

A unit of American Electric Power

June 1, 2011

Mr. David Foster Chief-Utilities Division Tennessee Regulatory Authority 460 James Robertson Parkway Nashville, Tennessee 37243-0505 P.E. Communication of the Comm

Appalachian Power 1051 E. Cary Street, Suite 1100 Richmond, VA 23219 AppalachianPower.com

T.R.A. DESTIET KOOM

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Dear Mr. Foster:

Attached, for filing, is a copy of a Kingsport Power Company's proposed Net Metering Service tariff. Included herein are new tariff sheets 17-1 through 17-5, as well as a new Index, Sixth Revised Sheet No. 1. This filing is being made pursuant to a request made by the TRA Directors during the March 28, 2011 hearing for approval of several Special Contracts for net metering service.

The attached tariff is similar to the special contracts previously approved by the Authority and also incorporates a few features of Appalachian Power Company's Net Metering Service tariff in Virginia. Two aspects of the tariff are worth noting:

- In accordance with discussions at the hearing, the tariff is limited to residential and smaller commercial type customers, including the public school tariff. These are the customers that have shown the most interest in net metering via special contracts.
- 2) Much like the APCo- Virginia tariff, there is a limit of net metering load to 1% of Kingsport's forecasted peak demand. This provision is important in that it will minimize the subsidy paid by non-participating customers to Kingsport's net metering customers. Moreover, this approach is consistent with the Authority's findings in Docket No.06-00010, wherein the Authority ruled that it was inappropriate for Kingsport to implement the Federal Standard on Net Metering that required offering net metering to "any electric customer that the electric utility serves".

Following your review, please contact me if you have any questions or need additional information.

Sincerely,

William A. Bosta

Director, Regulatory Services Kingsport Power Company

Enclosure

cc: Mr. Tim Belcher

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TN REGULATORY AUTHORITY UTILITIES DIVISION

## **INDEX**

<u>Tariff</u>		Sheet Number
	Terms and Conditions of Service	2-1 thru 2-7
	Purchased Power Adjustment Rider	2-8 thru 2-10
	Fuel Clause Rider	2-11 thru 2-12
	Tennessee Inspection Fee Rider	
R.S.	Residential Electric Service	
R.SE.	Residential Electric Service-Employee	
R.SL.MT.O.D.	Residential Load Management Time-of-Day	5-1 thru 5-2
R.ST.O.D.	Residential Time-of-Day Electric Service	6
S.G.S.	Small General Service	
M.G.S.	Medium General Service	8
M.G.ST.O.D.	Medium General Service Time-of-Day	9
L.G.S.	Large General Service	10-1 thru 10-2
I.P.	Industrial Power	11-1 thru 11-2
E.H.G.	Electric Heating General	12
C.S.	Church Service	13
P.S.	Public Schools.	
E.O.P.	Emergency Operating Plan	15
O.L.	Outdoor Lighting	16-1 thru 16-3
N.M.S	Net Metering Service Rider	17-1 thru 17-5

#### AVAILABILITY OF SERVICE

Available for new or existing Customers who operate an eligible renewable fuel generator designed to operate in parallel with the Company's system and who request Net Metering Service (NMS) from the Company. NMS Customers must take service under Tariff R.S., Tariff S.G.S., Tariff M.G.S.-Secondary, or Tariff P.S. NMS is limited to those customers who do not utilize time-of-day energy charge provisions.

The total capacity of all NMS Customers shall be limited to 1% of the Company's Tennessee peak load forecast ("Renewable Generator Limit"), and shall be available to customers with eligible renewable fuel generators on a first come, first serve basis. Customer's may not take service under this tariff and simultaneously take service under any alternative co-generation agreement.

#### **DEFINITIONS**

The following terms shall solely be used to define the applicability of Schedule N.M.S.

"Billing Period Credit" means the quantity of electricity generated and fed back into the electric grid by the customer's renewable fuel generator in excess of the electricity supplied to the customer over the billing period.

"Excess Generation" means the amount of electricity generated by the renewable fuel generator in excess of the electricity consumed by the customer over the course of the net metering period.

"Net Metering Customer (Customer)" means a customer owning and operating, or contracting with other persons to own or operate, or both, a renewable fuel generator under a net metering service arrangement.

"Net Metering Service" means providing retail electric service to a customer operating a renewable fuel generator and measuring the difference, over the net metering period between electricity supplied to the customer from the electric grid and the electricity generated and fed back to the electric grid.

"Person" means any individual, corporation, partnership, association, company, business, trust, joint venture, or other private legal entity and the State or any municipality.

"RF Generator" is an electrical generating facility which complies with all of the following requirements:

- (a) has an alternating current capacity less than or equal to 10 KW for customers taking service under Schedule R.S.;
- (b) uses solar, wind or hydro energy as its total fuel source;
- (c) the Net Metering Customer's facility is located on the customer's premises and is connected to the customer's wiring on the customer's side of it's interconnection with the distributor;
- (d) is designed and installed to operate in parallel with the Company's system without adversely affecting the operation of equipment and service of the Company and its customers and without presenting safety hazards to the Company and Customer personnel; and
- (e) is intended primarily to offset all or part of the customer's own electricity requirements.

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By:	

### CONDITIONS OF SERVICE

#### A. Notification

- 1. For a renewable fuel generator with an alternating current capacity of 25 KW or less, the customer shall submit the required Company Interconnection Notification Form to the Company at least thirty (30) days prior to the date the customer intends to interconnect the renewable fuel generator to the Company's facilities. For a renewable fuel generator with an alternating current capacity greater than 25 KW, the customer shall submit the required Interconnection Notification Form to the Company at least sixty (60) days prior to the date the customer intends to interconnect the renewable fuel generator to the Company's facilities. The submission may either be directly to the Company or by registered mail with return receipt. All sections, including appropriate signatures, of the Interconnection Notification Form must be completed for the notification to be valid. The customer shall have all equipment necessary to complete the interconnection prior to such notification. For renewable fuel generators with capacities greater than 25 KW, the customer should contact the Company prior to making financial commitments. If mailed, the date of notification shall be the third day following the mailing of the Interconnection Form. The Company shall provide a copy of the Interconnection Notification Form to the customer upon request
- 2. The Company shall, within thirty (30) days of the date of notification for RF Generators with a rated capacity of 25 KW or less, and within sixty (60) days of the date of notification for RF Generators with a rated capacity greater than 25 KW, either return to the customer a copy of the valid Interconnection Notification Form or return any incomplete form. If the Company determines that the Interconnection Notification Form is incomplete or that any of the other requirements for interconnection are not satisfied, the customer shall submit another completed Interconnection Notification Form and notify the Company once the customer has completed all work necessary to satisfy the deficiencies prior to interconnection. This notification requirement shall not replace or supersede any other applicable waiting period, or required interconnection authorization when other applicable law, rule, regulation or code would permit authorization to be withheld or delayed.
- 3. The Net Metering Customer shall immediately notify the electric distribution company of any changes in the ownership of, operational responsibility for, or contact information for the generator. The Net Metering Customer shall not assign this tariff or any part hereof without the prior written consent of the Company, and such authorized assignment may result in the termination of availability of tariff to Customer.

### **B.** Conditions of Interconnection

- 1. RF Generator equipment shall be installed in accordance with the manufacturer's specifications as well as all applicable provisions of the National Electrical Code. Renewable fuel generator equipment and installations shall comply with all applicable safety and performance standards of the National Electrical Code, the Institute of Electrical and Electronic Engineers and accredited testing laboratories in accordance with IEEE Standard 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems, July 2003, and safety and performance standards established by local and national electrical codes including, the institute of Electrical and Electronics Engineers, the National Electrical Safety Code, and Underwriters Laboratories.. Customer's renewable fuel generator equipment and installations shall also comply with the Company's Interconnection Guidelines. The Company shall provide a copy of its Interconnection Guidelines to the customer upon request.
- 2. The Customer shall obtain any governmental authorizations and permits required for the construction and operation of the RF Generator facility and interconnection facilities.

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### **CONDITIONS OF SERVICE (Cont'd)**

- 3. In the case of renewable fuel generators with an alternating current capacity greater than 25 KW, the following requirements shall be met before interconnection may occur:
  - a. <u>Electric Distribution Facilities and Customer Impact Limitations</u>. A renewable fuel generator shall not be permitted to interconnect to the Company's distribution facilities if the interconnection would reasonably lead to damage of any of the Company's facilities or would reasonably lead to voltage regulation or power quality problems at other customer revenue meters due to the incremental effect of the Company's electric distribution system, unless the customer reimburses the Company for its cost to modify any facilities needed to accommodate the interconnection..
  - b. <u>Secondary, Service and Service Entrance Limitations.</u> The capacity of the RF Generator shall be less than the capacity of the Company-owned secondary, service, and service entrance cable connected to the point of interconnection, unless the customer reimburses the Company for its cost to modify any facilities needed to accommodate the interconnection.
  - c. <u>Transformer Loading Limitations</u>. The RF Generator shall not have the ability to overload the Company's transformer, or any transformer winding, beyond manufacturer or nameplate ratings, unless the customer reimburses the Company for its costs to modify any facilities needed to accommodate the interconnection.
  - d. <u>Integration With Company Facilities Grounding.</u> The grounding scheme of the renewable fuel generator shall comply with IEEE 1547, Standard for Interconnecting Distributed Resources With Electric Power Systems, July 2003, and shall be consistent with the grounding scheme used by the Company. If requested by a prospective net metering customer, the Company shall assist the customer in selecting a grounding scheme the coordinates with the Company's distribution system.
  - e. <u>Balance Limitation</u>. The RF Generator shall not create a voltage imbalance of more than 3.0% at any other customer's revenue meter if the Company's transformer, with the secondary connected to the point of interconnection, is a three-phase transformer, unless the customer reimburses the Company for its cost to modify any facilities needed to accommodate the interconnection.
- 4. The customer shall provide a copy of its insurance policy to the Company. If the customer's renewable fuel generator does not exceed 10 KW, then such coverage shall be an amount of at least \$100,000 per claim. If the customer's renewable fuel generator exceeds 10 KW, then such coverage shall be an amount of at least \$300,000 per claim. The customer must submit evidence of such insurance to the Company with the Interconnection Notification Form.

The Company's receipt of evidence of liability insurance does not imply an endorsement of the terms and conditions of the coverage.

Neither party assumes any responsibility of any kind with respect to the construction, maintenance, or operation of the system or other property owned or used by the other party. The Customer agrees that the Company shall not be liable for any claims, costs, losses, suits or judgments for damages to any Person or property in any way resulting from, growing out of, or arising in or in connection with the use of, or contact with, energy delivered after it is delivered to Customer and while it is flowing through the lines of Customer, or is being distributed by Customer, or is being used by retail load.

5. Following Notification by the Customer, the Company shall have the right to inspect and test the RF Generator equipment and installation prior to interconnection. The nature and extent of these tests shall be determined solely by the Company. The Company reserves the right to conduct additional tests and inspections and to install additional equipment or meters at any time following interconnection of the RF Generator. The Customer shall not commence parallel operation of the RF Generator until the facility has been approved by the Company. Notwithstanding the foregoing, the Company's approval to operate the facility in parallel with the Company's system should not be construed as an endorsement, confirmation, warranty, guarantee, or representation concerning the safety, operating characteristics, durability of reliability of the RF Generator.

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- 6. The RF Generator installation must have a visibly open, lockable, manual disconnect switch which is accessible by the Company at all hours and clearly labeled. A licensed certified technician must certify via the Interconnection Notification Form that the disconnection switch has been installed properly. The Company reserves the right to install any additional equipment, including controls and meters, at the facility.
- 7. The Customer shall periodically maintain and test the RF Generator in accordance with the manufacturer's specifications and all applicable safety and performance standards. The Customer shall notify the Company at least fourteen (14) days prior to making any material changes to the renewable fuel generator facility or installation, including, but not necessarily limited to, any modification to the equipment or protective equipment settings or disconnection of the RF Generator from the Company's system, excluding temporary disconnects for routine maintenance. Modifications or changes made to the RF Generator shall be evaluated by the Company prior to being made. The Customer shall provide detailed information describing the modifications of changes to the Company in writing prior to making the modification the RF Generator. The Company shall review the proposed changes to the RF Generator and provide the results of its evaluation to the Customer within sixty (60) days of receipt of the Customer's proposal. Any items that would prevent parallel operation due to violation of applicable safety standards and/or power generation limits shall be explained along with a description of the modifications necessary to remedy violations. Following a notification of disconnection of the renewable fuel generator, the customer must again complete the Notification process specified above prior to any subsequent reconnection.

In addition, the customer shall notify the Company immediately regarding either any damage to the RF Generator facility or safety-related emergency disconnections.

- 8. The Company may enter the Customer's premises to inspect the Customer's protective devices and read or test the meter. The Company may disconnect the interconnection facilities without notice if the Company reasonably believes a hazardous condition exists and such immediate action is necessary to protect persons, or the Company's facilities, or property of others from damage or interference caused by the Customer's facilities.
- 9. Interconnection authorization is not transferable or assignable to other persons or service locations.

## C. Other

- 1. The Company shall not be obligated to accept energy from the Customer and may require Customer to interrupt or reduce delivery of energy, when necessary, in order to construct, install, repair, replace, remove, investigate, or inspect any of the Company's equipment or part of it's system; or if it reasonably determines that curtailment, interruption, or reduction is necessary because of emergencies, forced outage, force majeure, or compliance with prudent electrical practices. Whenever possible, the Company shall give the Customer reasonable notice of the possibility that interruption or reduction of deliveries may be required. Notwithstanding any other provision of this tariff, if at any time the Company reasonably determines that either the Renewable fuel generator facility may endanger the Company's personnel or other persons or property, or the continued operation of the RF Generator may endanger the integrity of safety of the Company's system, the Company shall reserve the right to disconnect and lock out the RF Generator from the Company's system. The RF Generator shall remain disconnected until such time as the Company is reasonably satisfied that the conditions referenced in this section have been satisfied.
- 2. To the fullest extent permitted by law, neither customer nor company, nor their respective officers, directors, agents, and employees members parents or affiliates, successors or assigns, or their respective officers directors, agents, nor employees successors or assigns shall be liable to the other party or their respective members, parents, subsidiaries, affiliates, officers, directors, agents employees successors or assigns, for claims ,suits, actions or causes of action for incidental, indirect, special, punitive ,multiple, or consequential damages connected with or resulting from performance or non-performance of such agreement, or any actions undertaken in connection with or related to this agreement, including without limitation, any such damages which are based upon causes of action for breach of contract, tort (including negligence and misrepresentation), breach of warranty, strict liability, statute, operation of law under any indemnity provision or any other theory of recovery. The obligor's liability shall be limited to direct damages only, and such direct damages shall be the sole and exclusive measure of damages and all other judicial remedies or damages are waived. The provisions of this section shall apply regardless of fault and shall survive termination, cancellation, suspension, completion or expiration of this agreement. Notwithstanding anything in this section to the contrary, any provisions of this section will not apply to the extent it is finally determined by a court of competent jurisdiction, including appellate review if pursued, to violate the laws of the Constitution of the State of Tennessee.

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#### **FACILITIES CHARGES**

The customer is responsible for all equipment and installation costs of the renewable fuel generator facility.

The Company shall inspect the inverter settings of a static inverter-connected renewable fuel generator prior to interconnection. The customer shall pay \$50 to the Company for each inspection.

The Company shall inspect the protective equipment settings of a non-static inverter-connected renewable fuel generator prior to interconnection. The customer shall pay \$50 to the Company for each inspection.

The customer shall pay to the Company any additional charges, as determined by the Company, for equipment, labor, metering, testing or inspections requested by the customer.

#### **METERING**

Net metered energy shall be measured in accordance with standard metering practices by metering equipment capable of measuring (but not necessarily displaying) power flow in both directions.

In instances where a Net Metering Customer has requested, and where the electric distribution company would not have otherwise installed, metering equipment, the Company may charge the Net Metering Customer its actual cost of installing any additional equipment necessary to implement Net Metering Service.

#### **MONTHLY CHARGES**

All monthly charges shall be in accordance with the Schedule under which the customer takes service. Such charges shall be based on the customer's net energy for the billing period, to the extent that the net energy exceeds zero. To the extent that a customer's net energy is zero or negative during the billing period, the customer shall pay only the non-usage sensitive charges of the Schedule. The customer shall receive no compensation from the Company for Excess Generation during the billing period. The Excess Generation during the billing period shall be carried forward and credited against positive energy usage in subsequent billing periods.

The Net Metering Period shall be defined as each successive 12-month period beginning with the first meter reading date following the date of interconnection of the RF Generator with the Company's facilities. Any Excess Generation at the end of a Net Metering Period shall be carried forward to the next Net Metering Period only to the extent that the Excess Generation does not exceed the customer's billed consumption for the current net metering period.

Excess generation is not transferable, and the Customer, shall receive no compensation from the Company for any Excess generation upon termination of service from the Company.

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Battery Backup (circle one): Yes

# NET METERING INTERCONNECTION NOTIFICATION FORM

PURSUANT TO SCHEDULE N.M.S. DETAILING THE COMPANY'S NOTIFICATION PROCESS FOR NET METERING, APPLICANT HEREBY GIVES NOTICE OF INTENT TO OPERATE A GENERATING FACILITY.

Section 1. Applicant information			
Name:			
Mailing Address:			_
City:		Zip Code:	
Street Address:			
City:	State:	Zip Code:	
Phone Number(s):			
Fax Number:			
Facility Location (if different from above):			
Distribution Utility:			
Distribution Utility Account Number:			_
Energy Service Provider (ESP) (if different that	n electric distribution com	pany):	
ESP Account Number (if applicable):			
Proposed Interconnection Date			
Section 2. Generating Facility Information  Facility Owner and/or Operator Name (if difference of the control o			
Business Relationship to Applicant:			
Mailing Address:			
City:		Zip Code:	
Street Address:			
City:	State:	Zip Code:	
Phone Number(s):			
Fax Number:			
Fuel Type:			
Generator Manufacturer and Model:			
Rated Capacity in kilowatts: AC			
nverter Manufacturer and Model:			

No

# Section 3. Information for Generators with an AC Capacity in Excess of 25 kilowatts

Generator Type (circle one): Inverte	er Induction	Synchronous	
Frequency: Hz; Numb	er of phases (circle one): Or	ne Three	
Rated Capacity: DCKW;	AC apparent	KVA; AC real	KW;
Power factor	%; AC voltage	_; AC amperage	
Facility schematic and equipment la	yout must be attached to this	form.	
A prospective net metering customer is strongly encouraged to contact the			
Section 4. Vendor Certification			
The system hardware is listed by Un	derwriters Laboratories to be	e in compliance with UL 1741.	
Signed (Vendor):		Date:	
Name (printed):		Phone Number:	
Section 5. Electrician Certification  The system has been installed in acco			applicable provisions o
Section 5. Electrician Certification  The system has been installed in according to the National Electrical Code.	ordance with the manufactur	er's specifications as well as all a	applicable provisions o
Section 5. Electrician Certification  The system has been installed in according to the National Electrical Code.  Signed (Licensed Electrician):	ordance with the manufactur	er's specifications as well as all a	
Section 5. Electrician Certification  The system has been installed in according to the National Electrical Code.  Signed (Licensed Electrician):	ordance with the manufactur	er's specifications as well as all a	
Section 5. Electrician Certification  The system has been installed in according to the National Electrical Code.  Signed (Licensed Electrician):  Name (printed):  License Number:	ordance with the manufactur	er's specifications as well as all a  Date:  Number:	
Section 5. Electrician Certification The system has been installed in according the National Electrical Code. Signed (Licensed Electrician): Name (printed): License Number:	ordance with the manufactur	er's specifications as well as all a  Date:  Number:	
Section 5. Electrician Certification  The system has been installed in according the National Electrical Code.  Signed (Licensed Electrician):  Name (printed):  License Number:  Mail Address:  City:	Phone	er's specifications as well as all a  Date:  Number:  Zip Code:	
Section 5. Electrician Certification  The system has been installed in acce the National Electrical Code.  Signed (Licensed Electrician):  Name (printed):  License Number:  Mail Address:  City:  Company signature signifies only rec Conditions of Service.	Phone State:	er's specifications as well as all a Date:  Number: Zip Code: nce with Schedule N.M.S. Net E	Energy Metering
Section 5. Electrician Certification	Phone State:	er's specifications as well as all a  Date:  Number:  Zip Code:  nce with Schedule N.M.S. Net E	Energy Metering