Care (customer work and streetlights)
- ◆ Expand participation in Low Income Assistance Programs
- ◆ Alaskan Way Viaduct Project and Mercer Corridor
- ◆ Business Process Improvements
- ◆ Secure funding and implement Advanced Metering Infrastructure (AMI)



Energy Delivery Operations



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Energy Delivery Operations

- ◆ Overhead Lines (North and South Service Centers)
- ◆ Network
- ◆ Substations (North and South Service Centers)
 - Station Operating Crews
 - Operations Switching Crews
- ◆ Transmission and Distribution Services
 - Vegetation Management
 - Warehousing
 - Tool Rooms
 - Salvage Operations
- ◆ Technical Services
 - Relay and Control Crews
 - Communication Crews
- ◆ Civil Construction Crews



Energy Delivery Operations

Focus Areas:

- ◆ Maintain a Safe Operating System for the Public & Employees
- ◆ Maintain Effective and Efficient Operational Procedures
- ◆ Construct and maintain a System Supported by Good Industry Practices and Guidelines
- ◆ Reduce Customer Outage Response Time
- ◆ Incorporate New Technologies and Processes to Reduce System Material Failures
- ◆ Maintain Proper Vegetation Management Guidelines
- ◆ Implement a 10-Day Initial Streetlight Troubleshooting Guideline



System Operations



System Operations

- ◆ 24X7 Operation focused on electric system reliability
- ◆ Monitor real time activity of transmission and distribution system
- ◆ Coordinate operations with neighboring utilities (BPA, PSE, SnoPUD, Northwest Power Pool, etc)
- ◆ Dispatch hydro generation
- ◆ Re-configure the system for planned work
- ◆ Direct restoration procedures during power outages
- ◆ Monitor and modify real time power schedules



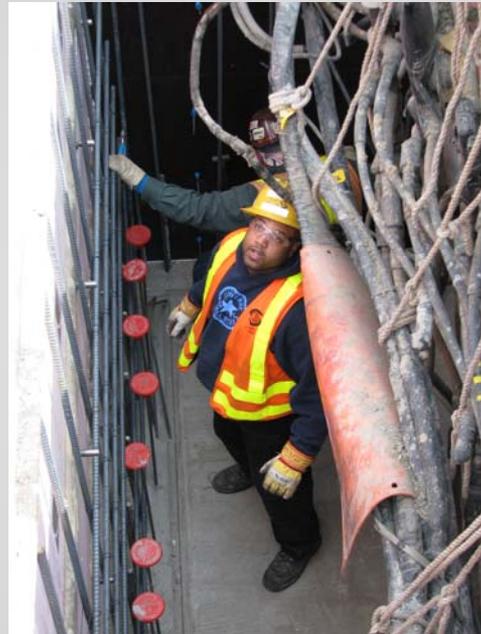
System Operations

Focus Areas:

- ◆ Comply with North American Electric Reliability Corp (NERC) Standards
- ◆ Establishing a Backup Control Center
- ◆ Implementing the Outage Management System
- ◆ Improving Outage Restoration Time
- ◆ Efficient & Effective Storm Management (plan not tested under fire)



Asset Management



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Asset Management

Long-term operational and asset planning to ensure lowest overall rate impact and highest reliability and service to customers.

- ◆ Strategic asset replacement planning
- ◆ Condition assessment of critical assets
- ◆ Process improvement for maintenance of assets
- ◆ Standards (Purchasing, Design, and Construction)
- ◆ Operational Recordkeeping
- ◆ Distribution & Transmission Planning
- ◆ System compliance with federal reliability regulations
- ◆ Joint Use / Pole Attachments



Asset Management

Focus Areas:

- ◆ Implementation of standardized, industry best practices to manage electrical infrastructure
- ◆ Implementation of a Work and Asset Management System to ensure one source of asset data and enable more efficient scheduling and planning of work.
- ◆ Interact pro-actively with Regional Electric Transmission providers to ensure system reliability and capacity to meet customer needs
- ◆ Develop integration of currently incompatible GIS/Mapping systems
- ◆ Develop effective life extension programs to reduce near term capital expenditures



Energy Delivery Engineering



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Energy Delivery Engineering

- ◆ Transmission Engineering
- ◆ Distribution Engineering
- ◆ Network Engineering
- ◆ Substation Engineering
- ◆ Streetlight Engineering



Energy Delivery Engineering

Focus Areas:

- ◆ Provide New Electrical Service to Customers
- ◆ Capacity Improvement
- ◆ Reliability
- ◆ Aging Infrastructure
- ◆ Financial Oversight of Projects



Significant Upcoming Challenges from 2011-2016

- ◆ **Effective planning and management of aging infrastructure providing safe, reliable power**
- ◆ **Meeting customers' increasing expectations around power quality and alternative communication and marketing channels**
- ◆ **Develop and document standard work practices and procedures across the business unit**



2008 Strategic Plan: Focus Areas for CSED

Priority	Objective	Initiative	Status
Environmental Stewardship			
Balanced resource portfolio			
Improved energy delivery infrastructure	<ul style="list-style-type: none"> ◆ Reliability and resilience ◆ Superior customer service ◆ Anticipation of evolving customer needs ◆ Anticipation of evolving economic development 	<ul style="list-style-type: none"> ◆ Energy delivery Infrastructure Plan ◆ Smart-grid planning ◆ Asset Management Program ◆ Business Process Improvement 	<p>In progress</p> <p>In progress</p> <p>In progress</p> <p>4 complete</p>
Financial Strength			
High Performance Organization			



Customer Service & Energy Delivery

Questions

&

Answers



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