

BAVARIAN SUBSTATION - SITE CRITERIA MATRIX

March 30, 2016

Site Selection Criteria - Site Variables		#1	#2	#3	#4	#5	#6	#7	#8	#8a	#9	#10	#11	#12	#13	#14	#15	#16
System Considerations	Proximity to existing transmission lines	1	1	1	2	2	1	2	5	2	5	5	4	3	3	3		1
	Proximity to service area (balanced)	1	5	5	3	1	2	4	3	2	1	1	1	1	4	3		5
	Reliability (redundancy)	1	5	5	3	1	2	4	3	3	1	1	1	1	4	3		5
	Longevity (additional sub not needed for awhile)	1	5	5	3	1	2	4	3	3	1	1	1	1	4	3		5
	Positioned to pick up load growth	3	5	5	5	4	2	5	4	3	3	4	3	2	5	4		5
	Positioned to alleviate load on existing subs	3	5	5	5	4	2	5	4	4	3	4	3	2	5	4		5
Average		1.7	4.3	4.3	3.5	2.2	1.8	4.0	3.7	2.8	2.3	2.7	2.2	1.7	4.2	3.3	0.0	4.3

X X X

Aesthetics and Neighborhood Values	General aesthetics	1	1	2	1	4	1	1	4	4	5	5	4	1	1	4		
	Light and noise impact	1	1	4	1	2	1	1	4	4	5	5	4	3	1	4		
	Underground and overhead distribution lines	1	3	5	2	2	2	1	3	3	2	3	2	3	3	3		
	Transmission			1		2			4	4	5	5	4			4		
	General health and human safety concerns	1	1	1	2	4	2	1	3	4	5	5	4	4	1	3		
	General property value concerns	1	3	3	1	2	1	1	4	4	5	5	5	5	2	4		
	Proximity to existing density/outreach to impacted customers	1	2	3	1	4	1	1	4	3	5	5	4	5	2	4		
	View	1	1	4	1	3	1	1	3	4	5	5	3	1	2	3		
	Bavarian theme	1	1	2	4	1	4	1	5	4	1	5	1	5	1	5		
	Average		1.0	1.6	2.8	1.6	2.7	1.6	1.0	3.8	3.8	4.2	4.8	3.4	3.4	1.6	3.8	0.0

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Land Considerations	Land availability	4	4	3	5	3	3	4	4	5	3	4	4	5	5	3		2
	Land purchase price	3	3	3	4	3	3	2	3	4	3	3	3	3	3	3		2
	Land parcel size	4	4	4	5	4	3	4	4	5	3	4	4	4	3	4		2
	Site access - mobile substation	4	4	3	5	4	3	4	4	3	4	4	4	4	4	4		2
	Land slopes and contours	5	4	3	5	4	4	4	4	3	4	4	4	4	4	4		2
	Community Economic Impact	1	2	4	2	3	2	1	3	3	4	5	5	5	2	3		
	Highest and best use	1	1	5	2	2	2	1	3	3	4	5	5	5	2	3		
	Average		3.1	3.1	3.6	4.0	3.3	2.9	2.9	3.6	3.7	3.6	4.1	4.1	4.3	3.3	3.4	0.0

Environmental Considerations	Groudwater on site	2	4	4	2	4	2	4	2	4	4	4	4	4	4	4		4
	Easements and permitting	1	2	2	2	1	2	2	4	4	4	4	4	3	2	4		2
	Security of location	3	4	4	4	3	4	4	4	4	4	4	4	4	4	4		4
	Threats from natural disasters	2	4	3	4	3	3	4	3	3	4	4	4	4	4	3		4
	Disturbance of land	2	5	5	4	5	3	5	4	3	5	5	4	5	5	2		5
	Wildlife areas (not regulatory)	2	5	2	4	4	2	5	2	3	5	5	5	5	5	2		1
Average		2.0	4.0	3.3	3.3	3.3	2.7	4.0	3.2	3.5	4.3	4.3	4.2	4.2	4.0	3.2	0.0	3.3

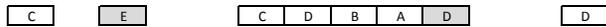
RATING - TOTALS FROM EACH MAJOR CATEGORY	#1	#2	#3	#4	#5	#6	#7	#8	#8a	#9	#10	#11	#12	#13	#14	#15	#16
	7.8	13.1	14.0	12.5	11.5	9.0	11.9	14.2	13.8	14.5	15.9	13.9	13.5	13.1	13.7	0.0	9.7

NARROWING:

INITIAL PROPOSED NARROWING (Items 1 & 2) ==>



ADDITIONAL PROPOSED NARROWING (Item 3) ==>



TOTALS - RANKING

Green	Sites #3,8,9,10
Yellow	Sites #2,4,8a,11,12,13,14
Red	Sites #1,5,6,7

Proposed Narrowing Criteria:

Analyze Data

1. Initial Assumption: Weight four major categories equally
2. Sum major category average scores to establish rating
3. Color code to distinguish high, medium, and low ratings

Narrowing

1. System Criteria: Eliminate site that scores between 1 and 2
2. Aesthetics: Eliminate any that scores between 1 and 2
3. Apply additional proposed narrowing based on score
4. Apply results to map
5. Analyze results - map and matrix
6. Achieve N/3, which is 16 sites divided by 3 = 5 or 6 sites
7. Group sites to achieve fewer locations (if appropriate)

Community Group Revised May 19, 2016

- #8a added and evaluated by District RE Services, as suggested by City
- #15 not evaluated due to non-availability
- #16 not considered due to high aesthetic impact and small parcel size
- Sites #3, 5, 8, 8a, 9, 10, 11, 14 re-evaluated for two Site Selection Criteria
 1. Re-evaluate "Underground and Overhead Distribution Lines"
 2. Add "Transmission" as a Site Selection Criteria and evaluate
- Group Eliminated site #5 due to low score
- Group Eliminated site #11 due to location and proximity to other sites
- Group combined sites into larger areas to achieve three general locations

Next Steps

1. Analyze 3 areas with additional Community Outreach
2. Determine specific sites
3. Consultant evaluation of three sites