

# PSCo Senate Bill 100 Stakeholder Update

**Tuesday, June 10, 2008**



# October 2007 Filing Summary

- **Zone 1:**
  - ▣ **Short Term: Pawnee – Smoky / Daniels Uprate (2008)**
  - ▣ **Pawnee – Smoky Hill 345kV Transmission Project (CPCN)**
  - ▣ **Ault – Cherokee 230kV**
  - ▣ **Cherokee – Keenesburg 230kV**
- **Zone 2:**
  - ▣ **EPTP**
- **Zone 3:**
  - ▣ **Short Term: Boone – Lamar 230kV Uprate: (2008)**
  - ▣ **EPTP**
  - ▣ **Lamar – Baca County 230kV**
- **Zone 4:**
  - ▣ **Short Term: 230kV Termination at SLV (2009)**
  - ▣ **SLV – Walsenburg 230kV Project (TSGT)**



# 2008 – 2009 Process

- **Mar 4, 2008: Kickoff Meeting**
- **Apr 2008: Transmission Study Group Formed**
- **Apr – Nov 2008: Transmission Studies**
- **Nov 2008: Preliminary Transmission Plans**
- **Nov 2008 – Jan 2009: Detailed (CPCN) Studies**
- **Mar 2009: File CPCN Applications**

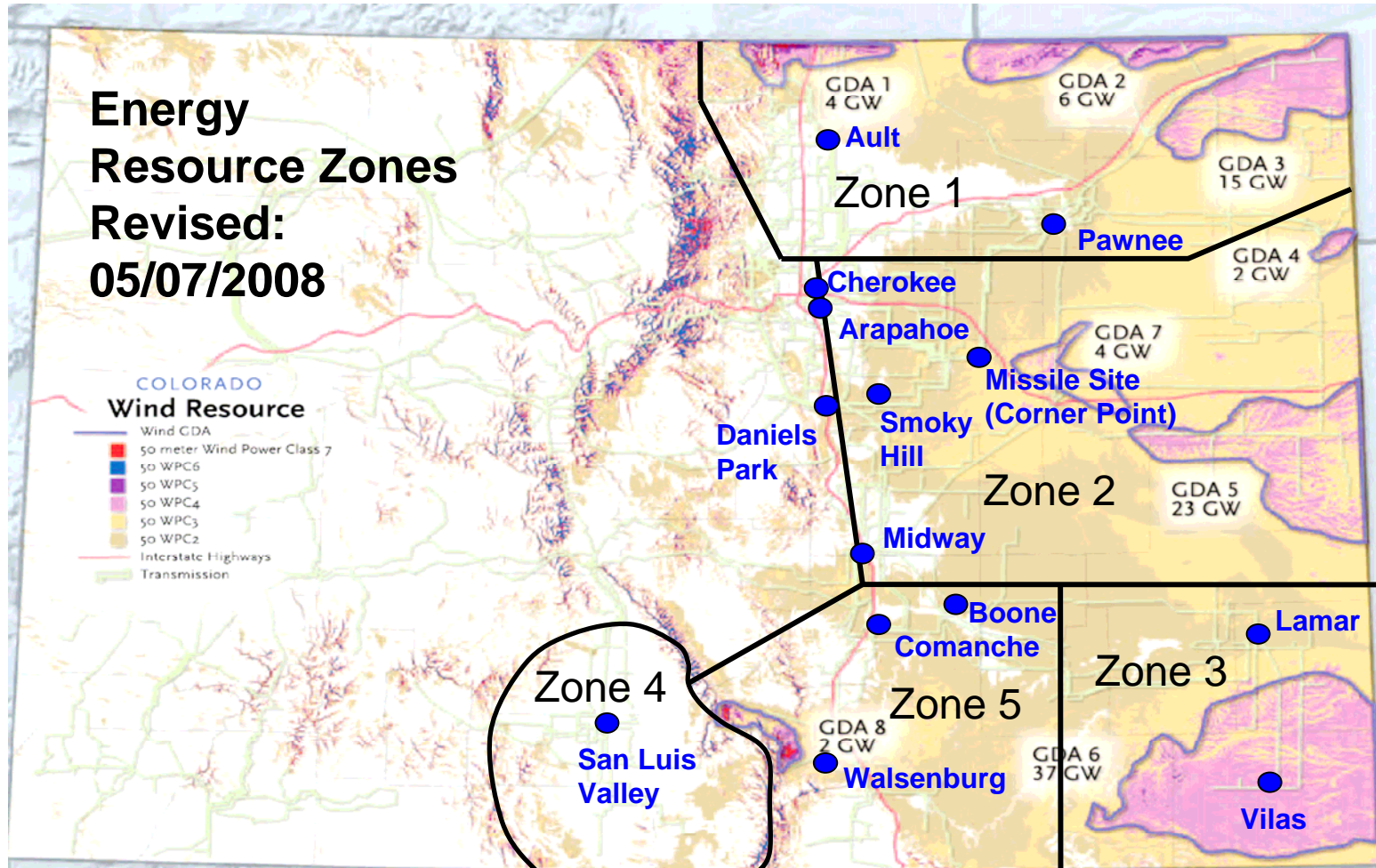


# Transmission Study Process

- **Identify Energy Resource Zones**
- **Consider Colorado Resource Plan**
- **Develop Transmission Study Models**
- **Prepare Transmission Study Plan**



# Energy Resource Zones



# Colorado Resource Plan Input

Proposed PSCo 2015 CRP	
Gen	MW
Wind	800
Solar	225
Arapahoe CC	480
New CT (3)	390
New CC	470
<b>TOTAL</b>	<b>2365</b>



Base Case Plan			
Gen	MW	Location	ERZ
Wind	400	Pawnee	Zone 1
Wind	200	Baca County	Zone 3
Wind	200	Corner Point	Zone 2
Solar	200	San Luis Valley	Zone 4
Solar	25	Boone	Zone 5
Arapahoe CC	480	Arapahoe	Denver Metro
New CT 1	260	Spruce Extension	Existing
New CT 2	130	Pawnee	Zone 1
New CC 1	470	RMEC Extension	Existing
<b>TOTAL</b>	<b>2365</b>		



## Injection Assumptions:

- High Wind = 150% of CRP (800 MW) = 1200 MW
- High Solar = 200% of CRP (225 MW) = 450 MW



# 2015 Transmission Study Model

- **Developed from WECC 2013 Heavy (Peak Load) Summer Case**
- **Adjusted regional loads to 2015 Summer Peak conditions**
- **Modified transmission topology**
- **Add placeholders for new resource injections in all five Energy Resource Zones**



# Transmission Study Scenarios

- **Zone 1**
  - Injection at Pawnee – 600 MW
  - Injection at Ault – 500 MW
- **Zone 2**
  - Injection at Corner Point (Missile Site) – 500 MW
- **Zone 3**
  - Injection at Lamar – 400 MW
  - Injection at Vilas – 200 MW
  - Sensitivity with/without TSG&T Lamar Energy Center Generation
- **Zone 4**
  - Injection at San Luis Valley – 400 MW
- **Zone 5**
  - Injection at Walsenburg – 200 MW
  - Injection at Boone – 25 MW
- **Light Load North**
- **Light Load South**





# Study Process

- **Determine injection sites for each ERZ**
- **Evaluate “stand-alone” system performance for resource addition at each injection site:**
  - ▣ **Focus on N-1 thermal and voltage performance**
  - ▣ **Evaluate 2-3 transmission alternatives**
  - ▣ **For each alternative, determine injection capability and costs**
- **Evaluate potential for project synergies:**
  - ▣ **Combine Zone 1 & 2 resource injections (North heavy)**
  - ▣ **Combine Zones 3, 4, & 5 resource injections (South heavy)**
  - ▣ **Coordinate plan for all zones**
- **Sensitivity analysis of Tri-State resource plans**
- **Propose Transmission Projects**
- **Evaluate Light Load conditions**



# Remaining Schedule

- **Weekly Transmission Planner Meetings**
- **Bi-Monthly Stakeholder Meetings**
- **CCPG Meeting August 20, 2008**
- **Stakeholder Meeting early October?**
- **Stakeholder Meeting November 2008**



# Coordination

- **Local**
  - TSGT, WAPA
- **CCPG**
  - CLRTPG
- **WestConnect**
- **WECC**

# PSCo Public Website

## **Senate Bill 100:**

**<http://www.rmao.com/wtpp/SB100.html>**



# Questions

