LS POWER





California ISO
June 18, 2018

LS Power

Power generation and transmission company formed in 1990

39,000+ MW

Power generation development, construction or operations experience

$1+ billion

High voltage transmission placed into operations since 2013

$39+ billion

Capital raised to finance and support investments in energy

$500+ million

High voltage transmission in permitting or construction

CAISO, ERCOT, MISO, PJM, NYISO

Transmission competitively awarded to LS Power

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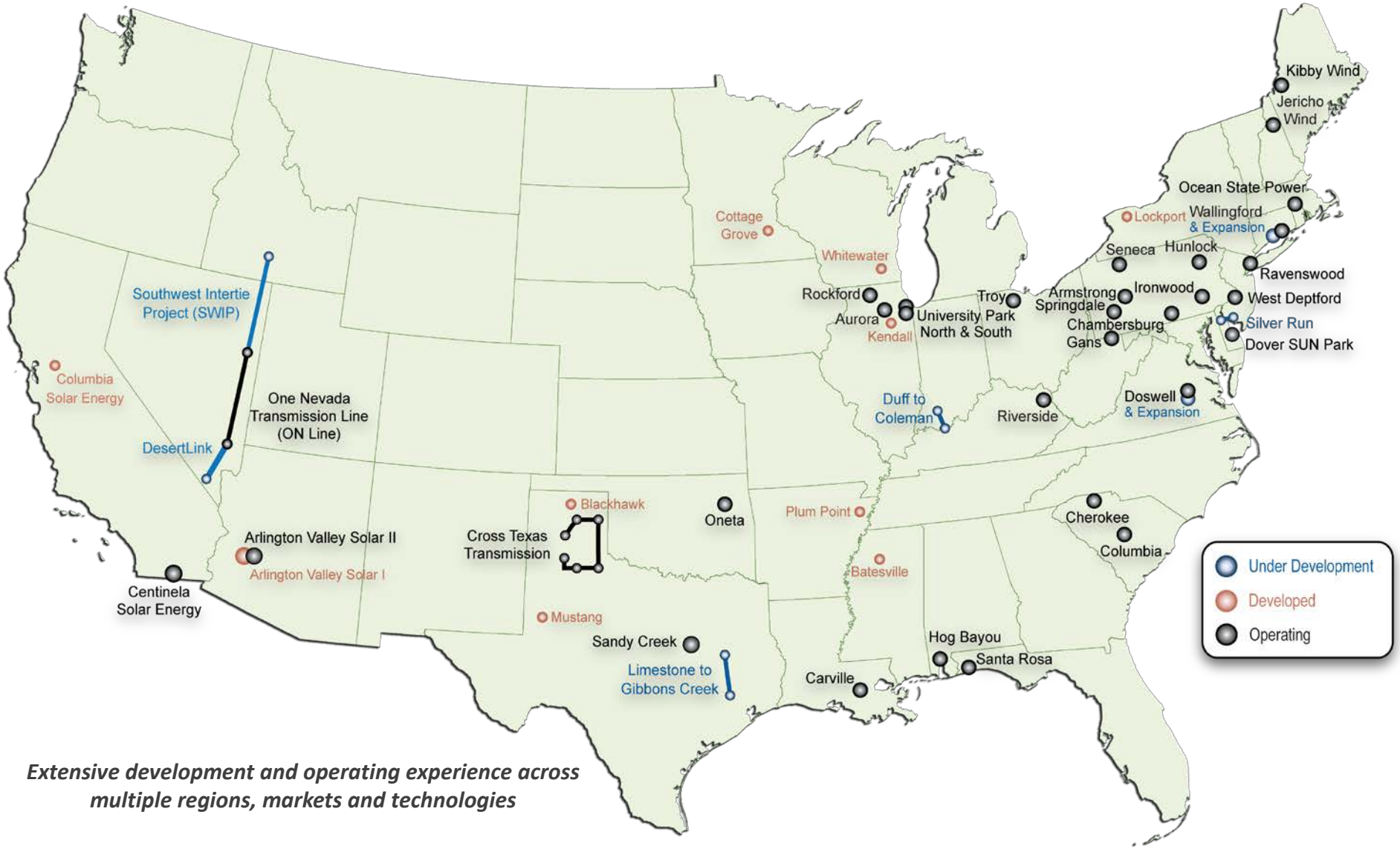
Project Portfolio



Extensive development and operating experience across multiple regions, markets and technologies

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LS Power Transmission

One Nevada Transmission

Partnership with NV Energy

231 miles 500 kV transmission
8 miles 345kV transmission
EHV substation

$500+ million construction cost

First connection between northern and southern Nevada

Cross Texas Transmission

Selected by PUCT

260 miles 345 kV transmission
4 EHV substations

$500 million rate base

Public Utility in Texas

Silver Run Electric

Selected by PJM in first competitive process

3 mile 230 kV Delaware River crossing, EHV substation

$146 million construction cost cap

Republic Transmission

Selected by MISO in first competitive process

31 miles 345kV transmission

$58 million cost cap

Public Utility in Indiana

DesertLink

Selected by CAISO in a competitive process

60 miles 500 kV transmission

$145.5 million construction cost cap

Limestone – Gibbons Creek

Partnership with Garland Power & Light

67 miles 345 kV transmission

$200+ million construction cost

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FRACMOO2: Eligibility Criteria, Counting Rules

- "Start-up" time as a qualification criteria for FMM & RT flexible capacity:
  - CAISO's previous iteration of FRACMOO proposal had a start up time of "60 min". Recent proposal removed this. Key issues to consider:
    - Presumption is that new Imbalance Reserve product will address the need for RT flexibility:
      - *Can Imbalance Reserve ensure required Capacity is "available"?*
      - *Flexible RA capacity → Planning Capacity*
      - *Imbalance Reserves → Operational Capacity*
      - *Market signals for flexible products?*
  - One of the key objectives of this initiative is to address Real Time Flexibility
    - Current Flexible RA framework shows sufficient Flex RA capacity available yet CAISO sees Operational challenges
    - Can procured Flex capacity be "accessed" in Real Time?
    - A long start resource can address real-time flexibility but is that the most optimal solution?
      - *Does this cause oversupply issues? Renewable curtailment? GHG goals?*
      - *Impact on reliability – CPS violations?*
      - *Economic impacts - Out of Market dispatch? Reliance on Reserves?*

FRACMOO2: Eligibility Criteria, Counting Rules *contd.*

- Counting rules
  - For Real-Time Flexible Capacity counting, storage is proposed to be limited to resource's instantaneous output:
    - *This will artificially block half of the capability of these resources*
    - *As currently proposed no difference between a generator and a storage*
    - *Inconsistent with counting rules for storage in Day Ahead*
    - *Should market optimize state of charge to unlock full capacity of storage resource from charge to dis charge?*

- EFC separation from NQC
  - *Vital to unlock flexibility from some resources that can't otherwise qualify for NQC*