



Date: December 19, 2023

To: Honorable Mayor and Councilmembers

From: Joe Bettencourt, Community Development & Services Director
Marti Brown, City Manager

Subject: Solar Letter of Intent for a Power Purchase Agreement for the Wastewater Treatment Plant, Fire Department and Civic Center

Recommendation:

Authorize the City Manager to execute a Letter of Intent for a Power Purchase Agreement with Trinary Capital to install solar panels at the City's Wastewater Treatment Plant, Civic Center and the Fire Station to offset the City's PG&E bill.

Rationale for Recommendation:

The City's current solar array at the Wastewater Treatment Plant (WWTP) is underperforming. Staff recommend augmenting the solar panels with a new solar system to offset the entirety of the energy use (e.g., PG&E) at the WWTP. The Fire Station and Civic Center will be new installations. The Civic Center will receive a new roof, in order to support the new roof mount solar panels, at no cost to the city.

Background:

On September 1, 2010, the City entered into an agreement with SPP DG DevCo, LLC, to build and operate a new solar energy array (Array) that was built adjacent to the Willows WWTP located at 1600 South Tehama Street. Through this agreement, SPP DG DevCo, LLC, would construct and operate an Array and the City would purchase the energy generated by the Array at a greatly reduced rate with modest increases built into the energy sale annually. The original agreement with SPP DG DevCo, LLC, has been sold multiple times and is now owned by Clearway Energy that owns and operates the Array under the same terms of the agreement.

The WWTP is the City's largest user of energy as it is required to operate 24 hours a day to receive, treat, and move roughly 700,000 gallons of wastewater each day. The WWTP requires an average of 1,000,000 kilowatt hours (kwh) of energy per year, with some years requiring slightly less or more than the estimated average. The Array that was installed near the WWTP used a technology that has proven to be inefficient and somewhat dysfunctional and, on average, has been producing less than half the WWTP energy needs since it was installed. As a result, the city has been paying both Clearway Energy and PG&E for energy.

The intent of the project was to replace the cost of operating the City's WWTP with solar energy instead of the more costly PG&E energy. However, the solar array that was installed has never fully met this goal. In year one, the Array produced the greatest amount of energy, providing 76.2% of the total energy required to operate the WWTP. On average and over the life of the Array, it has only produced 47.7% of the WWTP's energy needs and, from May 2022 to January 2023, it produced no energy. Currently, it produces approximately 50% of the WWTP's energy needs. The City experienced savings in the first year of production and paid only a small sum of money to PG&E through an annual true up bill. There has been a reduction in energy generation over time by the Array installed by SPP DG DevCo, LLC, to the point that the City is paying an energy bill to Clearway per the agreement, and paying a large annual "true up" bill to PG&E. In FY 2021, the true up bill was \$97,894, in FY 2022, the true up was \$159,373, and in FY 2023, the true up bill was \$285,105.

Unfortunately, the original agreement between the City and SPP DG DevCo, LLC, heavily favored the developer, with few benefits to the City. In addition, there were no production expectations of the Array, guarantees or warranties, remedies for lack of performance, security against costs or liability to the City, incentives or requirements for the developer to perform maintenance or service to the Array, or to maintain any level of benefit to the City. The same agreement is now owned by Clearway Energy.

Ecogreen, the company that installed new LED lighting throughout the City to bring greater energy savings, recommended Trinary Energy to potentially help find a solution to the City's WWTP energy needs and the underperforming Array. Through discussions with Trinary Energy, staff learned of the potential to install a new solar array at the WWTP, as well as on the roof of the Civic Center and Fire Station.

The current agreement with Clearway Energy was entered into when the State Public Utilities Commission (PUC) was under the original Net Energy Metering plan (NEM 1). Under this plan, system owners did not have to pay non-bypassable Charges (NBC) on the electricity that they bought from a utility on a month-to-month basis. NBC charges are per-kwh charges that are built into utility electric rates. They add up to approximately 2-3 cents per kWh and go towards funding energy efficiency, low-income customer assistance, and other related programs.

Trinary Capital has made payments toward the solar application for the Civic Center and Fire Department, which locked these facilities into NEM 2. Under NEM 2 tariffs, participating customers receive bill credits for excess generation that is exported to the electric grid during times when it is not serving onsite load. These bill credits are applied to customers' monthly bills at the retail rates (including generation, distribution, and transmission components) that the customers pay for energy consumption according to their otherwise applicable rate structures.

NEM 2 customer-generators pay the same non-bypassable charges for public services as other investor-owned utility customers, including Department of Water Resources bond, public purpose program, nuclear decommissioning, and competition transition charges. These charges fund important programs such as low-income and energy efficiency programs. NEM 2 customer-generators are exempt from standby charges.

At the end of a customer's 12-month billing period, any balance of surplus electricity is trued up at a rate based on the recent market rate for energy resulting in "net surplus compensation" (NSC). The NSC rate is approximately \$0.02 to \$0.03 per kWh.

The WWTP will be on Net Billing Tariff (NBT) and not NEM 2 because an application was not received prior to April 15, 2023. The NBT applies to the types of renewable electrical generation facilities that would previously have used standard NEM tariffs (i.e., not facilities eligible for the tariffs listed in the next section).

As with NEM, onsite generation is first used to serve onsite load under the NBT, offsetting energy costs. The NBT's major difference from NEM 2.0 is that under the NBT, compensation for excess generation exported to the electric grid is applied to a customer's bill at a rate reflecting the value of this generation to the grid. The value of the export compensation is usually lower than the retail rate but can rise above the retail rate on late summer evenings. Customer-generators can maximize bill savings under the NBT by installing battery storage along with their generation, so they can use or export stored energy during these high-value hours.

Discussion & Analysis:

Assembly Bill 2143 will make non-residential solar installation projects over 15 kilowatts subject to prevailing wage. The Letter of Intent (LOI; attachment 1) guarantees the terms of the project at the current proposed rate (\$0.18 per kWh), which excludes the prevailing wage rate. If the City does not execute the LOI prior to January 1, 2024, it will be subject to a higher kWh rate due to increased construction cost. A breakdown of the estimated solar generation per facility in year one is listed below:

- WWTP: is a 428 kw system producing 648,000 kWh.
- Civic Center: is a 50.825 kw system producing 75,050 kWh.
- Fire Station: is a 41.195 kw system producing 60,830 kWh.

The final Power Purchase Agreement (PPA) will be brought back to the Council for review and approval after January 1, 2024. The LOI locks in the kWh and savings that the city will receive until the final PPA is executed in 2024.

Fiscal Impact:

There is no adverse impact to the General Fund as a result of this action. Future payments for energy will result in savings to the Sewage Enterprise Fund related to the operating costs of the WWTP. There will also be savings to the General Fund for the operating costs of the Fire Department and the Civic Center. The Civic Center will receive a new roof at no cost to the City, as it is needed for the roof mount solar installation.

Attachments:

- Attachment 1: Trinary Capital Letter of Intent



Solar PV Power Purchase Agreement Proposal

City of Willows
201 N. Lassen St
Willows, California 95988

Submitted By:
Trinary Capital, LLC
6510 E Spring St Suite 437
Long Beach, CA 90815

Jeremy Horton
714.768.3903



Solar Power Purchase Agreement (PPA)

PPA Financial Summary

Project/Customer Name	City of Willows
Project Address	201 N. Lassen St Willows, California 95988
PPA Rate (\$/kWh) Year 1	\$0.18
Annual Escalation Rate	2.99%
PPA Term	25 Years
Upfront Cost	\$0
Estimated 25-Year Savings w/ Solar PPA*	\$8,093,742.00

Installed Solar PV System Parameters

System Size (kW dc)	520.02
Solar Modules	Tier 1
Installation Type	Roof Mount and Ground Mount
Annual System Production Year 1 (kWh)	783,880
Solar EPC	Barrier Solar

* The Estimated Solar Utility Bill Savings and the Annual System Production is based on information provided by Turnkey Solar. Trinary Capital uses this assumption in order to quote a PPA rate and provide estimated yearly PPA savings. Actual PPA Savings may differ if Solar Utility Bill Savings or System Production differs.

PPA General Overview

HOW IT WORKS:

- City of Willows (or its affiliate) enters into a Solar Power Purchase Agreement (PPA) with Trinary Capital (or its affiliate, Trinary Energy)
- Trinary Capital pays for and arranges to have the solar system installed by Barrier Solar on City of Willows's property, at no cost.
- Trinary Capital sells all of the solar electricity produced by the solar PV system to City of Willows at a cost that is lower than City of Willows's current utility cost.
- The City of Willows remains connected to utility grid and will always have electricity should solar not be available – for example, during the night.
- Overall City of Willows still uses same amount of electricity except City of Willows now buys low-cost electricity from Trinary Capital and supplements any additional electricity needs with electricity from the utility.
- Net result is significant overall savings as Trinary Capital provides electricity at a lower cost than what City of Willows is currently paying the utility.

PPA Highlights

- No Money Down - Requires zero cash out-of-pocket and results in immediate electricity and cash savings. A PPA provides positive cash flow almost immediately.
- Trinary Capital pays for the installation of the solar PV system and receives all available solar incentives and tax benefits while retaining ownership of the system.
- PPA rate "locked in" at a beginning rate of \$0.18 for Year 1, contingent that it can only change upward if the utility company requires electrical and/or transformer upgrades or if City of Willows requests different panels, inverters or other equipment be used.
- City of Willows has the option to request the use of different panels, inverters, or other equipment, subject to acknowledgment that the "locked in" PPA rate may require adjustment to accommodate the customer request.
- The PPA term is 25 years. City of Willows is eligible to purchase the PV system from Trinary Capital after year 6. Purchase request must be received in writing from City of Willows by Trinary Capital no later than 60 days before the end of desired Buyout Year.

PPA General Overview (continued)

- A PPA is often used by organizations without the ability to take advantage of the available tax benefits and solar incentives or entities without sufficient access to funds for capital improvements or with a preference to invest their capital back into their business or for other needs.
- **A PPA is an Off Balance Sheet Transaction¹**, meaning that it doesn't show up as a liability or commitment that might normally be required to account for on a Balance Sheet
- A Solar PPA includes the following:
 - Turn-key PV System Installation
 - 25-year, Worry-Free Operations and Maintenance Package
 - Online System Monitoring and Reporting
 - Locked in Electricity Costs

¹ Many Companies use various Operating Leases for Copiers, Automobiles, Equipment, etc and most companies are not required to report an Operating Lease on their Balance Sheet. Trinary Capital does not offer tax or accounting advice as part of this PPA and any specific questions relating to Operating Lease regulations should be discussed with your Accountant.

System Benefits

Environmental Benefits

REDUCED OIL CONSUMPTION

Through the installation of solar power, your property will require less fossil-fuel based energy in order to operate. In the aggregate, these savings are significant.

REDUCED GREENHOUSE GASES

By utilizing renewable energy, you will eliminate thousands of pounds of greenhouse gasses per year that would normally be released into the atmosphere through the burning of fossil fuels. This has a substantial effect on our air quality and will contribute to the fight against climate change.

SAVED FORESTS

The purchase of the proposed solar system would have the equivalent environmental impact of planting 564 acres of trees per year for the next 25 years.

Additional Features

LEED CERTIFICATION

Leadership in Energy and Environmental Design (LEED) is an internationally recognized certification program sponsored by the U.S. Green Building Council that measures how well a building performs across energy savings, water efficiency, CO2 emissions reductions, improved indoor environmental quality and stewardship. By obtaining LEED certification, properties are able to increase occupancy/rental rates as well as qualify for more attractive financing. Solar systems qualify for LEED points which contribute towards LEED Certification.

INCREASED PR & PUBLIC GOODWILL

The public is pushing Companies they do business with and organizations they are associated with to practice social & environmental responsibility, including the implementation of environmentally friendly practices such as solar. By installing a solar (PV) system, your entity will demonstrate its commitment to clean energy & social responsibility and appeal to a broader following.

System Benefits, continued

PROPERTY VALUE INCREASE

By applying a modest cap rate to utility savings produced by Solar, your property should realize significant increases in value, which will positively impact your ability to refinance or sell your property should you choose to do so in the future.

Maintenance, Warranty and Monitoring

ALL INCLUDED AT NO ADDITIONAL COST FOR 25-YEARS

OPERATIONS AND MAINTENANCE

Trinary Capital (or its affiliate), as the owner of the system, is responsible for maintaining the system for the entire term of the PPA. Additionally, City of Willows only pays for the electricity that is generated by the solar system, which gives Trinary Capital further incentive to ensure the system produces as much electricity as possible.

WARRANTIES

The solar panels, inverters, and racking system come with warranties from the manufacturers.

MONITORING

Trinary Capital provides online monitoring so you can track the solar system's production.

Billing

(a) For each billing cycle (generally every thirty (30) days during the period that the agreement is in effect), TE, or its management company, will prepare a written or electronic invoice detailing the kWh of electric energy produced by the solar facility during that billing month, and specifying the payment due from you to TE, or its management company, for that billing cycle. Each billing cycle, TE, or its management company will charge your account for one twelfth (1/12th) of the estimated number of kWh to be generated in that year multiplied by the kWh rate (\$0.18). You agree to pay those invoices in full, without deduction or setoff, within ten (30) days following receipt. Any undisputed portion of the invoice amount not paid within the ten (30) day period shall accrue interest at the annual rate of two and one-half percent (2.5%) over the prime rate, as published in the Wall Street Journal (but not to exceed the maximum permitted by law). All payments are to be made in U.S. Dollars unless agreed upon in writing.

(b) Upon each anniversary of the in-service date, TE, or its management company, will compare the actual output to the estimated output. When actual output differs from estimated output by more than ten percent (10%) (in either a positive or negative direction), as reduced by the Degradation Factor, (other than for reasons of force majeure), TE, or its management company, will charge or credit your account for the difference at the kWh rate for the previous year as set forth in the Agreement.

(c) During any Renewal Term, the price per kWh will equal the greater of (i) 50% of the then-applicable Utility rate and (ii) the PPA rate of the first year of the Renewal Term according to the following formula

$$Rate = 0.0018 * (1 + 0.299)^{Year - 1}$$

As an example, for the first Renewal Term:

$$Rate = 0.0018 * (1 + 0.299)^{26 - 1} = \$0.38$$

Upon renewal, an additional exhibit, containing the estimated number of kWh to be produced in the Renewal Term and the Monthly Payment Schedule will be provided for the duration of the Renewal Term.

Initials

Assumptions and Clarifications

Qualifications, Due Diligence and Financial Eligibility

The PPA rate is contingent on verification of City of Willows's qualifications, including due diligence and financial underwriting. Additionally, the PPA rate assumes that City of Willows meets minimum credit requirements, which will be validated prior to executing the PPA agreement.

System Design and Performance

This PPA proposal and quoted PPA rates are derived using solar PV project installation details provided by Barrier Solar as identified in the proposal. It is assumed that Barrier Solar has correctly determined project feasibility and properly designed the system. PPA rates are contingent on verification of installed solar PV parameters such as system size, configuration, equipment, and estimated system production.

Estimated Savings

The utility bill savings that City of Willows will realize by installing solar is based on data provided by Barrier Solar. Trinary Capital has not verified the solar utility bill savings and makes no representation as to its accuracy. Actual PPA savings may differ if utility bill usage differs and/or utility rates differ or fluctuate.

Utility Rate Increases

We assume that your electric utility costs will increase by an average of 7% per year.

System Production and Utilization

This proposal assumes City of Willows will use all electricity produced by the solar PV system to offset either all or a portion of City of Willows's electricity usage. Under a PPA, City of Willows pays for all electricity produced by the solar PV system, whether utilized by City of Willows or not.

Tax Incentives and Other Assumptions

This proposal has made reasonable assumptions regarding applicable solar tax incentives and eligibility as well as assumptions regarding system performance, degradation, inflation rates, etc. in calculating the quoted PPA rate. Any change in applicable solar tax incentives or other changes to the assumptions used by Trinary Capital may result in a change to the final PPA rate.

Upgrades

Trinary Capital assumes that no additional upgrades are needed at City of Willows's property in order to effectively install a solar PV System. If the Utility Company or a Governmental Agency requires any upgrades, they are not included in the proposed PPA rate and may result in a change to the final PPA rate.

City of Willows Acceptance

Statement of Intent to Move Forward

By signing below, City of Willows accepts this PPA proposal and agrees to move forward with the signing of a definitive PPA agreement. Trinary Capital, LLC or its affiliate shall draft the definitive PPA Agreement for City of Willows to review and execute. City of Willows acknowledges it has reviewed this PPA proposal and understands its contents including the assumptions and clarifications stated within.

The City of Willows shall cooperate in providing requested financial and other information in order for Trinary Capital to perform its required due diligence.

City of Willows agrees not to solicit, pursue, or engage any other solar PV proposals unless City of Willows and Trinary Capital mutually agree to terminate their understanding and intention to execute a formal definitive agreement. Any offers of alternative financing of this project proposed by City of Willows must be presented to and approved by Trinary Capital and may be renegotiated or rejected by Trinary Capital for any reason.

City of Willows agrees to keep and treat the specific terms and conditions contained in this proposal on a confidential basis and to timely execute the definitive PPA Agreement.

Initials

Deadline for Grandfathering

On September 21st, 2023 the CPUC held proceedings and voted on the rulemaking and rate setting regarding the sunset of NEM Aggregation (NEMA). Specifically, they deliberated concerning the “Order Instituting Rulemaking to Revisit Net Energy Metering Tariffs Pursuant to Decision 16-01-044, and to Address Other Issues Related to Net Energy Metering” regarding RULEMAKING 20-08-020, a.k.a. NEM 3.0. The CPUC has decided that all NEMA applications to be grandfathered (called “legacy period”) and maintain a 9-year NEM 2.0 subtariff under the previous rules must be filed and submitted prior to December 20th, 2023. NOTE: If ownership of the facility changes during the 9-year legacy period, the new owners will not benefit from the legacy period.

With respect to improvements from the construction funded by Trinary Capital (or its affiliates and assigns); and with respect to the filing deadline requirements set forth by the California Public Utility Commission under the further rulemaking relating to NEM 3.0 as per NEMA metering rules, customer agrees to have signed and submitted underwriting documents required by Trinary Capital (or its affiliates and assigns) by December 1, 2023. This is done to ensure that there would be ample time to do all necessary drafting, filing, engineering, site visits, and disclosures required.

Applications with all required documentation to qualify for grandfathering under previous NEMA aggregation and tariff rules for a period of 9 years must be submitted by December 20th, 2023. A qualified interconnection application must meet the requirements insofar as, "the interconnection application date is defined as the submission date of an application that is free of major deficiencies and

includes a complete application, a signed contract, a single-line diagram, a complete California Contractors License Board Solar Energy System Disclosure Document, a signed California Solar Consumer Protection Guide, a prevailing wage disclosure form (if applicable), an Authorization to Act on the customer's behalf, and an oversizing attestation (if applicable)."

To qualify for Grandfathering, City of Willows agrees and understands that this will require, as per state requirements for grandfathering, a signed contract among other necessary submission materials. For this, City of Willows understands they must meet underwriting requirements with Trinary Capital (or its affiliates and assigns) in order to have a signed contract with Trinary for funding of their project.

City of Willows agrees to provide these documents to Trinary Capital (or its affiliates) prior to December 1, 2023.

Underwriting documents include a copy of:

1. Articles of Incorporation
2. 3 Previous Years and YTD Financial Statements
3. Government ID from signatory of entity or owner
4. Proof of high-speed internet
5. Proof of insurance
6. Property Deed
7. Property Title
8. Property tax bill
9. Secretary of State documents stating business is in Good Standing.

Initials

Authorized City of Willows Representative:

Print Name

Signature

Title

Date

Customer: City of Willows
Address 201 N. Lassen St
Willows, California 95988

System Parameters

System Size: 520.02 kW (dc)
Estimated Year 1 Production: 783,880 kWh
PPA Rate Year 1: \$0.18/kWh
Annual Escalation: 2.99%
PPA Term: 25 Years
EPC Contractor: Barrier Solar