

	INDUSTRIAL WIND	INDUSTRIAL CONCENTRATING SOLAR THERMAL	INDUSTRIAL PV	POINT OF USE PV/ MICROWIND
<b>LOST ACREAGE</b>	45-61 acres per MW, plus roads, transmission lines and staging <sup>1</sup>	8-16 acres per MW, plus roads, transmission lines and staging <sup>1</sup>	12 -15 acres per MW, plus roads, transmission lines and staging <sup>1</sup>	None - no new roads or transmission
<b>WATER USE</b>	Minimal	87,500 gallons per MW annually air cooled; 2.1 million gallons annually water cooled <sup>2</sup>	Regular rinsing required, exact figure unavailable.	None
<b>ADDITIONAL INFRA-STRUCTURE REQUIRED</b>	Major new roads systems, large transmission lines (high GHG emissions)	Large transmission lines (high GHG emissions), natural gas lines (fossil fuel, GHG emissions), water lines/ wells, new roads	Large transmission lines (high GHG emissions), roads	None
<b>FOSSIL FUEL CONSUMPTION</b>	Backup capacity in gas required because of inconsistent wind; fossil fuels used to ramp up turbines to speed	Supplemental natural gas used in most applications.	None	None
<b>JOB CREATION</b>	Construction by large contractors; jobs in remote locations; modest O&M; manufacturing usually outsourced	Construction by large contractors; jobs in remote locations; modest O&M; manufacturing usually outsourced	Construction by large contractors; jobs in remote locations; modest O&M; manufacturing may be local	Installation by local contractors; maintenance by local labor; benefits remain in the community
<b>IMPACT ON PROPERTY VALUES</b>	Steep declines for all properties near generation and near transmission; destruction of viewsheds for miles; loud roaring sound	Steep declines for all properties near generation and near transmission	Steep declines for all properties near generation and near transmission	Steep increases - full value of system immediately recognized, most jurisdictions waive property taxes on improvement; preserves quality of life and views
<b>EMINENT DOMAIN</b>	Widespread for generation and for transmission	Widespread for generation and for transmission	Widespread for generation and for transmission	None
<b>RATEPAYER PARTICIPATION</b>	Ratepayers must pay 100% of infrastructure costs but will not own anything; passive energy dependence; minimal incentive for conservation	Ratepayers must pay 100% of infrastructure costs but will not own anything; passive energy dependence; minimal incentive for conservation	Ratepayers must pay 100% of infrastructure costs but will not own anything; passive energy dependence; minimal incentive for conservation	Everyone who pays for their system owns it themselves; active energy independence; full participation; proven increased conservation
<b>FINANCIAL IMPACT ON RATEPAYERS</b>	Rates will increase benefiting solely industry; ratepayers pay whatever utilities are permitted to charge for power	Rates will increase benefiting solely industry; ratepayers pay whatever utilities are permitted to charge for power	Rates will increase benefiting solely industry; ratepayers pay whatever utilities may charge for power	Rates will increase; feed in tariffs will compensate small local generators so money flows to people not just industry
<b>IMPLEMENTATION TIME</b>	Lead time 2-8 years, construction time of 6 - 18 months.	Lead time 2-8 years, construction time of 6 - 18 months.	Lead time 2-8 years, construction time of 6 - 18 months.	No lead time, immediate installation

**Sources for the comparison chart:**

**Lost Acreage per MW**

**Industrial Wind:** Source: BLM applications chart  
 CACA 47043 West Fry Mountains - Florida Power & Light Energy LLC  
 2500 acres / 50 MW (50 acres per MW)  
 CACA 48658 Black Butte - Orion BP - 2442 acres / 40 - 54 MW (45-61 acres per MW)

**Industrial Concentrating Solar Thermal:** Source: California Energy Commission  
 Applicant's data responses.  
 Ivanpah - Bright Source - 6,720 / 400 MW (16.8 acres per MW)  
 Beacon - Beacon Solar, LLC - 2,012 acres / 250 MW (8 acres per MW)

**Industrial PV:** Source: BLM applications chart  
 CACA 48818 Optisolar Opal project - 14,400 acres / 1205MW (12 acres per MW)  
 CACA 48819 Optisolar Desert Ruby project - 15,280 acres / 1000MW (15 acres per MW)

**Water Use per MW**

**Industrial Concentrating Solar Thermal:** Source- California Energy Commission  
 Air Cooled - Ivanpah - Bright Source - 100a/f or 35,000,000 gallons / 400 MW (87,500 gallons per MW)  
 Water cooled - Beacon - 1500 a/f or 525,000,000 gallons / 250 MW (2.1 million gallons per MW)