



# **DRECP**

## **Planning Assumption Scenario for Initial Transmission Input**

**March 15 , 2012**

**Stakeholder Meeting**

# Presentation Overview

- **Acreage per MW for each technology**
- **Acreage from calculator**
- **Technology distribution between RESAs**
- **Available acreage in each RESA**
- **Multiplier effects on acreage requirement**

• [\(map\)](#)

# Estimated Acres required to generate 1MW

<b>Technology</b>	<b>MW Conversion Factor Acres/MW</b>
<b>Solar Thermal</b>	7.1
<b>PV/DG</b>	9.1
<b>Wind</b>	40
<b>Geothermal</b>	6

# Estimated Acreage Requirement From CEC Calculator

<b>Technology</b>	<b>Low Scenario (2040) (acres)</b>	<b>High Scenario (2050) (acres)</b>
<b>Solar</b>	107,800	161,455
<b>Geothermal</b>	18,072	24,096
<b>Wind</b>	167,000	568,000
<b>Utility Side DG</b>	22,000	44,000
<b>Total</b>	314,872	797,551

# Technology Distribution Between RESAs

	Technology	Low Scenario: Proportional Acreage Allocation within RESA	High Scenario: Proportional Acreage Allocation within RESA
<b>Barstow</b>	Solar	7,605	11,390
	Wind	21,614	73,513
	DG	1,608	3,217
<b>Blythe</b>	Solar	11,858	17,760
	DG	2,466	4,932
<b>Imperial</b>	Geothermal	18,072	24,096
	Solar	33,607	50,335
	DG	7,107	14,215
<b>Owens Valley</b>	Solar	3,772	5,649
<b>West Mojave</b>	Solar	51,155	76,616
	Wind	145,386	494,487
	DG	10,818	21,637
<b>Total</b>		315,069	797,846

# Estimated Acreage Need with Multiplier

	Multiplier	Low Acreage Need	High Acreage Need	MW Low Scenario	MW High Scenario
<b>Barstow</b>	3	22,815	34,170	836	1,252
	5	108,069	367,564	540	1,838
	1	1,608	3,217	177	353
<b>Blythe</b>	3	35,574	53,280	1,303	1,952
	1	2,466	4,932	271	123
<b>Imperial</b>	3	54,216	72,288	3,012	4,016
	3	100,822	151,005	3,693	5,531
	1	7,107	14,215	781	1,562
<b>Owens Valley</b>	3	11,315	16,947	414	621
<b>West Mojave</b>	3	153,465	229,848	5,621	8,419
	5	726,931	2,472,436	3,635	12,362
	1	10,818	21,637	1,189	2,378
<b>Total</b>		<b>1,235,207</b>	<b>3,441,538</b>	<b>21,472</b>	<b>40,407</b>

# Estimated Acres required to generate 1MW

<b>Technology</b>	<b>MW Conversion Factor Acres/MW</b>
<b>Solar Thermal</b>	7.1
<b>PV/DG</b>	9.1
<b>Wind</b>	40
<b>Geothermal</b>	6

# Additional Calculator Considerations

BOUNDING SCENARIOS		
2040		Acres
All Solar		218,000
All Wind		458,000
2050		
All Solar		470,000
All Wind		1,010,721