

The various project options were evaluated based on upfront construction costs, ongoing costs associated with the maintenance of the facility, benefits to the utility, its' customers and the City, and for the avoided purchased power costs over time.

If we were to build one of these power generating project options without the use of the FEMA money it might not make economic since due to the extended payback period. However, by using the fixed subgrant the payback period is very attractive. Unlike our wholesale costs from Platte River Power Authority (PRPA) shown below which are expected to increase 3.5% on average each year, the cost of generation for each of these projects will remain fixed for the life of the facility.

**2015 PRPA Wholesale Rates**

Season	Energy Charge	Demand Charge
Summer	\$0.03943/kWh	\$10.84/kW
Winter	\$0.03783/kWh	\$7.57/kW

**Comparison of Generating Project Options**

Site	Generation System Type	Array Size (kW)	Energy Generated in Year One (MWh)	Equivalent Cost of Generation Cents/kWh	Payback Period Total Cost (years)	Payback Period Loveland Cost (years)
Value Plastics Solar Project	Solar: Fixed	3,550.00	6,205.40	\$0.088	36	2
	Solar: 1-Axis	3,060.34	6,975.75	\$0.082	30	2
I-25 and Hwy 402 Solar Project	Solar: Fixed	2,920.00	5,104.16	\$0.112	47	9
	Solar: 1-Axis	2,517.24	5,737.80	\$0.104	38	7
Airport Solar Project	Solar: Fixed	3,620.00	6,327.76	\$0.121	61	14
	Solar: 1-Axis	3,120.69	7,113.30	\$0.111	48	1
Larger Boedecker Solar Project	Solar: Fixed	3,289.47	5,750.00	\$0.088	36	2
	Solar: 1-Axis	2,873.56	6,550.00	\$0.082	30	2
Boedecker Solar Project	Solar: Fixed	1,840.00	3,216.32	\$0.085	35	2
	Solar: 1-Axis	1,586.21	3,615.60	\$0.080	29	2
In-Line Turbine	Hydroelectric	275.00	812.00	\$0.111	38	1

*\*The output of the Idylwilde facility was 900 kW*

The 2015 Power 10 Year Financial Plan supports the \$9.1M front-loading of costs by utilizing funds from the Plant Investment Fee (PIF) revenue totaling \$3.0M, General revenue generated through rates of \$4.1M, and a loan from the Raw Water Fund of \$2.0M to be repaid in full with interest by the year 2017. The State will be reimbursing the utility as invoices are submitted, evaluated and approved.

In addition, it is important the utility process the alternate project following federal grant regulations for reimbursement; this includes, but is not limited to, securing approval of the scope of work, working within federally established purchasing regulations, tracking all payroll, and completing a sealed bid process.

**Green Benefits**

There is something to be said for the fact that our customers have paid for the Idylwilde hydroelectric facility for 89 years and have been enjoying the benefits of renewable energy. It is important to ask, should we be providing the same benefit to our customers, what benefits does it provide to our system, what is the cost versus other energy resources and does it comply with State renewable energy requirements. What is our story? What is the story we want to tell from this alternate project?