

10.3 Solar Power Generation - Opportunities.DOC

Summary of Council Assets and Solar Opportunities

Site:	Admin Building		Works Depot		ALEC			Kentwell		Waste Centre			Airport		Missingham Park				
Options:	Do Nothing	System sized for physical roof area	Do Nothing	System sized for additional physical roof area over CWA & Library	Do Nothing	System sized for demand	System sized for physical roof area	Do Nothing	System sized for physical roof area	Do Nothing	System sized for demand	System sized for physical roof area	Do Nothing	System sized for demand - existing roof	System sized for demand - new car parking structure	Do Nothing	System sized for daytime energy use	System sized for all day use, batter installed for use of generated power at night	System sized for physical roof size, majority of generation exported to grid
Size of System		70kW		90 kW		10 kW	70kW		10 kW		20 kW	50kW		180 kW	180 kW		1.5kW	2kW	20kW
Generation per day (kWh)		308		396		44	308		44		88	220		794	794		6	8	81
Physical Area (m2)		420		540		60	420		60		120	300		1080	1080				
Capital Investment		\$90,000		\$120,000		\$25,000	\$90,000		\$25,000		\$32,000	\$75,000		\$300,000	\$300,000		\$3,500	\$9,000	\$35,000
Solar Panels & Inverter		\$90,000		\$120,000		\$25,000	\$90,000		\$25,000		\$32,000	\$75,000		\$300,000	\$300,000		\$3,500	\$4,000	\$35,000
Battery		\$0		\$0		\$0	\$0		\$0		\$0	\$0		\$0	\$0		\$0	\$5,000	\$0
Operational Costs	\$44,769	\$21,234	\$34,840	\$3,483	\$9,000	\$1,500	-\$6,494	\$6,000	\$1,500	\$11,000	\$4,000	\$878	\$104,000	\$61,082	\$61,082	\$1,520	\$1,010	\$703	\$385
Electricity Import Costs	\$44,769	\$19,234	\$34,840	\$1,483	\$9,000	\$500	\$500	\$6,000	\$500	\$11,000	\$3,000	\$3,000	\$104,000	\$57,082	\$57,082	\$1,500	\$770	\$0	\$750
Electricity Export Income	\$0	\$0	\$0	\$0	\$0	\$0	-\$8,994	\$0	\$0	\$0	\$0	-\$3,322	\$0	\$0	\$0	\$0	\$0	\$0	-\$2,365
Panel Cleaning Costs	\$0	\$1,000	\$0	\$1,000	\$0	\$500	\$1,000	\$0	\$500	\$0	\$500	\$500	\$0	\$2,000	\$2,000	\$0	\$90	\$170	\$1,000
Maintenance Costs	\$0	\$1,000	\$0	\$1,000	\$0	\$500	\$1,000	\$0	\$500	\$0	\$500	\$700	\$0	\$2,000	\$2,000	\$0	\$150	\$533	\$1,000
Payback Period (years)	-	4	-	4	-	3	6	-	6	-	5	7	-	7	7	-	7	11	31
Savings per Year (\$)		\$23,535		\$31,357		\$7,500	\$15,494		\$4,500		\$7,000	\$10,122		\$42,918	\$42,918		\$510	\$817	-\$1,135