

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

JOINT APPLICATION OF LOUISVILLE GAS AND	)	
ELECTRIC COMPANY AND KENTUCKY UTILITIES	)	
COMPANY FOR SITE COMPATIBILITY	)	
CERTIFICATES FOR THE CONSTRUCTION OF A	)	CASE NO.
COMBINED CYCLE COMBUSTION TURBINE AT	)	2014-00133
THE GREEN RIVER GENERATING STATION AND A	)	
SOLAR PHOTOVOLTAIC FACILITY AT THE E.W.	)	
BROWN GENERATING STATION	)	

NOTICE OF FILING

Notice is given to all parties that the following materials have been filed into the record of this proceeding:

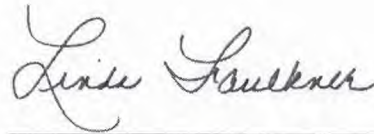
- The digital video recording of the evidentiary hearing conducted on November 24, 2014 in this proceeding;
- Certification of the accuracy and correctness of the digital video recording;
- All exhibits introduced at the evidentiary hearing conducted on November 24, 2014 in this proceeding;
- A written log listing, *inter alia*, the date and time of where each witness' testimony begins and ends on the digital video recording of the evidentiary hearing conducted on November 24, 2014.

A copy of this Notice, the certification of the digital video record, hearing log, and exhibits have been electronically served upon all persons listed at the end of this Notice. Parties desiring an electronic copy of the digital video recording of the hearing in Windows Media format may download a copy at: [http://psc.ky.gov/av\\_broadcast/2014-](http://psc.ky.gov/av_broadcast/2014-)

00002-and-2014-00133/2014-00002-and-2014-00133 24Nov14 Inter.asx. Parties

wishing an annotated digital video recording may submit a written request by electronic mail to [pscfilings@ky.gov](mailto:pscfilings@ky.gov). A minimal fee will be assessed for a copy of this recording.

Done at Frankfort, Kentucky, this 15<sup>th</sup> day of December 2014.



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Linda Faulkner  
Director, Filings Division  
Public Service Commission of Kentucky

Rick E Lovekamp  
Manager - Regulatory Affairs  
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Louisville, KENTUCKY 40202



COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

JOINT APPLICATION OF LOUISVILLE GAS & )  
ELECTRIC COMPANY AND KENTUCKY UTILITIES )  
COMPANY FOR CERTIFICATES OF PUBLIC )  
CONVENIENCE AND NECESSITY FOR THE )  
CONSTRUCTION OF A COMBINED CYCLE ) CASE NO. 2014-00002  
COMBUSTION TURBINE AT THE GREEN RIVER )  
GENERATING STATION AND A SOLAR )  
PHOTOVOLTAIC FACILITY AT THE E.W. BROWN )  
GENERATING STATION )

JOINT APPLICATION OF LOUISVILLE GAS AND )  
ELECTRIC COMPANY AND KENTUCKY UTILITIES )  
COMPANY FOR SITE COMPATIBILITY CERTIFICATES )  
FOR THE CONSTRUCTION OF A COMBINED CYCLE ) CASE NO. 2014-00133  
COMBUSTION TURBINE AT THE GREEN RIVER )  
GENERATING STATION AND A SOLAR )  
PHOTOVOLTAIC FACILITY AT THE E.W. BROWN )  
GENERATING STATION )

CERTIFICATE

I, Sonya Harward, hereby certify that:

1. The attached DVD contains a digital recording of the Hearing conducted in the above-styled proceeding on November 24, 2014. Hearing Log, Exhibits, Exhibit List, and Witness List are included with the recording on November 24, 2014.

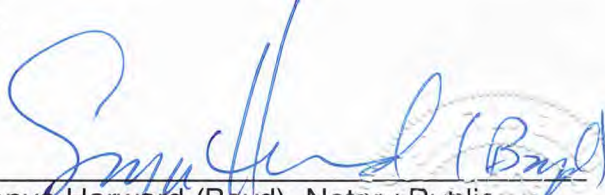
2. I am responsible for the preparation of the digital recording.


3. The digital recording accurately and correctly depicts the Hearing of November 24, 2014.

4. The "Exhibit List" attached to this Certificate correctly lists all exhibits introduced at the hearing of November 24, 2014.

5. The "Hearing Log" attached to this Certificate accurately and correctly states the events that occurred at the Hearing of November 24, 2014 and the time at which each occurred.

Given this 24<sup>th</sup> day of November, 2014.

  
\_\_\_\_\_  
Sonya Harward (Boyd), Notary Public  
State at Large  
My commission expires: August 27, 2017







# Session Report - Detail

2014-00002 & 2014-00133\_24Nov14  
LG&E and KU

Date:	Type:	Location:	Department:
11/24/2014	Other	Public Service Commission	Hearing Room 1 (HR 1)

Judge: David Armstrong; Linda Breathitt; Jim Gardner  
 Witness: Gregory Meiman - LG&E/KU; Gary Revlett - LG&E/KU; David Sinclair - LG&E/KU; Edwin Staton - LG&E/KU; Paul Thompson - LG&E/KU; John Voyles - LG&E/KU  
 Clerk: Sonya Harward

Event Time	Log Event
9:53:25 AM	Session Started
9:53:29 AM	Session Paused
10:06:03 AM	Session Resumed
10:06:05 AM	Chairman David Armstrong Preliminary Comments Note: Harward, Sonya Introduces Vice Chairman Jim Gardner and Commissioner Linda Breathitt.
10:07:10 AM	Attys. Lindsey Ingram and Allyson Sturgeon for LG&E/KU
10:07:24 AM	Attys. Greg Dutton and Larry Cook for the AG
10:07:31 AM	Attys. Joe Childers and Matthew Gearheart for Sierra Club
10:07:40 AM	Atty. Kurt Boehm for KIUC
10:07:51 AM	Attys. Quang Nguyen and Ann Ramser for PSC
10:07:59 AM	Outstanding Motions Note: Harward, Sonya Deviation from Publication and Confidentiality.
10:09:06 AM	Public Comment Note: Harward, Sonya No one present to comment.
10:11:18 AM	Witness Paul Thompson takes the stand and is sworn in. Note: Harward, Sonya Chief Operating Officer for LG&E/KU
10:12:22 AM	Atty. Ingram Direct Exam of Witness Thompson Note: Harward, Sonya Confirms that testimony is still accurate. Note: Harward, Sonya Describes the basic terms of the Stipulation.
10:13:46 AM	Atty. Dutton Cross Exam of Witness Thompson Note: Harward, Sonya Asking about the nameplate capacity, when project is projected to come online, and cost of project.
10:14:50 AM	Atty. Nguyen Cross Exam of Witness Thompson
10:15:37 AM	Atty. Nguyen to Witness Thompson Note: Harward, Sonya Asking Witness to explain companies' reasons to continue with Brown facility in light of a need for that facility.
10:17:34 AM	Vice Chairman Gardner Cross Exam of Witness Thompson Note: Harward, Sonya Asking about 1-year extension to run Green River.
10:19:34 AM	Vice Chairman Gardner to Witness Thompson Note: Harward, Sonya Asking about reason they chose not to shut down the two units in early 2015.
10:20:45 AM	Vice Chairman Gardner to Witness Thompson Note: Harward, Sonya Asking about Tyrone and Cane Run stations being closed or open during the polar vortex - trying to get a general idea about how much they were run.. Note: Harward, Sonya Also asked about Green River 3 and 4.
10:22:56 AM	Vice Chairman Gardner to Witness Thompson Note: Harward, Sonya Asking if companies continue to look at joining an RTO.



10:24:40 AM Commissioner Breathitt Cross Exam of Witness Thompson  
Note: Harward, Sonya Asking about 30 percent tax credit benefit and if it would come off of the \$36 million.

10:26:19 AM Commissioner Breathitt to Witness Thompson  
Note: Harward, Sonya Asking if the solar output would be dispatched regularly, how it fits into the economic dispatch, and can customers request green power.

10:28:32 AM Vice Chairman Gardner to Witness Thompson  
Note: Harward, Sonya Asking if they have been approached by any companies that would like a renewable or solar tariff.

10:29:28 AM Atty. Ingram Re-Direct Exam of Witness Thompson

10:29:52 AM Atty. Ingram to Witness Thompson  
Note: Harward, Sonya Clarifying about Green River 3 and 4 extension.

10:30:36 AM Witness Thompson dismissed from the stand.

10:30:44 AM Witness David Sinclair takes the stand and is sworn in.  
Note: Harward, Sonya V.P. of Energy Supply and Analysis for LG&E/KU

10:31:51 AM Atty. Ingram Direct Exam of Witness Sinclair  
Note: Harward, Sonya Confirms that testimony is still accurate.

10:32:44 AM Atty. Dutton Cross Exam of Witness Sinclair  
Note: Harward, Sonya Referencing Witness's Supplemental Testimony, Exhibit 2.

10:37:02 AM Atty. Dutton to Witness Sinclair  
Note: Harward, Sonya Referencing Witness's Supplemental Testimony, page 12, line 4, asking Witness to read.

10:38:32 AM Atty. Dutton to Witness Sinclair  
Note: Harward, Sonya Referencing Witness's Supplemental Testimony, Exhibit 2, regarding 2017 forecasted combined energy requirement.

10:41:49 AM Atty. Dutton to Witness Sinclair  
Note: Harward, Sonya Asking about direct comparison of Brown Solar facility to wind energy alternatives.

10:42:37 AM Atty. Dutton to Witness Sinclair  
Note: Harward, Sonya Referencing Witness's Supplemental Testimony, page 12, lines 1-4, asking Witness to read.  
Note: Harward, Sonya Compares to original Direct Testimony, DSS1.

10:43:57 AM Atty. Dutton requests to go into Confidential Session

10:44:20 AM Atty. Ingram Response  
Note: Harward, Sonya Agrees on confid. session - asks that audience who have not signed confidentiality agreement be excused.

10:45:01 AM Chairman Armstrong asks audience to leave for confid. session

10:45:32 AM Private Recording Activated

11:12:24 AM Public Recording Activated

11:12:26 AM Confidential Session Ends  
Note: Harward, Sonya Public can return to Hearing

11:12:27 AM Exhibits  
Note: Harward, Sonya AG Exhibits 1 and 2 were entered into the Hearing during confidential session but the Exhibits contain non-confidential information.

11:13:08 AM Atty. Dutton Continues Cross Exam of Witness Sinclair  
Note: Harward, Sonya Referencing Witness's Supplemental Testimony, page 12, regarding reducing potential future CO2 compliance costs.

11:14:28 AM Atty. Dutton to Witness Sinclair  
Note: Harward, Sonya Referencing Witness's Supplemental Testimony, page 12, regarding the only thing being certain is that there will be an investment tax credit.



11:15:58 AM	Atty. Gearheart Cross Exam of Witness Sinclair Note: Harward, Sonya	Referencing Witness's Direct Testimony, page 27, line 19-22, regarding decline in solar panels prices.
11:17:48 AM	Atty. Gearheart to Witness Sinclair Note: Harward, Sonya	Asking about REC prices and how they impact economics.
11:18:37 AM	Atty. Dutton - Objection Note: Harward, Sonya	Intervenors were not supposed to ask questions unless its in support of the Stipulation.
11:19:02 AM	Atty. Gearheart - Response to Objection	
11:19:23 AM	Atty. Ingram - Response to Objection Note: Harward, Sonya	No objection to this line of questioning.
11:19:44 AM	Atty. Gearheart to Witness Sinclair Note: Harward, Sonya	Asking about Clean Power Plan.
11:21:11 AM	Atty. Gearheart to Witness Sinclair Note: Harward, Sonya	Asking about value to capacity related to deferring the need for additional generation.
11:23:47 AM	Vice Chairman Gardner Cross Exam of Witness Sinclair Note: Harward, Sonya	Referencing Application, paragraph 4.
11:24:54 AM	Vice Chairman Gardner to Witness Sinclair Note: Harward, Sonya	Referencing Witness's Direct Testimony, page 5, regarding sales forecast and use of factor for elasticity demand.
11:25:42 AM	POST HEARING DATA REQUEST per Vice Chairman Gardner Note: Harward, Sonya	Provide the price elasticity coefficient factor.
11:26:23 AM	Vice Chairman Gardner to Witness Sinclair Note: Harward, Sonya	Referencing Witness's Direct Testimony, page 6, lines 16-18.
11:27:48 AM	Vice Chairman Gardner to Witness Sinclair Note: Harward, Sonya	Asking for general comment about what the results do with respect to the 2013/2014 load forecast.
11:29:04 AM	Vice Chairman Gardner to Witness Sinclair Note: Harward, Sonya	Asking what the Consensus Forecasting Group is calling for.
11:30:14 AM	Vice Chairman Gardner to Witness Sinclair Note: Harward, Sonya	Referencing Witness's Direct Testimony, page 17, Table 5, and Witness's Supplemental Testimony, page 7, lines 2-4.
11:35:07 AM	Vice Chairman Gardner to Witness Sinclair Note: Harward, Sonya	Referencing Witness's Direct Testimony, page 35, lines 6-8,
11:36:10 AM	POST HEARING DATA REQUEST per Vice Chairman Gardner Note: Harward, Sonya	Provide the levelized cost of electricity (per kW).
11:39:06 AM	Vice Chairman Gardner to Witness Sinclair Note: Harward, Sonya	Asking what is available to sell as RECs.
11:42:22 AM	Vice Chairman Gardner to Witness Sinclair Note: Harward, Sonya	Asking what an average capacity factor is for a place like Arizona for solar power.
11:43:37 AM	Commissioner Breathitt Cross Exam of Witness Sinclair	
11:44:19 AM	Commissioner Breathitt to Witness Sinclair Note: Harward, Sonya	Referencing Witness's Supplemental Testimony, page 14, lines 13-17.
11:46:26 AM	Commissioner Breathitt to Witness Sinclair Note: Harward, Sonya	Asking about solar output in winter months in Kentucky. [Witness references response to AG's 1st Request, Item 158.]
11:47:55 AM	Commissioner Breathitt to Witness Sinclair Note: Harward, Sonya	Asking how long the companies have had the Green Choice program.
11:48:31 AM	Atty. Nguyen Re-Cross Exam of Witness Sinclair Note: Harward, Sonya	Asking about Ohio REC Market, and the impact on the price of KY RECs.



11:50:38 AM Vice Chairman Gardner Re-Cross Exam of Witness Sinclair  
Note: Harward, Sonya Asking for the length of time that a REC is good for.

11:52:12 AM Vice Chairman Gardner to Witness Sinclair  
Note: Harward, Sonya Referencing Witness's Testimony, DSS1, Table 4, regarding seven DSM programs.

11:53:26 AM Witness dismissed from the stand.

11:53:59 AM Break for Lunch

11:54:09 AM Session Paused

1:05:17 PM Session Resumed

1:05:29 PM Chairman Armstrong - Notes the cases we are hearing.  
Note: Harward, Sonya 2014-00002 and 2014-00133

1:07:18 PM Witness John Voyles takes the stand and is sworn in.  
Note: Harward, Sonya V.P. of Energy Supply and Analysis for LG&E/KU

1:08:22 PM Atty. Ingram Direct Exam of Witness Voyles  
Note: Harward, Sonya Confirms that testimony is still accurate, with adjustments to some schedules.

1:09:55 PM Atty. Nguyen Cross Exam of Witness Voyles  
Note: Harward, Sonya Asking for the expectant useful life of the Brown station.

1:10:32 PM Atty. Nguyen to Witness Voyles  
Note: Harward, Sonya Referencing Witness's Direct Testimony, page 14, cost of solar facility.

1:12:26 PM Atty. Nguyen to Witness Voyles  
Note: Harward, Sonya Referencing the Stipulation, page 4, paragraph 5.

1:14:20 PM Vice Chairman Gardner Cross Exam of Witness Voyles  
Note: Harward, Sonya Referencing Witness's Direct Testimony, page 7, regarding 'netting out'.

1:15:37 PM Vice Chairman Gardner to Witness Voyles  
Note: Harward, Sonya Referencing Witness's Direct Testimony, page 13, lines 18-20.

1:16:17 PM Vice Chairman Gardner to Witness Voyles  
Note: Harward, Sonya Referencing Witness's Direct Testimony, page 14, lines 5-7.

1:17:05 PM Witness Voyles  
Note: Harward, Sonya Suggests the Vice Chairman see the response to PSC's 1st Request, Item 31, Table.

1:17:35 PM Vice Chairman Gardner to Witness Voyles  
Note: Harward, Sonya Asking Witness follow-up questions asked to Witness Sinclair regarding Brown.

1:19:25 PM Chairman Armstrong Cross Exam of Witness Voyles  
Note: Harward, Sonya Asking about soil that will be used.

1:20:31 PM Commissioner Breathitt Cross Exam of Witness Voyles  
Note: Harward, Sonya Asking about economic dispatch.

1:21:19 PM Commissioner Breathitt to Witness Voyles  
Note: Harward, Sonya Asking about Dicks River and Ohio Falls Hydro facilities and how many MW they produce.

1:24:54 PM Commissioner Breathitt to Witness Voyles  
Note: Harward, Sonya Asking about variability there is in the 130+.

1:25:48 PM Vice Chairman Gardner to Witness Voyles  
Note: Harward, Sonya Asking about Green and the transmission issues that may be impacting the closing of Green.

1:30:16 PM Commissioner Breathitt to Witness Voyles  
Note: Harward, Sonya Asking if Hydro is in the companies' Green program.

1:31:06 PM Witness Voyles dismissed from the stand.

1:31:14 PM Witness Gary Revlett takes the stand and is sworn in.  
Note: Harward, Sonya Director of Environmental Affairs for LG&E/KU

1:32:08 PM Atty. Ingram Direct Exam Witness Revlett  
Note: Harward, Sonya Confirms that testimony is still accurate.

1:33:17 PM Vice Chairman Gardner Cross Exam of Witness Revlett  
Note: Harward, Sonya Asking about Clean Power Plant, regarding the draft proposal and a greater chance that there will be carbon regulation.

1:34:53 PM Witness dismissed from the stand.

1:35:04 PM Witness Edwin Staton takes the stand and is sworn in.  
Note: Harward, Sonya V.P. of State Regulation and Rates

1:35:44 PM Atty. Ingram Direct Exam Witness Staton  
Note: Harward, Sonya Confirms that testimony is still accurate.

1:36:25 PM Atty. Nguyen Cross Exam of Witness Staton  
Note: Harward, Sonya Asking about flowing through revenues for benefit of the ratepayers.

1:37:26 PM POST HEARING DATA REQUEST per Atty. Nguyen  
Note: Harward, Sonya Provide an explanation of how the revenues will flow through for the benefits of the ratepayers.

1:37:38 PM Vice Chairman Gardner Cross Exam of Witness Staton  
Note: Harward, Sonya Asking about the companies' jurisdictional separation study.

1:38:36 PM Vice Chairman Gardner to Witness Staton  
Note: Harward, Sonya Referencing Witness's Testimony, page 3, lines 17-18.

1:39:00 PM Commissioner Breathitt Cross Exam of Witness Staton  
Note: Harward, Sonya Asking about monies gained from sales of solar being flowed back with those percentages.

1:39:48 PM Atty. Ingram Re-Direct Exam of Witness Staton  
Note: Harward, Sonya Asking about the companies not having decided how revenues will be returned to customers.

1:40:32 PM Witness Staton dismissed from the stand.

1:40:37 PM Witness Greg Meiman takes the stand and is sworn in.  
Note: Harward, Sonya Director of Corporate Tax and Benefit Plan Compliance for LG&E/KU

1:41:14 PM Atty. Ingram Re-Direct Exam of Witness Staton  
Note: Harward, Sonya Confirms that testimony is still accurate.

1:41:52 PM Atty. Nguyen Cross Exam of Witness Meiman  
Note: Harward, Sonya Asking about 30 percent tax credit being applied to the entire \$36 million amount.

1:42:57 PM Witness Meiman dismissed from the stand.

1:43:17 PM No Briefs

1:43:44 PM Responses to Post Hearing Data Request due by Dec. 8

1:45:28 PM Chairman Armstrong - Swears all Parties to Stipulation and Settlement Agreement  
Note: Harward, Sonya Attys. Ingram, Sturgeon, Gearheart, Childers, and Boehm stood to be sworn.

1:46:36 PM Hearing Adjourned

1:46:41 PM Session Paused

6:40:25 PM Session Ended





## Exhibit List Report

2014-00002 & 2014-  
00133\_24Nov14  
LG&E and KU

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Name:	Description:
AG - Exhibit 1	This Exhibit was introduced and entered in confidential session but contains non-confidential information.
AG - Exhibit 2	This Exhibit was introduced and entered in confidential session but contains non-confidential information.

**AG EXHIBIT 1**

**(This Exhibit was introduced and entered during  
the Confidential Hearing Session, but does not  
contain any CONFIDENTIAL information)**





# 2013 State of the Market

19 May 2014

SPP Market Monitoring Unit



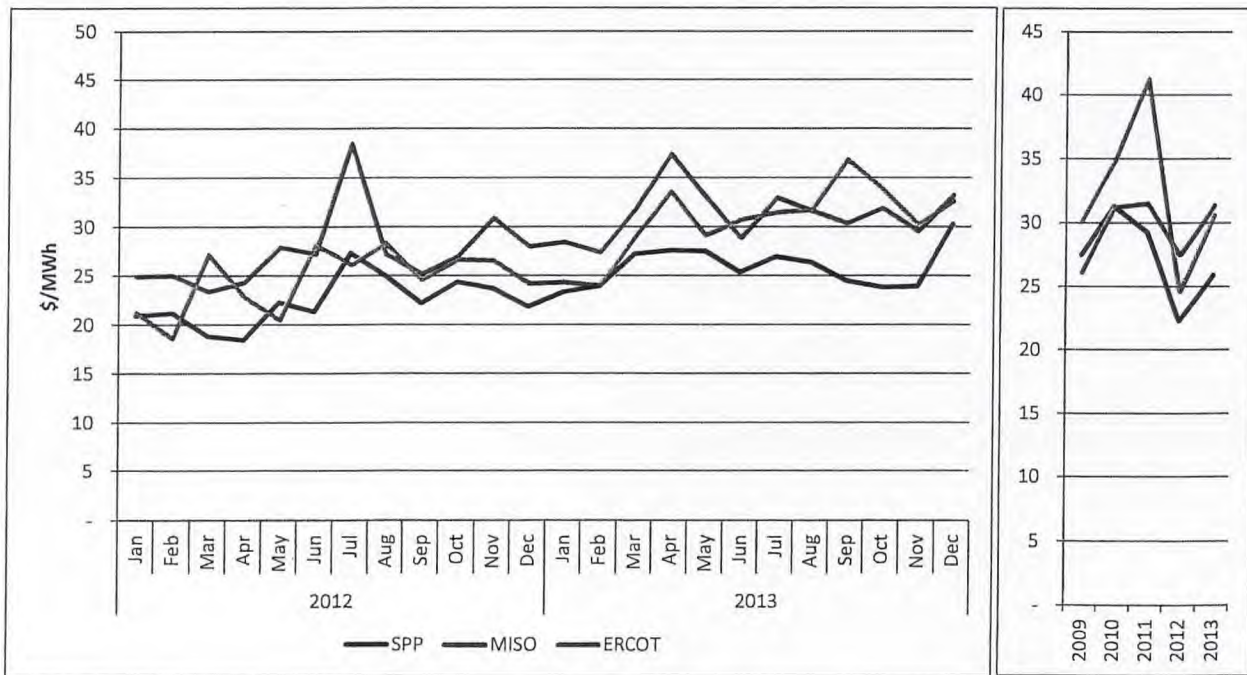
### C. Market Prices

#### Regional Price Comparison

A useful measure of basic market competitiveness is the comparison of prices between SPP and its neighboring regions. If prices in neighboring regions are generally in line with prices in the SPP region, then basic market operations are yielding similar results. It is not realistic to expect prices to be identical across the regions, as market structures vary, resource fleet technologies and fuel mixes are different, and fuel supply costs are dissimilar. For this review, SPP prices are compared to prices in MISO and ERCOT, the two electric wholesale markets adjacent to SPP.

Figure II.3 shows 2013 monthly and yearly system average prices for SPP, MISO and ERCOT. In general, the SPP monthly system prices were lower than other regions<sup>6</sup> for the last three years. Some of the drivers for the low EIS Market prices include relative proximity to inexpensive Powder River Basin coal, substantial low cost capacity consisting of coal, wind, and nuclear, and a high reserve margin.

**Figure II.3 Regional Monthly and Yearly Prices Comparison**



Another useful means of comparing prices across regions is to review overall price stability. The volatility shown in Figure II.4 represents the average volatility for the system-wide hourly prices.

<sup>6</sup> SPP market prices do not include the loss component while MISO and ERCOT market prices include the loss component.



**AG EXHIBIT 2**

**(This Exhibit was introduced and entered during  
the Confidential Hearing Session, but does not  
contain any CONFIDENTIAL information)**

Report Annual Energy Outlook 2014 Early Release  
 Scenario ref2014 Reference case  
 Datekey d102413a  
 Release Date December 2013

### 3. Energy Prices by Sector and Source

(2012 dollars per million Btu, unless otherwise noted)

Sector and Source	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2025	2030	2035	2040
Prices in Nominal Dollars														
Electric Power 8/														
Distillate Fuel Oil	23.37	24.12	24.30	23.35	21.44	21.07	21.11	21.64	22.52	23.40	28.26	33.18	39.74	47.77
Residual Fuel Oil	15.67	20.68	19.27	18.27	13.65	13.40	14.13	14.47	15.03	15.70	19.21	23.08	27.92	33.86
Natural Gas	4.80	3.44	4.39	4.62	4.65	4.77	5.07	5.56	5.77	5.75	7.09	8.74	10.85	13.53
Steam Coal	2.38	2.39	2.41	2.41	2.52	2.58	2.69	2.80	2.89	2.96	3.42	3.94	4.54	5.29

Source: <http://www.eia.gov/dnav/ng/hist/rngwhhdm.htm>