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SoCalGas System Discussion

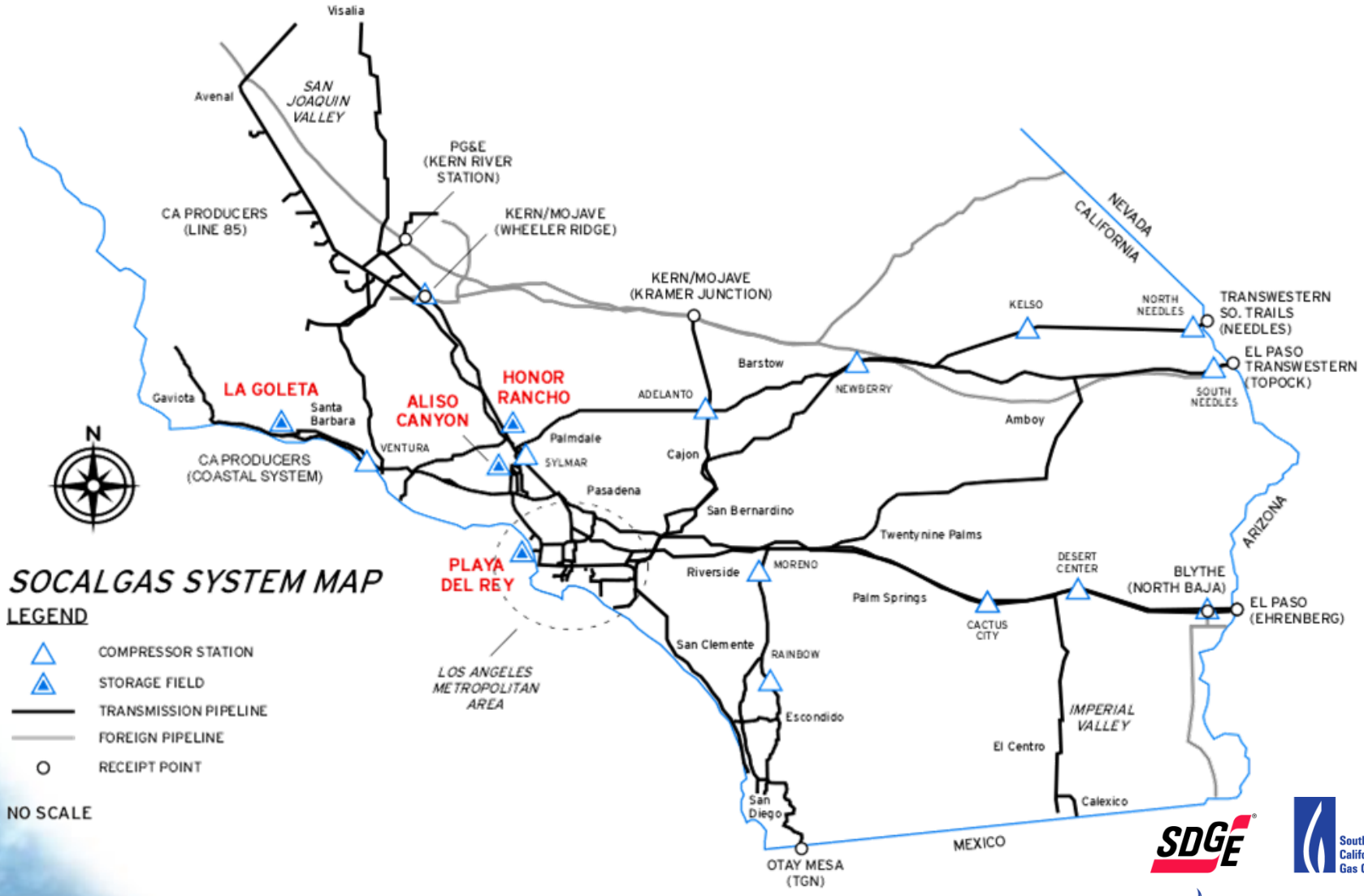
CEC AB 1257 Infrastructure Workshop
November 18, 2014

SoCalGas - Company Overview

- Nation's largest natural gas distribution utility; fifth largest in the world
- In business for 140+ years
- 12 counties and 500+ communities served
- 21.3 million consumers; 5.8 million gas meters
- 20,000+ square miles of service territory
- Gas system operator for San Diego Gas & Electric (SDG&E)
- Over 3,500 miles of transmission pipeline(1)
- Nearly 100,000 miles of distribution pipeline
- 137 Bcf billion cubic feet of gas storage capacity (3% of national storage capacity)

(1) DOT defined as of year-end 2012

SoCalGas/SDG&E
Gas Transmission System



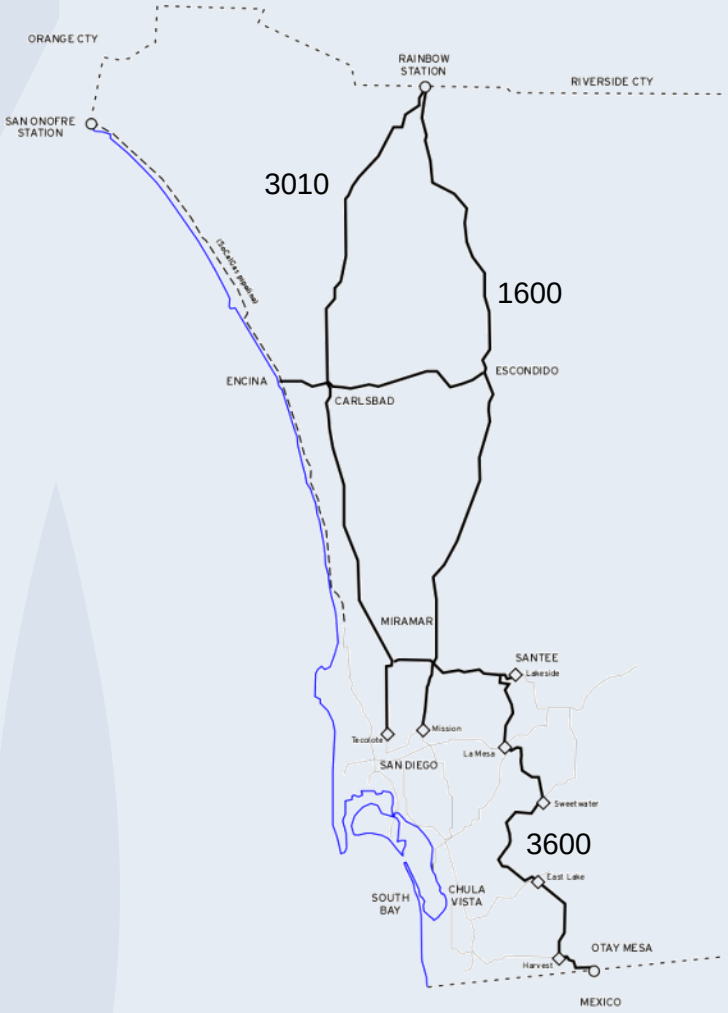
SDGE

Southern California Gas Company®

Sempra Energy® utilities

The SDG&E Gas Transmission System

- Two main north-south transmission pipelines:
  - 30-inch L3010 in west
  - 16-inch L1600 in east
- Ten compressors:
  - Moreno compressor station, 16000 HP in SoCalGas' service territory
- Primary supply from SoCalGas at Rainbow Meter Station
  - Secondary supply from TGN at Otay Mesa



Southern California Gas Company A Sempra Energy utility®

Glad to be of service.®

Underground Gas Storage

Inventory (Bcf)	Max Injection (mmscfd)	Max W/d (mmscfd)
137.1	850	3760*

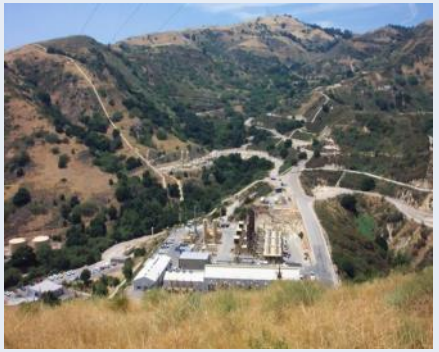
- Aliso Canyon (Northridge)
- Honor Ranch (Valencia)
- La Goleta (Goleta)
- Playa del Rey (Marina Del Rey)

* requires greater than 45 Bcf in storage inventory

10 Year Planning Horizon

- California Gas Report
- San Onofre Nuclear Generating Station
- Once-through cooling
- Renewables / Quick starts

Aliso Canyon Injection Expansion



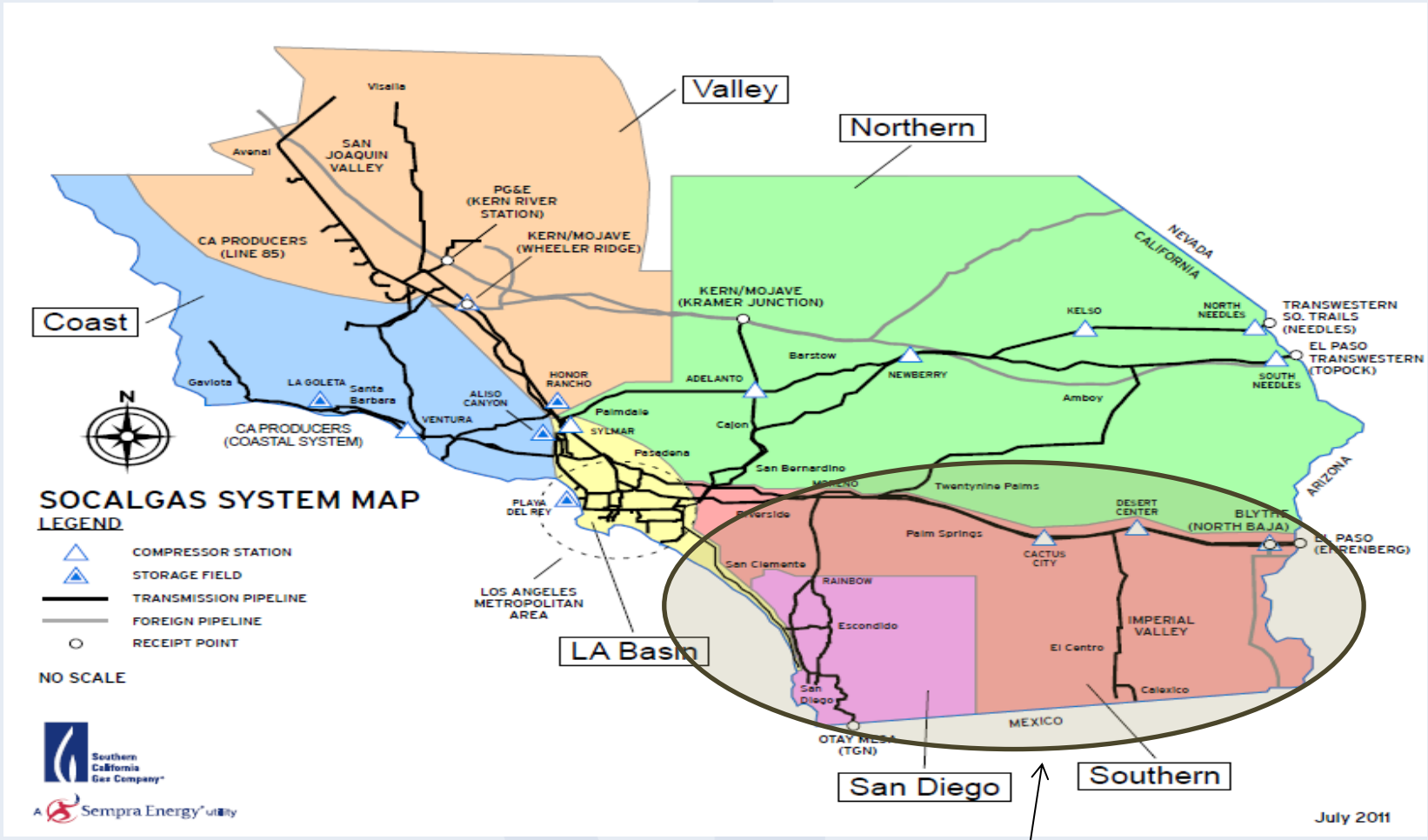
- Aliso Canyon
  - SoCalGas' largest storage field
  - Existing turbine-driven compressors are obsolete, 1970's vintage
- Turbine Replacement Project
  - Modernize compressor station, utilize electricity to drive compression
  - Increase end-of-cycle injection capacity by approx. 50%
  - Reduce station O&M costs, capital maintenance costs, emissions
  - Relocated guardhouse improves facility security, moves traffic off of the street
  - New modern steel office building in this fire-prone area

Aliso Canyon Project Status

- Engineering activity is nearing completion for compressor station and substation
- Construction underway for multiple project elements
- All compressors passed mechanical completion testing and have been delivered to site
- On schedule for project completion by Q4 2016

Southern System Reliability Issues

SoCalGas's Southern System Requires a Minimum Daily Flow of Natural Gas to Operate Reliably



Southern System

The Southern System is a Unique Operating System

Physically

- Only one receipt point (Ehrenberg) into the Southern System is regularly used
- Currently, gas in SoCalGas' storage fields cannot reach the Southern System
- Only gas flows into the Southern System can maintain reliability

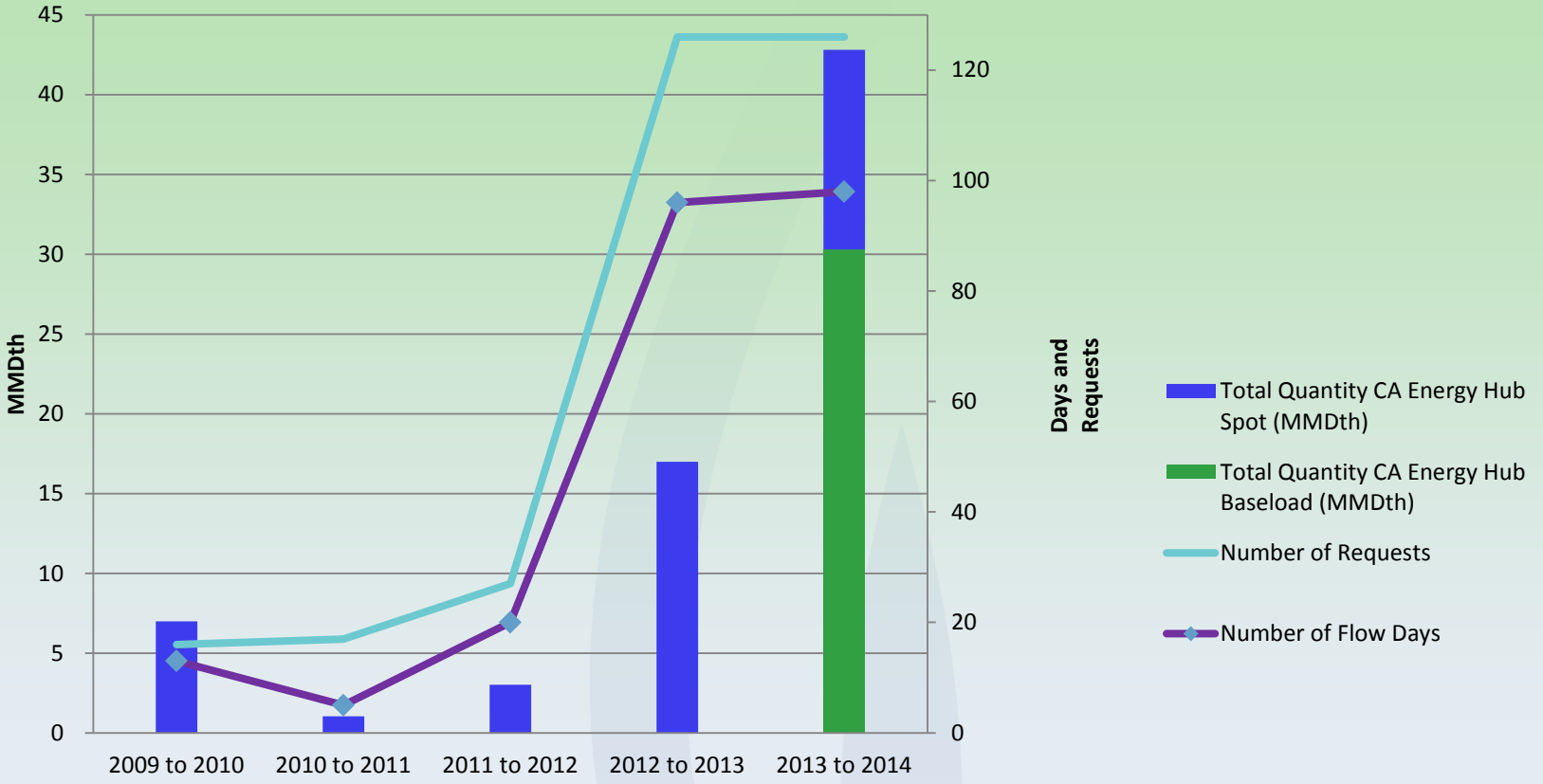
Operationally

- Customers have the flexibility to deliver their gas anywhere on the SoCalGas system, regardless of where they use it
- There are constraints in moving gas from the Northern System to the Southern System
- When the supplies of gas necessary to maintain Daily Minimum flows on the Southern System are not met with customer deliveries, then SoCalGas' Operations group purchases (and resells) the supplies on behalf of all customers

Economically

- Customers frequently choose not to deliver supplies to the southern part of our system based upon economics

Southern System Historical Data



Southern System Reliability Purchases and Interruptible BTS Discounts

	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Purchases (Dth)	6,983,793	1,044,677	3,014,544	16,988,817	42,878,668
SRMA Cost ($MM)	2.2	3.8	1.1	6.3	15.5
Net Cost ($/Dth)	0.31	3.63	0.36	0.37	0.36
BTS Discounts ($MM)	0	0	5.5	8.6	7.9
Total $MM	2.2	3.8	6.6	14.9	23.4

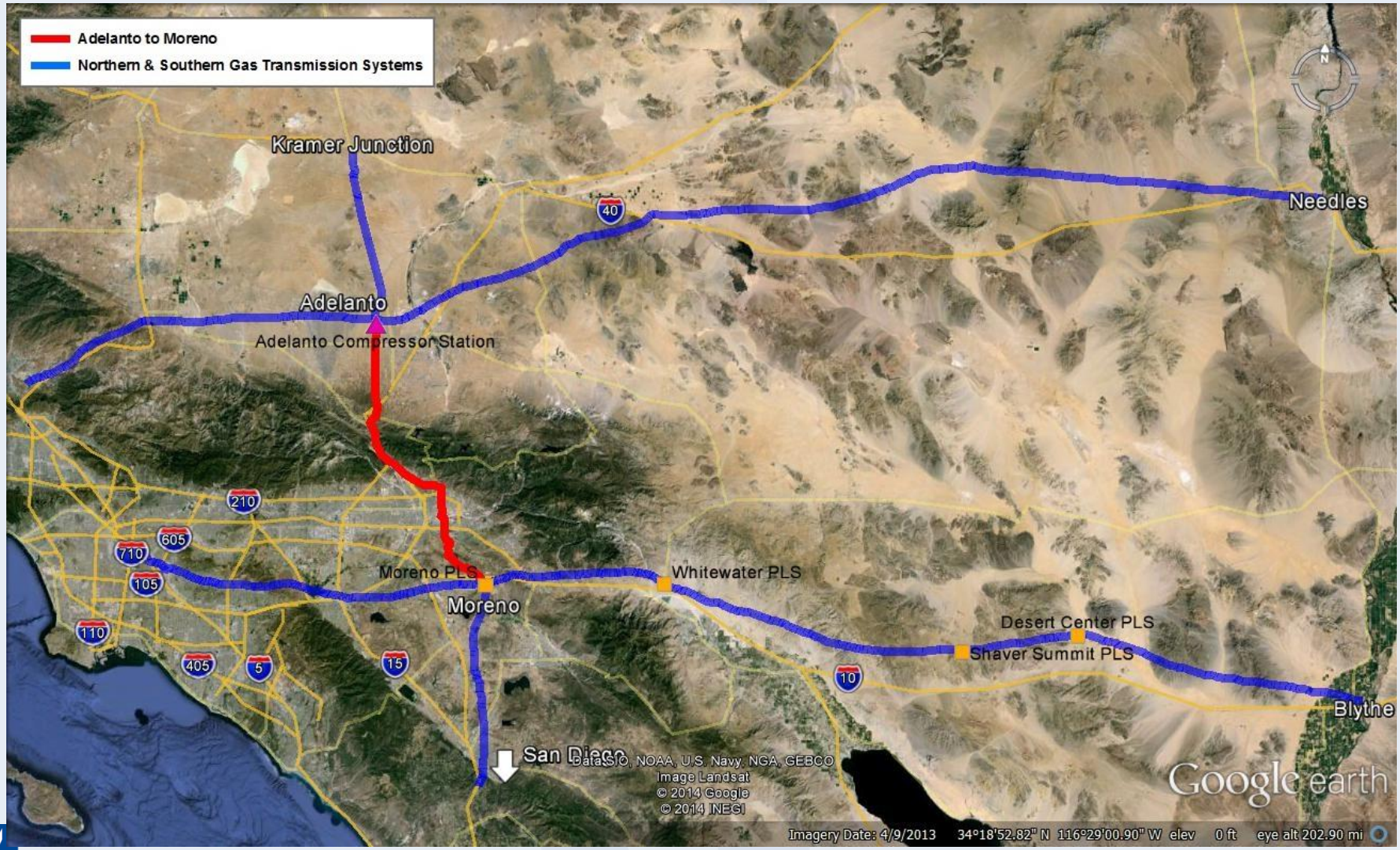
Existing Southern System Reliability Tools

- **Physical Assets**
  - Addition of up to 80 MMcfd from Line 6916
- **Other**
  - Memorandum in Lieu of Contract with SoCalGas Gas Acquisition
  - Baseload volumes of 255,000 Dth/day at Ehrenburg
  - Spot gas purchases
  - Discounting of Backbone Transportation Service for Southern Zone

Cost & Benefit of North-South Project

- **Pipeline and compression will:**
  - Be a new source of up to 800 MMcfd of supply to the Southern System, including access to storage that does not currently exist
  - Provide up to 300 MMcfd of incremental receipt capacity from the northern parts of the SoCalGas system
  - Increase reliability for Southern System natural gas customers and potentially for the electric grid
- **Non-physical solutions will not fix the problem**
  - No access to storage
  - Contracting for upstream supplies still ties Southern System to one receipt point

North-South Project



Updated Illustrative Rate Impacts of North-South Project

	Current Rates	Rates with N-S	% Rate Impact
Average Residential Bills - $/month			
SoCalGas (39 therms)	$43.47	$43.96	1.1%
SDG&E-Gas (28 therms)	$34.17	$34.52	1.0%
Transmission Level Rates - $/dth			
SoCalGas Local	$0.142	$0.142	0.0%
SDG&E Local	$0.217	$0.217	0.0%
Backbone	$0.154	$0.279	81.2%

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