

Jeff M. Short  
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March 7, 2014

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VIA HAND DELIVERY

Jeff DeRouen  
Executive Director  
Kentucky Public Service Commission  
211 Sower Boulevard  
Frankfort, KY 40601

RE: Jeff M. Short v. Kentucky Utilities Company  
Case No. 2013-00287

Dear Mr. DeRouen,

Enclosed please find, for filing, the original and three (3) copies of my "written comments" summarized in two pages of text and one Chart (3 pages total) as allowed by the Commissions February 20, 2014 procedural Order in this case. I have mailed an identical copy of these pages to the 3 parties on the cc list below via the United States mail earlier today, March 7, 2014.

Sincerely,

  
Jeff M. Short

cc: Ed Staton  
Allyson K. Sturgeon  
W. Duncan Crosby

**Complainant Factual Comments Prior to Formal Hearing (Case# 2013-00287)**

- 1** KY net energy metering (NEM) laws provide that a consumers net excess generation (NEG) kWh credits accumulate for the life of the customers account. If a customer does not use NEG credits their value is lost by the customer when the account ends.
- 2** KU applies Net Excess Generation (NEG) crediting policy which provides that kWh credits apply only to the specific TOU time period when they were generated. KY Net Metering Guidelines require that: "Each utility will provide language in its tariff filing that uniquely describes its billing practice consistent with the requirements in KRS 278.465 to 278.468." The crediting policy is not described in KU's Net Metering tariff document (Rider NMS) or in any KU tariff.
- 3** The KY Net Metering Guidelines require that a net metering facility; "Has the primary purpose of supplying all or part of the customer's own electricity requirements" Under the KU NEG crediting policy, TOU/NEM customers who offset all of their annual usage have financial incentives to manage annual usage profiles so that they match closely with their annual "TOU generation profiles". (They must use everything they generate in each specific TOU period within the same TOU time period in order to recover the full value of their generation.)
- 4** Rate LEV, TOU customers have financial incentives to manage their annual usage profiles towards more off-peak usage and/or less on-peak usage. In order for the TOU rate structure of Rate LEV to be of financial benefit over Rate RS, TOU customers must use about 3 times more electricity during the off-peak period than they use during the on-peak period. On the KU website under Q&A for Electric Vehicles: "The LEV TOU rate is designed to encourage customers to shift the charging of their PEV, and to shift other energy use when possible, to periods when the utility system is not as heavily loaded." The Rate LEV Final Report of Jan. 31, 2014 states: "The purpose of this rate structure is to provide an economic incentive for customers to consume more of their energy off-peak which is recognized as having a greater availability of supply."
- 5** When applied to the annual TOU schedule of Rate LEV, PV generation profiles in KY exhibit poor correlation with annual TOU usage profiles (See Table 2). Customers who combine TOU rates with NEM using PV under the KU applied NEG crediting policy have one set of financial incentives to use more electricity during on-peak periods and another set to use more electricity during off-peak periods. The KU crediting policy, which only has impact on TOU (Rate LEV) customers, provides financial incentives that are in direct conflict with the KU stated purpose of Rate LEV. (TOU generation and usage data of Table 2 is also shown graphically with other data in Chart 3A)

Table 2 Rate LEV TOU Period Percentages	Rate LEV TOU Time Period			
	Peak	Intermediate	Off-peak	Total
% of Total Available Time	18%	25%	57%	100%
% of Period Occurs During Daylight (*1)	88%	61%	35%	n/a
% of Total Available Daylight in Period (*1)	31%	30%	39%	100%
<b>TOU Usage Examples in KY</b>				
Annual TOU Usage Profile (*2)	7%	18%	75%	100%
Average LEV Usage Profile (Pilot Study)(*3)	16%	22%	62%	100%
<b>TOU Generation Examples in KY</b>				
% Total Projected Annual PV Output 1(*4)	24.8	40.7	34.5	100%
% Total Projected Annual PV Output 2(*5)	26.9	35.7	37.4	100%
% Total Actual Annual PV Output (*6)	25.6	34.6	39.8	100%

(\*1) US Naval Observatory, 2014, Stanford, KY

(\*2) KU account # 3000 0584 7508 Feb 18, 2013 - Feb 18, 2014, Rate LEV

(\*3) Rate LEV Pilot Final Report Jan 31, 2014

(\*4) PV Watts Fixed Tilt 38deg, Az 180deg, Lex

(\*5) PV Watts 2 Axis Tracking, Lex

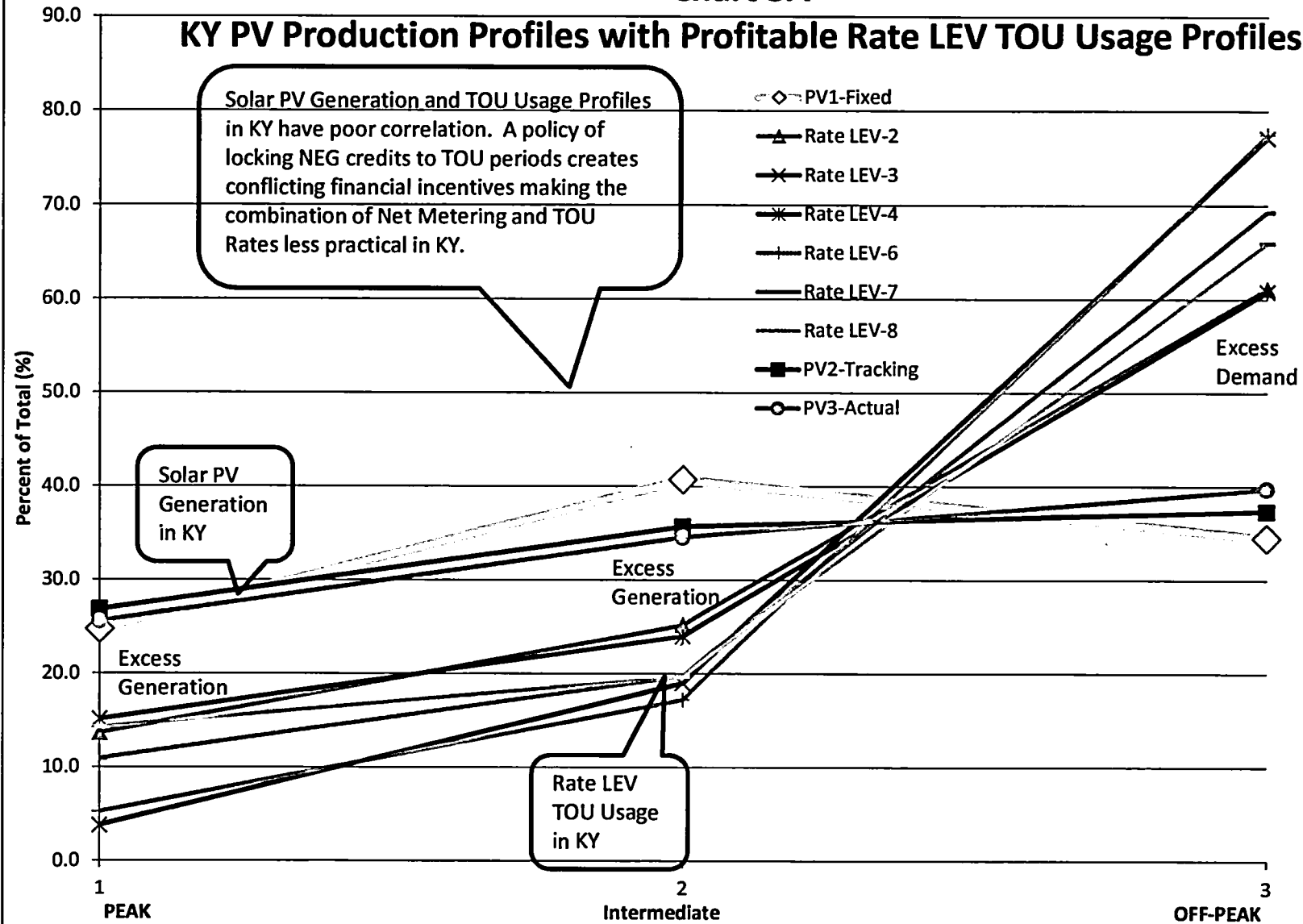
(\*6) Measured Solar Array, Fixed Tilt 10deg, Az 180, Berea (Jan 1, 2013-Jan 1, 2014)

### **Complainant Argumentative Comments Prior to Formal Hearing (Case# 2013-00287)**

- 6** TOU Rates combine with solar PV NEM synergistically with an alternative crediting policy. TOU/NEM customers can generate NEG during any TOU period without financial incentive to use it all. They maintain the flexibility to generate and consume according to their own personal generator and lifestyle variables. The value of their on-peak NEG is enhanced since it is most often in excess of their own usage and available to reduce loads on the utility during periods of peak demand. Customers can leverage the correlation of solar PV output with the higher value "on-peak" electricity increasing the financial benefits of their participation in net metering, strengthening the inherent incentives of TOU Rates to manage their usage towards off-peak periods and further increasing load reduction benefits to their utility, other consumers and society in general. Such synergy can be accomplished by applying a NEG crediting policy for TOU customers which provides that kWh credits are based on the ratio representing the difference in retail rates for each TOU period. (as recommended by the Interstate Renewable Energy Council (IREC) in their Model Net Metering Rules of 2009).
- 7** Utility policies that undermine such synergy and societal benefits, that do not encourage net metering in KY or that are obstacles to consumer adoption of new energy management programs in KY are inconsistent with the underlying intent of the 2008 KY Net Metering Legislation.
- 8** The presence of a net metering statute (278.466(3)) referring to TOU rates clearly shows intent that the two programs be combined. It is not logical that the specific statute defining their combination which is born of legislation to encourage participation in net metering in KY would result in conflicting consumer incentives or would produce any obstacle which could discourage consumer participation in either new program. It is the KU crediting policy which creates such conflict and obstacles.
- 9** In the document, "Summary of Kentucky's Guidelines for Interconnection and Net Metering" (which is found at [www.maced.org](http://www.maced.org)) the top of page 2 begins with: "Net metering values the electricity generated by the customer's renewable energy generator the same as grid power, at the specific time when the renewable power is being generated." That same paragraph ends with "If the utility uses time-of-day pricing, so that rates are higher at certain times, the net metered renewable electricity will be valued at whatever the rate is at the specific time when the power is generated." The American Council on Renewable Energy website ([www.acore.org/files/pdfs/states/Kentucky](http://www.acore.org/files/pdfs/states/Kentucky)) refers to "Renewable Energy in Kentucky" which includes the verbiage: "Net Excess Generation credited to customers bill at retail rate, indefinitely." As established previously in this case, the Database of State Incentives for Renewable Energy (DSIRE) website also has similar verbiage regarding Net Metering policies in Kentucky.
- 10** The Interstate Renewable Energy Council (IREC) defines net metering as:  
""Net Metering" means a methodology under which electric energy generated by or on behalf of a Customer-generator and delivered to the Electricity Providers local distribution facilities may be used to offset electric energy provided by the Electricity Provider to the Customer-generator during the applicable billing period." Any NEG crediting policy that locks credits to specific times during the billing period goes beyond and, in doing so, violates this fundamental definition of Net Metering, becomes a deterrent to TOU/NEM in KY and is inconsistent with both the underlying intent and the plain language of our net metering statutes, which carry the force of law. TOU Rates, Net Metering and solar PV energy generation are all important programs in KY's future. These new programs, KY consumers and our Commonwealth are all much better served with policies which allow harmony rather than create conflict in their application.

### Chart 3A

## KY PV Production Profiles with Profitable Rate LEV TOU Usage Profiles



## List of Acronyms/Abbreviations Used

<b>NEM</b>	<b>Net Energy Metering</b>
<b>NMS</b>	<b>Net Metering Service</b>
<b>TOU</b>	<b>Time-of-Use</b>
<b>kWh</b>	<b>kilo-watt hour</b>
<b>KU</b>	<b>Kentucky Utilities Company</b>
<b>PV</b>	<b>Photo-Voltaic</b>
<b>NEG</b>	<b>Net Excess Generation</b>
<b>LEV</b>	<b>Low Emission Vehicle</b>
<b>PEV</b>	<b>Plug-in Electric Vehicle</b>
<b>BEV</b>	<b>Battery Electric Vehicle</b>
<b>DSIRE</b>	<b>Database of State Incentives for Renewable Energy</b>
<b>IREC</b>	<b>Interstate Renewable Energy Council</b>

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