Minneapolis
Park & Recreation Board

Solar Demonstration Project: Site Selection Criteria

TECHNICAL CRITERIA

1. **NO OR MINIMAL SHADING**
   Shading limits power production
2. **SOUTHERN EXPOSURE**
   Array must be south facing
3. **ABILITY TO NET METER**
   Meter must be located onsite - grant requirement
4. **ABILITY TO CONSUME ELECTRICITY ONSITE**
   Need to utilize power produced; not intended for power storage
5. **ROOF: CONTIGUOUS AREA AVAILABLE** More efficient and cost effective
6. **ROOF: EXPECTED LIFESPAN OF 15+ YEARS**
   Roof must be in new to good condition
7. **ROOF: STRUCTURAL CAPACITY**
   Needs to support minimum of 3 lbs per square foot plus snow and wind load requirements
8. **AWNING: STRUCTURAL CAPACITY**
   Feasibility
9. **CANOPY: PROXIMITY TO METER**
   Needs to be less than 100' away or too inefficient
10. **MUST BE ON MPRB PROPERTY**
    MPRB Requirement
11. **CANNOT BE LOCATED IN DOWNTOWN CORE**
    Xcel Energy constraint

VALUE-BASED CRITERIA

1. **HIGHLY VISIBLE TO PARK VISITORS**
   Grant Proposal included increasing awareness of solar technology
2. **SUBSTANTIAL OR SIGNIFICANT LEVEL OF VISITATION**
   Grant proposal included commitment to publicity of solar technology, measured in number of visitors per year
3. **POTENTIAL FOR UNIQUE PUBLIC EDUCATION OPPORTUNITY**
   Grant proposal included increasing education around solar technology
4. **INNOVATIVE APPROACH TO SOLAR ENERGY PRODUCTION**
   Grant proposal included innovation and creativity

OTHER CONSIDERATIONS

1. **BALANCE ACROSS PARK DISTRICTS, REGIONAL AND NEIGHBORHOOD**
   Interested in broad-based implementation for diverse audiences
2. **LANDMARK OR HISTORIC STATUS**
   May cause limitations in ability to install solar panels
3. **ZONING LIMITATIONS**
   May cause limitations in ability to install solar panels
4. **SECURITY ISSUES**
   Solar panels are valuable assets
5. **LINKAGE WITH CURRENT CAPITAL PROJECTS OR PLANS**
   Could be combined for efficient use of funds

MPRB Solar Project Evaluation

6-Nov-13

	Location	Installation Idea	District	Notes
1	Boom Island	Boat landing shade	1	X - not enough electrical use; far away from meter
2	Columbia Golf	Shade Canopy	1	Alternate - fair visibility, good solar orientation
3	Columbia Golf	Driving range canopy	1	X - too difficult to implement
4	Columbia Manor	Rooftop	1	X - event center's roof is facing wrong direction (east)
5	Columbia Park	Lights in dog park	1	X - no easy way to meter
6	East End of Stone Arch Bridge		1	X - no easy way to meter
7	Logan Park	Pool shade structure	1	X - already have demo site for shade structure, lower visibility
8	Lupient Water Park	Shade Canopy	1	Recommended Demo - high peak energy demand & good visibility
9	Main Street	Build into solar restrooms	1	X - no easy way to meter
10	NE Ice	Rooftop	1	X - already have demo site for ice arena
11	NE Park	Shade Structure	1	X - another project recommended for NE Park
12	Van Cleve Park	Near front end. to rec ctr/Bus stop	1	X - low visibility
13	Waite Park	Pool shade structure	1	X - already have demo site for shade structure, lower visibility
14	Windom Park	Pool shade structure	1	X - already have demo site for shade structure, lower visibility
15	Farview Field		2	X - too much shade
16	Harrison Rec Center	Rooftop	2	X - low visibility
17	MPRB HQ	Electric Fleet Cars	2	X - too difficult to implement
18	North Mississippi Regio	Shade Structure	2	X - already have demo site for shade structure
19	North MPLS	"Green gap" area getting left behind aga	2	X - already have geographic representation
20	Victory Memorial Drive	Flag Pole Area	2	X - no easy way to meter
21	Webber Park	roof mount	2	Recommended Demo - good visibility and solar orientation, newer roof
22	Wirth Beach	Beach House	2	X - too difficult to implement
23	Wirth Par 3	Summer+Winter	2	X - too difficult to implement
24	Wirth Park	Tie with welcome center	2	X - building construction beyond solar installation timeframe
25	Wirth Park	JD Rivers	2	X - too difficult to implement
26	Wirth Pavilion	In Treeless Zone	2	X - too difficult to implement
27	East Phillips	Wall mount on Gym	3	Recommended Demo - great visibility & solar orientation
28	Mathews Park	Picnic or parking canopy	3	X - already have demo site for shade structure, lower visibility
29	Powderhorn Park	Canopy or post-mount	3	Alternate - fair visibility, fair solar orientation, possible art project
30	Lake Calhoun	Refectory area - post-mount or canopy	4	Recommended Demo - great visibility & solar orientation, possible art project
31	Lake of the Isles	Lighting at dog park	4	X - too much shade
32	Elliott Park	Rooftop	4	X - too much shade
33	Parade Ice	Rooftop array		Recommended Major Instal. - new roof, great solar orientation, visible from I-394
34	Hiawatha Golf	Cart Charging	5	X - too difficult to implement
35	Hiawatha Golf	Gathering Shade Structure	5	X - too difficult to implement
36	McRae Park	Shade Structure	5	X - already have demo site for shade structure, lower visibility
37	Minnehaha	Tie to pavilion restoration project	5	X - too much shade
38	Minnehaha	Dry fountain area	5	X - too difficult to implement
39	Nokomis	Picnic Shade Canopy	5	Recommended Demo - Great visibility w/large athletic events, good solar orient.
40	Minnehaha	Wabun Shade Canopy	5	X - too much shade
41	Bryant Square	Building Entry	6	X - already have demo site for shade structure, lower visibility
42	Kenny Park	Pool	6	X - already have demo site for shade structure, lower visibility
43	MLK park	Rooftop array	6	Recommended Demo - newer roof, good visibility & solar orientation
44	Lake Harriet	Biff	6	X - too difficult to implement with competing programming
45	Lake Harriet	Bandshell	6	X - too difficult to implement with competing programming, historic concerns
46	Lynnhurst Field	Shade structure for pool	6	X - already have demo site for shade structure
47	Rose Garden	Shade structure	6	X - no easy way to meter
48	South Calhoun	Beach Shade Structure	6	X - no easy way to meter
49	Southside Service Ctr	Shade structure	6	X - low visitation/visitorship
50	Southside Service Ctr	Install on new south facing roof	6	X - low visitation/visitorship
51	Citywide	Electric cart charging for golf courses		X - no easy way to meter
52	Gross Golf	Cart Charging	1	X - already have demo site for shade structure