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PLEASE RESPOND TO:
KINGSPORT OFFICE

March 14, 2012

VIA EMAIL & FEDERAL EXPRESS

Ms. Sharla Dillon, Docket Room Manager
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, Tennessee 37243-0505

Re: **Petition for Approval of Demand Response Program and Associated Demand Response Tariffs on behalf of Kingsport Power Company d/b/a AEP Appalachian Power TRA Docket No. 12-00012; Responses of Appalachian Power Company to Staff's Data Request No. 1**

Dear Ms. Dillon:

Enclosed with this letter is Appalachian Power Company's Responses to the Staff Data Request No. 1, posed in Mr. Foster's letter to me dated March 7, 2012. We will be shipping the original and four (4) copies via Federal Express for overnight delivery. The disk referenced in the responses will also be included in the overnight package.

If you have any questions, please do not hesitate to contact me.

Very sincerely yours,

HUNTER, SMITH & DAVIS, LLP

A handwritten signature in black ink, appearing to read "Bill Bovender", is written over the printed name of William C. Bovender.

William C. Bovender
Counsel for Appalachian Power Company

Ms. Sharla Dillon, Docket Room Manager

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March 14, 2012

- c: David Foster, Chief – Utilities Division (via email)
- Cynthia Kinser, Office of Attorney General, Consumer Advocate Division (via FedEx)
- Edward L. Petrini, Esq. (via FedEx)
- William A. Bosta (via email)
- Hector Garcia (via email)
- James R. Bacha (via email)
- James F. Martin (via email)
- Jennifer Sebastian (via email)

**Re: Petition for Approval of Demand Response Program and Associated
Demand Response Tariffs on behalf of Kingsport Power
Company d/b/a AEP Appalachian Power**

TRA Docket No. 12-00012

Responses of Appalachian Power Company to Staff's Data Request No. 1

TRA Data Request 1-1: The Indiana Demand Response Program has been in operation since the end of April 2011. Provide the number of customers enrolled in Demand Response Programs and the number of curtailments that customers have experienced since initiation of the program.

Response TRA 1-1: A total of 6 customers covering 15 individual accounts totaling approximately 5.0 MW of interruptible capacity have enrolled in the Indiana DRS 1 program. Curtailments can only be called under that program during either AEP or PJM-declared emergency load reduction events. No such events have been called since the inception of the program, so customers have not experienced any interruptions.

TRA Data Request 1-2: The Virginia Demand Response Program has been in operation since September of 2011. Provide the number of customers enrolled in Demand Response Programs and the number of curtailments that the customers have experienced since initiation of the program.

Response TRA 1-2: A total of 8 customers totaling 41.2 MW of capacity have enrolled in the PSDR program. No curtailments have been called since the inception of the Virginia programs. The Company could still request curtailments until the end of March under the terms of the PSDR program.

No customers have enrolled in the PSEDR program.

TRA Data Request 1-3: Please explain and provide a summary of expense savings that the AEP subsidiaries have realized as a direct result of the Indiana and Illinois programs.

Response TRA 1-3: No AEP subsidiaries have a program in Illinois. In preparing this response the Company has assumed the question was meant to request information about the Indiana and Virginia programs.

No customers have enrolled in the Virginia PSEDR program. No curtailments have been requested under the Virginia PSDR program since the program's inception.

Since June 1, 2011 the approximately 5.0 MW of capacity enrolled in the Indiana DRS 1 program has been registered with PJM as a qualifying resource, which has helped the AEP East operating companies (AEP) meet their PJM FRR capacity obligations. If AEP had fallen short of meeting its FRR requirement, AEP would have needed to purchase capacity to make up the shortfall, or pay PJM if it could not do so. The Company does not know what replacement capacity would have been available, and at what the price that capacity could have been obtained. For the planning year that commenced June 1, 2011, the amount owed to PJM would have been the RPM auction capacity price of \$110.00 per MW per day plus 20%, or \$132 per MW per day times the number of days that AEP was out of compliance. The existence of this DRS 1 capacity would have reduced any such payment.

The Company's proposed Tennessee PSEDR program will also be used to contribute towards meeting AEP's FRR capacity obligation, and would provide similar benefits to AEP and its customers.

TRA Data Request 1-4: Provide any reports submitted to the Indiana or Virginia Commissions regarding updates of the demand response programs.

Response TRA 1-4: As of the date of this response, no reports have been submitted to either the Indiana or the Virginia Commissions. A report is scheduled to be filed with the Indiana Commission by March 15th. This response will be supplemented with a copy of that report when it becomes available.

TRA Data Request 1-5: Has the Company received any customer complaints regarding the Demand Response Programs in Virginia or Indiana? If so, provide a list of customer complaints and any actions taken to resolve such complaints.

Response TRA 1-5: No complaints have been filed with either the Virginia or Indiana Commissions related to these programs.

TRA Data Request 1-6: Provide the cost associated with the demand response program in Tennessee for the next five years. (Include calculations and assumptions made.)

Response TRA 1-6: The program costs will vary depending on customer enrollment, customer rider selection, the duration and frequency of curtailment events, and the relevant capacity and energy pricing in the PJM market. Using the curtailment demand credit pricing included in the tariffs detailed in Exhibits 1 and 2 to the Company's Petition, the Company estimates that a 10 MW enrollment would result in curtailment demand credit payments of \$299,720 per year for the PSDR and \$437,880 per year for the PSEDR. These amounts exclude any payments for energy which would be payable for curtailment events.

Under the terms of the tariffs, based upon publicly available future Net Cost of New Entry (Net CONE) and RPM auction price values from PJM, the curtailment demand credit pricing will change on June 1, 2012 for the PSEDR and on December 1, 2012 for the PSDR. Under the anticipated pricing for these future periods, the cost of the curtailment demand credit will change to \$352,800 for PSDR and \$705,600 for PSEDR.

Pricing for years beyond 2012/2013 has not been determined because the RPM capacity auctions have not been held for planning years beginning in 2015/2016 and beyond. However PJM has published the Net CONE values for all planning years through 2015/2016, which suggest that under the terms of the proposed programs the minimum cost of 10 MW enrolled in the two programs through 2015/2016 will be \$437,200 for PSDR and \$874,800 for PSEDR. The Demand credit price will be no less than 35% of Net CONE in the case of PSDR or 70% of Net CONE in the case of PSEDR. It is determined using the greater of these percentages of Net CONE for the relevant year or the 4 year average RPM auction price. These values could go higher when the RPM auction prices for planning years beginning in 2015/2016 become known.

See TRA 1-16 Attachment 1 included in the response to TRA-1-16 for the calculations of the demand credit amounts for the 2011/2012 and 2012/2013 planning years, along with a hypothetical energy credit.

TRA Data Request 1-7: Please explain the costs associated with interval metering that the company plans to defer.

Response TRA 1-7: The Company will only have interval metering costs to defer if customers who enroll in the program do not already have such metering in place. The actual cost that would be deferred would be the annual depreciation expense on those meters. Recent estimates of the installed costs of this kind of metering and necessary communications equipment are between \$456 and \$612 per meter. These amounts include labor needed for the installation and overheads which would be capitalized as part of the installed cost. The depreciation rate on meters is 3.55%, so annual depreciation expense on these meters would be under \$22 per year per meter.

TRA Data Request 1-8: Provide the anticipated benefits i.e. cost savings that the Company will receive from the Demand Response Program over the next five years. (Include calculations and assumptions made.)

Response TRA 1-8: See Company witness Martin's testimony for a description of the benefits of the programs.

One of the primary benefits of the programs is the potential reduction in the cost of capacity through the reduction of the Company's peak loads. As long as the amounts paid to customers for capacity are below the amounts the Company pays to its wholesale power supplier for capacity, as is currently the case, the Company's customers will benefit from the programs.

Due to the significant uncertainties regarding things which are outside of the Company's control, including the level of enrollment, future generation capacity costs, and the weather, the Company is unable to provide a specific estimate of the cost savings from the programs.

TRA Data Request 1-9: Will deferred cost of the Demand Response Programs include any labor? If so, identify any additional personnel that the Company will hire.

Response TRA 1-9: The only labor that would be deferred would be that which is incurred as part of the capitalized installation cost of interval metering. The deferral of these costs would be through their inclusion in the deferred depreciation expense, as discussed in TRA-1-7. The Company does not anticipate hiring any new employees because of these programs, or deferring any non-incremental labor costs of existing employees who spend time administering the programs.

TRA Data Request 1-10: Provide a list of all customers and CSPs that have been noticed regarding this docket and a copy of the notice sent.

Response TRA 1-10:

Petitioner does not believe the Rules and Regulations of the TRA mandate service of the Petition on particular customers or CSPs. Notwithstanding, Petitioner will serve any customers or CSPs as directed by the TRA. The Company did informally notify counsel for the East Tennessee Electric Consumers on March 7th, 2012.

TRA Data Request 1-11: Provide the cost of an interval meter. Provide an approximation of how many potential customers currently have the necessary interval meter. Also provide an estimate of the number of interval meters the Company anticipates supplying to customers over the next five years.

Response TRA 1-11: The range of costs of interval meters were provided in the response to TRA-1-7. At this time the Company can not predict how many customers will enroll in the programs, or if those customers already have interval metering, and therefore it can not provide an estimate of the number of required interval metering installations.

TRA Data Request 1-12: The PSEDR Tariff is for an initial term of four (4) years and will remain in effect until either party provides a three years' written notice of its intentions to discontinue service. Are there any conditions under which the Company would waive this notice?

Response TRA 1-12: The Company would evaluate the conditions, if any, under which it would consider waiving this notice requirement.

TRA Data Request 1-13: The Company proposed a maximum of 10 curtailments under each tariff. Does the Company anticipate curtailing customers 10 times per year?

Response TRA 1-13: Yes. Please note that under the PSEDR program the Company can curtail 10 times for load management reasons plus 10 additional times for emergencies any time during a calendar year.

TRA Data Request 1-14: Will the customer have to reduce load manually, or does the Company have technology in place that will reduce unnecessary load for the customer?

Response TRA 1-14: The Company only issues requests for customers to curtail load. It does not directly control the customer's load. It is up to the customer to take the steps needed to comply with curtailment requests.

TRA Data Request 1-15: Provide an example of how the PSDR and PSEDR tariff incentives would show up on a customer bill.

Response TRA 1-15: Tariff incentives would not appear on a customer's bill. The payments to customers will be made either electronically or in the form of a check within 60 days after the end of the applicable delivery month.

TRA Data Request 1-16:

Provide a calculation of a customer incentive assuming the following:

- a) The customer falls under the PSDR Tariff and no event occurs;
- b) The customer falls under the PSDER Tariff and no event occurs;
- c) The customer falls under the PSDR Tariff, uses the Guaranteed Load Drop Method, exceeds guaranteed load curtailment, and one curtailment occurs.
- d) The customer falls under the PSDR Tariff, uses the Firm Service Level Method, exceeds their peak load contribution, and one curtailment occurs.
- e) The Customer falls under the PSDER Tariff, uses the Guaranteed Load Drop Method, exceeds guaranteed load curtailment, and one curtailment occurs.
- f) The Customer falls under the PSDER Tariff, uses the Guaranteed Load Drop Method, exceeds their peak load contribution, and one curtailment occurs.

Response TRA 1-16: See TRA 1-16 Attachment 1 on the enclosed CD for the computations of these amounts using the pricing in the tariffs filed with the Company's petition, as well as the pricing which the Company anticipates will be in effect beginning June 1, 2012 for the PSEDR and December 1, 2012 for the PSDR.

In preparing the response to 16(d) the Company has assumed that the question should have read "The customer falls under the PSDR Tariff, uses the Firm Service Level Method, **reduces load to below their Firm Service Level**, and one curtailment occurs."

In preparing the response to 16(f) the Company has assumed that the question should have read “The customer falls under the PSEDR Tariff, uses the Firm Service Level Method, **reduces load to below their Firm Service Level**, and one curtailment occurs.”

TRA Data Request 1-17: Provide an example of a calculation of the noncompliance charge.

Response TRA 1-17: Please see TRA-1-17 Attachment 1 for an example of the non-compliance charge for the PSDR program. The methodology for determining the PSEDR non-compliance penalty charge is the same; however, the Curtailment Demand Credit and the period of time which non-compliance is measured are different.

TRA Data Request 1-18: Would the Company be willing to offset its deferred cost with noncompliance payments to PSDR and PSEDR Programs?

Response TRA 1-18: Yes.

Peak Shaving Demand Response Rider (PSDR) and Peak Shaving Emergency Demand Response Rider (PSDR)

Example Curtailment Credit Calculations

Calculated using pricing for the Dec 2011 to March 2012 period for PSDR and June 2011 to May 2012 for PSEDR

Assuming 10,000 kW of enrolled capacity and either zero or one 4 hour curtailment event

Event Characteristics

Assume event day was 2/4/2010, event called from 7:00 am to 11:00 am
5 most recent weekdays were 2/3, 2/2, 2/1, 1/29, 1/28

GLD - Example of Customer with 10 MW guaranteed load drop

FSL - Example of Customer with 2,855 kW firm service level with PLC = 12,855 kW and Available Curtailable Demand (ACD) = 10,000 kW

PSDR EXAMPLES	Answer to 16A No Events - Either Method	Answer to 16C Guaranteed Load Drop - 1 Event -Customer Fully Complied	Answer to 16D Firm Service Level - 1 Event -Customer Fully Complied
Payment For the February Event Month:			
Monthly Event Credit (Energy pymt.)	\$0	\$1,991	\$1,991
Monthly Demand Credit (Capacity pymt.)	\$74,930	\$74,930	\$74,930
less: Non-Compliance Demand Charge	\$0	\$0	\$0
Total Monthly Credit	\$74,930	\$76,921	\$76,921
Total For the December-March Contract Period:			
Annual Event Credit (Energy pymt.)	\$0	\$1,991	\$1,991
Annual Demand Credit (Capacity pymt.)	\$299,720	\$299,720	\$299,720
less: Non-Compliance Demand Charge ^(a)	\$0	\$0	\$0
Total Annual Credit (Non-Compliance Charge)	\$299,720	\$301,711	\$301,711

PSEDR EXAMPLES	Answer to 16B No Events - Either Method	Answer to 16E Guaranteed Load Drop - 1 Event -Customer Fully Complied	Answer to 16F Firm Service Level - 1 Event -Customer Fully Complied
Monthly for February Event Month:			
Curtailment Demand Credit			
Monthly Event Credit (energy pymt.)	\$0	\$1,991	\$1,991
Monthly Demand Credit (capacity pymt.)	\$36,490	\$36,490	\$36,490
less: Non-Compliance Demand Charge	\$0	\$0	\$0
Total Monthly Credit	\$36,490	\$38,481	\$38,481
Annual:			
Annual Event Credit (energy pymt.)	\$0	\$1,991	\$1,991
Annual Demand Credit (capacity pymt.)	\$437,880	\$437,880	\$437,880
less: Non-Compliance Demand Charge ^(a)	\$0	\$0	\$0
Total Annual Credit	\$437,880	\$439,871	\$439,871

Peak Shaving Demand Response Rider (PSDR) and Peak Shaving Emergency Demand Response Rider (PSDR)

Example Curtailment Credit Calculations

Calculated using pricing for the Dec 2012 to March 2013 period for PSDR and June 2012 to May 2013 for PSEDR

Assuming 10,000 kW of enrolled capacity and either zero or one 4 hour curtailment event

Event Characteristics

Assume event day was 2/4/2010, event called from 7:00 am to 11:00 am

5 most recent weekdays were 2/3, 2/2, 2/1, 1/29, 1/28

GLD - Example of Customer with 10 MW guaranteed load drop

FSL - Example of Customer with 2,855 kW firm service level with PLC = 12,855 kW and Available Curtailable Demand (ACD) = 10,000 kW

PSDR EXAMPLES	Answer to 16A	Answer to 16C	Answer to 16D
	No Events - Either Method	Guaranteed Load Drop - 1 Event -Customer Fully Complied	Firm Service Level - 1 Event -Customer Fully Complied
Payment For the February Event Month:			
Monthly Event Credit (Energy pymt.)	\$0	\$1,991	\$1,991
Monthly Demand Credit (Capacity pymt.)	\$88,200	\$88,200	\$88,200
less: Non-Compliance Demand Charge	\$0	\$0	\$0
<u>Total Monthly Credit</u>	<u>\$88,200</u>	<u>\$90,191</u>	<u>\$90,191</u>
Total For the December-March Contract Period:			
Annual Event Credit (Energy pymt.)	\$0	\$1,991	\$1,991
Annual Demand Credit (Capacity pymt.)	\$352,800	\$352,800	\$352,800
less: Non-Compliance Demand Charge ^(a)	\$0	\$0	\$0
<u>Total Annual Credit (Non-Compliance Charge)</u>	<u>\$352,800</u>	<u>\$354,791</u>	<u>\$354,791</u>

PSEDR EXAMPLES	Answer to 16B	Answer to 16E	Answer to 16F
	No Events - Either Method	Guaranteed Load Drop - 1 Event -Customer Fully Complied	Firm Service Level - 1 Event -Customer Fully Complied
Monthly for February Event Month:			
Curtailment Demand Credit			
Monthly Event Credit (energy pymt.)	\$0	\$1,991	\$1,991
Monthly Demand Credit (capacity pymt.)	\$58,800	\$58,800	\$58,800
less: Non-Compliance Demand Charge	\$0	\$0	\$0
<u>Total Monthly Credit</u>	<u>\$58,800</u>	<u>\$60,791</u>	<u>\$60,791</u>
Annual:			
Annual Event Credit (energy pymt.)	\$0	\$1,991	\$1,991
Annual Demand Credit (capacity pymt.)	\$705,600	\$705,600	\$705,600
less: Non-Compliance Demand Charge ^(a)	\$0	\$0	\$0
<u>Total Annual Credit</u>	<u>\$705,600</u>	<u>\$707,591</u>	<u>\$707,591</u>

Peak Shaving Demand Response Rider (PSDR)
Full Compliance Sample Calculation
Curtailment Demand Credit calculated using pricing for the Dec 2011 to March 2012 period
Example 1: Guaranteed Load Drop Method (GLD) - PSDR

Hour	Curtailed	LMP	Curtailment Energy Credit	Event Credit	Non- Compliance Demand	GLD kW	Curtailment Demand Credit	Monthly Demand Credit	Hours	Non- Compliance Avg Demand
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8:00	10220	0.05942	0.05348	\$546.57	0	10000	\$7,493	\$74,930.00	4	0
9:00	10267	0.05341	0.04807	\$493.53	0					
10:00	10213	0.05284	0.04756	\$485.73	0					
11:00	10157	0.05085	0.04577	\$464.89	0					

Monthly:	Monthly Event Credit	\$1,991
	Monthly Demand Credit	\$74,930
	Total Monthly Credit	\$76,921

Annual:	Annual Event Credit	\$1,991 (assumes one curtailment)
	Annual Demand Credit	\$299,720 (monthly payment x 4)
	Total Annual Credit	\$301,711

Example 1: Firm Service Level Method (FSL) - PSDR

Hour	Curtailed	LMP	Curtailment Energy Credit	Event Credit	Non- Compliance Demand	ACD kW	Curtailment Demand Credit	Monthly Demand Credit	Hours	Non- Compliance Avg Demand
------	-----------	-----	---------------------------------	--------------	------------------------------	-----------	---------------------------------	-----------------------------	-------	----------------------------------

8:00	10220	0.05942	0.05348	\$546.57	0	10000	\$7,493	\$74,930.00	4	0
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11:00	10157	0.05085	0.04577	\$464.89	0					

Monthly:	Monthly Event Credit	\$1,991
	Monthly Demand Credit	\$74,930
	Total Monthly Credit	\$76,921

Annual:	Annual Event Credit	\$1,991 (assumes one curtailment)
	Annual Demand Credit	\$299,720 (monthly payment x 4)
	Total Annual Credit	\$301,711

Peak Shaving and Emergency Demand Response Rider (PSEDR)
Sample Calculation
Curtailment Demand Credit calculated using pricing for the June 2011 to May 2012 PJM Planning year

Example 1: Guaranteed Load Drop Method (GLD) - PSEDR

Hour	Curtailed Energy kWh	LMP	Curtailment Energy Credit (90% of LMP)	Event Credit	Non- Compliance Demand	GLD kW	Curtailment Demand Credit	Monthly Demand Credit	Hours	Non- Compliance Avg Demand
8:00	10220	0.05942	0.05348	\$546.57	0	10000	\$3,649	\$36,490.00	4	0
9:00	10267	0.05341	0.04807	\$493.53	0					
10:00	10213	0.05284	0.04756	\$485.73	0					
11:00	10157	0.05085	0.04577	\$464.89	0					

Monthly:

Monthly Event Credit	\$1,991
Monthly Demand Credit	\$36,490
Total Monthly Credit	\$38,481

Annual:

Annual Event Credit	\$1,991 (assumes one curtailment)
Annual Demand Credit	\$437,880 (monthly payment x 12)
Total Annual Credit	\$439,871

Example 1: Firm Service Level Method (FSL) - PSEDR

Hour	Curtailed Energy kWh	LMP	Curtailment Energy Credit	Event Credit	Non- Compliance Demand	ACD kW	Curtailment Demand Credit	Monthly Demand Credit	Hours	Non- Compliance Avg Demand
8:00	10220	0.05942	0.05348	\$546.57	0	10000	\$3,649	\$36,490.00	4	0
9:00	10267	0.05341	0.04807	\$493.53	0					
10:00	10213	0.05284	0.04756	\$485.73	0					
11:00	10157	0.05085	0.04577	\$464.89	0					

Monthly:

Monthly Event Credit	\$1,991
Monthly Demand Credit	\$36,490
Total Monthly Credit	\$38,481

Annual:

Annual Event Credit	\$1,991 (assumes one curtailment)
Annual Demand Credit	\$437,880 (monthly payment x 12)
Total Annual Credit	\$439,871

Peak Shaving Demand Response Rider (PSDR)
Full Compliance Sample Calculation

Curtailment Demand Credit calculated using pricing for the Dec 2012 to March 2013 period

Example 1: Guaranteed Load Drop Method (GLD) - PSDR

Hour	Curtailed	LMP	Curtailment Energy Credit	Event Credit	Non- Compliance Demand	GLD kW	Curtailment Demand Credit	Monthly Demand Credit	Hours	Non- Compliance Avg Demand
------	-----------	-----	---------------------------------	--------------	------------------------------	-----------	---------------------------------	-----------------------------	-------	----------------------------------

8:00	10220	0.05942	0.05348	\$546.57	0	10000	\$8,820	\$88,200.00	4	0
9:00	10267	0.05341	0.04807	\$493.53	0					
10:00	10213	0.05284	0.04756	\$485.73	0					
11:00	10157	0.05085	0.04577	\$464.89	0					

Monthly:	Monthly Event Credit	\$1,991
	Monthly Demand Credit	\$88,200
	Total Monthly Credit	\$90,191

Annual:	Annual Event Credit	\$1,991 (assumes one curtailment)
	Annual Demand Credit	\$352,800 (monthly payment x 4)
	Total Annual Credit	\$354,791

Example 1: Firm Service Level Method (FSL) - PSDR

Hour	Curtailed	LMP	Curtailment Energy Credit	Event Credit	Non- Compliance Demand	ACD kW	Curtailment Demand Credit	Monthly Demand Credit	Hours	Non- Compliance Avg Demand
------	-----------	-----	---------------------------------	--------------	------------------------------	-----------	---------------------------------	-----------------------------	-------	----------------------------------

8:00	10220	0.05942	0.05348	\$546.57	0	10000	\$8,820	\$88,200.00	4	0
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Monthly:	Monthly Event Credit	\$1,991
	Monthly Demand Credit	\$88,200
	Total Monthly Credit	\$90,191

Annual:	Annual Event Credit	\$1,991 (assumes one curtailment)
	Annual Demand Credit	\$352,800 (monthly payment x 4)
	Total Annual Credit	\$354,791

Peak Shaving and Emergency Demand Response Rider (PSEDR)
Sample Calculation
Curtailment Demand Credit calculated using pricing for the June 2012 to May 2013 PJM Planning year
Example 1: Guaranteed Load Drop Method (GLD) - PSEDR

Hour	Curtailed Energy kWh	LMP	Curtailment Energy Credit (90% of LMP)	Event Credit	Non- Compliance Demand	GLD kW	Curtailment Demand Credit	Monthly Demand Credit	Hours	Non- Compliance Avg Demand
8:00	10220	0.05942	0.05348	\$546.57	0	10000	\$5.880	\$58,800.00	4	0
9:00	10267	0.05341	0.04807	\$493.53	0					
10:00	10213	0.05284	0.04756	\$485.73	0					
11:00	10157	0.05085	0.04577	\$464.89	0					

Monthly:

Monthly Event Credit	\$1,991
Monthly Demand Credit	\$58,800
Total Monthly Credit	\$60,791

Annual:

Annual Event Credit	\$1,991 (assumes one curtailment)
Annual Demand Credit	\$705,600 (monthly payment x 12)
Total Annual Credit	\$707,591

Example 1: Firm Service Level Method (FSL) - PSEDR

Hour	Curtailed Energy kWh	LMP	Curtailment Energy Credit	Event Credit	Non- Compliance Demand	ACD kW	Curtailment Demand Credit	Monthly Demand Credit	Hours	Non- Compliance Avg Demand
8:00	10220	0.05942	0.05348	\$546.57	0	10000	\$5.880	\$58,800.00	4	0
9:00	10267	0.05341	0.04807	\$493.53	0					
10:00	10213	0.05284	0.04756	\$485.73	0					
11:00	10157	0.05085	0.04577	\$464.89	0					

Monthly:

Monthly Event Credit	\$1,991
Monthly Demand Credit	\$58,800
Total Monthly Credit	\$60,791

Annual:

Annual Event Credit	\$1,991 (assumes one curtailment)
Annual Demand Credit	\$705,600 (monthly payment x 12)
Total Annual Credit	\$707,591

Kingsport Demand Response Riders
Sample Calculations
Example Data

ID	Date	Hour	Event Day		CBL	Actual Load Drop (ALD)		Prev Day 1		Prev Day 2		Prev Day 3		Prev Day 4		Prev Day 5	
			kW	kW		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
Example ID	020410	0100	10817	12424				11092	11113			11103	13740	13738			
Example ID	020410	0200	10917	12476				10975	11121			11063	13860	13860			
Example ID	020410	0300	10956	12492				11101	11121			11015	13855	13889			
Example ID	020410	0400	11000	12494				11055	11040			11080	13912	13930			
Example ID	020410	0500	10967	12482				11048	11042			11151	13874	13855			
Example ID	020410	0600	10934	12492				11053	11025			10965	13895	13995			
Example ID	020410	0700	11228	12683				11259	11226			11403	13999	14070			
Example ID	020410	0800	2343	12563		10220		11293	11386			11480	13730	13657			
Example ID	020410	0900	2240	12507		10267		11244	11305			11505	13655	13561			
Example ID	020410	1000	2290	12503		10213		11280	11257			11532	13526	13672			
Example ID	020410	1100	2293	12450		10157		11253	11278			11388	13476	13657			
Example ID	020410	1200	11353	12360				11126	11226			11299	13332	13584			
Example ID	020410	1300	11274	12302				11030	11286			11149	13267	13507			
Example ID	020410	1400	11213	12263				11052	11196			11184	13181	13490			
Example ID	020410	1500	11119	12273				10977	11167			11163	13229	13534			
Example ID	020410	1600	11121	12248				10931	11059			11103	13256	13572			
Example ID	020410	1700	11036	12260				10984	11002			11163	13275	13599			
Example ID	020410	1800	10994	12308				10998	11100			11261	13244	13626			
Example ID	020410	1900	11084	12303				11021	11111			11103	13344	13653			
Example ID	020410	2000	11203	12326				10992	11186			11101	13459	13559			
Example ID	020410	2100	11107	12302				10938	11186			11151	13400	13471			
Example ID	020410	2200	11002	12300				10959	10925			11140	13565	13534			
Example ID	020410	2300	11036	12423				10977	11107			11161	13707	13715			
Example ID	020410	2400	11115	12424				10842	11134			11098	13713	13751			

Assumptions:**KgPCo: Peak Shaving Demand Response Rider (PSDR)****Assuming 10,000 kW of enrolled capacity and two 4 hour curtailment events per contract period (March -December)****Curtailment Event Characteristics:**

Example 1-GLD - Event 1- Full Non-compliance

Event 2- Partial Non-compliance

Example 2-FSL - Event 1-Full Non-compliance

Event 2- Partial Non-compliance

Example 1: Guaranteed Load Drop Method (GLD) with Non-Compliance Event - PSDR

Hour	Curtailed kW	Metered Load kW	CBL kW	Non- Compliance Demand kW	GLD kW	Curtailment Demand Credit (A)	Monthly Demand Credit	Hours	Non-Compliance Avg Demand
Event 1-December									
8:00	-	12,563	12,563	10,000	10,000	\$7.493	\$74,930.00	4	10,000
9:00	-	12,507	12,507	10,000					
10:00	-	12,503	12,503	10,000					
11:00	-	12,450	12,450	10,000					
Event 2-March									
8:00	10,000	2,560	12,563	-	10,000	\$7.493	\$74,930.00	4	250
9:00	10,000	2,500	12,507	-					
10:00	9,000	3,503	12,503	1,000					
11:00	10,000	2,400	12,450	-					
									Average Hourly Non-Compliance
									(B) 5,125

Curtailment can never exceed the committed amount

Non-Compliance Demand Charge : \$168,967 **Non Compliance Demand Charge = (A) x (B) x 1.10 x 4****Example 2: Firm Service Level Method (FSL) with Non-Compliance Event - PSDR**

Additional FSL Assumptions

FSL

Example of Customer with 2,855 kW firm service level election

Peak Load Contribution (PLC) = 12,855, Available Curtailable Demand (ACD) = 10,000

Hour	Curtailed kW	Metered Load kW	FSL- Requirement	Non- Compliance Demand	ACD kW	Curtailment Demand Credit	Monthly Demand Credit (A)	Hours	Non-Compliance Avg Demand
Event 1-December									
8:00	292	12,563	2,855	9,708	10,000	\$7.493	\$74,930.00	4	9,651
9:00	348	12,507	2,855	9,652					
10:00	352	12,503	2,855	9,648					
11:00	405	12,450	2,855	9,595					
Event 2-March									
8:00	10,000	2,560	2,855	-	10,000	\$7.493	\$74,930.00	4	162
9:00	10,000	2,500	2,855	-					
10:00	9,352	3,503	2,855	648					
11:00	10,000	2,400	2,855	-					
									Average Hourly Non-Compliance
									(B) 4,906

Non-Compliance Demand Charge : \$161,759 **Non Compliance Demand Charge = (A) x (B) x 1.10 x 4**