

## Wheeling Access Charges

The following tables contain Wheeling Access Charges at the scheduling points. The Wheeling Access Charge is applicable for Wheeling on the ISO Controlled Grid. No Wheeling Access Charge is applied if a Scheduling Coordinator uses only Existing Transmission Capacity.

High Voltage (HV) Wheeling Access Charges are assessed for wheeling from transmission facilities with voltage rating of 200 kV or higher. Wheeling from transmission facilities with a voltage rating of less than 200 kV will result in Low Voltage (LV) Wheeling Access Charges in addition to the HV Wheeling access charge.

Table 1: Scheduling Points “Owned” by More than One Participating TO: *The applicable Wheeling Access Charge is shown for each month to reflect that the amount of Converted Rights associated with these Scheduling Points may change monthly.*

Table 2: Scheduling Points “Owned” by a Single Participating TO.

Table 3: SCE Take-Out Points Interconnecting Non PTOs Within the ISO Control Area to the ISO Controlled Grid.

Table 4: PG&E Take-Out Points Interconnecting Non PTOs Within the ISO Control Area to the ISO Controlled Grid.

**Weighted Average Wheeling Rates (\$/MWh) for "Multi PTO-Owned" Scheduling Points**

Table 1:

**Rates Effective March 1st, 2010**

		Voltage (kV)	2010
	MRTU Tnames effective April 1 2009		
Palo Verde	PVWEST	500	5.2600
NOB	NOB	500	5.2600
MEAD230S	MEAD230	230	5.2600
Victorville	LUGO	500	5.2600
WSTWGMEAD	WESTWING500	500	5.2600
MKTPCADLN	MARKETPLACE	500	5.2600
IPPDCADLN	IPP	500	5.2600
MONAIPPDC	MDWP	500	5.2600
GONDIPPDC	GONIPP	500	5.2600
MEADMKTPC	MEAD5MSCHD	500	5.2600
MEADTMEAD	MEAD2MSCHD	500	5.2600
MCCLMKTPC	MCCULLOUG500	500	5.2600

Effective  
March  
1st

**Table 2: Wheeling Access Charge for “Single PTO-Owned” Scheduling Points  
Rates Effective March 1st, 2010**

PTO	MRTU Tnames effective April 1 2009	Voltage Level  (kV)	Voltage Designati on	HV Wheeling Access (\$/MWh)	LV Wheeling Access Rate (\$/MWh)			
SCE	DEVERS230	230	HV	5.2600	---			
	ELDORADO500	500						
	MOENKOPI500	500						
	FOURCORNE345	500						
	MIR2	230						
	MOHAVE500	500						
	ELDORADO230	230						
	PARKER230	230						
	SYLMAR	230						
	BLYTHE161	161				LV	5.2600	0.4963
INYO	115							
MOHAVE69	69							
SILVERPEAK55	55							
PG&E	CTW230	230	HV	5.2600	---			
	RDM230	230						
	LAKE	230						
	MALIN500	500						
	NML230	230						
	RANCHOSECO	230						
	TRCOCOTP	500						
	TRCYPGAE	500						
	TESLA230	230						
	WESTLYLBNS	230						
	WESTLYTSLA	230						
	CRAG	115				LV	5.2600	5.2782
	LLL115	115						
	MARBLE60	60						
OAKDALE	115							
STANDIFORD	115							
SUMMIT120	115							
SDG&E	CFEROA	230	HV	5.2600	---			
	IVLY2	230						
	CFETIJ	230						
	NORTHGILA69	500						

**Table 3: Wheeling Access Charge for SCE Take Out Points Interconnecting Non-PTOs  
Within ISO Control Area to the ISO Controlled Grid**

**Rates Effective March 1st, 2010**

PTO	HV Wheeling Access Rate	LV Wheeling Access Rate
	(\$/MWh)	(\$/MWh)
SCE	5.2600	0.4963

PTO	NON-PTO	TAKE-OUT POINT	Voltage (kV)	Voltage Level Designation	
SCE	Anza	Vista	230	HV	
	APS Cities	Blythe	161	LV	
	City of Industry	Walnut	230	HV	
	CDWR		Bailey	66	LV
			Eldorado	500	HV
			Midway	500	HV
			Pardee	230	HV
			San Bernardino	230	HV
			Songs	230	HV
			Sylmar	500	HV
			Vincent	500	HV
			Vista	230	HV
			Colton	Vista	230
	Corona	Mira Loma	230	HV	
	Moreno Valley	Valley	500	HV	
	MSR		Victorville/Lugo	500	HV
			Midpoint	500	HV
	MWD		Etiwanda	230	HV
			Vincent	500	HV
	Rancho Cucamonga	Etiwanda	230	HV	
	SoCal Water		Vista	230	HV
			Victor	115	LV

**Table 4: Wheeling Access Charge for PG&E Take Out Points Interconnecting Non-PTOs Within ISO Control Area to the ISO Controlled Grid**

**Rates Effective March 1st, 2010**

PTO	HV Wheeling Access Rate (\$/MWh)	LV Wheeling Access Rate (\$/MWh)
PG&E	5.2600	5.2782

PTO	Interconnection with Non PTO	Take Out Point Within CAISO Grid	Voltage Level Designation
PG&E	California Department of Water Resources	1. Table Mountain Substation: Oroville-Thermalito-Table Mountain Nos.	HV
		2. Geysers Power Plant: Bottle Rock Tap off Geysers-Fulton No. 2 (230 kV)	HV
		3. Barker Slough Pumping Plant: Barker Slough Tap off Brighton-Davis	LV
		4. Cordelia Pumping Plant: Cordelia No. 2 (60 kV tap)	LV
		5. Interim Cordelia Pumping Plant: Cordelia No. 1 (60 kV tap)	LV
		6. Delta (Harvey O. Banks Pumping Plant): Delta Substation off Contra	HV
		7. South Bay Pumping Plant: Herdlyn-Livermore (60 kV line tap)	LV
		8. Del Valle Pumping Plant: Fed from 21 kV Los Positas 2106 circuit	HV
		9. San Luis (Gianelli) Pump/Generation: Double circuit connected to Los	HV
		10. Dos Amigos Pumping Plant: Tesla-Midway No. 2 (230 kV line), Los	HV
		11. Pine Flat Power Plant: 230 kV tap off Balch-McCall	HV
		12. Las Perillas Pumping Plant: Las Perillas 70 kV tap off Arco-Tulare	LV
		13. Badger Hill Pumping Plant: Badger Hill 70 kV tap off Arco-Tulare	LV
		14. Midway – Wheeler Ridge 230 kV transmission system between Midway Substation and the point of interconnection with the Wind Gap Pumpings	HV
		The following tap lines are connected to Midway:	
		• Buena Vista Pumping Plant: Buena Vista Nos. 1 & 2 (230 kV)	
• Wheeler Ridge Pumping Plant: Wheeler Ridge Nos. 1 & 2 (230 kV)			
• Chrisman (Wind Gap) Pumping Plant: Wind Gap Nos. 1 & 2 (230 kV)			
15. Midway Substation	HV		
16. Coastal Branch Plants (Devil's Den, Bluestone, and Polonio Pass) all	LV		
Central CA Power Agency	Geysers - Fulton No. 1 and No. 2 (230 kV)	HV	
City and County of San Francisco	1. Moccasin - Newark No. 1 (115 kV)	LV	
	2. Moccasin - Newark No. 2 (115 kV)	LV	
	3. Bellota - Gregg No. 2 at Warnerville Substation (230 kV)	HV	
City of Santa Clara	1. Newark - NRS No. 1 (115 kV)	LV	
	2. Newark - NRS No. 2 (115 kV)	LV	
	3. Newark - Kifer (115 kV)	LV	
	4. Nortech - NRS (115 kV)	LV	
	5. FMC - Kifer (115 kV)	LV	
	6. SVP Switching Station (230 kV)	HV	
Department of Energy (DOE) Laboratories under SC ID "WDOE"	Stanford Liner Accelerator Center (SLAC), Monta Vista Substation (230 kV)	HV	
	SLAC, Menlo Substation (60 kV)	LV	
	Lawrence Berkeley Laboratory (LBL), Sobrante Substation (115 kV)	LV	
	Site 300, Tesla Substation (115 kV)	LV	
Hercules Municipal Utility	Franklin substation in Hercules (60kV)	LV	
Lassen Municipal Utility	Westwood (60 kV)	LV	
McAllister Ranch Irrigation	Tevis substation in Bakersfield (60kV)	LV	
Modesto Irrigation District	1. Westley (230 kV)	HV	
	2. Herdlyn substation in Tracy (60kV)	LV	
Northern CA Power Agency	1. Westley (230 kV)	HV	
	2. Tracy (230 kV)	HV	
	3. Scott (115 kV)	LV	
	4. Kifer (115 kV)	LV	
	5. Lompoc Substation (115 kV)	LV	
	6. Palo Alto Subst. (115 kV)	LV	
	7. Ukiah Subst. (115 kV)	LV	
	8. Station C (115 kV)	LV	
	9. Station J (115 kV)	LV	
	10. Industrial Subst. (60 kV)	LV	
	11. Quincy Subst. (60 kV)	LV	
	12. Biggs Subst. (60 kV)	LV	
	13. Gridley Subst. (60 kV)	LV	
	14. Healdsburg Subst. (60 kV)	LV	
Port of Oakland	Delivery Point SS-1 in Oakland. The 12 kV service is supplied from PG&E's	LV	
Port of Stockton	Rough and Ready Island substation in Stockton (60kV)	LV	
Shelter Cove Resort Improvement District	PG&E's Garberville 1102 Circuit in Humboldt County (12 kV)	LV	
Trinity Public Utility District (TPUD) under SC ID "WTRN"	TPUD Aggregation of Take Out Points by WAPA under SC ID WTRN	LV	
	TPUD Weaverville, Trinity Substation (60 kV)	LV	
	TPUD Lewiston, Keswick Substation (60 kV)	LV	
	TPUD Big Bar, Maple Creek Substation (60 kV)	LV	
	TPUD Forest Glen, Cottonwood Substation (115 kV)	LV	

	TPUD Forest Glen, Bridgeville Substation ( 115 kV)	LV
Turlock Irrigation District	Westley (230 kV)	HV
Western Area Power Administration	1. Cottonwood Substation (230 kV)	HV
	2. Tracy Substation (69 kV) (230 kV)	LV HV
	3. New Melones (230 kV)	HV
	4. O'Neill (230 kV)	HV
Westside Power Authority	Swift substation in San Jose (115kV)	LV

Western Area Power Administration	1. Ames Research Center NASA (115kV)	LV
	2. Arvin Edison - Forest Frick PP #1 Arvin Edison Substation (115 kV)	LV
	3. Beale Air Force Base Beale A.F. Metering Substation (60 kV)	LV
	4. CCSF - Treasure Island Davis Substation (115kV)	LV
	5. Delta Pumping Plant Delta Switching (230kV)	HV
	6. Naval Air Station Lemoore N.A.S. 70kV	LV
	7. Oakland Army Base Reuse Authority, Davis Substation, (115 kV)	LV
	8. Pacheco Pumping Plant Pacheco P.P. (70 kV)	LV
	9. U.S. Fish and Wildlife Coleman 60kV	LV
	10 Westlands Water District P.P. 6-1 Mendota Substation (70kV)	LV
	11. Wintu Pump Plant Cascade Substation (Wintu Tap) (60 kV)	LV
	ARBUCKLE SUBSTATION, Arbutle (60kV)	LV
	LOGAN CREEK SUBSTATION, Willows (230 kV)	HV
	NEWHALL SUBSTATION, Firebaugh (115kV)	LV
	HARRINGTON SUBSTATION, Arbutle (60 kV)	LV
	CORTINA SUBSTATION, Williams (115 Kv)	LV
	DUNNIGAN SUBSTATION, Dunnigan (60 kV)	LV
	CONTRA COSTA SUBSTATION, Antioch (115 kV)	LV
	CORNING SUBSTATION, Corning (60 kV)	LV
	COTTONWOOD SUBSTATION, Cottonwood (115 kV)	LV
	METCALF SUBSTATION, San Jose (115 kV)	LV
WOODWARD SUBSTATION, Fresno (115 kV)	LV	
FRENCH GULCH SUBSTATION, French Gulch (60 kV)	LV	
GERBER SUBSTATION, Gerber (60 kV)	LV	
PEORIA FLAT SUBSTATION, Jamestown (115 kV)	LV	
ALPAUGH SUBSTATION, Tulare (115 kV)	LV	
TYLER SUBSTATION, Red Bluff (60 kV)	LV	
MAXWELL SUBSTATION, Maxwell (60 kV)	LV	
WILLIAMS SUBSTATION, Williams (60 kV)	LV	
WILLOWS SUBSTATION, Willows (60 kV)	LV	
WAPA - USBR	ARBUCKLE SUBSTATION, Arbutle (60kV)	LV
	LOGAN CREEK SUBSTATION, Willows (230 kV)	HV
	NEWHALL SUBSTATION, Firebaugh (115kV)	LV
	HARRINGTON SUBSTATION, Arbutle (60 kV)	LV
	CORTINA SUBSTATION, Williams (115 Kv)	LV
	DUNNIGAN SUBSTATION, Dunnigan (60 kV)	LV
	CONTRA COSTA SUBSTATION, Antioch (115 kV)	LV
	CORNING SUBSTATION, Corning (60 kV)	LV
	COTTONWOOD SUBSTATION, Cottonwood (115 kV)	LV
	METCALF SUBSTATION, San Jose (115 kV)	LV
	WOODWARD SUBSTATION, Fresno (115 kV)	LV
	FRENCH GULCH SUBSTATION, French Gulch (60 kV)	LV
	GERBER SUBSTATION, Gerber (60 kV)	LV
	PEORIA FLAT SUBSTATION, Jamestown (115 kV)	LV
ALPAUGH SUBSTATION, Tulare (115 kV)	LV	
TYLER SUBSTATION, Red Bluff (60 kV)	LV	
MAXWELL SUBSTATION, Maxwell (60 kV)	LV	
WILLIAMS SUBSTATION, Williams (60 kV)	LV	
WILLOWS SUBSTATION, Willows (60 kV)	LV	
WAPA - Other Western Distribution Points of Interconnection	MANTECA #2 SUBSTATION, Manteca (115 kV)	LV
	ORO LOMA SUBSTATION, Dos Palos (70 kV)	LV
	HERDLYN SUBSTATION #2, Tracy (60 kV)	LV
	CAWEL0 B SUB, Bakersfield (70 kV)	LV
	GATES SUBSTATION, Huron (115 kV)	LV
	VACA DIXON SUB 115/60 BANK. Travis Tap (60066A) (60 kV)	LV
	CALVO SUBSTATION (60 kV)	LV
	OAKLAND L SUBSTATION, Oakland (115 kV)	LV
	GLENN SUBSTATION, Orland (60 kV)	LV
	SAN JOAQUIN SUBSTATION, San Joaquin (70 kV)	LV
	TUPMAN SUBSTATION, Tupman (115 kV)	LV
	LOCKHEED #1 SUBSTATION, Sunnyvale (115 kV)	LV
	BATAVIA SUBSTATION (60 Kv)	LV
	WEBER SUBSTATION, Stockton (60 kV)	LV
	LOCKHEED #2 SUBSTATION, Sunnyvale (115 kV)	LV
	IGNACIO SUBSTATION, Ignacio (115 kV)	LV
	JACINTO SUBSTATION, Glenn (60 kV)	LV
	WOODLAND SUBSTATION, Woodland (115 kV)	LV

	SARATOGA SUBSTATION, Saratoga (230 kV)	HV
	MANTECA SUB, Lathrop, Groenenmeyer Tap 60142A (60 kV)	LV
	PEORIA FLAT SUBSTATION, Jamestown (115 kV)	LV
	FULTON SUB, Santa Rosa, Wohler Tap 60160A (60 kV)	LV
	LYÖTH SUBSTATION, Tracy (60 kV)	LV
	VACA DIXON SUB 115/60 BANK, Travis Tap (60066A) (60 kV)	LV
	PEABODY SUBSTATION, Fairfield (230 kV)	HV
	DIXON SUB, Dixon, Davis-Dixon #1 (60060) (60 kV)	LV
	WESTLEY SUBSTATION (230 kV)	HV
	HERDLYN SUBSTATION, Tracy (60 kV)	LV
	PEABODY SUBSTATION, Fairfield (230 kV)	HV
	CLAYTON SUBSTATION, Concord (115 kV)	LV
WAPA - Calaveras Public Power Agency	FROGTOWN SUBSTATION, Angels Camp (115 kV)	LV
	CORRAL SUBSTATION, Bellota (60 kV)	LV
	ELECTRA SUBSTATION, Amador County (60 kV)	LV
	CAL-CEMENT SUBSTATION, San Andreas (60 Kv)	LV
	WEST POINT PH SUBSTATION, Amador County (60 kV)	LV
	STANISLAUS PH SUBSTATION, Tuolumne County (115 kV)	LV
	SALT SPRINGS PH SUBSTATION (115 kV)	LV
	NORTH BRANCH SUBSTATION, San Andreas (60 kV)	LV
WAPA - Tuolumne Public Power Agency	MI-WUK SUBSTATION, Sugarpine (115 kV)	LV
	MERCED FALLS SUBSTATION (70 kV)	LV
	CURTIS SUBSTATION, Sonora (115 kV)	LV
	PEORIA SUBSTATION, Jamestown (115 kV)	LV
	RACETRACK SUBSTATION, Jamestown (115 kV)	LV
	SPRING GAP PH SUBSTATION (115 kV)	LV
WAPA - Arvin Edison Water Storage District	LAMONT SUBSTATION, Bakersfield (115kV)	LV
	SAN BERNARD SUBSTATION, Lamont (70 kV)	LV
	MAGUNDEN SUBSTATION, Bakersfield (115 kV)	LV
	WHEELER RIDGE SUBSTATION, Bakersfield (70 kV)	LV
	WELLFIELD SUBSTATION, Lamont (70 kV)	LV
	ARVIN SUBSTATION, Arvin (70 kV)	LV
	TEJON SUBSTATION, Lebec (70 kV)	LV
WAPA - Westlands Water District	MENDOTA SUBSTATION, Mendota (70 kV)	LV
	HAMMONDS SUBSTATION, Fresno (115 kV)	LV
	CHENEY SUBSTATION, Mendota (115 kV)	LV
	SCHINDLER SUBSTATION (115 Kv)	LV
	GIFFEN SUBSTATION, San Joaquin (70 kV)	LV
	COALINGA NO 2 SUBSTATION, Coalinga (70 kV)	LV
	CALFLAX SUBSTATION, Huron (70 kV)	LV
	COALINGA NO 1 SUBSTATION, Coalinga (70 kV)	LV
	GATES SUBSTATION, Huron (115 kV)	LV
	STROUD SUBSTATION, Helm (70 kV)	LV
	CANTUA SUBSTATION (115 Kv)	LV
	HENRIETTA SUBSTATION, Lemoore (70 kV)	LV
	HURON SUBSTATION, Huron (70 kV)	LV
	JACOBS CORNER SUBSTATION, Lemoore (70 kV)	LV
	TULARE LAKE SUBSTATION, Kettleman (70 kV)	LV
WAPA - Cawelo Water District **	WESTPARK SUBSTATION, Bakersfield (115 kV)	LV
	FAMOSO SUBSTATION, Famosa (115 kV)	LV
WAPA - Glenn Colusa Irrigation District **	MAXWELL SUBSTATION, Maxwell (60 kV)	LV
	SANGER SUBSTATION, Fresno (115 kV)	LV
	LOGAN CREEK SUBSTATION, Willows (230 kV)	HV
	WILLIAMS SUBSTATION, Williams (60 kV)	LV
	ARBUCKLE SUBSTATION, Arbutle (60kV)	LV
	CORTINA SUBSTATION, Williams (115 kV)	LV
WAPA - James Irrigation District **	STROUD SUBSTATION, Helm (70 kV)	LV
	SAN JOAQUIN SUBSTATION, San Joaquin (70 kV)	LV
	KERMAN SUBSTATION, Kerman (70 kV)	LV
	MCMULLIN SUBSTATION, Fresno (230 kV)	HV
WAPA - Santa Clara Valley Water District	VASONA SUBSTATION, Los Gatos (230 kV)	HV
	MCKEE SUBSTATION, San Jose (115 kV)	LV
	HICKS SUBSTATION, San Jose (230 kV)	HV
	MORGAN HILL SUBSTATION, Morgan Hill (115 kV)	LV
WAPA - Westlands Water District	COALINGA NO 2 SUBSTATION, Coalinga (70 kV)	LV
	GIFFEN SUBSTATION, San Joaquin (70 kV)	LV
	CANTUA SUBSTATION (115 Kv)	LV
	HAMMONDS SUBSTATION, Fresno (115 kV)	LV
	HENRIETTA SUBSTATION, Lemoore (70 kV)	LV
	GATES SUBSTATION, Huron (115 kV)	LV
WAPA - Sonoma County Water Agency **	FULTON SUBSTATION, Fulton (230 kV)	HV
	BASALT SUBSTATION, Napa (60 kV)	LV
	SONOMA SUBSTATION, SONOMA (115 Kv)	LV
	MIRABEL SUBSTATION, Forestville (60 kV)	LV
	DUNBAR SUBSTATION, Glen Ellen (60 kV)	LV
	CORONA SUBSTATION, Sonoma County (115 kV)	LV