APPENDIX A

ELECTRONIC DOCUMENTS FURNISHED WITH MIDAMERICAN ENERGY *COMPANY COMMENTS IN DOCKET NO. EL06-018*

MidAmerican Open-access Transmission Tariff – See MidAmerican OATT, Attachments I and J

http://www.oatioasis.com/MEC/index.html

MidAmerican Information Packet for Interconnecting Generators under 100 kVA

MidAmerican ENERGY®

Dear Sir / Ma'am,

Thank you for requesting information on interconnecting wind generation to the MidAmerican Energy Company (MidAmerican) system and the sale of its output to MidAmerican. I hope this letter and the enclosed information will be helpful.

The interconnection of your facility and sale of its output to the MidAmerican system is subject to the regulations of the Federal Energy Regulatory Commission (FERC) and the South Dakota Public Utility Commission (PUC). Your generating facility must be a Qualifying Facility as defined by regulations of the FERC at 18 CFR Part 292, Subpart B. This information can be accessed by computer on the web at: http://www.ferc.fed.us/electric/qfinfo/QFhow.htm. Please note that as required by 18 CFR 292.207(a)(ii) you will need to self-certify your facility. MidAmerican personnel are not prepared to assist you in filing documents with FERC or to answer questions about the process of becoming a Qualifying Facility under FERC rules.

Please note that you must send a copy of your notice of self-certification including FERC Form 556 to MidAmerican and the South Dakota PUC. The copy to MidAmerican should be sent to:

Terry Harbour
MidAmerican Energy Company
One RiverCenter Place
106 East Second Street
Davenport, IA. 52801

The copy to the South Dakota PUC should be sent to:

Chief Clerk's Office

This letter and the accompanying information are applicable only if the combined nameplate kVA rating of your generating units does not exceed 100 kVA and those units comprise a Qualifying Facility under state and federal law as discussed above. In this case, the provisions in MidAmerican's South Dakota Rate No. 54 will apply. If the combined nameplate kVA rating of the Qualifying Facility exceeds 100 kVA, MidAmerican will negotiate the terms of the interconnection and purchase of the facility's output.

Interconnecting with the MidAmerican system may require you to incur additional costs, either directly or by reimbursement to MidAmerican, that could extend your expected payback period. MidAmerican maintains a high standard for power quality delivered to all of its customers, and requires that the generation harmonic output comply with the IEEE Std 519-1992, Recommended

Practices and Requirements for Harmonic Control in Electrical Power Systems. The IEEE standard states that all generation equipment must produce less than 5% total voltage and current distortion at all generation levels. MidAmerican strongly encourages you to verify the harmonic output of the generation facilities with the vendor or manufacturer.

Distributed generation, rated at 100 kW and less, and interconnected to the MidAmerican system requires at a minimum: 1) a manually operated disconnect switch that provides a visible break or opening, and is capable of being padlocked open by either party. 2) adequate protective equipment to avoid energizing a MidAmerican de-energized line. 3) adequate overcurrent protection to disconnect the facility for all currents that exceed the full-load current rating of the facility 4) adequate equipment to protect and disconnect the facility from over and under voltages and frequencies, and 5) adequate harmonic suppression to meet the IEEE519-1992 standard for harmonics. Please refer to Appendix B in the attached **sample Qualifying Facility Contract** for more information on interconnection standards and protective requirements.

Please note the discussion below regarding the contractual presumption of compliance and your potential future liability in the event that your facility is determined to not be in compliance at a later date.

I have enclosed with this letter the following:

1. Form of Qualifying Facility Contract (Exhibit 1). Please note that this contract is not prepared for execution. This form of contract presumes that the Qualifying Facility will comply with the IEEE 519-1992 Std. until customer complaints and testing demonstrate that the facilities are producing excessive harmonic voltages and/or currents. If excessive harmonics are produced, the owner or operator of the facility will be required, at its expense, to install filtering to meet the IEEE 519-1992 Std.

   This is known as an Option B contract and requires installation of a dedicated transformer serving the Qualifying Facility if other customers are being served from the existing transformer. Costs associated with the installation of the dedicated transformer will be billed to the owner or operator of the facility. An Option A contract (not included with this letter) requires that the potential Qualifying Facility comply with the IEEE 519-1992 Std. before interconnecting with the MidAmerican system. Option A may require a more costly initial investment depending on the expected harmonic output of the generation facilities and current distribution configuration.

2. An information form (Exhibit 2) for your completion and return to MidAmerican. This form covers basic engineering data about your proposed facilities necessary for preliminary engineering studies by MidAmerican prior to interconnection. If all units are identical indicate that on the form, otherwise please fill out a separate form for each individual unit. Please obtain and verify the accuracy of the information by checking with the manufacturer and writing the correct values on the blank form. Please return the information to:

   Terry Harbour

MidAmerican Energy Company
One RiverCenter Place
106 East Second Street
Davenport, IA. 52801

3. An example of information and one line diagram received from another wind generator in (Exhibits 3a - c).

4. A copy of the MidAmerican Rider No. 54 in (Exhibit 4) applicable to small power production.

Please note that Rider No. 54 specifies the Qualifying Facility shall be fully responsible for the costs and performance of designing, installing, owning, operating, and maintaining its generation facilities. If a Qualifying Facility Contract is entered into with you by MidAmerican, the following work by MidAmerican will be necessary:

1. MidAmerican will review the requested information in Exhibit 3 and your one line diagram for compliance to MidAmerican guidelines.

2. MidAmerican will perform a System Impact and Facilities Study to determine the effect your generator will have on the MidAmerican system and the facilities required to interconnect your generation to MidAmerican.

3. MidAmerican will send you the System Impact and Facilities Study results and estimated costs to complete the interconnection. MidAmerican will track actual costs and bill for the System Impact and Facilities Study. No interconnection work will be performed unless you authorize MidAmerican to continue with modifications and construction required for interconnection.

4. After receiving your written authorization to proceed, MidAmerican will complete the system modifications on MidAmerican's side of the interconnection as required by the System Impact and Facilities Study. An invoice for costs incurred for this work will be sent to you.

Prepared for review and informational purposes. Not prepared for execution.

You must arrange for all of the necessary permits, foundation work, and electrical work for the Qualifying Facility side of the interconnection. MidAmerican will not arrange or perform this work.

Before proceeding further with this project and making financial commitments, you may want to complete an analysis of the estimated costs of the interconnection, operational expenses, and income. If you have additional questions regarding technical requirements for interconnection, you may call me at 563-333-8329.

Sincerely,

Terry Harbour
Senior Engineer

Prepared for review and informational purposes. Not prepared for execution.

Qualifying Facility Contract

Exhibit 1

[For use with Qualifying Facilities in Iowa with design capacity not exceeding 500 kW and Option B election for harmonics.]

This Qualifying Facility Contract is made this ____ day of _____, 200__, by and between MidAmerican Energy Company, an Iowa corporation referred to herein as MidAmerican, and _____, **[insert legal status of QF, *e.g.*, "an individual," "a partnership", *etc.*]** referred to herein as QF.

The parties agree as follows:

Article I. Definitions

Section 1.01. Definitions. When used in this Contract, the following words and terms shall have the meanings indicated unless clearly stated otherwise:

a. "Board" shall mean the Iowa Utilities Board and its predecessor and successor agencies.

b. "Commercial Operation" shall mean the operation of the Qualifying Facility for the purpose of generating electric energy to be delivered to the MidAmerican Electric System by direct electrical interconnection therewith.

c. "Force Majeure" shall mean acts of God, strikes, lockouts or other industrial disturbances, acts of the public enemy, wars, blockades, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, storms, tornados, floods, arrests and restraints of government and people, civil disturbances, explosions, breakage or accident to equipment, enactment of statutes, laws or regulations, acts of governmental bodies and any other cause or causes, whether of the kind herein enumerated or otherwise and not within the reasonable control of the party claiming suspension of its obligations under this Contract and which by the exercise of reasonable diligence, such party is unable to prevent or overcome.

d. "Interconnection Costs" shall have the same meaning as the term "interconnection costs" as defined in the QF Rules and includes costs incurred by MidAmerican (i) prior to and after the execution of this Contract, (ii) prior to and after the commencement of Commercial Operation, (iii) to conduct system impact studies and facilities studies and (iv) to construct any facilities or upgrades to facilities required to permit interconnection of the Qualifying Facility with the MidAmerican Electric System.

e. "Interconnection Point" shall mean the point identified in Exhibit A to this

Contract where the Qualifying Facility is directly electrically interconnected with the MidAmerican Electric System .

f. "Iowa Tariff" shall mean Electric Tariff No. 1 filed by MidAmerican with the Board and in effect at any time on or after the date of this Contract and through its expiration or termination, including changes or successor tariffs approved by, or allowed by, the Board to become effective.

g. "MidAmerican Electric System" shall mean the MidAmerican transmission and distribution system.

h. "QF Rules" shall mean the administrative rules promulgated by the Board and codified as 199 IAC 15.1 through 15.10 in effect as of the date of this Contract.

i. "QF Tariff" shall mean the tariff sheets of the Iowa Tariff designated as Rate No. 57, Rider No. 54, Price Schedule 925, Rate NB, or the tariff sheets which succeed such tariff sheets, subject to the geographic applicability of such tariff sheets to this Contract as designated herein.

j. "Qualifying Facility" shall mean a "qualifying facility" as defined by the QF Rule which is either owned or controlled by the QF and operated by the QF, provided that the Qualifying Facility shall have a design capacity of 500 kilowatts or less. The term "Qualifying Facility" includes any and all interconnection facilities owned, controlled and/or used by the QF and not owned, controlled and/or used by MidAmerican to connect the Qualifying Facility to the MidAmerican Electric System at the Interconnection Point.

Article II. Sale and Purchase of Energy

Section 2.01. Applicable Tariff. The QF Tariff applicable to this Contract is indicated below **[mark appropriate space with "x"]**:

__ Rate NB Net Billing
__ Rate No. 57 (East System)
    __ Energy Credit - Standard
    __ Energy Credit - Optional Time-of-Day
__ Rider No. 54 (North System)
__ Price Schedule 925 (South System)
    __ Rate A
    __ Rate B

Section 2.02. As Available Sales. In accordance with this Contract, the QF Tariff and the QF Rules, the QF shall sell and deliver to MidAmerican at the Interconnection Point, and MidAmerican shall purchase and receive from QF at the Interconnection Point, the energy

available from the Qualifying Facility. All sales of energy under this Contract shall be on an "as available" basis pursuant to 199 IAC 15.5(5)(a) and shall not commence until the time of Commercial Operation.

Section 2.03. Purchases. MidAmerican shall pay the QF for such energy purchased from the QF pursuant to this Contract in accordance with the QF Tariff.

Section 2.04. Sales To QF. MidAmerican shall provide electric service to the QF in accordance with the applicable provisions of the Iowa Tariff.

Article III. Interconnected Operations

Section 3.01. Interconnection Standards. The Qualifying Facility shall be constructed in accordance with the description set forth in Exhibit A, attached hereto and by this reference made a part hereof. The Qualifying Facility shall meet the standards for construction, interconnection, safety and operating reliability set forth in the QF Rules, the QF Tariff and Exhibit B, attached hereto and by this reference made a part hereof. MidAmerican may upgrade the voltage of its facilities at the Interconnection Point which upgrade may require QF to modify, at its expense, its facilities at the Interconnection Point for the purpose of maintaining the interconnection of the Qualifying Facility with the MidAmerican Electric System. Any disputes over interconnection, sales, and purchases are subject to resolution by the Iowa Utilities Board.

Section 3.02. Payment Of Interconnection Costs. Within thirty (30) days after billing, the QF shall reimburse MidAmerican for all Interconnection Costs after such costs have been incurred by MidAmerican. Billings for Interconnection Costs shall be submitted to the QF on a monthly basis. Upon the request of the QF, MidAmerican shall provide a written, non-binding estimate of all Interconnection Costs anticipated to be incurred prior to Commercial Operation. From time to time before incurring significant Interconnection Costs, MidAmerican may require the QF to sign an acknowledgment re-affirming the obligation of the QF to reimburse MidAmerican for all Interconnection Costs, including such significant Interconnection Costs.

Section 3.03. Obligation To Pay Interconnection Costs. The failure of the Qualifying Facility to meet the standards identified in Section 3.01 as necessary for interconnection with the MidAmerican Electric System shall not relieve the QF from its obligation to pay Interconnection Costs. If the QF fails to pay any bill for Interconnection Costs within thirty (30) days after billing, MidAmerican may suspend all work which would incur additional Interconnection Costs. If payment is received within sixty (60) days after billing and such work has been suspended, MidAmerican shall resume such work. If payment is not received within sixty (60) days after billing and such work has been suspended, this Contract shall be deemed terminated, except that the obligation of the QF to pay for Interconnection Costs incurred by MidAmerican prior to

termination shall not be terminated. Except in the case where a QF receives service under the terms of Rate NB, MidAmerican may offset Interconnection Costs against payments owed by MidAmerican to the QF for energy purchased by MidAmerican pursuant to this Contract.

Section 3.04. System Impact And Facilities Studies. The execution of this Contract by MidAmerican and the QF shall be deemed authorization by the QF for MidAmerican to promptly initiate and diligently pursue through completion the necessary system impact and facilities studies to determine (i) whether sufficient capability is available on the MidAmerican Electric System to accept deliveries of the energy to be purchased by MidAmerican pursuant to this Contract, (ii) if insufficient, the cause of the deficiency and (iii) the facilities or upgrades, including the cost thereof, required to be constructed to eliminate the deficiency to accept deliveries of the energy to be purchased by MidAmerican pursuant to this Contract. Such studies will be conducted in accordance with good utility practices and the standards generally applicable to such studies conducted by MidAmerican for itself and others. MidAmerican shall exercise good faith efforts to complete such studies within sixty (60) days after execution of this Contract.

Section 3.05. Confidential Information. All reports, summaries, plans and other documents comprising system impact studies and/or facilities studies or arising therefrom shall become the property of MidAmerican and shall be considered proprietary to MidAmerican. If any such information is provided to the QF by MidAmerican or on its behalf, the QF shall not disclose such information to any other person for any purpose without the prior written consent of MidAmerican.

Section 3.06. Cost Of Facilities And/Or Upgrades. Upon completion of the system impact and facilities studies, MidAmerican shall advise the QF in writing of the non-binding, estimate of the remaining Interconnection Costs to be incurred by MidAmerican to construct the facilities and/or upgrades and provide the interconnection necessary to accept deliveries of energy from the QF pursuant to this Contract. MidAmerican shall begin construction of such facilities and/or upgrades and interconnection within a reasonable time after it has received acknowledgment of receipt of such estimate from the QF and the QF's written re-affirmation that it will reimburse such additional Interconnection Costs to MidAmerican.

Section 3.07. Commencement Of Commercial Operation. Commercial Operation of the Qualifying Facility shall not commence until MidAmerican (i) has inspected the Qualifying Facility, (ii) has reasonably determined that it meets the requirements of this Contract and (iii) has notified the QF in writing of such determination. MidAmerican shall inspect the Qualifying Facility within a reasonable time after receiving a written request for an inspection from the QF. The inspection shall include an operational test that verifies minimum relay requirements for blocking generation into a de-energized circuit, frequency control, under voltage, and

synchronizing. The QF shall not be permitted to energize any de-energized MidAmerican facilities at any time during the term of this Contract. Any inspection by MidAmerican of the Qualifying Facility or determination pursuant to this Section shall not be deemed or construed as an inspection, approval, determination or warranty by MidAmerican with regard to the safety, durability, fitness, reliability or suitability of the Qualifying Facility.

Section 3.08. Metering. Energy delivered by MidAmerican to the QF shall be metered by a kilowatt-hour meter provided by MidAmerican having a detent to prevent reverse power flow. Energy delivered by the QF to MidAmerican shall be metered by a kilowatt-hour meter provided by MidAmerican with a detent to prevent reverse flow and a time of day recorder, if required by the applicable QF Tariff.

Section 3.09. Right To Disconnect. MidAmerican shall have the right to disconnect the Qualifying Facility (i) pursuant to the QF Rules, (ii) for any breach of this Contract by the QF which jeopardizes the health and safety of persons or the integrity of the MidAmerican Electric System , (iii) for reasonable periods for the purpose of maintenance, testing, replacement and repair of the MidAmerican Electric System , (iv) as the result of Qualifying Facility operations which cause MidAmerican to be unable to provide acceptable levels of service to its customers, or (v) as the result of the failure of the QF to pay MidAmerican within sixty (60) days after billing for any Interconnection Costs owed.

Section 3.10. Presumption of Compliance. The generated voltage and current waveform of the Qualifying Facility shall be presumed to comply with the IEEE Standard 519-1992, Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems, until (i) MidAmerican receives one or more customer complaints which may be reasonably attributed to the failure of the Qualifying Facility to comply with such standard and (ii) upon receiving such complaint or complaints, MidAmerican conducts tests in accordance with good utility practice which tests verify that such complaint or complaints are reasonably attributable to the failure of the Qualifying Facility to comply with such standard. Prior to conducting such test, MidAmerican shall notify the QF in writing or by telephone that such test will be undertaken and the QF shall have the opportunity to observe such test at the time scheduled by MidAmerican. Upon such verification, MidAmerican shall notify the QF in writing, with return receipt requested, of the test results and such verification. Within thirty (30) days after the receipt of the notice, the QF shall cause the Qualifying Facility to comply with such standard. All costs to comply with such standard shall be borne by the QF. If the Qualifying Facility is not in compliance with such standard on or after the thirty-first day after the receipt of the notice, MidAmerican shall have the right to disconnect the Qualifying Facility.

Section 3.11. Facilities to Accommodate Presumption. If MidAmerican's transformer

currently serving QF's property also serves other customers, MidAmerican, at QF's expense, shall install a dedicated transformer to serve QF's property exclusively for the purpose of isolating the Qualifying Facility and attempting to reduce the effects of harmonic production by the facility on MidAmerican's system and its customers. All of MidAmerican's equipment, including the secondary service, service neutral and distribution transformer, necessary to interconnect the parallel with the facility will be sized, at QF's expense, to protect against potential excessive harmonics based upon Company's reasonable engineering judgment and information supplied by QF.

Article IV. Term

Section 4.01. Term. This Contract shall become effective on the date hereof and continue in effect thereafter for __ years, or until (i) terminated pursuant to Section 3.03, (ii) terminated by the QF upon written notice to MidAmerican delivered at least thirty (30) days prior to termination, or (iii) the legal obligation of MidAmerican under the QF Rules or Public Utilities Regulatory Policies Act to purchase from the QF under this Contract is terminated.

Article V. Miscellaneous

Section 5.01. Indemnification. Each party shall protect, defend, indemnify and hold harmless the other party, its directors, officers, employees and agents, from and against all claims, demands, causes of actions, judgments, liability and associated costs and expenses, including reasonable attorneys' fees, arising from property damage, bodily injuries or death suffered by any person as the result of the negligence or willful misconduct of the indemnifying party in the performance of, or failure to perform, this Contract, provided that in no event shall either party be liable to the other party for any indirect, consequential, punitive or similar damages arising from or in any manner connected with the performance of, or failure to perform, this Contract.

Section 5.02. Indemnification for Harmonics Damages. The QF shall protect, defend, indemnify and hold harmless MidAmerican, its directors, officers, employees and agents, from and against all claims, demands, causes of action, judgments, liability and associated costs and expenses, including reasonable attorneys' fees, arising from property damage, bodily injuries or death suffered by any person sustained on the property served by the energy produced by the Qualifying Facility and occurring as the result of the failure of the Qualifying Facility to meet the standard referred to in Section 3.10 of this Contract.

Section 5.03. Insurance. Prior to the start of the Work, and at all times during the term

of the Work and this Contract, the QF shall purchase, at its own expense, and maintain with insurance companies in good standing and acceptable to the Company, such insurance as will protect the QF from liability and claims for injuries and damages which may arise out of or result from the QF operations under the Contract and for which the QF may be legally liable, whether such operations are by the QF or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. The Company intends that this Contract shall also be one of indemnity, and that such indemnification shall be covered by insurance. For the further protection of the QF and the Company, but without restricting or waiving any obligations of the QF herein contained, the QF shall insure the risks associated with the Work and this Contract with minimum coverages and limits as set forth below:

(a) Two million dollars ($2,000,000) for each occurrence if the Gross Nameplate Rating of QF's Generating Facility is greater than one hundred (100) kW;
(b) One million dollars ($1,000,000) for each occurrence if the Gross Nameplate Rating of QF's Generating Facility is greater than twenty (20) kW and less than or equal to one hundred (100) kW; and
(c) Five hundred thousand dollars ($500,000) for each occurrence if the Gross Nameplate Rating of QF's Generating Facility is twenty (20) kW or less.
(d) Workers compensation and employers liability insurance at statutory limits.

The QF shall deliver to Company certificates of insurance evidencing valid coverage in effect as of the date that the contract is effective. All policies shall contain provisions that no cancellation of material changes shall become effective except on thirty days written notice to MidAmerican Energy Company. MidAmerican Energy Company shall be named as an additional insured in each of the Contractor's insurance policies.

Section 5.04. Notices. All notices, requests, demands, billings and routine communications required or permitted by this Contract by either party to the other party shall be in writing and sent by first class United States Mail, overnight express, telecopy or electronic mail to the party addressed at the address indicated for such party on Exhibit A or at such other address as a party may designate for itself in a notice to the other party. To the extent permitted by this Contract, oral notices may be given at the telephone numbers shown on Exhibit A. Payments to MidAmerican shall be sent to the address shown on Exhibit A.

Section 5.05. Force Majeure. If either party is rendered unable, wholly or in part, by Force Majeure to carry out its obligations under this Contract, other than to make payment, such party shall give notice to the other party of the full particulars of such Force Majeure as soon as possible after the occurrence of such Force Majeure. Upon such occurrence, the obligations of

the party giving notice, insofar as they are affected by such Force Majeure, shall be suspended during the continuance of any inability so caused but for no longer period and such cause shall be remedied with all reasonable dispatch to the extent possible, except that any labor disturbance may be settled solely at the discretion of the party directly affected thereby.

Section 5.06. Entire Agreement And Amendments. This Contract constitutes the entire agreement between the parties relating to the matters described herein and supersedes any and all prior oral and written understandings and/or agreements. No modification of this Contract shall be binding on either party until agreed to by both parties in writing as an amendment hereto.

Section 5.07. Applicable Law. This Contract shall be governed by and construed in accordance with the laws of the state of Iowa.

Section 5.08. Captions. The Article and Section captions contained in this Contract shall be for the purpose of ease of reference and shall not constitute a part of the terms and conditions of this Contract.

In witness whereof, the parties have caused this Contract to be executed on the day and year first above written.

MidAmerican Energy Company

by _____
Name:
Title:

[signature lines for individual QFs]

_____
Name:

_____
Name:

[signature lines for corporate QF]

_____
[insert name of corporation]

by _____
Name:
Title:

Prepared for review and informational purposes. Not prepared for execution.

Exhibit A

Part I. Description of Qualifying Facility:

Part II. Identification of Interconnection Point:

Part III. Addresses for Notices:

To MidAmerican --

MidAmerican Energy Company
Transmission and Distribution Planning
One RiverCenter Place
106 East Second Street
P. O. Box 4350
Davenport, Iowa 52808

To QF --

Part IV. Telephone and FAX Numbers for Notices:

To MidAmerican -- 319-333-8112

To QF --

Part V. Address for Payments to MidAmerican:

MidAmerican Energy Company
Remittance Department
P. O. Box 8020
Davenport, Iowa 52801-8020

Exhibit B

Interconnection Standards

In addition to the requirements of the QF Rules, the Qualifying Facility shall meet and maintain the following standards:

General Requirements --

1. The Qualifying Facility must be constructed and capable of operating in accordance with:
   a. All applicable federal, state and local laws and regulations.
   b. IEEE Standard 519-1992, Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems.
   c. MidAmerican Standard P820-100, Distribution System Voltage Levels and Control.
   d. MidAmerican Standard P820-200, Allowable Voltage Flicker.

2. The interconnection of the Qualifying Facility shall, at a minimum, maintain the existing level of reliability of the MidAmerican Electric System as compared to that which existed immediately prior to the interconnection.

3. System flows on the MidAmerican Electric System as a result of the interconnection of the Qualifying Facility shall not overload, or in any manner adversely affect, the MidAmerican Electric System. If the Qualifying Facility supplies fault currents to the MidAmerican Electric System that are determined by MidAmerican to be excessive, the QF shall install, at its expense, adequate fault current limiting equipment.

4. The QF shall provide to MidAmerican engineering quality specifications, plans, and construction documents relating to the Qualifying Facility that shall include:
   a. A one-line diagram showing the generator, breakers, protective devices (with ANSI standard device function numbers), grounding, and metering all using appropriate ANSI standard symbols.
   b. A diagram showing current and potential circuits for protective relays or equivalent protective equipment, and control schematic diagrams or logic

diagrams for protective equipment.

5. Industry standard Basic Insulation Level (BIL) ratings shall be used for all of Qualifying Facility electric system additions and electric system interface equipment.

6. The QF shall utilize utility grade equipment for all protection and utility interface equipment.

Protective Requirements --

1. The QF shall provide a ground current path from the Qualifying Facility that is reasonably acceptable to MidAmerican.

2. The QF shall provide and maintain protective and control equipment capable of automatically isolating and synchronizing the Qualifying Facility. In case of interruption, the equipment shall be capable of isolating or de-energizing the Qualifying Facility. Automatic isolation of the Qualifying Facility must occur in the event of:
   a. A partial or total disruption of the MidAmerican normal source of supply. During such disruption the equipment shall prevent re-energizing MidAmerican electric facilities at the Interconnection Point from the Qualifying Facility. The Qualifying Facility shall be reconnected to the MidAmerican Electric System only after verification has been made that the MidAmerican Electric System is in a normal operating state.
   b. Voltage deviations greater than $\pm$ 5% of nominal voltage provided by MidAmerican.
   c. Frequency deviations greater than $\pm$1% of 60 Hz.
   d. A partial or total failure on the Qualifying Facility side of the Interconnection Point.
   e. An overload condition on the Qualifying Facility side of the Interconnection Point.
   f. Out-of-synchronization generation by the Qualifying Facility.

3. Qualifying Facility generator controls shall be equipped with a line voltage relay or contactor that will prevent the Qualifying Facility from energizing any de-energized MidAmerican electric facilities and prevent the reconnection of the Qualifying Facility to

the MidAmerican Electric System until MidAmerican energizes its electric facilities at the Interconnection Point.

Operating Requirements --

1. The Qualifying Facility shall have a manually operated disconnecting device capable of being locked open by either party to provide a visible air opening that complies with the most current editions of the National Electric Code and the National Electrical Safety Code. This device shall be controlled by, and be accessible to, MidAmerican personnel at all times in accordance with this Contract and the QF Rules.

2. The QF shall provide adequate power quality at the Interconnection Point including, but not limited to, the following:
   a. Adequate voltage control to minimize voltage regulation. Line-to-line or line-to-neutral voltages shall be within $\pm$ 5% of nominal voltage provided by MidAmerican.
   b. Adequate frequency control. Voltage and current sine-waves shall be within $\pm$1% of 60 Hz.
   c. The harmonic content of the voltage wave forms shall comply with IEEE Standard 519-1992, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems, Table 11.1, Voltage Distortion Limits. The current from the Qualifying Facility shall be incompliance with IEEE Standard 519-1992 Table 10.3 Current Distortion Limits for General Distribution Systems (120 volts through 69,000 V). Any degradation to the MidAmerican Electric System , or to the service of customers of MidAmerican resulting from such distortion shall be corrected at the expense of the QF. The Qualifying Facility shall be isolated by MidAmerican from the MidAmerican Electric System until corrections have been completed.
   d. Control the electrical power output such that it will not exceed the capacity of the MidAmerican interconnection facilities. Any capacity improvements to the MidAmerican Electric System required to accommodate the output of the Qualifying Facility shall be at the expense of the QF.

3. The Qualifying Facility shall maintain an adequate reactive power factor of not less than 0.95 lag. If the Qualifying Facility does not provide and maintain such reactive power,

MidAmerican may do so and charge the cost to the QF. MidAmerican reserves the right to test power factor of the Qualifying Facility at any time. If starting or load changing on induction generators or inverters associated with the Qualifying Facility will have an adverse impact on the MidAmerican Electric System voltage, MidAmerican may require the installation of step-switched capacitors or other equipment, at the expense of the QF, to bring the voltage changes to within acceptable levels.

4. Appropriate metering shall be owned, operated and maintained by MidAmerican at the expense of the QF.

5. The QF shall maintain an operating log at the Qualifying Facility indicating changes in operating status (available or unavailable), maintenance outages, trip conditions, or other unusual conditions.

7. The QF shall maintain the Qualifying Facility in good condition and repair.

8. The QF shall discontinue parallel operation of the Qualifying Facility when requested by MidAmerican for the following purposes:
   a. To facilitate maintenance, tests or repairs of the MidAmerican Electric System .
   b. During emergencies on the MidAmerican Electric System .
   c. When the Qualifying Facility generating equipment is interfering with customers on the MidAmerican Electric System .
   d. When an inspection of the Qualifying Facility reveals a condition hazardous to the MidAmerican Electric System or a lack of scheduled maintenance records is found.

Additional Requirements for Aggregate Installations Rated of 101 kW and Greater

1. For facilities with a nameplate generating capacity greater than 100 kW, equipment associated with the Customer's interface facilities shall be protected, at a minimum, in accordance with the practices described in the latest revision of the following ANSI/IEEE Standards and Guides:

   ANSI/IEEE C37.91, Guide for Protective Relay Applications to Power Transformers

   ANSI/IEEE C37.95, Guide for Protective Relaying of Utility-Customer Interconnections

ANSI/IEEE C37/97, Guide for Protective Relay Applications to Power System Busses

ANSI/IEEE C37.101, Guide for Generator Ground Protection

ANSI/IEEE C37.102, Guide for AC Generator Protection

ANSI/IEEE C37.106, Guide for Abnormal Frequency Protection for Power Generating Plants

Prepared for review and informational purposes. Not prepared for execution.

Exhibit 2

MidAmerican Energy Company

Required Information From the Qualifying Facility or Small Power Producer

Location and Ownership of facility:

Description of generation equipment:

1. Make
2. Model
3. Fuel or Energy Source
4. Synchronous or Inductive generator

Rated Nameplate information:

1. kVA
2. kW
3. Volts
4. Current
5. Phasing

Reactances in % on Machine kVA Base

1. Synchronous or Inductive (Xd)
2. Transient (X'd)
3. Subtransient (X"d)
4. Machine kVA base

AC/DC Conversion:

1. Type of Converter
2. DC Bus Nominal Voltage

3. Rated Amp Capacity

4. Phasing

DC/AC Conversion:

1. Model/Serial Number

2. Type of Converter and Commutation

3. Rated kVA

4. Rated Output Voltage

5. Rated Output Current

6. Phasing

Filter:

1. Capacitor value in Farads

2. Inductor value in Henries

Relaying or Protective Equipment:

1. Over/Under Frequency Limits

2. Over/Under Voltage Limits

3. Over/Under Current Limits

4. De-energized Line Protection Type
And Line Clearing time

Power Quality Before or After Filter (Circle One):

1. Total Harmonic Distortion at:	Total Demand Distortion at:	Unit Power Factor at:
25% Load		25% Load
50% Load	50% Load	50% Load
75% Load		75% Load
100% Load	100% Load	100% Load

Notes:

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Prepared for review and informational purposes. Not prepared for execution.

Exhibit 3a

MidAmerican Energy Company
Example Information on a Wind Turbine for Reference Only

Location and Ownership of facility:

Description of generation equipment:

1.	Make	Wind Turbine
2.	Model	
3.	Fuel or Energy Source	Wind
4.	Synchronous or Inductive generation	Synchronous

Rated Nameplate information:

1.	kVA	30 kVA, brushless with outboard exciter
2.	kW	20 kW
3.	Volts	180 volts
4.	Current	
5.	Phasing	3 phase

Reactances in % on Machine kVA Base

1.	Synchronous or Inductive (Xd)	
2.	Transient (X'd)	
3.	Subtransient (X"d)	30% (assumed)
4.	Machine kVA base	30 kVA

AC/DC Conversion:

1.	Type of Converter	Line Synchronous, Six-Pulse-Thyristor controlled
2.	DC Bus Nominal Voltage	208 volts DC output
3.	Rated Amp Capacity	100 amps
4.	Phasing	3 phase input

Prepared for review and informational purposes. Not prepared for execution.

Exhibit 3b

MidAmerican Energy Company
Example Information on a Wind Turbine for Reference Only

DC/AC Conversion:

1.	Model/Serial Number	
2.	Type of Converter and Commutation	SCR Bridge, Synchronous, Line commutated
3.	Rated kVA	26.4kVA (240volts *1.1 * 100 amps)
4.	Rated Output Voltage	240 volts
5.	Rated Output Current	100 amps
6.	Phasing	Single phase

Filter:

1.	Capacitor value in Farads	2.5 Farads
2.	Inductor value in Henries	35 *microHenries*

Relaying or Protective Equipment:

1.	Over/Under Frequency Limits	± 1%, Phased-Lock-Loop
2.	Over/Under Voltage Limits	± 10%, Phased-Lock-Loop
3.	Over/Under Current Limits	100 amp overcurrent
4.	De-energized Line Protection Type And Line Clearing time	Phased Locked Loop Off Frequency Detection 150 ms

Power Quality Before or After Filter (Circle One):

	Total Harmonic Distortion at:		Total Demand Distortion at:		Unit Power Factor at:	
1.	25% Load	12%			25% Load	0.7
	50% Load	10%	50% Load	13.4%	50% Load	0.8
	75% Load	7%			75% Load	0.85
	100% Load	<5%	100% Load	31.8%	100% Load	0.9

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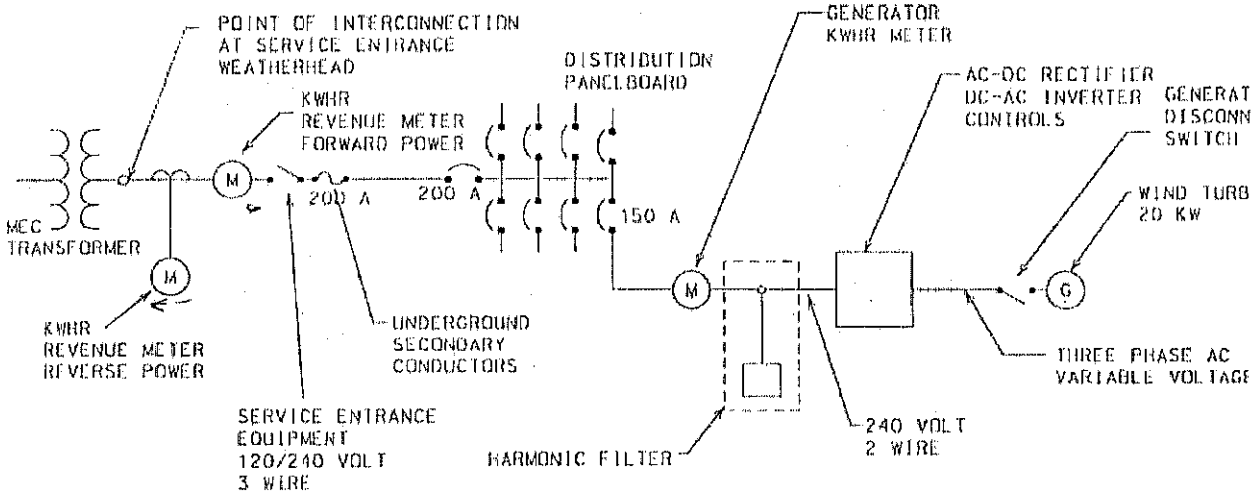
Exhibit 3c


POINT OF INTERCONNECTION
AT SERVICE ENTRANCE
WEATHERHEAD
KWHR
REVENUE METER
FORWARD POWER
DISTRIBUTION
PANELBOARD
GENERATOR
KWHR METER
AC-DC RECTIFIER
DC-AC INVERTER
CONTROLS
GENERAT
DISCONN
SWITCH
WIND TURB
20 KW
MEC
TRANSFORMER
M
200 A
200 A
150 A
KWHR
REVENUE METER
REVERSE POWER
UNDERGROUND
SECONDARY
CONDUCTORS
SERVICE ENTRANCE
EQUIPMENT
120/240 VOLT
3 WIRE
HARMONIC FILTER
240 VOLT
2 WIRE
G
THREE PHASE AC
VARIABLE VOLTAGE