

# Renewable Transmission Initiative Presentation to SWAT and WestConnect



Edi von Engeln  
*Staff Engineer, NV Energy*

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The Renewable Transmission Initiative ("RTI") is a new, customer-driven approach to renewable business development, offered by

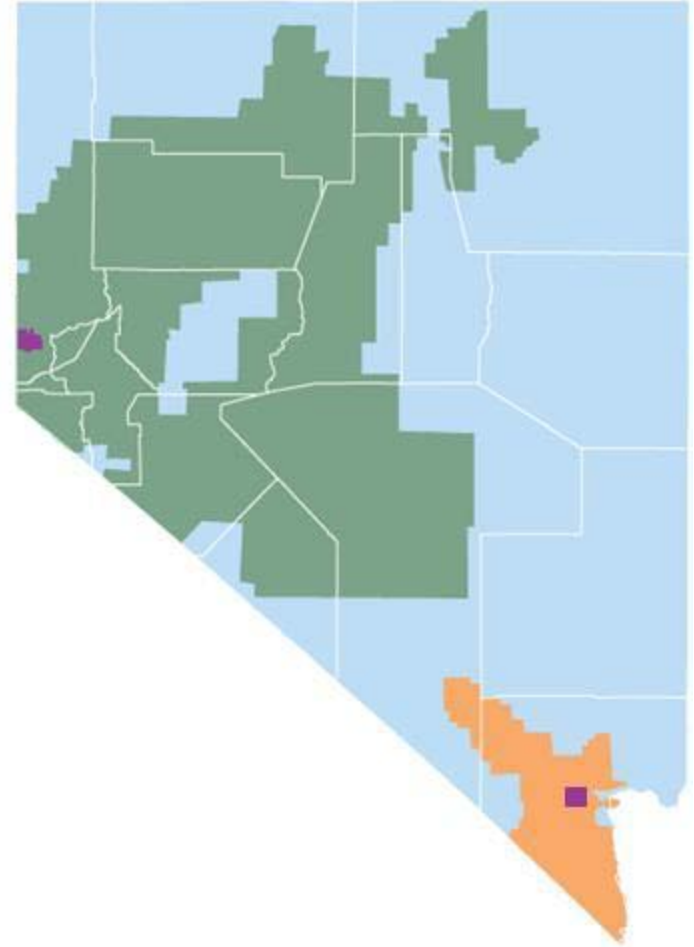


# Customer-Driven Development

- Nevada has, diverse renewable resources
- NV Energy has proven transmission experience and the ability to directly access the Desert Southwest and California renewable markets
- NV Energy has participated in transmission development efforts over the last five years through various forums
  - RTI bundles these three points in a customer driven process to develop renewable markets,

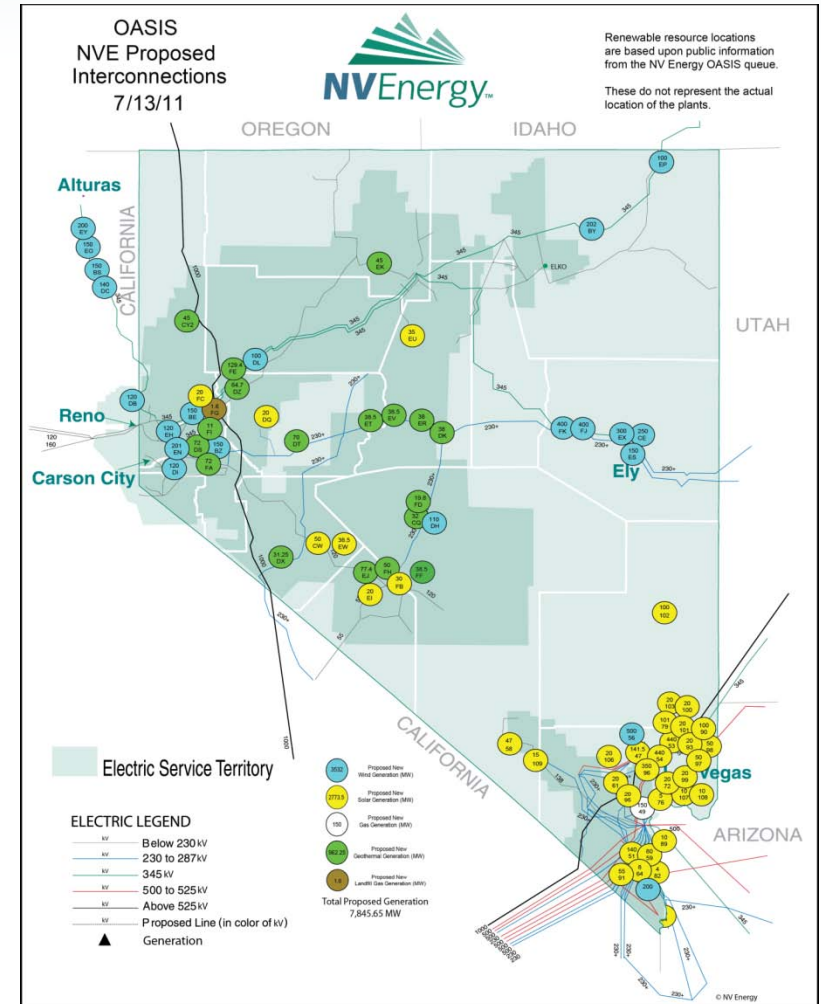
# NV Energy at a Glance

- Serves 2.5 million Nevadans
- 2011 peak load (so far):
- 1,870 MW for NVE North
- 5,511 MW for NVE South



# NV Energy FERC OATT Interconnection Requests

- Locations are consistent with identified Renewable Energy Zones (“REZs”)
- 7,465 MW of renewable requests in the NV Energy queue exceeds RPS
  - (to 25% by 2025)

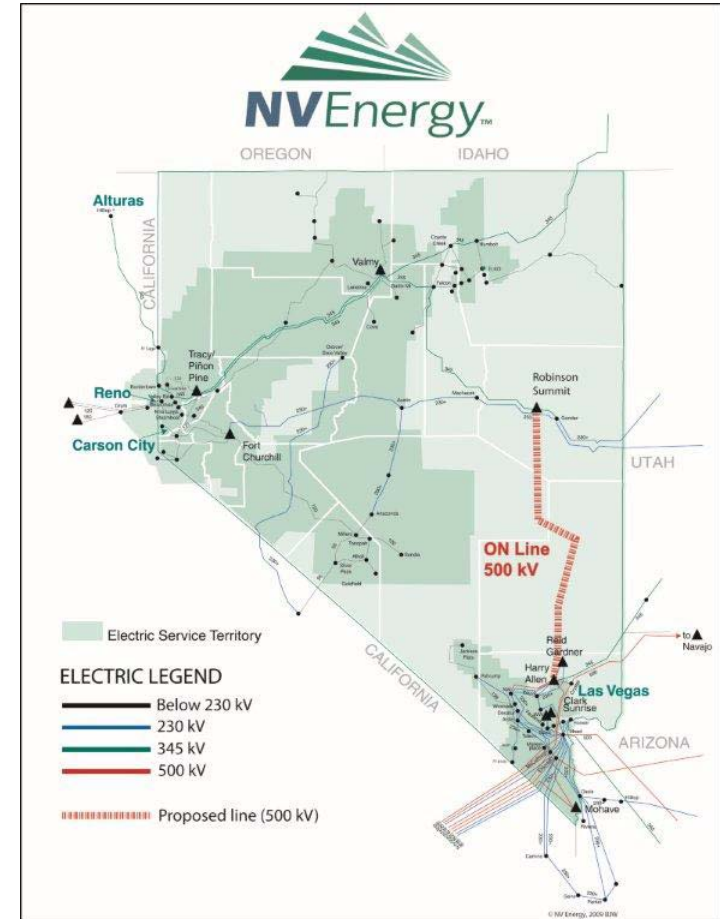


# Transmission Experience

- Over the last fifteen years, NV Energy has continuously expanded its transmission system
- Six major high voltage and extra high voltage projects with an average of \$100 million per year in transmission expansion
- Interconnected over 6,100 MW of new generation to NV Energy grid since 2000

# ON-Line Transmission Project

- \$600 million transmission project under construction
- Electrically joins the north and South Utilities for the first time
- Largest transmission project ever undertaken by NV Energy
- **Projected completion in December 2012**



# Evolution of the Renewable Transmission Initiative

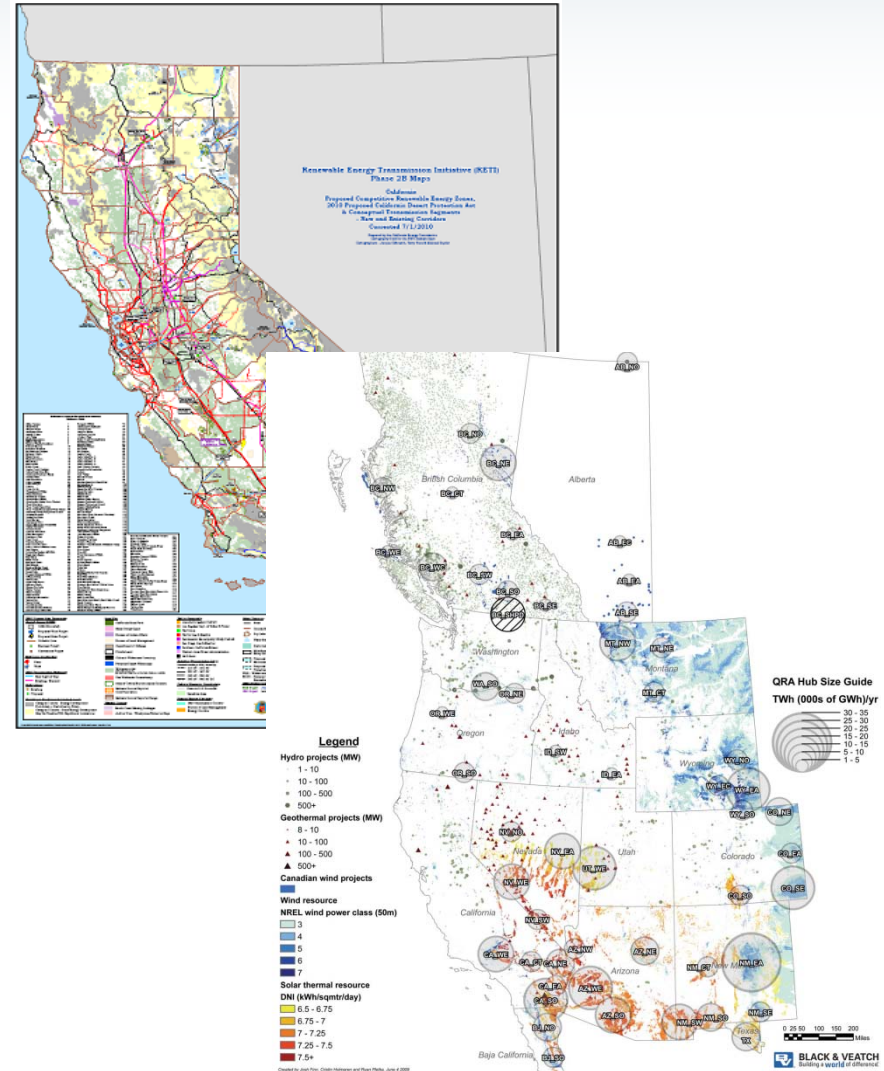


# RTI Evolution Overview

- Multiple stakeholder processes identified similar renewable energy zones
- The 2009 Nevada legislature passed AB387, making transmission development to support renewable generation public policy
- NV Energy's RTI answers stakeholder processes, regional planning and public policy directives
- RTI employs a customer-driven transmission solution to access the states renewables

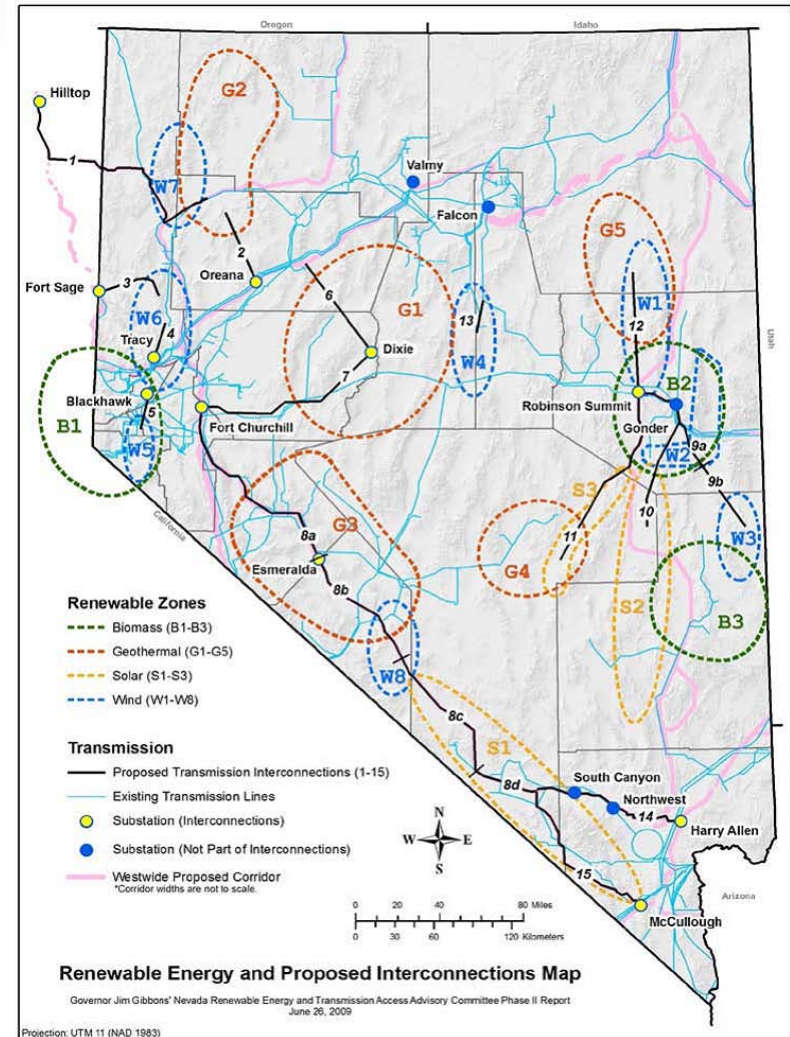
# Stakeholder Processes

- RETI
  - California process identified WECC REZs and Transmission
- WREZ
  - The Western Governor's Association and DOE identified REZs in 2009



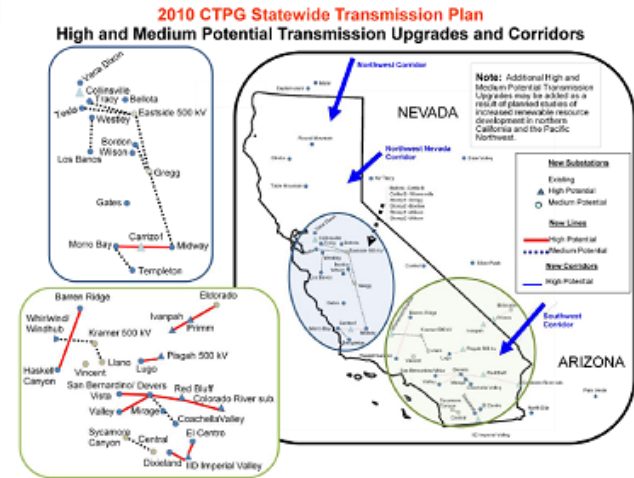
# Stakeholder Processes (cont.)

- RETAAC
  - Nevada task force that identified REZs in 2009
- BLM PEIS
  - BLM identified solar REZs on public lands in 2010

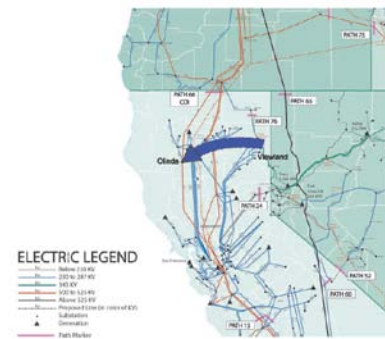


# Regional Planning Groups

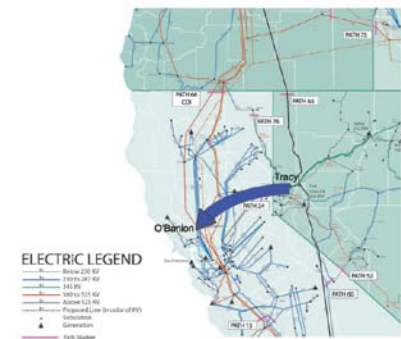
- The California Transmission Planning Group (“CTPG”) identified RTI delivery locations in their 2010 Report
- In 2011 Sierra Subregional Planning Group (“SSPG”) stakeholders requested the Western Electricity Coordinating Council (“WECC”) study two transmission expansion plans linking Nevada and California



SSPG Proposed Viewland-Olinda (LMUD 2x230kV)



SSPG Proposed Tracy-O'Banion (GB HVDC +/- 400kV)



# 2009 Passage of Nevada Assembly Bill 387

- Required Public Utilities Commission of Nevada (“PUCN”) to define REZs
- PUCN subsequently adopted the RETAAC identified REZs
- Requires NV Energy to submit a Renewable Energy Conceptual Transmission Plan (“RECTP”) which was filed in the 2010 Sierra IRP

# RTI Corridor Development

- NV Energy completed extensive work on identifying what would become RTI corridors
  - Contributed to DOE Section 368 corridors (2006-2008)
  - Conducted environmental corridor/constraint studies in (2008-2009)
- Combined this work with the stakeholder groups, regional planning groups and RECTP
- The RTI evolved from these various process and interests

# NV Energy RTI Corridor Selection

- The selected corridors provide Northern and Southern market access to the high potential REZs
- The selected corridors provide access to over 80% of the renewable potential identified
- Filed SF299 / Preliminary Plan of Development submitted to the BLM on May 5, 2011

# The Renewable Transmission Initiative Description and Process



# Background

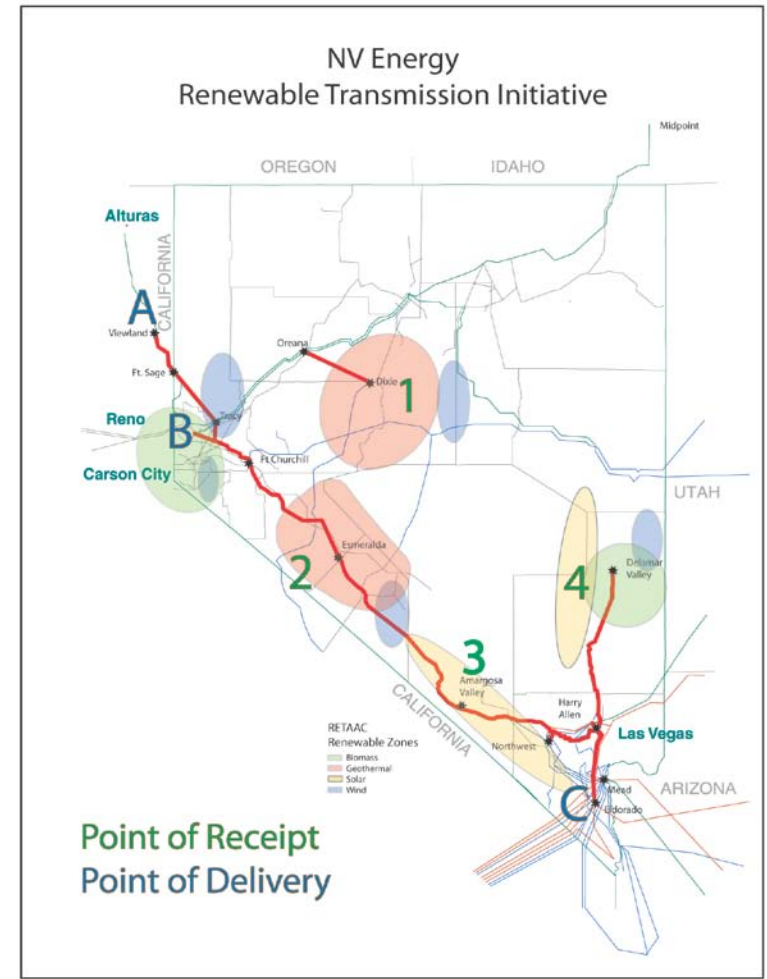
- NV Energy has fulfilled most RPS mandates
- To continue to develop renewables with the limited size of the Nevada market it is natural to look to access to other, larger markets
- The RTI is a parallel process to the OATT providing an opportunity use economies of scale to development renewable exports,

# Principal RTI Components

- NV Energy will conduct a Solicitation of Interest to assess market interest in development of specific Renewable Energy Zones
- NV Energy will then develop appropriate transmission plan to deliver from those zones

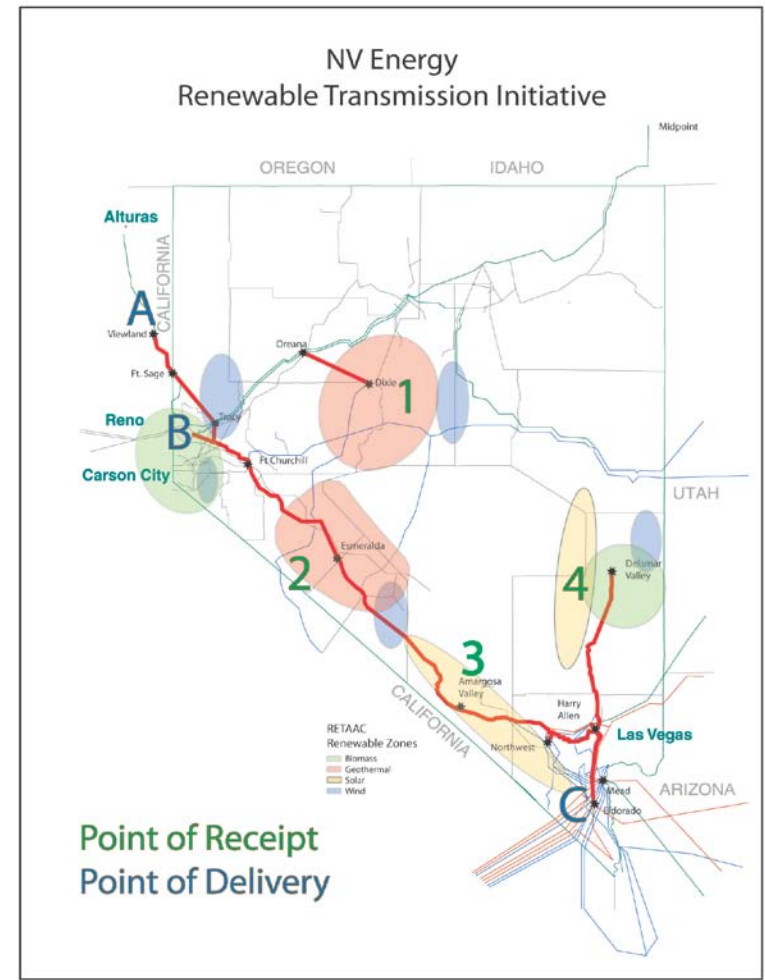
# Potential RTI Segments

- Transmission may be requested from four renewable zones or Points of Receipt (“POR”) (1-4)
- Using the Statements of Interest, NV Energy will identify a collector substation within each renewable zone



# Potential RTI Segments (cont.)

- Individual generators will be responsible for constructing gen-ties to collector substation
- Transmission may be requested to three Points of Delivery (“POD”) (A-C)
- Respondents may submit more than one Statement of Interest



# RTI Transmission Plan Development Process

- Expected to be multi-stage process to evaluate stakeholder interests refine transmission studies and costs with limited initial financial commitment
- Obtain customer commitments to the transmission plan developed
- Any proposed transmission plan will be subject to FERC approval to address, among other things:
  - 1) Appropriate financial commitment from market participants for development and permitting costs
  - 2) Establishment of appropriate transmission rights and rates for customers



# Questions