



Federal Long-Term Power Purchase Agreements (PPA)

What is a power purchase agreement?

One of the most influential developments in solar energy project financing in recent years has been the use of retail and wholesale power purchase agreements (PPAs) by solar companies. A power purchase agreement is a contract wherein a property owner contracts with a solar integrator/ developer to install solar technology on a given property (roof or ground-mounted). In order to avoid the up-front cost of solar—often the largest barrier to installation—the equipment is installed at no cost to the property owner. In turn, the owner agrees to purchase electricity from the solar integrator for an extended fixed-term period (usually 20 years) for a fixed price. Because a PPA guarantees a set revenue stream over the life of the project, it makes deploying small and large-scale solar installations across the U.S. economically feasible. Approximately 80% of all the photovoltaic (PV) installations in 2008 relied on the PPA financing innovation.

Under the terms of a PPA, the solar integrator assumes the risks and responsibilities of ownership, including purchases of equipment, operation, and maintenance. Because of the duration of the power purchase agreement, the cost of the solar electricity offered through a PPA is less than the cost of existing electricity from the incumbent local electricity service provider. Consumers of the solar electric power find the arrangement appealing because they assume no financial, technology, ownership, operation and maintenance or other risks throughout the term of the contract; yet they obtain less expensive power that is non-polluting and locally produced.

The PPA model is currently used in the private sector and on a pilot-project basis at a handful of military installations – a 14 MW solar installation at Nellis Air Force Base structured as a 25 year PPA is saving the base over \$1 million/year. **Providing the entire federal government with 20-year PPA authority will both increase the use of solar and save the federal government money.**

Problem with federal law

Current federal law limits the length of federal power purchase agreements to 10-years. Unfortunately, projects are not financially viable under this truncated timeline because it takes approximately 10 years for the solar integrator to fully amortize their investment. The second ten-year period is when the project generates net income to the developer.

Federal assets can be better utilized if they generate solar power

- The Federal government is the largest utility customer in the U.S. and spends \$5.8 billion annually on electricity costs
- More than 350 million square feet of federal buildings could generate approximately 2,000 MW of roof-mounted power or enough power for 500,000 homes
- Solar power plant development on less than 1% of BLM-managed land could generate approximately 70,000 MW or enough power for 20 million homes
- Thousands of Superfund sites across the country could be converted into solar farms under a “brownfields to sunfields” program

- The 2007 EPAct requires that not less than 30 percent of the hot water demand for each new or substantially modified Federal building be met through the installation and use of solar hot water heaters

A massive investment in solar energy technologies to power the federal government (including military operations) will lower federal electricity bills, reduce carbon and other polluting emissions, and help ensure energy security for the country. Deployment of solar on federal properties will also allow the federal government to lead by example.

CONCLUSION: Providing the federal government with 20-year PPA authority will save the government money and reduce its carbon-profile while creating tens of thousands of jobs.