Matthew G. Bevin
Governor

Charles G. Snavely
Secretary
Energy and Environment Cabinet

Commonwealth of Kentucky
Public Service Commission
211 Sower Blvd.
P.O. Box 615
Frankfort, Kentucky 40602-0615
Telephone: (502) 564-3940
Fax: (502) 564-3460
psc.ky.gov

Michael J. Schmitt
Chairman

Robert Cicero
Vice Chairman

Daniel E. Logsdon Jr.
Commissioner

November 28, 2016

PARTIES OF RECORD

Re: Case No. 2016-00393
APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR AN ORDER APPROVING THE ESTABLISHMENT OF A REGULATORY ASSET

Attached is a copy of a memorandum which is being filed in the record of the above-referenced case. If you have any comments you would like to make regarding the contents of the memorandum please do so within five days of receipt of this letter.

If you have any questions, please contact David Spenard, Commission Staff Attorney, at 502-782-2580.

Sincerely,

Talina R. Mathews

Talina R. Mathews
Executive Director

DS/ch

Attachments

INTRA-AGENCY MEMORANDUM

KENTUCKY PUBLIC SERVICE COMMISSION

TO: Case File No. 2016-00393

FROM: David Spenard, Staff Attorney

DATE: November 28, 2016

RE: Informal Conference of November 21, 2016

Pursuant to Commission Staff's ("Staff") Notice of Informal Conference filed into the record on November 18, 2016, an informal conference was held in this matter on November 21, 2016. A copy of the sign-in sheet is attached. A copy of a handout distributed during the meeting by representatives of Louisville Gas and Electric Company ("LG&E") is also attached.

Representatives of LG&E stated that the company wanted to establish a regulatory asset relating to the expense associated with an interest rate swap. LG&E is seeking establishment of the regulatory asset by the end of the year. Cost recovery and amortization of the regulatory asset will be addressed in LG&E's next rate case which is expected to be filed on November 23, 2016.

Daniel Arbough of LG&E, through referring to the handout distributed at the meeting, described the structure of the interest rate swap transactions utilized by LG&E. In a swap transaction, LG&E enters into an agreement to pay a fixed rate of interest on a notional amount of principal to a counterparty. In turn, the counterparty agrees to pay a variable rate of interest to LG&E on the same notional amount. LG&E and the counterparty do not exchange payments of principal on the notional amount. Rather, they exchange, or swap, interest cash flows. The exchange of interest cash flows allows LG&E to convert the variable rate bonds covered by the swap to fixed rate obligations by locking-in rates.

Mr. Arbough stated that LG&E utilizes "plain vanilla" interest rate swaps as a means to reduce interest rate volatility and not for speculation. In order to avoid taking a speculative position, LG&E does not want its pool of swaps to be in excess of its pool of bonds. LG&E no longer ties a swap to a specific bond. He also stated that interest rate swaps permit LG&E to obtain a more cost effective structure for its customers. LG&E stated that it also uses "forward starting swaps" as a hedging technique when preparing to issue fixed rate bonds. The forward starting swaps are terminated when the bonds are issued.

Mr. Arbough discussed the valuation of an interest rate swap. In the example used by Mr. Arbough, at the inception of a swap, the present value of the fixed interest payments is equal to the present value of the expected variable interest rate payments by the counterparty. The swap contains a formula for determining a net settlement payment amount that is subject to change during the life of the swap depending upon the variable interest rate at the time of each settlement. When interest rates rise during the life of the swap, the counterparty will owe more to LG&E. When interest rates fall during the life of the swap, LG&E will owe more to the counterparty. The current market value of a swap is through determination of a mark-to-market amount which is impacted by the settlements calculated and the change in market value of the remaining periods. A swap is "out-of-the-money" for LG&E when LG&E expects to owe more under the swap agreement than it expects to receive.

LG&E discussed its existing portfolio of variable rate bonds outstanding. LG&E's variable rate bonds payable include a $25 million tax-exempt bond which must be repaid or remarketed by December 1, 2016. LG&E has an interest rate swap with Bank of America, the counterparty in the swap, protecting LG&E against the risk of rising interest rates. The amount of the interest rate swap at issue in the instant case is $32 million. LG&E was authorized to enter into the swap agreement by an Order in Case No. 2003-00299. LG&E has determined that redeeming the bond and terminating the interest rate swap will result in a lower net present value than remarketing the bond and keeping the swap in place. Upon termination of the swap, a one-time payment will be due to Bank of America. Termination of the swap is necessary to enable LG&E to avoid creating a speculative position through having a swap pool in excess of its bond pool.

Staff and LG&E discussed the record from Case No. 2003-00299 and the authorizations and obligations established through that proceeding including LG&E's reporting requirements per the Commission's September 16, 2003 Order in that case. Staff and LG&E further discussed the exhibits in the application and the calculation of the swap termination payment. Staff asked LG&E if it had performed an analysis when it executed the swap in 2003. LG&E stated that it would research the issue and provide any available documentation regarding an analysis. LG&E also stated that it would provide information required by ordering paragraph 5 of the Commission's September 16, 2003 Order in Case No. 2003-00299. LG&E stated that it would, in its rate application, propose a 17-year amortization period for the regulatory asset.

LG&E stated that it would file the master agreement for the swaps approved in Case No. 2003-00299 and the terms of the swap at issue in this application into the record in this proceeding. LG&E further stated that it would provide the Commission with documentation concerning the remaining swaps approved in Case No. 2003-00299 by a letter to the Executive Director for the company's correspondence file. LG&E agreed to provide the exhibits to its application in an Excel file. LG&E agreed to provide the information by November 30, 2016.

There being no further business, the informal conference adjourned.

Enclosures

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

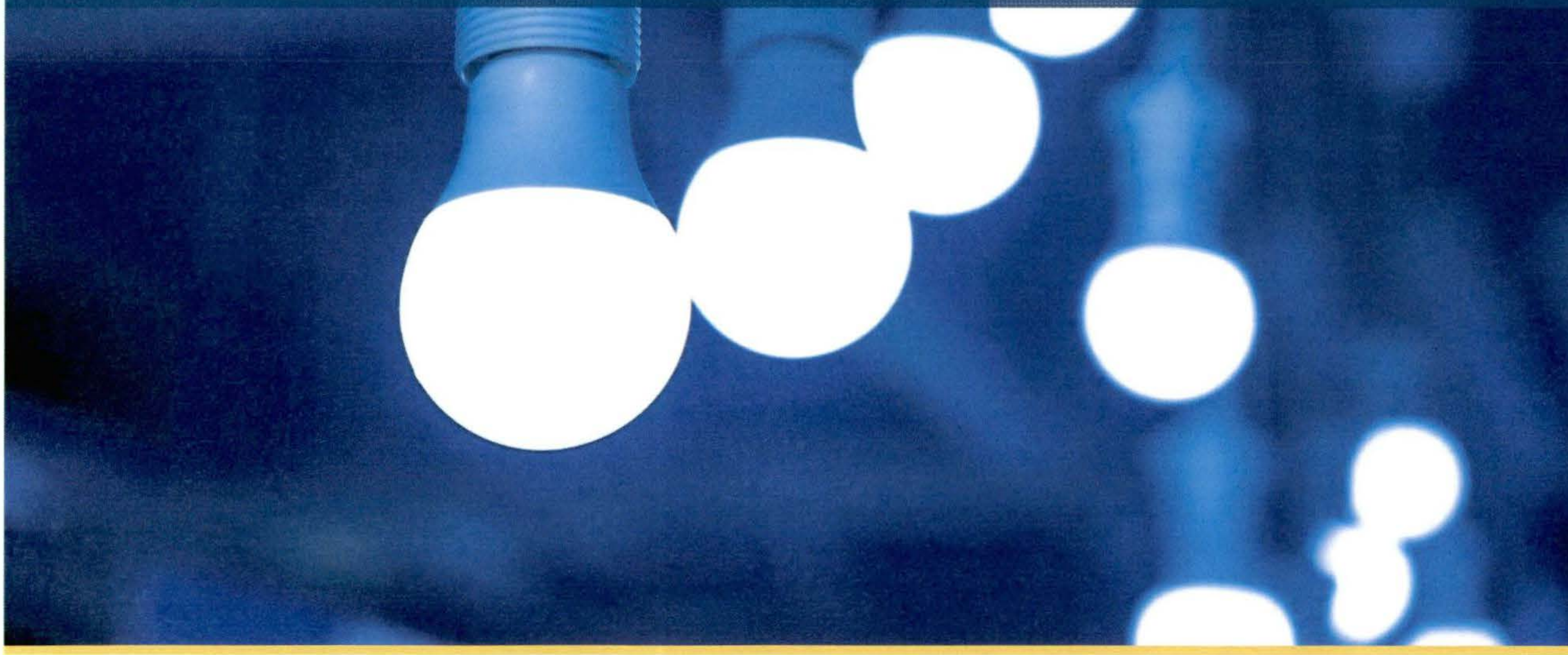
APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR AN ORDER APPROVING THE ESTABLISHMENT OF A REGULATORY ASSET	)))	CASE NO. 2016-00393

Informal Conference – November 22, 2016

Please sign in:

NAME	REPRESENTING
David Edward Spenard	PSC Legal Staff
Kendrick R Riggs	SKO for LG&E
Chris Garrett	LG&E
Dan Arbough	LGE
Allyson Sturgeon	LG&E
Robert M. Conroy	LG&E
RICHARD RAFF	PSC - LEGAL
Leah Faulkner	PSC - FA
Chris Whelan	PSC - FA
Bob RUSSELL	PSC - FA
Jim Livers	PSC - FA
Daryl Newby	PSC. FA

Informal Conference
Case No. 2016-00393

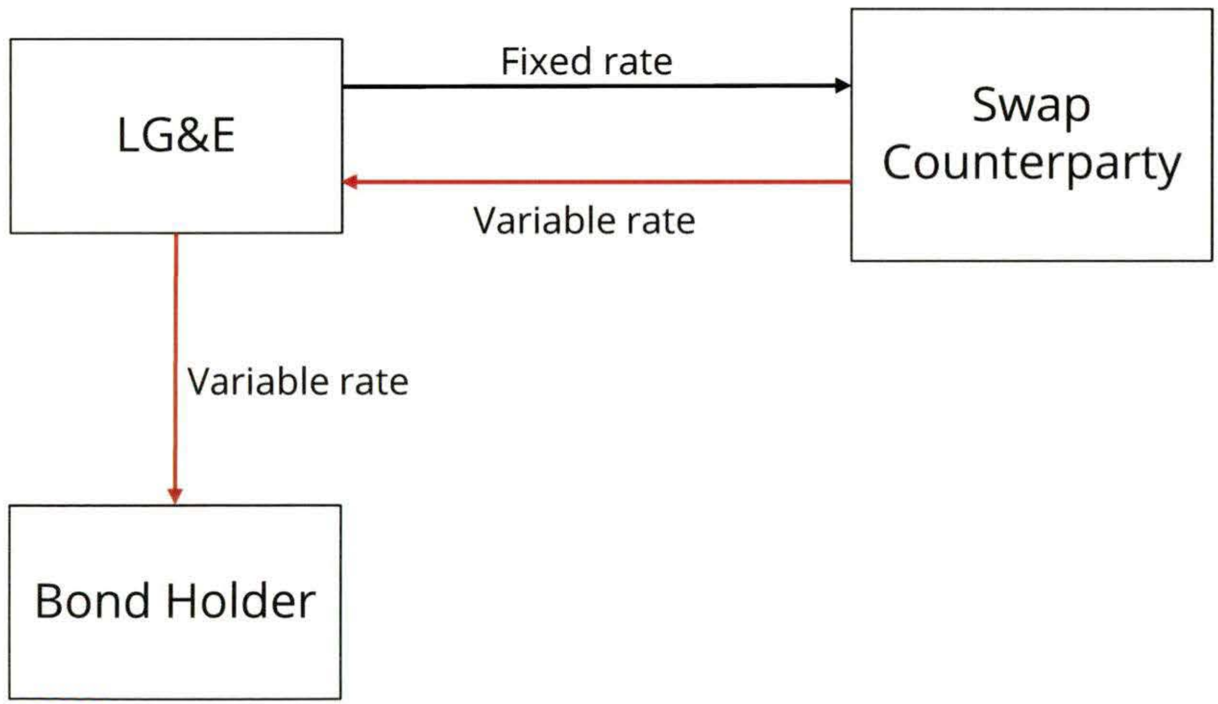


November 22, 2016

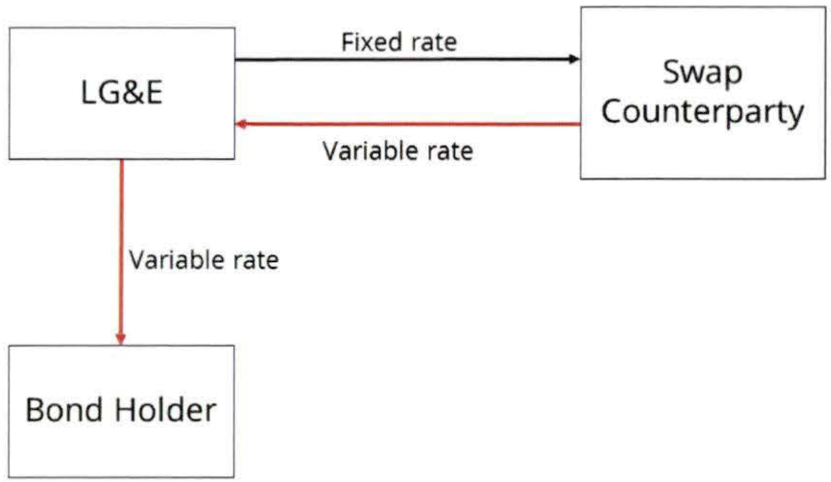
LG&E KU
PPL companies

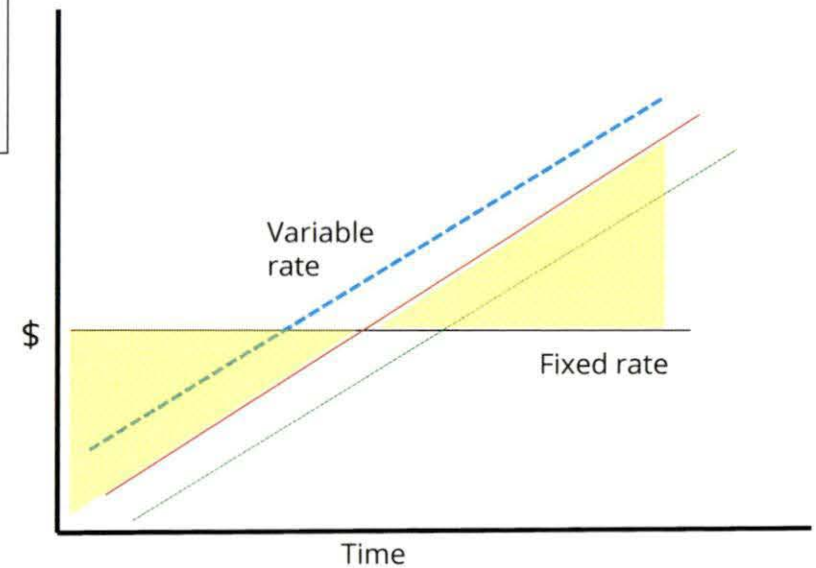
Interest Rate Swaps

- Exchange of cash flows
  - Convert bonds from variable rate to fixed rate
  - Used when authorized by Commission
  - Purpose of the swaps
    - Reduced interest expense volatility
    - More cost effective structures for customers



Valuation of Interest Rate Swaps





- At inception
  - Present value of fixed interest rate payments = present value of expected variable interest rate payments

- During life of swap
  - Rates rise – swap counterparty will owe more than LG&E
  - Rates fall – LG&E will owe more than swap counterparty

Swap Settlement Example

Notional Amount	-	$100 million
Fixed Rate	-	3%
Variable Rate	-	1%

Net Settlement = $100,000,000 *(.03 - .01)/12 = $166,667

- Amount is booked as interest expense when paid each month
- Mark-to-market amount of swap is impacted by
  - Settlement calculated above
  - Change in market value of remaining periods

Existing Portfolio of Variable Rate Bonds and Swaps

Variable Rate Bonds		Case No.
Trimble County 2016 Series A	$125.0 million	2016-00083
Jefferson County 2001 Series A	$10.1 million	2001-205
Jefferson County 2001 Series A	$22.5 million	2001-316
Jefferson County 2000 Series A	$25.0 million	2000-051
	$182.6 million	

Interest Rate Swaps		
5.495% - November 1, 2020	$83.3 million	2000-275
3.657% - October 1, 2033	$32.0 million	2003-00299
3.645% - October 1, 2033	$32.0 million	2003-00299
3.695% - October 1, 2033	$32.0 million	2003-00299
	$179.3 million	

2007-2008 Financial Crisis - Impact on Swaps

- No longer "effective hedge" under accounting rules
  - Mark-to-market accounting applies
  - Mark-to-market is booked as a regulatory asset
- Still provide economic hedge
- Swaps no longer tied to a specific bond
- Wachovia – exercised right to terminate a $32 million swap
  - LG&E paid $9.95 million termination payment in December 2008
- Commission authorized regulatory asset recovery of termination payment in Case Number 2009-00549
- Remaining swaps continued to provide good value

Current Case 2016 -00393

- $25 million bond
  - "Put" date on December 1 requires current bond holder to be repaid
  - Terminating swap and repaying bonds is least cost alternative
  - Analysis included in application

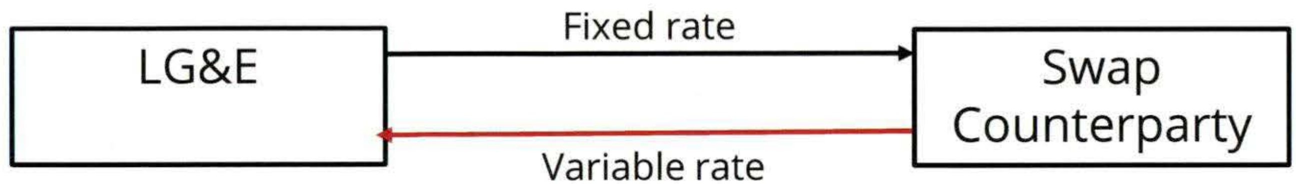
- $179.3 million in fixed rate swaps

- $182.6 million in variable rate bonds
  - $157.6 million after $25 million bond is repaid

- Swap termination is necessary to avoid creating a speculative position

Other Uses of Interest Rate Swaps

Hedge Future Bond Issuance – Forward Starting Swaps



Terminate swaps when bonds are issued

- Rates rise
  - Gain on swap termination
  - Bond coupon is higher

- Rates fall
  - Loss on swap termination
  - Bond coupon is lower

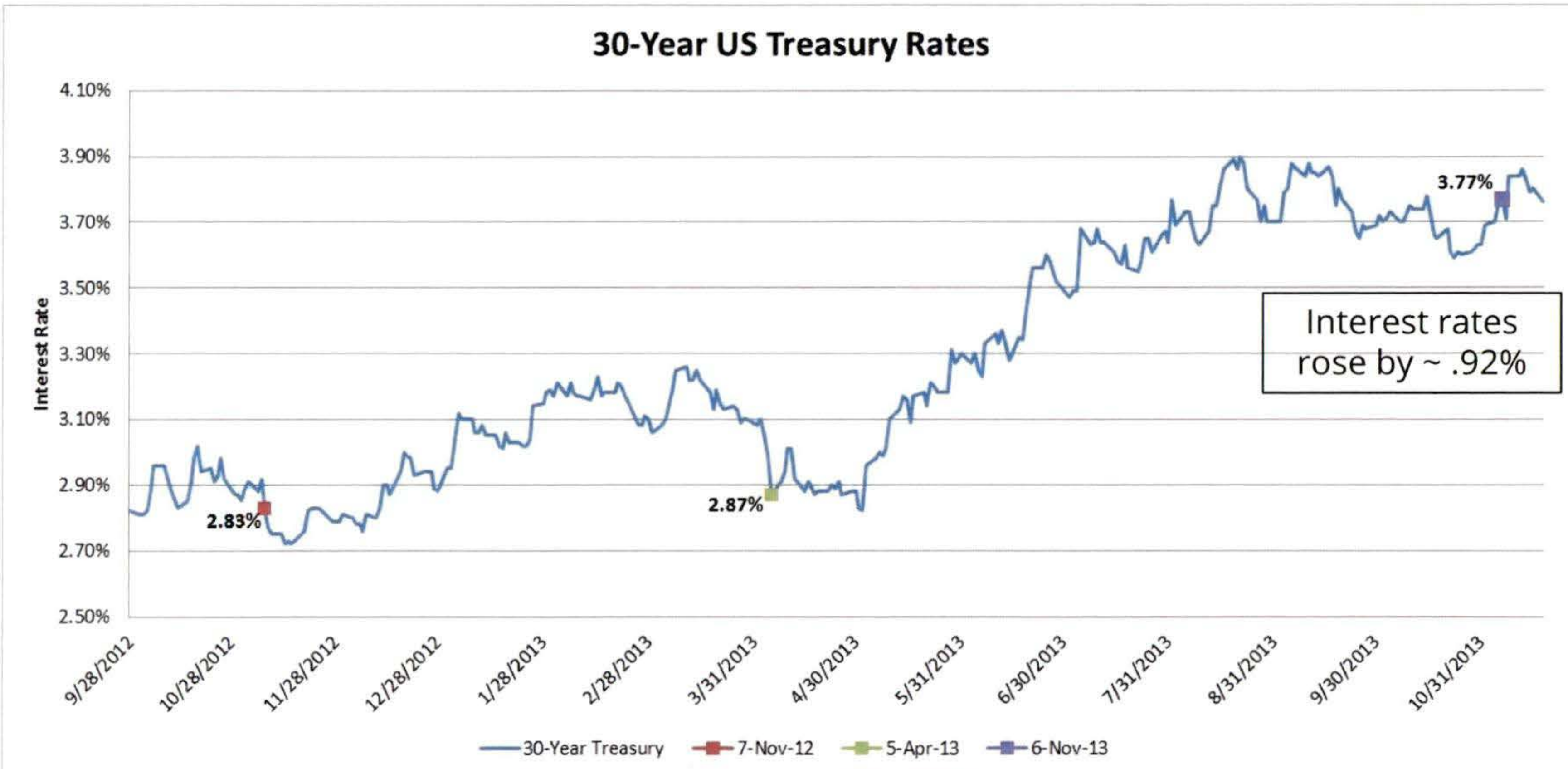
LG&E and KU Forward Starting Swaps - 2013

- LG&E Case number – 2012–00233

- KU Case number – 2012-00232

- Gain on swap
  - $43.0 million at each company
  - Booked as regulatory liability and amortized into interest expense over 30 years
  - Reduced all-in yield by .97%

Hedging Illustration



LG&E and KU Forward Starting Swaps - 2015

- LG&E Case number – 2014-00089

- KU Case number – 2014-00082

- Loss on swap
  - $43.7 million at each company due to worldwide central bank intervention
  - Booked as regulatory asset
    - $14.1 million amortized over 10 years into interest expense
      - increased all-in yield by .58% at LG&E, .70% at KU
    - $29.6 million amortized over 30 years into interest expense
      - increased all-in yield by .79% for LG&E and KU

Requested Action

- Approve regulatory asset treatment for swap termination costs
  - Will seek recovery of regulatory asset in impending rate case (2016-00371)

- Timing
  - Desire an order by December 15, 2016 to allow company to close year-end books

*Christopher M Garrett
Louisville Gas and Electric Company
220 W. Main Street
P. O. Box 32010
Louisville, KY 40202

*Honorable Kendrick R Riggs
Attorney at Law
Stoll Keenon Ogden, PLLC
2000 PNC Plaza
500 W Jefferson Street
Louisville, KENTUCKY 40202-2828

*Louisville Gas and Electric Company
220 W. Main Street
P. O. Box 32010
Louisville, KY 40232-2010

*Louisville Gas and Electric Company
220 W. Main Street
P. O. Box 32010
Louisville, KY 40232-2010