Web 57DHYAFZZFLiA March 29 2026 Polluting Energy generation inherited since wood burning began versus Heritage Sites of Clean Energy

In Webisode 57DHYAFZZFLiA Air Polluting Energy generation inherited since wood burning began versus Heritage Sites of Clean Energy 1 The First Wind Farms 2A The first solar panel farms in the United States 2B A brief history of solar parks 1982 in California since decomissioned 1984 in California since decomissioned 2004 Hemau Germany 2008 Spain More Recently the USA China India France Canada and Italy amongst others have also become major markets 3A Individual Solar Parks The Carrizo Energy Solar Farm 3B Topaz Solar Farm 3C Generation Megawatt per hour of Topaz Solar 4A Wisconsin Operating Solar Projects 50 plus Megawatts per hour as of February Two Thousand Twenty Five 5 Industrial heritage sites repurposed for renewable energy installations Section 6 Air Polluting Energy Generation should not be claimed by any one cultural group as a heritage site All cultural groups living on the earth have inherited dirty energy generation since wood burning began Consider Heritage Sites for Clean energy versus dirty energy wood burning

Section 1 The First Wind Farms The first wind farms were established to harness the power of the wind for various purposes including electricity generation Here are some of the earliest wind farms and their significance Crotched Mountain Wind Farm The first wind farm in the world consisting of twenty 30 kW wind turbines was installed in December 1980 at Crotched Mountain in New Hampshire Delabole Wind Farm The first commercial wind farm in the UK Delabole was created in November 1991 and consisted of ten turbines Vindeby Wind Farm The first offshore wind farm in the world Vindeby was built in 1991 in Denmark and had a total installed capacity of 5 megawatts Blyth Offshore Wind Farm The first UK offshore windfarm Blyth began operation in 2003 and became the biggest in the world at the time These wind farms were pivotal in the development of wind energy paving the way for the widespread adoption of wind power as a clean and renewable energy source

Section 2A The first solar panel farms in the United States were the Carrizo Solar Corporation and the Lugo Solar Power Plant These farms were pivotal in the early development of solar energy in the country

Section 2B A brief history of solar parks 1982 in California since decomissioned 1984 in California since decomissioned 2004 Hemau Germany 2008 Spain More Recently the USA China India France Canada and Italy amongst others have also become major markets Early Photovoltaic deployment concentrated on standalone off grid applications and grid connected systems were rare before the 1980s The first hesitant steps towards grid connection focused on building integrated decentralized systems but the European pilot program did support some community scale projects mainly in isolated island locations The first 1 MEGAWATT peak or photovoltaic solar park was built by Arco Solar at Lugo near Hesperia California at the end of 1982 This was followed in 1984 by a 5 point 2 MEGAWATT peak or photovoltaic installation in Carrizo Plain Both have since been decommissioned In 2004 a community owned 4 MEGAWATT plant was built in Hemau The next stage followed the 2004 revisions to the German feed in tariffs starting with the 5 MEGAWATT Leipziger Land project in former Eastern Germany Several hundred installations over 1 MEGAWATT peak or photovoltaic have been since been installed in Germany of which more than 50 are over 10 MEGAWATT peak or photovoltaic With its introduction of feed in tariffs in 2008 Spain became briefly the largest market with some 60 solar parks over 10 MEGAWATT though this market has declined because these incentives were

withdrawn More recently the USA China India France Canada and Italy amongst others have also become major markets The largest solar parks currently operating have capacities of one quarter to one half GigaWatt p including The First Solar Agua Caliente plant in South West Arizona which was about half built when we visited in late 2011 Projects at a scale of 1 GIGAWATT peak or photovoltaic are now being planned Solar parks in the UK The first utility connected solar power plant in the UK was built at the former Marchwood Power Station It was the introduction of the Feed in Tariffs that stimulated the first wave of utility installations with about twenty solar parks between 2 and 5 MEGAWATT connected before the end of July 2011 when tariffs for larger installations were cut drastically Westcott Chittering and Westmill were amongst those projects The dramatic price reductions over the next year or so brought projects back to viability even at reduced levels of support A second wave of installations was completed in the first quarter of 2013 mostly supported under the Renewables Obligation rather than the Feed in Tariffs New projects continue to be planned consented and constructed with the UK in 2013 to 2014 amongst the most attractive markets in Europe

Section 3A Individual Solar Parks The Carrizo Energy Solar Farm was a proposed One hundred seventy seven MEGAWATT solar thermal power plant to be built by Ausra in Carrizo Plain in California near Simmler The location gets less sun than the Mojave Desert where several other solar thermal plants are under consideration but is near an existing transmission line from Diablo Canyon Power Plant reducing the cost and time needed to construct the plant The five hundred fifty million dollar power plant would have provided enough power for sixty thousand homes and Pacific Gas and Electric PG and E entered into a contract to buy all the power from the power plant Ausra claimed its technology can deliver power at 10 point 4 cents per kilowatt hour Ausra planned to have the plant generating power by 2010 using the Ausra Compact Linear Fresnel Reflector CLFR solar technology In November 2009 Ausra announced that it had sold its options to the six hundred forty acres Two hundred sixty hectare or ten thousand square meters of land to First Solar and canceled its contract with PG and E First Solar will use some of the land for its Topaz Solar Farm

Section 3B Topaz Solar Farm Location Carrizo Plain San Luis Obispo County California Status Operational Construction began 2011 Commission date 2014 Construction cost 2 point 4 billion dollars Owner Berkshire Hathaway Energy Solar farm Type Flat panel Photovoltaic Site area forty seven hundred acres nineteen hundred hectare or ten thousand square meters Power generation Nameplate capacity five hundred fifty MEGAWATT AC Capacity factor twenty six point six percent average 2015 to 2018 Annual net output One thousand two hundred eighty two GigaWatt hour Two hundred seventy two MegaWatt hour per acre External links Website Topaz Solar Farm Commons Related media on Commons Topaz Solar Farms is a five hundred fifty megawatt AC photovoltaic power station in San Luis Obispo County California United States Construction on the project began in November 2011 and ended in November 2014 It is one of the largest solar farms in the world The 2 point 5 billion dollar project includes 9 million CdTe photovoltaic modules based on thin film technology manufactured by US company First Solar The company also built operates and maintains the project for BHE Renewables a Berkshire Hathaway company Pacific Gas and Electric will buy the electricity under a 25 year power purchase agreement According to First Solar it created about 400 construction jobs History Opti Solar the instigator of the project had optioned 9 point 5 square miles 25 square kilometers of ranchland In November 2009 First Solar announced that

it had purchased options to an additional six hundred forty acres two hundred sixty hectare or ten thousand square meters from the Ausra canceled Carrizo Energy Solar Farm First Solar would reconfigure the project to minimize the use of land covered by the Williamson Act The project uses nine million thin film cadmium telluride Photovoltaic panels designed and manufactured by First Solar The power from the plant would be generated during the middle of the day when demand for electricity and price is much higher than at night The project was expected to begin construction in 2011 and be fully operational by 2014 California utilities are mandated to get thirty three percent of their energy from renewable sources by 2020 needs update On August 14 2008 Pacific Gas and Electric Company announced agreements to buy the power from Topaz Solar Farms and High Plains Ranch In late October 2010 the San Luis Obispo Department Planning and Building released a Draft Environmental Impact report In June 2011 the U S Department of Energy offered First Solar a 1 point 9 billion dollar loan guarantee to cover part of the financing for the project The First Solar project was not able to close its conditional loan guarantee with the Department of Energy prior to the September 30 deadline but it has gone ahead anyway On May 18 2012 First Solar announced the installation of the first Photovoltaic panel On October 24 2012 First Solar announced the installation of the millionth panel The plant began providing energy to the grid in February 2013 The five millionth panel was installed in October 2013 On January 10 2019 with Pacific Gas and Electric Company facing billions of dollars in wildfire liabilities S and P Global Ratings cut the credit rating of the Berkshire Hathaway Energy 550 megawatt Topaz Solar Farms to junk noting that the plant counts on PG and E for all of its revenue

Generation Megawatt per hour of Topaz Solar

year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	annual
2013	–	239	24499	18660	31026	40465	47772	58441	53196	47407	39423	40180	**401308**
2014	50883	51063	77789	90451	99511	110227	114932	124320	119978	113417	92644	60642	**1105857**
2015	89663	92944	108663	114979	103163	123704	130249	133 thousand	120634	111211	93907	79220	**1301337**
2016	65211	101749	108033	106132	124972	134559	138059	130844	111319	99693	88536	56698	**1265760**
2017	57880	42375	95639	108198	128816	132016	129836	121997	122106	117862	90225	90582	**1237532**

2018	80851	101373	93826	125445	136903	136248	131293	131442	121581	118207	83610	74940	**1335727**
2019	75557	70097	97868	117138	110050	132501	135100	132926	122489	116268	83008	62720	**1255722**
2020	80884	105601	89272	111342	131391	129173	132908	121838	105433	99910	93138	81826	**1282716**
2021	80602	102438	113865	129378	125496	129930	125876	126904	113280	104030	90423	58566	**1300788**
2022	82528	85869	99289	109589	120298	119141	117439	122679	108528	108197	85998	61855	**1221410**
2023	53303	68355	56145	92581	102331	100762	110169	108215	103260	98178	77965	65510	**1036774**
2024	66881	71784	79489	81331	100010	107528	116425	123491	110236				
Average Annual Production years 2015 to 2019													**1279216**

Section 4 Wisconsin Operating Solar Projects 50 plus Megawatts per hour as of February Two Thousand Twenty Five

Project Name	Developer/ Owner	Location (COUNTY/Munis)	Capacity MEGAWATT/AC	Battery Energy Storage MEGAWATT	Project Area Acres	Local Payments Annually dollars per year	Project Links
TWO CREEKS	WPS MGE	MANITOWOC/KEWAUNEE Two Creeks Two Rivers	150		780	**750 thousand dollars**	WPS YouTube
BADGER HOLLOW	WPS MGE	IOWA Cobb Eden Miffin Linden	300		2200	**1 point 5 million dollars**	WPS Images WeEnergies

POINT BEACH SOLAR	NextEra	MANITOWOC Two Creeks	100		479	**500 thousand dollars**	WPPI Energy WBAY
PARIS SOLAR	Invenergy	KENOSHA Paris	200	110	1270	**1 million dollars**	Invenergy WPR
WOOD COUNTY	Alliant	WOOD Saratoga	150	75	1208	**750 thousand dollars**	Alliant Energy
GRANT COUNTY	Alliant	GRANT Potosi	200	100	1403	**1 million dollars**	Alliant Energy
ONION RIVER	Alliant	SHEBOYGAN Holland	150		1392	**750 thousand dollars**	Alliant Energy
CRAWFISH RIVER	Alliant	JEFFERSON	75		441	**375 thousand dollars**	Alliant Energy
NORTH ROCK	Alliant	ROCK Fulton	50		395	**250 thousand dollars**	Alliant Energy
BEAR CREEK	Alliant	RICHLAND Buena Vista	50		456	**250 thousand dollars**	Alliant Energy
SPRINGFIELD	Alliant	DODGE Lomira	100		750	**500 thousand dollars**	Alliant Energy
ALBANY SOLAR	Alliant	GREEN Decatur	50		336	**250 thousand dollars**	Alliant Energy
BEAVER DAM SOLAR	Alliant	DODGE Beaver Dam	50		352	**250 thousand dollars**	Alliant Energy
CASSVILLE SOLAR	Alliant	GRANT Cassville	50		429	**250 thousand dollars**	Alliant Energy
PADDOCK SOLAR	Alliant	ROCK Beloit	65		468	**325 thousand dollars**	Alliant Energy
WAUTOMA SOLAR	Alliant	WAUSHARA Wautoma Dakota	99		624	**495 thousand dollars**	Alliant Energy
Total			**1839 MEGAWATT**	**285 MEGAWATT**	**12483 Acres**	**Nine point one hundred ninety five million dollars**	

Section 5 Industrial heritage sites repurposed for renewable energy installations Industrial heritage landscapes such as **former mining sites or industrial complexes** can be repurposed for renewable energy installations transforming sites of past environmental impact into sources of clean energy

Section 6 Air Polluting Energy Generation should not be claimed by any one cultural group as a heritage site All cultural groups living on the earth have inherited dirty energy generation since wood burning began Consider Heritage Clean Energy Sites versus wood burning sites