

12/14/2015



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## RECORDATION FORM COVER SHEET

## PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

## 1. Name of conveying party(ies)

General Electric Company

Additional name(s) of conveying party(ies) attached? ☐ Yes ☐ No

## 3. Nature of conveyance/Execution Date(s):

Execution Date(s) 3-31-15

- ☐ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Joint Research Agreement  
☐ Government Interest Assignment  
☐ Executive Order 9424, Confirmatory License  
☒ Other See Attachment

## 2. Name and address of receiving party(ies)

Name: General Electric Company

Internal Address: \_\_\_\_\_

Street Address: 1 River RoadCity: SchenectadyState: New YorkCountry: USA Zip: 12345Additional name(s) & address(es) attached? ☐ Yes ☐ No

## 4. Application or patent number(s):

☐ This document serves as an Oath/Declaration (37 CFR 1.63).

A. Patent Application No.(s)

B. Patent No.(s)

6,921,985

Additional numbers attached? ☐ Yes ☐ No

## 5. Name and address to whom correspondence concerning document should be mailed:

Name: Monica GrewalInternal Address: WilmerHale LLPStreet Address: 60 State StreetCity: BostonState: Massachusetts Zip: 02109Phone Number: 617-526-6000Docket Number: 1299600.188US1Email Address: whipdocketstaff@wilmerhale.com6. Total number of applications and patents involved: 17. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00

- ☒ Authorized to be charged to deposit account  
☐ Enclosed  
☐ None required (government interest not affecting title)

## 8. Payment Information

Deposit Account Number 08-0219Authorized User Name 8105

## 9. Signature:

monica grewal  
Signature

Date

Monica Grewal

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents:

25

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:  
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PATENT

REEL: 037290 FRAME: 0007

Record as of 4/2/15

# Attachment

Corrective by declaration of incorrect patent 6,921,985 recorded at reel  
034553/0836.

Docket No.: 1299600.00188US1  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

|                  |   |                   |              |
|------------------|---|-------------------|--------------|
| Inventors:       | Wilhelm Janssen et al.                                  | Confirmation No.: | 2012         |
| Application No.: | 10/350,452  | Art Unit:         | 2834         |
| Filed:           | January 24, 2003  | Examiner:         | Leda T. Pham |
| Patent No. :     | 6,921,985   |                   |              |
| Title:           | LOW VOLTAGE RIDE THROUGH FOR WIND TURBINE<br>GENERATORS |                   |              |

**DECLARATION PURSUANT TO RULE 323.01(C) TO CORRECT AN IMPROPERLY  
RECORDED ASSIGNMENT**

Dear Commissioner:

I, James E. McGinness, do hereby declare pursuant to Rule 323.01(c) that the rightful owner of the above-referenced patent (the '985 patent) is General Electric Company. The documents submitted by Thomas Wilkins at Reel/Frame 034553/0836 were submitted with erroneous information.

The true chain of title from the inventors to General Electric Company should not be altered by the incorrect assignment. The only inventors of the subject matter of the '985 patent are Wilhelm Janssen, Henning Luetze, Andreas Buecker, Till Hoffmann, and Ralf Hagedorn. The inventors properly assigned their interest in the subject matter of this patent in the assignment recorded at Reel/Frame 014341/0693. General Electric Company has been, and continues to be, the owner of the patent at issue.

After a six-day bench trial on the sole issue of whether Mr. Thomas Wilkins should be named a co-inventor of the '985 patent, the U.S. District Court for the Eastern District of California specifically ruled on November 29, 2012 that Mr. Wilkins is not a co-inventor. Gen. Elec. Co. v. Wilkins, Case No. 1:10-cv-00674 (E. D. Cal. 2012).

ActiveUS 143701516v.1

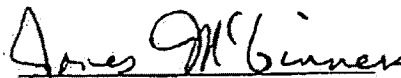
**PATENT**  
**REEL: 037290 FRAME: 0009**

On appeal, the United States Court of Appeals for the Federal Circuit affirmed the district court's decision on May 8, 2014, and specifically found that "Wilkins [had] failed to prove by clear and convincing evidence that he was entitled to co-inventorship of the '985 patent...." Gen. Elec. Co. v. Wilkins, 750 F.3d 1324, 1325 (Fed. Cir. 2014).

The required fee under 37 CFR 3.41 is hereby enclosed.

Respectfully submitted,

Dated: 3/31/2015



James E. McGinness  
Executive IP Counsel, Renewables & Nuclear  
General Electric Company

**EXHIBIT A**

**GE v. WILKINS**

**United States District Court for the Eastern District of California**

**November 29, 2012**



Positive

As of: March 25, 2015 3:54 PM EDT

## GE v. Wilkins

United States District Court for the Eastern District of California

November 29, 2012, Decided; November 29, 2012, Filed

Case No. 1:10-cv-00674 LJO JLT

### Reporter

2012 U.S. Dist. LEXIS 169910

GENERAL ELECTRIC COMPANY, et al.,  
Counterclaim-Defendants, vs. THOMAS WILKINS,  
Counterclaim-Plaintiff. MITSUBISHI HEAVY  
INDUSTRIES, Ltd., et al, Intervenor

**Subsequent History:** Appeal dismissed by, in part, Motion  
granted by GE v. Wilkins, 2013 U.S. App. LEXIS 2833 (Fed.  
Cir., Feb. 11, 2013)

Affirmed by GE v. Wilkins, 2014 U.S. App. LEXIS 8646  
(Fed. Cir., May 8, 2014)

**Prior History:** GE v. Wilkins, 2011 U.S. Dist. LEXIS 13809  
(E.D. Cal., Feb. 11, 2011)

### Core Terms

patent, low voltage, converter, inventor, wind, turbines,  
pitch, wind turbine, blade, voltage, co-inventor, generator,  
email, invention, coupled, grid, components, Ride,  
credibility, drafted, nominal, engineers, subset, conclusions  
of law, patent application, corroborated, requirements,  
convincing, deposition, crowbar

### Case Summary

#### Overview

Counter-plaintiff should not be named a co-inventor of U.S.  
Patent No. 6,921,985 because the court was not clearly  
convinced that counter-plaintiff contributed in some  
significant manner to the conception or reduction to practice  
of the patent; counter-plaintiff's definition of truth seemed  
to be that which personally would benefit him most.

#### Outcome

Counter-plaintiff should not be named a co-inventor of the  
patent.

### LexisNexis® Headnotes

Evidence > Inferences & Presumptions > Presumptions

Patent Law > Infringement Actions > Claim Interpretation >  
General Overview

Patent Law > Originality > Correction of Inventorship Errors

**HN1** The issuance of a patent creates a presumption that the  
named inventors are the true and only inventors. However,  
pursuant to 35 U.S.C.S. § 256, a court may order correction  
of a patent and have an individual named a co-inventor if  
that individual was erroneously omitted from the patent.  
The court's analysis with respect to a claim brought under §  
256 generally consists of two steps. First, the court must  
construe the patent claims in dispute to determine the  
subject matter encompassed by the claims. Second, the  
court must then compare the alleged contributions of each  
asserted co-inventor with the subject matter of the properly  
construed claims to determine whether the correct inventors  
were named.

Patent Law > Infringement Actions > Claim Interpretation >  
General Overview

**HN2** The Federal Circuit has cautioned against limiting the  
claimed invention to preferred embodiments or specific  
examples in the specification. Absent clear statements of  
scope, courts are constrained to follow the language of the  
patent claims, rather than that of the written description.

Patent Law > Originality > Joinder of Inventors

**HN3** Conception, which is the formation in the mind of the  
inventor of a definite and permanent idea of the complete  
and operative invention, is the touchstone of inventorship.  
Thus, to be a co-inventor an individual must contribute in  
some significant manner to the conception of the invention.  
Merely assisting the actual inventor after conception of the  
claimed invention; providing the actual inventor with  
well-known principles or state of the art without having a  
definite idea of the claimed combination as a whole; or

ARTHUR SHUM

simply reducing the actual inventor's idea to practice using state of the art does not make one a co-inventor.

Patent Law > Originality > Joinder of Inventors

**HN4** To be a co-inventor, an individual need not contribute to the conception of every claim of the patent, nor must he make the same amount of contribution as another inventor. 35 U.S.C.S. § 116. A contribution to one claim is enough. Therefore, the critical question for joint conception is who conceived, as that term is used in the patent law, the subject matter of the claims at issue.

Evidence > Inferences & Presumptions > Presumptions

Evidence > Burdens of Proof > Clear & Convincing Proof

Evidence > Types of Evidence > Circumstantial Evidence

Patent Law > Originality > Joinder of Inventors

**HN5** Because the issuance of a patent creates a presumption that the named inventors are the true and only inventors, an individual claiming that he was omitted as a named inventor in the patent carries a "heavy" burden. The alleged co-inventor must prove his contribution to the conception of the claims at issue by clear and convincing evidence. To meet this burden, an alleged co-inventor cannot rely solely on his own testimony as to the facts. Rather, an alleged co-inventor must supply evidence to corroborate his testimony. Corroborating evidence may take many forms, such as contemporaneous documents prepared by the alleged co-inventor; circumstantial evidence relating to the inventive process; or testimony provided from someone other than the alleged co-inventor.

Evidence > Burdens of Proof > Clear & Convincing Proof

Patent Law > Originality > Joinder of Inventors

**HN6** Whether an alleged inventor's testimony has been sufficiently corroborated is evaluated under a rule of reason analysis. Under this analysis, an evaluation of all pertinent evidence must be made so that a sound determination of the credibility of the alleged inventor's story may be reached. The court must consider corroborating evidence in context, make necessary credibility determinations, and assign appropriate probative weight to the evidence. In the end, the corroborating evidence and the alleged co-inventor's testimony must together establish inventorship by clear and convincing evidence.

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**Judges:** Lawrence J. O'Neill, UNITED STATES DISTRICT JUDGE.

**Opinion by:** Lawrence J. O'Neill

## Opinion

### DECISION OF THE COURT, FINDINGS OF FACT AND CONCLUSIONS OF LAW FOLLOWING BENCH TRIAL

The Court conducted a six-day bench trial in this case. The bench trial began on November 6, 2012 and ended on November 14, 2012. The sole issue before the Court was whether Counter-Plaintiff Thomas A. Wilkins ("Mr. Wilkins") should be named a co-inventor of U.S. Patent No. 6,921,985 ("the '985 patent") pursuant to 35 U.S.C. § 256.

ARTHUR SHUM



Having considered the evidence presented at trial and the [\*7] parties' proposed findings of fact and conclusions of law submitted after trial, the Court concludes that the heavy burden of proof by clear and convincing evidence has not been met, and therefore that Mr. Wilkins should not be named a co-inventor of the '985 patent. The Court sets forth the following findings of fact and conclusions of law underlying its conclusion, in accordance with Federal Rule of Civil Procedure 52(a).

## I. FINDINGS OF FACT<sup>1</sup>

### A. The Parties

1. Counterclaim-Defendants General Electric Company and General Electric Wind Energy, LLC (collectively "GE") develop wind energy technologies. (Doc. 76 ¶ 8.) Counterclaim-Defendant General Electric Company is the named assignee of the '985 patent. (JTX-701.)

2. Mr. Wilkins is a former GE employee who claims to be an unnamed co-inventor of the '985 patent. (Doc. No. 177 ¶¶ 28, 158.)

3. Intervenor Mitsubishi Heavy Industries, [\*8] Ltd. and Mitsubishi Power Systems Americas, Inc. (collectively "Mitsubishi") have obtained a license from Mr. Wilkins to any rights he may have in the '985 patent. (Doc. No. 126 at 1, 6.)

### B. Technology Background: Low Voltage Ride Through

4. "Low voltage events" are dips in the voltage on the power grid. Low voltage events occur when there are shorts in the wires of the power grid, which can be caused by any number of random events such as animal contact or lightning. (Kirtley Tr. 1212:11-1213:1.)

5. During low voltage events, wind turbines connected to the power grid generally face two problems, both of which can cause damage to the wind turbine itself: (1) an increase in blade speed; and (2) an increase in current in the turbine. (Kirtley Tr. 1214:5-23.)

6. In the past, wind turbines responded to low voltage events by simply disconnecting from the power grid. However, as wind farms became responsible for producing a growing percentage of the overall grid power, utilities began requiring

wind turbines to remain connected to the grid and continue operating during low voltage events. The ability of a wind turbine to meet this requirement is known as "low voltage ride through" ("LVRT"). [\*9] (JTX-701 1:25-33, 41-42; Harley Tr. 611:4-612:6.)

### C. The '985 Patent

7. The '985 patent is entitled, "Low Voltage Ride Through for Wind Turbine Generators." The '985 patent describes a LVRT solution. The inventors named in the patent are: Henning Luetze ("Mr. Luetze"), Wilhelm Janssen ("Mr. Janssen"), Andres Buecker ("Mr. Buecker"), Ralf Hagedorn ("Mr. Hagedorn"), and Till Hoffman ("Mr. Hoffman"). (JTX-701.)

8. The '985 patent consists of four independent claims and forty-one dependent claims. (JTX-701; Harley Tr. 623:12-18.)

9. The four independent claims of the '985 patent are:

#### (a) Claim 1:

A wind turbine generator comprising: a blade pitch control system to vary a pitch of one or more blades; a turbine controller coupled with the blade pitch control system; a first power source coupled with the turbine controller and with the blade pitch control system to provide power during a first mode of operation; and an uninterruptible power supply coupled to the turbine controller and with the blade pitch control system to provide power during a low voltage event; wherein the turbine controller causes the blade pitch control system to vary the pitch of the one or more blades in response to the [\*10] transition in response to detection of a transition from the first mode of operation. (JTX-701 6:65-7:13.)

#### (b) Claim 15:

A wind turbine generator comprising: a generator; a power converter coupled with the generator, the power converter having an inverter coupled to receive power from the generator, a converter controller coupled with the inverter to monitor a current flow in the inverter wherein the converter controller is coupled to receive power from an

<sup>1</sup> Any finding of fact that may be construed as a conclusion of law is hereby also adopted as a conclusion of law. Likewise, any conclusion of law that may be construed as a finding of fact is hereby also adopted as a finding of fact. See, e.g., ProMex, LLC v. Hernandez, 781 F. Supp. 2d 1013, 1016, 1019 (C.D. Cal. 2011).

ARTHUR SHUM

uninterruptible power supply during a low voltage event, and a circuit coupled with the input of the inverter and with the converter controller to shunt current from the inverter and generator rotor in response to a control signal from the converter controller. (JTX-701 7:58-8:3.)

(c) Claim 29:

A method comprising: providing power to wind turbine components using a generator of the wind turbine; detecting a low voltage event; receiving power from an uninterruptible power supply to a first subset of wind turbine components, wherein the first subset of wind turbine components comprises a blade pitch controller to selectively power the blade pitch controller to maintain a rotor speed below a predetermined overspeed limit during the low [\*11] voltage event; and disconnecting a second subset of wind turbine components from the generator during the low voltage event. (JTX-701 8:46-58.)

(d) Claim 39:

An apparatus comprising: means for providing power to wind turbine components using a generator of the wind turbine; means for detecting a low voltage event; means for providing power from an uninterruptible power supply to a first subset of wind turbine components, wherein the first subset of wind turbine components comprises a blade pitch controller to selectively power the blade pitch controller to maintain a rotor speed below a predetermined overspeed limit during the low voltage event; and means for disconnecting a second subset of wind turbine components from the generator during the low voltage event. (JTX-701 9:13-10:5.)

10. Claim 1 requires the use of an uninterruptible power supply ("UPS") to supply power to the turbine controller and the blade pitch controller during a low voltage event. The turbine controller and blade pitch controller are powered in order to allow the wind turbine to control its blade speed during a low voltage event. (See Harley Tr. 624:4-625:1.)

11. Claim 15 requires the use of a UPS to supply power [\*12] to the converter controller, which is coupled to a crowbar. The converter controller is powered so that it may send a signal to the crowbar to shunt current away from the wind turbine's inverter and generator rotor during a low voltage event. (See Harley Tr. 630:8-19.)

12. Claims 29 and 39 require a method and apparatus that (1) detects a low voltage event; (2) uses a UPS to supply power to a subset of components that includes the blade pitch controller so that the rotor speed may be maintained below a predetermined limit; and (3) disconnects a second subset of components during the low voltage event. (See Harley Tr. 625:17-627:3.)

#### D. Mr. Wilkins' Credibility

13. Mr. Wilkins is biased. (See *infra* Section I.)

14. Mr. Wilkins further undermined his own credibility while testifying at trial. First, the Court found many of Mr. Wilkins' responses to basic questions purposefully evasive. (See, e.g., Wilkins Tr. 339: 25-340:6; 344:5-345:20; 350:8-351:13; 351:21-352:14; 383:16-384:23; 401:10-19.) Second, Mr. Wilkins was repeatedly impeached during cross-examination, to the point where the veracity of even simple answers were called into question. (See, e.g., Wilkins Tr. 314:19-315:24; 322:12-18; [\*13] 367:23-368:24; 370:21-372:11; 395:7-396:6; 397:20-398:24.) Third, having observed Mr. Wilkins' demeanor during examination, the Court is left with the firm impression that Mr. Wilkins is a game player who was more concerned about gaining personal advantage than testifying truthfully.

15. Taking all these factors together, the Court does not find Mr. Wilkins' trial testimony to be credible evidence. The Court attributes weight to Mr. Wilkins' trial testimony only on the rare occasion where that testimony has sufficiently been corroborated and reinforced by independent, credible evidence.

#### E. Mr. Wilkins' Work at Lake Benton II

16. Lake Benton II was a 100 megawatt class wind farm located in Minnesota. The wind farm was owned by Zond/Enron Wind and connected to the power grid owned by Northern States Power ("NSP"). (Gonzales Tr. 104:1-15; Christenson Tr. 975: 13-17; Wilkins Tr. 135:5-13.)

17. Under the B-5 Appendix to the Lake Benton II purchase agreement, the wind turbines were required to have the ability to ride through voltage dips down to 70% of nominal voltage. (WTX-190; Gonzales Tr. 106:17-107:1; Kirtley Tr. 1328:7-10.)

18. Mr. Wilkins acted as Zond/Enron Wind's lead technical person [\*14] on the matter. Mr. Wilkins was tasked with understanding the requirements of the B-5 Appendix and developing solutions that met those specifications. (Gonzales

ARTHUR SHUM

Tr. 110:14-112:4.)

19. After some modifications were made, the Lake Benton II wind turbines were tested and eventually shown to be capable of riding through voltage dips down to 70% of nominal voltage for 0.5 seconds. This satisfied the LVRT requirements under the B-5 Appendix. (WTX-191; Christenson Tr. 1004:3-14; Gonzales Tr. 117:9-118:18.)

20. Mr. Wilkins drafted a document entitled, "Scope of Work for LB1 and LB2," which outlined the modifications made to the Lake Benton II wind turbines. The document indicates that two changes were made: (1) the addition of a new DC power supply for new contactors; and (2) modifications in the converter software. (WTX-248.)

21. No modifications were made to the Lake Benton II wind turbines in order to control blade pitch during a low voltage event. (Gonzales Tr. 119:23-120:12; 121:25-122:10.)

22. The Lake Benton II wind turbines had a very small capacitor on the control board that keeps an overspeed sensor alive for a brief period during a grid outage. (Christenson Tr. 999:3-7.)

23. The nonvolatile [\*15] overspeed ("NOS") capacitor did not power the converter controller of the Lake Benton II wind turbines during a low voltage event. The converter controller had enough power on its own. (Kirtley Tr. 1239:4-10; Wilkins Tr. 371:19-372:11.)

24. The Lake Benton II wind turbines did not utilize a crowbar to achieve LVRT. (Christenson Tr. 999:11-13; 1009:21-1010:2.)

25. There is no other documentary evidence regarding modifications made to the Lake Benton II wind turbines. Controller diagrams of the Lake Benton II wind turbines were offered into evidence, but the diagrams were authored before any of the Lake Benton II LVRT tests were conducted and did not, in of themselves, reflect any modifications made by Mr. Wilkins. (JTX-704; Harley Tr. 697:20-698:8; Wilkins Tr. 352:2-14.)

26. Mr. Wilkins was aware of the policy requiring an employee to complete and submit an invention disclosure form ("IDL") for any idea that was believed to be inventive, but Mr. Wilkins did not complete an IDL for any idea developed at Lake Benton II relating to the '985 patent. (Christenson Tr. 976:21-977:19; Wilkins Tr. 376:8-12.)

#### F. Mr. Wilkins' Work with the German Engineers

27. In October 2000, Mr. Wilkins traveled [\*16] to Germany to meet with several German engineers, including Mr. Luetze, Mr. Janssen, and Mr. Buecker. (WTX-033; WTX-368.)

28. The only documentary evidence offered with respect to this trip is a short email outlining the very general objectives of the trip. The purpose of the trip was to discuss the implementation of voltage control (which is the subject matter of a different patent) at India Mesa. (WTX-368.)

29. Mr. Wilkins left Enron Wind in May 2001. (Wilkins Tr. 177:23-25.)

30. At the end of 2001, the E.ON standards were promulgated in Germany. Under the E.ON standards, European wind turbines were required to be capable of riding through voltage dips of as low as 15% of nominal voltage. (Harley Tr. 725:4-726:24; Christenson Tr. 1000:7-10, 1002:24; 1012:10-12; Wilkins Tr. 385:7-11.)

31. Mr. Wilkins returned to Enron Wind in January 2002.<sup>2</sup> (Wilkins Tr. 178:4-6.)

32. Mr. Wilkins' work included, among other things, converter design and implementation for the "Amercianized" model of the 1.5 MW wind turbine. This work was done in conjunction with Trace, a converter manufacturer, and in [\*17] discussion with Mr. Janssen, who at the time was also working on the design of a different converter. (See WTX-008; WTX-249; WTX-362; WTX-371; MTX-036; Wilkins Tr. 178:7-180:9.)

33. On April 16, 2002, Mr. Janssen sent Mr. Wilkins an email, in which Mr. Janssen suggests that Mr. Wilkins travel to Salzbergen, Germany to meet with him. Mr. Janssen outlines several topics that he wishes to discuss, including (1) the behavior of the turbine system at grid tolerances of 70% of nominal voltage; (2) a comparison of different converter manufacturers; and (3) the use of simulations to test converters. (WTX-373.)

34. On April 17, 2002, Mr. Janssen sent Mr. Wilkins an email indicating that the converter that he was working on ("the SEG converter") was unable to ride through voltage dips of less than 10% of nominal voltage. Mr. Janssen also noted that he was informed that the Trace converters at Lake Benton II were tested for LVRT using a transformer, and not

<sup>2</sup> Mr. Wilkins was later employed by GE after GE acquired certain assets from Enron Wind. (Doc. 657 at 2.)

a doubly fed generator. Mr. Janssen emphasized that the two tests were not interchangeable. (WTX-436.)

35. In response, Mr. Wilkins clarified that the testing of the Lake Benton II converters did use a doubly fed generator. Mr. Wilkins later [\*18] sent Mr. Janssen a copy of the test results from Lake Benton II. (WTX-436; MTX-043.)

36. On April 22, 2002, Mr. Janssen sent Mr. Wilkins an email asking for information regarding the ride through requirements and specifications of utilities. Mr. Janssen suggested that this information was needed to evaluate the performance of the SEG converter. (MTX-036.)

37. As a whole, the emails between Mr. Wilkins and Mr. Janssen show that the two discussed converter design and LVRT. Nevertheless, there is no specific mention in any of the emails of a UPS coupled to a converter for the purpose of LVRT.

38. In August 2002, Mr. Wilkins traveled to Salzbergen in order to meet with Mr. Luetze and the other German engineers. (WTX-033; Wilkins Tr. 202:2-25; Luetze Tr. 440:5-7.)

39. Mr. Luetze testified in his deposition that during Mr. Wilkins' trip there was one or perhaps there were two meetings where only Mr. Luetze and Mr. Wilkins were present. Those meetings lasted for several hours in total, but not a full day. (Luetze Tr. 450:6-20; 456:13-16.)

40. [\*19] Mr. Luetze testified in his deposition that there was also one meeting that was attended by Mr. Luetze, Mr. Wilkins, and other people. (Luetze Tr. 450:21-25.)

41. Mr. Luetze testified in his deposition that as a general matter Mr. Wilkins discussed grid requirements and LVRT solutions. This included: a capacitor that was used for a wind turbine by Mr. Cosineau (Luetze Tr. 441:7-9); crowbars for the 1.5 MW wind turbine (Luetze Tr. 441:20-21); power management and the removal of non-critical systems during a low voltage event (Luetze Tr. 442:1-8); pitch control systems (Luetze Tr. 441:9-11); and the use of UPSs, both large and small, to meet LVRT requirements (Luetze Tr. 443:9-20; 446:25-447:12; 448:9-17; 452:10-17).

42. However, despite acknowledging that these discussions took place, Mr. Luetze testified in his deposition that he could not say what exactly Mr. Wilkins contributed to the '985 patent. (Luetze Tr. 453:21-454:3; 462:16-24.)

43. Mr. Luetze testified in his deposition that he could not recall where exactly the concept of a UPS supplying power to the controllers during a low voltage event originated from and that this was a "very obvious requirement." (Luetze

[\*20] Tr. 459:5-8; 461:6-462:8.)

44. Mr. Wilkins admitted, in the context of his work at Lake Benton II, that it was obvious to any engineer that a capacitor could provide energy storage for a converter controller. (See Wilkins Tr. 372:18-373:3.)

45. Mr. Luetze was the person with the most knowledge regarding what ideas were ultimately shared between Mr. Wilkins and the German engineers regarding LVRT. (See Romano Tr. 1172:11-19; 1188:6-20.)

46. Beyond Mr. Wilkins' testimony at trial, there is no other evidence, either documentary or testimonial, regarding Mr. Wilkins' August 2002 trip to Germany.

#### G. The Florida Power & Light Project

47. In the fall of 2002, Florida Power and Light ("FP&L") requested that the wind turbines at Taiban Mesa, New Mexico be able to stay connected to the power grid when voltage dropped down to 30% of nominal voltage. (WTX-027; Fogarty Tr. 824:12-825:6.)

48. The nature of the LVRT problem posed by FP&L's request (30% of nominal voltage) was substantially different from the one posed at Lake Benton II (70% of nominal voltage). (Christenson Tr. 996:20-997:7, 1004:15-23; Kirtley Tr. 1323:8-10.)

49. On October 29, 2002, Mr. Wilkins drafted and circulated a document entitled [\*21] "Design and Cost Analysis Of Adding Extended Ride Through Capability To The GE WIND 1.5 WTG" ("Design and Cost Analysis"). The Design and Cost Analysis represented Mr. Wilkins' proposal for achieving LVRT in response to FP&L's request. (WTX-027; WTX-051; Christenson Tr. 1022:2-8; Romano Tr. 1174:7-1175:10.)

50. The concept embodied in Mr. Wilkins' proposal was the use of a 50-kilowatt UPS, which is a large UPS, to supply power to all auxiliary systems for 60 seconds during a low voltage event. The UPS then supplied power only to the wind turbine's essential electronic equipment for up to two hours. (WTX-027 at GEWK00034738.)

51. Mr. Wilkins' proposal acknowledged that the pitch system would need to be able to pitch toward feather (pitch away from the wind) during the low voltage event in order to protect the system from overspeed. (WTX-027 at GEWK00034737, 41.)

52. Mr. Wilkins' proposal also suggested that if the converter's capacity to withstand the low voltage event was

ARTHUR SHUM

exceeded, the crowbar would be fired. (WTX-027 at GEWK00034737.)

53. Mr. Wilkins admitted, however, that coupling a crowbar to the converter was not his idea. (Wilkins Tr. 280:5-12; 286:12-20; 387:17-389:13.)

54. By late [\*22] summer or early fall of 2002, the German engineers in Salzbergen were already in the process of developing their own LVRT solution to meet the more stringent E.ON standards (15% nominal voltage). (Romano Tr. 1177:8-16.)

55. In an email sent on November 22, 2002, Mr. Luetze outlined his solution for meeting the E.ON standards. The approach entailed the use of a 24 VDC UPS (an ultracapacitor) to supply power to the converter controller during the low voltage event. Further, the pitch system would be powered by a UPS (in the form of a battery) and would pitch towards 90 degrees during the low voltage event. (WTX-062 at GEWK00256612-13.)

56. Under this approach, the 24 VDC UPS ultracapacitor supplied power to all the controllers during the low voltage event. (See GETX-2159 at GEWK00225199; Hoffman Tr. 1116:2-16; Romano Tr. 1187:5-11.)

57. By December 2002, GE decided to pursue Mr. Luetze's approach to satisfy FP&L's LVRT request and not Mr. Wilkins' 50-kilowatt UPS approach. The high cost of Mr. Wilkins' approach was a factor in the decision. (Christenson Tr. 983:18-20; 987:1-5.)

#### H. The '985 Patent Application Process

58. In December 2002, Mr. Wilkins resigned from GE. (WTX-084; WTX-210.)

59. [\*23] Thus, Tim Mohammad, a GE engineer, drafted an invention disclosure letter on December 5, 2002, ("the December 5 IDL") outlining Mr. Wilkins' proposed LVRT solution as embodied in the Design and Cost Analysis. (WTX-205.)

60. On December 16, 2002, Dr. James Fogarty ("Dr. Fogarty") drafted an invention disclosure letter of his own ("the December 16 IDL"). (WTX-068.)

61. The December 16 IDL incorporated the 50-kilowatt UPS solution proposed by Mr. Wilkins as reflected in the Design and Cost Analysis and the December 5 IDL. (Fogarty Tr. 845:1-25; WTX-068 at GEWK00366053.)

62. The December 16 IDL also incorporated the use of a reversible crowbar, which Dr. Fogarty attributed to the team of German engineers in Salzbergen. (WTX-068 at GEWK00366054; Fogarty Tr. 845:18-846:3.)

63. In general, Dr. Fogarty learned of the German team's ideas through his discussions with them. (Fogarty Tr. 846:4-13.)

64. Dr. [\*24] Fogarty conceded that he was never involved in the discussions among Mr. Wilkins, Mr. Luetze, and Mr. Buecker during Mr. Wilkins' 2002 Germany trip. Dr. Fogarty also conceded that he never received information regarding what ideas those individuals may have shared among one other. (Fogarty Tr. 915:24-916:13.)

65. Dr. Fogarty named Mr. Wilkins as an inventor in the December 16 IDL as a result of his inclusion of the 50-kilowatt UPS solution. Dr. Fogarty also placed question marks in the subsequent signature line because he was unsure of the names of the other inventors for the other ideas. (Fogarty Tr. 846:19-847:18.)

66. Dr. Fogarty did not intend to suggest that Mr. Wilkins was the sole inventor of the invention disclosed in the December 16 IDL. (Fogarty Tr. 847:19-21.)

67. On January 15, 2003, Dr. Fogarty drafted a second invention disclosure letter ("the January 15 IDL"). The January 15 IDL was almost identical to the December 16 IDL and did not include any substantive changes. (WTX-206; Fogarty Tr. 853:2-7.)

68. On January 16, 2003, Dr. Fogarty drafted a third invention disclosure letter ("the January 16 IDL") to encompass the LVRT solution presented by Mr. Luetze and the team of German [\*25] engineers. (See WTX-170; Fogarty Tr. 854:12-856:8.)

69. Dr. Fogarty did not intend to include any idea from Mr. Wilkins. (Fogarty Tr. 856:9-12.)

70. Dr. Fogarty indicated in the January 16 IDL that the identities of the inventors still needed to be determined. (Fogarty Tr. 857:2-16.)

71. Dr. Fogarty believed that both the ideas embodied in the January 15 IDL and the January 16 IDL were worth patenting. (WTX-170.)

72. Both invention disclosures were quickly forwarded to GE's outside patent counsel to begin the patent application process. (See Mendonsa Tr. 1033:15-21.)

ARTHUR SHUM:

73. GE's outside patent counsel was given one week to prepare and file the application for the patent. The drafting of the application was rushed due to an upcoming customer presentation. (Mallie Tr. 514:8-515:4; Christenson Tr. 987:25-988:3.)

74. The draft application named Mr. Wilkins as an inventor. (JTX-702.)

75. Paul Mendonsa ("Mr. Mendonsa"), who drafted the patent application for the '985 patent, believed that he used the January 16 IDL to draft the application but included Mr. Wilkins name in the application due to a simple "mix-up." (Mendonsa Tr. 1029:11-14, 1044:8-1045:2.) The Court finds that it was much more than [\*26] a mix-up. It was a hurried job without the important factual discovery and investigation having been completed before the trigger on the application was pulled.

76. Mr. Mendonsa and Dr. Fogarty corresponded about drafts of the patent application prior to its filing, but Dr. Fogarty never commented on the fact that Mr. Wilkins was included as an inventor on the cover page. (Mendonsa Tr. 1034:9-1038:15.)

77. On January 23, 2003, Mr. Mendonsa circulated a copy of the proposed patent application to the German inventors, but Mr. Mendonsa does not recall receiving any comments from the German inventors. (WTX-090; Mendonsa Tr. 1039:5-15.)

78. The application for the '985 patent was filed on January 24, 2003. (JTX-702.)

79. On February 12, 2003, Lisa Moyles ("Ms. Moyles"), GE's in-house patent counsel, sent an email to Mr. Luetze, Mr. Buecker, Mr. Janssen, and Dietmar Meyer ("Mr. Meyer"), among others, with several documents attached: (1) an IDL for interrupted pitching; (2) an IDL for yawing a wind turbine; (3) the January 15 IDL; and (4) the as-filed application for the '985 patent. (WTX-103.)

80. In the email, Ms. Moyles stated that the as-filed application incorporated at least two IDLs and [\*27] that she wanted to "clean up" the situation. Therefore, Ms. Moyles requested a written narrative describing what each inventor believed his contribution to be regarding the as-filed patent application. (WTX-103.)

81. On February 18, 2003, Mr. Meyer responded to Ms. Moyles' email. (WTX-112.)

82. Mr. Meyer was not a lawyer, and Ms. Moyles did not rely on him for legal determinations. (Moyles Tr. 1062:23-1063:12.)

83. Mr. Meyer indicated that he had "checked the issue" with Mr. Luetze and Mr. Buecker, and the LVRT issue could be divided into "three" categories: (1) the UPS was attributable to Mr. Wilkins; (2a) the converter idea was attributable to Mr. Henning, Mr. Buecker, and Mr. Janssen; (2b) the idea to switch off electric devices such as fans during the low voltage event was attributable to Mr. Henning, Mr. Buecker, and Mr. Janssen; and (3) the interrupted pitching system was attributable to Mr. Hoffman and Mr. Hagedorn. (WTX-112.)

84. The email, however, does not indicate what standard Mr. Meyer applied in deciding which names to list; what instructions, if any, Mr. Meyer provided to Mr. Luetze and Mr. Buecker; whether anyone else felt obligated to include Mr. Wilkins for claims because [\*28] his name had already appeared in the cover sheet of the as-filed application, or anything else Mr. Luetze and Mr. Buecker may have been thinking, had discussed, or had relied upon. Thus, the substantive opinions lack foundation.

85. On March 11, 2003, Stefan Rieken ("Mr. Rieken"), a GE patent engineer, prepared a chart dividing the interests in the '985 patent. The chart divided the interests in the same manner as did the Meyer email: Mr. Wilkins was attributed with the concept of using a equal or less than 50 kVA UPS; Mr. Luetze, Mr. Buecker, and Mr. Janssen were attributed with the converter ideas; and Mr. Hoffman and Mr. Hagedorn were attributed with the interrupted pitching concept. (WTX-122.)

86. Mr. Rieken based his determinations on discussions he had with Mr. Buecker. (McGinness Tr. 1149:18-1150:8.)

87. However, there is no indication as to the extent or specific substance of the discussions, nor is there any indication upon what, if anything, Mr. Rieken relied on as a result of the discussions to place him in a position of knowledge to divide those interests among anyone.

88. In March or April 2003, Ms. Moyles held a conference call to discuss inventorship of the as-filed patent [\*29] application. (WTX-465; Mallie Tr. 561:9-562:3.)

89. Mr. Mallie could not recall who participated in the conference call, but he believed that at least two of the five German engineers named as inventors in the as-filed application were on the call. (Mallie Tr. 561:9-562:3.)

90. On April 8, 2003, Mr. Mallie circulated an email summarizing the conference call. Suffice it to say that details were not a focal point of the email. After discussing

ARTHUR SHUM

the issue with all the inventors and reviewing materials, Mr. Mallie recommended in the email that Mr. Wilkins be removed from the pending application because Mr. Wilkins' original idea was not disclosed in the application. Mr. Mallie also recommended that GE prepare a new patent application that covers Mr. Wilkins' concept. (GETX-2323.)

91. The '985 patent was issued on July 26, 2005. Mr. Wilkins is not named as an inventor in the patent. (JTX-701.)

### I. Mr. Wilkins' Financial Relationship with Mitsubishi

92. In March 2008, a law firm working with Mitsubishi contacted Mr. Wilkins and asked him to work for Mitsubishi in connection with a proceeding pending between GE and Mitsubishi in the U.S. International Trade Commission ("ITC"). (GETX-2499.)

93. Between [\*30] March 2008 and the end of January 2009, Mr. Wilkins billed Mitsubishi close to \$150,000 for approximately 1,000 hours of work searching for prior art in an attempt to help Mitsubishi invalidate the '985 patent in the ITC proceeding. Mitsubishi also paid Mr. Wilkins another \$50,000 in legal fees associated with the ITC proceeding. (GETX-2661.)

94. In August 2009, after the ITC hearing had been completed, Mr. Wilkins entered a second agreement with Mitsubishi. That agreement was later amended in December 2009. Pursuant to these agreements, Mitsubishi agreed to pay Mr. Wilkins \$100,000 for an option to license the '985 patent and \$200,000 in retainer fees. (GETX-2451; GETX-2477.)

95. In December 2009, Mitsubishi exercised its option to license the '985 patent. Mitsubishi paid Mr. Wilkins \$1,500,000 for the license. Mitsubishi also has the option of extending the license by paying Mr. Wilkins another \$1,000,000 by December 18, 2012. (GETX-2482.)

## II. CONCLUSIONS OF LAW

### A. Framework for Correcting a Patent

*HN1* The issuance of a patent "creates a presumption that the named inventors are the true and only inventors." *Ethicon, Inc. v. United States Surgical Corp.*, 135 F.3d 1456, 1460 (Fed. Cir. 1998) [\*31] (citation omitted). However, pursuant to 35 U.S.C. § 256, a court may order correction of a patent and have an individual named a co-inventor if that individual was erroneously omitted from the patent. *See Stark v. Advanced Magnetics*, 119 F.3d 1551, 1553 (Fed.

*Cir.* 1997). The court's analysis with respect to a claim brought under § 256 generally consists of two steps. *See Tivnan, Ltd. v. Sokymat SA*, 299 F.3d 1292, 1302 (Fed. Cir. 2002). First, the court must construe the patent claims in dispute "to determine the subject matter encompassed" by the claims. *Id.* Second, the court must "then compare the alleged contributions of each asserted co-inventor with the subject matter of the properly construed claim[s] to . . . determine whether the correct inventors were named." *Id.*

### B. Claim Construction

The parties do not dispute any particular term in the patent. However, during trial the parties suggested that a dispute existed as to whether the figures in the patent, or the descriptions thereof, limit the scope of the claims of the patent. For example, much was discussed regarding the description of Figure 3, which provides, in part: "In one embodiment, UPS 330 does not have sufficient capacity [\*32] to energize all of the electrical loads served by LVDP 320." (JTX-701 3:67-4:2.) There was suggestion that this language somehow narrowed the scope of the claims of the patent by intimating that the UPS was to be of a certain size or in a certain location.

As the patent itself indicates, the invention described in the patent "is illustrated by way of example, and not by way of limitation, in the figures of the accompanying drawings . . ." (JTX-701 2:3-5.) Moreover, *HN2* the Federal Circuit has "cautioned against limiting the claimed invention to preferred embodiments or specific examples in the specification." *Teleflex, Inc. v. Ficosa N. America Corp.*, 299 F.3d 1313, 1328 (Fed. Cir. 2002). "Absent . . . clear statements of scope, [courts] are constrained to follow the language of the claims, rather than that of the written description." *Id.* Here, the claims in the patent are broad in scope and therefore the Court construes them as such.

### C. Mr. Wilkins' Contributions

*HN3* Conception, which is the "formation in the mind of the inventor[] of a definite and permanent idea of the complete and operative invention," is the touchstone of inventorship. *Burroughs Wellcome Co. v. Barr Laboratories, Inc.*, 40 F.3d 1223, 1227 (Fed. Cir. 1994) [\*33] (internal quotation marks omitted). Thus, to be a co-inventor an individual must "contribute in some significant manner to the conception of the invention." *Fina Oil & Chemical Co. v. Ewen*, 123 F.3d 1466, 1473 (Fed. Cir. 1997) (emphasis added). "[M]erely assisting the actual inventor after conception of the claimed invention," providing the actual inventor with well-known principles or state of the art without having a definite idea of

ARTHUR SHUM

the claimed combination as a whole; or simply reducing the actual inventor's idea to practice using state of the art does not make one a co-inventor. Ethicon, 135 F.3d at 1460.

**HN4** To be a co-inventor, an individual need not contribute to the conception of every claim of the patent, nor must he make the same amount of contribution as another inventor. See 35 U.S.C. § 116. "A contribution to one claim is enough." Ethicon, 135 F.3d at 1460. Therefore, "the critical question for joint conception is who conceived, as that term is used in the patent law, the subject matter of the claims at issue." Id.

**HN5** Because the issuance of a patent creates a presumption that the named inventors are the true and only inventors, an individual claiming that he was omitted as a named [\*34] inventor in the patent carries a "heavy" burden. Hess v. Advanced Cardiovascular Sys., Inc., 106 F.3d 976, 980 (Fed. Cir. 1997). The alleged co-inventor must prove his contribution to the conception of the claims at issue by "clear and convincing evidence." Id. To meet this burden, an alleged co-inventor cannot rely solely on his own testimony as to the facts. See Troyan, 299 F.3d at 1302. Rather, "an alleged co-inventor must supply evidence to corroborate his testimony." Ethicon, 135 F.3d at 1461. Corroborating evidence may take many forms, such as contemporaneous documents prepared by the alleged co-inventor; circumstantial evidence relating to the inventive process; or testimony provided from someone other than the alleged co-inventor. Id.

**HN6** "Whether an alleged inventor's testimony has been sufficiently corroborated is evaluated under a 'rule of reason' analysis." Id. Under this analysis, "an evaluation of all pertinent evidence must be made so that a sound determination of the credibility of the [alleged] inventor's story may be reached." Price v. Symsek, 988 F.2d 1187, 1194 (Fed. Cir. 1993) (emphasis in original). The court must "consider corroborating evidence in context, make necessary [\*35] credibility determinations, and assign appropriate probative weight to the evidence[.]" Ethicon, 135 F.3d at 1464. In the end, the corroborating evidence and the alleged co-inventor's testimony must together establish inventorship by clear and convincing evidence. Id.

### III. CONCLUSION

A person who claims to be a co-inventor would ordinarily be of nearly indispensable value to the proof of that claimed contribution. Mr. Wilkins leaves this case with no credibility. He was a purchased witness/party, and whether or not that was the intent of Mitsubishi, clearly that was the result. His

bias is only paralleled by his attitude that this is all a game. His definition of truth seems to be that which personally will benefit him most. The Court does not share that definition. Over and over again during his trial testimony, Mr. Wilkins studied the questions in an obvious attempt to project where the answer might take him—or more to the point, trap him. Impeachment during cross examination became so constant that it became routine, even to the point of the Court's finding it difficult to believe the obvious without corroboration.

A second witness who should have been key to attempting to meet the [\*36] burden of proof was the retained expert for Mitsubishi, Professor Ronald Harley. He is intelligent and experienced in pertinent matters, and he had strong opinions. The fundamental problem with his opinions is that he relied heavily on Mr. Wilkins, and therefore lacked a credible foundation. He accepted Mr. Wilkins' deposition and trial testimony as true without concern for an independent analysis for credibility. He never had any give/take discussions with Wilkins that might have facilitated such an exercise so that he could have made a crucial determination.

The third witness who should have been in the linchpin category to prove the case for Mr. Wilkins was Inventor Luetze. Mr. Luetze, a member of what was referred to during the trial as "The German Group," expressed strong opinions that Mr. Wilkins contributed to the relevant patent, and an equally strong opinion that he should have been included as an inventor of the '985. At first blush, this testimony was largely convincing, at least until he was put to the test of explaining the basis for the opinions. He was unable to give even a single, specific or convincing example to justify the conclusion of Wilkins' contribution. (See [\*37] Luetze deposition, pages 457-459, 462). With that absence of foundation, the opinions themselves lacked the weight needed to convince.

Absent those three witnesses, the trier of fact is left to look to the documentation of the discussions between Mr. Luetze and Mr. Wilkins. Simply put, there are no reliable documents that verify what, if anything, Mr. Wilkins contributed to any of the claims of the '985 patent. The fact that discussions occurred is alone not enough. The burden remains unmet in that the Court is not clearly convinced that Mr. Wilkins contributed in some significant manner to the conception or reduction to practice of the "Low Voltage Ride Through for Wind Turbine Generators" patent #6921985 (aka the '985 patent). Judgment is to enter in favor of the General Electric parties and against the Wilkins and the Mitsubishi parties.

IT IS SO ORDERED.

ARTHUR SHUM



2012 U.S. Dist. LEXIS 169910, \*37

Dated: November 29, 2012

UNITED STATES DISTRICT JUDGE

/s/ Lawrence J. O'Neill

ARTHUR SHUM

**EXHIBIT B**

**GE v. WILKINS**

**United States Court of Appeals for the Federal Circuit**

**May 8, 2014**



Neutral

As of: March 25, 2015 3:52 PM EDT

## GE v. Wilkins

United States Court of Appeals for the Federal Circuit

May 8, 2014, Decided

2013-1170

### Reporter

750 F.3d 1324; 2014 U.S. App. LEXIS 8646; 110 U.S.P.Q.2D (BNA) 1937; 2014 WL 1814011

GENERAL ELECTRIC COMPANY AND GE WIND ENERGY, LLC, Plaintiffs/Counterclaim Defendants-Appellees, v. THOMAS WILKINS, Defendant/Counterclaimant-Appellant, AND MITSUBISHI HEAVY INDUSTRIES, LTD. AND MITSUBISHI POWER SYSTEMS AMERICAS, INC., Counterclaimants.

credible testimony that could be corroborated; [2]-District court nevertheless analyzed all of the evidence presented under the rule of reason standard and did not err in finding that there was no clear and convincing evidence showing that defendant made any inventive contribution to the claims of the patent.

**Subsequent History:** US Supreme Court certiorari denied by *Wilkins v. Ge*, 2014 U.S. LEXIS 6598 (U.S., Oct. 6, 2014)

**Prior History:** [\*\*1] Appeal from the United States District Court for the Eastern District of California in No. 10-CV-0674, Judge Lawrence J. O'Neill.

*GE v. Wilkins*, 2012 U.S. Dist. LEXIS 169910 (E.D. Cal., Nov. 29, 2012)

**Disposition:** AFFIRMED.

### Core Terms

patent, district court, turbine, Electric, wind, inventors, grid, low voltage, co-inventor, converter, blade, credibility, corroborating, inventorship, pitch, coupled, wind turbine, generator, invention, clear and convincing evidence, rule of reason, requirements, documents, inverter, credible testimony, components, powering, team, control system, correspondence

### Case Summary

#### Overview

**ISSUE:** Whether district court erred in entering a declaratory judgment in favor of plaintiffs that defendant was not a co-inventor under 35 U.S.C.S. § 256 of a patent that was directed to controlling key components of a wind turbine that would allow it to remain connected to the power grid and to safely ride through a low voltage event. **HOLDINGS:** [1]-Defendant failed to prove his inventorship claim by clear and convincing evidence, as he did not present any

### Outcome

The court affirmed the judgment.

### LexisNexis® Headnotes

Patent Law > Jurisdiction & Review > Standards of Review > Clearly Erroneous Review

Patent Law > Jurisdiction & Review > Standards of Review > De Novo Review

Patent Law > Originality > Joint & Sole Inventorship

**HN1** Inventorship is a question of law, which the U.S. Court of Appeals for the Federal Circuit reviews without deference. The court reviews the district court's underlying findings of fact for clear error.

Evidence > Burdens of Proof > Clear & Convincing Proof

Patent Law > Originality > Joinder of Inventors

**HN2** Because the issuance of a patent creates a presumption that the named inventors are the true and only inventors, the burden of showing misjoinder or nonjoinder of inventors is a heavy one and must be proved by clear and convincing evidence.

Civil Procedure > Appeals > Standards of Review > Questions of Fact & Law

**HN3** Credibility determinations are entitled to strong deference.

Patent Law > Originality > Joint & Sole Inventorship

ARTHUR SHUM

**HN4** In order to guard against courts being deceived by inventors who may be tempted to mischaracterize the events of the past through their testimony, the law requires corroboration of a putative inventor's credible testimony, the sufficiency of which is measured under a rule of reason standard. Therefore, as a threshold matter, in order for the rule of reason requirement to even apply there must be some evidence that a fact-finder can find reasonable; the putative inventor must first provide credible testimony that only then must be corroborated. The very purpose of the rule of reason requirement is to verify the credibility of a putative inventor's story.

Civil Procedure > Appeals > Standards of Review > General Overview

Evidence > ... > Presumptions > Particular Presumptions > Regularity

**HN5** A district court need not write an opinion that expressly discusses every admitted exhibit. An appellate court presumes that a fact finder reviews all evidence presented unless he explicitly expresses otherwise.

Patent Law > Originality > Joint & Sole Inventorship

**HN6** A person will not be a co-inventor if he or she does no more than explain to the real inventors concepts that are well known and the current state of the art.

Patent Law > Originality > Joint & Sole Inventorship

**HN7** A co-inventor must contribute in some significant manner to the conception or reduction to practice of the invention and make contribution to the claimed invention that is not insignificant in quality, when that contribution is measured against the dimension of the full invention. Evidence of discussions between a named inventor and a putative co-inventor concerning the subject matter of claimed invention is insufficient to establish co-inventorship.

**Counsel:** WILLIAM F. LEE, Wilmer Cutler Pickering Hale and Dorr LLP, of Boston, Massachusetts, argued for plaintiffs/counterclaim defendants-appellees. With him on the brief were RICHARD W. O'NEILL, ELIZABETH M. REILLY, LOUIS W. TOMPROS, and ANDREW J. DANFORD. Of counsel was ALEXANDRA COTTER BOUDREAU.

DONALD R. DUNNER, Finnegan, Henderson, Farabow, Garrett & Dunner, LLP, of Washington, DC, argued for defendant/counterclaimant-appellant. With him on the brief were THOMAS H. JENKINS, THOMAS W. WINLAND,

JEFFREY C. TOTTEN, and TYLER M. AKAGI. Of counsel on the brief was ROGER D. TAYLOR, of Atlanta, Georgia.

**Judges:** Before LOURIE, TARANTO, and CHEN, Circuit Judges.

**Opinion by:** LOURIE

## Opinion

[\*1325] [\*\*\*1938] LOURIE, *Circuit Judge*.

Thomas A. Wilkins ("Wilkins") appeals from the decision of the United States District Court for the Eastern District of California entering declaratory judgment in favor of General Electric Company and GE Wind Energy, LLC (collectively "GE") that Wilkins is not a co-inventor of GE's U.S. Patent 6,921,985 (the "'985 patent") pursuant to 35 U.S.C. § 256. See Gen. Electric Co. v. Wilkins, No. 10-0674, 2012 U.S. Dist. LEXIS 169910, 2012 WL 5989349 (E.D. Cal. Nov. 29, 2012) [\*\*2] (unpublished). Because Wilkins failed to prove by clear and convincing evidence that he was entitled to co-inventorship of the '985 patent, we affirm.

### BACKGROUND

Wind turbines convert wind into electrical energy that is supplied to the power grid. Random events such as lightning strikes and animal contacts can cause wires of the power grid to short, resulting in a reduction in the amount of voltage on the power grid. Such "low voltage events" can damage nearby wind turbines, either by causing the blades of a turbine to rotate out of control or by causing electric current to back up into the generator rotor of a turbine. Conventionally, wind turbines protected against those harms by disconnecting from the power grid during a low voltage event. However, as wind began providing a greater percentage of the overall grid power, utilities began to require that wind turbines remain connected to the grid and continue to operate during a low voltage event. The ability of wind turbines to meet that requirement is known as "low voltage ride through" ("LVRT"): '985 patent col. 1 ll. 30-34.

GE's '985 patent names five co-inventors who were each members of a team of GE engineers based in Salzbergen, [\*\*3] Germany that was tasked with meeting the standard of a [\*\*\*1939] German utility company, which required wind turbines to ride through voltage drops down to 15% of nominal voltage. Gen. Electric, 2012 U.S. Dist. LEXIS 169910, 2012 WL 5989349, at \*4.

ARTHUR SHUM

The '985 patent is directed to controlling key components of a wind turbine that would allow it to remain connected to the power grid and to safely ride through a low voltage event. '985 patent col. 2 ll. 24-34. The LVRT solution described in the '985 patent involves: (i) a blade pitch controller that varies the angles of the wind turbine blades to maintain safe rotation speeds, *id.* col. 5 ll. 35-47, col. 6 ll. 32-35; (ii) a converter controller that "guard[s] against excessive currents in the inverters" by selectively activating and deactivating a circuit to shunt excess current away from the turbine's sensitive components, *id.* col. 4 ll. 32-39, col. 4 l. 65-col. 5 l. 11, col. 5 l. 66-col. 6 l. 4, col. 6 ll. [\*1326] 40-49; and (iii) a turbine controller that provides overall control of the turbine and shuts down nonessential components during a low voltage event, *id.* col. 4 ll. 38-43, col. 5 ll. 55-65, col. 6 ll. 36-39.

The independent claims of the '985 patent reflect those specific controller [\*\*4] functions. Claims 1 and 15 are representative and read as follows:

1. A wind turbine generator comprising: a blade pitch control system to vary a pitch of one or more blades; a turbine controller coupled with the blade pitch control system; a first power source coupled with the turbine controller and with the blade pitch control system to provide power during a first mode of operation; and an *uninterruptible power supply coupled to the turbine controller and with the blade pitch control system to provide power during a low voltage event*; wherein the turbine controller causes the blade pitch control system to vary the pitch of the one or more blades in response to the transition in response to detection of a transition from the first mode of operation.

15. A wind turbine generator comprising: a generator; a power converter coupled with the generator, the power converter having an inverter coupled to receive power from the generator, a converter controller coupled with the inverter to monitor a current flow in the inverter wherein the *converter controller is coupled to receive power from an uninterruptible power supply during a low voltage event*, and a circuit coupled with the input of [\*\*5] the inverter and with the converter controller to shunt current from the inverter and generator rotor in response to a control signal from the converter controller.

*Id.* col. 6 l. 65-col. 7 l. 13, col. 7 l. 58-col. 8 l. 3 (emphases added). Each claim requires an uninterruptible power supply

("UPS"), which powers the various controllers so that they can perform their functions during a low voltage event. *Id.* col. 4 ll. 32-43, col. 5 ll. 41-44. Wilkins is not named as a co-inventor of the '985 patent.

Wilkins began working for GE's predecessor company Enron Wind Corporation, doing business as Zond Wind Energy Systems ("Enron"), in 1998. In the course of that employment, Wilkins was involved in adapting wind turbines to meet certain LVRT requirements at an Enron-owned wind farm in Minnesota known as Lake Benton II. Gen. Electric, 2012 U.S. Dist. LEXIS 169910, 2012 WL 5989349, at \*3. After modification, the Lake Benton II wind turbines were capable of riding through voltage drops down to 70% of nominal voltage. Although those turbines incorporated a small capacitor that briefly powered one sensor during a grid outage, that capacitor did not power the converter controller during a low voltage event, nor did modification [\*\*6] of the Lake Benton II wind turbines contemplate blade pitch control or a circuit that shunted excess current away from the generator rotor and inverter in order to achieve LVRT. 2012 U.S. Dist. LEXIS 169910, [WL] at \*3-4. After GE acquired certain assets from Enron, Wilkins worked as an engineer at a GE wind turbine facility in Tehachapi, California.

It is undisputed that the German team had developed detailed specifications and concept documents of its LVRT solution by July 2002 and was planning a presentation to review the technical details, including the use of controllers powered by a UPS, which were available for download through an internal GE website. J.A. 4014-15.

Correspondence between Wilkins and two of the named inventors in spring and summer of 2002 indicates that the German team was consulting Wilkins for confirmation that their invention, which was then implemented on German wind turbines, would work with the different "60 Hz" grid [\*1327] requirements and turbine components used in the United States. Gen. Electric, 2012 U.S. Dist. LEXIS 169910, 2012 WL 5989349, at \*5; J.A. 2031, 3171. In particular, the correspondence [\*\*\*1940] revealed that the work done at Lake Benton II was not interchangeable with the specifications and requirements of the German [\*\*7] LVRT design, and no mention was made of a UPS coupled to a converter for the purpose of LVRT. *Id.* Wilkins traveled to Germany in August 2002. Although Wilkins admitted that no documents exist for that trip, he alleged that he shared his ideas from Lake Benton II and conveyed specific elements of the '985 patent to the German team at that time. Gen. Electric, 2012 U.S. Dist. LEXIS 169910, 2012 WL 5989349, at \*5-6; J.A. 577.

ARTHUR SHUM

In October 2002, Wilkins and a team of GE engineers in California were tasked with developing an LVRT solution for the utility company Florida Power and Light. In the course of that work, Wilkins prepared a document entitled "Design and Cost Analysis," in which he summarized several ideas, along with a proposal to use a UPS. J.A. 2310-21. The figures depicted in that Design and Cost Analysis "reflect ... [w]here to place the UPS in the circuit" and show that the UPS was proposed to insulate the wind turbine from the power grid during a low voltage event by placing the UPS between the power grid and the turbine. *Id.* In that arrangement, the turbine controller and converter controller would be situated between the grid and the UPS, and therefore could only receive power from the grid during a [\*8] low voltage event and not from the UPS. *Id.* Wilkins admitted that the Design and Cost Analysis does not show the UPS powering the wind turbine's blade pitch controller, and that, although the document does discuss a shunting circuit, it is not the selectively activating and deactivating circuit of the '985 patent. *Id.*; 598-99. Wilkins left GE later in 2002.

The '985 patent is one of several asserted by GE against Mitsubishi Heavy Industries, Ltd. and Mitsubishi Power Systems Americas, Inc. (collectively "Mitsubishi") in at least two lawsuits, including a patent infringement case in the United States District Court for the Southern District of Texas and an investigation before the United States International Trade Commission ("ITC"). The '985 patent is also one of the patents at issue in an antitrust suit that Mitsubishi brought against GE in the United States District Court for the Western District of Arkansas.

In the ITC proceeding, Mitsubishi challenged the validity of the '985 patent and hired Wilkins to search for relevant prior art. Wilkins worked approximately 1,000 hours in an effort to invalidate the '985 patent, for which he received approximately \$200,000. Gen. Electric, 2012 U.S. Dist. LEXIS 169910, 2012 WL 5989349, at \*9; [\*\*9] J.A. 3975. Mitsubishi also argued that the '985 patent was unenforceable based on a claim that GE intentionally failed to name Wilkins as a co-inventor. The administrative law judge ("ALJ") rejected that argument, concluding that Wilkins had co-invented the '985 patent but finding that GE did not intend to deceive the United States Patent and Trademark Office by failing to name Wilkins as a co-inventor. See GE v. ITC, 685 F.3d 1034, 1036 (Fed. Cir. 2012); J.A. 8330, 8336. The ITC did not review the ALJ's finding that there was no inequitable conduct, and Mitsubishi did not challenge that determination on appeal to this court. *Id.*

Following the ITC proceedings, Wilkins averred that he retained ownership rights in the '985 patent and U.S. Patent

6,924,565 (the "'565 patent"), which is directed to continuous reactive power support for wind turbine generators that GE prosecuted in Wilkins's name after he left the company. Wilkins subsequently entered [\*1328] into another set of agreements with Mitsubishi under which Mitsubishi paid him \$100,000 for an option to license the '985 patent and an additional \$200,000 for "consulting" work. J.A. 3961-64. In return, Wilkins [\*\*10] agreed to "take all necessary and reasonable steps" to support Mitsubishi in actions against GE regarding the '985 patent. *Id.*

In due course, Mitsubishi exercised its option, and during licensing negotiations Wilkins's counsel demanded significant additional funds for Wilkins to "stay in the game" against GE, making clear that Mitsubishi's offer of \$200,000 was "inadequate for Wilkins to keep his place at the table." *Id.* at 5019-21. Wilkins's counsel promised that Mitsubishi would have "every ability to coordinate and manage Wilkins' involvement to maximize [Mitsubishi]'s position in the litigation" if it agreed to pay more. *Id.* Mitsubishi consequently paid Wilkins a nonrefundable licensing fee of \$1.5 million and retained an option to extend that license upon payment of an additional \$1 million. Gen. Electric, 2012 U.S. Dist. LEXIS 169910, 2012 WL 5989349, at \*10; J.A. 3967-69.

GE subsequently filed suit in the United States District Court for the Eastern District of California seeking to quiet title to the '985 and [\*\*\*1941] '565 patents. Wilkins counterclaimed, seeking (i) to be added as a named inventor of the '985 patent under 35 U.S.C. § 256 and (ii) a declaration that he has an ownership interest in the '985 and '565 patents. [\*\*11] Mitsubishi intervened and also filed counterclaims seeking a declaration that Wilkins is a co-inventor and co-owner of the '985 patent.

The district court initially found that GE was likely to prevail on its claims and preliminarily enjoined Wilkins from licensing either of the patents in suit. Gen. Electric Co. v. Wilkins, No. 10-0674, 2011 U.S. Dist. LEXIS 48362, 2011 WL 1740420 (E.D. Cal. May 5, 2011) (unpublished). After subsequently refusing four times to take an unqualified oath to tell the truth at his deposition, behavior that the court deemed "not acceptable," Wilkins filed a declaration calling the district court "obtuse," "overly assumptive," and "ignorant." Gen. Electric Co. v. Wilkins, No. 10-0674, 2011 U.S. Dist. LEXIS 6057, 2011 WL 220240 (E.D. Cal. Jan. 21, 2011) (unpublished); J.A. 585, 5087, 9030-38, 9047. The district court eventually dismissed GE's ownership claims on summary judgment as time-barred by the statute of limitations. Gen. Electric Co. v. Wilkins, No. 10-0674, 2011 U.S. Dist. LEXIS 81479, 2011 WL 3163348 (E.D. Cal. July

ARTHUR SHUM

26, 2011) (unpublished). The court then conducted a bench trial on Wilkins's and Mitsubishi's inventorship counterclaims and held that they had failed to establish that Wilkins co-invented the subject matter of any claim [\*\*12] of the '985 patent. Gen. Electric, 2012 U.S. Dist. LEXIS 169910, 2012 WL 5989349, at \*1, \*12.

In reaching that conclusion, the district court determined that Wilkins had undermined his own credibility. The court noted that Wilkins had received approximately \$2 million from Mitsubishi by the time of the trial and pointed to the documentary evidence showing that Wilkins had indeed demanded those substantial payments in order for him to "stay in the game" so that Mitsubishi could "manage" him. 2012 U.S. Dist. LEXIS 169910, [WL] at \*9-10. The court thus concluded that Wilkins was "biased," "a purchased witness/party," and "more concerned about gaining personal advantage than testifying truthfully." 2012 U.S. Dist. LEXIS 169910, [WL] at \*3, \*12. The court found that Wilkins lacked credibility based on his "purposefully evasive" responses to even basic questions, noting that Wilkins was "repeatedly impeached during cross-examination, to the point where the veracity of even simple answers w[as] called into question." 2012 U.S. Dist. LEXIS 169910, [WL] at \*3. The district court judge described Wilkins as "one of the worst witnesses I have ever seen." J.A. 842.

[\*1329] The district court analyzed all of the evidence presented, including: documents from Wilkins's work at Lake Benton II, upon which Wilkins had based his primary

[\*\*13] inventorship theory; testimony from the German engineers and Wilkins's correspondence with them regarding his 2002 work and trip; Wilkins's Design and Cost Analysis; and GE's prosecution of the '985 patent. Gen. Electric, 2012 U.S. Dist. LEXIS 169910, 2012 WL 5989349, at \*3-9. Based on its credibility determination, factual findings, and review of the entire record, the court concluded that Wilkins and Mitsubishi had not carried their burden to prove inventorship by clear and convincing evidence because, "[s]imply put, there [we]re no reliable documents that verify what, if anything, Mr. Wilkins contributed to any of the claims of the '985 patent." 2012 U.S. Dist. LEXIS 169910, [WL] at \*12.

Mitsubishi and Wilkins timely appealed. GE cross-appealed from the summary judgment orders holding that its quiet title claims were time-barred. By voluntary dismissal, the appeal was terminated as to Mitsubishi, as was GE's cross-appeal. The record indicates that Wilkins subsequently filed related suits in the United States District Court for the Eastern District of California and the State of California Superior Court for Orange County. In those cases, Wilkins has asserted claims for malicious prosecution and abuse of

process against GE and its counsel in [\*\*14] the district court action that is the subject of this appeal, seeking \$1.5 billion in damages from GE and its counsel based upon their assertion of breach of contract claims against Wilkins in the district court. The district court in the instant case denied Wilkins's motion for sanctions premised on the same arguments underlying those new complaints, but Wilkins did not appeal that determination. Gen. Electric Co. v. Wilkins, No. 10-0674, 2012 U.S. Dist. LEXIS 157126, 2012 WL 5387085 (E.D. Cal. Nov. 1, 2012) (unpublished). We have jurisdiction in this appeal regarding inventorship pursuant to 28 U.S.C. § 1295(a)(1).

#### DISCUSSION

**HNI** Inventorship is a question of law, which we review without deference. Ethicon, Inc. v. U.S. Surgical Corp., 135 F.3d 1456, 1460 (Fed. Cir. 1998). We review the district court's underlying findings of fact for clear error. *Id.* **HN2** Because the issuance of a patent creates a presumption that the named [\*\*\*1942] inventors are the true and only inventors, *id.*, the burden of showing misjoinder or nonjoinder of inventors is a heavy one and must be proved by clear and convincing evidence. Hess v. Advanced Cardiovascular Sys., Inc., 106 F.3d 976, 980 (Fed. Cir. 1997) (citing Garrett Corp. v. United States, 190 Ct. Cl. 858, 422 F.2d 874, 880 (1970)). [\*\*15] **HN3** Credibility determinations are entitled to strong deference. *See Celsis In Vitro, Inc. v. CellDirect, Inc., 664 F.3d 922, 929 (Fed. Cir. 2012); Baxter Int'l, Inc. v. McGraw, Inc., 149 F.3d 1321, 1330 (Fed. Cir. 1998).*

Although Wilkins admits that his credibility was impeached, he asserts that those instances of impeachment only extended to immaterial and tangential points and notes that the ALJ did not criticize Wilkins's credibility in the previous ITC action. Appellant Br. 59-60. Wilkins argues that the district court erred in concluding that he is not a co-inventor of GE's '985 patent because the court did not compare the conception described in Wilkins's Design and Cost Analysis document to the claims. Wilkins further contends that the Design and Cost Analysis is among the corroborating evidence that the court did not analyze as a whole under the rule of reason standard. Wilkins maintains that he is an inventor because that conception document meets every limitation of the independent claims; he asserts that he conceived of using a UPS as claimed for LVRT and [\*1330] that the claims of the '985 patent do not limit the location of the UPS.

GE responds that Wilkins's impeachment went to core [\*\*16] issues including the work that he supposedly did and

ARTHUR SHUM

the interactions that he supposedly had with the named inventors. GE contends that the district court correctly applied the rule of reason standard, but that Wilkins did not first provide any credible testimony for the court to corroborate.

We agree with both GE and the district court that, in light of all the record evidence, Wilkins did not prove his inventorship claim by clear and convincing evidence because he did not present any credible testimony that could be corroborated. *HN4* In order to guard "against courts being deceived by inventors who may be tempted to mischaracterize the events of the past through their testimony," the law requires corroboration of a putative inventor's credible testimony, the sufficiency of which is measured under a "rule of reason" standard. Martek Biosciences Corp. v. Nutrinova, Inc., 579 F.3d 1363, 1374 (Fed. Cir. 2009). Therefore, as a threshold matter, in order for the rule of reason requirement to even apply there must be some evidence that a fact-finder can find reasonable; the putative inventor must first provide credible testimony that only then must be corroborated. See, e.g., Univ. of Colo. Found., Inc. v. Am. Cyanamid Co., 342 F.3d 1298, 1308-09 (Fed. Cir. 2003) [\*17] (rejecting inventorship theory based upon putative inventor's discredited testimony). The very purpose of the rule of reason requirement is to verify the credibility of a putative inventor's story. Loral Fairchild Corp. v. Matsushita Elec. Indus. Co., 266 F.3d 1358, 1364 (Fed. Cir. 2001); Ethicon, 135 F.3d at 1461; Price v. Symsek, 988 F.2d 1187, 1195 (Fed. Cir. 1993) ("An evaluation of all pertinent evidence must be made so that a sound determination of the credibility of the inventor's story may be reached.").

The district court found that Wilkins was biased, based in part on his financial relationship with Mitsubishi. Gen. Electric, 2012 U.S. Dist. LEXIS 169910, 2012 WL 5989349, at \*3, \*9-10. The court's determination is supported by documentary evidence showing that Wilkins demanded and received substantial payments in order for him to "stay in the game" so that Mitsubishi could "manage" him. 2012 U.S. Dist. LEXIS 169910, [WL] at \*9-10; J.A. 5019-21. The court also found that Wilkins further undermined his own credibility while testifying at trial because his responses to even basic questions were "purposefully evasive" and he was "repeatedly impeached during cross-examination, to the point where the veracity of even simple answers w[as] [\*18] called into question." Gen. Electric, 2012 U.S. Dist. LEXIS 169910, 2012 WL 5989349, at \*3. Based on the trial record, we find no clear error in the district court's assessment that the substance of Wilkins's testimony, which addressed central issues such as conception and contribution,

was inconsistent and purposefully evasive. We agree with the district court's conclusion that Wilkins left his case with no credibility.

Although Wilkins is correct that the ALJ did not criticize Wilkins's credibility in the previous ITC action, that ITC decision was made without the benefit of the complete factual [\*\*\*1943] record, including the relationship between Wilkins and Mitsubishi, and without observing the shifting and inconsistent testimony that he repeatedly provided at the district court trial. The ALJ's findings, made only in the context of an inequitable conduct analysis, are insufficient to overcome the district court's credibility determinations in this proceeding concerning correction of inventorship.

Accordingly, without credible testimony from Wilkins, there was nothing to corroborate. And although there was no need for the district court to assess any corroborating [\*1331] evidence, the court nevertheless carefully and thoroughly [\*19] analyzed all of the evidence presented under the rule of reason standard and concluded that it did not contain clear and convincing evidence showing that Wilkins made any inventive contribution to the claims of the '985 patent. The district court expressly assessed witness testimony and dozens of supposedly corroborating documents, including Wilkins's Lake Benton II documents, the 2002 correspondence between Wilkins and the named German inventors, Wilkins's October 2002 Design and Cost Analysis, and documents from GE's prosecution of the '985 patent. Gen. Electric, 2012 U.S. Dist. LEXIS 169910, 2012 WL 5989349, at \*3-9. We see no error in the district court's analysis of that evidence.

Moreover, we find no merit in Wilkins's suggestion that the district court should be faulted because its opinion does not specifically address every admitted trial exhibit. *HN5* A district court need not write an opinion that expressly discusses every admitted exhibit. See Medtronic, Inc. v. Daig Corp., 789 F.2d 903, 906 (Fed. Cir. 1986) (recognizing that a district court need not provide a "complete discussion of all possible permutations and combinations" of the evidence because we "presume that a fact finder reviews all evidence presented [\*20] unless he explicitly expresses otherwise"). But even so, the district court's opinion in this case makes clear that it did take all of the admitted evidence into account in reaching its decision. The court concluded "that the heavy burden of proof by clear and convincing evidence has not been met, and therefore that Mr. Wilkins should not be named a co-inventor of the '985 patent" after "[h]aving considered the evidence presented at trial and the parties' proposed findings of fact and conclusions of law submitted after trial." Gen. Electric, 2012 U.S. Dist. LEXIS

ARTHUR SHUM



169910, 2012 WL 5989349, at \*1.

Similarly, the district court did not err simply because, after cataloging the many problems with each piece of purportedly corroborating evidence proffered by Wilkins, it did not expressly dismiss that same evidence for the second time "as a whole." See, e.g., Symantec Corp. v. Computer Assocs. Int'l, Inc., 522 F.3d 1279, 1295-96 (Fed. Cir. 2008) (rejecting inventorship claim after individually addressing flaws with each piece of corroborating evidence); Woodland Trust v. FlowerTree Nursery, Inc., 148 F.3d 1368, 1373 (Fed. Cir. 1998) (noting that the district court appropriately excluded evidence "lacking detail and clarity" [\*\*21] from its rule of reason analysis). The district court considered the entire record and found that it did not support Wilkins's inventorship claim. Wilkins does not argue that any of those factual findings were clearly erroneous, and we likewise identify no clear error. Wilkins's argument depends on a selective reading of the record, which ignores facts that are unhelpful to his case and is in itself contrary to a proper rule of reason analysis.

Although Wilkins appears to have relied on his work at Lake Benton II when advocating his inventorship theory before the tribunals below, he suggests now that the October 2002 Design and Cost Analysis that he prepared for Florida Power and Light clearly and convincingly demonstrates his contribution to the German team's LVRT solution and the claims of the '985 patent, viz., use of a UPS. Notwithstanding that the record is devoid of proof that the German engineers relied on anything discussed in that document as part of their conception and that Wilkins provided no credible testimony for that document to corroborate, our review of the record verifies that the district court did not clearly err in finding that the document does not disclose any [\*\*22] of the subject matter claimed in the '985 patent.

Record evidence confirms that Wilkins collected ideas from many different collaborating [\*1332] GE sources when preparing the Design and Cost Analysis. J.A. 2365-66. Wilkins himself conceded that the idea to use a UPS to perform LVRT was not novel in 2002. *Id.* at 591-92. Accordingly, if all Wilkins allegedly contributed to the '985 patent was the idea to use a UPS, then he would have contributed nothing beyond what was already known in the [\*\*\*1944] art. That is not sufficient to name Wilkins as a co-inventor. Fina Oil & Chem. Co. v. Ewen, 123 F.3d 1466, 1473 (Fed. Cir. 1997) (HN6 "[A] person will not be a co-inventor if he or she does no more than explain to the real inventors concepts that are well known and the current state of the art."). As the district court noted, Wilkins did not invent or contribute to the use of the circuit recited in claim

15 of the '985 patent to protect the converter by shunting current away from the sensitive components of the wind turbine system. Gen. Electric, 2012 U.S. Dist. LEXIS 169910, 2012 WL 5989349, at \*6; J.A. 570-71, 596-97. And the prosecution history of the '985 patent shows that it was the combination of a UPS and such a circuit that allowed [\*\*23] GE to overcome a prior art rejection in getting its claims allowed. J.A. 3530-31, 3779, 3782-83.

Moreover, on its face, the Design and Cost Analysis does not even depict the key feature Wilkins claims to have invented, i.e., a UPS powering the wind turbine's three controllers. As discussed above, the plain language of the '985 patent claims requires the UPS to be "coupled to" the requisite controllers to provide power during a low voltage event. See, e.g., '985 patent col. 7 ll. 6-8, 64-66. But the figures in Wilkins's Design and Cost Analysis depict the turbine controller and converter controller situated between the power grid and the UPS so that they could only receive power from the grid during a low voltage event and not from the UPS, which is depicted as situated to insulate the other components of the wind turbine from the grid. J.A. 2320. Furthermore, Wilkins admitted that his Design and Cost Analysis does not show the UPS powering the wind turbine's blade pitch controller. *Id.* at 598-99. The district court thus did not clearly err in concluding that the Design and Cost Analysis did not recite the UPS limitations claimed in the '985 patent.

HN7 A co-inventor "must contribute in some [\*\*24] significant manner to the conception or reduction to practice of the invention [and] make contribution to the claimed invention that is not insignificant in quality, when that contribution is measured against the dimension of the full invention." Nartron Corp. v. Schukra U.S.A. Inc., 558 F.3d 1352, 1356-57 (Fed. Cir. 2009). Wilkins's evidence is bereft of any such proof. The undisputed record confirms that the German inventors had already conceived of their controller-based LVRT solution before corresponding with Wilkins to discuss American grid requirements or meeting with Wilkins in Germany. See Symantec, 522 F.3d at 1296 (holding that evidence of discussions between named inventor and putative co-inventor concerning subject matter of claimed invention was insufficient to establish co-inventorship); Eli Lilly & Co. v. Aradigm Corp., 376 F.3d 1352, 1363-64 (Fed. Cir. 2004) (same); Hess, 106 F.3d at 980-81 (same).

#### CONCLUSION

For the foregoing reasons, we conclude that the district court did not err in determining that the heavy burden of

ARTHUR SHUM

750 F.3d 1324, \*1332; 2014 U.S. App. LEXIS 8646, \*\*24; 110 U.S.P.Q.2D (BNA) 1937, \*\*\*1944

proof by clear and convincing evidence was not met, and **AFFIRMED**  
therefore that Wilkins should not be named a co-inventor of  
the '985 patent. The judgment of [\*\*\*25] the district court is  
therefore affirmed.

ARTHUR SHUM

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State: State of Nevada

Country: USA Zip: 89052

Additional name(s) & address(es) attached? ☐ Yes ☐ No

**4. Application or patent number(s):**

☐ This document is being filed together with a new application.

A. Patent Application No.(s)  
10/350452, 10/643297

B. Patent No.(s)  
6921985, 6924565

Additional numbers attached? ☐ Yes ☐ No

**5. Name and address to whom correspondence concerning document should be mailed:**

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**6. Total number of applications and patents involved:**

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 160.00

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