



Commercial Grid-Tie Photovoltaic Systems

10 kW to 1 MW



-  COMMUNICATIONS
-  ENERGY
-  SPECIAL INDUSTRIES
-  SOLAR



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DPW Solar designs and integrates solar electric power systems, and as the southwest's premier solar electric company, this business is to provide seamless, turn-key Photovoltaic (PV) systems for any application. Its engineered PV renewable energy systems provide a clean, motionless and quiet source of single or three phase energy for your electrical needs.

DPW Solar is a full line photovoltaic company with multiple journeyman electricians on staff. The DPW engineering staff provides a complete and professional photovoltaic integration from start to finish and have been installing photovoltaic systems for over 17 years.

Currently, solar energy systems are able to achieve cost effectiveness because the federal government and many state governments have lucrative programs in place to entice businesses

to purchase solar electricity to reduce their carbon footprints. In the past two years, modules have decreased by 30%. Additionally, many utilities have programs for renewable energy specifically for solar electricity based on state mandates, which are now law. These incentives include buy downs and production credits. With the state and federal tax credits, as well as rebates and grants, (and a 50% bonus depreciation for systems installed in 2009 and 2010), the average pay back has been reduced to less than 10 years.

U.S. based companies can take advantage of the federal programs and DPW Solar can give your company the information it requires to make a decision that can increase your bottom line, help reduce your utility's peak load, and help in the struggle against global warming.

Services offered by DPW Solar

- Economic and buy down analysis
 - Review historical use and determine the most appropriately sized system based on federal and state tax credits, or on your organization profit structure
 - Review utility rate structure and compare how a photovoltaic system will reduce electric expense
- Prepare a 3 line electrical schematic
- Submit application for electrical permit
- Submit application to utility for interconnection agreement
- DPW will design a CAD layout of module placement to maximize output of your photovoltaic system
 - Layout includes roof top, ground mount, multi-pole, top of pole and non penetrating ballasted flat roof system
- Determine which module type best meets your specific criterion based on geographical location and site space available
 - For example: thin film, mono crystalline, poly crystalline
- NABCEP Certified Professional Level
- Turn Key 208, 277, 480 Volt Photovoltaic Systems
- All Systems meet or exceed the current national electric code

- DPW Solar is licensed, bonded and insured in the state of New Mexico and Colorado. DPW Solar also provides professional consultation and project management for photovoltaic systems worldwide





Three Systems Available

15 kW Commercial Grid Tie System

- 72 Schott 225 watt modules
 - Qty. may vary depending on temperature zone of location
 - Custom engineered Commercial Racking System (CRS) designed and engineered to meet building, local and state code requirements. CRS systems are designed for 5 and 10 degree tilt.
 - Other racking styles available if applicable to building or site
 - Power Rail™ Mounts (PRM), LPRGM, Multi-Pole Mounts (MPM) and Top-of-Pole Mounts (TPM)
 - Structural analysis with PE charged at cost plus 10% if required
 - Three SMA 5000 US inverters with DC disconnect and fuses
 - Solectria inverter as a secondary source, if applicable
 - Basic monitoring system included, upgrades available
 - AC disconnect for each inverter as required by the NEC or most utilities
- The calculation of the expected co-generation's annual production is based on many different attributes. Once the size of the array, angle of the array, orientation of array and the location of the project is known, DPW Solar will calculate the expected daily output and annual output. With this information, we also provide at no charge an economic analysis, specific to your business, and location.
- Expected Daily production based on Albuquerque, New Mexico: **80kW hrs per day**



37.7 kW Commercial Grid Tie System

- 154 SolarWorld 245 watt modules
 - Qty. may vary depending on temperature zone of location
 - Custom engineered Commercial Racking System (CRS) designed and engineered to meet your building, local and state code requirements. CRS is designed for 5 or 10 degree tilt.
 - Other racking styles available if applicable to building or site
 - Power Rail™ Mounts (PRM), LPRGM, Multi-Pole Mounts (MPM) and Top-of-Pole Mounts (TPM)
 - Six SMA 7000US inverters with DC disconnect and fuses
 - Solectria inverter as a secondary source, if applicable
 - Basic monitoring system included, upgrades available includes web box
 - One Sunny tower ST42
 - AC disconnect for each inverter as required by the NEC or most utilities
- Expected daily production based on Albuquerque, New Mexico: **188kW hrs per day**



100 kW Commercial Grid Tie System

- 440 SolarWorld 245 watt modules
 - Qty. may vary depending on temperature zone of location
 - Custom engineered Commercial Racking System (CRS) designed and engineered to meet your building, local and state code requirements. CRS is designed for 5 or 10 degree tilt.
 - Other racking styles available if applicable to building or site
 - Power Rail™ Mounts (PRM), LPRGM, Multi-Pole Mounts (MPM) and Top-of-Pole Mounts (TPM)
 - Structural analysis with PE charged at cost plus 10% if required
 - One SatCon 100kW 208/277/480
 - Basic monitoring system included, upgrades available
- The calculation of the expected co-generation's annual production is based on many different attributes. Once the size of the array, angle of the array, orientation of array and the location of the project is known, DPW Solar will calculate the expected daily output and annual output. With this information, DPW Solar also provides at no charge, an economic analysis specific to your business, and location.
- Expected daily production based on Albuquerque, New Mexico: **500+kW hrs per day**





Rebates and Incentive Programs

1. The federal government extended a corporate tax credit (ITC) to businesses that invest in renewable power. The types of eligible solar technologies include: solar water heat systems, solar space heat, solar thermal electric, solar thermal process heat and photovoltaics. The credit is fixed at 30 percent. Note that the credit for businesses is not constrained by a dollar-value cap. So, regardless of whether you install a \$100,000 system or a \$1 million system, your company is permitted to take a 30 percent credit. In October 2008, Congress voted to extend the ITC for eight years, through 2016.
 - a. Some states offer additional incentives to help simulate photovoltaic installations. New Mexico offers a 10% state tax credit with a cap of \$9,000.00
2. Most states allow net metering; which allows the end user to sell their co-generation power to the utility at the same price they are paying.
3. If your company plans to take the federal credit in conjunction with other incentive programs, you should be aware of a couple of important considerations. As a general rule, most incentives represent income on which federal income taxes are paid. As a result, most incentives do not decrease the basis on which the federal ITC is calculated. For example, if your business receives rebate money from the state government your

business will pay federal income tax on this amount. It does not affect the cost basis used to determine the 30 percent investment tax credit. State rebates, buy-downs, grants, and other taxable incentives fall into this category.
4. REC (Renewable Energy Credit) is an incentive program to enhance customers to install and purchase photovoltaic systems.
5. Certain state laws mandate the utilities to produce a certain percentage of their electricity from renewables by 2020. This is called a Renewable Portfolio Standard (RPS). Consequently, the utilities are using buy down and production credits to help entice the customer to purchase a solar electric system. In New Mexico, the Public Service Company of New Mexico is paying 14 cents per kW hr as a REC credit up to the monthly usage and then they pay at a specified rate schedule.
6. The 5-year depreciation schedule for most types of solar, geothermal, and wind property has been in place since 1986. The federal Energy Policy Act of 2005 (EPAct 2005) classified fuel cells, microturbines and solar hybrid lighting technologies as five-year property as well by adding them to § 48(a)(3)(A). This section was further expanded in October 2008 by the addition of geothermal heat pumps, combined heat and power, and small wind under The Energy Improvement and Extension Act of 2008.



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Printed in U.S.A.
SL-SS-1052-1
10.10.5C



DPW Solar

*... is dedicated to solar electric power as
a clean energy alternative to fossil fuels
and a cornerstone of America's energy
independence in the 21st Century.*

DPW Solar

- Established in 1993 in New Mexico
- Thousands of systems installed including Grid Tie, Grid Tie with battery backup and Remote Photovoltaic Power Systems
- Major structure and racking manufacturer with capacity to custom design, engineer and build as project requires
- A full time staff of trained photovoltaic specialists
- A full time staff of electrical and mechanical engineers
- A full time staff of licensed electricians
- Inverter technicians on staff
- Certified by inverter companies in the installation of their products
- A subsidiary of Preformed Line Products Company (a publicly held company)
- Licensed, bonded and insured in New Mexico and Colorado