

## LICKING VALLEY

RURAL ELECTRIC COOPERATIVE CORPORATION

P. O. Box 605 • 271 Main Street West Liberty, KY 41472-0605 (606) 743-3179



April 20, 2009

Mr. Jeff Derouen Executive Director Kentucky Public Service Commission 211 Sower Boulevard Post Office Box 615 Frankfort, Kentucky 40602 RECENTEDO APRR 2 1 2009

PUBLIC SERVICE E

RE: Case Number 2008-00169
Development of Guidelines for
Interconnection and Net Metering

Dear Mr. Derouen:

Please find enclosed original and three copies of Licking Valley Rural Electric Cooperative Corporation's tariff of its Net Metering Guidelines for Rates Schedule NM- Net Metering.

If additional information is required regarding this matter, please feel free to contact us.

Sincerely,

Kerry K Howard

General Manager/CEO

KKH:mn

**Enclosures** 

### RATES SCHEDULE NM—NET METERING

## AVAILABILITY OF NET METERING SERVICE

Net Metering is available to eligible member-generators in Licking Valley RECC's service territory, upon request, and on a first-come, first-served basis up to a cumulative capacity of one percent (1%) of the Licking Valley RECC's single hour peak load during the previous year. If the cumulative generating capacity of net metering systems reaches 1% of a supplier's single hour peak load during the previous year, upon Commission approval, Licking Valley RECC's obligation to offer net metering to a new member-generator may be limited. An eligible member-generator shall mean a member retail electric member of Licking Valley RECC with a generating facility that:

- 1) Generates electricity using solar energy, wind energy, biomass or biogas energy, or hydro energy;
- 2) Has a rated capacity of not greater than thirty (30) kilowatts;
- 3) Is located on the member's premises;
- 4) Is owned and operated by the member;
- 5) Is connected in parallel with Licking Valley RECC's electric distribution system; and
- 6) Has the primary purpose of supplying all or part of the member's own electricity requirements.

At its sole discretion, Licking Valley RECC may provide Net Metering to other membergenerators not meeting all the conditions listed above on a case-by-case basis.

## **METERING**

Licking Valley RECC shall provide net metering services, without any cost to the Member for metering equipment, through a standard kilowatt-hour metering system capable of measuring the flow of electricity in two (2) directions. This provision does not relieve Member of his or her responsibility to pay metering costs embedded in the Licking Valley RECC's Commission-

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SSUED BY Tuy . Haven TITLE General Manager/CEO

approved base rates. Net metered electricity shall be measured in accordance with standard metering practices established by Licking Valley RECC using metering equipment capable of measuring and recording energy flows, on a kWh basis, from Licking Valley RECC to the member-generator and from the member-generator to Licking Valley RECC, with each directional energy flow recorded independently. If time-of-day or time-of-use metering is used, the electricity fed back to the electric grid by the member-generator shall be metered and accounted for at the specific time it is fed back to the electric grid in accordance with the time-of-day and time-of-use billing agreement currently in place.

Any additional meter, meters, or distribution upgrades needed to monitor the flow in each direction shall be installed at the Member's expense.

#### **BILLING AND PAYMENT**

For charges collected on the basis of metered registration, Licking Valley RECC shall, for each monthly billing period, determine the net meter registration of the member-generator by comparing the directional energy flow in each direction. If the net meter registration shows that the deliveries of energy in kWh from the member-generator to Licking Valley RECC exceed the deliveries of energy in kWh from Licking Valley RECC to the member-generator, the net meter registration in kWh will be carried forward to the next monthly billing period as a Net Metering Credit, expressed in kWh. If the member-generators carried over a Net Metering Credit from one of more prior months, the net meter registration from the current month shall be added to the Net Metering Credit that exists from prior months.

If the net metering registration shows that deliveries of energy in kWh from the Cooperative to the member-generator exceed the deliveries of energy in kWh from the member-generator to the Cooperative, the member-generator shall pay the Cooperative for the net amount of energy delivered by the Cooperative after application of any Net Metering Credit carried forward from previous months at the current rate applicable to its type or class of electric service.

The member shall be responsible for payment of any applicable member charge or other applicable charges.

At no time shall Licking Valley RECC be required to convert the Net Billing Credit to cash. If a member-generator closes his account, no cash refund for residual Net Metering Credits shall be paid.

Net Metering Credits are not transferable between members or locations.

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### APPLICATION AND APPROVAL PROCESS

The Member shall submit an Application for Interconnection and Net Metering ("Application") and receive approval from Licking Valley RECC prior to connecting the generator facility to Licking Valley RECC's system.

Applications will be submitted by the Member and reviewed and processed by Licking Valley RECC according to either Level 1 or Level 2 processes defined in this tariff.

Licking Valley RECC may reject an Application for violations of any code, standard, or regulation related to reliability or safety; however, Licking Valley RECC will work with the Member to resolve those issues to the extent practicable.

Members may contact Licking Valley RECC to check on status of an Application or with questions prior to submitting an Application. Contact information is provided on the Application form and is listed on Licking Valley RECC's website.

## **LEVEL 1 AND LEVEL 2 DEFINITIONS**

#### LEVEL 1

A Level 1 Application shall be used if the generating facility is inverter-based and is certified by a nationally recognized testing laboratory to meet the requirements of Underwriters Laboratories Standard 1741 "Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources" (UL 1741).

Licking Valley RECC will approve the Level 1 Application if the generating facility also meets all of the following conditions:

1) For interconnection to a radial distribution circuit, the aggregated generation on the circuit, including the proposed generating facility, will not exceed 15% of the Line Section's most recent annual one hour peak load. A line section is the smallest part of the primary distribution system the generating facility could remain connected to after operation of any sectionalizing devices.

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SSUED BY June J. Haram PITLE General Manager/CEO

- 2) If the proposed generating facility is to be interconnected on a single-phase shared secondary, the aggregate generation capacity, including the proposed generating facility, will not exceed the smaller of 20 kVA or the nameplate rating of the transformer.
- 3) If the proposed generating facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20% of the nameplate rating of the service transformer.
- 4) If the generating facility is to be connected to three-phase, three wire primary Licking Valley RECC distribution lines, the generator shall appear as a phase-to-phase connection at the primary Licking Valley RECC distribution line.
- 5) If the generating facility is to be connected to three-phase, four wire primary Licking Valley RECC distribution lines, the generator shall appear to the primary Licking Valley RECC distribution line as an effectively grounded source.
- 6) The interconnection will not be on an area or spot network.
- 7) Licking Valley RECC does not identify any violations of any applicable provisions of IEEE 1547, "Standard for Interconnecting Distributed Resources with Electric Power Systems."
- 8) No construction of facilities by Licking Valley RECC on its own system will be required to accommodate the generating facility.

If the generating facility does not meet all of the above listed criteria, Licking Valley RECC, in its sole discretion, may either: 1) approve the generating facility under the Level 1 Application if Licking Valley RECC determines that the generating facility can be safely and reliably connected to Licking Valley RECC's system; or 2) deny the Application as submitted under the Level 1 Application.

Licking Valley RECC shall notify the member within 20 business days whether the Application is approved or denied, based on the criteria provided in this section.

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SSUED BY Key X. Husen TITLE G

TITLE General Manager/CEO

If the Application lacks complete information, Licking Valley RECC shall notify the Member that additional information is required, including a list of such additional information. The time between notification and receipt of required additional information will add to the time to process the Application.

When approved, Licking Valley RECC will indicate by signing the approval line on the Level 1 Application Form and returning it to the Member. The approval will be subject to successful completion of an initial installation inspection and witness test if required by Licking Valley RECC. Licking Valley RECC's approval section of the Application will indicate if an inspection and witness test are required. If so, the Member shall notify Licking Valley RECC within 3 business days of completion of the generating facility installation and schedule an inspection and witness test with Licking Valley RECC to occur within 10 business days of completion of the generator facility installation or as otherwise agreed to by Licking Valley RECC and the Member. The Member may not operate the generating facility until successful completion of such inspection and witness test, unless Licking Valley RECC expressly permits operational testing not to exceed two hours. If the installation fails the inspection or witness test due to noncompliance with any provision in the Application and Licking Valley RECC approval, the Member shall not operate the generating facility until any and all non-compliance issues are corrected and re-inspected by Licking Valley RECC.

If the Application is denied, Licking Valley RECC will supply the Member with reasons for denial. The Member may resubmit under Level 2 if appropriate.

### LEVEL 2

A Level 2 Application is required under any of the following:

- 1) The generating facility is not inverter based;
- 2) The generating facility uses equipment that is not certified by a nationally recognized testing laboratory to meet the requirements of UL 1741; or
- 3) The generating facility does not meet one or more of the additional conditions under Level 1.

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ISSUED BY L. Harring TITLE General Manager/CEO

Licking Valley RECC will approve the Level 2 Application if the generating facility meets Licking Valley RECC's technical interconnection requirements, which are based on IEEE 1547.

Licking Valley RECC will process the Level 2 Application within 30 business days of receipt of a complete Application. Within that time Licking Valley RECC will respond in one of the following ways:

- 1) The Application is approved and Licking Valley RECC will provide the Member with an Interconnection Agreement to sign.
- 2) If construction or other changes to Licking Valley RECC's distribution system are required, the cost will be the responsibility of the Member. Licking Valley RECC will give notice to the Member and offer to meet to discuss estimated costs and construction timeframe. Should the Member agree to pay for costs and proceed, Licking Valley RECC will provide the Member with an Interconnection Agreement to sign within a reasonable time.
- 3) The Application is denied. Licking Valley RECC will supply the Member with reasons for denial and offer to meet to discuss possible changes that would result in Licking Valley RECC approval. Member may resubmit Application with changes.

If the Application lacks complete information, Licking Valley RECC shall notify the Member that additional information is required, including a list of such additional information. The time between notification and receipt of required additional information will add to the 30-business-day target to process the Application.

The Interconnection Agreement will contain all the terms and conditions for interconnection consistent with those specified in this tariff, inspection and witness test requirements, description of and cost of construction or other changes to Licking Valley RECC's distribution system required to accommodate the generating facility, and detailed documentation of the generating facilities which may include single line diagrams, relay settings, and a description of operation.

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ISSUED BY XVV

TITLE General Manager/CEO

The Member may not operate the generating facility until an Interconnection Agreement is signed by the Member and Licking Valley RECC and all necessary conditions stipulated in the agreement are met.

## **APPLICATION, INSPECTION AND PROCESSING FEES**

No application fees or other review, study, or inspection or witness test fees may be charged by Licking Valley RECC for Level 1 Applications.

Licking Valley RECC requires each Member to submit with each Level 2 Application a non-refundable application, inspection and processing fee of \$100.00 for Level 2 Applications. In the event Licking Valley RECC determines an impact study is necessary with respect to a Level 2 Application, the Member shall be responsible for any reasonable costs up to \$1,000 for the initial impact study. Licking Valley RECC shall provide documentation of the actual cost of the impact study. Any other studies requested by the Member shall be at the Member's sole expense.

## TERMS AND CONDITIONS FOR INTERCONNECTION

To interconnect to Licking Valley RECC's distribution system, the Member's generating facility shall comply with the following terms and conditions:

- 1) Licking Valley RECC shall provide the Member net metering services, without charge for standard metering equipment, through a standard kilowatt-hour metering system capable of measuring the flow of electricity in two (2) directions. If the Member requests any additional meter or meters or distribution upgrades are needed to monitor the flow in each direction, such installations shall be at the Member's expense.
- 2) The Member shall install, operate, and maintain, at Member's sole cost and expense, any control, protective, or other equipment on the Member's system required by Licking Valley RECC's technical interconnection requirements based on IEEE 1547, the NEC, accredited testing laboratories such as Underwriters Laboratories, and the manufacturer's suggested practices for safe, efficient and reliable operation

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ISSUED BY Lux X. Housung TITLE General Manager/CEO

of the generating facility in parallel with Licking Valley RECC's electric system. Member shall bear full responsibility for the installation, maintenance and safe operation of the generating facility. Upon reasonable request from Licking Valley RECC, the Member shall demonstrate generating facility compliance.

- The generating facility shall comply with, and the Member shall represent and warrant its compliance with: (a) any applicable safety and power quality standards established by IEEE and accredited testing laboratories such as Underwriters Laboratories; (b) the NEC as may be revised from time to time; (c) Licking Valley RECC's rules, regulations, and Service Regulations as contained in Licking Valley RECC's Retail Electric Tariff as may be revised from time to time with the approval of the Kentucky Public Service Commission (Commission); (d) the rules and regulations of the Commission, as such rules and regulations may be revised from time to time by the Commission; and (e) all other applicable local, state, and federal codes and laws, as the same may be in effect from time to time. Where required by law, Member shall pass an electrical inspection of the generating facility by a local authority having jurisdiction over the installation.
- 4) Any changes or additions to Licking Valley RECC's system required to accommodate the generating facility shall be considered excess facilities. Member shall agree to pay Licking Valley RECC for actual costs incurred for all such excess facilities prior to construction.
- Member shall operate the generating facility in such a manner as not to cause undue fluctuations in voltage, intermittent load characteristics or otherwise interfere with the operation of Licking Valley RECC's electric system. At all times when the generating facility is being operated in parallel with Licking Valley RECC's electric system, Member shall operate the generating facility in such a manner that no adverse impacts will be produced thereby to the service quality rendered by Licking Valley RECC to any of its other members or to any electric system interconnected with Licking Valley RECC's electric system. Member shall agree that the interconnection and operation of the generating facility is secondary to, and shall not interfere with, Licking Valley RECC's ability to meet its primary responsibility of furnishing reasonably adequate service to its members.

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ISSUED BY Levy XI Havou TITLE General Manager/CEO

- The Member shall be responsible for protecting, at Member's sole cost and expense, the generating facility from any condition or disturbance on Licking Valley RECC's electric system, including, but not limited to, voltage sags or swells, system faults, outages, loss of a single phase of supply, equipment failures, and lightning or switching surges, except that Licking Valley RECC shall be responsible for repair of damage caused to the generating facility resulting solely from the negligence or willful misconduct on the part of Licking Valley RECC.
- 7) After initial installation, Licking Valley RECC shall have the right to inspect and/or witness commissioning tests, as specified in the Level 1 or Level 2 Application and approval process. Following the initial testing and inspection of the generating facility and upon reasonable advance notice to the Member, Licking Valley RECC shall have access at reasonable times to the generating facility to perform reasonable on-site inspections to verify that the installation, maintenance, and operation of the generating facility comply with the requirements of this tariff.
- For Level 1 and 2 generating facilities, an eligible Member shall furnish and install 8) on the Member's side of the point of common coupling a safety disconnect switch which shall be capable of fully disconnecting the Member's energy generating equipment from Licking Valley RECC's electric service under the full rated conditions of the Member's generating facility. The external disconnect switch (EDS) shall be located adjacent to Licking Valley RECC's meters or the location of the EDS shall be noted by placing a sticker on the meter, and shall be of the visible break type in a metal enclosure which can be secured by a padlock. If the EDS is not located directly adjacent to the meter, the Member shall be responsible for ensuring that the location of the EDS is properly and legibly identified for so long as the generating facility is operational. The disconnect switch shall be accessible to Licking Valley RECC personnel at all times. Licking Valley RECC may waive the requirement for an EDS for a generating facility at its sole discretion, and on a caseby-case basis, upon review of the generating facility operating parameters and if permitted under Licking Valley RECC's safety and operating protocols.
- 9) Licking Valley RECC shall have the right and authority at [Name of Cooperative's] sole discretion to isolate the generating facility or require the Member to discontinue operation of the generating facility if [Name of

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SSUED BY Jun J. However TITLE General Manager/CEO

Cooperative] believes that: (a) continued interconnection and parallel operation of the generating facility with Licking Valley RECC's electric system may create or contribute to a system emergency on either Licking Valley RECC's or the Member's electric system; (b) the generating facility is not in compliance with the requirements of this tariff, and the noncompliance adversely affects the safety, reliability, or power quality of Licking Valley RECC's electric system; or (c) the generating facility interferes with the operation of Licking Valley RECC's electric system. In non-emergency situations, Licking Valley RECC shall give the Member notice of noncompliance including a description of the specific noncompliance condition and allow the Member a reasonable time to cure the noncompliance prior to isolating the generating facilities. In emergency situations, when Licking Valley RECC is unable to immediately isolate or cause the Member to isolate only the generating facility, Licking Valley RECC may isolate the Member's entire facility.

- 10) The Member shall agree that, without the prior written permission from Licking Valley RECC, no changes shall be made to the generating facility as initially approved. Increases in generating facility capacity will require a new "Application for Interconnection and Net Metering" which will be evaluated on the same basis as any other new application. Repair and replacement of existing generating facility components with like components that meet UL 1741 certification requirements for Level 1 facilities and not resulting in increases in generating facility capacity is allowed without approval.
- 11) To the extent permitted by law, the Member shall protect, indemnify, and hold harmless the Licking Valley RECC and its directors, officers, employees, agents, representatives and contractors against and from all loss, claims, actions or suits, including costs and attorneys fees, for or on account of any injury or death of persons or damage to property caused by the Member or the Member's employees, agents, representatives and contractors in tampering with, repairing, maintaining, or operating the Member's generating facility or any related equipment or any facilities owned by Licking Valley RECC except where such injury, death or damage was caused or contributed to by the fault or negligence of Licking Valley RECC or its employees, agents, representatives, or contractors.

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ISSUED BY Lug & L. Marian TITLE General Manager/CEO

The liability of Licking Valley RECC to the Member for injury to person and property shall be governed by the tariff(s) for the class of service under which the Member is taking service.

- 12) The Member shall maintain general liability insurance coverage (through a standard homeowner's, commercial, or other policy) for both Level 1 and Level 2 generating facilities. The Member shall, upon request, provide Licking Valley RECC with proof of such insurance at the time that application is made for net metering.
- 13) By entering into an Interconnection Agreement, or by inspection, if any, or by nonrejection, or by approval, or in any other way, Licking Valley RECC does not give any warranty, express or implied, as to the adequacy, safety, compliance with applicable codes or requirements, or as to any other characteristics, of the generating facility equipment, controls, and protective relays and equipment.
- 14) A Member's generating facility is transferable to other persons or service locations only after notification to Licking Valley RECC has been made and verification that the installation is in compliance with this tariff. Upon written notification that an approved generating facility is being transferred to another person, member, or location, Licking Valley RECC will verify that the installation is in compliance with this tariff and provide written notification to the member(s) within 20 business days. If the installation is no longer in compliance with this tariff, Licking Valley RECC will notify the Member in writing and list what must be done to place the facility in compliance.
- 15) The Member shall retain any and all Renewable Energy Credits (RECs) that may be generated by their generating facility.

### EFFECTIVE TERM AND TERMINATION RIGHTS

This Agreement becomes effective when executed by both parties and shall continue in effect until terminated. This Agreement may be terminated as follows: (a) Member may terminate this Agreement at any time by giving Licking Valley RECC at least sixty (60) days' written notice; (b) Licking Valley RECC may terminate upon failure by the Member to continue ongoing operation of the generating facility; (c) either party may terminate by giving the other party at

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ISSUED BY Xux X. 1 House TITLE General Manager/CEO

least thirty (30) days prior written notice that the other party is in default of any of the terms and conditions of the Agreement or the Rules or any rate schedule, tariff, regulation, contract, or policy of Licking Valley RECC, so long as the notice specifies the basis for termination and there is opportunity to cure the default; (d) Licking Valley RECC may terminate by giving the Member at least thirty (30) days notice in the event that there is a material change in an applicable law, regulation or statute affecting this Agreement or which renders the system out of compliance with the new law or statute.

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ISSUED BY Ley K. Haran TITLE General Manager/CEO

## LEVEL 1

## Application for Interconnection and Net Metering

Use this application form only for a generating facility that is inverter based and certified by a nationally recognized testing laboratory to meet the requirements of UL1741.

Submit this Application to:

## Cooperative name and address

Cooperative Phone #, email

If you have questions regarding this Application or its status, contact the Cooperative at:

Original Sheet No. 14

Attach documentation showing that inverter is certified by a nationally recognized testing laboratory to meet the requirements of UL 1741.

Attach site drawing or sketch showing location of Cooperative's meter, energy source, Cooperative accessible disconnect switch and inverter.

Attach single line drawing showing all electrical equipment from the Cooperative's metering location to the energy source including switches, fuses, breakers, panels, transformers, inverters, energy source, wire size, equipment ratings, and transformer connections.

Expected	Start-up Date:	

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ISSUED BY Low X. Havan TITLE General Manager/CEO

#### **TERMS AND CONDITIONS:**

- 1) Licking Valley RECC shall provide the Member net metering services, without charge for standard metering equipment, through a standard kilowatt-hour metering system capable of measuring the flow of electricity in two (2) directions. If the Member requests any additional meter or meters or distribution upgrades are needed to monitor the flow in each direction, such installations shall be at the Member's expense.
- 2) The Member shall install, operate, and maintain, at Member's sole cost and expense, any control, protective, or other equipment on the Member's system required by Licking Valley RECC's technical interconnection requirements based on IEEE 1547, the NEC, accredited testing laboratories such as Underwriters Laboratories, and the manufacturer's suggested practices for safe, efficient and reliable operation of the generating facility in parallel with Licking Valley RECC's electric system. The Member shall bear full responsibility for the installation, maintenance and safe operation of the generating facility. Upon reasonable request from Licking Valley RECC, the Member shall demonstrate generating facility compliance.
- 3) The generating facility shall comply with, and the Member shall represent and warrant its compliance with: (a) any applicable safety and power quality standards established by IEEE and accredited testing laboratories such as Underwriters Laboratories; (b) the NEC as may be revised from time to time; (c) Licking Valley RECC's rules, regulations, and Service Regulations as contained in Licking Valley RECC's Retail Electric Tariff as may be revised from time to time with the approval of the Kentucky Public Service Commission (Commission); (d) the rules and regulations of the Commission, as such rules and regulations may be revised from time to time by the Commission; and (e) all other applicable local, state, and federal codes and laws, as the same may be in effect from time to time. Where required by law, Member shall pass an electrical inspection of the generating facility by a local authority having jurisdiction over the installation.
- 4) Any changes or additions to Licking Valley RECC's system required to accommodate the generating facility shall be considered excess facilities. Member shall agree to pay Licking Valley RECC for actual costs incurred for all such excess facilities prior to construction.

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ISSUED BY Level TITLE General Manager/CEO

- 5) The Member shall operate the generating facility in such a manner as not to cause undue fluctuations in voltage, intermittent load characteristics or otherwise interfere with the operation of Licking Valley RECC's electric system. At all times when the generating facility is being operated in parallel with Licking Valley RECC's electric system, the Member shall operate the generating facility in such a manner that no adverse impacts will be produced thereby to the service quality rendered by Licking Valley RECC to any of its other members or to any electric system interconnected with Licking Valley RECC's electric system. The Member shall agree that the interconnection and operation of the generating facility is secondary to, and shall not interfere with, Licking Valley RECC's ability to meet its primary responsibility of furnishing reasonably adequate service to its members.
- 6) The Member shall be responsible for protecting, at Member's sole cost and expense, the generating facility from any condition or disturbance on Licking Valley RECC's electric system, including, but not limited to, voltage sags or swells, system faults, outages, loss of a single phase of supply, equipment failures, and lightning or switching surges, except that Licking Valley RECC shall be responsible for repair of damage caused to the generating facility resulting solely from the negligence or willful misconduct on the part of Licking Valley RECC.
- 7) After initial installation, Licking Valley RECC shall have the right to inspect and/or witness commissioning tests, as specified in the Level 1 or Level 2 Application and approval process. Following the initial testing and inspection of the generating facility and upon reasonable advance notice to the Member, Licking Valley RECC shall have access at reasonable times to the generating facility to perform reasonable on-site inspections to verify that the installation, maintenance, and operation of the generating facility comply with the requirements of this tariff.
- 8) For Level 1 and 2 generating facilities, an eligible Member shall furnish and install on the Member's side of the point of common coupling a safety disconnect switch which shall be capable of fully disconnecting the Member's energy generating equipment from Licking Valley RECC's electric service under the full rated conditions of the Member's generating facility. The external disconnect switch (EDS) shall be located adjacent to Licking Valley RECC's meters or the location of the EDS shall be noted by placing a sticker on the meter, and shall be of the visible break type in a metal enclosure which can be secured by a padlock. If the EDS is not located directly adjacent to the meter, the

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ISSUED BY Xxx X. Haven TITLE General Manager/CEO

Member shall be responsible for ensuring that the location of the EDS is properly and legibly identified for so long as the generating facility is operational. The disconnect switch shall be accessible to Licking Valley RECC personnel at all times. Licking Valley RECC may waive the requirement for an EDS for a generating facility at its sole discretion, and on a case-by-case basis, upon review of the generating facility operating parameters and if permitted under Licking Valley RECC's safety and operating protocols.

- 9) Licking Valley RECC shall have the right and authority at Licking Valley RECC's sole discretion to isolate the generating facility or require the Member to discontinue operation of the generating facility if Licking Valley RECC believes that: (a) continued interconnection and parallel operation of the generating facility with Licking Valley RECC's electric system may create or contribute to a system emergency on either Licking Valley RECC's or the Member's electric system; (b) the generating facility is not in compliance with the requirements of this tariff, and the noncompliance adversely affects the safety, reliability, or power quality of Licking Valley RECC's electric system; or (c) the generating facility interferes with the operation of Licking Valley RECC's electric system. In non-emergency situations, Licking Valley RECC shall give the Member notice of noncompliance including a description of the specific noncompliance condition and allow the Member a reasonable time to cure the noncompliance prior to isolating the generating facilities. In emergency situations, when the Licking Valley RECC is unable to immediately isolate or cause the Member to isolate only the generating facility, Licking Valley RECC may isolate the Member's entire facility.
- 10) The Member shall agree that, without the prior written permission from Licking Valley RECC, no changes shall be made to the generating facility as initially approved. Increases in generating facility capacity will require a new "Application for Interconnection and Net Metering" which will be evaluated on the same basis as any other new application. Repair and replacement of existing generating facility components with like components that meet UL 1741 certification requirements for Level 1 facilities and not resulting in increases in generating facility capacity is allowed without approval.

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ISSUED BY Ky L. Husu TITLE General Manager/CEO

11) To the extent permitted by law, the Member shall protect, indemnify, and hold harmless Licking Valley RECC and its directors, officers, employees, agents, representatives and contractors against and from all loss, claims, actions or suits, including costs and attorneys fees, for or on account of any injury or death of persons or damage to property caused by the Member or the Member's employees, agents, representatives and contractors in tampering with, repairing, maintaining, or operating the Member's generating facility or any related equipment or any facilities owned by Licking Valley RECC except where such injury, death or damage was caused or contributed to by the fault or negligence of Licking Valley RECC or its employees, agents, representatives, or contractors.

The liability of Licking Valley RECC to the Member for injury to person and property shall be governed by the tariff(s) for the class of service under which the Member is taking service.

- 12) The Member shall maintain general liability insurance coverage (through a standard homeowner's, commercial, or other policy) for both Level 1 and Level 2 generating facilities. The Member shall, upon request, provide Licking Valley RECC with proof of such insurance at the time that application is made for net metering.
- 13) By entering into an Interconnection Agreement, or by inspection, if any, or by non-rejection, or by approval, or in any other way, Licking Valley RECC does not give any warranty, express or implied, as to the adequacy, safety, compliance with applicable codes or requirements, or as to any other characteristics, of the generating facility equipment, controls, and protective relays and equipment.
- 14) A Member's generating facility is transferable to other persons or service locations only after notification to Licking Valley RECC has been made and verification that the installation is in compliance with this tariff. Upon written notification that an approved generating facility is being transferred to another person, member, or location, Licking Valley RECC will verify that the installation is in compliance with this tariff and provide written notification to the member(s) within 20 business days. If the installation is no longer in compliance with this tariff, Licking Valley RECC will notify the Member in writing and list what must be done to place the facility in compliance.

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ISSUED BY Level L. Manager/CEO

15) The Member shall retain any and all Renewable Energy Credits (RECs) that may be generated by their generating facility.

#### EFFECTIVE TERM AND TERMINATION RIGHTS

This Agreement becomes effective when executed by both parties and shall continue in effect until terminated. This Agreement may be terminated as follows: (a) The Member may terminate this Agreement at any time by giving Licking Valley RECC at least sixty (60) days' written notice; (b) Licking Valley RECC may terminate upon failure by the Member to continue ongoing operation of the generating facility; (c) either party may terminate by giving the other party at least thirty (30) days prior written notice that the other party is in default of any of the terms and conditions of the Agreement or the Rules or any rate schedule, tariff, regulation, contract, or policy of Licking Valley RECC, so long as the notice specifies the basis for termination and there is opportunity to cure the default; (d) Licking Valley RECC may terminate by giving the Member at least thirty (30) days notice in the event that there is a material change in an applicable law, regulation or statute affecting this Agreement or which renders the system out of compliance with the new law or statute.

DATE OF ISSUE Japuary 08, 2009 DATE EFFECTIVE: Service rendered on and after July 15, 2008

ISSUED BY Jun J. Howard TITLE General Manager/CEO

Member Signature_	Date
Title	
	COOPERATIVE APPROVAL SECTION
	y a Cooperative representative, Application for Interconnection and Net Metering is e provisions contained in this Application and as indicated below.
Cooperative inspec	on and witness test: Required Waived
business day witness tes generating	and witness test is required, the Member shall notify the Cooperative within 3 of completion of the generating facility installation and schedule an inspection and with the Cooperative to occur within 10 business days of completion of the cility installation or as otherwise agreed to by the Cooperative and the Member.
and witness generating to Call Pre-Inspection ope If inspection installation	ted below, the Member may not operate the generating facility until such inspection test is successfully completed. Additionally, the Member may not operate the cility until all other terms and conditions in the Application have been met.
and witness generating to Call Pre-Inspection ope If inspection installation	test is successfully completed. Additionally, the Member may not operate the cility until all other terms and conditions in the Application have been met.  to schedule an inspection and witness test.  Allowed Not Allowed and witness test is waived, operation of the generating facility may begin when a complete, and all other terms and conditions in the Application have been met.
and witness generating to Call Pre-Inspection ope If inspection installation	test is successfully completed. Additionally, the Member may not operate the cility until all other terms and conditions in the Application have been met.
and witness generating for Call Pre-Inspection ope  If inspection installation  Additions, Changes,	test is successfully completed. Additionally, the Member may not operate the cility until all other terms and conditions in the Application have been met.
and witness generating for Call  Pre-Inspection ope  If inspection installation  Additions, Changes,	test is successfully completed. Additionally, the Member may not operate the cility until all other terms and conditions in the Application have been met.

## LEVEL 2

## Application For Interconnection And Net Metering

Use this Application form when generating facility is not inverter-based or is not certified by a nationally recognized testing laboratory to meet the requirements of UL 1741 or does not meet any of the additional conditions under Level 1.

Submit this Application along with an application fee of \$100 to:

Licking Valley RECC Post Office Box 605 271 Main Street West Liberty Kentucky 41472

If you have questions regarding this Application or its status, contact the Cooperative at:

606-743-3179 or Kerry K. Howard @ kkhoward@lvrecc.com Member Name: \_\_\_\_\_\_ Account Number: \_\_\_\_\_ Member Address: Project Contact Person: Phone No.: \_\_\_\_\_ Email Address (Optional): \_\_\_\_ Provide names and contact information for other contractors, installers, or engineering firms involved in the design and installation of the generating facilities: Total Generating Capacity of Generating Facility: Type of Generator: Inverter-Based Synchronous Induction Power Source: Solar Wind Hydro Biogas **Biomass** Adequate documentation and information must be submitted with this application to be considered complete. Typically this should include the following: DATE OF ISSUE January 08, 2009 DATE EFFECTIVE: Service rendered on and after July 15, 2008 TITLE General Manager/CEO

Member Signature:

- 1. Single-line diagram of the member's system showing all electrical equipment from the generator to the point of interconnection with the Cooperative's distribution system, including generators, transformers, switchgear, switches, breakers, fuses, voltage transformers, current transformers, wire sizes, equipment ratings, and transformer connections.
- 2. Control drawings for relays and breakers.
- 3. Site Plans showing the physical location of major equipment.
- 4. Relevant ratings of equipment. Transformer information should include capacity ratings, voltage ratings, winding arrangements, and impedance.
- 5. If protective relays are used, settings applicable to the interconnection protection. If programmable relays are used, a description of how the relay is programmed to operate as applicable to interconnection protection.
- 6. A description of how the generator system will be operated including all modes of operation.
- 7. For inverters, the manufacturer name, model number, and AC power rating. For certified inverters, attach documentation showing that inverter is certified by a nationally recognized testing laboratory to meet the requirements of UL1741.
- 8. For synchronous generators, manufacturer and model number, nameplate ratings, and impedance data (Xd, X'd, & X"d).
- 9. For induction generators, manufacturer and model number, nameplate ratings, and locked rotor current.

Date:

DATE OF ISSUE January (	08, 2009 DATE EFFEC	STIVE: Service ren	dered on and afte	r July 15, 2008
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ISSUED BY Sur	X. Hawaii	TITLE General	al Manager/CEO	

Case No. 2008-00169 Dated January 08, 2009.

# LEVEL 2 INTERCONNECTION AGREEMENT

THIS INTERCONNECTION AGREEMENT (Agreement) is made and entered into
this day of, 20, by and between
this day of, 20, by and between (Cooperative), and (Member). Cooperative and Member are hereinafter sometimes referred to individually as "Party" or collectively as "Parties".
hereinafter sometimes referred to individually as "Party" or collectively as "Parties".
WITNESSETH:
WHEREAS, Member is installing, or has installed, generating equipment, controls, and protective relays and equipment (Generating Facility) used to interconnect and operate in parallel with Cooperative's electric system, which Generating Facility is more fully described in Exhibit A, attached hereto and incorporated herein by this Agreement, and as follows:
Location:
Generator Size and Type:
NOW, THEREFORE, in consideration thereof, Member and Cooperative agree as follows:
Cooperative agrees to allow the Member to interconnect and operate the Generating Facility in parallel with the Cooperative's electric system and the Member agrees to abide by Cooperative's Net Metering Tariff and all the Terms and Conditions listed in this Agreement including any additional conditions listed in Exhibit A.
TERMS AND CONDITIONS:
1) Licking Valley RECC shall provide the Member net metering services, without charge for standard metering equipment, through a standard kilowatt-hour metering system capable of measuring the flow of electricity in two (2) directions. If the Member requests any additional meter or meters or distribution upgrades are needed to monitor the flow in each direction, such installations shall be at the Member's expense.
DATE OF ISSUE January 09, 2000, DATE FEEE/CTIVE: Service rendered on and offer July 15, 2009
DATE OF ISSUE January 08, 2009 DATE EFFECTIVE: Service rendered on and after July 15, 2008
ISSUED BY TITLE General Manager/CEO
Issued by authority of an Order of the Public Service Commission of Kentucky in

- 2) The Member shall install, operate, and maintain, at the Member's sole cost and expense, any control, protective, or other equipment on the Member's system required by Licking Valley RECC's technical interconnection requirements based on IEEE 1547, the NEC, accredited testing laboratories such as Underwriters Laboratories, and the manufacturer's suggested practices for safe, efficient and reliable operation of the generating facility in parallel with Licking Valley RECC's electric system. The Member shall bear full responsibility for the installation, maintenance and safe operation of the generating facility. Upon reasonable request from Licking Valley RECC, the Member shall demonstrate generating facility compliance.
- 3) The generating facility shall comply with, and the Member shall represent and warrant its compliance with: (a) any applicable safety and power quality standards established by IEEE and accredited testing laboratories such as Underwriters Laboratories; (b) the NEC as may be revised from time to time; (c) Licking Valley RECC's rules, regulations, and Service Regulations as contained in Licking Valley RECC's Retail Electric Tariff as may be revised from time to time with the approval of the Kentucky Public Service Commission (Commission); (d) the rules and regulations of the Commission, as such rules and regulations may be revised from time to time by the Commission; and (e) all other applicable local, state, and federal codes and laws, as the same may be in effect from time to time. Where required by law, the Member shall pass an electrical inspection of the generating facility by a local authority having jurisdiction over the installation.
- 4) Any changes or additions to Licking Valley RECC's system required to accommodate the generating facility shall be considered excess facilities. The Member shall agree to pay Licking Valley RECC for actual costs incurred for all such excess facilities prior to construction.
- 5) The Member shall operate the generating facility in such a manner as not to cause undue fluctuations in voltage, intermittent load characteristics or otherwise interfere with the operation of Licking Valley RECC's electric system. At all times when the generating facility is being operated in parallel with Licking Valley RECC's electric system, the Member shall operate the generating facility in such a manner that no adverse impacts will be produced thereby to the service quality rendered by Licking Valley RECC to any

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ISSUED BY Leve L. House TITLE General Manager/CEO

of its other members or to any electric system interconnected with Licking Valley RECC's electric system. The Member shall agree that the interconnection and operation of the generating facility is secondary to, and shall not interfere with, Licking Valley RECC's ability to meet its primary responsibility of furnishing reasonably adequate service to its members.

- 6) The Member shall be responsible for protecting, at the Member's sole cost and expense, the generating facility from any condition or disturbance on Licking Valley RECC's electric system, including, but not limited to, voltage sags or swells, system faults, outages, loss of a single phase of supply, equipment failures, and lightning or switching surges, except that Licking Valley RECC shall be responsible for repair of damage caused to the generating facility resulting solely from the negligence or willful misconduct on the part of Licking Valley RECC.
- 7) After initial installation, Licking Valley RECC shall have the right to inspect and/or witness commissioning tests, as specified in the Level 1 or Level 2 Application and approval process. Following the initial testing and inspection of the generating facility and upon reasonable advance notice to the Member, Licking Valley RECC shall have access at reasonable times to the generating facility to perform reasonable on-site inspections to verify that the installation, maintenance, and operation of the generating facility comply with the requirements of this tariff.
- 8) For Level 1 and 2 generating facilities, an eligible Member shall furnish and install on the Member's side of the point of common coupling a safety disconnect switch which shall be capable of fully disconnecting the Member's energy generating equipment from Licking Valley RECC's electric service under the full rated conditions of the Member's generating facility. The external disconnect switch (EDS) shall be located adjacent to Licking Valley RECC's meters or the location of the EDS shall be noted by placing a sticker on the meter, and shall be of the visible break type in a metal enclosure which can be secured by a padlock. If the EDS is not located directly adjacent to the meter, the Member shall be responsible for ensuring that the location of the EDS is properly and legibly identified for so long as the generating facility is operational. The disconnect switch shall be accessible to Licking Valley RECC personnel at all times. Licking Valley RECC may waive the requirement for an EDS for a generating facility at its sole

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SSUED BY Key K. O House TITLE General Manager/CEO

- discretion, and on a case-by-case basis, upon review of the generating facility operating parameters and if permitted under Licking Valley RECC's safety and operating protocols.
- 9) Licking Valley RECC shall have the right and authority at Licking Valley RECC's sole discretion to isolate the generating facility or require the Member to discontinue operation of the generating facility if Licking Valley RECC believes that: (a) continued interconnection and parallel operation of the generating facility with Licking Valley RECC's electric system may create or contribute to a system emergency on either Licking Valley RECC's or the Member's electric system; (b) the generating facility is not in compliance with the requirements of this tariff, and the noncompliance adversely affects the safety, reliability, or power quality of Licking Valley RECC's electric system; or (c) the generating facility interferes with the operation of Licking Valley RECC's electric system. In non-emergency situations, Licking Valley RECC shall give the Member notice of noncompliance including a description of the specific noncompliance condition and allow the Member a reasonable time to cure the noncompliance prior to isolating the generating facilities. In emergency situations, when Licking Valley RECC is unable to immediately isolate or cause the Member to isolate only the generating facility, Licking Valley RECC may isolate the Member's entire facility.
- 10) The Member shall agree that, without the prior written permission from Licking Valley RECC, no changes shall be made to the generating facility as initially approved. Increases in generating facility capacity will require a new "Application for Interconnection and Net Metering" which will be evaluated on the same basis as any other new application. Repair and replacement of existing generating facility components with like components that meet UL 1741 certification requirements for Level 1 facilities and not resulting in increases in generating facility capacity is allowed without approval.
- 11) To the extent permitted by law, the Member shall protect, indemnify, and hold harmless Licking Valley RECC and its directors, officers, employees, agents, representatives and contractors against and from all loss, claims, actions or suits, including costs and attorneys fees, for or on account of any injury or death of persons or damage to property caused by the Member or the Member's employees, agents, representatives and contractors in tampering with, repairing, maintaining, or operating the Member's generating facility or any related equipment or any facilities owned by [Name of

DATE OF ISSUE January 08, 2009 DATE EFFECTIVE: Service rendered on and after July 15, 2008

ISSUED BY U. X . I Have TITLE General Manager/CEO

Cooperative] except where such injury, death or damage was caused or contributed to by the fault or negligence of the Licking Valley RECC or its employees, agents, representatives, or contractors.

The liability of Licking Valley RECC to the Member for injury to person and property shall be governed by the tariff(s) for the class of service under which the Member is taking service.

- 12) The Member shall maintain general liability insurance coverage (through a standard homeowner's, commercial, or other policy) for both Level 1 and Level 2 generating facilities. The Member shall, upon request, provide Licking Valley RECC with proof of such insurance at the time that application is made for net metering.
- 13) By entering into an Interconnection Agreement, or by inspection, if any, or by non-rejection, or by approval, or in any other way, Licking Valley RECC does not give any warranty, express or implied, as to the adequacy, safety, compliance with applicable codes or requirements, or as to any other characteristics, of the generating facility equipment, controls, and protective relays and equipment.
- 14) A Member's generating facility is transferable to other persons or service locations only after notification to the Licking Valley RECC has been made and verification that the installation is in compliance with this tariff. Upon written notification that an approved generating facility is being transferred to another person, member, or location, Licking Valley RECC will verify that the installation is in compliance with this tariff and provide written notification to the member(s) within 20 business days. If the installation is no longer in compliance with this tariff, Licking Valley RECC will notify the Member in writing and list what must be done to place the facility in compliance.
- 15) The Member shall retain any and all Renewable Energy Credits (RECs) that may be generated by their generating facility.

DATE OF ISSUE January 08, 2009 DATE EFFECTIVE: Service rendered on and after July 15, 2008

ISSUED BY Sur S. I Hawar TITLE General Manager/CEO

#### EFFECTIVE TERM AND TERMINATION RIGHTS

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IN WITNESS WHEREOF, the Parties have executed this Agreement, effective as of the date first above written.

COOPERATIVE NAME	MEMBER
By:	_By:
Printed Name	Printed Name
Title:	Title:

DATE OF ISSUE January 08, 2009 DATE EFFECTIVE: Service rendered on and after July 15, 2008

ISSUED BY TITLE General Manager/CEO

### **Exhibit A**

Exhibit A will contain additional detailed information about the Generating Facility such as a single line diagram, relay settings, and a description of operation.

When construction of Utility facilities is required, Exhibit A will also contain a description and associated cost.

Exhibit A will also specify requirements for a Utility inspection and witness test and when limited operation for testing or full operation may begin.

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SSUED BY TITLE General Manager/CEO