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EXAMINER	
RIVIERE, HEIDI M	

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3689	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	12/118,807	SARKAR ET AL.	
	Examiner	Art Unit	
	HEIDI RIVIERE	3689	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 April 2012*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1-19 and 21* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-19, 21* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

4) ☐ Other: _____.

DETAILED ACTION

Reopening Prosecution

1. In view of the **appeal brief filed on April 05, 2012**, PROSECUTION IS HEREBY REOPENED. The more detailed 35 USC 103(a) rejection is set forth below. To avoid abandonment of the application, appellant must exercise one of the following two options:(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37CFR 1.113 (if this Office action is final); or,(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid. A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Response to Arguments

2. Applicant's arguments, see the Appeal Brief, filed April 5, 2012, with respect to the rejection(s) of claim(s) 1-19 and 21 under Barnes et al. (US 6/975,925 B1) in view of Lof et al. (US 2002/0087234 A1) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made below to address the remarks regarding the limitation desired relationship between

input of an uncontrollable resources and power output of the power generating system."

The previously applied 35 USC 112 paragraph 2 rejection was applied because Applicant incorrectly invoked 35 USC 112 paragraph 6. The rejection noted that the specification failed to provide a structure for ""means for empirically determining", "means for determining a desired relationship between input of an uncontrollable resource and power output of power generating system", a "means for comparing the actual relationship" and "means for determining a plurality of financial parameters" in Claim 1."

Applicant argues on page 5 of the present Brief that the specification provides multiple sensors and processing circuitry which in combination teaches the various means detailed in claim 1. Consideration has been given to the remarks and the support has been shown in the specification. Appellant is correct in this assessment and the rejections are withdrawn.

In regards to the 35 USC103 rejection, Applicant argues that that previous rejection fails to teach determining the "desired relationship between input of an uncontrollable resources and power output of the power generating system." The claims are currently rejected using the Mertins reference. The Mertins reference teaches that the wind data module system determines the desired distributable electric energy range which involves the desired range of the wind turbine to be commensurate with the level of electric energy to be generated. (See paragraphs 35 and 40). Mertins also notes at paragraph 49 that the correlation modules compares data between two locations and it also can "produce a desired level of

reliability in the aggregate" while considering wind velocity, wind speed, average wind velocity and average wind speed as well as historical wind data. Please note the complete rejection below. In light of the update rejection below the rejections are not withdrawn.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1, 2, 3, 6, and 7-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Mertins et al. (US 2005/0192859)** (hereinafter "**Mertins**") in view of **Morjaria et al. (US 7/523,001)** (hereinafter "**Morjaria**").

5. **With respect to claim 1: (Currently Amended)** Mertins teaches:

- Means for determining a desired relationship between input of an uncontrollable resource and power output of the power generating system; Means for empirically determining an actual relationship between input of an uncontrollable resource and power output of the power generating system; (Mertins: paragraph 23 – data inputted into the system; paragraphs 32-35 and 40 – the wind data module system determines the desired distributable electric energy range which involves the desired range of the wind turbine to be

commensurate with the level of electric energy to be generated; paragraph 49 – the correlation modules compares data between two locations and it also can "produce a desired level of reliability in the aggregate" while considering wind velocity, wind speed, average wind velocity and average wind speed as well as historical wind data; paragraph 60 - "the selector 34 selects an array of sites distributed over the geographic area with the distinct preferential regions to produce electrical energy at a rate of at least one megawatt-hour (or at least one megawatt-hour per hour) with at least seventy-five percent reliability over at least one year time period")

- Means for determining a plurality of financial parameters for the power generating system based on the comparison. (Mertins: Fig. 4 and paragraph 24 – financial screen tool is provided by the system; Fig. 15; paragraphs 31 and 46 – various financial parameters and data used in analysis ; paragraph 41 – region is ranked financially based on the most favorable or most economical combination of wind data and distribution data)

Mertins teaches determining the desired range of wind turbine values. Mertins also teaches obtaining data on wind velocity and average wind speed. Mertins does not teach, however Morjaria teaches

- Means for comparing the actual relationship to the desired relationship; (Morjaria: col. 8, lines 20-45 – "the system has the

ability to compare forecasted data to actual data" parameters inputs can be updates)

It would have been obvious to one of ordinary skill at the time of the invention to combine the teachings of Mertins and Morjaria because of the motivation to limit the variations in the electric power output from wind farms and also in the electrical power subsequently consumed. (Morjaria: column 1, lines 5-35). Both references teach the gathering and analysis of wind turbine related data. Mertins teaches a system for marketing a wind powered generation facility. Morjaria teaches a method for operating a wind turbine generators and a system for forecasting wind data input and electric power production.

6. **With respect to claim 2: (Currently Amended)** Mertins teaches determining the actual relationship comprises measuring an overall output power with respect to a plurality of input parameters of the power generating system. (Mertins: paragraph 23 – interface for accepting input data from a user; paragraph 71 –each data layers contains data associated with wind velocity, wind speed, wind direction, wind azimuth, a prevalence, a temporal component, a measurement interval, location, and wind class etc.; fig. 7A and paragraph 63 – Wind data layer is used; fig. 7b - system uses a data processor to analyze wind related data)

7. **With respect to claim 3: (Currently Amended)** Mertins teaches the input parameters comprise wind speed, air density, wind direction, temperature and humidity of air for a wind power generating system. (Mertins: paragraph 71 – wind data is collected and each data layers contains data associated with wind

velocity, wind speed, wind direction, wind azimuth, a prevalence, a temporal component, a measurement interval, location, and wind class etc.; fig. 7A and paragraph 63 – Wind data layer is used)

8. **With respect to claim 6:** Mertins teaches

- at least one sensor configured to measure a plurality of input parameters and output power of the power generating system, the input parameters including a parameter representative of an uncontrollable resource; (Mertins: paragraph 23 – data inputted into the system; paragraphs 32-35 and 40 – the wind data module system determines the desired distributable electric energy range which involves the desired range of the wind turbine to be commensurate with the level of electric energy to be generated; paragraph 49 – the correlation modules compares data between two locations and it also can "produce a desired level of reliability in the aggregate" while considering wind velocity, wind speed, average wind velocity and average wind speed as well as historical wind data; paragraph 60 - "the selector 34 selects an array of sites distributed over the geographic area with the distinct preferential regions to produce electrical energy at a rate of at least one megawatt-hour (or at least one megawatt-hour per hour) with at least seventy-five percent reliability over at least one year time period") and
- determine a financial parameter based upon the comparison. (Mertins: Fig. 4 and paragraph 24 – financial screen tool is provided by the system; Fig. 15; paragraphs 31 and 46 – various financial parameters and data

used in analysis ; paragraph 41 – region is ranked financially based on the most favorable or most economical combination of wind data and distribution data)

Mertins teaches determining the desired range of wind turbine values. Mertins also teaches obtaining data on wind velocity and average wind speed. Mertins does not teach, however Morjaria teaches

- processing circuitry configured to: compare an empirically determined actual relationship between input of the uncontrollable resource and power output of the power generating system to a desired relationship there between; (Morjaria: col. 8, lines 20-45 – "the system has the ability to compare forecasted data to actual data" parameters inputs can be updates)

It would have been obvious to one of ordinary skill at the time of the invention to combine the teachings of Mertins and Morjaria because of the motivation to limit the variations in the electric power output from wind farms and also in the electrical power subsequently consumed. (Morjaria: column 1, lines 5-35). Both references teach the gathering and analysis of wind turbine related data. Mertins teaches a system for marketing a wind powered generation facility. Morjaria teaches a method for operating a wind turbine generators and a system for forecasting wind data input and electric power production.

9. **With respect to claim 7:** Mertins teaches determining the desired range of wind turbine values. Mertins also teaches obtaining data on wind velocity and average wind speed. Mertins does not teach, however Morjaria teaches the

actual relationship includes a power curve relating the uncontrollable resource to actual power output of the power generating system. (Morjaria: col. 7, line 63 – col. 8, line 45 – power curve model is used to generate a mathematical model of electric power output versus wind speed)

It would have been obvious to one of ordinary skill at the time of the invention to combine the teachings of Mertins and Morjaria because of the motivation to limit the variations in the electric power output from wind farms and also in the electrical power subsequently consumed. (Morjaria: column 1, lines 5-35). Both references teach the gathering and analysis of wind turbine related data. Mertins teaches a system for marketing a wind powered generation facility. Morjaria teaches a method for operating a wind turbine generators and a system for forecasting wind data input and electric power production.

10. **With respect to claim 8:** Mertins teaches the power generating system comprises a wind power generating system or a solar power generating system or a hydro power generating system. (Mertins: Abstract and paragraph 34 wind turbines used in the system and wind data processed from these systems)

11. **With respect to claim 9:** Mertins teaches the input parameters comprise wind speed, air density, wind direction, temperature and humidity of air for a wind power generating system. (Mertins: paragraph 23 – interface for accepting input data from a user; paragraph 71 –each data layers contains data associated with wind velocity, wind speed, wind direction, wind azimuth, a prevalence, a temporal component, a measurement interval, location, and wind class etc.; fig. 7A and

paragraph 63 – Wind data layer is used; fig. 7b - system uses a data processor to analyze wind related data)

12. **Claims 4, 5, 10-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Mertins** in view of **Morjaria** and further in view of **Emery et al. (2008/0249665) (**hereinafter **"Emery")**

13. **With respect to claim 4: (Currently Amended)** Mertins teaches determining the desired range of wind turbine values. Mertins also teaches obtaining data on wind velocity and average wind speed and a financial screen tools which ranks financial data. Mertins/Morjaria teach analyzing historical data but they do not teach manipulation of the financial data, however Emery teaches determining the plurality of financial parameters comprises applying a bonus or a penalty depending upon a difference between the actual relationship and the desired relationship. (Emery: paragraphs 15 and 17 – under-generation and over-generation of power can cause problems and over-generation creates financial penalties; paragraph 16 – windmill used in power production; paragraph 17 – actual power measure is compared to previous power measured)

It would have been obvious to one of ordinary skill at the time of the invention to combine the teachings of Mertins and Morjaria because of the motivation to limit the variations in the electric power output from wind farms and also in the electrical power subsequently consumed. (Morjaria: column 1, lines 5-35). It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Mertins, Morjaria and emery because

of the motivation to have "accurate estimate, or schedule, of the power to be generated". (Emery paragraph 2) All three references teach the gathering and analysis of wind turbine related data. Mertins teaches a system for marketing a wind powered generation facility. Morjaria teaches a method for operating a wind turbine generators and a system for forecasting wind data input and electric power production. Emery teaches the administering of uncontrollable electric power and estimating the production of electricity in a dependable manner.

14. **With respect to claim 5: (Currently Amended)** Mertins teaches determining the desired range of wind turbine values. Mertins also teaches obtaining data on wind velocity and average wind speed and a financial screen tools which ranks financial data. Mertins/Morjaria teach analyzing historical data but they do not teach manipulation of the financial data, however Emery teaches determining the plurality of financial parameters comprises determining a monetary payment or an equivalent power depending upon a difference between the actual relationship and the desired relationship. (Emery: paragraphs 15 and 17 – under-generation and over-generation of power can cause problems and over-generation creates financial penalties; paragraph 16 – windmill used in power production; paragraph 17 – actual power measure is compared to previous power measured)

It would have been obvious to one of ordinary skill at the time of the invention to combine the teachings of Mertins and Morjaria because of the motivation to limit the variations in the electric power output from wind farms and also in the electrical power subsequently consumed. (Morjaria: column 1, lines

5-35). It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Mertins, Morjaria and emery because of the motivation to have "accurate estimate, or schedule, of the power to be generated". (Emery paragraph 2) All three references teach the gathering and analysis of wind turbine related data. Mertins teaches a system for marketing a wind powered generation facility. Morjaria teaches a method for operating a wind turbine generators and a system for forecasting wind data input and electric power production. Emery teaches the administering of uncontrollable electric power and estimating the production of electricity in a dependable manner.

15. **With respect to claim 10:** Mertins teaches determining the desired range of wind turbine values. Mertins also teaches obtaining data on wind velocity and average wind speed and a financial screen tools which ranks financial data. Mertins/Morjaria teach analyzing historical data but they do not teach manipulation of the financial data, however Emery teaches the financial parameter comprises a bonus or a penalty depending upon a difference between the actual relationship and the desired relationship. (Emery: paragraphs 15 and 17 – under-generation and over-generation of power can cause problems and over-generation creates financial penalties; paragraph 16 – windmill used in power production; paragraph 17 – actual power measure is compared to previous power measured)

It would have been obvious to one of ordinary skill at the time of the invention to combine the teachings of Mertins and Morjaria because of the motivation to limit the variations in the electric power output from wind farms and

also in the electrical power subsequently consumed. (Morjaria: column 1, lines 5-35). It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Mertins, Morjaria and emery because of the motivation to have "accurate estimate, or schedule, of the power to be generated". (Emery paragraph 2) All three references teach the gathering and analysis of wind turbine related data. Mertins teaches a system for marketing a wind powered generation facility. Morjaria teaches a method for operating a wind turbine generators and a system for forecasting wind data input and electric power production. Emery teaches the administering of uncontrollable electric power and estimating the production of electricity in a dependable manner.

16. **With respect to claim 11:** Mertins teaches determining the desired range of wind turbine values. Mertins also teaches obtaining data on wind velocity and average wind speed and a financial screen tools which ranks financial data. Mertins/Morjaria teach analyzing historical data but they do not teach manipulation of the financial data, however Emery teaches the bonus or penalty is attributed to deviations not caused by natural deviations in the input parameters. (Emery: paragraphs 15 and 17 – under-generation and over-generation of power can cause problems and over-generation creates financial penalties; paragraph 16 – windmill used in power production; paragraph 17 – actual power measure is compared to previous power measured)

It would have been obvious to one of ordinary skill at the time of the invention to combine the teachings of Mertins and Morjaria because of the motivation to limit the variations in the electric power output from wind farms and

also in the electrical power subsequently consumed. (Morjaria: column 1, lines 5-35). It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Mertins, Morjaria and emery because of the motivation to have "accurate estimate, or schedule, of the power to be generated". (Emery paragraph 2) All three references teach the gathering and analysis of wind turbine related data. Mertins teaches a system for marketing a wind powered generation facility. Morjaria teaches a method for operating a wind turbine generators and a system for forecasting wind data input and electric power production. Emery teaches the administering of uncontrollable electric power and estimating the production of electricity in a dependable manner.

17. **With respect to claim 12:** Mertins teaches determining the desired range of wind turbine values. Mertins also teaches obtaining data on wind velocity and average wind speed and a financial screen tools which ranks financial data. Mertins/Morjaria teach analyzing historical data but they do not teach manipulation of the financial data, however Emery teaches the financial parameter comprises a monetary payment or an equivalent power depending upon a difference between the actual relationship and the desired relationship. (Emery: paragraphs 15 and 17 – under-generation and over-generation of power can cause problems and over-generation creates financial penalties; paragraph 16 – windmill used in power production; paragraph 17 – actual power measure is compared to previous power measured)

It would have been obvious to one of ordinary skill at the time of the invention to combine the teachings of Mertins and Morjaria because of the

motivation to limit the variations in the electric power output from wind farms and also in the electrical power subsequently consumed. (Morjaria: column 1, lines 5-35). It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Mertins, Morjaria and emery because of the motivation to have "accurate estimate, or schedule, of the power to be generated". (Emery paragraph 2) All three references teach the gathering and analysis of wind turbine related data. Mertins teaches a system for marketing a wind powered generation facility. Morjaria teaches a method for operating a wind turbine generators and a system for forecasting wind data input and electric power production. Emery teaches the administering of uncontrollable electric power and estimating the production of electricity in a dependable manner.

18. **Claim 13** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Mertins** in view of **Morjaria** and further in view of **Emery** and further in view of **Lof et al. (US 2002/0087234 A1)** (hereinafter "**Lof**").

19. **With respect to claim 13:** Mertins/Morjaria teach analyzing historical data but they do not teach manipulation of the financial data. Mertin/Morjaria/Emery teach penalties for over-generation. Mertin/Morjaria/Emery does not teach, however Lof teaches the processing circuitry is further configured to generate a statement or a bill. (Lof: fig. 5 – system provides billing tracking; paragraph 184 - "the tool provides a current price of the options available for guaranteeing the wind power. Based on this estimated risk, the investor/broker is able to make a reasonable determination as

to whether the value of the wind power unit is believed to be warranted in view of the expected cost and the likelihood of delivery of that particular wind power unit.")

It would have been obvious to one of ordinary skill at the time of the invention to combine the teachings of Mertins and Morjaria because of the motivation to limit the variations in the electric power output from wind farms and also in the electrical power subsequently consumed. (Morjaria: column 1, lines 5-35). It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Mertins, Morjaria and Emery and Lof because of the motivation to have ensure clients are aware of the finances involved with power generation. All four references teach the gathering and analysis of wind turbine related data. Mertins teaches a system for marketing a wind powered generation facility. Morjaria teaches a method for operating a wind turbine generators and a system for forecasting wind data input and electric power production. Emery teaches the administering of uncontrollable electric power and estimating the production of electricity in a dependable manner. The Lof reference teaches the financial determination based on this output.

20. **Claims 14, 16, 18, 19 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Morjaria** in view of **Emery**

21. **With respect to claim 14: (Currently Amended)** Morjaria teaches means for tracking fluctuation in one or more operating parameters of a power generating system that converts an uncontrollable natural resource to power

output, the parameters including input of the uncontrollable natural resource wherein tracking fluctuation comprises comparing an empirically determined actual relationship between input of the uncontrollable natural resource and power output of a power generating system to a desired relationship there between; (Morjaria: col. 8, lines 20-45 – "the system has the ability to compare forecasted data to actual data" parameters inputs can be updates; col. 5, lines 40-65 – wind turbine data is analyzed and the data is transmitted to an input channel and stored in the database; furthermore "such operational data facilitates accurate wind farm production forecasting by providing accurate historical data to determine wind farm-specific wind speed and direction forecasts; forecasts may also be adjusted; col. 8, lines 20-45 – "the system has the ability to compare forecasted data to actual data" parameters inputs can be updates; col. 7, line 63 – col. 8, line 45 – power curve model is used to generate a mathematical model of electric power output versus wind speed)

Morjaria teach the calculation and comparison of wind data generated and electricity produced. Morjaria does not teach, however Emery teach the application of penalties based on differences in results.

- Means for correcting the financial product based upon the tracking. (Emery: paragraphs 15 and 17 – under-generation and over-generation of power can cause problems and over-generation creates financial penalties; paragraph 16 – windmill used in power production; paragraph 17 – actual power measure is compared to previous power measured; paragraphs 11, 17 and 19 – system contains historical databases)

It would have been obvious to one of ordinary skill at the time of the invention to combine the teachings of Morjaria and Emery because of the motivation to have "accurate estimate, or schedule, of the power to be generated". (Emery paragraph 2) Both references teach the gathering and analysis of wind turbine related data. Morjaria teaches a method for operating a wind turbine generators and a system for forecasting wind data input and electric power production. Emery teaches the administering of uncontrollable electric power and estimating the production of electricity in a dependable manner.

22. **With respect to claim 16: (Currently Amended)** Morjaria teaches the tracking comprises monitoring change in environmental conditions. (Morjaria: col. 5, lines 40-65 – wind turbine data is analyzed and the data is transmitted to an input channel and stored in the database; furthermore "such operational data facilitates accurate wind farm production forecasting by providing accurate historical data to determine wind farm-specific wind speed and direction forecasts; forecasts may also be adjusted; col. 8, lines 20-45 – "the system has the ability to compare forecasted data to actual data" parameters inputs can be updates; col. 7, line 63 – col. 8, line 45 – power curve model is used to generate a mathematical model of electric power output versus wind speed)

23. **With respect to claim 18: (Currently Amended)** Morjaria teach the calculation and comparison of wind data generated and electricity produced. Morjaria does not teach, however Emery teach the application of penalties based on differences in results correcting the financial product comprises adjusting a penalty. (Emery: paragraphs 15 and 17 – under-generation and over-generation

of power can cause problems and over-generation creates financial penalties; paragraph 16 – windmill used in power production; paragraph 17 – actual power measure is compared to previous power measured)

It would have been obvious to one of ordinary skill at the time of the invention to combine the teachings of Morjaria and Emery because of the motivation to have "accurate estimate, or schedule, of the power to be generated". (Emery paragraph 2) Both references teach the gathering and analysis of wind turbine related data. Morjaria teaches a method for operating a wind turbine generators and a system for forecasting wind data input and electric power production. Emery teaches the administering of uncontrollable electric power and estimating the production of electricity in a dependable manner.

24. **With respect to claim 19: (Currently Amended)** Morjaria teach the calculation and comparison of wind data generated and electricity produced. Morjaria does not teach, however Emery teach the application of penalties based on differences in results adjusting value at risk for a seller of electricity. (Emery: paragraphs 15 and 17 – under-generation and over-generation of power can cause problems and over-generation creates financial penalties; paragraph 16 – windmill used in power production; paragraph 17 – actual power measure is compared to previous power measured)

Note: specification at paragraphs 3 and 31 describes risk as financial risk.

It would have been obvious to one of ordinary skill at the time of the invention to combine the teachings of Morjaria and Emery because of the motivation to have "accurate estimate, or schedule, of the power to be

generated". (Emery paragraph 2) Both references teach the gathering and analysis of wind turbine related data. Morjaria teaches a method for operating a wind turbine generators and a system for forecasting wind data input and electric power production. Emery teaches the administering of uncontrollable electric power and estimating the production of electricity in a dependable manner.

25. **With respect to claim 21: (Currently Amended)** Morjaria teaches means for determining the empirically determined actual relationship between input of the uncontrollable natural resource and power output of the power generating system during actual operation of the system. (Morjaria: col. 5, lines 40-65 – wind turbine data is analyzed and the data is transmitted to an input channel and stored in the database; furthermore "such operational data facilitates accurate wind farm production forecasting by providing accurate historical data to determine wind farm-specific wind speed and direction forecasts; forecasts may also be adjusted; col. 8, lines 20-45 – "the system has the ability to compare forecasted data to actual data" parameters inputs can be updates; col. 7, line 63 – col. 8, line 45 – power curve model is used to generate a mathematical model of electric power output versus wind speed)

26. **Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Morjaria** in view of **Emery** and further in view of **Lof.**

27. **With respect to claim 15: (Currently Amended)** Morjaria teaches analyzing historical data but it does not teach manipulation of the financial data.

Morjaria/Emery teach penalties for over-generation. Morjaria/Emery do not teach, however Lof teaches tracking fluctuation in cost of power production. (Lof: Figs. 4, 5 and 15-18 – based on actual power delivered balance is adjusted and billing is tracked; paragraphs 68-72 – accounts are reconciled and funds exchanged for surplus or shortfall)

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine the teachings of Morjaria and Emery and Lof because of the motivation to have ensure clients are aware of the finances involved with power generation. All three references teach the gathering and analysis of wind turbine related data. Morjaria teaches a method for operating a wind turbine generators and a system for forecasting wind data input and electric power production. Emery teaches the administering of uncontrollable electric power and estimating the production of electricity in a dependable manner. The Lof reference teaches the financial determination based on this output.

28. **Claim 17** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Morjaria** in view of **Emery** and further in view of **Olson et al. (US 2008/0086411)** (hereinafter "**Olson**")

29. **With respect to claim 17: (Currently Amended)** Morjaria teach the calculation and comparison of wind data generated and electricity produced. Morjaria does not teach, however Emery teach the application of penalties based on differences in results. Morjaria/Emery does not teach, however Olson teaches correcting the financial product comprises adjusting a bonus. (Olson:

paragraphs 8-15 – tax credits and renewable energy production incentives and tax credit allowed for up to 10% of cost of investing; paragraph 27 reward system is created and accounts are credited based on quantity and/or quality of the recyclable material; paragraph 28 – fund certificates can be created when the entity produces renewable energy to generate electricity)

It would have been obvious to one of ordinary skill at the time of the invention to combine the teachings of Morjaria and Emery and Olson because of the motivation to provide incentives for generators. Morjaria teaches a method for operating a wind turbine generators and a system for forecasting wind data input and electric power production. Emery teaches the administering of uncontrollable electric power and estimating the production of electricity in a dependable manner. Olson teaches a reward system for generators who produce renewable electric energy.

Other Reference Considered

30. **Lading et al. US 6/320,272 B1** – column 4, lines 10-40 – the preferred embodiment of the invention details adjusting the pitch blades of the turbine to control output power generated by the wind turbine; the pitch processor is used to calculate the desired blade pitch; column 5, lines 10-30 – wind speed is measured; column 6, lines 30-50 – teach using climatology wind statistics to estimate energy flux.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heidi Riviere whose telephone number is 571-270-1831. The examiner can normally be reached on Monday-Friday 9:00am-5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janice Mooneyham can be reached on 571-272-6805.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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