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Pacific Gas and Electric Company

*Cogeneration and  
Small Power  
Production  
Semi-Annual Report*

July 2003

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**Pacific Gas and Electric Company**

***Cogeneration and  
Small Power  
Production  
Semi-Annual Report***

**to the  
California Public Utilities  
Commission**

**July 2003**

# Pacific Gas and Electric Company

## Summary of Projects

July 2003

### Signed Contracts \* Actively Delivering

Project Type	Number of Projects	Operating Size (kW)
COGENERATOR		
	90	2,563,811
SMALL POWER PRODUCER		
BIOGAS	17	56,687
BIOMASS	23	457,175
GEOTHERMAL	8	152,900
HYDRO	96	221,425
SOLAR	2	20
WASTE TO ENERGY	7	111,750
WIND	35	676,090
<b>Total</b>	278	4,239,858

### Projects Terminated During the Half Year \*\*

All Project Types	Number of Projects	Nameplate (kW)
<b>Total</b>	3	106

\* Projects which have signed contracts but have not delivered to PG&E in the past year are not included in this report.

\*\* Some of these projects have switched to the Electric-Net Metering (E-NEM) arrangements upon termination.

Table 1

**Summary of Signed Contracts**  
**Cogeneration Projects - Operational and Currently Delivering**  
**July 2003**  
**COGENERATOR**

1 - 1

No.	Log. No.	Project Name	City / County	Contract Type *	Primary Energy Source	Operating Size (kW)	Operating Start Date	Enhanced Oil Recovery
1	02C048	1080 CHESTNUT CORP.	SAN FRANCISCO / SAN FRANCISCO	3	NATURAL GAS	60	3/23/88	
2	25C249	AERA ENERGY LLC. (COALINGA)	COALINGA / FRESNO	1	NATURAL GAS EOR	8,500	6/3/88	Yes
3	25C258	AERA ENERGY LLC. (N. MIDWAY SUNSET)	BAKERSFIELD / KERN	1	NATURAL GAS EOR	4,250	6/19/88	Yes
4	25C180	AERA ENERGY LLC. (OXFORD)	FELLOWS / KERN	4	NATURAL GAS EOR	5,200	9/19/84	Yes
5	25C049A	AERA ENERGY LLC. (S. BELRIDGE)	BELRIDGE / KERN	1	NATURAL GAS EOR	48,000	1/1/03	Yes
6	04C140	AIRPORT CLUB	SANTA ROSA / SANTA ROSA	3	NATURAL GAS	60	8/27/92	
7	16C047	ALTAMONT COGENERATION CORP.	TRACY / SAN JOAQUIN	4	NATURAL GAS	6,500	4/13/90	
8	02C047	ARDEN WOOD BENEVOLENT ASSOC.	SAN FRANCISCO / SAN FRANCISCO	3	NATURAL GAS	90	9/9/87	
9	25C250	BADGER CREEK LIMITED	BAKERSFIELD / KERN	2	NATURAL GAS EOR	48,094	4/1/91	Yes
10	25C251	BEAR MOUNTAIN LIMITED	BAKERSFIELD / KERN	2	NATURAL GAS EOR	48,094	4/3/95	Yes
11	25C099A	BERRY PETROLEUM COGEN	TAFT / KERN	1	NATURAL GAS EOR	38,000	1/16/97	Yes
12	25C151A	BERRY PETROLEUM COMPANY	TAFT / KERN	1	NATURAL GAS EOR	17,000	1/1/03	Yes
13	18C006	CALPINE KING CITY COGEN.	KING CITY / MONTEREY	4	NATURAL GAS	120,000	3/14/89	
14	08C022	CALPINE MONTEREY COGEN INC.	WATSONVILLE / SANTA CRUZ	4	NATURAL GAS	28,500	4/27/90	
15	01C052	CALPINE PITTSBURG POWER PLANT	PITTSBURG / CONTRA COSTA	1	NATURAL GAS	65,500	7/1/77	
16	08C003	CARDINAL COGEN	STANFORD UNIVERSITY / SANTA CLARA	4	NATURAL GAS	49,900	2/20/88	
17	25C272	CHALK CLIFF LIMITED	BAKERSFIELD / KERN	2	NATURAL GAS EOR	48,094	3/20/90	Yes
18	01C202	CHEVRON RICHMOND REFINERY	RICHMOND / CONTRA COSTA	1	NATURAL GAS	99,000	8/31/92	
19	25C055	CHEVRON USA (COALINGA)	COALINGA / FRESNO	1	NATURAL GAS EOR	16,500	11/7/86	Yes
20	01C080	CHEVRON USA (CONCORD)	CONCORD / CONTRA COSTA	1	NATURAL GAS	3,000	3/29/88	
21	25C003	CHEVRON USA (CYMRIC)	CYMRIC / KERN	1	NATURAL GAS EOR	21,040	10/15/82	Yes
22	25C248	CHEVRON USA (EASTRIDGE)	BAKERSFIELD / KERN	1	NATURAL GAS EOR	48,800	6/13/88	Yes
23	25C002	CHEVRON USA (TAFT/CADET)	TAFT / KERN	1	NATURAL GAS EOR	10,000	7/26/82	Yes
24	06C061	CITY OF FAIRFIELD	FAIRFIELD / SOLANO	1	NATURAL GAS	775	8/15/84	
25	08C097	CITY OF MILPITAS	MILPITAS / SANTA CLARA	3	NATURAL GAS	60	10/6/89	
26	04C130	CITY OF VALLEJO (CUNNINGHAM POOL)	VALLEJO / SOLANO	3	NATURAL GAS	80	8/15/85	
27	25C124	COALINGA COGENERATION COMPANY	COALINGA / FRESNO	4	NATURAL GAS EOR	46,000	10/17/91	Yes
28	08C071	COUNTY OF SANTA CRUZ ( WATER ST. JAIL)	SANTA CRUZ / SANTA CRUZ	1	NATURAL GAS	180	9/1/87	
29	01C045	CROCKETT COGEN	CROCKETT / CONTRA COSTA	4	NATURAL GAS	260,000	12/20/95	
30	25C138	DAI / OILDALE , INC.	OILDALE / KERN	4	NATURAL GAS EOR	32,000	11/30/89	Yes
31	25C241	DOUBLE "C" LIMITED	BAKERSFIELD / KERN	2	NATURAL GAS EOR	48,094	3/14/89	Yes
32	25C063A	FRITO LAY COGEN	BAKERSFIELD / KERN	1	NATURAL GAS	6,000	1/1/03	
33	08C010	GATX/CALPINE COGEN-AGNEWS INC.	SAN JOSE / SANTA CLARA	4	NATURAL GAS	36,100	10/19/90	
34	01C104	GAYLORD	ANTIOCH / CONTRA COSTA	2	NATURAL GAS	49,670	11/18/82	
35	12C020	GREENLEAF UNIT #1	YUBA CITY / SUTTER	4	NATURAL GAS	49,500	1/11/89	

\* Contract Type: 1/ As-Delivered Capacity Energy, 2/ Firm Capacity Energy, 3/ Energy Purchase, 4/ Long-term Energy Capacity

Table 1

**Summary of Signed Contracts**  
**Cogeneration Projects - Operational and Currently Delivering**  
**July 2003**  
**COGENERATOR**

1 - 2

No.	Log. No.	Project Name	City / County	Contract Type *	Primary Energy Source	Operating Size (kW)	Operating Start Date	Enhanced Oil Recovery
36	12C021	GREENLEAF UNIT #2	YUBA CITY / SUTTER	4	NATURAL GAS	49,500	10/12/89	
37	01C201	HAYWARD AREA REC & PARK DIST.	HAYWARD / ALAMEDA	3	NATURAL GAS	60	2/2/88	
38	25C242	HIGH SIERRA LIMITED	BAKERSFIELD / KERN	2	NATURAL GAS EOR	48,094	2/24/89	Yes
39	08C023A	JEFFERSON SMURFIT CORPORATION	SANTA CLARA / SANTA CLARA	1	NATURAL GAS	30,000	12/20/85	
40	25C188	KERN FRONT LIMITED	BAKERSFIELD / KERN	2	NATURAL GAS EOR	48,094	1/7/89	Yes
41	25C274	LIVE OAK LIMITED	BAKERSFIELD / KERN	2	NATURAL GAS EOR	48,094	3/16/91	Yes
42	01C044	MARTINEZ COGEN LIMITED PARTNERSHIP	MARTINEZ / CONTRA COSTA	4	NATURAL GAS	99,900	2/23/87	
43	25C275	MCKITTRICK LIMITED	BAKERSFIELD / KERN	2	NATURAL GAS EOR	48,094	10/16/91	Yes
44	25C123	MIDSET COGEN. CO.	TAFT / KERN	4	NATURAL GAS EOR	46,000	3/16/89	Yes
45	25C321	MIDWAY-SUNSET COGEN. CO.	FELLOWS / KERN	1	NATURAL GAS EOR	30,000	12/18/89	Yes
46	18C048	MONTEREY POWER COMPANY	SALINAS / MONTEREY	2	NATURAL GAS	6,000	12/29/90	
47	25C018	MT.POSO COGENERATION CO.	BAKERSFIELD / KERN	4	COAL	49,500	4/1/89	Yes
48	04C054	NAPA STATE HOSPITAL	NAPA / NAPA	1	NATURAL GAS	1,330	7/18/84	
49	02C058	NIHONMACHI TERRACE	SAN FRANCISCO / SAN FRANCISCO	3	NATURAL GAS	75	6/1/92	
50	25C293	NUEVO ENERGY COMPANY (DOME)	FELLOWS / KERN	1	NATURAL GAS EOR	6,064	9/2/88	Yes
51	25C308	NUEVO ENERGY COMPANY (WELPORT)	MCKITTRICK / KERN	1	NATURAL GAS EOR	4,000	1/27/90	Yes
52	25C337	OCCIDENTAL OF ELK HILLS, INC.	TUPMAN / KERN	1	NATURAL GAS	58,914	11/2/94	
53	04C101	OCCIDENTAL POWER	NEAR LARKSPUR / MARIN	3	NATURAL GAS	60	9/9/85	
54	25C170	OILDALE ENERGY LLC	OILDALE / KERN	4	NATURAL GAS	33,800	12/29/84	
55	01C245	ORINDA SENIOR VILLAGE	ORINDA / CONTRA COSTA	3	NATURAL GAS	60	2/6/91	
56	12C019	OROVILLE COGEN	OROVILLE / BUTTE	2	NATURAL GAS	8,500	12/18/89	
57	08C017	OWL ENERGY RESOURCES	SANTA CRUZ / SANTA CRUZ	1	NATURAL GAS	600	12/30/85	
58	01C084	PE - BERKELEY, INC.	BERKELEY / ALAMEDA	4	NATURAL GAS	26,350	5/19/87	
59	25C164	PE - KES KINGSBURG,LLC	KINGSBURG / FRESNO	2	NATURAL GAS	34,500	12/5/90	
60	16C007	POSDEF (COGEN NATIONAL)	PORT OF STOCKTON / SAN JOAQUIN	4	COAL	44,000	12/7/87	
61	13C160	RED BLUFF UNION HIGH SCHOOL	RED BLUFF / TEHAMA	3	NATURAL GAS	60	7/15/91	
62	01C108	RHODIA INC. (RHONE- POULENC)	MARTINEZ / CONTRA COSTA	1	NATURAL GAS	4,000	6/1/77	
63	25C076	RIO BRAVO POSO	BAKERSFIELD / KERN	4	COAL	37,000	9/27/89	Yes
64	16C034	RIPON COGENERATION, INC.	RIPON / SAN JOAQUIN	4	NATURAL GAS	49,500	4/19/88	
65	25C178	SAINT AGNES MED. CTR	FRESNO / FRESNO	1	NATURAL GAS	2,325	11/21/85	
66	18C053	SALINAS RIVER COGEN CO.	SAN ARDO / MONTEREY	4	NATURAL GAS EOR	49,600	10/11/91	Yes
67	25C045	SAN JOAQUIN POWER COMPANY	ATWATER / MERCED	2	NATURAL GAS	10,750	4/19/91	
68	08C030	SAN JOSE COGEN	SAN JOSE / SANTA CLARA	1	NATURAL GAS	6,000	12/18/84	
69	08C026	SAN JOSE CONVENTION CENTER	SAN JOSE / SANTA CLARA	1	NATURAL GAS	1,500	4/2/90	
70	25C016	SANGER POWER, L.L.C.	SANGER / FRESNO	2	NATURAL GAS	38,000	12/11/90	

\* Contract Type: 1/ As-Delivered Capacity Energy, 2/ Firm Capacity Energy, 3/ Energy Purchase, 4/ Long-term Energy Capacity

Table 1

**Summary of Signed Contracts**  
**Cogeneration Projects - Operational and Currently Delivering**  
**July 2003**  
**COGENERATOR**

No.	Log. No.	Project Name	City / County	Contract Type *	Primary Energy Source	Operating Size (kW)	Operating Start Date	Enhanced Oil Recovery
71	18C026	SANTA MARIA COGEN	SANTA MARIA / SANTA BARBARA	4	NATURAL GAS	8,044	6/21/89	
72	18C052	SARGENT CANYON COGEN. COMPANY	SAN ARDO / MONTEREY	4	NATURAL GAS EOR	49,600	10/7/91	Yes
73	01C199	SATELLITE SENIOR HOMES	OAKLAND / ALAMEDA	3	NATURAL GAS	60	7/17/86	
74	06C017	SOLANO CO. GOVERNMENT CENTER	VACAVILLE / SOLANO	4	NATURAL GAS	1,450	6/15/89	
75	02C041	SRI INTERNATIONAL	MENLO PARK / SAN MATEO	1	NATURAL GAS	6,000	3/10/87	
76	01C089	STANFORD ENERGY GROUP	OAKLAND / ALAMEDA	1	NATURAL GAS	115	1/8/86	
77	16C036	STOCKTON COGEN CO.	STOCKTON / SAN JOAQUIN	4	COAL	49,900	2/27/88	
78	25C130	TEXACO EXPLORATION & PRODUCTION, INC. (FEE A)	OILDALE / KERN	2	NATURAL GAS EOR	7,450	6/25/86	Yes
79	25C186	TEXACO EXPLORATION & PRODUCTION, INC. (FEE B)	OILDALE / KERN	2	NATURAL GAS EOR	3,725	4/28/87	
80	25C168	TEXACO EXPLORATION & PRODUCTION, INC. (FEE C)	OILDALE / KERN	2	NATURAL GAS EOR	7,450	2/26/87	Yes
81	25C246	TEXACO EXPLORATION & PRODUCTION, INC. (SE KERN R	BAKERSFIELD / KERN	1	NATURAL GAS EOR	34,468	1/31/89	Yes
82	25C193	TEXACO INC. (MCKITTRICK)	MCKITTRICK / KERN	1	NATURAL GAS EOR	10,970	10/1/94	Yes
83	25C005	TEXACO INC. (NORTH MIDWAY)	MCKITTRICK / KERN	1	NATURAL GAS EOR	13,614	6/27/86	Yes
84	01C061	TOSCO (RODEO PLANT)	RODEO / CONTRA COSTA	1	NATURAL GAS	49,900	5/21/87	
85	02C071	UCSF	SAN FRANCISCO / SAN FRANCISCO	1	NATURAL GAS	12,600	1/26/98	
86	02C001	UNITED AIRLINES (COGEN)	SAN BRUNO / SAN MATEO	4	NATURAL GAS	30,000	9/12/86	
87	02C003	UNIVERSITY OF SAN FRANCISCO	SAN FRANCISCO / SAN FRANCISCO	1	NATURAL GAS	1,500	6/1/87	
88	13C082	WHEELABRATOR LASSEN INC.	ANDERSON / SHASTA	2	NATURAL GAS	42,000	4/28/83	
89	04C008	YOUNTVILLE COGEN ASSOCIATES	YOUNTVILLE / NAPA	4	NATURAL GAS	3,000	8/6/86	
90	12C026	YUBA CITY COGEN	YUBA CITY / SUTTER	4	NATURAL GAS	49,000	12/27/90	
<b>Total:</b>						<u>2,563,811</u>		

\* Contract Type: 1/ As-Delivered Capacity Energy, 2/ Firm Capacity Energy, 3/ Energy Purchase, 4/ Long-term Energy Capacity

Table 2

## Summary of Signed Contracts

July 2003

## Small Power Projects - Operational and Currently Delivering

## BIOGAS

No.	Log. No.	Project	City / County	Contract Type *	Primary Energy Source	Operating Size (kW)	Operating Start Date
1	01P219	BIO-ENERGY PART.	LIVERMORE / ALAMEDA	1	LANDFILL GAS	6,000	5/4/89
2	08C078	CITY OF WATSONVILLE	SANTA CRUZ / SANTA CRUZ	1	DIGESTER GAS	550	1/23/93
3	04P051	COUNTY OF SONOMA	PETALUMA / SONOMA	1	LANDFILL GAS	6,000	4/30/93
4	18P014	COVANTA POWER PACIFIC (SALINAS)	SALINAS / MONTEREY	4	LANDFILL GAS	1,500	11/10/86
5	08P008	COVANTA POWER PACIFIC (SANTA CLARA)	SANTA CLARA / SANTA CLARA	4	LANDFILL GAS	2,000	10/22/86
6	16P001	COVANTA POWER PACIFIC (STOCKTON)	STOCKTON / SAN JOAQUIN	4	LANDFILL GAS	800	11/27/85
7	01P171	EBMUD (OAKLAND)	OAKLAND / ALAMEDA	1	DIGESTER GAS	4,000	10/20/91
8	04P010	GAS RECOVERY SYS. (AMERICAN CYN)	AMERICAN CANYON / NAPA	4	LANDFILL GAS	1,500	12/27/85
9	08P006	GAS RECOVERY SYS. (GUADALUPE)	LOS GATOS / SANTA CLARA	4	LANDFILL GAS	2,600	1/12/84
10	02P014	GAS RECOVERY SYS. (MENLO PARK)	MENLO PARK / SAN MATEO	2	LANDFILL GAS	2,000	1/11/83
11	08P004	GAS RECOVERY SYS. (NEWBY ISLAND 2)	SAN JOSE / SANTA CLARA	4	LANDFILL GAS	4,200	8/3/84
12	08P021	LANDFILL GENERATING PTNRS. I	SANTA CRUZ / SANTA CRUZ	4	LANDFILL GAS	933	11/22/88
13	10P058	LANGERWERF DAIRY	DURHAM / BUTTE	3	DIGESTER GAS	85	11/3/82
14	18P059	MONTEREY REGIONAL WASTE MGMT DIST.	MARINA / MONTEREY	2	LANDFILL GAS	2,779	12/30/83
15	18C001	MONTEREY REGIONAL WATER	MARINA / MONTEREY	1	DIGESTER GAS	1,740	8/26/88
16	08P024	PALO ALTO LANDFILL	PALO ALTO / SANTA CLARA	4	LANDFILL GAS	2,000	6/13/90
17	16P052	STANISLAUS WASTE ENERGY CO.	CROWS LANDING / STANISLAUS	4	GARBAGE	18,000	9/6/88
<b>Total:</b>						56,687	

## BIOMASS

No.	Log. No.	Project	City / County	Contract Type *	Primary Energy Source	Operating Size (kW)	Operating Start Date
18	13C038	BURNEY FOREST PRODUCTS	BURNEY / SHASTA	4	WOODWASTE	31,000	10/17/89
19	10C003	COLLINS PINE	CHESTER / PLUMAS	2	WOODWASTE	12,000	4/4/84
20	16C088	DIAMOND WALNUT GROWERS INC.	STOCKTON / SAN JOAQUIN	2	WALNUT SHELLS	4,500	11/25/80
21	19P005	FAIRHAVEN POWER CO.	FAIRHAVEN / HUMBOLDT	4	WOODWASTE	17,250	9/15/86
22	10P005	HL POWER	WENDEL / LASSEN	4	WOODWASTE	30,000	7/26/89
23	25C013	MENDOTA BIOMASS POWER	MENDOTA / FRESNO	4	WOODWASTE	28,000	6/29/89
24	16P002	OGDEN POWER PACIFIC, INC. (CHINESE STATION)	CHINESE STATION / TUOLUMNE	4	WOODWASTE	22,000	6/4/86
25	12P001	OGDEN POWER PACIFIC, INC. (OROVILLE)	OROVILLE / BUTTE	4	WOODWASTE	18,000	9/26/85

\* Contract Type: 1/ As-Delivered Capacity Energy, 2/ Firm Capacity Energy, 3/ Energy Purchase, 4/ Long-term Energy Capacity

Table 2

## Summary of Signed Contracts

July 2003

## Small Power Projects - Operational and Currently Delivering

## BIOMASS

No.	Log. No.	Project	City / County	Contract Type *	Primary Energy Source	Operating Size (kW)	Operating Start Date
26	13P118	OGDEN POWER PACIFIC, INC. (BURNEY)	BURNEY / SHASTA	4	WOODWASTE	9,750	8/15/84
27	10P001	OGDEN POWER PACIFIC, INC.(MT. LASSEN)	WESTWOOD / LASSEN	4	WOODWASTE	11,400	10/11/84
28	19C010	PACIFIC LUMBER CO.	SCOTIA / HUMBOLDT	1	WOODWASTE	20,000	3/22/86
29	25P026	RIO BRAVO FRESNO	FRESNO / FRESNO	4	WOODWASTE	26,500	7/20/88
30	15P028	RIO BRAVO ROCKLIN	ROCKLIN / PLACER	4	WOODWASTE	25,000	6/9/89
31	13P163	SIERRA PACIFIC IND. (ANDERSON)	ANDERSON / SHASTA	1	WOODWASTE	5,000	2/1/98
32	13C049	SIERRA PACIFIC IND. (BURNEY)	BURNEY / SHASTA	4	WOODWASTE	20,000	11/4/86
33	12C008	SIERRA PACIFIC IND. (LINCOLN)	LINCOLN / PLACER	4	WOODWASTE	7,500	6/3/86
34	10C018	SIERRA PACIFIC IND. (QUINCY)	QUINCY / PLUMAS	4	WOODWASTE	20,000	1/14/83
35	10C009	SIERRA PACIFIC IND.(SUSANVILLE)	SUSANVILLE / LASSEN	4	WOODWASTE	15,000	10/5/81
36	16P054	THERMAL ENERGY DEV. CORP.	TRACY / SAN JOAQUIN	4	WOODWASTE	21,000	4/26/90
37	12P018	WADHAM ENERGY LTD. PART.	WILLIAMS / COLUSA	4	RICE HULLS	26,500	3/24/89
38	13P162	WHEELABRATOR HUDSON	ANDERSON / SHASTA	4	WOODWASTE	6,875	7/12/93
39	13P045	WHEELABRATOR SHASTA	COTTONWOOD / SHASTA	4	WOODWASTE	54,900	10/30/87
40	06P022	WOODLAND BIOMASS	WOODLAND / YOLO	4	AGRICULTURAL WASTI	25,000	8/31/89
<b>Total:</b>						457,175	

## GEOTHERMAL

No.	Log. No.	Project	City / County	Contract Type *	Primary Energy Source	Operating Size (kW)	Operating Start Date
41	10G012	AMEDEE GEOTHERMAL VENTURE 1	WENDEL / LASSEN	4	GEOTHERMAL	2,200	9/11/88
42	04G012	CALPINE GEYSERS CO. L. P. (KW#1)	ANDERSON SPRINGS / LAKE	4	GEOTHERMAL	10,000	9/6/88
43	04G016	CALPINE GEYSERS CO. L. P. (KW#2)	ANDERSON SPRINGS / LAKE	4	GEOTHERMAL	10,000	9/2/88
44	04G025	CALPINE GEYSERS CO. L. P. (WFF)	THE GEYSERS / LAKE	4	GEOTHERMAL	30,000	12/11/88
45	04G018	GEOTHERMAL ENERGY PARTNERS 1	THE GEYSERS / SONOMA	4	GEOTHERMAL	10,000	6/16/89
46	04G019	GEOTHERMAL ENERGY PARTNERS 2	THE GEYSERS / SONOMA	4	GEOTHERMAL	10,000	5/28/89
47	04G057	GEYSERS POWER COMPANY, LLC	THE GEYSERS / LAKE	2	GEOTHERMAL	80,000	3/14/84
48	10G011	WINEAGLE DEVELOPERS 1	WENDEL / LASSEN	4	GEOTHERMAL	700	6/11/85
<b>Total:</b>						152,900	

\* Contract Type: 1/ As-Delivered Capacity Energy, 2/ Firm Capacity Energy, 3/ Energy Purchase, 4/ Long-term Energy Capacity



Table 2

**Summary of Signed Contracts**  
**July 2003**  
**Small Power Projects - Operational and Currently Delivering**  
**HYDRO**

No.	Log. No.	Project	City / County	Contract Type *	Primary Energy Source	Operating Size (kW)	Operating Start Date
49	25H039	AMERICAN ENERGY, INC. (SAN LUIS BYPASS)	LOS BANOS / MERCED	4	HYDRO	675	2/1/86
50	25H038	AMERICAN ENERGY, INC. (WOLFSEN BYPASS)	LOS BANOS / MERCED	4	HYDRO	1,000	2/1/86
51	13H008	ARBUCKLE MOUNTAIN HYDRO	PLATINA / SHASTA	4	HYDRO	360	12/1/86
52	13H119	BAILEY CREEK RANCH	MANTON / SHASTA	3	HYDRO	800	5/26/82
53	19H002	BAKER STATION ASSOCIATES L.P.	BRIDGEVILLE / HUMBOLDT	4	HYDRO	1,500	12/10/87
54	12H054	BROWNS VALLEY IRRIGATION DIST.	BROWNS VALLEY / YUBA	1	HYDRO	1,275	6/29/84
55	16H008	CALAVERAS CTY WD	SAN ANDREAS / CALAVERAS	1	HYDRO	3,300	4/15/86
56	16H092	CALAVERAS YUBA HYDRO #1	MOKELUMNE HILL / CALAVERAS	3	HYDRO	90	4/15/86
57	16H177	CALAVERAS YUBA HYDRO #2	CHILI GULCH / CALAVERAS	3	HYDRO	90	4/15/86
58	16H178	CALAVERAS YUBA HYDRO #3	CHILI GULCH / CALAVERAS	3	HYDRO	90	4/15/86
59	25H204	CANAL CREEK POWER PLANT (RETA)	MERCED / MERCED	1	HYDRO	900	11/1/82
60	15H068	CHARCOAL RAVINE	SIERRA CITY / SIERRA	3	HYDRO	75	2/13/86
61	06H159	DAVID O. HARDE	SOMERSET / EL DORADO	3	HYDRO	100	11/18/92
62	13H132	DIGGER CREEK RANCH	MONTON / TEHAMA	1	HYDRO	600	5/18/83
63	04H062	E J M MCFADDEN	POTTER VALLEY / MENDOCINO	1	HYDRO	350	7/1/83
64	15H012	EAGLE HYDRO	GEORGETOWN / EL DORADO	1	HYDRO	550	12/23/85
65	13H001	EL DORADO (MONTGOMERY CK)	MONTGOMERY CREEK / SHASTA	4	HYDRO	2,600	2/28/87
66	25H193	FAIRFIELD POWER PLANT	MERCED / MERCED	1	HYDRO	900	8/2/83
67	04H011	FAR WEST POWER CORPORATION	POTTER VALLEY / MENDOCINO	4	HYDRO	400	9/30/87
68	10H010	FIVE BEARS HYDROELECTRIC	TAYLORSVILLE / PLUMAS	4	HYDRO	990	4/27/89
69	25H037	FRIANT POWER AUTHORITY	FRIANT / MADERA	4	HYDRO	25,000	4/16/85
70	12H056	GLENN COLUSA IRR. DIST. (FUNKS CK)	MAXWELL / COLUSA	3	HYDRO	93	8/2/85
71	12H053	GLENN COLUSA IRR. DIST. (STOVALL 2)	WILLIAMS / COLUSA	4	HYDRO	115	5/20/83
72	04H052	HAMMEKEN HYDRO	POTTER VALLEY / MENDOCINO	4	HYDRO	330	3/27/90
73	13H123	HAT CREEK HEREFORD RANCH	HAT CREEK / SHASTA	3	HYDRO	100	12/9/82
74	15H005	HAYPRESS HYDROELECTRIC, INC. (LWR)	SIERRA CITY / SIERRA	4	HYDRO	6,100	4/11/89
75	15H006	HAYPRESS HYDROELECTRIC, INC. (MDL)	SIERRA CITY / SIERRA	4	HYDRO	8,700	4/15/89
76	15H002	HENWOOD ASSOCIATES	SIERRA CITY / SIERRA	4	HYDRO	594	11/28/84
77	19H051	HUMBOLDT BAY MWD	RUTH / TRINITY	1	HYDRO	2,000	4/10/83
78	10H013	HYPower, INC.	DE SABLE CITY / BUTTE	4	HYDRO	14,400	3/16/92

\* Contract Type: 1/ As-Delivered Capacity Energy, 2/ Firm Capacity Energy, 3/ Energy Purchase, 4/ Long-term Energy Capacity

Table 2

**Summary of Signed Contracts**  
**July 2003**  
**Small Power Projects - Operational and Currently Delivering**

**HYDRO**

No.	Log. No.	Project	City / County	Contract Type *	Primary Energy Source	Operating Size (kW)	Operating Start Date
79	04H061	INDIAN VALLEY HYDRO	CLEAR LAKE / LAKE	1	HYDRO	3,335	9/15/83
80	16H095	JACKSON VALLEY IRRIGATION DIST	IONE / AMADOR	1	HYDRO	455	9/1/82
81	10H059	JAMES B. PETER	TAYLORSVILLE / PLUMAS	3	HYDRO	15	1/17/84
82	10H090	JAMES CRANE HYDRO	CHICO / BUTTE	3	HYDRO	3	6/20/91
83	04H134	JOHN NEERHOUT JR.	CALISTOGA / NAPA	3	HYDRO	85	5/1/87
84	10H007	KATHLEEN AUSTIN DBA GANSNER PWR. & WTR.	QUINCY / PLUMAS	1	HYDRO	275	4/6/85
85	25H073	KERN HYDRO (OLCESE)	BAKERSFIELD / KERN	4	HYDRO	16,000	5/18/89
86	25H150	KINGS RIVER HYDRO CO.	FRESNO / FRESNO	4	HYDRO	1,000	8/19/90
87	10H002	LASSEN STATION HYDRO	PULGA / BUTTE	4	HYDRO	990	5/22/86
88	13H120	LOFTON RANCH	BIG BEND / SHASTA	1	HYDRO	300	11/4/83
89	25H040	MADERA CANAL (1174 + 84)	MADERA / MADERA	4	HYDRO	563	4/11/86
90	25H042	MADERA CANAL (1923)	MADERA / MADERA	4	HYDRO	925	4/1/86
91	25H041	MADERA CANAL STATION 1302	MADERA / MADERA	4	HYDRO	424	4/16/86
92	25H036	MADERA-CHOWCHILLA WATER AND POWER AUTHORITY	MADERA / MADERA	4	HYDRO	1,800	2/2/85
93	13H047	MALACHA HYDRO L.P.	PITVILLE / LASSEN	4	HYDRO	26,000	12/7/88
94	13H125	MEGA HYDRO #1 (CLOVER CREEK)	OAK RUN / SHASTA	4	HYDRO	1,000	2/21/86
95	13H122	MEGA HYDRO (GOOSE VALLEY RANCH)	BURNEY / SHASTA	4	HYDRO	280	4/8/83
96	13H017	MEGA RENEWABLES (BIDWELL DITCH)	BURNEY / SHASTA	4	HYDRO	2,000	2/22/87
97	13H015	MEGA RENEWABLES (HATCHET CRK)	MONTGOMERY CR. / SHASTA	4	HYDRO	7,000	1/5/87
98	13H014	MEGA RENEWABLES (ROARING CRK)	MONTGOMERY CREEK / SHASTA	4	HYDRO	2,000	12/5/86
99	13H036	MEGA RENEWABLES (SILVER SPRINGS)	BIG BEND / SHASTA	4	HYDRO	600	8/15/87
100	25H185	MERCED ID (PARKER)	MERCED / MERCED	1	HYDRO	2,690	9/23/81
101	19H006	MILL & SULPHUR CREEK	DINSMORE / HUMBOLDT	4	HYDRO	995	2/23/88
102	18H034	MONTEREY CTY WATER RES AGENCY	SAN LUIS OBISPO / SAN LUIS OBISPO	4	HYDRO	3,750	7/13/87
103	13H042	NELSON CREEK POWER INC.	BIG BEND / SHASTA	4	HYDRO	1,100	12/19/88
104	15H015	NEVADA POWER AUTHORITY	NEVADA CITY / NEVADA	4	HYDRO	3,600	8/18/86
105	15H013	NID/COMBIE NORTH	MEADOW VISTA / PLACER	4	HYDRO	330	3/24/88
106	15H054	NID/COMBIE SOUTH	PLACER CITY / PLACER	4	HYDRO	1,500	4/26/84
107	15H001	NID/SCOTTS FLAT	NEVADA CITY / NEVADA	4	HYDRO	850	12/14/84
108	19H004	NORMAN ROSS BURGESS	ZENIA / TRINITY	4	HYDRO	1,300	12/28/84

\* Contract Type: 1/ As-Delivered Capacity Energy, 2/ Firm Capacity Energy, 3/ Energy Purchase, 4/ Long-term Energy Capacity

Table 2

## Summary of Signed Contracts

July 2003

## Small Power Projects - Operational and Currently Delivering

## HYDRO

No.	Log. No.	Project	City / County	Contract Type *	Primary Energy Source	Operating Size (kW)	Operating Start Date
109	13H024	OLSEN POWER PARTNERS	WHITMORE / SHASTA	4	HYDRO	5,000	1/3/90
110	25H149	ORANGE COVE IRRIGATION DIST.	FRESNO / FRESNO	4	HYDRO	450	8/23/90
111	13H128	PAN PACIFIC (WEBER FLAT)	COVINGTON MILL / TRINITY	4	HYDRO	975	1/11/84
112	15H059	PLACER COUNTY WATER AGENCY	FOREST HILL / PLACER	1	HYDRO	500	4/30/83
113	13H127	ROBERT W. LEE	MONTON / SHASTA	3	HYDRO	30	7/9/82
114	06H011	ROCK CREEK L.P.	PLACERVILLE / EL DORADO	4	HYDRO	3,000	4/24/86
115	16H033	ROCK CREEK WATER DISTRICT	SALT SPRINGS VA / CALAVERAS	1	HYDRO	700	2/25/86
116	08H013	SANTA CLARA VALLEY WATER DIST.	MORGAN HILL / SANTA CLARA	4	HYDRO	800	12/1/88
117	16H030	SCHAADS HYDRO	WILSEYVILLE / CALAVERAS	1	HYDRO	230	2/18/86
118	19H048	SHAMROCK UTILITIES (CEDAR FLAT)	BURNT RANCH / TRINITY	4	HYDRO	300	1/9/84
119	13H012	SHAMROCK UTILITIES (CLOVER LEAF)	OAK RUN / SHASTA	4	HYDRO	200	2/1/85
120	15H055	SIERRA ENERGY	FORESTHILL / SONOMA	1	HYDRO	200	1/11/88
121	13H016	SNOW MOUNTAIN HYDRO LLC (BURNEY CREEK)	BURNEY / SHASTA	4	HYDRO	3,000	3/28/90
122	13H013	SNOW MOUNTAIN HYDRO LLC (COVE)	MONTGOMERY CR. / SHASTA	4	HYDRO	5,000	2/20/90
123	13H057	SNOW MOUNTAIN HYDRO LLC (LOST CREEK 1)	LOST CREEK / SHASTA	4	HYDRO	1,400	10/9/89
124	13H041	SNOW MOUNTAIN HYDRO LLC (LOST CREEK 2)	HAT CREEK / SHASTA	4	HYDRO	500	6/15/89
125	13H035	SNOW MOUNTAIN HYDRO LLC (PONDEROSA BAILEY CREIMANTON / SHASTA		4	HYDRO	1,100	2/25/90
126	04H009	SONOMA COUNTY WATER AGENCY	GEYSERVILLE / SONOMA	4	HYDRO	2,600	12/22/88
127	16H094	SOUTH SAN JOAQUIN ID (FRANKENHEIMER)	OAKDALE / STANISLAUS	1	HYDRO	5,035	2/12/83
128	16H097	SOUTH SAN JOAQUIN ID (WOODWARD)	OAKDALE / STANISLAUS	1	HYDRO	2,850	4/16/82
129	12H004	SOUTH SUTTER WATER	SHERIDAN / PLACER	4	HYDRO	395	7/17/85
130	13H130	STEVE & BONNIE TETRICK	MILLVILLE / SHASTA	3	HYDRO	100	10/14/83
131	19H049	STEVEN SPELLENBERG HYDRO	BURNT RANCH / TRINITY	3	HYDRO	28	12/5/83
132	12H007	STS HYDROPOWER LTD. (KANAKA)	FEATHER FALLS / BUTTE	4	HYDRO	1,100	2/13/89
133	13H039	STS HYDROPOWER LTD. (KEKAWAKA)	ALDERPOINT / TRINITY	4	HYDRO	4,950	12/27/89
134	13H006	SUTTER'S MILL	SHINGLETOWN / SHASTA	1	HYDRO	150	6/25/85
135	15H069	SWISS AMERICA	AUBURN / PLACER	3	HYDRO	100	12/23/85
136	13H004	T & G HYDRO	WHITMORE / SHASTA	4	HYDRO	340	10/15/84
137	13H040	TKO POWER (SOUTH BEAR CREEK)	SHINGLETOWN / SHASTA	4	HYDRO	3,000	1/15/86
138	19H055	TOM BENNINGHOVEN	GARBERVILLE / HUMBOLDT	3	HYDRO	25	11/22/82

\* Contract Type: 1/ As-Delivered Capacity Energy, 2/ Firm Capacity Energy, 3/ Energy Purchase, 4/ Long-term Energy Capacity

## Summary of Signed Contracts

July 2003

## Small Power Projects - Operational and Currently Delivering

## HYDRO

No.	Log. No.	Project	City / County	Contract Type *	Primary Energy Source	Operating Size (kW)	Operating Start Date
139	16H003	TRI-DAM AUTHORITY	SONORA / TUOLUMNE	4	HYDRO	16,200	5/19/86
140	13H124	WATER WHEEL RANCH	MONTGOMERY CREEK / SHASTA	4	HYDRO	975	3/22/84
141	04H002	YOLO COUNTY FLOOD & WCD	CLEAR LAKE / LAKE	1	HYDRO	2,500	9/7/85
142	10H060	YOUTH WITH A MISSION/SPRINGS OF LIVING WATERS	CHICO / BUTTE	1	HYDRO	300	1/26/83
143	12H010	YUBA COUNTY WATER (QF)	CHALLENGE / YUBA	4	HYDRO	2,000	1/29/90
144	12H006	YUBA COUNTY WATER AGENCY	MARYSVILLE / YUBA	4	HYDRO	150	9/30/86
<b>Total:</b>						<u>221,425</u>	

## SOLAR

No.	Log. No.	Project	City / County	Contract Type *	Primary Energy Source	Operating Size (kW)	Operating Start Date
145	04S152	REAL GOODS TRADING CORP.	HOPLAND / MENDOCINO	3	PHOTOVOLTAIC	13	6/10/96
146	04S142	ROBIN WILLIAMS SOLAR POWER GEN	NAPA / NAPA	3	PHOTOVOLTAIC	7	4/16/93
<b>Total:</b>						<u>20</u>	

## WASTE TO ENERGY

No.	Log. No.	Project	City / County	Contract Type *	Primary Energy Source	Operating Size (kW)	Operating Start Date
147	25C062	DOLE ENTERPRISES, INC	KERN / KERN	3	WASTE GAS	50	2/5/91
148	01P049	GWF POWER SYSTEMS INC. #1	PITTSBURG / CONTRA COSTA	4	PETROLEUM COKE	17,740	12/7/90
149	01P086	GWF POWER SYSTEMS INC. #2	PITTSBURG / CONTRA COSTA	4	PETROLEUM COKE	17,740	12/22/89
150	01P091	GWF POWER SYSTEMS INC. #3	ANTIOCH / CONTRA COSTA	4	PETROLEUM COKE	17,740	8/27/90
151	01P051	GWF POWER SYSTEMS INC. #4	ANTIOCH / CONTRA COSTA	4	PETROLEUM COKE	17,740	10/10/89
152	01P087	GWF POWER SYSTEMS INC. #5	PITTSBURG / CONTRA COSTA	4	PETROLEUM COKE	17,740	3/17/90
153	25C136	HANFORD L.P.	HANFORD / KINGS	4	PETROLEUM COKE	23,000	9/26/90
<b>Total:</b>						<u>111,750</u>	

\* Contract Type: 1/ As-Delivered Capacity Energy, 2/ Firm Capacity Energy, 3/ Energy Purchase, 4/ Long-term Energy Capacity

Table 2

**Summary of Signed Contracts**  
**July 2003**  
**Small Power Projects - Operational and Currently Delivering**

**WIND**

No.	Log. No.	Project	City / County	Contract Type *	Primary Energy Source	Operating Size (kW)	Operating Start Date
154	16W009	ALTAMONT MIDWAY LTD.	ALTAMONT PASS / SAN JOAQUIN	4	WIND	12,500	4/16/85
155	16W014	ALTAMONT POWER LLC (3-4 )	LIVERMORE / ALAMEDA	4	WIND	18,960	4/11/85
156	16W015	ALTAMONT POWER LLC (4-4)	ALTAMONT PASS / ALAMEDA	4	WIND	18,960	1/1/87
157	16W016	ALTAMONT POWER LLC (5-4)	ALTAMONT PASS / ALAMEDA	4	WIND	18,960	4/11/85
158	16W017	ALTAMONT POWER LLC (6-4)	ALTAMONT PASS / ALAMEDA	4	WIND	18,990	1/1/87
159	01W009	ALTAMONT POWER LLC (PARTNERS 1)	ALTAMONT PASS / SAN JOAQUIN	4	WIND	8,480	1/9/84
160	01W001	BUENA VISTA ENERGY, LLC	ALTAMONT PASS / SAN JOAQUIN	4	WIND	37,550	12/24/83
161	01W119	DONALD R. CHENOWETH	LIVERMORE / ALAMEDA	3	WIND	10	8/2/82
162	06W148	GREEN RIDGE POWER LLC (10 MW)	MONTEZUMA HILLS / SOLANO	4	WIND	10,000	1/1/90
163	01W146A	GREEN RIDGE POWER LLC (100 MW - A)	TRACY / SAN JOAQUIN	4	WIND	43,100	1/1/88
164	01W146B	GREEN RIDGE POWER LLC (100 MW - B)	TRACY / SAN JOAQUIN	4	WIND	30,000	4/1/88
165	01W146C	GREEN RIDGE POWER LLC (100 MW - C)	TRACY / SAN JOAQUIN	4	WIND	11,900	1/2/90
166	01W146D	GREEN RIDGE POWER LLC (100 MW - D)	TRACY / SAN JOAQUIN	4	WIND	15,000	1/1/91
167	01W004	GREEN RIDGE POWER LLC (110 MW)	LIVERMORE / ALAMEDA	4	WIND	110,000	1/1/86
168	16W011	GREEN RIDGE POWER LLC (23.8 MW)	TRACY / SAN JOAQUIN	4	WIND	23,800	1/5/87
169	01W144	GREEN RIDGE POWER LLC (30 MW)	TRACY / SAN JOAQUIN	4	WIND	30,000	4/1/88
170	01W018	GREEN RIDGE POWER LLC (5.9 MW)	TRACY / SAN JOAQUIN	4	WIND	5,900	3/2/88
171	06W146A	GREEN RIDGE POWER LLC (70 MW - A)	TRACY / SAN JOAQUIN	4	WIND	20,000	4/1/88
172	06W146B	GREEN RIDGE POWER LLC (70 MW - B)	BENECIA / SOLANO	4	WIND	18,500	1/1/90
173	06W146C	GREEN RIDGE POWER LLC (70 MW - C)	BENECIA / SOLANO	4	WIND	30,000	1/1/91
174	06W146D	GREEN RIDGE POWER LLC (70 MW - D)	TRACY / SOLANO	4	WIND	1,500	1/1/91
175	01W035	GREEN RIDGE POWER LLC (70 MW)	LIVERMORE / ALAMEDA	4	WIND	70,000	4/1/87
176	25W105	INTERNATIONAL TURBINE RESEARCH	PACHECO PASS / MERCED	4	WIND	16,000	6/14/88
177	01W129	L.P. REINHARD	HAYWARD / ALAMEDA	3	WIND	10	6/18/81
178	06W090	MICHAEL W. STEPHENS	DIXON / SOLANO	3	WIND	10	11/1/82
179	01W095	NORTHWIND ENERGY	ALTAMONT / CONTRA COSTA	4	WIND	15,500	1/4/86
180	16W028	PATTERSON PASS WIND FARM LLC	ALTAMONT PASS / SAN JOAQUIN	4	WIND	22,000	4/2/85
181	01W011	SEA WEST ENERGY - ALTECH	ALTAMONT PASS / SAN JOAQUIN	4	WIND	5,760	1/22/83
182	01W007	SEA WEST ENERGY - CWES	ALTAMONT PASS / SAN JOAQUIN	4	WIND	1,500	1/22/83
183	01W006	SEA WEST ENERGY - SEAWEST	ALTAMONT PASS / SAN JOAQUIN	4	WIND	60	1/22/83

\* Contract Type: 1/ As-Delivered Capacity Energy, 2/ Firm Capacity Energy, 3/ Energy Purchase, 4/ Long-term Energy Capacity

Table 2

## Summary of Signed Contracts

July 2003

## Small Power Projects - Operational and Currently Delivering

## WIND

No.	Log. No.	Project	City / County	Contract Type *	Primary Energy Source	Operating Size (kW)	Operating Start Date
184	01W015	SEA WEST ENERGY - TAXVEST	ALTAMONT PASS / SAN JOAQUIN	4	WIND	10,680	1/22/83
185	01W014	SEA WEST ENERGY - VIKING	ALTAMONT PASS / SAN JOAQUIN	4	WIND	1,560	1/22/83
186	01W012	SEA WEST ENERGY - WESTERN	ALTAMONT PASS / SAN JOAQUIN	4	WIND	900	1/22/83
187	01W094	TRES VAQUEROS WIND FARMS, LLC	ALTAMONT PASS / CONTRA COSTA	4	WIND	28,000	1/4/86
188	01W017	ZOND WINDSYSTEMS INC.	ALTAMONT PASS / ALAMEDA	4	WIND	20,000	12/30/85
<b>Total:</b>						676,090	

\* Contract Type: 1/ As-Delivered Capacity Energy, 2/ Firm Capacity Energy, 3/ Energy Purchase, 4/ Long-term Energy Capacity