

REM 2016

Western Market Spotlight

PRESENTED BY:

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October 17, 2016

01



3Degrees

02



*Inputs &
Assumptions*

03



*Key
Drivers*

04



*Market
View*

01

3Degrees

3Degrees[™]

*We connect people with cleaner energy
on a massive scale through:*



RECS AND
CARBON
OFFSETS



RENEWABLE
ENERGY
TRANSACTIONS



CLIMATE
SERVICES
CONSULTING



COMMUNITY
SOLAR



GREEN POWER
& SHARED
RENEWABLES
PROGRAMS



Solutions tailored to your goals

+ Compliance Markets

- + WECC, PJM, IL, TX, NC, NEPOOL*

+ Innovative & Impactful Projects

- + Ridgewood Green, Coastal Wind*

+ Additionality

- + \$/REC = Independent Variable*
- + Huntington Wind, Blue Basin Power & more*

+ Customized Solutions

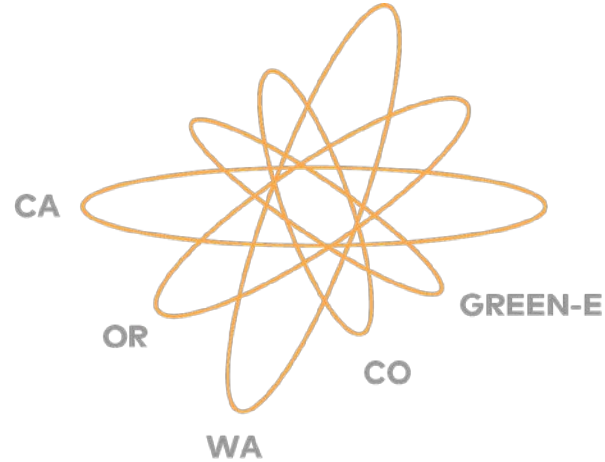
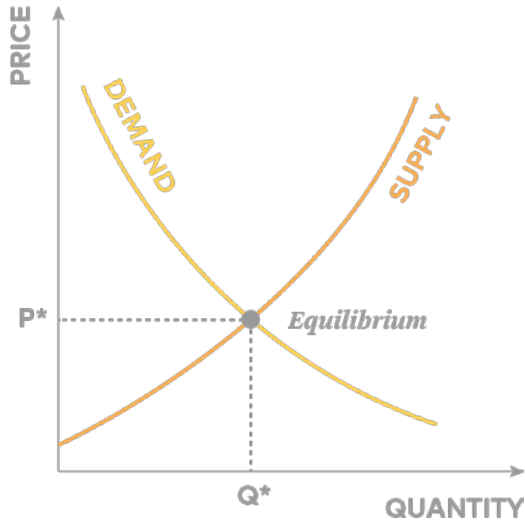
- + Flexible products*
- + Structured transactions*
- + Risk management*
- + Advisory services*

02

Inputs & Assumptions

MODELING

REC market fundamentals are universal



Note: Fungibility diagram, size and overlap are for illustrative purposes only and does not represent actual quantities and proportions of multi-qualified RECs.

MODELING

Inputs and assumptions dictate results

Inputs

- + *Data: BNEF, EIA, WREGIS, CRS*
- + *IRPs*
- + *Supply estimates + actual generation*
- + *Multi-fuel facilities - % renewable*
- + *Aggregated prices*
- + *Market Activity*
- + *Compliance Reports*

Assumptions

Supply

- + *Current regulatory structure*
- + *Regulatory Changes*
- + *Facility eligibility starts with online date*
- + *Program Eligibility*
- + *ITC/PTC*
- + *Renewable Development Pipeline*

Demand

- + *Current regulatory structure*
- + *Regulatory Changes*
- + *Voluntary Demand*
- + *Efficient Banking*
- + *Market prices and ACPs*
- + *Demand elasticity*

03

Key Drivers

POTENTIAL IMPACT OF MARKET CHANGES

Uncertainty remains the story

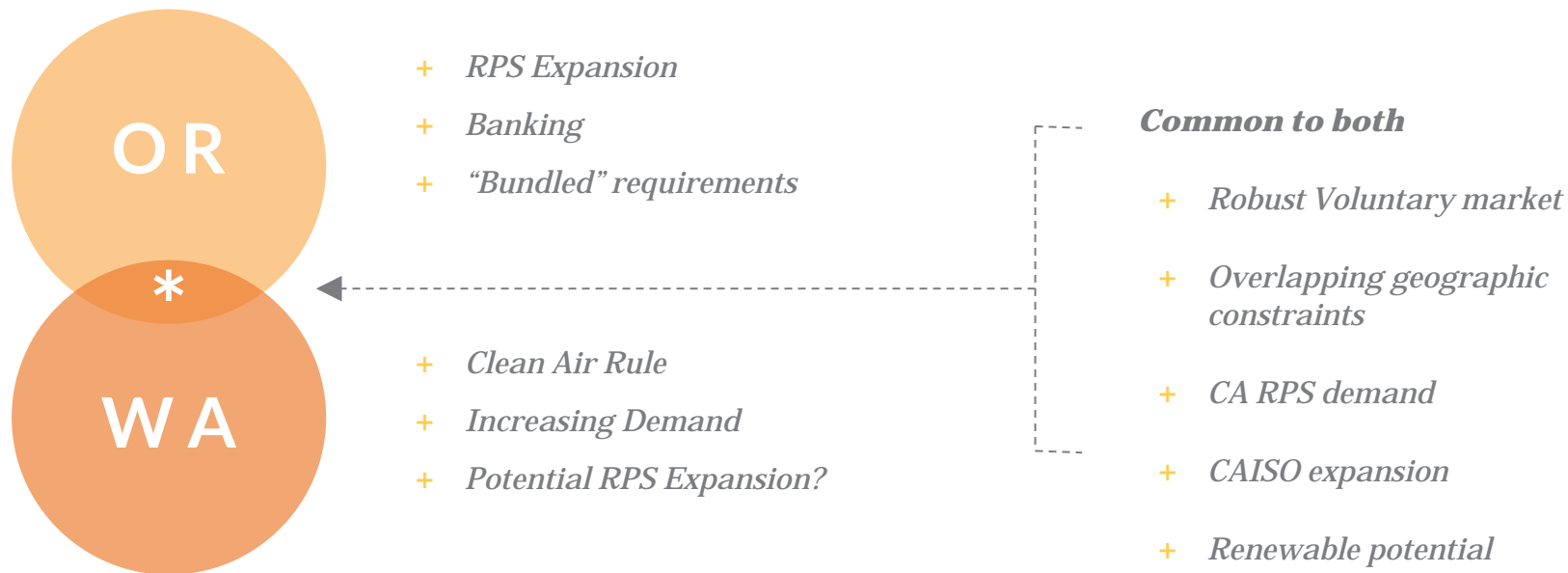
- + *Clean Power Plan*
- + *CAISO Expansion*
- + *Liquidity*
- + *PTC/ITC Extension*
- + *Flexible Banking*
- + *Imports*
- + *Transmission*



- + *Clean Power Plan*
- + *CAISO Expansion*
- + *Liquidity*
- + *WA Clean Air Rule*
- + *Green-e Changes*
- + *OR RPS*
- + *CA RPS*

WASHINGTON & OREGON

The story isn't all about California anymore

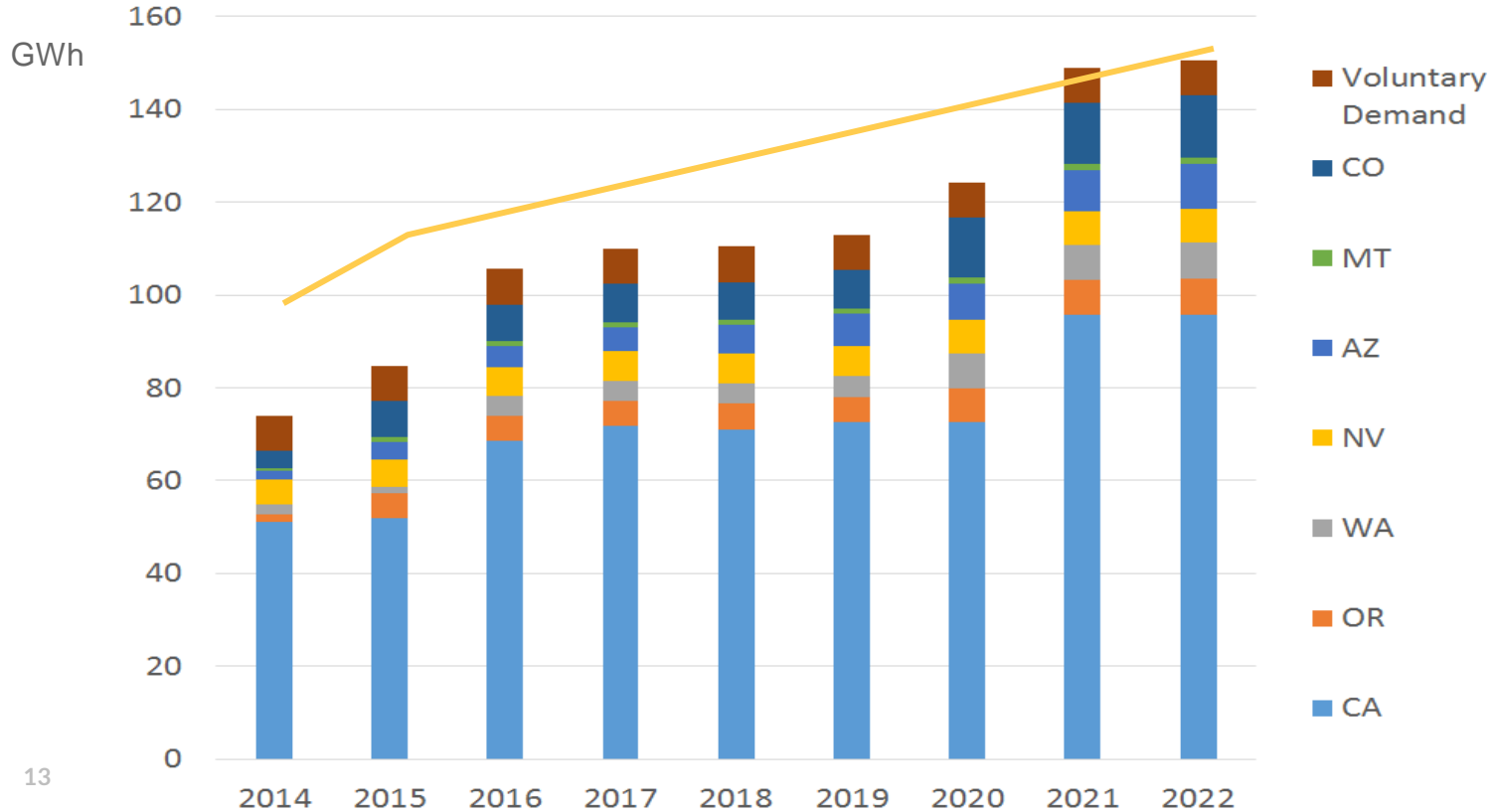


04

Market View

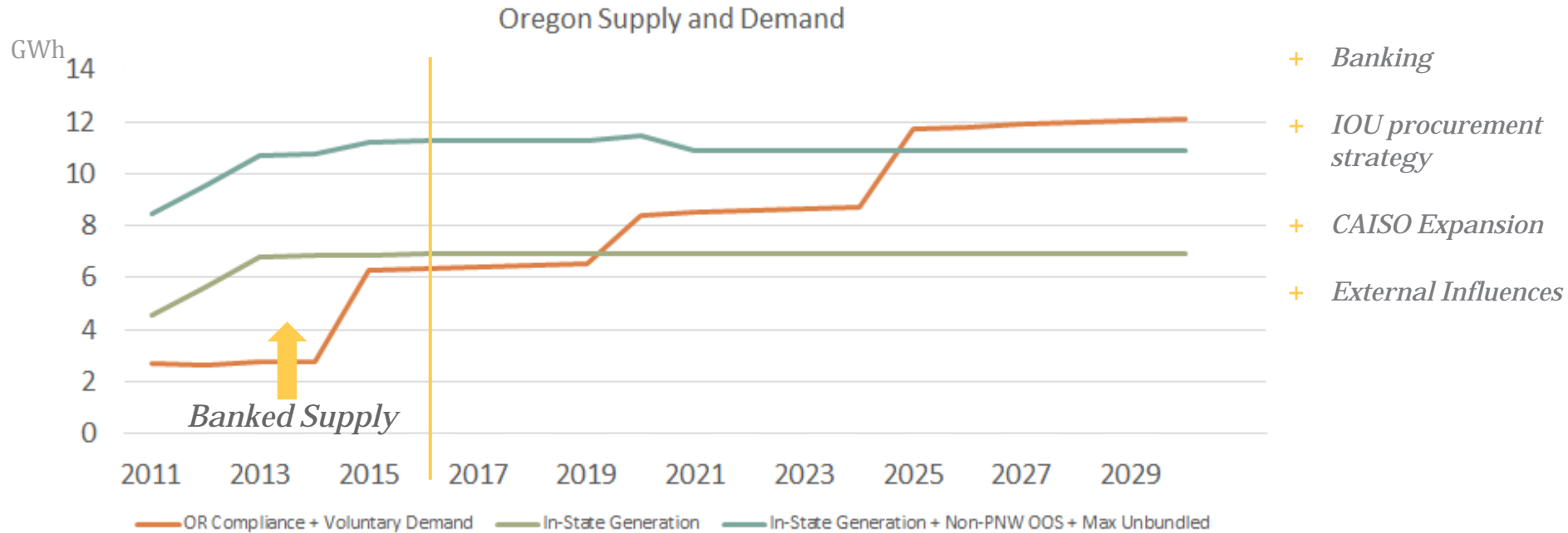
FUNDAMENTALS

WECC Supply & Demand



FUNDAMENTALS

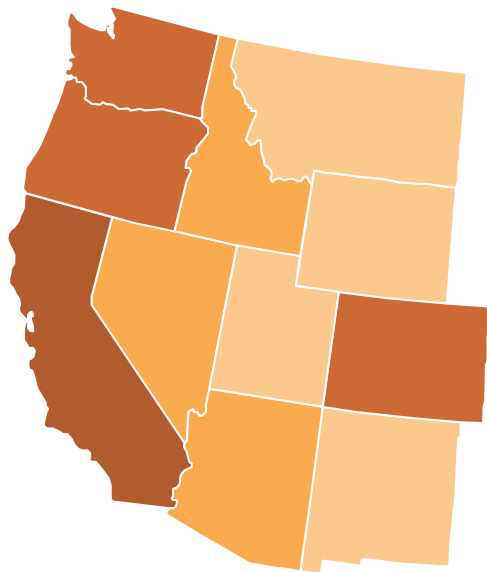
Oregon exemplifies this puzzle



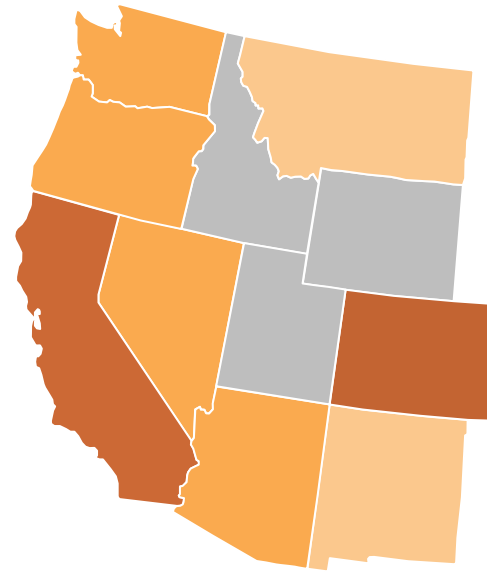
FUNDAMENTALS

Geographic fungibility

Renewable MWh by State



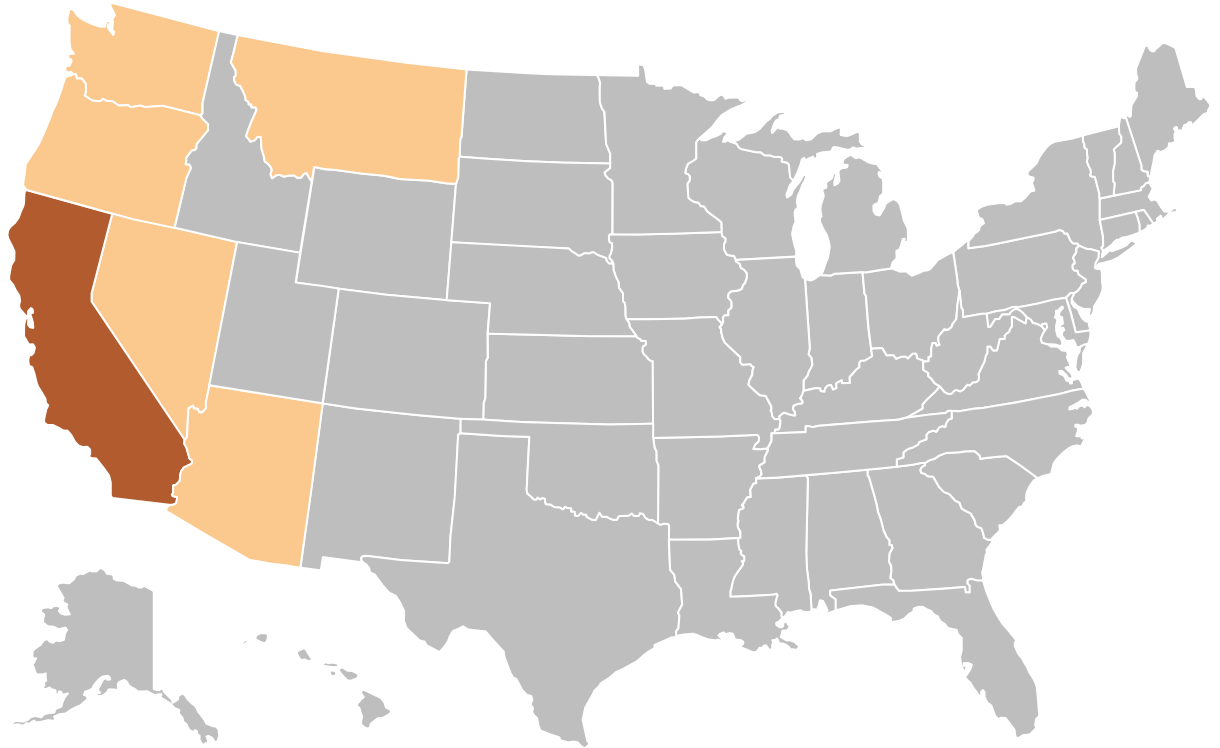
Compliance Demand by State (MWh)



SUPPLY &
DEMAND

FUNDAMENTALS

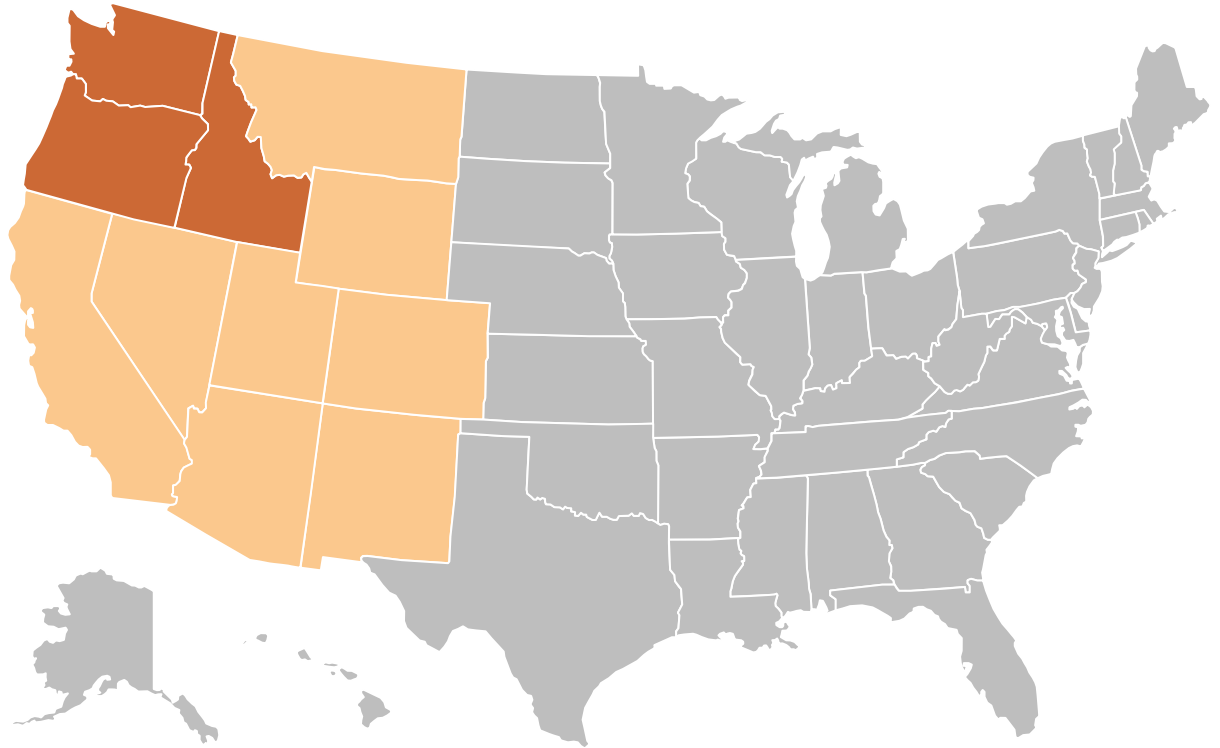
Geographic fungibility



CALIFORNIA
SOURCING

FUNDAMENTALS

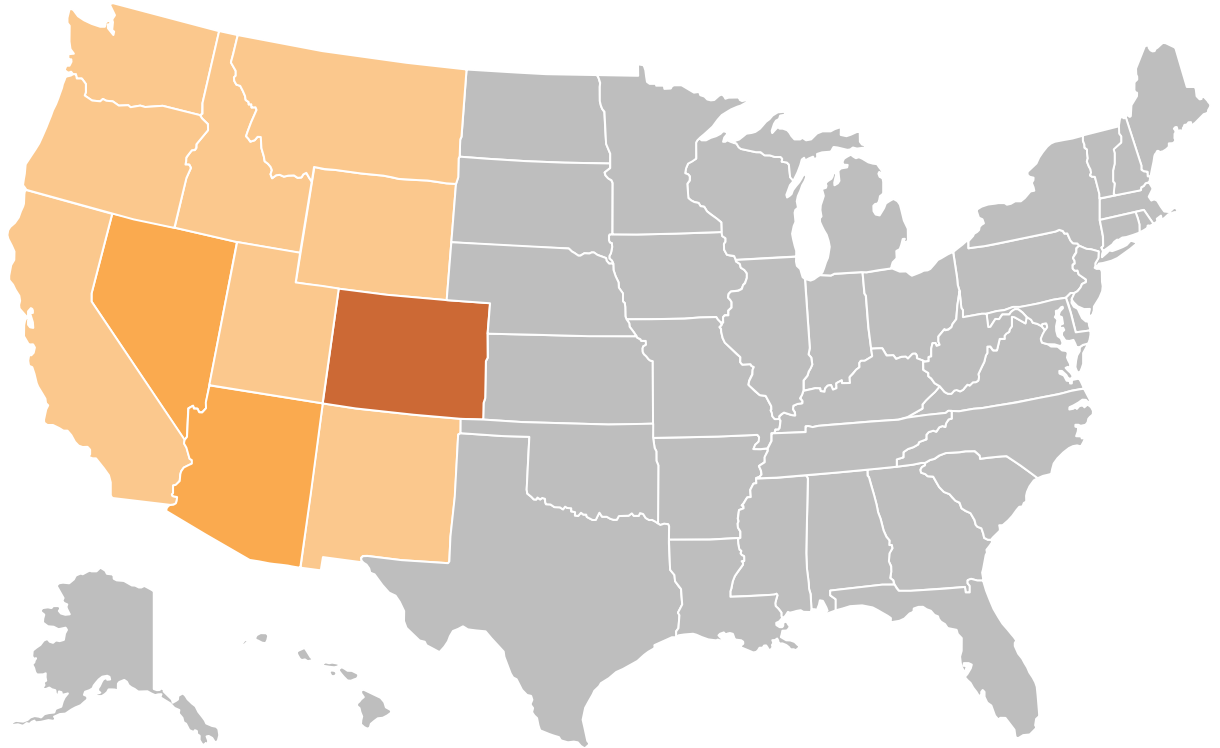
Geographic fungibility



OR/WA
SOURCING

FUNDAMENTALS

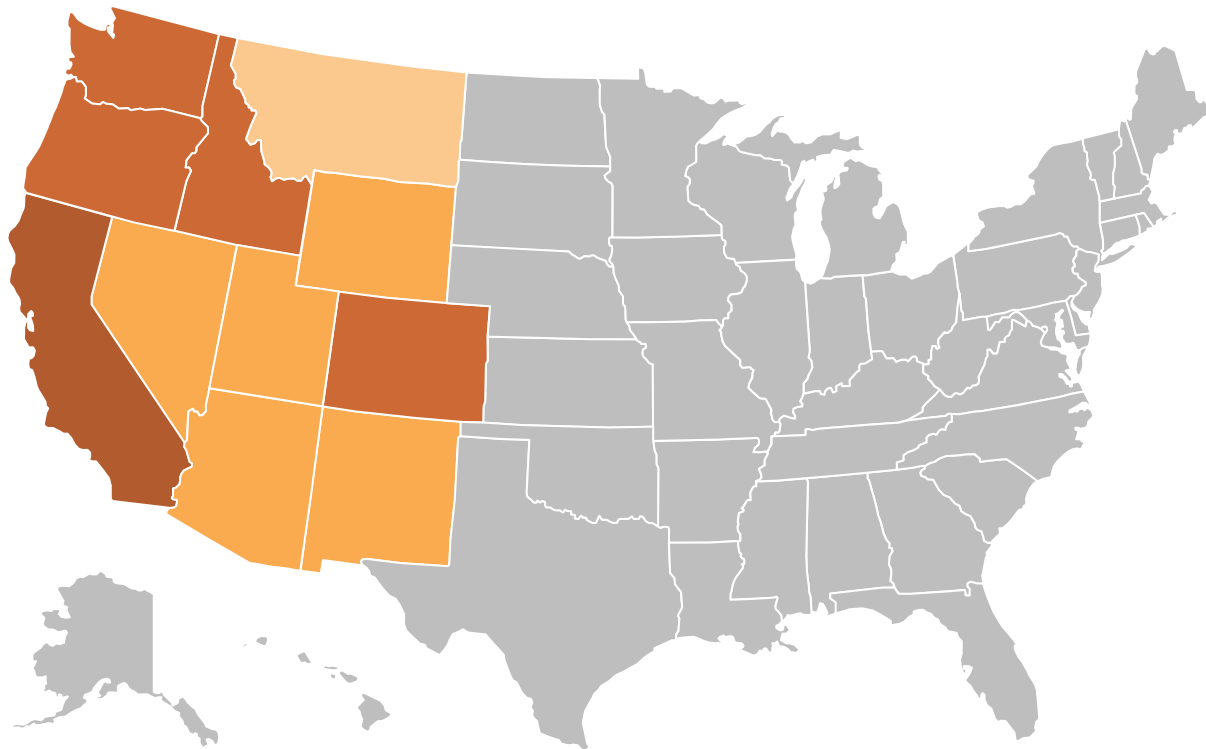
Geographic fungibility



MT/NM/CO/NV
SOURCING

FUNDAMENTALS

Geographic fungibility

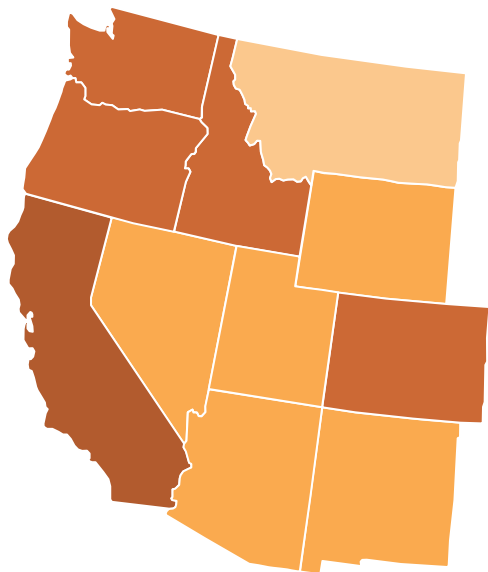


WECC
SOURCING

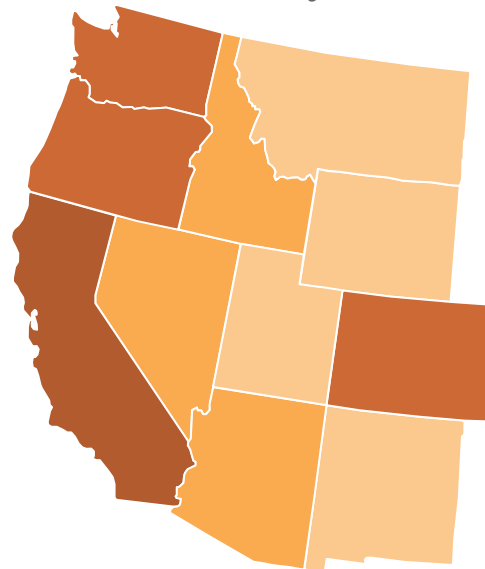
FUNDAMENTALS

Geographic fungibility

WECC Sourcing



Renewable Supply by State

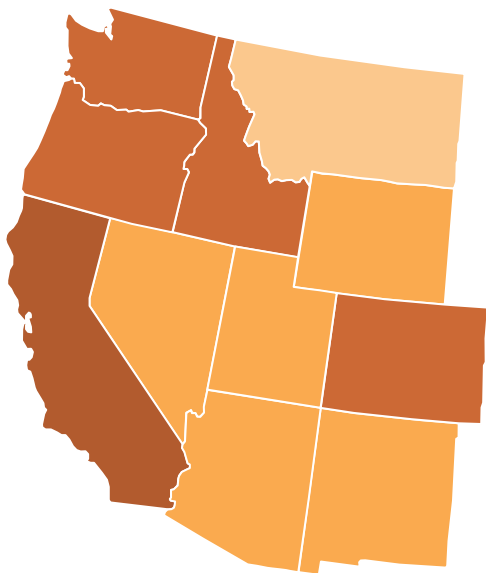


SOURCING & SUPPLY

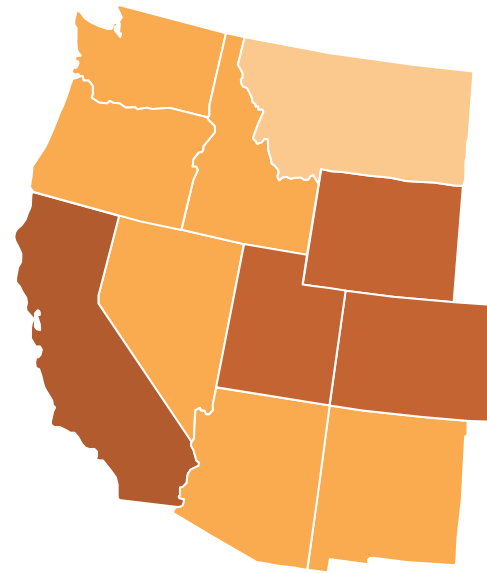
FUNDAMENTALS

Geographic fungibility

Current Environment



TransWest Express Scenario

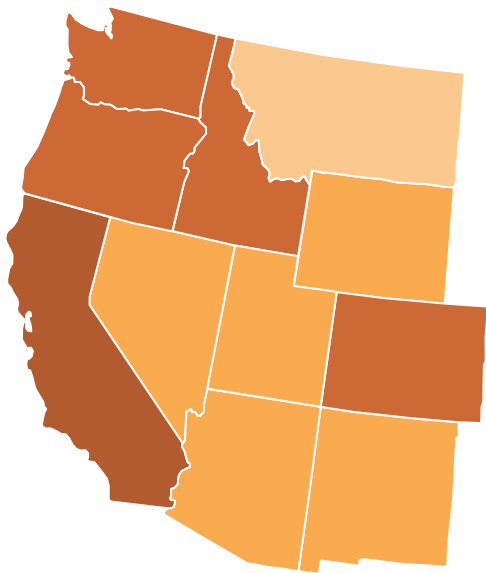


WECC
SOURCING

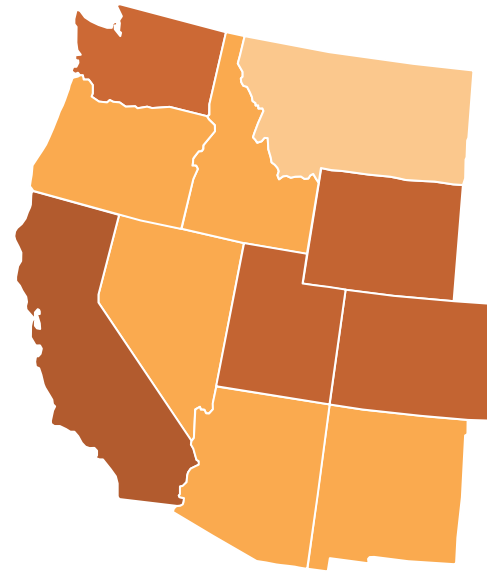
FUNDAMENTALS

Geographic fungibility

Current Environment



Expanded Sourcing Scenario

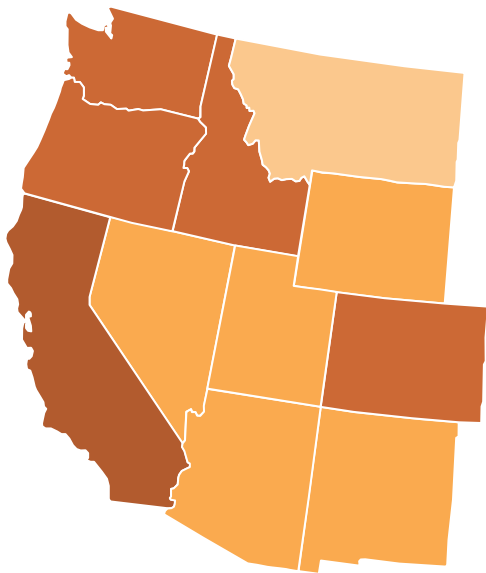


WECC
SOURCING

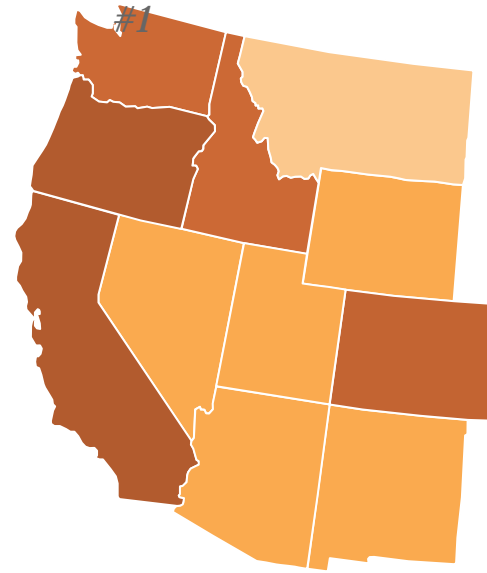
FUNDAMENTALS

Geographic fungibility

Current Environment



CAISO Expansion Scenario #1

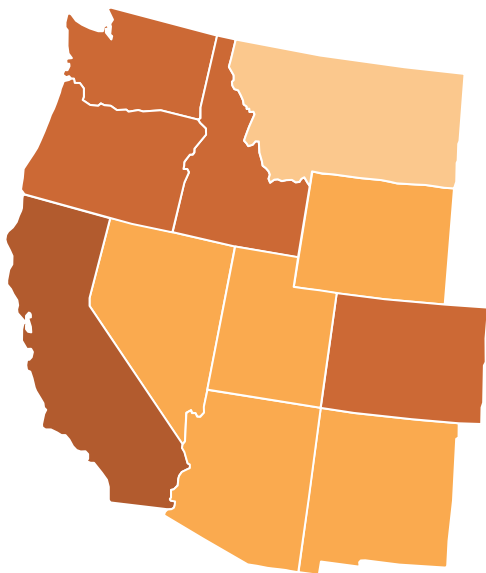


WECC
SOURCING

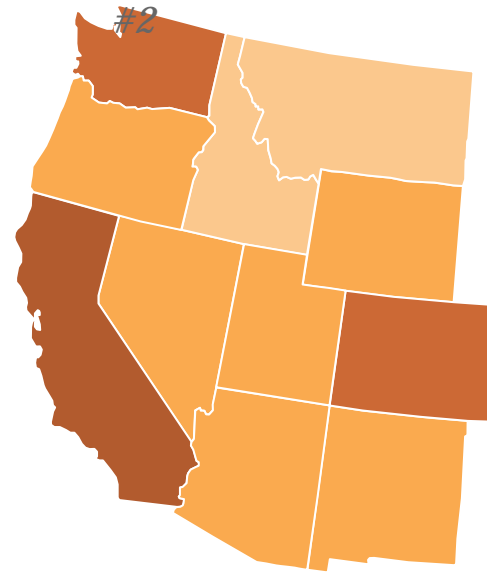
FUNDAMENTALS

Geographic fungibility

Current Environment



CAISO Expansion Scenario

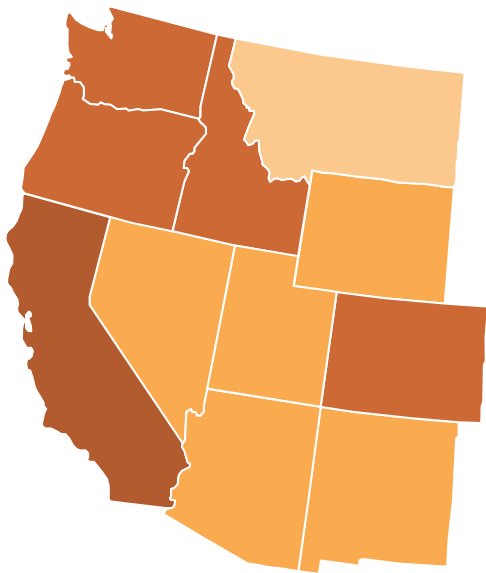


WECC
SOURCING

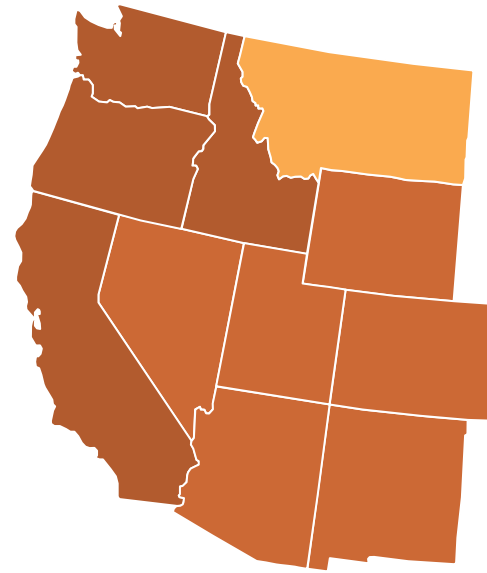
FUNDAMENTALS

Geographic fungibility

Current Environment



Poor Generation Year Scenario



WECC
SOURCING

SUMMARY

Buckle your seatbelts

- + *Uncertainty, uncertainty and uncertainty*
- + *Period of increased volatility*
- + *Flexible banking provisions smooth short-term imbalances but magnify uncertainty*
- + *Regulatory change is upon us*



Thank You

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