

Appendix A: Potential Council owned sites for Solar Electricity installation

	Est. Site demand (kW)	Roof area available (m2)	Max. Possible system size (kW)	System size (kW) minimise export	System Cost \$	kWhrs Peak/yr generated	kWhrs off-Peak/yr exported	Total kWh saved and exported	GHG saved/yr (tCO2-e) Peak only	Savings Yr 1 (\$)	Simple Payback with 5% escalation n
	412	6,077	1,094	349	883,980	348,600	139,440	488,040	634	80,875	10
Darebin Municipal Centre	120	400	72.0	72.0	180,000	72,000	28,800	100,800	131	16704	10
Reservoir Leisure Centre	<cogen>		0.0	0.0	-	-	-	-	0	0	10
Northcote Town Hall	20	120	21.6	20.0	50,000	20,000	8,000	28,000	36	4640	10
Northcote Family Services	4.5	60	10.8	4.5	12,600	4,500	1,800	6,300	8	1044	10
Preston Library	32	600	108.0	32.0	80,000	32,000	12,800	44,800	58	7424	10
Northcote Library	40	200	36.0	36.0	90,000	36,000	14,400	50,400	66	8352	10
Fairfield Community Centre	15	200	36.0	15.0	37,500	15,000	6,000	21,000	27	3480	10
Bundoora Park Vistors	5	30	5.4	5.0	14,000	5,000	2,000	7,000	9	1160	11
Reservoir Civic Centre	20	120	21.6	20.0	50,000	20,000	8,000	28,000	36	4640	10
Depot	32	600	108.0	32.0	80,000	32,000	12,800	44,800	58	7424	10
Darebin Arts and Entertainment Centre	45	250	45.0	45.0	112,500	45,000	18,000	63,000	82	10440	10
Bundoora Homestead	15	20	3.6	3.6	10,080	3,600	1,440	5,040	7	835.2	10
Intercultural Centre	15	230	41.4	15.0	37,500	15,000	6,000	21,000	27	3480	10
Darebin International Sports Centre	20	2000	360.0	20.0	50,000	20,000	8,000	28,000	36	4640	10
Alfred Nuttall Memorial Kindergarten**	2	100	18.0	2.0	5,600	2,000	800	2,800	4	464	11
Batman Park Kindergarten**	2	50	9.0	2.0	5,600	2,000	800	2,800	4	464	11
Clifton Street Children's Centre – Kindergarten – New section**	4	50	9.0	4.0	11,200	4,000	1,600	5,600	7	928	11
Annie Dennis Children's Centre	2.5	30	5.4	2.5	7,000	2,500	1,000	3,500	5	580	11
Clyde Street Kindergarten	1.5	100	18.0	1.5	4,200	1,500	600	2,100	3	348	11
Thornbury Women's Neighbourhood House**	1.5	10	1.8	1.5	4,200	1,500	600	2,100	3	348	11
Thornbury Women's Neighbourhood House Child Care Centre**	1.5	10	1.8	1.5	4,200	1,500	600	2,100	3	348	11
Thornbury Kindergarten**	1.5	60	10.8	1.5	4,200	1,500	600	2,100	3	348	11
Blake Street Kindergarten**	1.5	120	21.6	1.5	4,200	1,500	600	2,100	3	348	11
East Preston Pre-School**	1.5	50	9.0	1.5	4,200	1,500	600	2,100	3	348	11
Gower Street Kindergarten**	1.5	150	27.0	1.5	4,200	1,500	600	2,100	3	348	11
Preston Neighbourhood House**	1.5	52	9.4	1.5	4,200	1,500	600	2,100	3	348	11
Gellibrand Crescent Kindergarten**	1.5	50	9.0	1.5	4,200	1,500	600	2,100	3	348	11
Maryborough Avenue Kindergarten	1.5	120	21.6	1.5	4,200	1,500	600	2,100	3	348	11
Oakhill Pre School	1.5	230	41.4	1.5	4,200	1,500	600	2,100	3	348	11
Yanada House	1.5	65	11.7	1.5	4,200	1,500	600	2,100	3	348	11
Summary Information											
Small Sites Total	29	1247	224	29	79800	28500	11400	39900	52	6612	11
Libraries Total	107	1120	202	103	257500	103000	41200	144200	187	23896	10
Community Facility Totals	125	2710	488	113	286680	113100	45240	158340	206	26239	11
Municipal staff offices/buildings	152	1000	180	104	260000	104000	41600	145600	189	24128	10

** - indicates sites where Darebin City Council does not currently pay the electricity bills

Assumptions

These examples are a conservative estimate for initial discussions. More competitive solar systems may be achieved through tendering. The following assumptions were used:

Electricity cost 20c/kWh for all sites and Export rate 8c/kWh.

Systems over 10kW size cost \$2500/kW

Systems under 10kW size cost \$2800/kW

Leased / contracted sites

A number of sites in this list are owned by council, but leased or contracted to operators who pay the bills themselves. In order for council to realise a payback, an arrangement would need to be reached with the operators to provide a return to council as users realise the savings in their energy bills. This could be done through sub metering of the solar system which should be easily available to provide 'direct consumption' and 'feed-in' energy produced.

Sites in Table with ** after the site name indicate council does not pay the bills.