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Transmission Planning

Process and COPUC Rule 3627

Agenda



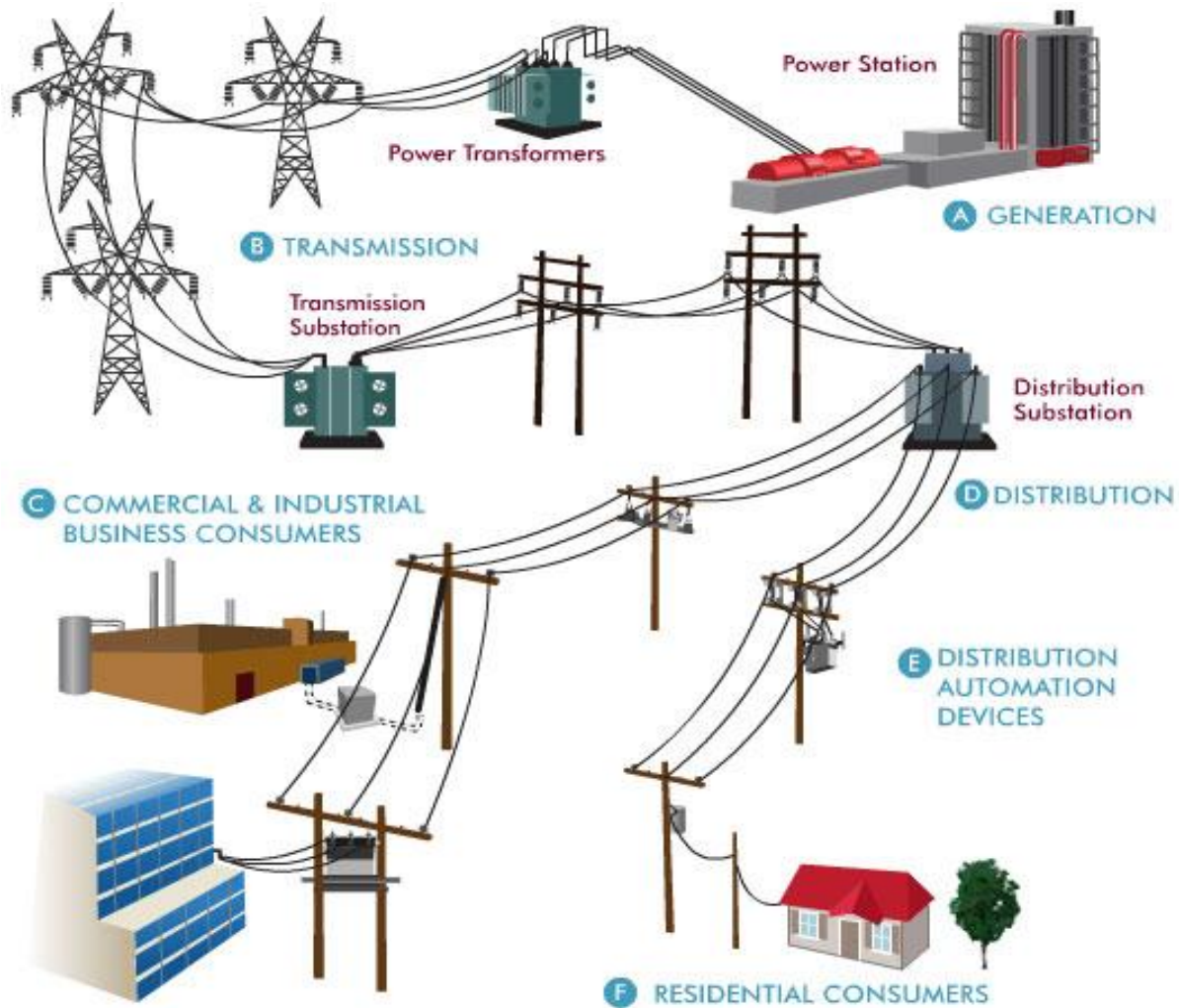
1. Introductions
2. Black Hills Energy Transmission System
3. Overview of Colorado PUC Rule 3627
4. Transmission Planning Process
5. 10-year Transmission Plan

Introductions



- Eric Egge, PE
 - Director, Transmission Services

Electricity 101

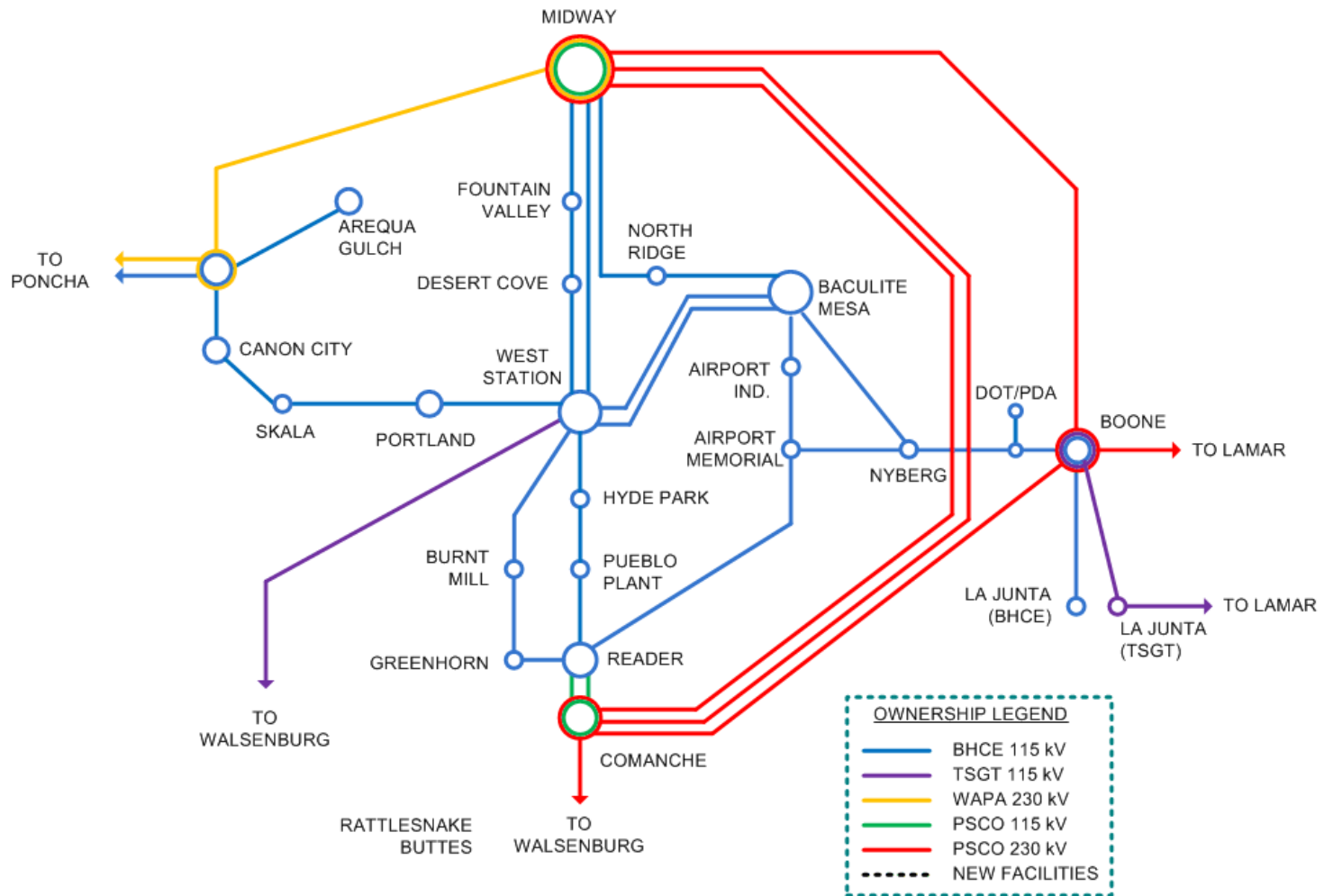


Courtesy of Oncor (<http://www.oncor.com/images/content/grid.jpg>)

- System Overview
 - 230 miles of 115 kV transmission line
 - 69 kV sub-transmission system
 - 490 MW generation
 - 58 substations
 - 392 MW peak load (2011)

Current Transmission System

BLACK HILLS/COLORADO ELECTRIC CURRENT TRANSMISSION SYSTEM



Colorado PUC Rule 3627



- Recently Adopted
- Purpose
 - Streamlined CPCN process
 - Stakeholder input and feedback
- Requirements
 - 10-year plan bi-annual filing – Feb. 1, 2012 [3627(a)]
 - 20-year conceptual scenarios – Feb. 1, 2014 [3627(e)]
 - Active stakeholder participation [3627(g)]
 - Reference recently filed 10-year plan in CPCN applications [3627(i)]

Transmission Planning Process



What is Transmission Planning?

Analyze the transmission system to identify transmission facilities required to deliver current and future generating resources to current and future customer loads while balancing reliability, societal impact and cost.

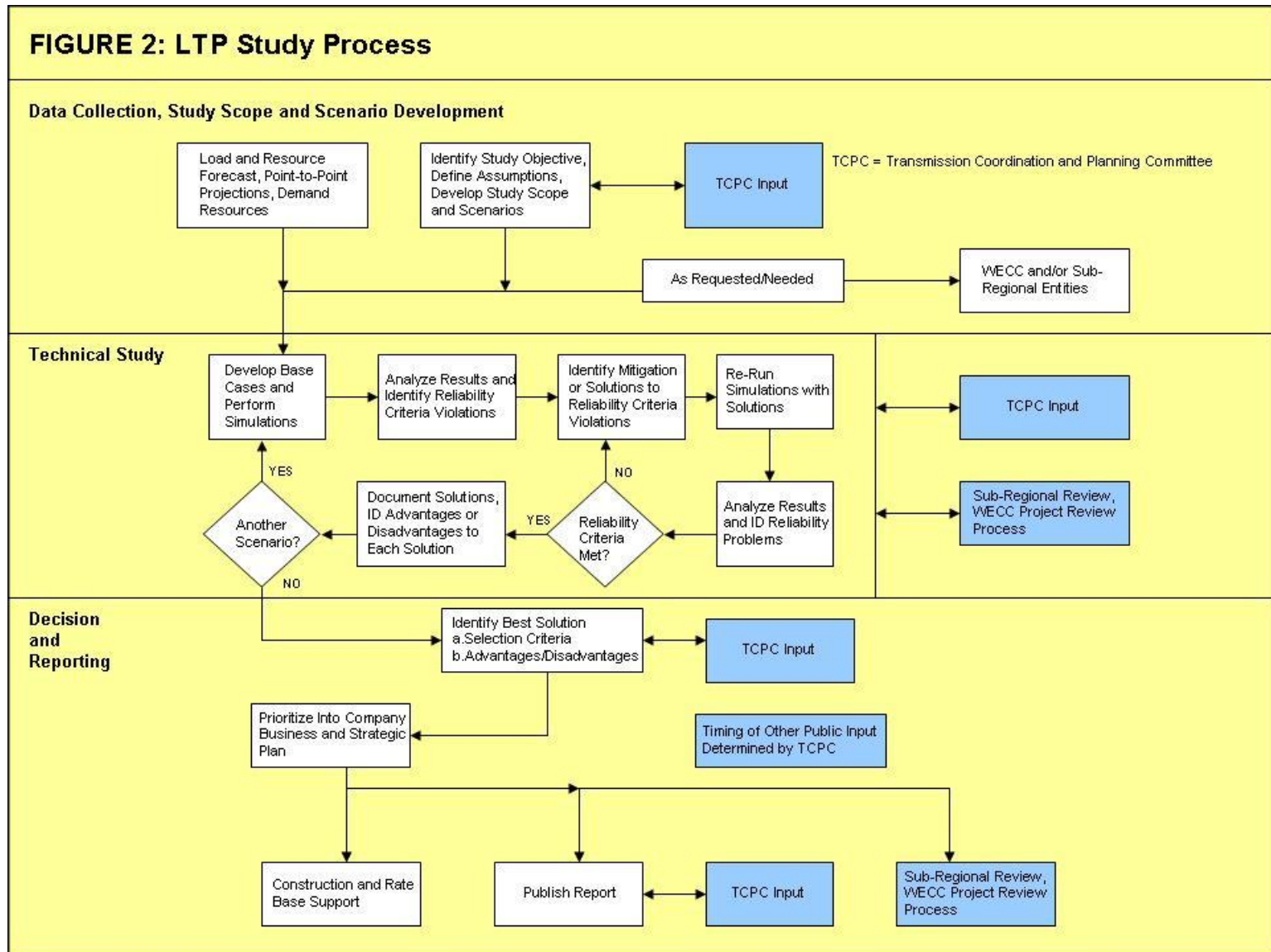
Transmission Planning Process



- Existing Processes
 - FERC Order 890
 - Coordination
 - Openness
 - Transparency
 - Information Exchange
 - Comparability
 - Colorado Senate Bill 07-100 (SB-100)
 - Expand transmission to Energy Resource Zones
 - Bi-annual filing Oct. 31st of even years

Transmission Planning Process

FIGURE 2: LTP Study Process



Transmission Planning Process

Typical Timeline - LTP Study Cycle

Quarter	Planning Steps	Data Collection	TCPC Meetings
Q4	Study Scope & Scenario Development	Open	X
Q1	Technical Study	Optional	X
Q2		Closed	X
Q3	Decision & Reporting		X

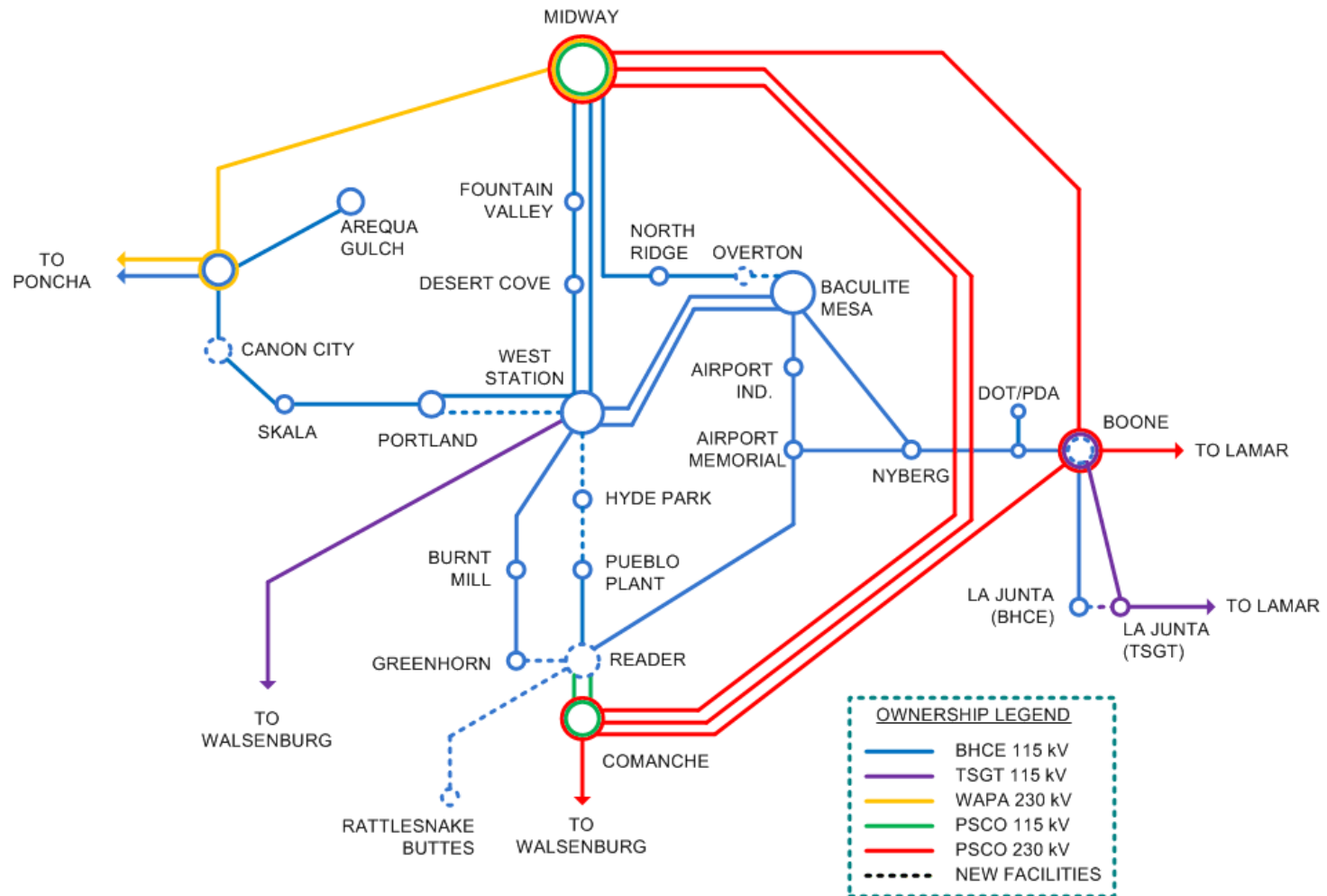
10-year Transmission Plan



Project	In-Service Date	Progress
Reader-Rattlesnake Buttes 115 kV Line	2012	Design, Permitting
Rattlesnake Buttes 115 kV Substation	2012	Design, Permitting
Greenhorn-Reader 115 kV Line Rebuild	2012	Design, Permitting
La Junta Tri-State Interconnection	2014	Planned
Pueblo-Hyde Park-West Station 115 kV Line Rebuild	2013	Planned
Boone 230:115 kV Transformer #2	2013	Planned
Portland-West Station #2 115 kV Line	2012	Design
Baculite Mesa-Overton 115 kV Line Rebuild	2012	Planned
Overton 115 kV Substation	2013	Planned
Canon City 115 kV Capacitor Bank	2012	Planned

10-year Transmission Plan

BLACK HILLS/COLORADO ELECTRIC 10-YEAR TRANSMISSION PLAN



Next Steps



- Opportunities for Input
 - Transmission Coordination and Planning Committee
 - Webinar and/or Face-to-face Meetings
 - Websites
 - <http://www.blackhillscorp.com/transmission.htm>
 - http://www.westconnect.com/planning_ccpg.php
 - <http://www.oatioasis.com/bhct/index.html>
 - “Transmission Planning” folder

Questions?

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List of Terms & Acronyms



- kV = kilovolt (1,000's of volts)
- MW = megawatts (millions of watts)
- Peak Load = highest single hour of electricity usage in a year (MW)
- Substation = facility where voltage is transformed to a higher or lower level using transformers
- TCPC = Transmission Coordination and Planning Committee
- LTP = Local Transmission Plan
- FERC = Federal Energy Regulatory Commission
- NERC = North American Electric Regulatory Corporation
- WECC = Western Electricity Coordinating Council
- CCPG = Colorado Coordinated Planning Group
- OASIS = Open Access Same-time Information System