

Financing Solar

Several finance options are available to Customers for solar projects. Red Lion Renewables' innovative power purchase agreements (PPAs) provide Customers a no-down, low-cost option to traditional financing.

Power Purchase Agreement (PPA) Relationship Map



Through our PPA, the Customer simply agrees to purchase the electricity produced by the solar array located on their property. Red Lion Renewables and Investors fund the project. Red Lion Renewables develops and constructs the array, maintains it, insures it, takes on production risk, and is the long-term owner. Investors receive tax benefits and are short-term owners.

Compared to Traditional Financing

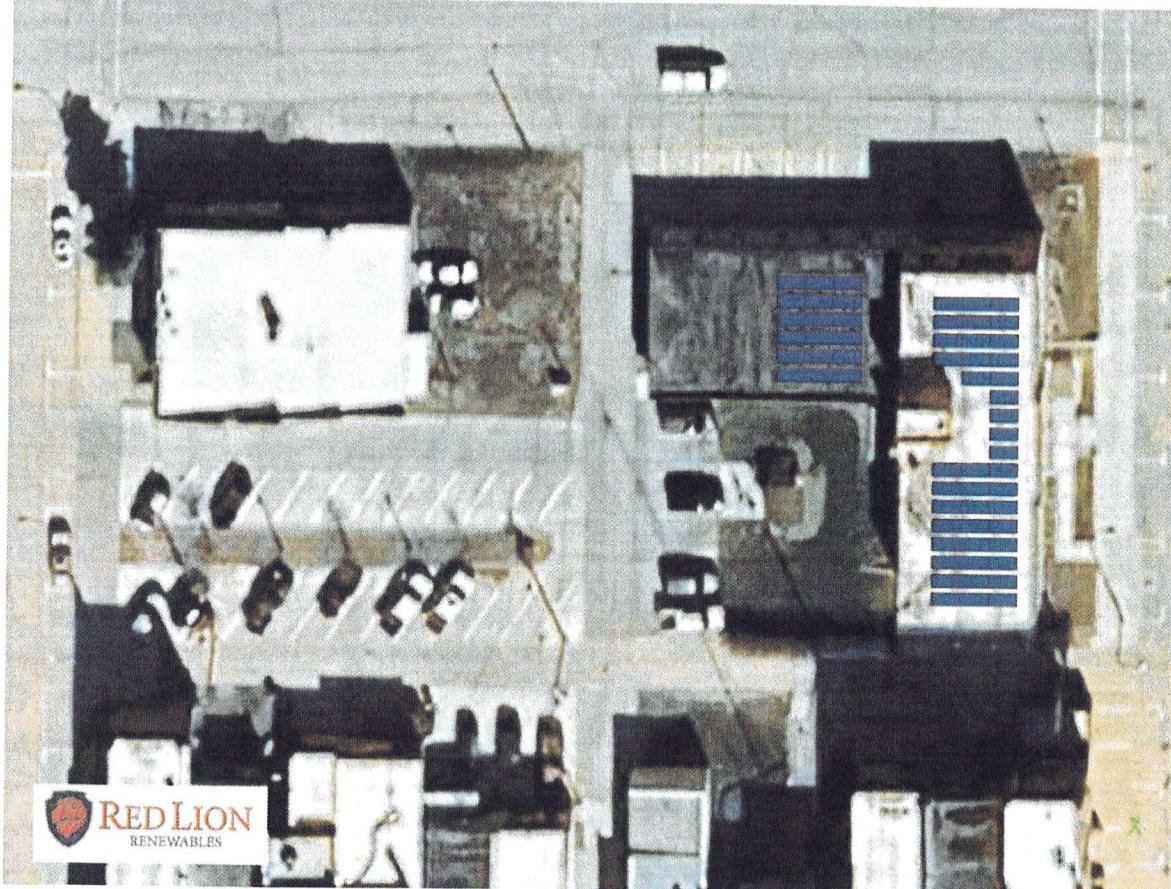
Traditional means, such as loans, bonds, or leases, don't allow schools, churches, or cities to take advantage of available tax incentives. However, by utilizing a Red Lion Renewables PPA, Customers indirectly benefit from federal and state tax incentives and can gain solar-produced electricity at a lower rate than fossil-fueled electricity. With no upfront costs required, lower electricity rates, and long-term predictability, the Customer gains more control over its energy costs for years to come.

	Loan / Bond	Lease	PPA
Down Payment / Upfront Costs	Yes	Yes	No
Maintenance	Yes	Yes	No
Insurance	Yes	Yes	No
Production Risk	Yes	Yes	No
Warranty Risk	Yes	Yes	No
End of Term Options	No	No	Yes

Jefferson - Solar Layout Options

City Hall

- The City Hall meter can be offset with a ballasted rooftop solar array as shown below.
- Roofing conditions to be confirmed.



Jefferson

City Hall

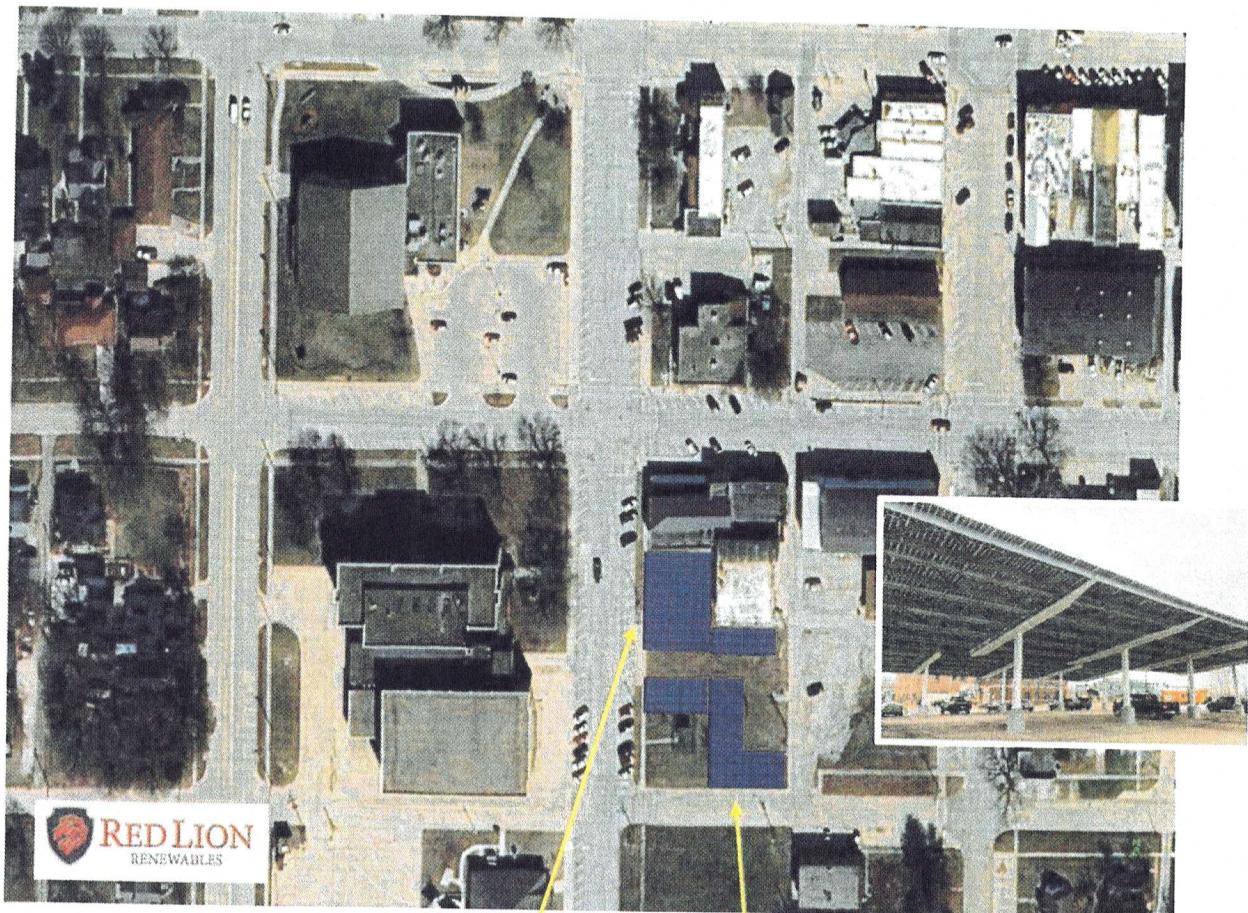
Solar

Solar Array Size (kW-DC)	35
Solar Annual Production (kWh)	43,222
Current Annual Usage (kWh)	44,120
Electrical Usage Offset	98.0%



Recreation Center & Pump 4

- The Recreation Center meter can be offset with parking canopy in the future parking lot south of the Recreation Center as shown below.
- The consolidated Pump 4/10/pumphouse meter can be offset with a canopy in the future parking lot. A solar disconnect would be added at the meter location on Monroe/S Elm that could be turned off and would also turn off Pump 4 if utility requires. A disconnect would also be included at the array.



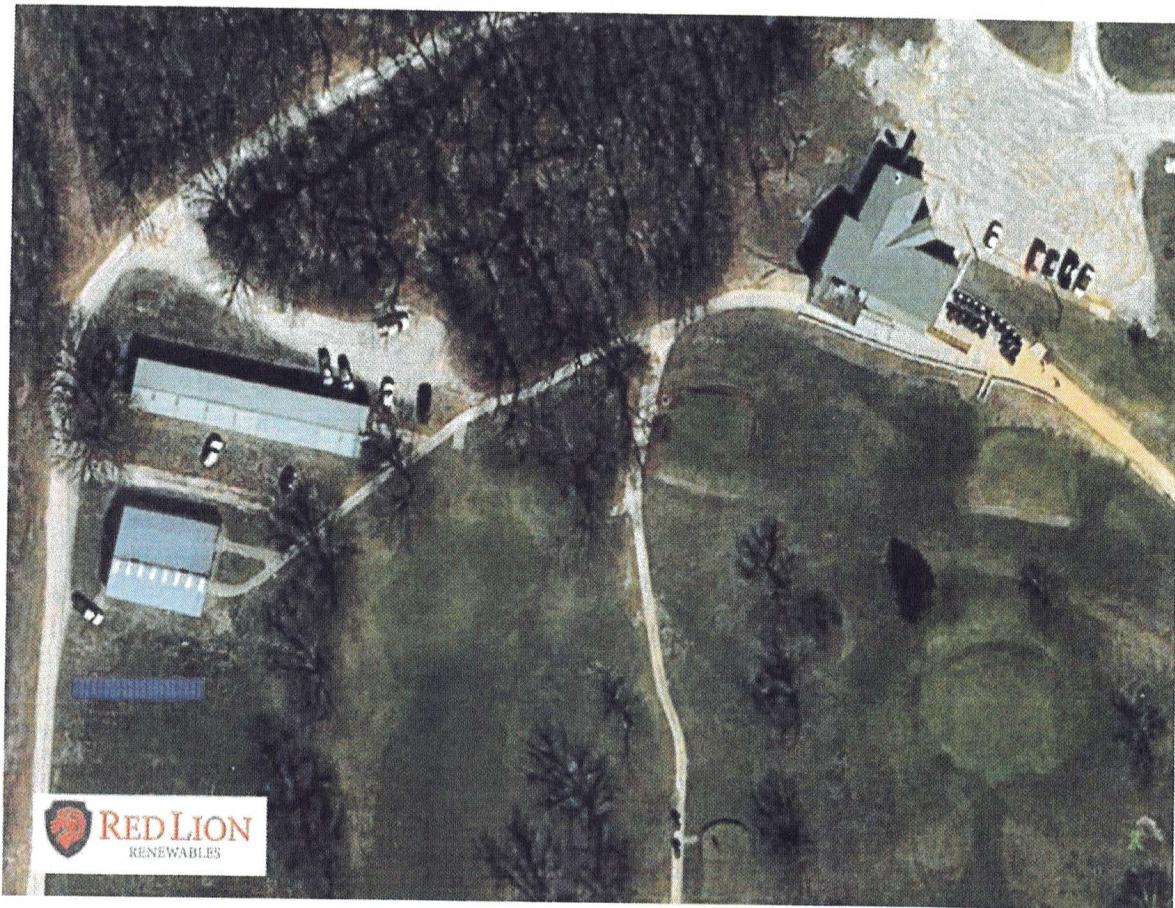
Jefferson

Solar

	144	126
Solar Array Size (kW-DC)	144	126
Solar Annual Production (kWh)	158,224	138,446
Current Annual Usage (kWh)	182,000	138,233
Electrical Usage Offset	86.9%	100.2%

Golf Course

- The Golf Course meter could be offset with a ground array as shown below.
- A solar disconnect would be added at the meter location by the parking lot that could be turned off and would also turn off the shed and cart barn if the utility needed to turn off the solar array for line repairs. A disconnect would also be included at the array.
- Savings should consider seasonal usage.



**Golf Course-
Ground**

Jefferson

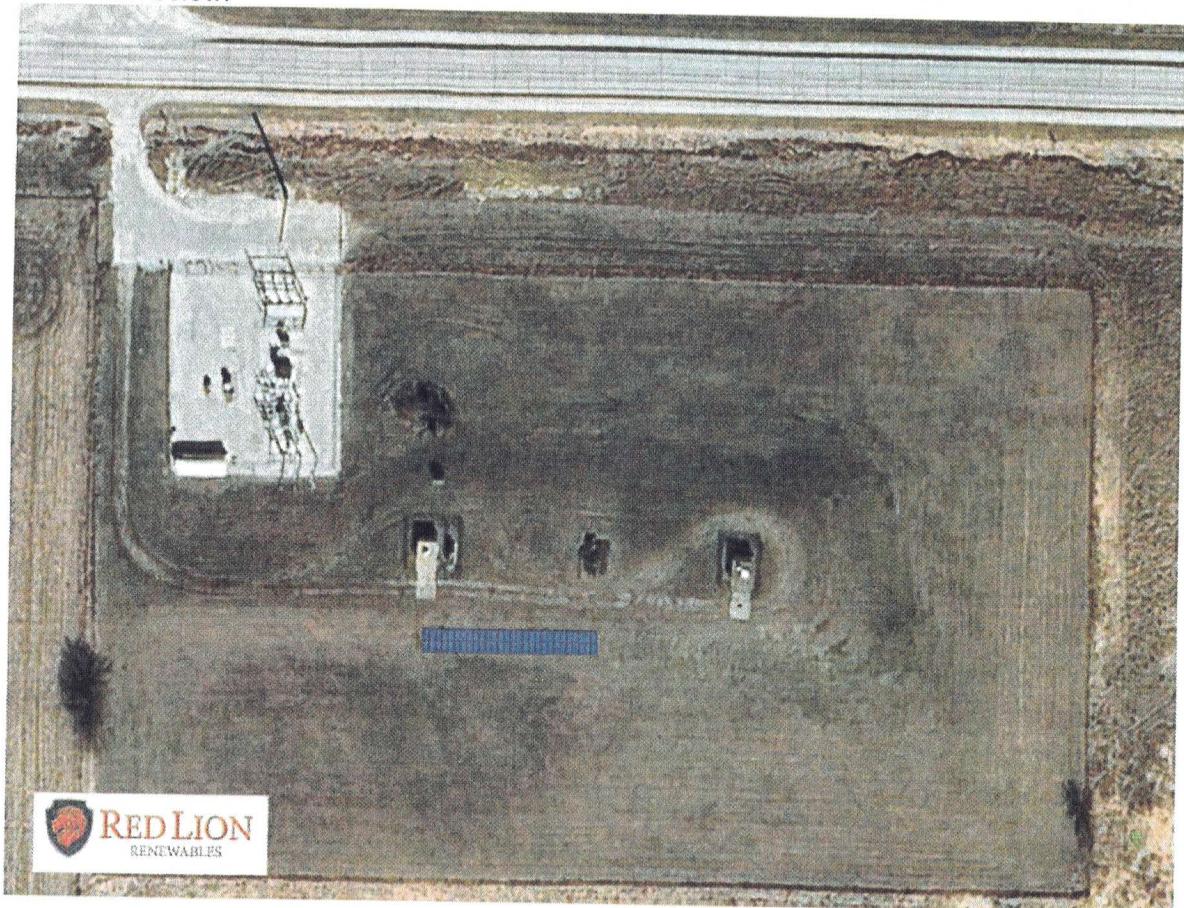
Solar

Solar Array Size (kW-DC)	24
Solar Annual Production (kWh)	33,251
Current Annual Usage (kWh)	34,280
Electrical Usage Offset	97.0%



Pump Station – E Hwy 30

- The Pump Station at E Hwy 30 meter can be offset with a ground mount solar array as shown below.



Pump Station ·
Hwy 30

Jefferson

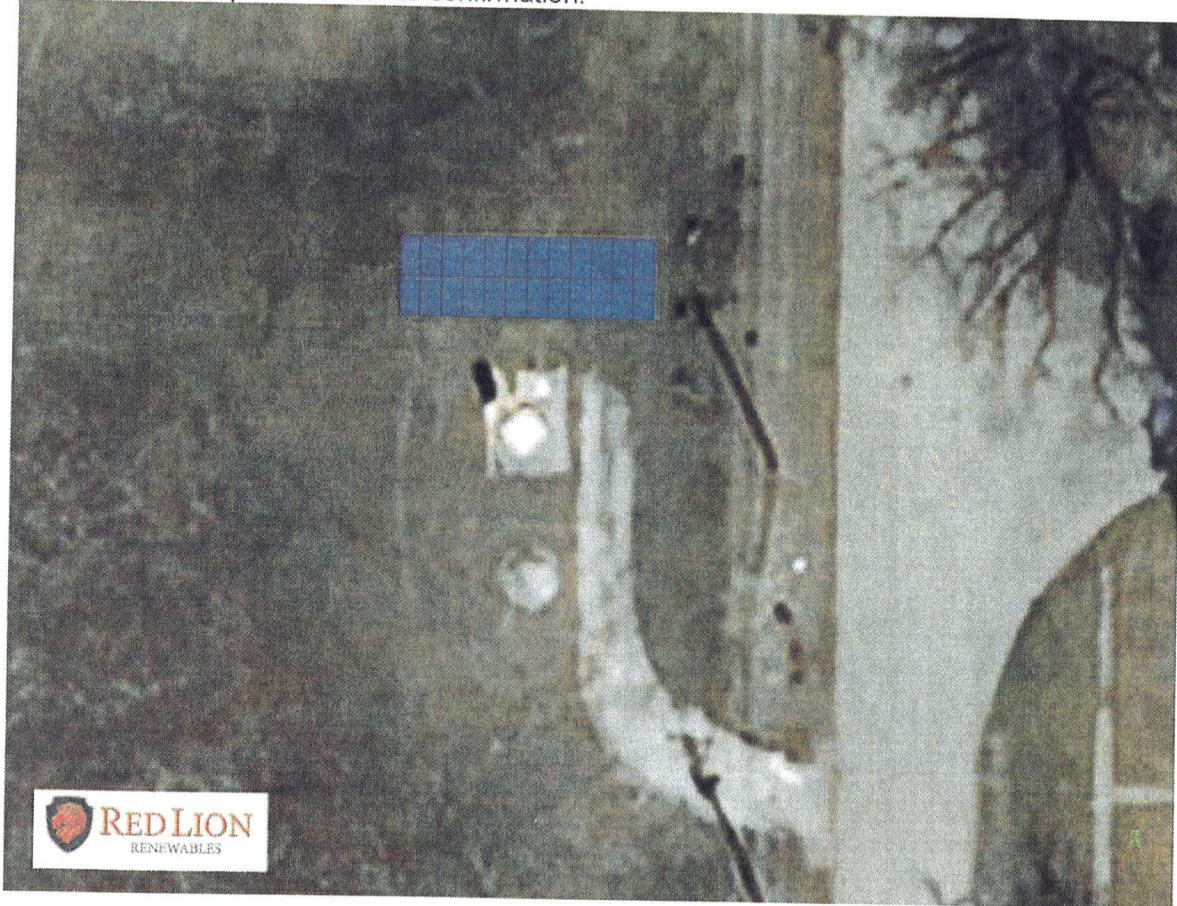
Solar

Solar Array Size (kW-DC)	32
Solar Annual Production (kWh)	44,173
Current Annual Usage (kWh)	45,800
Electrical Usage Offset	96.4%



Lift Station-N Wilson Street

- The Lift Station at N Wilson Street meter can be offset with a small elevated ground mount solar as shown below.
- Site ownership/access needs confirmation.

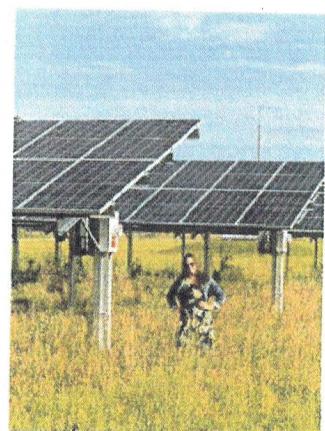


Jefferson

Solar

Solar Array Size (kW-DC)	14
Solar Annual Production (kWh)	19,001
Current Annual Usage (kWh)	21,345
Electrical Usage Offset	89.0%

Lift Station- N Wilson St



Swimming Pool

- The Swimming Pool meter can be offset with a solar canopy either over the sitting area or the parking lot as shown below.



Jefferson

Swimming Pool

Solar

Solar Array Size (kW-DC)	49
Solar Annual Production (kWh)	53,592
Current Annual Usage (kWh)	57,356
Electrical Usage Offset	93.4%



Library

- The Library meter can be offset with a ballasted rooftop solar array as shown below.
- Roofing conditions to be confirmed.
- Design to be integrated/coordinated with future renovation plans.

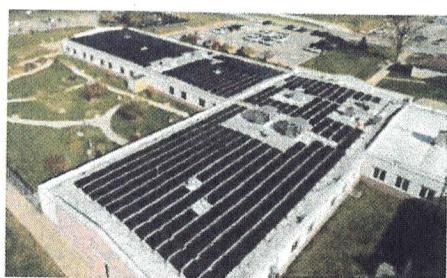


Jefferson

Library

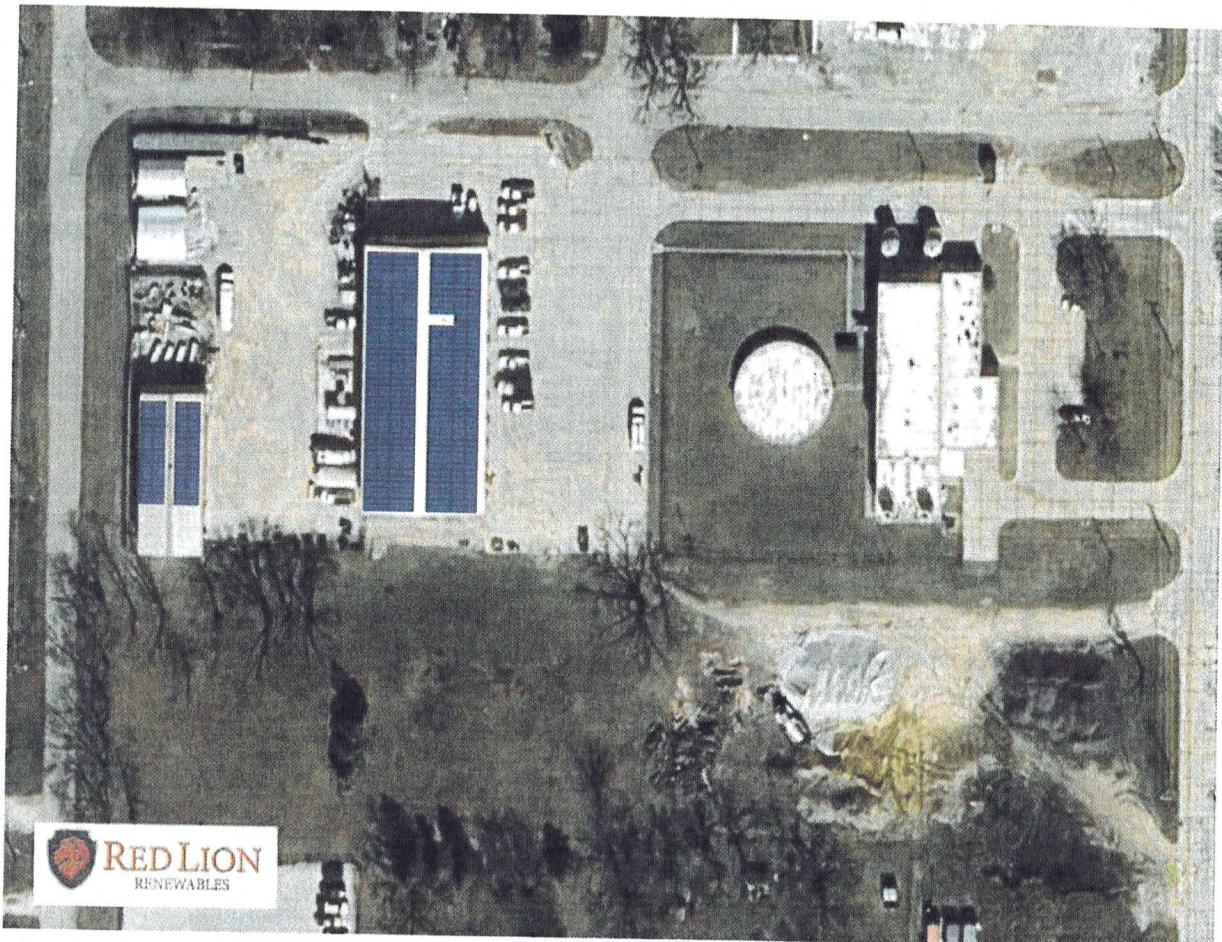
Solar

Solar Array Size (kW-DC)	35
Solar Annual Production (kWh)	43,222
Current Annual Usage (kWh)	52,500
Electrical Usage Offset	82.3%



Street Shop and Water Plant

- With Alliant approval, the Street Shop and Water Plant meters could be combined into a single service and the combined usage offset with fixed rooftop arrays at the street shop and cold storage roofs as shown below.
- If not approved, either a ground array or new canopy would be considered for the Water Plant with a smaller array for the Street Shop.

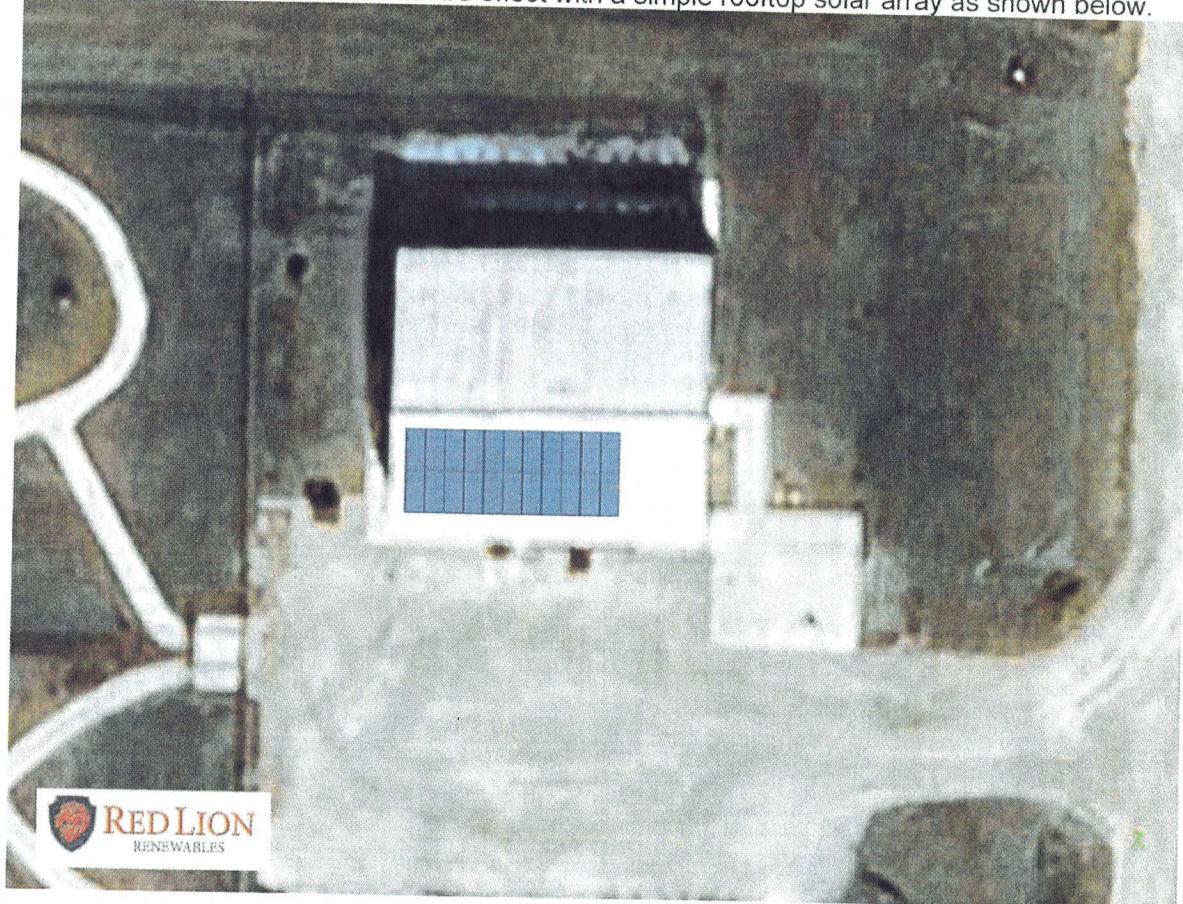


Jefferson	***Street Shed-roof	***Water Plant- roof
Solar		
Solar Array Size (kW-DC)	17	219
Solar Annual Production (kWh)	19,140	241,164
Current Annual Usage (kWh)	19,142	241,400
Electrical Usage Offset	100.0%	99.9%



Animal Shelter

- The Animal Shelter meter can be offset with a simple rooftop solar array as shown below.



<u>Jefferson</u>	<u>Animal</u>
<u>Solar</u>	<u>Shelter</u>
Solar Array Size (kW-DC)	13
Solar Annual Production (kWh)	15,848
Current Annual Usage (kWh)	16,480
Electrical Usage Offset	96.2%





Financial Option Summary

Jefferson	City Hall	Rec Center	Pump 4-10	Library	Swimming Pool	***Street Shed-roof
Solar		S parking	combo**			
Solar Array Size (kW-DC)	35	144	126	35	49	17
Solar Annual Production (kWh)	43,222	158,224	138,446	43,222	53,592	19,140
Current Annual Usage (kWh)	44,120	182,000	138,233	52,500	57,356	19,142
Electrical Usage Offset	98.0%	86.9%	100.2%	82.3%	93.4%	100.0%
Current Annual Energy Cost (\$)	\$8,468	\$32,073	\$24,845	\$9,832	\$12,651	\$4,031
Average Blended Electrical Rate (\$/kWh)	\$0.192	\$0.176	\$0.180	\$0.187	\$0.221	\$0.211
Savings/Revenue						
Effective Offset Rate	\$0.186	\$0.175	\$0.178	\$0.183	\$0.216	\$0.198
Energy offset	\$8,060	\$27,674	\$24,643	\$7,897	\$11,597	\$3,791
Cash Purchase Option						
Installed Cost/Budget (Solar)	\$77,124	\$397,803	\$354,121	\$83,001	\$141,296	\$46,598
Simple Payback year	9.6	14.4	14.4	10.5	12.2	12.3
PPA - no money down option						
PPA Price - 20-year, 2.5% annual escalator	\$0.1300	\$0.1600	\$0.1600	\$0.1400	\$0.1600	\$0.1450
Year 1 PPA energy payments	(\$5,619)	(\$25,316)	(\$22,151)	(\$6,051)	(\$8,575)	(\$2,775)
Annual Savings / Net Revenue	\$2,442	\$2,359	\$2,492	\$1,846	\$3,022	\$1,015
30-yr Life Savings - end term buy						

Notes:

Preliminary pricing. Additional utility info and site walks required.

Expected system life beyond 30 years.

30-yr Life Savings based on 20-years of savings under PPA, purchase in year 20, and 10 years of full energy savings.

Pricing based on full portfolio of sites to gain economies of scale. Pricing may adjust with a smaller scope of sites. Further demand usage analysis required for the WWTP meter.

**Pump 4 combined with pump 10. Special disconnecting at Pump 4.

***Street Shed electrical service combined with Water Plant pending Alliant approval.

Combined usage placed on Street Shop and cold storage building roofs.

Library to be modified to work with future renovation prior to construction.



Financial Option Summary

Jefferson	***Water Plant- roof	Animal Shelter	Lift Station- N Wilson St	Pump Station- Hwy 30	Golf Course- ground	
Solar						Total Solar
Solar Array Size (kW-DC)	219	13	14	32	24	708
Solar Annual Production (kWh)	241,164	15,848	19,001	44,173	33,251	809,282
Current Annual Usage (kWh)	241,400	16,480	21,345	45,800	34,280	852,656
Electrical Usage Offset	99.9%	96.2%	89.0%	96.4%	97.0%	94.9%
Current Annual Energy Cost (\$)	\$40,790	\$3,134	\$4,383	\$8,023	\$6,410	\$154,640
Average Blended Electrical Rate (\$/kWh)	\$0.169	\$0.190	\$0.205	\$0.175	\$0.187	\$0.181
Savings/Revenue						
Effective Offset Rate	\$0.168	\$0.176	\$0.194	\$0.170	\$0.180	\$0.178
Energy offset	\$40,510	\$2,783	\$3,688	\$7,506	\$5,985	\$144,134
Cash Purchase Option						
Installed Cost/Budget (Solar)	\$434,313	\$33,724	\$37,571	\$69,304	\$54,919	\$1,729,773
Simple Payback year	10.7	12.1	10.2	9.2	9.2	12.0
PPA - no money down option						
PPA Price - 20-year, 2.5% annual escalator	\$0.1300	\$0.1300	\$0.1400	\$0.1300	\$0.1450	\$0.1447
Year 1 PPA energy payments	(\$31,351)	(\$2,060)	(\$2,660)	(\$5,742)	(\$4,821)	(\$117,123)
Annual Savings / Net Revenue	\$9,159	\$723	\$1,028	\$1,764	\$1,163	\$27,012
30-yr Life Savings - end term buy						\$ 2,919,584

Notes:

Preliminary pricing. Additional utility info and site walks required.

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