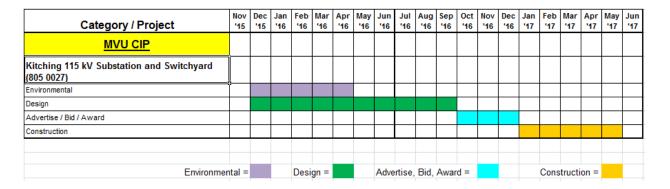
BACKGROUND

As MVU continues to grow and expand its service, several capital improvement projects totaling \$25.1 million have been identified that are necessary to accommodate increasing demands for electricity. The rapid growth of large commercial projects in the South industrial area has created a need to expand capacity by funding and constructing the Kitching Substation project in the amount of \$17.765 million. Additional projects totaling \$7.3 million will be needed within the next two years in order to improve system reliability and to improve system automation. All of the projects have been included in MVU's 10-Year CIP plan approved by the MVU Commission and City Council on May 15, 2015 and May 26, 2015, respectively. These projects include the following:

Project Title	Project Description	Estimated Cost			
Kitching Substation	Install 115kV/12kV substation	\$13,489,000			
Kitching Substation to Edwin Rd.	Install conduit and cable from Kitching to Edwin Rd.	\$480,000			
Kitching Backbone to Indian	Circuit going north towards Heacock for reliability	\$787,000			
Kitching Substation to Perris Blvd.	Allow part of Iris circuit to transfer to Kitching substation	\$414,000			
Kitching Substation to Lasselle Sports Park	Create a tie to Lasselle 12kV	\$477,000			
Load transfer to Iris Interconnect	Install cable from Iris to Indian	\$378,000			
Kitching Substation to Globe	Connect new circuit to Globe interconnect	\$459,000			
Kitching Backbone to Perris Blvd.	Install conduit and cable along Modular Way to Perris Blvd.	\$465,000			
Kitching – Nason 12kV tie	Ties Kitching substation to MoVal substation providing additional reliability	\$816,000			
Alessandro Blvd. Tie	Ties Centerpointe interconnects to MoVal substation	\$2,025,000			
Heacock St. Tie	Ties Centerpointe interconnects to South Industrial area	\$1,396,350			
Electrical system automation	Build automation, communication, and protection in circuits	\$2,000,000			
MoVal Substation upgrade	Addition of 3 rd transformer bank	\$1,925,000			
Total		\$25,111,350			

A. SCHEDULE

The Kitching Substation Project consists of two separate facilities – a substation that will be owned and operated by MVU, and a switchyard that will be owned and operated by SCE. The switchyard is the point of connection between SCE's electrical transmission system and MVU's electrical distribution system. Although SCE usually designs and builds their facilities, SCE approved MVU designing and building the switchyard. SCE protocol requires that an Interconnection Facilities Agreement (IFA) be executed with the City. The current schedule is dependent upon SCE's approval of the design of the switchyard.



B. SUBSTATION/CIRCUIT DESIGN

- 1. Pre-100% street improvement plans are still under review.
- 2. Pre-100% grading plans are still under review.
- 3. 75% wall plans are awaiting review by SCE for the switchyard portion.
- 4. 100% landscape plans were submitted for review by staff.
- 5. 75% submittal comments for the substation design are under review.
- 6. Final drainage study and Water Quality Management Plan are waiting for the final grading plans to be approved by SCE for the switchyard portion.
- 7. Design for Circuit #1, Project 805-0037, is complete. A Notice Inviting Bids was placed in the Press Enterprise. The bid documents for construction were posted on PlanetBids. The bid award is scheduled for the September Utilities Commission meeting, September Finance Subcommittee meeting, and the September 20th City Council meeting.

C. ENVIRONMENTAL

1. The environmental analysis for the eight substation circuits has been completed.

D. EQUIPMENT

1. The City Council approved the bid awards for the purchase of long-lead equipment on April 5, 2016. These items include two (2) transformers, two

- (2) circuit breakers, five (5) disconnect switches, one (1) switchgear and bus duct, and two (2) capacitor banks.
- 2. The drawings for the transformers, circuit breakers, and disconnect switches are 100% complete. The drawings for the switchgear and capacitor banks are 50% complete.
- 3. The timing of the Notice to Proceed with fabrication will take into consideration the fabrication time and avoidance of storage fees.

E. INTERCONNECTION ACTIVITIES

 The Interim Engineering and Design Plan Check Agreement was approved and executed. The Interconnection Facilities Agreement (IFA) between the City and SCE is scheduled for the September 6, 2016 Council Meeting.

F. FINANCIAL STATUS

 A cost estimate of the major components of a substation was previously provided. The estimate was based on previous experience only, and not verified by the design engineer. The estimate that was given is provided below.

					stimate of ong-Lead					1	Total Bid
	Quantity	Ea. Price	Total	Items		Actual Bid Amount		Contingency		Award	
28 MVA transformers	2	\$ 1,250,000	\$ 2,500,000	\$	2,500,000	\$	1,302,752	\$	130,275	\$	1,433,027
115kV breakers	2	\$ 90,000	\$ 180,000	\$	180,000	\$	109,565	\$	10,957	\$	120,522
12kV breakers*	15	\$ 8,000	\$ 120,000	inc	luded in swi	tchg	ear and bus duct bid				
Steel and bus work	1	\$ 200,000	\$ 200,000								
Capacitor bank	2	\$ 600,000	\$ 1,200,000	\$	1,200,000	\$	174,160	\$	8,708	\$	182,868
Control room*	1	\$ 500,000	\$ 500,000	inc	luded in swi	switchgear and bus duct bid					
Protection relays*	21	\$ 15,000	\$ 315,000	inc	ncluded in switchgear and bus duct bid						
Design & Engineering	1	\$ 500,000	\$ 500,000								
Construction & other materials	1	\$ 685,000	\$ 685,000								
*Switchgear and bus duct				\$	935,000	\$	1,294,088	\$	64,703	\$	1,358,791
**Disconnect switch						\$	34,491	\$	1,725	\$	36,216
			\$ 6,200,000	\$	4,815,000	\$	2,915,056	\$	216,368	\$	3,131,424
SCE Switchyard			\$ 6,800,000								
Land purchase, based on appraisal	1	\$ 489,000	\$ 489,000								
			\$ 13,489,000								
*The switchgear and bus duct include **We did not previously provide a no											

2. Project budget and actuals through June 30, 2016:

Project	Project	FY 14/15	FY 15/16	FY 16/17	Total	Actuals	Actuals	Total
No.	Title	Budget	Budget	Budget	Budget	(Cash) (Bonds)		Actuals
805	Kitching			_				
0027	Substation	\$489,000	\$4,109,885	\$8,890,115	\$13,489,000	\$1,636,590.26	\$211,988.84	\$1,848,579.10
	Kitching							
805	Sub to							
0040	Edwin Rd	\$0	\$15,000	\$465,000	\$480,000	\$7,060.52	\$0.00	\$7,060.52
	Kitching							
805	backbone	•	040.000	#774 000	A=0= 000	# 0.00	# 0.00	40.00
0034	to Indian	\$0	\$16,000	\$771,000	\$787,000	\$0.00	\$0.00	\$0.00
005	Kitching							
805 0036	Sub to Perris	\$0	¢45 000	\$200 000	\$414.000	\$0.00	\$0.00	\$0.00
0036		Φυ	\$15,000	\$399,000	\$414,000	\$0.00	\$0.00	\$0.00
	Kitching Sub to							
805	Lasselle							
0037	Park	\$0	\$35,000	\$442,000	\$477,000	\$13,551.60	\$0.00	\$13,551.60
0001	Kitching	ΨΟ	ψ55,000	ψ++2,000	Ψ+11,000	ψ10,001.00	ψ0.00	ψ10,001.00
805	Sub load							
0031	transfer	\$0	\$0	\$378,000	\$378,000	\$0.00	\$0.00	\$0.00
	Kitching	* -	* -	¥ = = 7,= = =		,	*	·
805	Sub to							
0041	Globe	\$0	\$15,000	\$444,000	\$459,000	\$5,241.48	\$0.00	\$5,241.48
	Kitching							
805	backbone							
0042	to Perris	\$0	\$15,000	\$450,000	\$465,000	\$14,620.50	\$0.00	\$14,620.50
	Kitching –							
805	Nason							
0032	12kV tie	\$0	\$15,000	\$801,000	\$816,000	\$0.00	\$0.00	\$0.00

G. PICTURES



Property view looking west.