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PACIFIC GAS AND ELECTRIC COMPANY
STANDARD OFFER #4
POWER PURCHASE AGREEMENT
FOR
LONG-TERM ENERGY AND CAPACITY

MARCH 1985

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STANDARD OFFER #4:
LONG-TERM ENERGY AND CAPACITY
POWER PURCHASE AGREEMENT

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LONG-TERM ENERGY AND CAPACITY
POWER PURCHASE AGREEMENT
BETWEEN
SOLAR RESEARCH CORPORATION
AND
PACIFIC GAS AND ELECTRIC COMPANY

SOLAR RESEARCH CORPORATION ("Seller"), and PACIFIC GAS AND ELECTRIC COMPANY ("PGandE"), referred to collectively as "Parties" and individually as "Party", agree as follows:

ARTICLE 1 QUALIFYING STATUS

Seller warrants that, at the date of first power deliveries from Seller's Facility¹ and during the term of agreement, its Facility shall meet the qualifying facility requirements established as of the effective date of this Agreement by the Federal Energy Regulatory Commission's rules (18 Code of Federal Regulations 292) implementing the Public Utility Regulatory Policies Act of 1978 (16 U.S.C.A. 796, et seq.).

¹ Underlining identifies those terms which are defined in Section A-1 of Appendix A.

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ARTICLE 2 COMMITMENT OF PARTIES

The prices to be paid Seller for energy and/or capacity delivered pursuant to this Agreement have wholly or partly been fixed at the time of execution. Actual avoided costs at the time of energy and/or capacity deliveries may be substantially above or below the prices fixed in this Agreement. Therefore, the Parties expressly commit to the prices fixed in this Agreement for the applicable period of performance and shall not seek to or have a right to renegotiate such prices for any reason. As part of its consideration for the benefit of fixing part or all of the energy and/or capacity prices under this Agreement, Seller waives any and all rights to judicial or other relief from its obligations and/or prices set forth in Appendices B, D, and E, or modification of any other term or provision for any reasons whatsoever.

This Agreement contains certain provisions which set forth methods of calculating damages to be paid to PGandE in the event Seller fails to fulfill certain performance obligations. The inclusion of such provisions is not intended to create any express or implied right in Seller to terminate this Agreement prior to the expiration of the term of agreement. Termination of this Agreement by Seller prior to its expiration date shall constitute a breach of this Agreement and the damages expressly set forth in this

1 Agreement shall not constitute PGandE's sole remedy for such
2 breach.

3
4 ARTICLE 3 PURCHASE OF POWER

5
6 (a) Seller shall sell and deliver and PGandE shall
7 purchase and accept delivery of capacity and energy at the
8 voltage level of _____¹ kV.

9
10 (b) Seller shall provide capacity and energy from its
11 990 kW Facility located at Camp Creek near Pulga in Butte
12 County.

13
14 (c) The scheduled operation date of the Facility is
15 October 15, 1985. At the end of each calendar quarter
16 Seller shall give written notice to PGandE of any change in
17 the scheduled operation date.

18
19 (d) To avoid exceeding the physical limitations of the
20 interconnection facilities, Seller shall limit the
21 Facility's actual rate of delivery into the PGandE system to
22 _____¹ kW.

23
24 (e) The primary energy source for the Facility is
25 hydroelectric.

26
27 _____
28 ¹ To be determined upon execution of the Special Facilities Agreement
for the Facility.

1 (f) If Seller does not begin construction of its
2 Facility by June 1985, PGandE may reallocate the existing
3 capacity on PGandE's transmission and/or distribution system
4 which would have been used to accommodate Seller's power
5 deliveries to other uses. In the event of such
6 reallocation, Seller shall pay PGandE for the cost of any
7 upgrades or additions to PGandE's system necessary to
8 accommodate the output from the Facility. Such additional
9 facilities shall be installed, owned and maintained in
10 accordance with the applicable PGandE tariff.

11
12 (g) The transformer loss adjustment factor is _____¹.

13
14 ARTICLE 4 ENERGY PRICE

15
16 PGandE shall pay Seller for its net energy output²
17 under the energy payment option checked below³:

18
19 X Energy Payment Option 1 - Forecasted Energy Prices

20
21 _____
22 ¹ If Seller chooses to have meters placed on Seller's side of the
23 transformer, an estimated transformer loss adjustment factor of 2
24 percent, unless the Parties agree otherwise, will be applied. This
25 estimated transformer loss figure will be adjusted to a measurement
of actual transformer losses performed at Seller's request and
expense. To be determined upon execution of the Special
Facilities Agreement for the Facility.

26 ² Insert either "net energy output" or "surplus energy output" to
27 show the energy sale option selected by Seller.

28 ³ Energy Payment Option 2 is not available to oil or gas-fired
cogenerators.

1 During the fixed price period, Seller shall be
2 paid for energy delivered at prices equal to 100¹
3 percent of the prices set forth in Table B-1, Appen-
4 dix B, plus 0² percent of PGandE's full short-run
5 avoided operating costs.

6
7 For the remaining years of the term of agreement,
8 Seller shall be paid for energy delivered at prices
9 equal to PGandE's full short-run avoided operating
10 costs.

11
12 If Seller's Facility is not an oil or gas-fired
13 cogeneration facility, Seller may convert from Energy
14 Payment Option 1 to Energy Payment Option 2 and be
15 subject to the conditions therein, provided that Seller
16 shall not change the percentage of energy prices to be
17 based on PGandE's full short-run avoided operating
18 costs. Such conversion must be made at least 90 days
19 prior to the date of initial energy deliveries and must
20 be made by written notice in accordance with
21 Section A-17, Appendix A.

22
23 _____ Energy Payment Option 2 - Levelized Energy Prices

24
25
26 ¹ Insert either 0, 20, 40, 60, 80, or 100, at Seller's option. If
27 Seller's Facility is an oil or gas-fired cogeneration facility,
28 either 0 or 20 must be inserted.

² Insert the difference between 100 and the percentage selected under
footnote 1 above.

1 During the fixed price period, Seller shall be
2 paid for energy delivered at prices equal to _____¹
3 percent of the levelized energy prices set forth in
4 Table B-2, Appendix B for the year in which energy
5 deliveries begin and term of agreement, plus _____²
6 percent of PGandE's full short-run avoided operating
7 costs. During the fixed price period, Seller shall be
8 subject to the conditions and terms set forth in
9 Appendix B, Energy Payment Option 2.

10
11 For the remaining years of the term of agreement,
12 Seller shall be paid for energy delivered at prices
13 equal to PGandE's full short-run avoided operating
14 costs.

15
16 Seller may convert from Energy Payment Option 2 to
17 Energy Payment Option 1, provided that Seller shall not
18 change the percentage of energy prices to be based on
19 PGandE's full short-run avoided operating costs. Such
20 conversion must be made at least 90 days prior to the
21 date of initial energy deliveries and must be made by
22 written notice in accordance with Section A-17,
23 Appendix A.

24
25 _____
26
27 ¹ Insert either 20, 40, 60, 80, or 100, at Seller's option.

28 ² Insert the difference between 100 and the percentage selected under
 footnote 1 above.

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_____ Energy Payment Option 3 - Incremental Energy Rate

Beginning with the date of initial energy deliveries and continuing until _____¹, Seller shall be paid monthly for energy delivered at prices equal to PGandE's full short-run avoided operating costs, provided that adjustments shall be made annually to the extent set forth in Appendix B, Energy Payment Option 3.

The Incremental Energy Rate Band Widths specified by Seller in Table I below shall be used in determining the annual adjustment, if any.

Table I

<u>Year</u>	<u>Incremental Energy Rate Band Widths</u> (must be multiples of 100 or zero)
1984	_____
1985	_____
1986	_____
1987	_____
1988	_____
1989	_____
1990	_____
1991	_____
1992	_____
1993	_____
1994	_____
1995	_____
1996	_____
1997	_____
1998	_____

¹ Specified by Seller. Must be December 31, 1998 or prior.

1 After _____, Seller shall be paid for
2 energy delivered at prices equal to PGandE's full
3 short-run avoided operating costs.

4
5 ARTICLE 5 CAPACITY ELECTION AND CAPACITY PRICE

6
7 Seller may elect to deliver either firm capacity or
8 as-delivered capacity, and Seller's election is indicated
9 below. PGandE's prices for firm capacity and as-delivered
10 capacity are derived from PGandE's full avoided costs as
11 approved by the CPUC.

12
13 _____ Firm capacity - _____ kW for _____ years from the
14 firm capacity availability date with payment determined
15 in accordance with Appendix E. Except for hydro-
16 electric facilities, PGandE shall pay Seller for
17 capacity delivered in excess of firm capacity on an
18 as-delivered capacity basis in accordance with
19 As-Delivered Capacity Payment Option _____ set forth
20 in Appendix D.

21
22 OR

23
24 X As-delivered capacity with payment determined in
25 accordance with As-Delivered Capacity Payment Option 2
26 set forth in Appendix D.

ARTICLE 6 LOSS ADJUSTMENT FACTORS

Capacity Loss Adjustment Factors shall be as shown in Appendix D and Appendix E, dependent upon Seller's capacity election set forth in Article 5 of this Agreement.

Energy Loss Adjustment Factors shall be considered as unity for all energy payments related to Energy Payment Options 1 and 2 set forth in Appendix B for the entire fixed price period of this Agreement, except for the percentage of payments that Seller elected in Article 4 to have calculated based on PGandE's full short-run avoided operating costs. Energy Loss Adjustment Factors for all payments related to PGandE's full short-run avoided operating costs are subject to CPUC rulings for the entire term of agreement.

ARTICLE 7 CURTAILMENT

Seller has two options regarding possible curtailment by PGandE of Seller's deliveries, and Seller's selection is indicated below:

X Curtailment Option A - Hydro Spill and Negative Avoided Cost

_____ Curtailment Option B - Adjusted Price Period

The two options are described in Appendix C.

1 ARTICLE 8 RETROACTIVE APPLICATION OF CPUC ORDERS

2
3 Pursuant to Ordering Paragraph 1(f) of CPUC Decision
4 No. 83-09-054 (September 7, 1983), after the effective date
5 of the CPUC's Application 82-03-26 decision relating to line
6 loss factors, Seller has the option to retain the relevant
7 terms of this Agreement or have the results of that decision
8 incorporated into this Agreement. To retain the terms
9 herein, Seller shall provide written notice to PGandE within
10 30 days after the effective date of the relevant CPUC
11 decision on Application 82-03-26. Failure to provide such
12 notice will result in the amendment of this Agreement to
13 comply with that decision.

14
15 As soon as practicable following the issuance of a
16 decision in Application 82-03-26, PGandE shall notify Seller
17 of the effective date thereof and its results.

18
19 ARTICLE 9 NOTICES

20
21 All written notices shall be directed as follows:

22 To PGandE: Pacific Gas and Electric Company
23 Attention: Vice President -
24 Electric Operations
25 77 Beale Street
26 San Francisco, CA 94106

27 To Seller: Solar Research Corporation
28 1700 Walnut Street, Suite 1024
Philadelphia, PA 19103
(215) 636-3682

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ARTICLE 10 DESIGNATED SWITCHING CENTER

The designated PGandE switching center shall be, unless changed by PGandE:

Rock Creek Powerhouse
Feather River
(916) 283-2892

ARTICLE 11 TERMS AND CONDITIONS

This Agreement includes the following appendices which are attached and incorporated by reference:

- Appendix A - GENERAL TERMS AND CONDITIONS
- Appendix B - ENERGY PAYMENT OPTIONS
- Appendix C - CURTAILMENT OPTIONS
- Appendix D - AS-DELIVERED CAPACITY
- Appendix E - FIRM CAPACITY
- Appendix F - INTERCONNECTION

ARTICLE 12 TERM OF AGREEMENT

This Agreement shall be binding upon execution and remain in effect thereafter for 30 years¹ from the date of initial energy deliveries²; provided, however, that it shall

¹ The minimum contract term is 15 years and the maximum contract term is 30 years.

² Insert "firm capacity availability date" if Seller has elected to deliver firm capacity or "date of initial energy deliveries" if Seller has elected to deliver as-delivered capacity.

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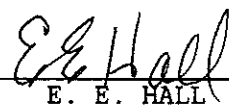
terminate if energy deliveries do not start within five years of the execution date.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized representatives and it is effective as of the last date set forth below.

SOLAR RESEARCH CORPORATION

PACIFIC GAS AND ELECTRIC COMPANY

BY: 
BRIAN SABLOSKY

BY: 
E. E. HALL

TITLE: Vice President

TITLE: Chief Generation Planning Engineer

DATE SIGNED: 3/26/85

DATE SIGNED: 4/5/85