

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

- (2) circuit breakers, five (5) disconnect switches, one (1) switchgear and bus duct, and two (2) capacitor banks.
- The drawings for the transformers, circuit breakers, and disconnect switches are 100% complete. The drawings for the switchgear and capacitor banks are 50% complete.
 - 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.

	Quantity	Ea. Price	Total	Estimate of Long-Lead Items	Actual Bid Amount	Contingency	Total Bid 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	included in switchgear 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	included in switchgear and bus duct bid			
Protection relays*	21	\$ 15,000	\$ 315,000	included 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 includes 12kV breakers, control room, and protection relays.							
**We did not previously provide a non-engineered estimate for the disconnect switch.							

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

Project No.	Project Title	FY 14/15 Budget	FY 15/16 Budget	FY 16/17 Budget	Total Budget	Actuals (Cash)	Actuals (Bonds)	Total Actuals
805 0027	Kitching Substation	\$489,000	\$4,109,885	\$8,890,115	\$13,489,000	\$1,636,590.26	\$211,988.84	\$1,848,579.10
805 0040	Kitching Sub to Edwin Rd	\$0	\$15,000	\$465,000	\$480,000	\$7,060.52	\$0.00	\$7,060.52
805 0034	Kitching backbone to Indian	\$0	\$16,000	\$771,000	\$787,000	\$0.00	\$0.00	\$0.00
805 0036	Kitching Sub to Perris	\$0	\$15,000	\$399,000	\$414,000	\$0.00	\$0.00	\$0.00
805 0037	Kitching Sub to Lasselle Park	\$0	\$35,000	\$442,000	\$477,000	\$13,551.60	\$0.00	\$13,551.60
805 0031	Kitching Sub load transfer	\$0	\$0	\$378,000	\$378,000	\$0.00	\$0.00	\$0.00
805 0041	Kitching Sub to Globe	\$0	\$15,000	\$444,000	\$459,000	\$5,241.48	\$0.00	\$5,241.48
805 0042	Kitching backbone to Perris	\$0	\$15,000	\$450,000	\$465,000	\$14,620.50	\$0.00	\$14,620.50
805 0032	Kitching – Nason 12kV tie	\$0	\$15,000	\$801,000	\$816,000	\$0.00	\$0.00	\$0.00

G. PICTURES



Property view looking west.