Seeds for Renewable Energy

National Native Seed Conference

BLM Renewable Energy

May 18, 2010

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Renewable Energy Priority

President – New Energy for America Plan

- Ensure 10 percent of electricity from renewable energy by 2012 and 25 percent by 2025

Secretary – New Energy Frontier

- DOI goal of 9,000 MWs new renewable energy capacity by end of 2011
- Secretary Order – March 2009
- Development of renewable energy is Department priority

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Renewable Energy on the Public Lands

20.6 Million Acres
Potential - 206,000 MWs

23 Million Acres - Potential up to 2,300,000 MWs

111 Million Acres open to leasing – Potential 39,000 MWs

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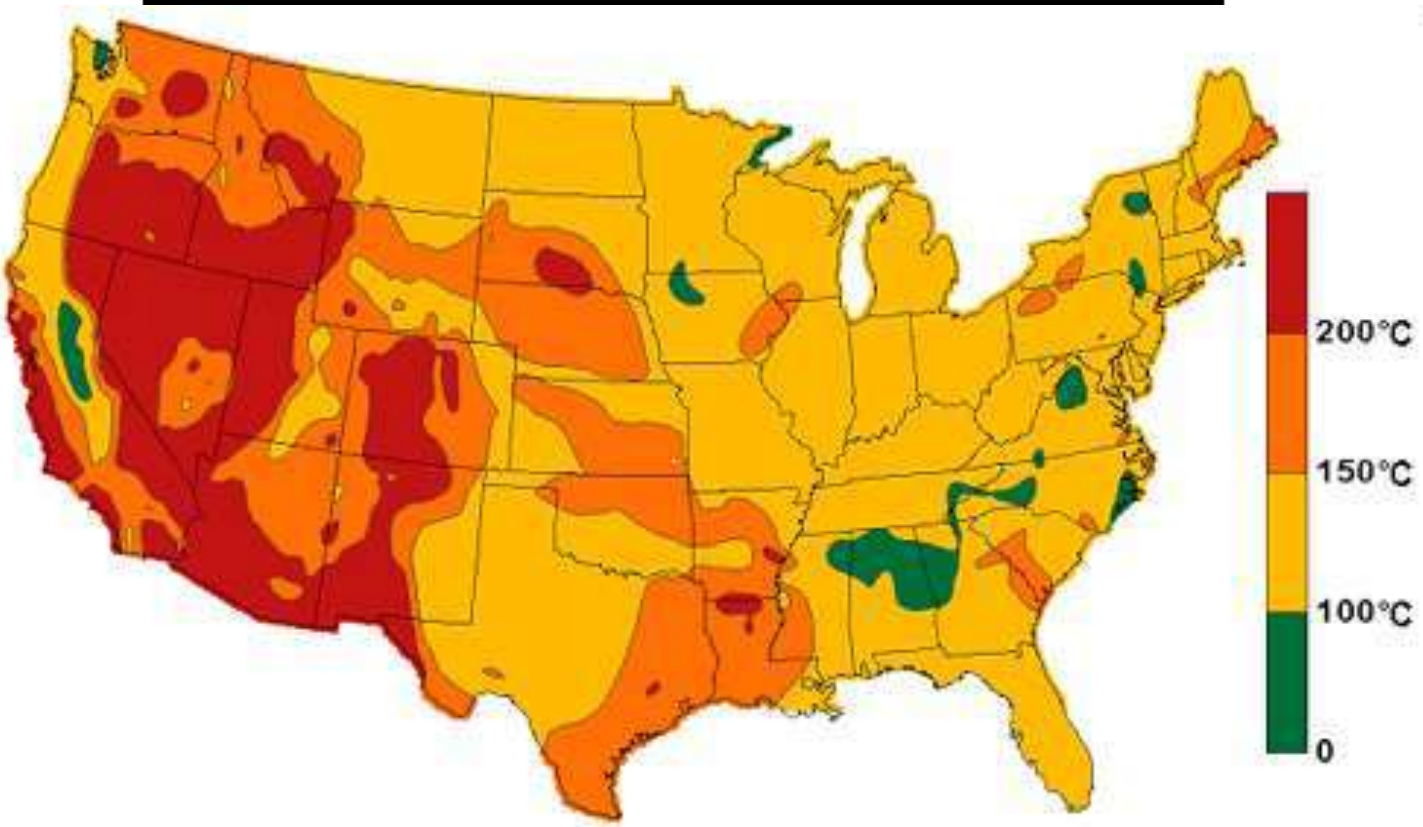
Renewable Potential - Geothermal



GEOTHERMAL – Where We Are

Status

- Programmatic EIS – October 2008
- Lease sales (June 2007, Aug 2007, Aug 2008, Dec 2008, July 2009, Nov 2009, Feb 2010)
  - 256 parcels/$73.3 million
  - Next Sale – May 11, 2010 (NV)
- 612 geothermal leases
- 58 leases in producing status
- Generating about 1,280 MW
- 22 pending development plans (761MWs)
  - 6 Fast Track projects (285 MWs)

Challenges

- NEPA
- Surface Use conflicts
- Co-Production limitations
- Litigation

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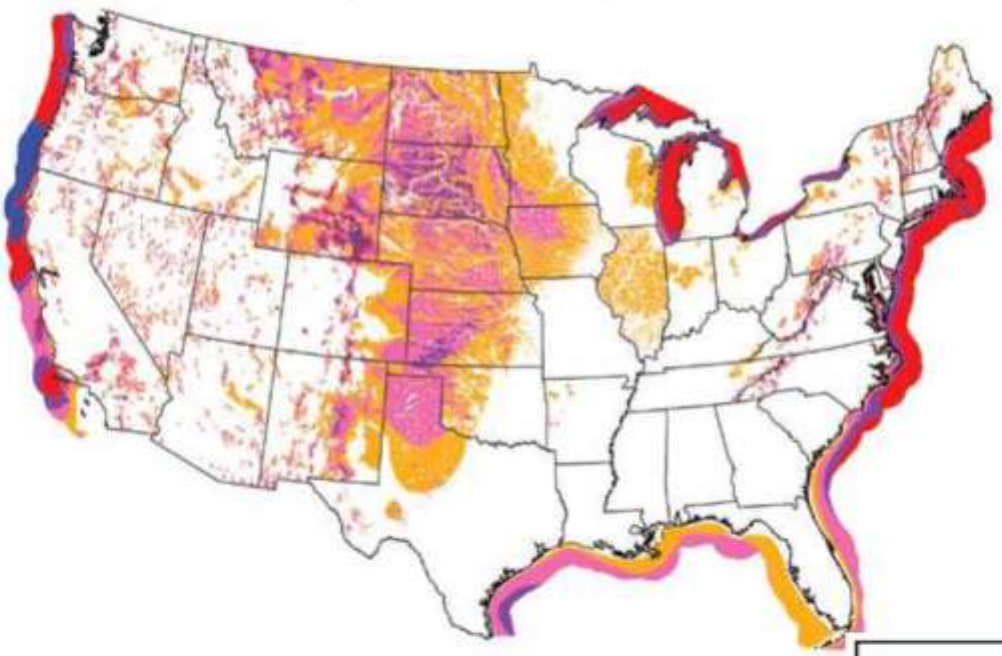
Renewable Potential – Wind



Wind Power Classification

Wind Power Class	Resource Potential	Wind Power Density at 50 m W/m²	Wind Speed[a] at 50 m m/s	Wind Speed[a] at 50 m mph
2	Marginal	200 - 300	5.6 - 6.4	12.5 - 14.3
3	Fair	300 - 400	6.4 - 7.0	14.3 - 15.7
4	Good	400 - 500	7.0 - 7.5	15.7 - 16.8
5	Excellent	500 - 600	7.5 - 8.0	16.8 - 17.9
6	Outstanding	600 - 800	8.0 - 8.8	17.9 - 19.7
7	Superb	800 - 1600	8.8 - 11.1	19.7 - 24.8

[a] Wind speeds are based on a Weibull k value of 2.0

WIND ENERGY – Where We Are

Status

- Programmatic EIS – June 2005
- 185 site testing authorizations
- 28 development authorizations (437 MWs installed capacity – CA, WY, AZ, UT)
- 39 pending development applications (5,000 MWs)
  - 7 Fast Track projects (800 MWs)
- 200 site testing applications

Challenges

- NEPA
- Birds (MBTA, BGEPA), Bats and Sage Grouse
- Visual resources
- Airspace and radar

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Transmission Planning – Renewable Energy

Section 368 West-wide Corridor EIS

- Final Programmatic EIS - Nov 2008
- Designated 6,000 miles corridors (BLM/FS)

DOI/DOE/FERC Renewable Energy and Transmission Working Group

- National Electric Transmission Grid
- Policy, regulatory and legislative initiatives
- Interagency MOU signed October 2009

Western Governors' Association

- Western Renewable Energy Zone (WREZ) and transmission study
- California RETI process
- State renewable energy and transmission planning

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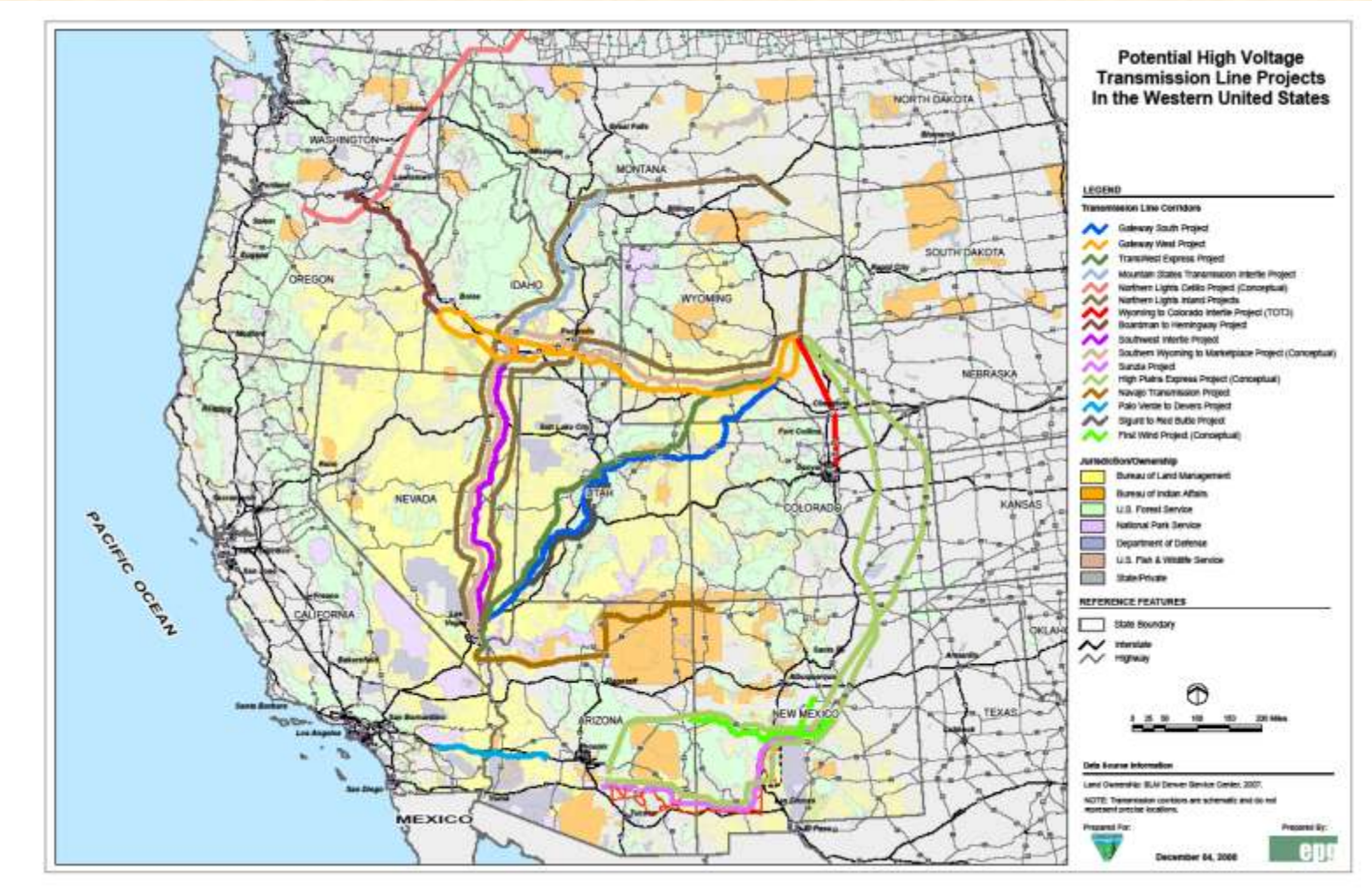
Major Transmission Proposals/BLM



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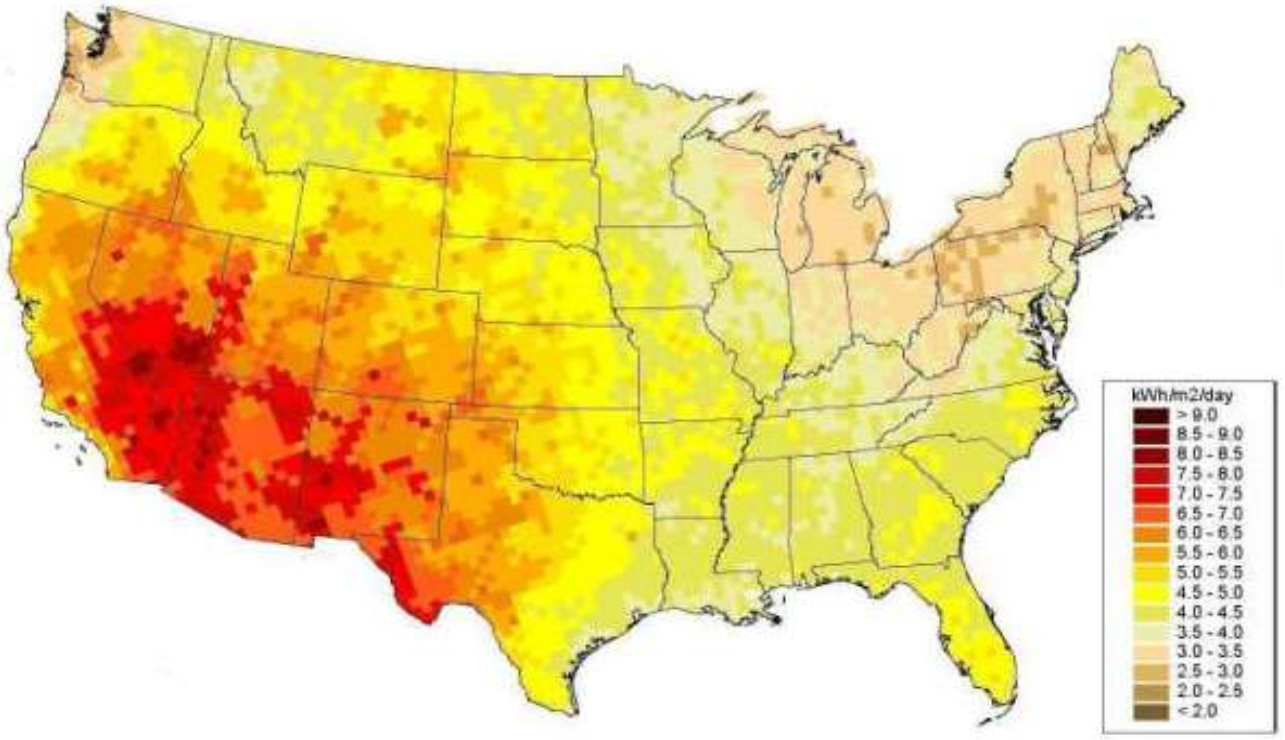
Solar Energy Potential



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SOLAR – Where We Are

Status

- Programmatic EIS underway
  - 24 Solar Energy Study Areas
- 131 Active Applications (1.3 million acres)
  - 14 Fast Track projects (4,500 MWs)

Challenges

- NEPA
- Intensive single-use land allocation
- Large land disturbance footprint
- Water demand (solar thermal)
- Sensitive wildlife and plant habitat
- Visual resource impacts
- Military and aviation operations
- Other resource impacts

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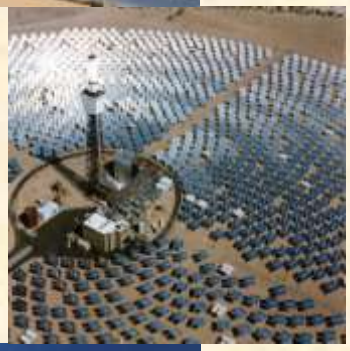
Solar Technologies

Parabolic Trough

- Rows of parabolic mirrors/absorber tube
- Thermal power plant
- Land requirement – 5 acres/MW
- Water – 6 to 13 acre ft/yr/MW

Power Tower

- Central tower (300-450 ft height)/field of mirrors
- Thermal power plant
- Land requirement – 9 acres/MW
- Water – 6 to 13 acre ft/yr/MW



Solar Dish

- Dish shaped mirror/heat piston engine
- No thermal plant
- Land requirement – 9 acres/MW
- Water – 0.05 acre ft/yr/MW

Photovoltaic

- Solar cell panels
- No thermal plant
- Land requirement – 10 acres/MW
- Water – 0.05 acre ft/yr/MW

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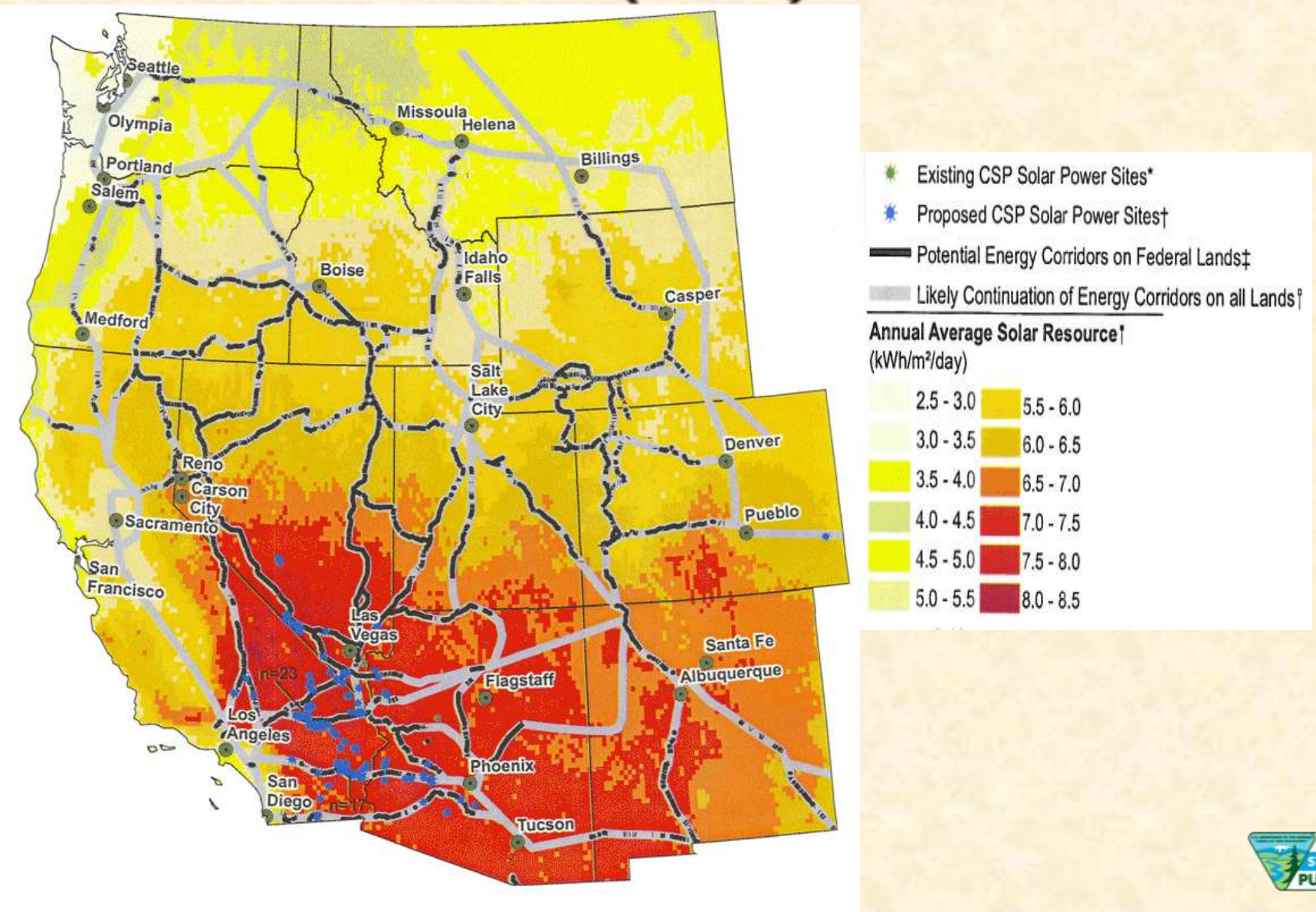
Energy Corridors and Concentrating Solar Power (CSP) Resources



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BLM's Path Forward

FAST TRACK PROJECTS

- Solar Projects
  - Arizona — 1 project
  - California — 9 projects
  - Nevada — 4 projects
- Wind Projects
  - California — 3 projects
  - Nevada — 2 projects
  - Oregon — 1 project
  - Wyoming — 1 project
- Geothermal Projects
  - Nevada — 6 projects
- Transmission
  - California — 2 projects
  - Idaho — 3 projects
  - Nevada — 2 projects

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BLM's Path Forward

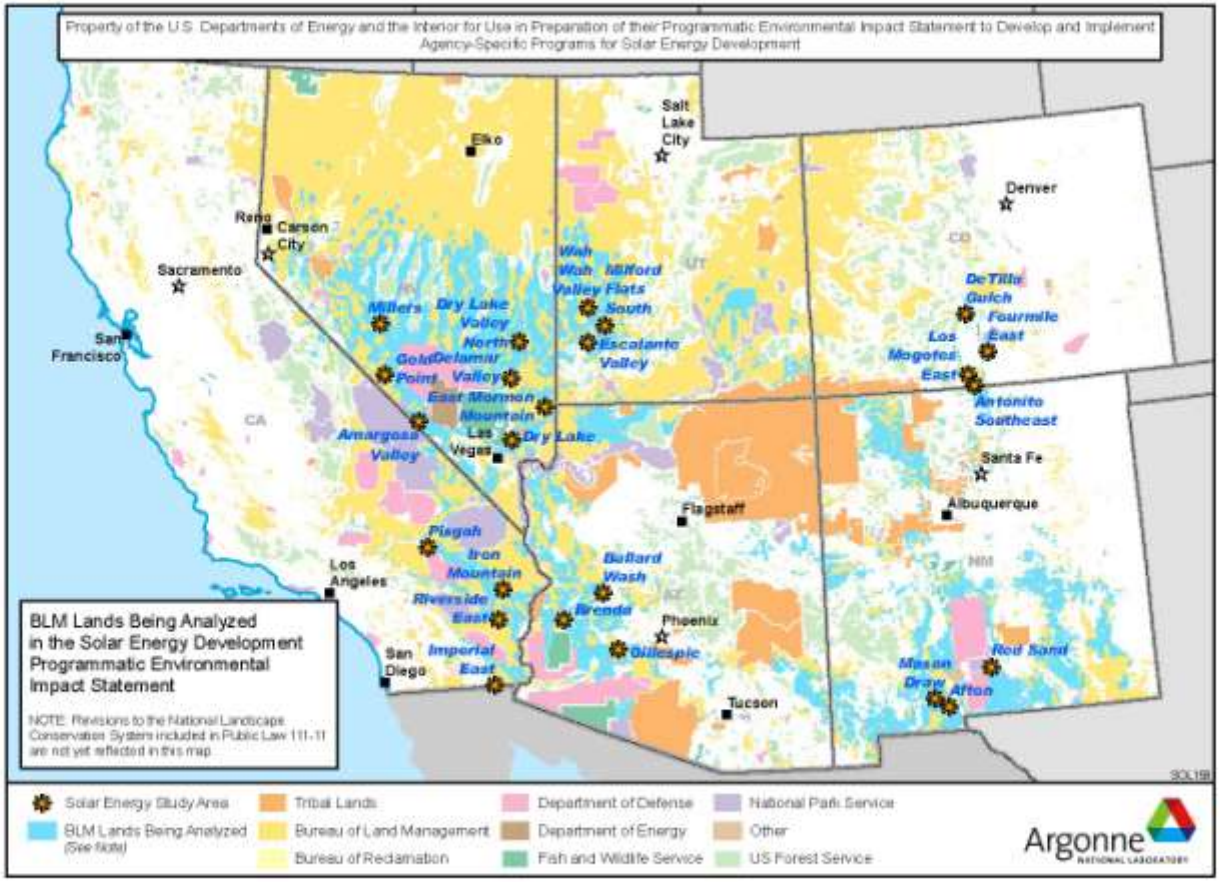
Strategic Planning for the Future

- Solar Programmatic Environmental Impact Statement
  - Draft EIS – Dec 2010
  - Final EIS – fall 2011

- 24 Solar Energy Study Areas (Public comment period ended 9/14/09)

Arizona	3 Study Areas (16,500 acres)
California	4 Study Areas (351,000 acres)
Colorado	4 Study Areas (20,900 acres)
Nevada	7 Study Areas (149,400 acres)
New Mexico	3 Study Areas (121,500 acres)
Utah	3 Study Areas (16,800 acres)

Solar Energy Study Areas



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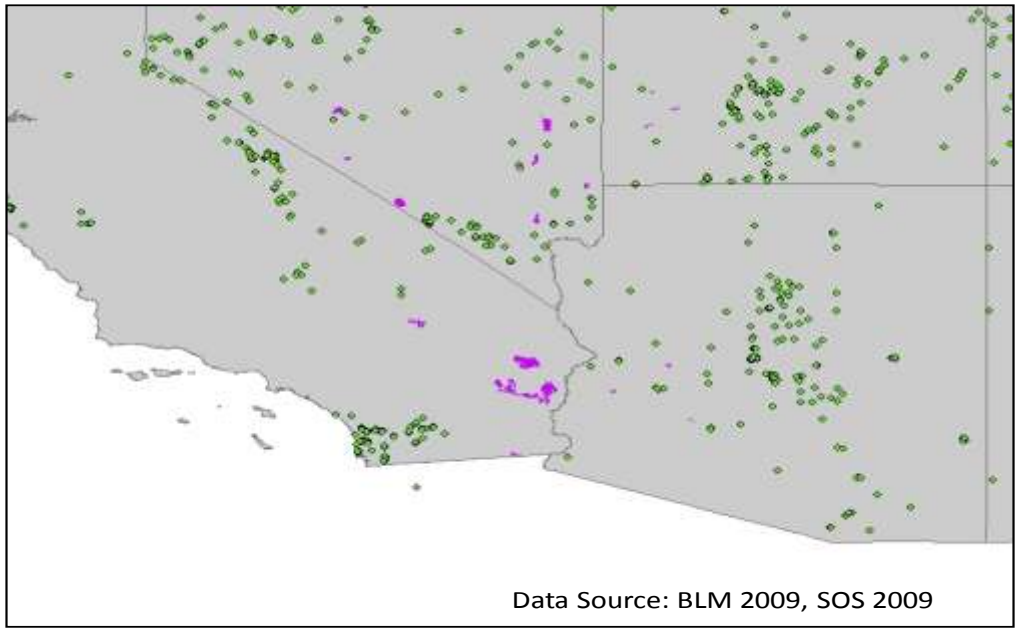
Seeds of Success

SOS National Collection

Solar Energy Study Areas



SOS Collection Sites in the General Study Region

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Questions/Discussion??

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