



**NM Subgroup**

# SWAT Oversight Committee

## NM Subcommittee Update August 2011

Tom Duane

PNM Transmission/Distribution Planning and Contracts





# SWAT NM Subcommittee

- **Conference Call on Collector Study Initial Results held on August 12.**
- **Approximately 17 Participants**
- **Scope:**
  - **5000 MW of Renewables**
  - **2021 Timeframe**
  - **Performance under various export options base on proposed projects.**

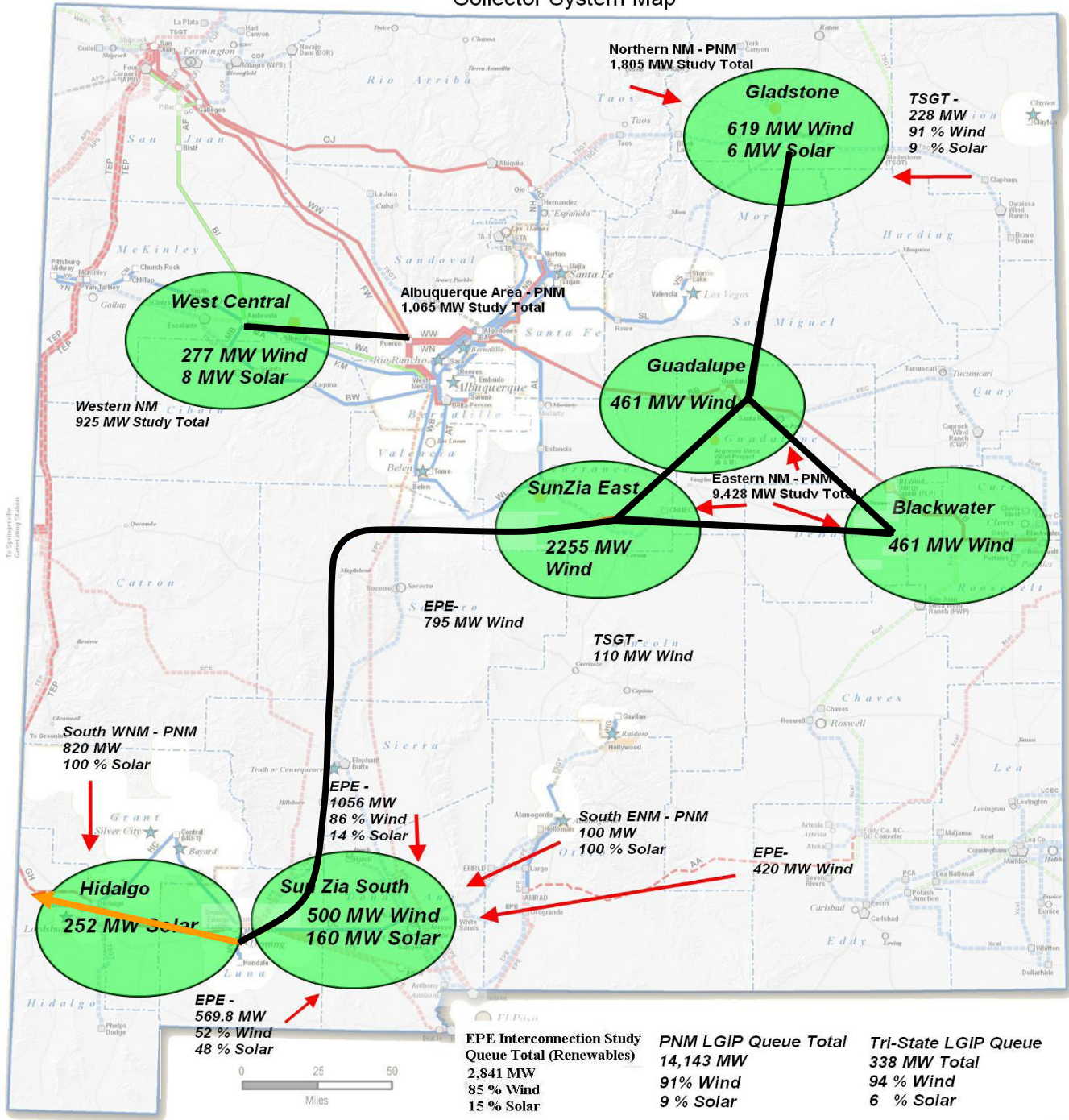


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# NM Renewable Collector Branches



Collector System Map





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# Export Options

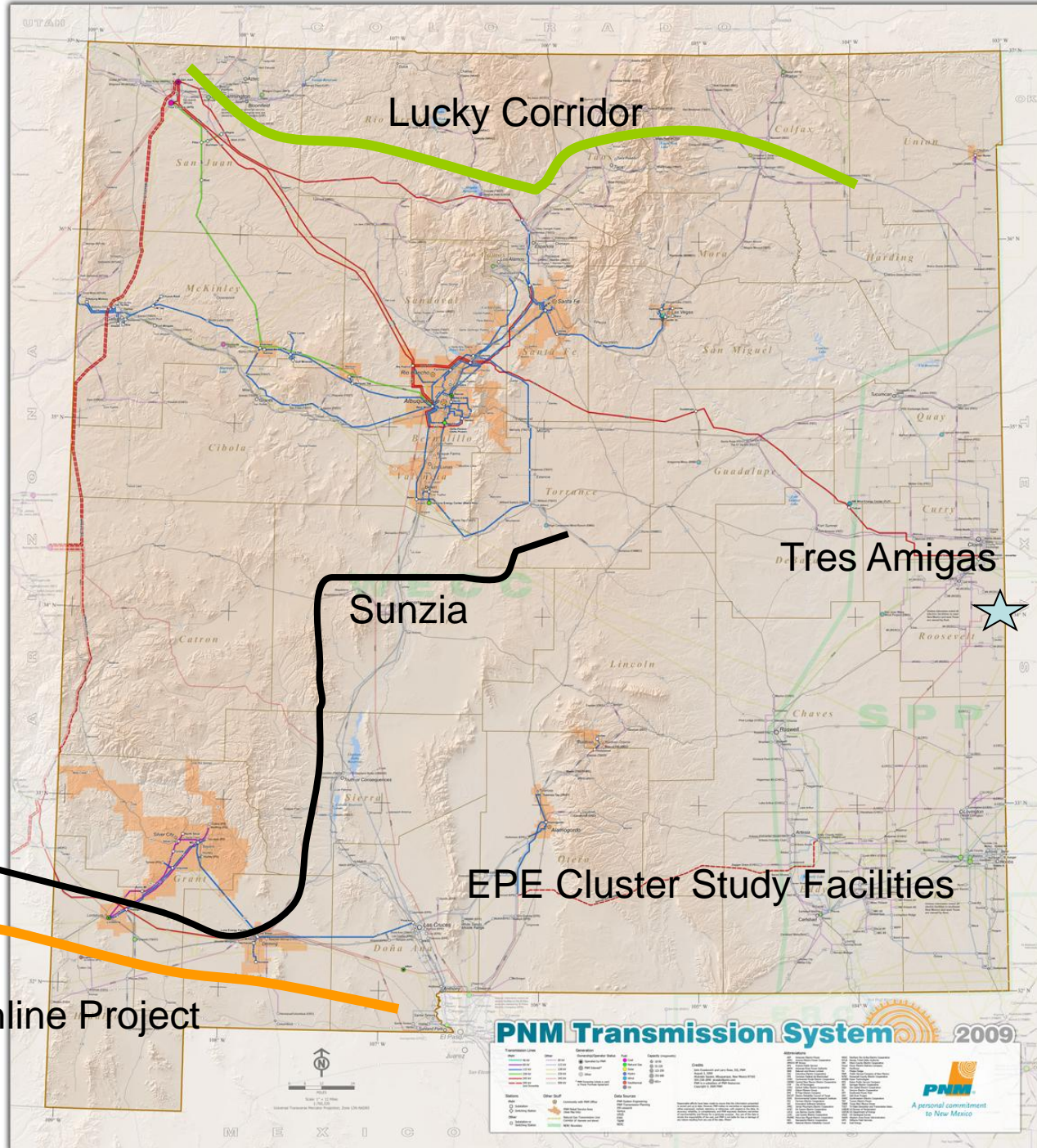
- **Export Options:**
  - Sunzia Project as 2-500 kV AC Lines
  - Centennial West Project – DC Line to CA
  - South Line Project – 2-345 kV lines in SNM
  - Tres Amigas – DC Interconnection to East/ERCOT
  - Other possibilities not assessed:
    - Luck y Corridor Project
    - PNM Collector Concepts
    - HPX Central Route
- **More than one likely required for 5000 MW.**





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# Export Options



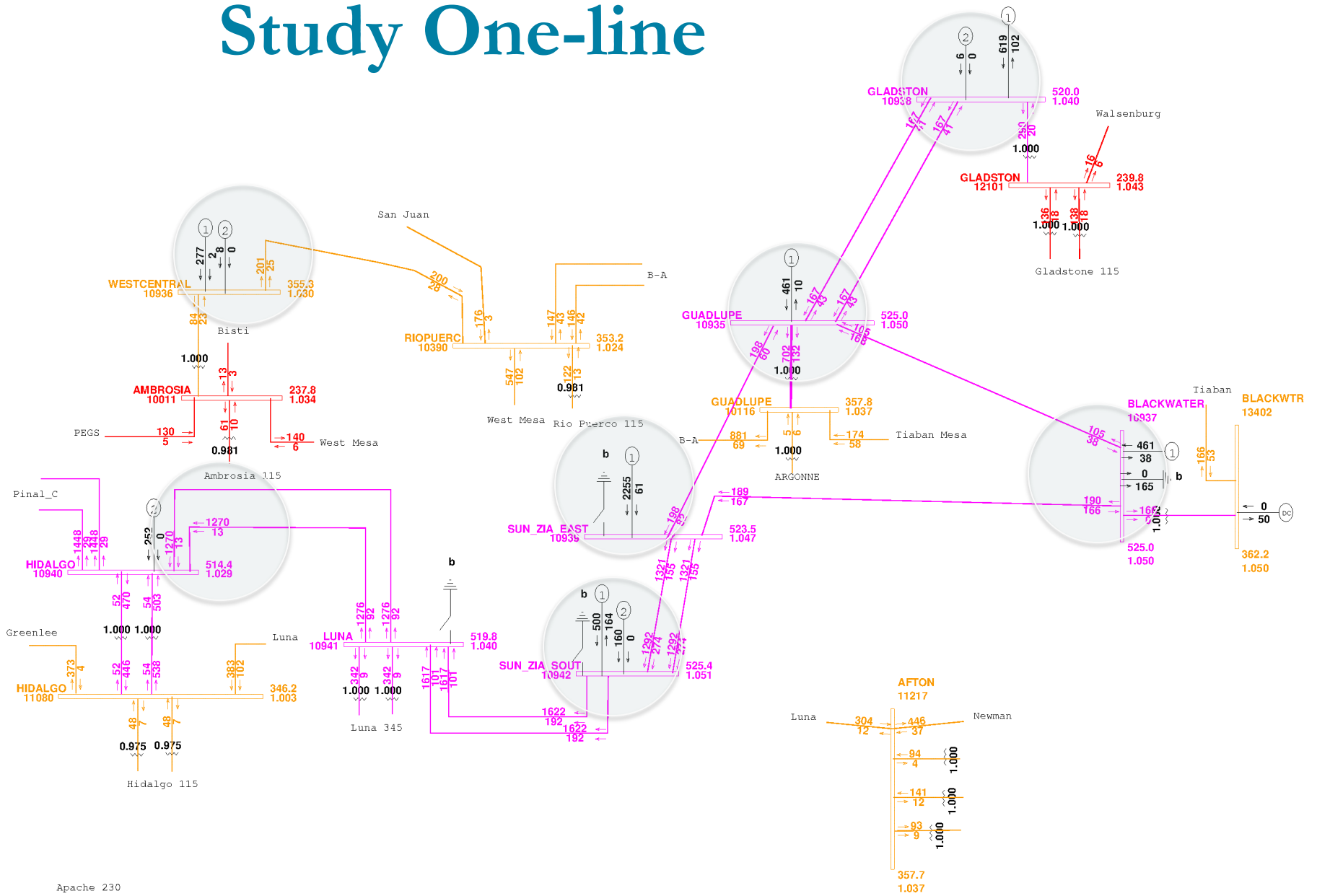
**PNM Transmission System 2009**

**PNM**  
A personal commitment to New Mexico

# Some Assumptions

- Scheduled to California except with Tres Amigas Option
- Portion of Sunzia Project Assumed in All Scenarios to Connect North and South parts of collector system.
- Summer Case Only

# Study One-line





# 5000 MW Scenarios

- Sunzia Only
- Centennial West Only
- South-line And Centennial West
- Tres Amigas Only



# Observations

- **Collector System Capacity Generally Adequate**
- **Some 115 kV Overloads and Guadalupe-Blackwater 345 kV Overloads**
- **Both High and Low Voltage Conditions Identified**
- **Some Unsolved Cases May Require Modifications to Collector Links**

# Initial Refinements

- Add some N-1 (Centennial West and Tres Amigas) Contingencies
- Limit Size of Centennial West to 3500 MW
- High Level Voltage Control
- Tres Amigas Importing
- Possibly determine option combinations that result in more than 5000 MW.



Southwest Area Transmission

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# Questions / Discussion

