RETI Steering Committee Meeting
SSPG Update

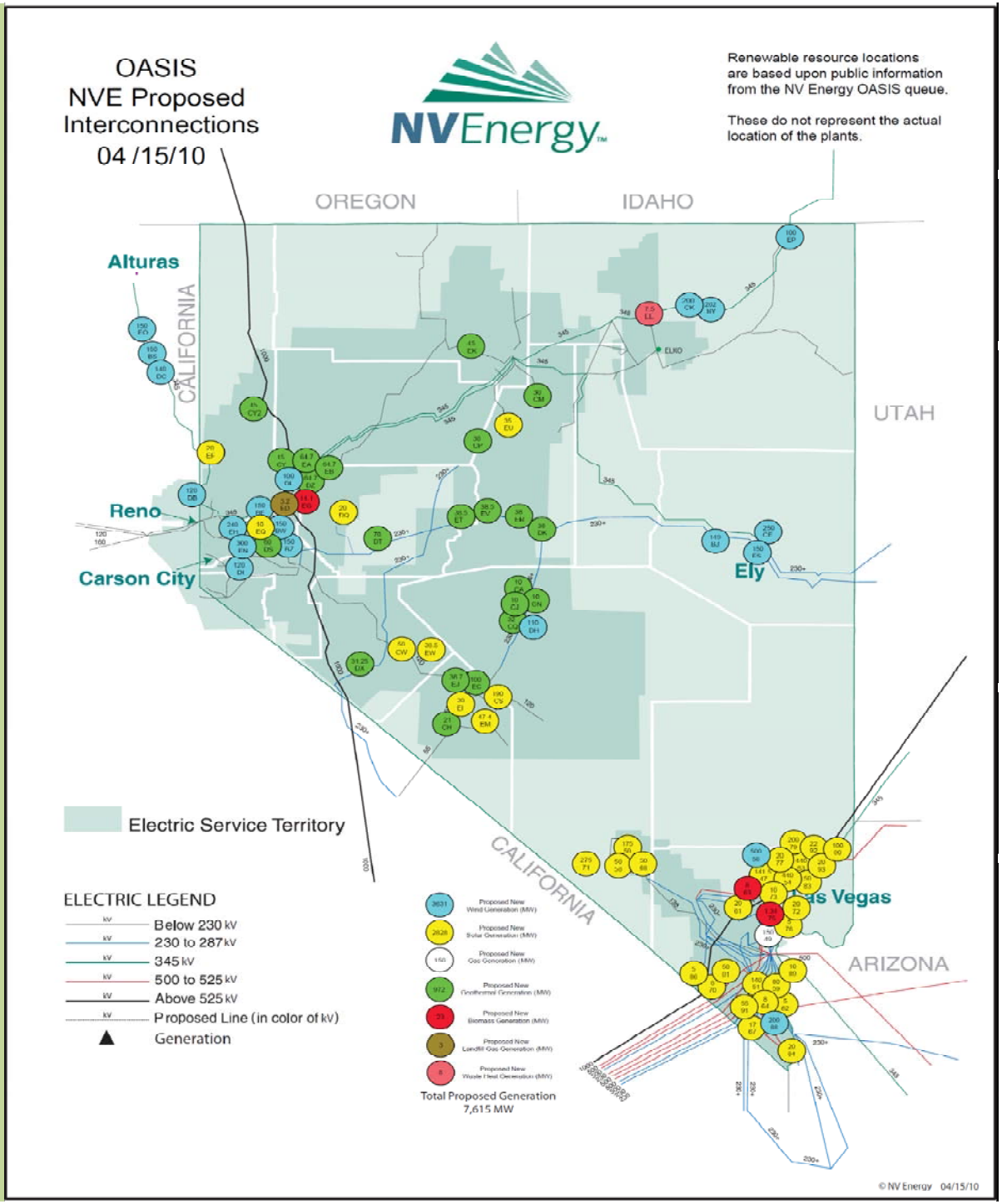
October 7th 2010

Presented by Brian Whalen
Director – Transmission System Planning NV Energy

2010 SSPG Study Background and Results

General locations of proposed generation interconnections.

Wind	3,631
Solar	2,828
Gas	150
Geothermal	972
Biomass	23
Land Fill Gas	3
Waste Heat	8
Total (mw)	7,615



2030 Possible System Overview

New Renewable Generation
5,000 MW

New Base Transmission (miles)

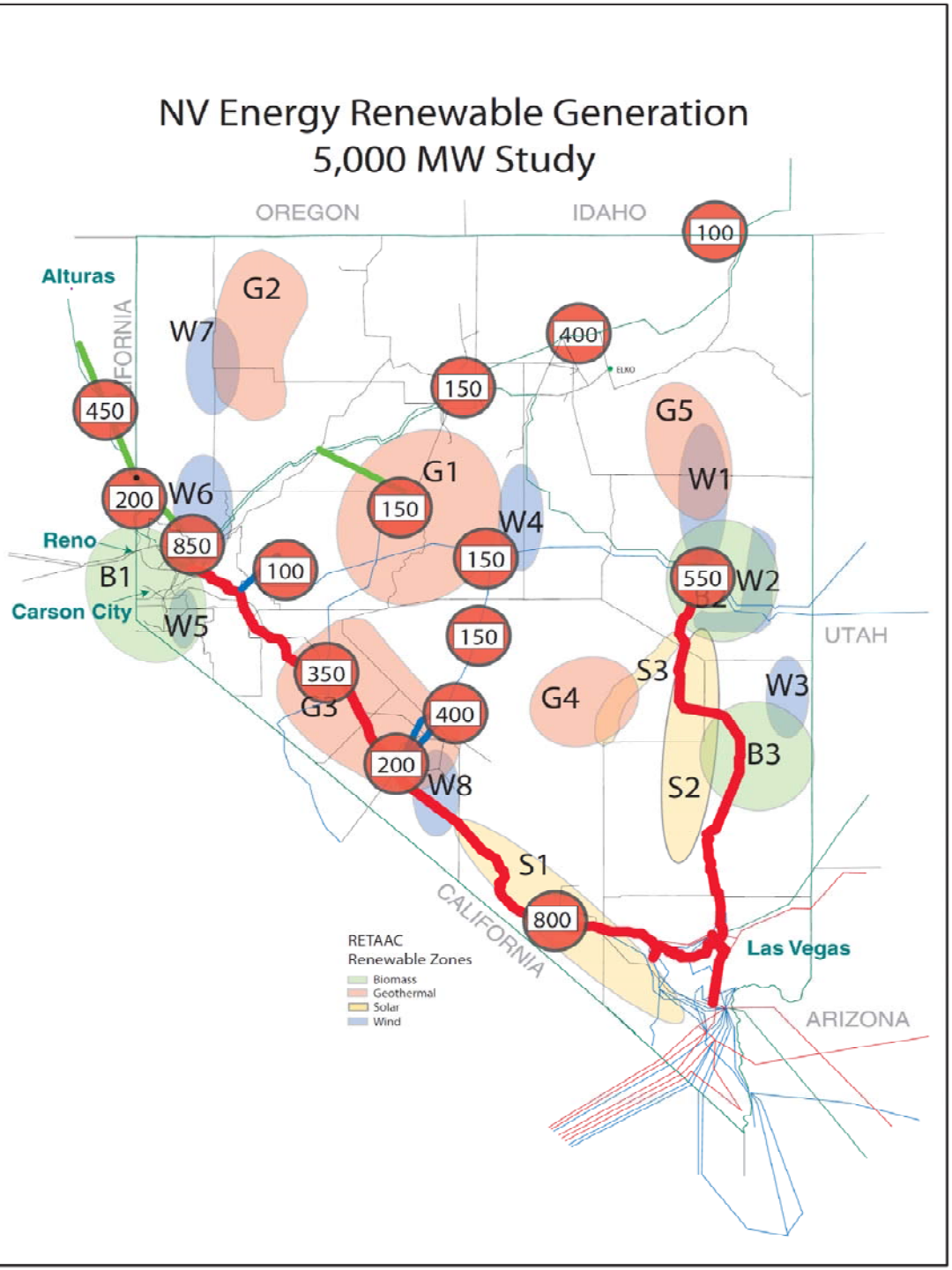
500 kV	611
345 KV	148
230 kV	127
120 kV	11

Strong West Tie Option (miles)

500 kV	259

Tesla Tie Option (miles)

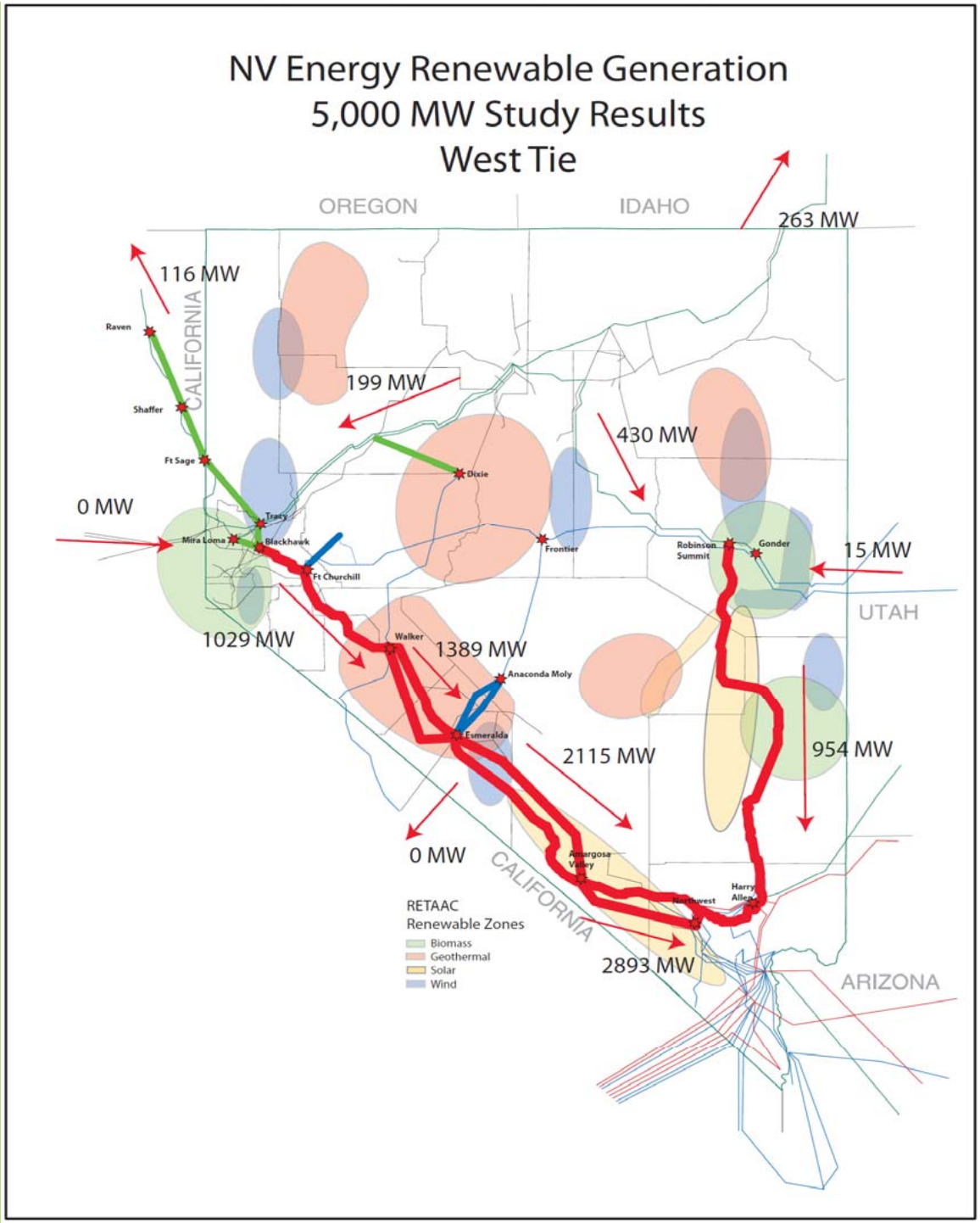
500 kV	330



Strong West Tie Option

Generation reductions in southern Nevada and northern California

Added second 500 kV line from Walker to Northwest to handle N-1 outages.

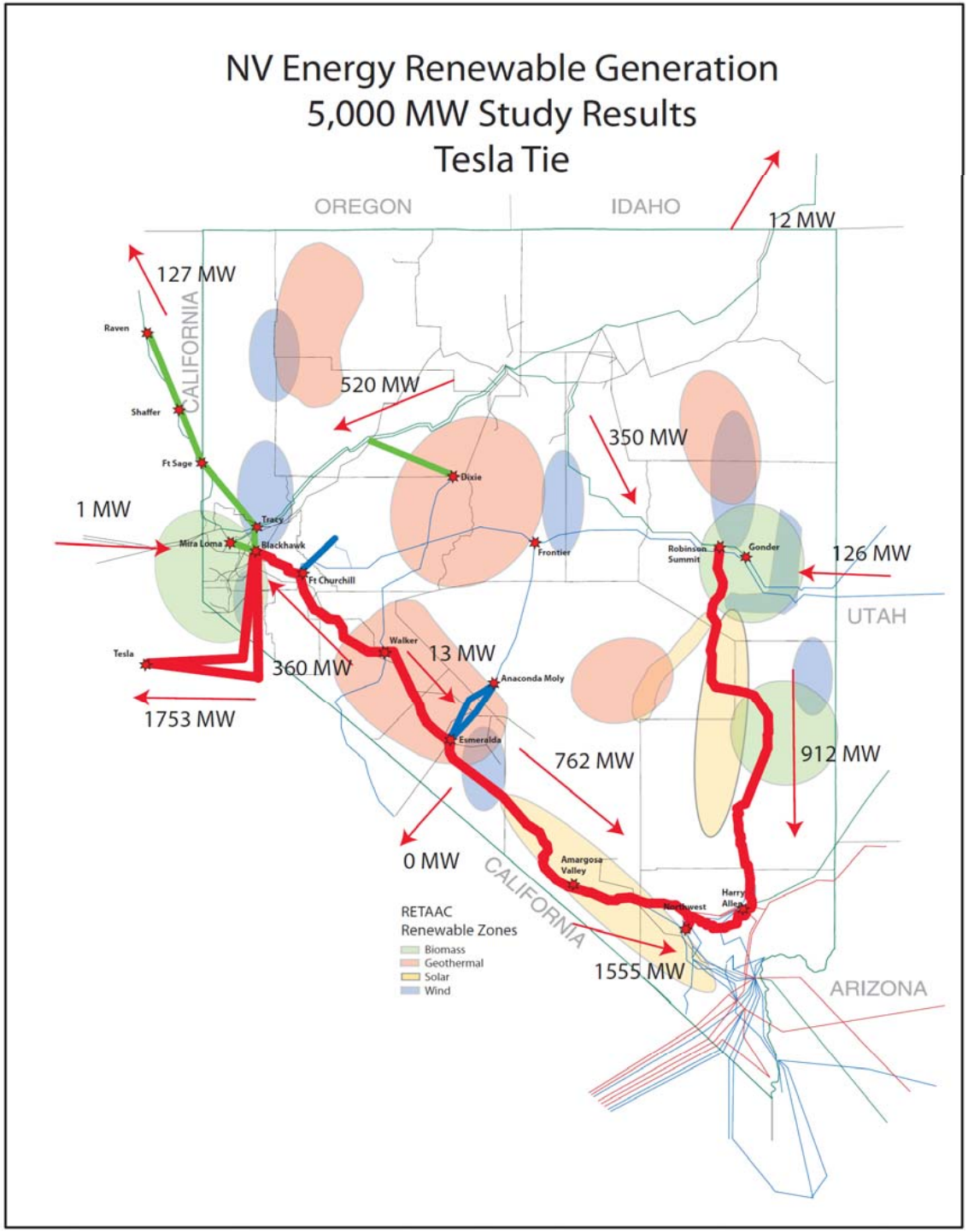


Tesla Tie Option

Generation reductions in southern Nevada and northern California

Added second 500 kV line from Blackhawk to Tesla to handle N-1 outages.

Noted higher line flow from Valmy to Tracy on the 345 kV lines.



SSPG 2010 Study Conclusions

- Double Circuit 500 kV lines from Tesla to Eldorado (581 miles) provides the greatest flexibility to move energy south or west from northern Nevada.

- Transmission losses increased from about 3% to about 6%

SSPG 2011 Study Plans

- Present findings of 2010 SSPG Studies to stakeholders
- Interpret and refine TEPPC Studies related to these designs
- Refine plans of study to address stakeholder requests
- Expand coordination with RETI / CTGP and other regional planning efforts
- Request TEPPC inclusion of SSPG plan in 2011 analysis

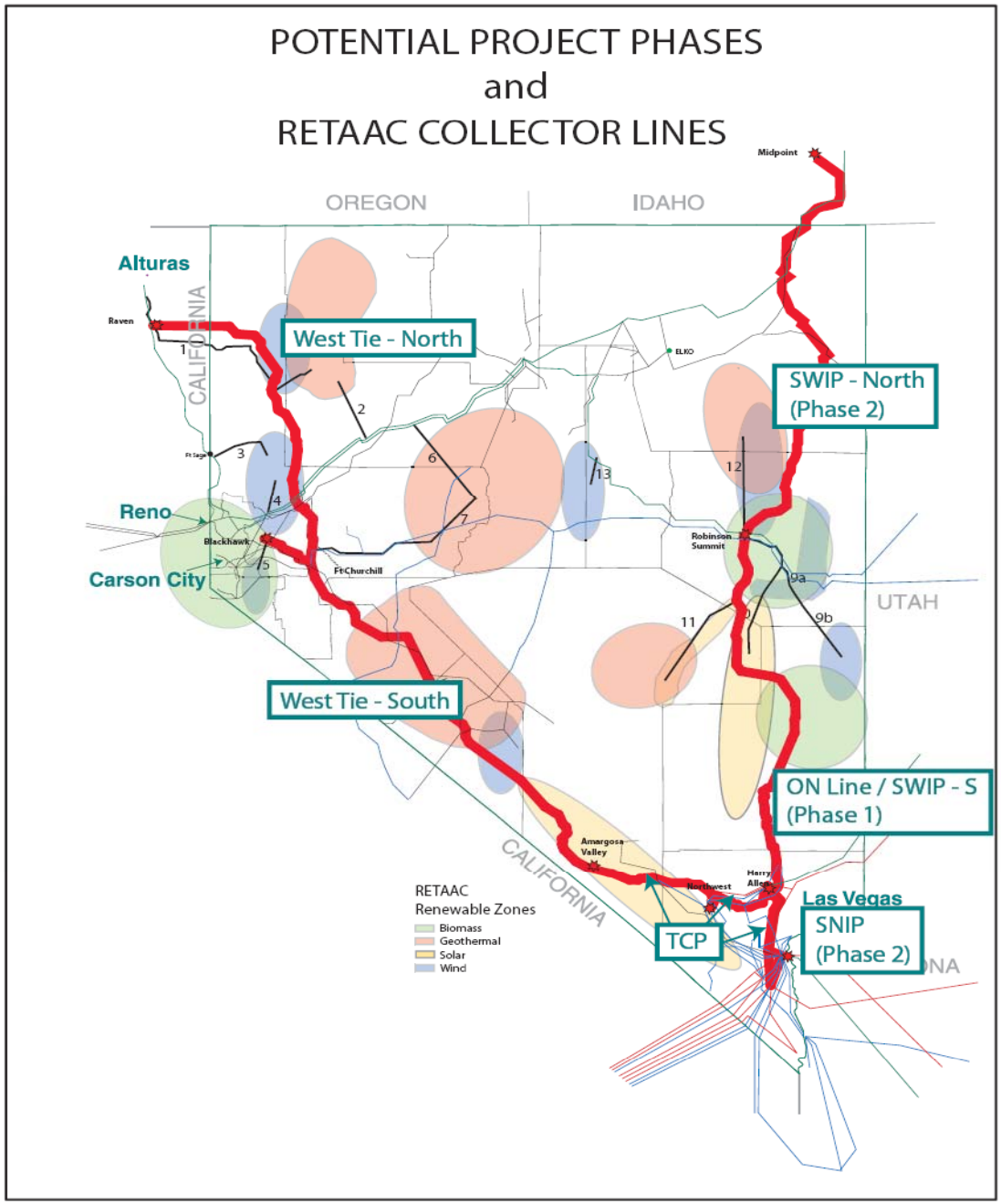
NV Energy 2010 Integrated Resource Plan

Renewable Energy Conceptual Transmission Plan

NVE is required to present a plan to integrate the renewable zones defined by the PUCN.

Separate from the utility's 3-year IRP action plan

Legislative authority to PUCN to approve developmental projects is being investigated



Potential other Projects for 2011 SSPG Study Plan:

- CTPG study projects
- Genova – Great Basin Project
- Others as suggested and approved in the stakeholder processes