

Blythe Energy T line 99-AFC-8C

Southern Ca. Edison
Down Stream Up-Grade
Polar Interset Construction

DOCKET 99-AFC-8C
DATE _____
RECD. FEB 28 2000

30410

Impacts of increasing the ground clearance:

The preliminary System Impact Study dated July 19, 2004, shows that in order to deliver power from BEP generation output to the Julian Hinds substation through the proposed new line, the additional power that would flow through the existing Julian Hinds-Mirage 230kV line, would cause its existing 605 ACSR conductor to sag more and create ground clearance problems. Based on SCE's present analysis, it would be necessary to interest six pole structures between certain existing towers to reduce the sag and maintain proper ground clearances under normal operating conditions. As a result the normal and emergency ratings of the line will change from existing 599 Amps to 895 Amps (BEP 2004a, Figure 3.2-8)

During construction, applicable safety and reliability laws, ordinances, Regulations and Standards (LORS) must be met. These include CPUC general Order 95, Title 8 CCR Construction Safety Orders, and SCE Construction Standards. Additionally, to maintain system reliability the Cal-ISO must be advised per the Cal-ISO scheduling protocol of scheduled circuit outages prior to occurrence. Such outages are scheduled about 30 days prior to actual outage. In the event that system reliability requires restoring such circuits, a "no work" order is given and where practicable, circuits are restored.

Intersect towers on Julian Hinds-Mirage 220 kV line:

Following is the list of locations for the intersect towers on the Julian Hinds-Mirage 230 kV transmission line.

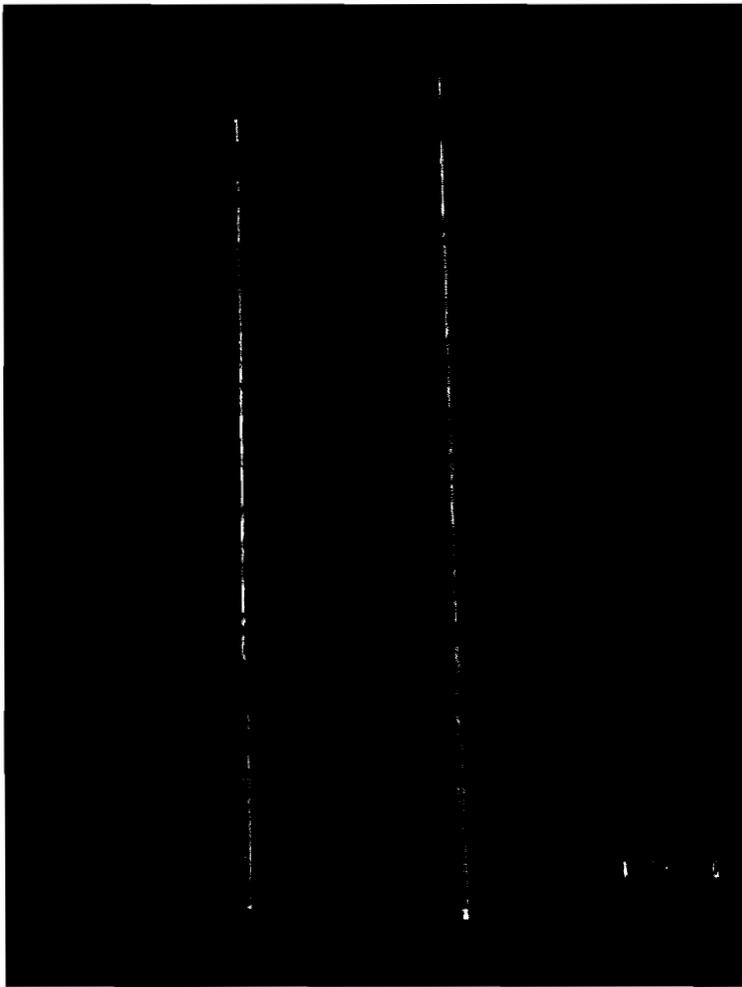
Tower to East			Tower to West			c	Intersect Station		Pole Length	Pole Height	Setting Depth	Height Revised POS
Tower	Sta A	POS A	Tower	Sta B	POSB		Sta X	Ground				
M35-T3	560+45.9	239.4	M35-T4	580+36.6	230.9	8184	572+01.6	133.2	95	83.00	12.00	67.75
M21-T1	177+12.7	1815.0	M21-T2	199+51.7	1843.4	8216	190+09.0	1705.0	115	102.00	13.00	86.75
M29-T3	250+75.0	540.2	M30-T1	271+50.0	541.8	8184	264+12.1	436.7	100	88.00	12.00	72.75
M34-T2	493+60.0	206.7	M34-T3	513+61.2	245.7	8184	503+60.6	120.3	100	88.00	12.00	72.75
M26-T2	82+70.0	1007.5	M26-T3	101+55.2	953.2	8184	92+52.0	881.8	95	83.00	12.00	67.75
M6-T3	281+22.3	1906.6	M6-T4	295+30.0	1882.8	8216	288+52.3	1826.1	80	70.00	10.00	54.75

The structure heights are as shown as pole height in the above table. The crossarm width would be approximately 47' with the poles set 23' apart.

The method of access would be by the tower lines existing access road which is generally just adjacent to the tower line. Spurs from the existing access roads to each site would be 40 to 200' long and about 14' wide.

The structures, as with the rest of the project, are to be built from spun cast prestressed concrete poles, in this case with H-frame construction with a rectangular steel crossarm attached by through bolts and brackets to the poles. Typical suspension insulators, approximately 9' long will attach the conductor to the crossarm.

Also, below is a picture of a similar structure, in this case built from tubular steel poles:



Line Construction Features:

Poles, crossarms and hardware delivered to the field location. The pole will be placed on the ground probably just outside the conductor drip line.

Excavation rig will excavate a hole 18" larger in diameter than the pole butt to the required setting depth.

A crane will be positioned between the wires adjacent to the setting hole and within reach of the pole. The pole will be picked and moved within the wires parallel to the line then raised between the wires and set in the hole. Based on Cal-OSHA rules this work will need to be done with an outage on the line.

The pole will be plumbed and aligned and the hole backfilled with imported gravel or concrete.

The crossarm will be lifted and attached to the poles. Hardware will likely be attached to the crossarm while it is on the ground.

The wires will be lifted and set in the shoes attached to the insulators. It is possible that wire may need to be cut out of the conductors to keep insulators on adjacent towers

plumb enough to prevent any excess longitudinal loading to the adjacent towers. The cutout would be accomplished from the interset ground work area.

PROJECT ROUTE SHEET

FROM: Jack Caswell, Project Manager

Comments: **Blythe Energy T-Line (99-AFC-8C)**
Please Docket,

PROJECTS FOR REVIEW

Blythe Energy T-Line Amendment

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Special Instructions:

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All Intersect construction*

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