



0000100168

32
D

1 LUBIN & ENOCH, P.C.
 2 Nicholas J. Enoch
 3 State Bar No. 016473
 Jarrett J. Haskovec
 4 State Bar No. 023926
 349 North Fourth Avenue
 5 Phoenix, Arizona 85003
 Telephone: (602) 234-0008
 Facsimile: (602) 626-3586
 E-mail: nick@lubinandenoach.com

RECEIVED

MAY 20 09 4:14

Arizona Corporation Commission

DOCKETED

DOCKETED BY	<i>[Signature]</i>
-------------	--------------------

6 Attorneys for Intervenors
 7 IBEW Locals 387, 640 & 769

8 **BEFORE THE ARIZONA**
 9 **CORPORATION COMMISSION**

10 IN THE MATTER OF THE
 11 APPLICATION OF ARIZONA
 12 PUBLIC SERVICE FOR A HEARING
 13 TO DETERMINE THE FAIR VALUE
 14 OF THE UTILITY PROPERTY OF
 15 THE COMPANY FOR RATEMAKING
 PURPOSES, TO FIX A JUST AND
 REASONABLE RATE OF RETURN
 THEREON, AND TO APPROVE RATE
 SCHEDULES DESIGNED TO
 DEVELOP SUCH RETURN.

Docket No. E-01345A-08-0172

**NOTICE OF FILING DIRECT
 TESTIMONY OF SAMUEL
 ELLIOTT HOOVER II**

16 Pursuant to the Chief Administrative Law Judge's
 17 Procedural Order (p. 2) dated May 11, 2009, Intervenors
 18 Local Union 387, International Brotherhood of Electrical
 19 Workers, AFL-CIO, CLC ("IBEW Local 387"), Local Union 640,
 20 International Brotherhood of Electrical Workers, AFL-CIO,
 21 CLC ("IBEW Local 640"), and Local Union 769, International
 22 Brotherhood of Electrical Workers, AFL-CIO, CLC ("IBEW Local
 23 769"), by and through undersigned counsel, hereby provide
 24 notice of its filing of the attached Direct Testimony of
 25 Samuel Elliott Hoover II in this docket.

26 ///
 27 ///
 28

1 RESPECTFULLY SUBMITTED this 30th day of June 2009.

2 LUBIN & ENOCH, P.C.

3
4  (for ME)
5 Nicholas J. Enoch, Esq.
6 Attorney for Interveners
7 IBEW Locals 387, 640 & 769

8 Original and thirteen (13) copies
9 of Interveners' Notice filed
10 this 30th day of June, 2009, with:

11 Arizona Corporation Commission
12 Docket Control Center
13 1200 West Washington Street
14 Phoenix, Arizona 85007-2996

15 Copies of the foregoing
16 transmitted electronically or
17 via regular mail this same date to:

18 Lyn Farmer, Chief ALJ
19 Hearing Division
20 Arizona Corporation Commission
21 1200 West Washington Street
22 Phoenix, Arizona 85007-2927

23 Thomas L. Mumaw, Esq.
24 Arizona Public Service Company
25 P.O. Box 53999
26 MS 8695
27 Phoenix, Arizona 85072-3999
28 Attorney for Applicant

Janice Alward, Esq.
Chief Counsel, Legal Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007-2927

Ernest Johnson, Director
Utilities Division
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007-2927

///

///

1 Daniel W. Pozefsky, Esq.
Residential Utility Consumer Office
2 1100 West Washington, Ste. 220
Phoenix, Arizona 85007
3 Attorney for Intervenor

4 Michael M. Grant, Esq.
Gallagher & Kennedy, P.A.
5 2575 East Camelback Road
Phoenix, Arizona 85016-9225
6 Attorneys for Intervenor for AIC

7 Gary M. Yaquinto
Arizona Investment Council
8 2100 North Central Avenue, Ste. 210
Phoenix, Arizona 85004
9 Representative for Intervenor

10 Timothy M. Hogan, Esq.
Arizona Center for Law in the Public Interest
11 202 East McDowell Road, Ste. 153
Phoenix, Arizona 85004
12 Attorney for Intervenor ASBA, *et al.*

13 David Berry
Western Resource Advocates
14 P.O. Box 1064
Scottsdale, Arizona 85252-1064
15 Representative for Intervenor

16 Jeff Schlegel
SWEEP
17 1167 West Samalayuca Drive
Tucson, Arizona 85704-3224
18 Representative for Intervenor

19 Jay I. Moyes, Esq.
Moyes Sellers & Sims
20 1850 North Central Avenue, Ste. 1100
Phoenix, Arizona 85004-0001
21 Attorney for Intervenor Az-Ag Group

22 Carlo Dal Monte, Energy Director
Catalyst Paper Company
23 65 Front Street, Ste. 201
Nanaimo, British Columbia V9R 5H9
24 Representative for Intervenor

25 Karen S. White, Esq.
Air Force Utility Litigation & Negotiation Team
26 AFLOA/JACL-ULT
139 Barnes Drive
27 Tyndall AFB, Florida 32403
Attorney for Intervenor FEA
28

1 C. Webb Crockett, Esq.
Fennemore Craig, P.C.
2 3003 North Central Avenue, Ste. 2600
Phoenix, Arizona 85012-2913
3 Attorney for Intervenors Freeport, *et al.*

4 Anthony S. Canty, Esq.
The Hopi Tribe
5 P.O. Box 123
Kykotsmovi, Arizona 86039-0123
6 Attorney for Intervenor

7 Douglas V. Fant, Esq.
Law Offices of Douglas V. Fant
8 3655 West Anthem Drive
Ste. A-109 PMB 411
9 Anthem, Arizona 85086
Attorney for Intervenor Interwest

10
11 Amanda Ormond
Interwest Energy Alliance
7650 South McClintock, Ste. 103-282
12 Tempe, Arizona 85284
Representative for Intervenor

13
14 Michael L. Kurtz, Esq.
Boehm, Kurtz & Lowry
36 East 7th Street, Ste. 1510
15 Cincinnati, Ohio 45202
Co-counsel for Intervenor Kroger

16
17 John W. Moore, Jr., Esq.
7321 North 16th Street
Phoenix, Arizona 85020
18 Co-counsel for Intervenor Kroger

19
20 Jeffrey J. Woner
K.R. Saline & Associates, PLC
160 North Pasadena, Ste. 101
Mesa, Arizona 85201

21
22 Lawrence V. Robertson, Jr., Esq.
2247 East Frontage Rd., Ste. 1
Tubac, Arizona 85646-0001
23 Attorney for Intervener Mesquite, *et al.*

24
25 Steve Morrison, Plant Engineer-Bellefont Facility
SCA Tissue North America
14005 West Old Highway 66
Bellefont, Arizona 86015
26 Representative for Intervenor

27 ///

28

1 Michael A. Curtis, Esq.
Curtis, Goodwin, Sullivan, Udall & Schwab, P.L.C.
2 501 East Thomas Road
Phoenix, Arizona 85012-3205
3 Attorney for Intervenor Town of Wickenburg

4 Barbara Wyllie-Pecora
27458 North 129th Drive
5 Peoria, Arizona 85383
Intervenor

6
7 Cynthia Zwick
1940 East Luke Avenue
Phoenix, Arizona 85016
8 Intervenor

9
10 

F:\Michael\IBEW1445-074.NoF#3.pld.wpd

11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

1 **Q1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A1. Samuel Elliott Hoover II. My business address is 5818
3 North 7th Street, Suite 201, Phoenix, Arizona 85014.

4 **Q2. ARE YOU THE SAME SAMUEL ELLIOTT HOOVER II WHOSE DIRECT**
5 **TESTIMONY WAS FILED IN THIS MATTER ON DECEMBER 19,**
6 **2008?**

7 A2. Yes.

8 **Q3. DO YOU HAVE ANY REVISIONS THAT YOU WOULD LIKE TO MAKE**
9 **TO YOUR PREVIOUS TESTIMONY?**

10 A3. The word "hate" on page 5, line 16 of my testimony
11 should, instead, read "rate."

12 **Q4. DID YOU ALSO TESTIFY BEFORE THE COMMISSION ON DECEMBER**
13 **17, 2008?**

14 A4. Yes. On December 17, 2008, I addressed and answered
15 questions from this Commission regarding Arizona Public
16 Service Company's ("APS") request for interim rate
17 relief and the IBEW Locals' support thereof. A copy of
18 the transcript of my previous testimony was filed with
19 the Commission on December 30, 2008.¹

20 **Q5. DO INTERVENORS LOCAL UNION 387, 640 AND 769,**
21 **INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS, AFL-**
22 **CIO, CLC (herein "IBEW Local 387," "IBEW Local 640,"**
23 **and "IBEW Local 769") SUPPORT THE ADOPTION OF THE JUNE**
24 **12, 2009 SETTLEMENT AGREEMENT?**

25 ///

26 ///

27 _____
28 ¹ See View Image No. 0000093009.

1 A5. Yes. On behalf of the more than two-thousand one-hundred
2 (2,100) non-managerial workers at APS who are
3 represented by IBEW Local 387, I would like to express
4 the Union's unqualified support for the proposed
5 Settlement Agreement. In addition, I know that our two
6 sister locals, IBEW Locals 640 and 769, are also fully
7 supportive of the Settlement Agreement as their
8 members, who also number in the hundreds, and their
9 associated contractors are likely to benefit greatly
10 from the various large-scale construction projects
11 contemplated in the Agreement.

12 **Q6. ARE THERE SPECIFIC PORTIONS OF THE SETTLEMENT AGREEMENT**
13 **THAT IBEW LOCALS 387, 640 AND 769 ARE PARTICULARLY**
14 **INTERESTED IN?**

15 A6. Yes. While IBEW Locals 387, 640 and 769 support the
16 adoption of proposed Settlement Agreement in its
17 entirety, we took a particularly active role in
18 negotiating and/or otherwise considering the following
19 specific paragraphs of the proposed Settlement
20 Agreement: ¶¶1.15, 7.4 and 13.4(a)(vi).

21 **Q7. PLEASE EXPLAIN WHY IBEW LOCAL 387 IS PARTICULARLY**
22 **INTERESTED IN ¶1.15.**

23 A7. Paragraph 1.15 was derived, in relevant part, from
24 ¶1.14(ii) of the most recent settlement agreement
25 involving the Tucson Electric Power Company ("TEP").
26 In it, the parties simply acknowledge the fact that
27 Article XV, §3 of the Arizona Constitution places the
28 interests of public service employees on par with those

1 of patrons. The interests of both constituencies, in
2 turn, are of more importance than those of the
3 corporation's shareholders.

4 **Q8. ARE YOU AWARE OF ANY LEGAL AUTHORITY SUPPORTING THIS**
5 **PROPOSITION?**

6 A8. Certainly. In its 1984 decision in *Cogent Pub. Serv.*
7 *v. Arizona Corp. Comm'n*, 142 Ariz. 52, 56-57, 688 P.2d
8 698, 702-03, Division One expressly, and in my opinion,
9 correctly, held that "the jurisprudence of our State
10 made it plain long ago that the interests of public-
11 service corporation stockholders must not be permitted
12 to overshadow those of the public served." In support
13 of this quite unremarkable proposition, our Court of
14 Appeals relied upon a series of U.S. and Arizona
15 Supreme Court decisions dating back to 1896.² Beyond
16 that, I would also point out that while Article XV, §3
17 of the Arizona Constitution mentions "employees and
18 patrons" as key stakeholders, it does not mention
19 shareholders as such.

20 **Q9. PLEASE EXPLAIN WHY IBEW LOCALS 387, 640 AND 769 ARE**
21 **PARTICULARLY INTERESTED IN ¶7.4.**

22 A9. It goes without saying that no one, including the
23 employees, contractors and patrons of APS, benefits
24 from any cost savings which comes at the expense of
25 providing safe and reliable electric service. This
26

27 ² See *Salt River Valley Canal Co. v. Nelssen*, 10 Ariz. 9,
28 13, 85 P. 117, 119 (1906) [citing *Covington & Lexington Turnpike
Road Co. v. Sanford*, 164 U.S. 578, 596 (1896)].

1 paragraph clearly serves the greater public interest.

2 **Q10. PLEASE EXPLAIN WHY IBEW LOCAL 387 IS PARTICULARLY**
3 **INTERESTED IN ¶13.4(a)(vi).**

4 A10. In recent years, much has been written and said
5 about Arizona becoming the so-called Persian Gulf
6 of green energy or, in the words of APS, "the
7 solar energy capital of the world" and how this
8 transformation will, in turn, inevitably lead to
9 an abundance of highly skilled, high-paying "green
10 collar" jobs in the "new economy." While much has
11 been done by Arizona policy makers, most
12 prominently by this Commission, and our large
13 public service corporations, including APS, to
14 move the ball forward with respect to renewable
15 energy development, I believe that we members of
16 the Arizona labor movement, in the first instance,
17 and Arizona policy makers, in the second instance,
18 need to make sure that we are affirmatively moving
19 the ball forward *vis-á-vis* the development of the
20 often referenced highly skilled, highly paid
21 "green collar" jobs of the so-called the new
22 economy. While I tend to think that there is
23 little doubt that Arizona will, within the next
24 twenty-five (25) to fifty (50) years, become a -
25 if not "the" - world leader when it comes to the
26 generation and, hopefully, out-of-state
27 transmission of green energy, I do not believe
28 that this will, in and of itself, mean that the

1 workers of our State will dramatically benefit
2 from this new industry. It is for this reason
3 that in conjunction with the measuring of APS's
4 performance, we would like the Commission to
5 monitor APS's headcount formally moving forward.
6 I am confident that the last thing that any of us
7 would want is for Arizona to become the
8 maquiladora of green energy. We, including this
9 Commission and APS, need to be vigilant in the
10 years to come to make certain that does not
11 happen.

12 **Q11. WHICH PORTIONS OF THE SETTLEMENT AGREEMENT IS IBEW**
13 **LOCAL 640 MOST INTERESTED IN?**

14 All. While I am not a member of IBEW Local 640, I know
15 for a fact that, as northern Arizona's inside
16 construction local, IBEW Local 640 and its
17 associated contractors are uniquely positioned to
18 benefit from the proposed renewable construction
19 projects set forth in ¶¶1.16(a), 13.2(a), 15.1,
20 15.2, 15.3, 15.5, and 15.6. In conjunction with
21 the Phoenix Electrical Joint Apprenticeship and
22 Training Committee for the Electrical Industry
23 ("JATC"), IBEW Local 640 is at the forefront of
24 recruiting and training electricians specifically
25 in the area of solar installation and maintenance.
26 A copy of the syllabus for the new JATC solar
27 program is attached hereto as Exhibit A. As such,
28 I would hope and expect that the membership of

1 IBEW Local 640 will have the inside track when it
2 comes time to build all of these renewable
3 resources.

4 **Q12. WHICH PORTIONS OF THE SETTLEMENT AGREEMENT IS IBEW**
5 **LOCAL 769 MOST INTERESTED IN?**

6 A12. IBEW Local 769, as the exclusive bargaining agent
7 for all IBEW outside line workers in the State of
8 Arizona, is also uniquely positioned to benefit
9 from the proposed transmission and construction
10 projects set forth in ¶¶1.16(a), 15.2, and 15.4.
11 For example, IBEW Local 769, along with IBEW Local
12 640, are at the forefront of the fledgling in-
13 state wind generation business here in the State
14 of Arizona. In this connection, attached hereto
15 as Exhibit B is a copy of the form IBEW
16 International Wind Turbine Agreement which,
17 hopefully, will become the template under which
18 all of the construction work addressed in ¶15.2
19 will take place.

20 **Q13. ARE THERE ANY PORTIONS OF THE PROPOSED SETTLEMENT**
21 **AGREEMENT WITH WHICH IBEW LOCALS 387, 640 AND 769**
22 **ARE LESS PLEASED?**

23 A13. Sure. As explained in ¶1.10 of the Settlement
24 Agreement, we would have preferred that APS
25 receive even more - potentially far more - rate
26 relief than what is set forth herein.
27 Notwithstanding these reservations, however, IBEW
28 Local 387, 640 and 769 recognize that the

1 consummation of a comprehensive Settlement
2 Agreement amongst nearly two dozen different
3 parties with often disparate and competing
4 interests is no so small feat. It is for that
5 reason that we fully and strongly support the
6 Commission's adoption of the proposed Settlement
7 Agreement *in toto*.

8 **Q14. IN HER JUNE 9, 2009 LETTER TO THE PARTIES TO THE**
9 **DOCKET, CHAIRMAN KRISTIN K. MAYES POSES A NUMBER**
10 **OF POINTED QUESTIONS TO THE SETTLING PARTIES. ARE**
11 **YOU PREPARED TO ANSWER CHAIRMAN MAYES' QUESTIONS**
12 **ON BEHALF OF IBEW LOCALS 387, 640 AND 769?**

13 A14. Certainly. Before doing so, however, I would like
14 to point out that a number of the questions posed
15 by Chairman Mayes pertain to topics and issues of
16 only marginal concern to IBEW Locals 387, 640 and
17 769. In those instances, I believe that APS's
18 letter to the docket dated June 25, 2009 provides
19 a fair overview of the positions held by IBEW
20 Locals 387, 640 and 769. Thus, I have limited my
21 testimony to only those issues and topics of which
22 the three IBEW locals are truly concerned and
23 informed.

24 ///

25 ///

26 ///

27 ///

28 ///

1 **Q15. FAIR ENOUGH. ON PAGE ONE (1) OF HER LETTER,**
2 **CHAIRMAN MAYES ASKS IF "THE STAY OUT PROVISION ...**
3 **CAN FAIRLY BE CONSIDERED AS A TRUE BENEFIT TO**
4 **CONSUMERS" AND SHE WANTS TO KNOW "WHAT WEIGHT IT**
5 **WAS GIVEN BY THE SETTLING PARTIES IN ARRIVING AT**
6 **THE PROPOSED AGREEMENT[.]" WHAT IS YOUR RESPONSE**
7 **TO HER QUESTIONS?**

8 A15. Mr. Hatfield's commentary notwithstanding, I do
9 not know when APS would have planned on coming
10 back with another general rate case and, as such,
11 I believe the so-called "Stay Out" provision does
12 provide consumers a certain amount of clarity and
13 gradualism moving forward. This particular topic
14 was not of major concern to the three IBEW locals
15 in arriving at the proposed Agreement.

16 **Q16. ON PAGES ONE (1) TO TWO (2) OF HER LETTER,**
17 **CHAIRMAN MAYES INQUIRES "WHETHER THE COMMISSION**
18 **COULD ACHIEVE THE 12 MONTH TIME CLOCK PROVISION**
19 **CALLED FOR IN THE TERM SHEET IF THE LEGISLATURE'S**
20 **CUTS ARE ENACTED." WHAT IS YOUR RESPONSE TO THIS**
21 **QUESTION?**

22 A16. I share Chairman Mayes' concern about the state of
23 the Commission's budget moving forward. I believe
24 that her well-founded practical concerns were
25 implicitly addressed by the "good faith efforts"
26 language set forth in ¶2.3 of the Settlement
27 Agreement.

28 ///

1 Q17. ON PAGES TWO (2) TO THREE (3) OF HER LETTER,
2 CHAIRMAN MAYES INQUIRES ABOUT THE TIME FRAME AND
3 PROCESS FOR SELECTING THE PROPOSED WIND PROJECT
4 AND WHETHER THE SETTLEMENT AGREEMENT WOULD REQUIRE
5 THE WIND PROJECT TO BE IN ARIZONA. DO YOU BELIEVE
6 THAT ¶15.2 OF THE SETTLEMENT AGREEMENT ADEQUATELY
7 RESPONDS TO CHAIRMAN MAYES' QUESTIONS?

8 A17. Essentially, "yes." You can be assured, however,
9 that all three IBEW Locals will be watching this
10 particular topic very closely in the weeks and
11 months to come. We each have a keen and vested
12 interest in making certain that any in-state wind
13 generation is built, maintained and operated by
14 IBEW members.

15 Q18. ON PAGE THREE (3) OF HER LETTER, CHAIRMAN MAYES
16 ASKS "WHETHER THE PARTIES WOULD OBJECT TO THE
17 COMMISSION REQUIRING APS TO EXCEED THE RES
18 ['RENEWABLE ENERGY STANDARD']" IN THE CONTEXT OF
19 THE INSTANT RATE CASE. WHAT IS YOUR RESPONSE TO
20 THIS QUESTION?

21 A18. Whether such a move on the part of the Commission
22 is justified by the record in this case or not, or
23 whether it is sound public policy or not, I am
24 reasonably confident that this Settlement
25 Agreement would not have been possible had the
26 parties chosen to tackle this extremely complex,
27 important and, indeed, thorny topic in the context
28 of the instant rate case. While I am not certain,

1 I would guess that the inclusion of any such
2 provision in the final order in this case will,
3 almost inevitably, lead to one or more of the
4 Settling Parties opting out of the settlement in
5 accordance with ¶23.5 of the Settlement Agreement.
6 That being the case, IBEW Locals 387, 640 and 769
7 respectfully submit that this particular topic is
8 best left for another case, perhaps for a generic
9 docket, in which all interested parties, including
10 other public service corporations (such as TEP)
11 and their respective labor unions, could voice
12 their positions. Given the tremendous up-front
13 expense associated with the development of
14 renewable generation and transmission, I believe
15 that is by far the better procedural method by
16 which this issue ought to be handled.

17
18 Procedural concerns notwithstanding, I can tell
19 you that IBEW Locals 387, 640 and 769 have
20 absolutely no problem with the idea of increasing
21 the RES at some point in the future provided that,
22 *inter alia*, it is economically feasible for APS to
23 do so and the envisioned renewable generation is
24 built, maintained and operated by members of the
25 IBEW in the State of Arizona.

26 **Q19. DO YOU HAVE ANY OTHER COMMENTS YOU WOULD LIKE TO**
27 **SHARE WITH THE COMMISSION REGARDING THE INSTANT**
28 **SETTLEMENT?**

1 A19. Yes. I want to make it abundantly clear to the
2 Commission and APS that, by agreeing to this
3 Settlement Agreement, IBEW Local 387 has not, and
4 does not, agree to any modification, express or
5 implied, to the terms and conditions of its
6 collective bargaining agreement with APS. That is
7 not to say that I believe this will ever become a
8 problem *vis-á-vis* IBEW Local 387's relationship
9 with APS; in fact, I do not believe that is the
10 case. Nevertheless, I just want to make certain
11 that there is no confusion in this regard moving
12 forward.

13 **Q20. DOES THIS CONCLUDE YOUR TESTIMONY?**

14 A20. Yes.

F:\Michael\IBEW1445-074.HooverTestimony#2.pld.wpd

15
16
17
18
19
20
21
22
23
24
25
26
27
28

EXHIBIT A

LESSON OUTLINE **Photovoltaic Systems**



All materials are copyrighted by the National Joint Apprenticeship and Training Committee.
No material may be reproduced without the expressed written permission of the NJATC.

Lesson Outline

Lesson	Title	Page	Reference 1	Reference 2	Reference 3
1	Introduction to Photovoltaic Systems	1	<i>Photovoltaic Systems Textbook</i>		
2	Fundamentals of Solar Radiation	7	<i>Photovoltaic Systems Textbook</i>		
3	Sun-Earth Relationships	13	<i>Photovoltaic Systems Textbook</i>		
4	Solar Radiation Data and Measurements	19	<i>Photovoltaic Systems Textbook</i>		
5	Site Surveys and Planning	25	<i>Photovoltaic Systems Textbook</i>	<i>OSHA Standards for the Construction Industry</i>	
6	Photovoltaic Systems and Components	31	<i>Photovoltaic Systems Textbook</i>	<i>National Electrical Code®</i>	
7	Fundamentals of Photovoltaic Devices	35	<i>Photovoltaic Systems Textbook</i>		
8	Photovoltaic Modules and Arrays	41	<i>Photovoltaic Systems Textbook</i>	<i>National Electrical Code®</i>	
9	Batteries	51	<i>Photovoltaic Systems Textbook</i>	<i>National Electrical Code®</i>	<i>OSHA Standards for the Construction Industry</i>
10	Charge Controllers	59	<i>Photovoltaic Systems Textbook</i>	<i>National Electrical Code®</i>	
11	Inverters	67	<i>Photovoltaic Systems Textbook</i>	<i>National Electrical Code®</i>	
12	System Sizing	75	<i>Photovoltaic Systems Textbook</i>		
13	Mechanical Integration	85	<i>Photovoltaic Systems Textbook</i>		
14	Electrical Integration I	93	<i>Photovoltaic Systems Textbook</i>	<i>National Electrical Code®</i>	
15	Electrical Integration II	101	<i>Photovoltaic Systems Textbook</i>	<i>National Electrical Code®</i>	
16	Utility Interconnection	107	<i>Photovoltaic Systems Textbook</i>	<i>National Electrical Code®</i>	
17	Permitting and Inspection	115	<i>Photovoltaic Systems Textbook</i>	<i>National Electrical Code®</i>	
18	Operations and Maintenance	121	<i>Photovoltaic Systems Textbook</i>	<i>National Electrical Code®</i>	<i>OSHA Standards for the Construction Industry</i>
19	Economic Analysis	129	<i>Photovoltaic Systems Textbook</i>		

EXHIBIT B

IBEW INTERNATIONAL WIND TURBINE AGREEMENT

ARTICLE I

Section 1.01. This Agreement made and entered into by and between _____ and the INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS is applicable to and shall be utilized by _____ for all its work within the scope of this Agreement throughout the United States.

Section 1.02. The term "Employer" or "Company," as hereinafter used, shall mean _____.

Section 1.03. The term "IBEW" or "Union," as hereinafter used, shall mean the International Brotherhood of Electrical Workers.

Section 1.04. The term "Local Union," as hereinafter used, shall mean an IBEW Local Union.

Section 1.05. The term "Employee" or "Worker," as hereinafter used, shall mean the worker or workers listed and classified in Article XI of this Agreement.

ARTICLE II

Scope of Agreement

Section 2.01. This Agreement covers all work involved in the construction, erection, maintenance, repair and service of wind turbines, including all electrical work within the confines of the wind turbine itself, up to the secondary side of the transformer at the base of the wind turbine, including the setting of the generator. All electrical work from the transformer (base located transformers), including the installation of the transformer itself, to and including the substation, setting of the wind turbine tower and all work related to the construction of the base is also

covered by this Agreement when performed by employees covered by this Agreement in the United States by the Employer or by any person, firm or corporation owned or controlled by the Employer. This Agreement shall be granted on a project-by-project basis and shall have application only to the project agreed upon between the IBEW and the Employer.

ARTICLE III

Duration and Special Provisions

Section 3.01 (a). This Agreement shall take effect for any jobs bid after _____ and remain in effect through _____ unless otherwise specifically provided for herein. It shall continue in effect from year to year thereafter, from January through December of each year, unless changed or terminated in the manner later provided herein.

(b). Either party desiring to terminate this Agreement must notify the other, in writing, at least ninety (90) days prior to the anniversary date.

(c). This Agreement shall be subject to change or supplement at any time by mutual consent of the parties hereto. Any such change or supplement agreed upon shall be reduced to writing, and signed by the parties hereto.

ARTICLE IV

Grievances and Disputes

Section 4.01. During the term of this Agreement, there shall be no stoppage of work either by strike or lockout because of any proposed changes in this Agreement or dispute over matters relating to this Agreement. All such matters must be handled as stated herein.

Section 4.02. All grievances shall be filed within ten (10) calendar days after the complained-of event arose. Grievances shall be appealed to the next higher step within ten (10) calendar days after the meeting in the lower step. Settlement of grievances may be arrived at in any step of the grievance procedure, which will be final and binding on the Union and Employer.

Grievances, other than those pertaining to jurisdiction or general wages, on any work covered by this Agreement, shall be handed in the following manner:

- Step 1. Between the Employer's Supervisor and the Local Union Representative at the job site.
- Step 2. Between the Business Representative and the Employer's Supervisor at the job site.
- Step 3. Between the International Union Representative and the Supervisor or Labor Relations Manager.
- Step 4. If the parties are unable to effect an amicable settlement or adjustment of any grievance or controversy, it shall be submitted to the Council of Industrial Relations for the Electrical Contracting Industry for adjudication. The Council's decision shall be final and binding.

Section 4.03. When any matter in dispute has been referred to the Council for adjustment, the provisions and conditions prevailing prior to the time such matters arose shall not be changed or abrogated until agreement has been reached or a ruling has been made.

Section 4.04. Each party shall bear the expense of preparing and presenting its own case.

ARTICLE V

Subcontracting – Work Preservation

Section 5.01. Local Unions are a part of the IBEW and any violation or annulment by the Employer of this Agreement or an approved Agreement of any Local Union of the IBEW, other than violations of Paragraph 2 of this Section, will be sufficient cause for cancellation of this Agreement by the Union after a finding has been made that such a violation or annulment has occurred.

The subletting, assigning or transfer by the Employer of any work in connection with electrical work to any person, firm or corporation not recognizing the IBEW or one of its Local Unions as the collective bargaining representative of his employees on any electrical work in the trade jurisdiction of the Union to be performed at the site where construction, alteration, painting or repair of a building, structure or other work is ongoing, will be deemed a material breach of this Agreement.

All charges of violations of this Section shall be considered as a dispute and shall be processed in accordance with the provisions of this Agreement covering the procedures for the handling of grievances and the final and binding resolution of disputes.

Section 5.02(a). In order to protect and preserve, for the employees covered by this Agreement, all work heretofore performed by them, and in order to prevent any device or subterfuge to avoid the protection and preservation of such work, it is hereby agreed as follows: If and when the Employer shall perform any on-site construction work of the type covered by this Agreement, under its own name or under the name of another, as a Corporation, Company, Partnership, or any other business entity, including joint venture, wherein the Employer, through its officers, directors, partners or stockholders, exercises either directly or indirectly, management, control or majority ownership, the terms and conditions of this Agreement shall be applicable to all such work. All charges of violations of this Section shall

be considered as a dispute and shall be processed in accordance with the provisions of this Agreement covering the procedure for the handling of grievances and the final and binding resolution of disputes.

(b). As a remedy for violations of this Section, the Labor-Management Committee, the Council on Industrial Relations for the Electrical Contracting Industry and/or an independent arbitrator, as the case may be, are empowered, in their discretion and at the request of the Union, to require an Employer to (1) pay to affected employees covered by this Agreement, including registered applicants for employment, the equivalent of wages lost by such employees as a result of the violations; and (2) pay into affected joint trust funds established under this Agreement any delinquent contributions to such funds which have resulted from violations. Provision for this remedy herein does not make such remedy the exclusive remedy available to the Union for violation of this Section; nor does it make the same or other remedies unavailable to the Union for violations of other Sections or other Articles of this Agreement.

(c). If, as a result of violations of this Section, it is necessary for the Union and/or the trustees of the joint trust funds to institute court action to enforce an award rendered in accordance with subsection (b) above, or to defend an action which seeks to vacate such award, the Employer shall pay any accountants' and attorneys' fees incurred by the Union and/or fund trustees, plus costs of the litigation, which have resulted from the bringing of such court action.

ARTICLE VI

National Electrical Benefit Fund

Section 6.01. It is agreed that, in accord with the Employees Benefit Agreement of the National Electrical Benefit Fund ("NEBF"), as entered into between the National Electrical Contractors Association and the International Brotherhood of Electrical Workers on September 3, 1946, as amended, and now delineated as the Restated Employees Benefit

Agreement and Trust, unless authorized otherwise by the NEBF, the individual Employer will forward monthly to the NEBF's designated local collection agent an amount equal to 3% of the gross monthly labor payroll paid to, or accrued by, the employees in this bargaining unit, and a completed payroll report prescribed by the NEBF. The payment shall be made by check or draft and shall constitute a debt due and owing to the NEBF on the last day of each calendar month, which may be recovered by suit initiated by the NEBF or its assignee. The payment and the payroll report shall be mailed to reach the office of the appropriate local collection agent not later than fifteen (15) calendar days following the end of each calendar month.

The individual Employer hereby accepts, and agrees to be bound by, the Restated Employees Benefit Agreement and Trust.

An individual Employer who fails to remit as provided above shall be additionally subject to having his Agreement terminated upon seventy-two (72) hours' notice, in writing, being served by the Union, provided the individual Employer fails to show satisfactory proof that the required payments have been paid to the appropriate local collection agent.

The failure of an individual Employer to comply with the applicable provisions of the Restated Employees Benefit Agreement and Trust shall also constitute a breach of his labor Agreement.

ARTICLE VII

Referral Procedure

Section 7.01. In the interest of maintaining an efficient system of production in the Industry, providing for an orderly procedure of referral of applicants for employment, preserving the legitimate interests of employees in their employment status within the area and of eliminating discrimination in employment because of membership or non-membership in the Union,

the parties hereto agree to the following system of referral of applicants for employment.

Section 7.02. The Employer shall be allowed to use and to send employees into the jurisdiction of any Local Union(s) on any job or project where work is being performed under this Agreement under the following schedule:

For each job or project, the Employer may use any employee referred by a Local Union(s) Collective Bargaining Referral Procedure and employed by the Employer on the date of the Pre-Bid Conference. Employees who have been referred from a Local Union Referral and are subsequently transferred to a job or project covered under this Agreement shall be allowed to return to that jurisdiction with the Employer. Employees who have been referred from a Local Union Collective Bargaining Referral Procedure can be transferred by the Employer to any job or project covered by this Agreement. When any complaint or dispute arises dealing with this question, any ruling made by the International President of the Union shall be accepted and put into effect.

Section 7.03. The Employer shall have the right to call foremen by name for projects covered by this Agreement provided:

(1) The employee has not quit his previous employer within the past two weeks.

(2) The Employer shall notify the Business Manager, in writing, of the name of the individual who is to be requested for employment as a foreman. Upon such request, the Business Manager shall refer said foreman provided the name appears on the highest priority group.

(3) When an employee is called as a foreman, he must remain as a foreman for 1,000 hours, or he must receive a reduction in force.

Section 7.04(a). In order to fill needs for additional workers, the Employer shall request the number and classifications of the workers required from the Local Union Referral in whose jurisdiction the work is located.

(b). The Local Union having jurisdiction where the work is being performed shall have the right to refer one applicant to each project within the jurisdiction of the Local Union.

Section 7.05. The Local Union(s) shall be the sole and exclusive source of referral of applicants for employment.

Section 7.06. The Employer shall have the right to reject any applicant for employment. The reason for rejection shall be provided to the Union in writing.

Section 7.07. The Local Union(s) shall select and refer applicants for employment without discrimination against such applicants by reason of membership or non-membership in the Union, and such selection and referral shall not be affected in any way by rules, regulations, bylaws, constitutional provisions or any other aspect or obligation of Union membership policies or requirements. All such selection and referral shall be in accord with the following procedure.

Section 7.08. The Local Union(s) shall maintain a register of applicants for employment. Each applicant for employment shall be registered in the highest priority group in the classification or classifications for which the applicant qualifies.

Section 7.09. If the registration list in a given classification is exhausted, and the Local Union is unable to refer applicants for employment to the Employer within 48 hours from the time of receiving the Employer's request, Saturdays, Sundays and Holidays excepted, the Employer shall be free to secure applicants without using the Referral Procedure.

Section 7.10. Any employees transferred or employed for any job or project in accordance with this Agreement will not be displaced by a Local Union under any Referral Procedure of that Local Union.

Section 7.11. In all cases, the Employer shall notify the Inside/Outside IBEW Local Union(s) having jurisdiction where the work is to be performed of the names and Social Security Numbers of all employees before starting work.

Section 7.12. The current approved Inside Training Agreement and/or Outside Area Training Agreement between the various IBEW Local Unions shall govern all matters of apprenticeship and training and the financing thereof. Apprentices' wages and the ratio of Apprentices to Journeymen are specified in the Area Training Agreements in the area where the work is being performed.

Section 7.13. Apprentices shall be hired and transferred in accordance with the Apprenticeship provisions of the Inside/Outside Area Training Agreements.

Section 7.14 The Employer shall make every effort to assign the work as follows; however, the Employer may assign work contrary to this breakdown of jurisdiction for up to fourteen (14) days in an effort to avoid short-term crew layoffs.

(A). Wind Turbines

Inside: All electrical work within the confines of the wind turbine itself up to the secondary side of the transformer at the base of the wind turbine, including the setting of the generator. In designs where the transformer is mounted within the confines of the wind turbine (i.e., mounted internally at the top of the structure), the Inside will have jurisdiction to the first connect location outside the confines of the wind turbine (splice point, top location, etc.).

Outside: All electrical work from the transformer (base located transformers), including the installation of the transformer itself, to and including the substation. When the wind turbine is designed with the transformer mounted within the structure (mounted at the top of the wind turbine), the Outside will have jurisdiction from the first connect location outside the confines of the wind turbine, to and including the substation. The Outside will set the wind turbine tower and do all work related to the construction of the base.

(B). The Employer understands that the Local Union's jurisdiction -- both trade and territorial -- is not a subject for negotiations but rather is determined solely within the IBEW by the International President and, therefore, agrees to recognize and be bound by such determinations.

ARTICLE VIII

Membership Provision

Section 8.01. All employees covered by the terms of this Agreement shall be required to become and remain members of the Union as a condition of employment from and after the eighth day following the date of their employment, or the effective date of this Agreement, whichever is later.

Section 8.02. The provisions of Section 8.01 shall be inoperative in any state in which such provision is contrary to State Law.

Section 8.03. The Employer shall deduct and forward to the Financial Secretary of the Local Union(s) where the work is being performed, upon receipt of a voluntary written authorization, working dues from the pay of each IBEW member. The amount to be deducted shall be the amount specified in the approved Local Union Bylaws of the Local Union in whose jurisdiction the work is to be performed. Such amount shall be certified to the Employer by the Local Union upon request by the Employer.

ARTICLE IX

Employer Rights

Section 9.01. The Union understands the Employer is responsible to perform the work required by the Owner. The Employer shall, therefore, have no restrictions, except those specifically provided for in this Agreement, in planning, directing and controlling the operation of all his work, in deciding the number and kind of employees to properly perform the work, in hiring and laying off employees, in transferring employees from job to job, in determining the need and number as well as the person who will act as foreman, in requiring all employees to observe the Employer's and/or Owner's rules and regulations not inconsistent with this Agreement, in requiring all employees to observe all safety regulations, and in discharging employees for proper cause.

ARTICLE X

Hours and Working Conditions

Section 10.01. Eight (8) hours' work between the hours of 6:00 a.m. and 6:00 p.m., with thirty (30) minutes for an unpaid lunch period four (4) hours after the designated starting time, shall constitute the workday. Five (5) such days, Monday through Friday, shall constitute the workweek.

Section 10.02. The Business Manager(s) and the Employer must agree that the application of the four ten-hour workweek would provide mutual benefit to the employees, the Employer and the Client. If the parties agree to work the four ten-hour workweek, the following apply and shall modify Article X, Section 10.01.

(A). Ten (10) consecutive hours shall constitute a day's work between the hours of 6:00 a.m. and 6:00 p.m., Monday through Thursday inclusive, unless otherwise changed by mutual consent in writing between

the Business Manager(s) and the Employer. One-half (1/2) hour shall be set aside for an unpaid lunch period five (5) hours after the normal starting time.

(B). ONLY due to inclement weather or time lost as a result of customer requirements may Friday be used as a make up day if the normal scheduled workweek was interrupted and time lost of five (5) hours or more was incurred by employees covered under the terms of this Agreement.

(C). In the event that Friday qualifies as a make up day, the parties hereby agree that said Friday will be scheduled as the make-up day, and the Employer agrees to schedule work to fulfill at least the lost time incurred by inclement weather during the workweek.

(D). Shift work as defined in Article X; Section 10.07, shall not be applicable to this work schedule.

Section 10.03. All work performed outside of the stated hours and on Saturdays will be paid at one and one-half (1½) times the regular straight-time rate; Sundays and the following holidays shall be paid at two (2) times the straight-time rate: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day after Thanksgiving, Christmas Day or days celebrated as such.

Section 10.04. No work shall be performed on Labor Day except in case of an emergency.

Section 10.05(a). Employees shall report to the job-site or shop ready for work at the designated starting time. The Employer agrees to pay employees for time elapsed between the designated starting time and the time at which they are returned to headquarters not including the intermission for lunch.

(b). The Employer shall set up headquarters in the nearest suitable location to the job. A suitable place to eat and change clothes shall

be provided by the Employer. It shall be heated in the winter and large enough to accommodate employees and their tools.

Section 10.06. Employees reporting for work who have not been notified at least two (2) hours prior to the normal scheduled starting time of the same day, and adverse weather or ground conditions prevent them from working, shall be compensated a minimum of two (2) hours at their regular rate of pay. The employees shall remain at the reporting point and are to perform such tasks as assigned. The Employer has the right to suspend work for other reasons beyond his control after giving timely notice to employees.

Section 10.07. Shift Work. When so selected by the Employer, multiple shifts of at least five (5) days' duration may be worked. When two (2) or three (3) shifts are worked:

The first shift (day shift) shall be worked between the hours of 8:00 a.m. and 4:30 p.m. Workers on the day shift shall receive eight (8) hours' pay at the regular rate for eight (8) hours' work.

The second shift (swing shift) shall be worked between the hours of 4:30 p.m. and 12:30 a.m. Workers on the swing shift shall receive eight (8) hours' pay at the regular hourly rate plus 10% for seven and one-half (7-1/2) hours' work.

The third shift (graveyard shift) shall be worked between the hours of 12:30 a.m. and 8:00 a.m. Workers on the "graveyard shift" shall receive eight (8) hours' pay at the regular hourly rate plus 15% for seven (7) hours' work.

A lunch period of thirty (30) minutes shall be allowed on each shift. All overtime work required after the completion of a regular shift shall be paid at one and one-half (1½) times the "shift" hourly rate.

There shall be no pyramiding of overtime rates and two (2) times the straight-time rate shall be the maximum compensation for any hour worked. There shall be no requirement for a day shift when either the second or third shift is worked.

Section 10.08. The Employer shall furnish all tools and equipment (except those tools required by Local Union Agreement(s), which the employee must have on the job) required to perform work covered by this Agreement. Such tools, equipment, ropes and safety devices shall be of suitable types and size, in good working condition and in sufficient quantity to properly and safely perform work covered by this Agreement.

Section 10.09. It is the Employer's exclusive responsibility to ensure the safety of its employees and their compliance with safety rules and standards.

Section 10.10. Employees shall install all work in a safe and workmanlike manner and in accordance with applicable code and contract specifications.

ARTICLE XI

Wages, Pay Provisions, Benefits and Pre-Bid Conference

Section 11.01. Wages shall be paid to employees weekly before quitting time on payday. If payday is a holiday, they shall be paid before quitting time on the previous day. Any employee laid off or discharged shall be paid all his wages immediately. In the event he is not paid off, as provided above, waiting time at the appropriate rate shall be charged until payment is made. A payday shall be established which is mutually agreeable to the Employer and the Union.

Section 11.02. Employees who terminate their employment may be made to wait until the regular payday for their wages. Unless otherwise arranged, such wages may be mailed to the permanent address of such employee.

Section 11.03. Deductions from wages shall be only those provided or authorized by law and/or those authorized, in writing, by the individual employee.

Section 11.04. The minimum hourly rate of wages shall be determined at a Pre-Bid Conference held in the jurisdiction of the Local Union(s) in whose jurisdiction wind turbines will be erected. The respective IBEW International Vice President(s) and the affected Local Union(s) shall establish the wage rate for Outside and Inside employees.

Section 11.05. A Groundman, when directed, shall assist a Journeyman Lineman or Lineman in the performance of his work on the ground, including the use of hand tools furnished by the contractor. Under no circumstances shall employees in this classification climb poles, towers, ladders, or work from an elevated platform or bucket truck. However, employees in this classification may perform tower assembly on the ground. There shall be no established ratio of Groundmen to Linemen.

Section 11.06. The Employer adopts and agrees to be bound by the written terms of legally established trust agreements specifying the detailed basis on which payments are to be made into, and benefits paid out of, such trust funds. The Employer authorizes the parties to such trust agreements to appoint trustees and successor trustees to administer the trust funds and hereby ratifies and accepts the trustees so appointed as if made by the Employer. The Employer agrees to be bound by and will sign all legally constituted trusts which have been established by the Local Union Agreement(s).

Section 11.08. Pre-Bid Conference. A Pre-Bid Conference is required for each job on which the Employer wishes to utilize this Agreement. It shall be set up by the Employer(s) requesting use of the Agreement. The Pre-Bid Conference shall include the Employer(s), the respective IBEW International Vice President(s) and the affected Local Union(s).

The Employer is required, at the Pre-Bid Conference, to provide the affected Local Union(s) with a list of employees who may be used, pursuant to Section 7.02, during the job or project being considered.

ARTICLE XII

NLMCC

Section 12.01. The parties agree to participate in the NECA-IBEW National Labor-Management Cooperative Fund, under the authority of Section 6(b) of the Labor Management Cooperation Act of 1978, 29 U.S.C. § 175(a), and Section 302(c)(9) of the Labor-Management Regulations Act, 29 U.S.C. § 186(c)(9). The purposes of this Fund include the following:

(A). To improve communication between representatives of labor and management.

(B). To provide workers and employers with opportunities to study and explore new and innovative joint approaches to achieving organizational effectiveness.

(C). To assist workers and employers in solving problems of mutual concern not susceptible to resolution within the collective bargaining process.

(D). To study and explore ways of eliminating potential problems which reduce the competitiveness and inhibit the economic development of the electrical construction industry.

(E). To sponsor programs which improve job security, enhance economic and community development, and promote the general welfare of the community and the industry.

(F). To encourage and support the initiation and operation of similarly constituted local labor-management cooperation committees.

(G). To engage in research and development programs concerning various aspects of the industry, including, but not limited to, new technologies, occupational safety and health, labor relations, and new methods of improved production.

(H). To engage in public education and other programs to expand the economic development of the electrical construction industry.

(I). To enhance the involvement of workers in making decisions that affects their working lives.

(J). To engage in any other lawful activities incidental or related to the accomplishment of these purposes and goals.

Section 12.02. The Fund shall function in accordance with, and as provided in its Agreement and Declaration of Trust, and any amendments thereto and any other of its governing documents. Each Employer hereby agrees to be bound by, and shall be entitled to participate in the NLMCC, as provided in said Agreement and Declaration of Trust.

Section 12.03. Each Employer shall contribute one cent (1¢) per hour worked, up to a maximum of 150,000 hours per year, for work performed under the terms of this Agreement. Payment shall be forwarded monthly, in a form and manner prescribed by the trustees, no later than fifteen (15) calendar days following the last day of the month in which the labor was performed. The _____ Chapter, NECA or its designee, shall be the collection agent for this Fund.

Section 12.04. If an Employer fails to make the required contributions to the Fund, the trustees shall have the right to take whatever steps are necessary to secure compliance. In the event the Employer is in default, the Employer shall be liable for the sum equal to fifteen percent (15%) of the delinquent payment, but not less than the sum of twenty (\$20), for each month payment of contributions is delinquent to the Fund, such amount

being liquidated damages, and not a penalty, reflecting the reasonable damages incurred by the Fund due to the delinquency of the payments. Such amount shall be added to and become a part of the contributions due and payable, and the whole amount due shall bear interest at the rate of ten percent (10%) per annum until paid. The Employer shall also be liable for all costs of collecting the payment, together with attorney's fees.

ARTICLE XIII

Insurance Benefits

Section 13.01. For all employees covered by this Agreement, the Employer shall carry Workers' Compensation Insurance with an authorized company in each state where he employs workers under the terms of this Agreement, and such other protective insurance as may be required by the laws of the States in which workers are employed under this Agreement. Satisfactory proof of compliance with such laws shall be furnished to the Union upon demand. The Employer shall also make payments to the Unemployment Compensation Commission in each State where he employs workers under the terms of this Agreement.

ARTICLE XIV

Fringe Benefit Payments

Section 14.01. Any Employer who fails to make fringe benefit payments as required shall be subject to having this Agreement terminated upon seventy-two (72) hours' notice, in writing, being served by the Union, provided the individual Employer fails to show satisfactory proof that the required payments have been made. In addition, if suit is instituted to collect any delinquent payment, the Employer shall also be liable for such interest, damages, attorney's fees and costs as provided for by law.

ARTICLE XV

Wage and Fringe Benefit Bond

Section 15.01. The Employer shall furnish to the Union a surety bond in the amount of \$50,000 written on a form provided by the Union to secure payment of all amounts due on account of payroll and fund deduction contribution and reporting obligations of the Employer required by this Agreement. The bond shall provide that it may not be terminated without thirty (30) days' prior written notice to the Employer and the Union.

ARTICLE XVI

Legality

Section 16.01. Should any provision of this Agreement be declared illegal by any court of competent jurisdiction, such provision shall immediately become null and void, leaving the remainder of the Agreement in full force and effect, and the parties shall thereupon seek to negotiate substitute provisions which are in conformity with the applicable laws.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives this _____ day of _____, 20____.

International Brotherhood of
Electrical Workers

For the Employer

Procedures for Employers to become Signatory to the
IBEW Wind Turbine Agreement (IBEW WTA).

1. All requests to become signatory to the IBEW WTA and/or requests for the use of the IBEW WTA shall be accompanied by information describing the location and scope of the project for which it is being requested and sent to the International President in writing.
2. The IBEW Construction and Maintenance Department will investigate the appropriateness of the request with the assistance of the International Vice President in whose district the Employer is headquartered, and the International Vice President in whose district the project is located. These International Vice Presidents will provide a recommendation for the consideration of the International President.
3. For requests to become signatory. If the decision to become signatory is favorable, the International President will provide the Employer with three (3) copies of the Agreement to be signed and returned.
4. The International President will provide one (1) signed copy of the Agreement to the Employer for the Employer's records, one (1) to the respective International Vice President, and one (1) copy will be retained at the International Office.
5. Requests for use of the IBEW WTA by signatory Employers. Once an Employer is signatory to the IBEW WTA, approval for use on a project must be requested for each and every individual project in accordance with Sections 1 and 2 above.
6. If the decision for requested use is favorable, the Employer will receive Conditional Approval to allow for a Pre-Bid Conference to be held in accordance with Section 11.08 of the IBEW WTA.

7. Once advised by the International Vice President for the district in which the project is located that all necessary Pre-Bid items have been agreed to, the IBEW Construction and Maintenance Department will send the Employer and the International Vice President the Approval for Use.

INTERNATIONAL BROTHERHOOD OF
ELECTRICAL WORKERS, AFL-CIO
For Submission of Reports and Payment of Payroll and Fund
Contributions and Deductions as described in the Collective Bargaining Agreement

Bond # _____

KNOW ALL PERSONS BY THESE PRESENTS, that we

(Name and Address of Principal)

as Principal and _____
(Name of Surety)

are held and firmly bound unto the International Brotherhood of Electrical Workers, AFL-CIO (hereinafter "IBEW"), located at 1125 15th Street, N.W., Washington, D.C. 20005, as Obligee, in the sum of Fifty Thousand (\$50,000.00) Dollars, lawful money of the United States of America, for the payment of which sum, well and truly to be made, we bind ourselves, and heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

SIGNED, SEALED and dated this _____ day of _____, 2004.

WHEREAS, the above Obligee has required the Principal to furnish reports and to pay the payroll due the employees of the Principal who are represented by the IBEW and/or the applicable IBEW Local Union(s), and to pay fund contributions and deductions to the applicable trust funds and/or IBEW Local Union(s), which Principal is obligated by such collective bargaining agreement to pay for a period from acceptance by it or on its behalf to its expiration, during which this bond remains in force, subject to the following conditions:

- (1) That the Surety may cancel its liability as to future assessments under this bond (including renewal thereof) at any time by giving written notice to the Principal and Obligee at least thirty days in advance of the date of such expiration or cancellation; failure of the Principal to maintain such bond (by renewal) in full force and effect until the expiration date of the appropriate collective bargaining agreement shall not cancel the Surety's liability hereunder except as provided hereinabove by the fifteen days advance notice provision.
- (2) That liability of the surety under this bond to the Obligee for one or more defaults of the Principal shall not exceed in the aggregate the sum of this bond.
- (3) That no suit, action or proceeding shall be maintained against the Surety hereunder, unless the same be instituted within twelve months after date of expiration or cancellation of the bond (including renewal thereof).

- (4) That payments shall be fully made as required by the applicable collective bargaining agreement at which time, if not then fully paid, shall be delinquent. The full sum of \$50,000.00 shall then be paid the Surety to the IBEW upon notice by the President of the IBEW that the Principal is delinquent, and the Surety shall be entitled to a refund, if any, only when the Principal has filed the necessary reports and the precise obligation thereunder determined, and fulfilled its payroll and fund contribution and deduction obligations less liquidated damages, if applicable, all attorney's costs, all accountant's costs, and all other costs and expenses in the matter.

ATTACHMENT:

Power of Attorney and Certificate of Authority of Attorney(s)-in-Fact of Bonding Company.

(Principal)

(Surety)

BY: _____