

# Derivatives Use Report

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- Dashboard

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November 30, 2018

Prepared By Enterprise Risk Management

## Introduction

As determined by the University of Illinois System (the System) Derivatives Use Policy (The Policy) which was approved by the Board of Trustees in July 2010 and updated November 2014, the System's exposure to an individual counterparty is measured by the Net Termination Exposure (NTE). The Prairieland Energy, Inc. (PEI) Board of Directors approved a PEI-specific derivatives use policy at their October 20, 2014 meeting (The PEI Policy) and updated December 2017. The PEI Policy is similar to the System policy, but also provides requirements for physical delivery transactions (which apply to the PEI forward purchase contracts). This report provides information on the System's financial position and potential obligations should there be an early termination of any or all of its existing financial and physical derivative transactions, including positions held by PEI. **The utilities derivatives represent physical and financial hedges for the University of Illinois at Urbana-Champaign and physical hedges for Chicago, Springfield, and Rockford.** This is a snapshot of counterparty exposure, only as it relates to derivatives.

## Counterparty Financial Health

The Policy requires regular due diligence reviews of the financial strength of System/PEI counterparties. It is the responsibility of the departments that originate each hedging transaction to review the related counterparties regularly in compliance with §12 of the Policy. Bond credit ratings are used as a proxy for counterparty financial strength. The Policy requires an A-/A3 (S&P / Moody's) rating to qualify as a counterparty. The financial institutions JPMorgan Chase Bank, Morgan Stanley, and Loop all meet this requirement. Morgan Stanley's split ratings of BBB+/A3 only meets the qualification with one rating agency. The Capital Financing office should continue to monitor the financial condition and outlook of their counterparties.

The PEI Policy requires an A-/A3 rating to qualify for OTC financial transactions and a BBB-/Baa3 or BB+/Ba1 with LOC for physical delivery transactions. The energy companies all meet the PEI Policy qualifying credit rating for physical delivery transactions. TransAlta however has a split rating of BBB-/Ba1. Rail Splitter is not rated and therefore provided a \$2.5 million LOC from HSBC Bank which is rated AA-/Aa3. EDF is not rated by S&P but is rated Baa2 by Moody's. FC Stone is not rated, but the futures transaction is an exchange traded derivative with InterContinental Exchange (ICE), therefore, per the PEI Policy, the use of a nationally recognized exchange is sufficient to demonstrate the counterparty's qualifications. ICE is rated A/A2. PEI should continue to monitor the financial condition and outlook of their counterparties.

## System Total NTE

The combined current notional value of these derivative agreements is \$89.67 million. Should there be immediate termination of all agreements, the combined NTE for all outstanding agreements is a negative \$3.46 million, unfavorable to the System (SWAP NTE negative \$2.66 and utilities NTE negative \$0.80). The overall immediate risk of termination is low since the counterparties have no ability to terminate these transactions unilaterally unless certain triggers are met (see Financial Hedging NTE - Interest Rate Swaps).

## Financial Hedging NTE (Interest Rate Swaps)

The aggregate mark-to-market value or total NTE of all interest rate swaps is a negative \$2.66 million, which would be a liability of the System to each of the swap counterparties if the swaps were terminated. The immediate risk of all swaps terminating is low since the counterparties cannot unilaterally terminate these contracts unless certain triggers are met, including: (i) a University of Illinois System default, or (ii) the long-term rating on the System's bonds is withdrawn, suspended or reduced below BBB+/Baa1 on the UIC SC 2008 and reduced below BBB/Baa2 on the HSFS 2008 bonds. Ratings were affirmed by both agencies after review for AFS 2018 issuance.

All University of Illinois System bond ratings and the State of Illinois are listed below.

System	Moody's	Outlook	S&P	Outlook
AFS	A1	Stable	A-	Stable
COPs	A1	Stable	A-	Stable
UIC South Campus	A2	Stable	A-	Stable
HSFS	Baa1	Stable	A-	Stable
State of IL GO	Baa3	Stable	BBB-	Stable

## Financial Hedging NTE (Futures - Energy Commodity Transactions, Financially Settled)

The total NTE of all PEI futures contracts is a positive \$0.44 million, favorable to PEI/the System. If all of the agreements were terminated FC Stone would have an obligation to PEI.

**Physical Hedging NTE (Forward Purchases - Energy Commodity Transactions, Physical Delivery)**

The total NTE of all physical energy hedges is a negative \$1.24 million, unfavorable to PEI/the System. If all of the agreements were terminated BP ,Direct Energy, EDF, Exelon, TransAlta and Shell would have an obligation to PEI of \$0.29 million, \$0.34 million, \$1.18 million, \$0.01 million, \$0.02 million, and \$0.02 million respectively; and PEI would have an obligation to Railsplitter of \$3.10 million.

**Counterparty Concentration**

Current notional/contract values with all counterparties are below The Policy limit.

**Material Events<sup>1</sup>**

None reported.

**Summary of Collateral Posted by the System (Thresholds)**

With respect to the System, the threshold requirement in all of the interest rate swap agreements is infinite, which means the University of Illinois System is never required to post collateral. Threshold requirements are not addressed in the energy forward purchases contracts, except for Shell and TransAlta which are \$10 million each. Margin exposure (total equity) with INTL FC Stone Financial is \$552,611.

The System does provide guaranty agreements to PEI's energy commodity vendors including \$10 million with BP Canada, \$5 million each with Exelon Generation and Shell Energy, \$3 million to EDF, and \$2.5 million to Direct Energy, TransAlta Energy, and Rail Splitter. The System also provided a \$2 million guarantee to PJM Interconnection for physical procurement at UIC and a \$1 million guarantee to MISO for physical procurement at UIUC but both are unrelated to physical or financial hedging.

**Summary of Collateral Held by the System (Thresholds)**

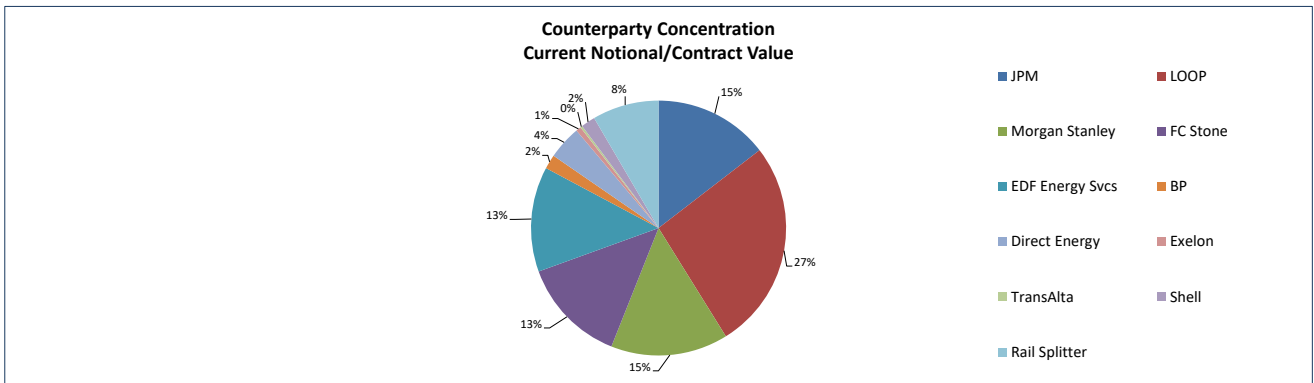
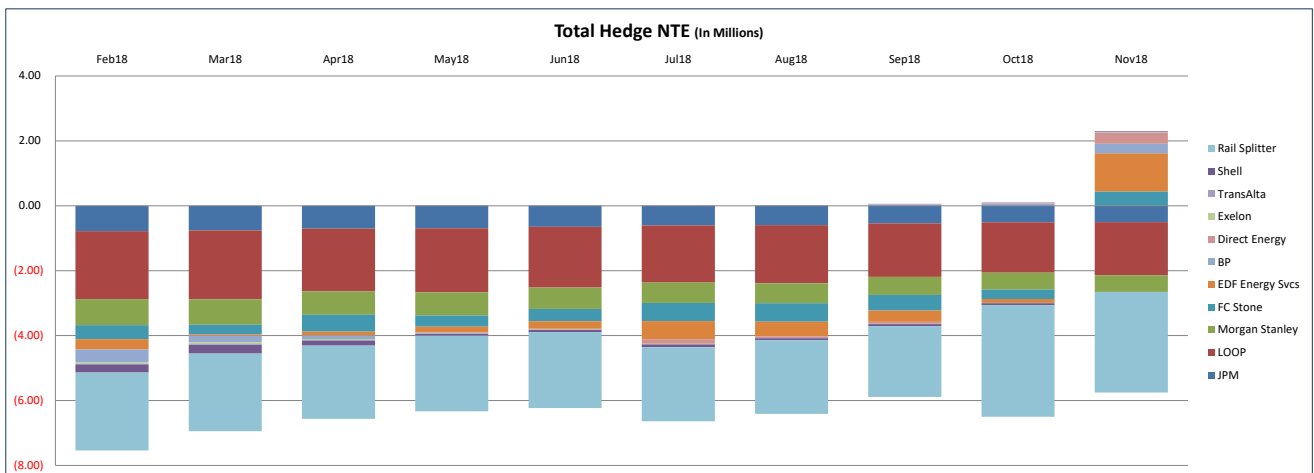
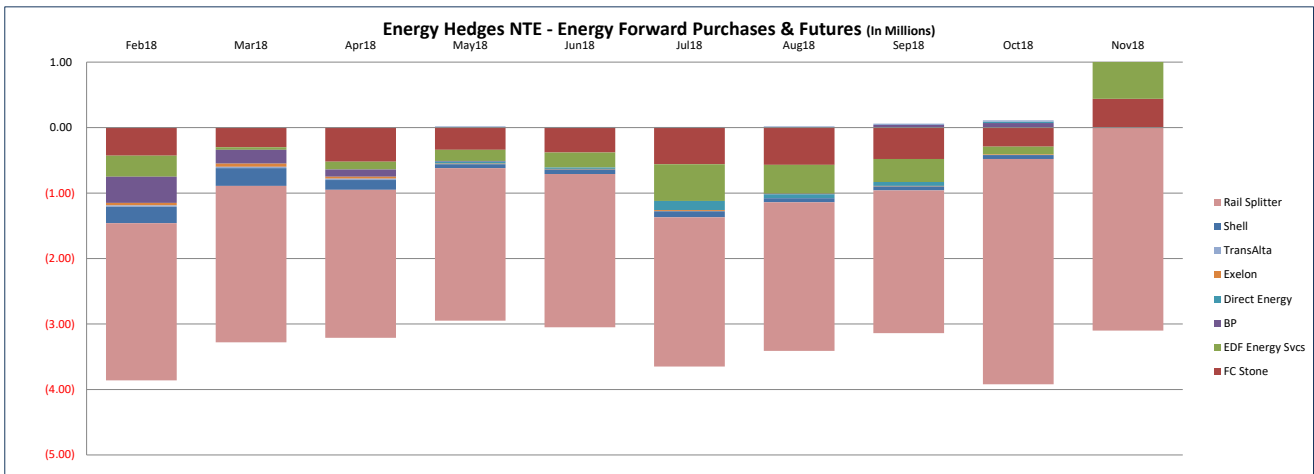
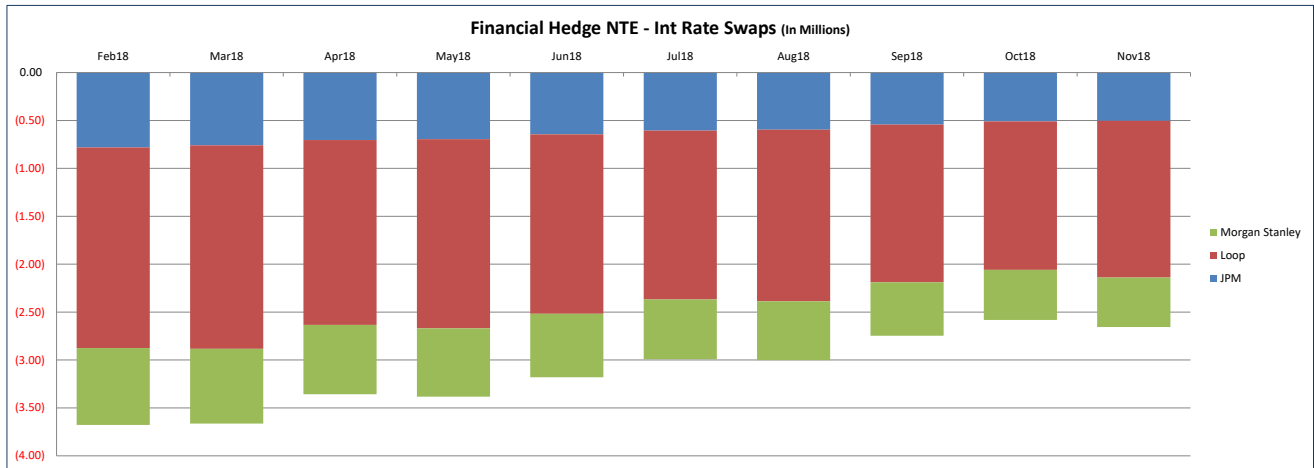
The collateral requirements for counterparties on the interest rate swaps are more risk tolerant than The Policy (see table below). All of the swap agreements were approved by the Board of Trustees and executed prior to The Policy, however, the current NTE amounts are within Policy limits.

The contracts with Exelon, BP, Rail Splitter, EDF, and Direct Energy do not address collateral thresholds with bond rating triggers. Exelon, BP, EDF, and Direct Energy provide recourse through Credit or Adequate Assurances provisions if reasonable grounds exist regarding unsatisfactory creditworthiness or performance. It is incumbent upon PEI to request Performance Assurance if a rating change triggers the Policy collateral requirements. This provision allows PEI to be proactive, and not necessarily wait for a downgrade event before requesting Performance Assurance. Rail Splitter has provided a \$2.5 million LOC from HSBC Bank. The Shell and TransAlta contracts provide bond rating triggered collateral thresholds in line with The PEI Policy, however, not to exceed the parental company guarantee. PEI has secured Parent Company Guarantees from BP of \$1 million, Direct Energy of \$2.5 million, EDF of \$3 million, and TransAlta of \$2.5 million.

**Collateral Requirements of Counterparties / Thresholds**

Counterparty Credit Rating S&P / Moody's	The Policy	The PEI Policy	Interest Rate Swaps	
	Maximum NTE - Net of Collateral FINANCIAL	Maximum NTE - Net of Collateral PHYSICAL	Counterparty Credit Rating S&P / Moody's	Maximum NTE - Net of Collateral
AAA / Aaa Category	\$35 million	\$35 million	A / A2 and above	Infinite
AA / Aa Category	\$30 million	\$30 million	A- / A3	\$10 million
A / A Category	\$20 million	\$20 million	BBB+ / Baa1 or Below	\$0 million
BBB+ / Baa1 or Below ////////////////////	\$0 million ////////////////////	NA ////////////////////		
BBB/Baa Category		\$10 million		
BB+/Ba1 or Below		\$0 million		

<sup>1</sup>Items reflected in the Material Events section relate to the Policy requirements and may not conform to material events for financial reporting.



# Hedging Position Dashboard

November 30, 2018

Responsible Unit	Counterparty	Rated Entity/ Exchange	Bond Rating (S&P / Moody's)	Expires	Underlying Asset / Liability	Orig Contract (in Millions)	Current Notional / Contract (in Millions)	Market Value (in Millions)	*MTM or NTE (in Mill)	System Guarantee Limit (in Mill)	PCG - Credit Limit (in Mill)	Counterparty Thresholds -Collateral Requirements
<b>Financial Hedges</b>												
<b>SO Interest Rate Swaps</b> <span style="float: right;">Qualifying Rating A- / A3</span>												
SO Capital Financing	Morgan Stanley Capital Services, Inc.	Morgan Stanley	BBB+ / A3	1/15/2022	UIC SC 2008	\$ 27.40	13.34		(0.52)			Rating Triggers
SO Capital Financing	JP Morgan Chase Bank, N.A.	JP Morgan Chase Bank, N.A.	A+ / Aa2	1/15/2022	UIC SC 2008	\$ 26.85	13.04		(0.50)			Rating Triggers
SO Capital Financing	Loop Financial Products, I, LLC	Deutsche Bank AG (CSP)	BBB+ / A3	10/1/2026	HSFS 2008	\$ 40.88	23.86		(1.64)			Rating Triggers
<b>SUBTOTAL SWAPS</b>						<b>\$ 95.13</b>	<b>50.24</b>		<b>(2.66)</b>			
<b>PEI Futures Contracts</b>												
SO Utilities Admin	INTL FcStone Financial Inc.	InterContinental Exchange (ICE)	A / A2	6/30/2019	Natural Gas	\$ 4.31	1.88	2.47	0.59			
				6/30/2020	Natural Gas	\$ 2.86	2.86	2.77	(0.09)			
				6/30/2021	Natural Gas	\$ 1.66	1.66	1.53	(0.13)			
				6/30/2022	Natural Gas	\$ 1.32	1.32	1.28	(0.04)			
				6/30/2023	Natural Gas	\$ 1.47	1.47	1.48	0.01			
				6/30/2024	Natural Gas	\$ 1.13	1.13	1.17	0.04			
				6/30/2025	Natural Gas	\$ 0.68	0.68	0.69	0.01			
				6/30/2026	Natural Gas	\$ 0.52	0.52	0.54	0.02			
				6/30/2027	Natural Gas	\$ 0.35	0.35	0.37	0.02			
				6/30/2028	Natural Gas	\$ 0.18	0.18	0.19	0.01			
<b>SUBTOTAL Futures FcStone</b>						<b>\$ 14.48</b>	<b>12.05</b>	<b>12.49</b>	<b>0.44</b>			Exchange Traded
<b>SUBTOTAL FINANCIAL</b>						<b>\$ 109.61</b>	<b>62.29</b>		<b>(2.22)</b>			
<b>Physical Hedges</b>												
<b>PEI Forward Purchases</b> <span style="float: right;">Qualifying Rating BBB-/Baa3 or BB+/Ba1 with LOC</span>												
SO Utilities Admin	BP Canada Energy Marketing Corp.	BP Corporation North America, Inc. (PCG)	A- / A2	6/30/2019	Natural Gas	\$ 0.80	0.74	0.99	0.25			
				6/30/2020	Natural Gas	\$ 0.64	0.64	0.67	0.03			
				6/30/2021	Natural Gas	\$ 0.24	0.24	0.25	0.01			
<b>SUBTOTAL BP</b>						<b>\$ 1.68</b>	<b>1.62</b>	<b>1.91</b>	<b>0.29</b>	<b>10.00</b>	<b>1.00</b>	Adequate Assurance
SO Utilities Admin	Diret Energy Business Marketing, LLC	Centrica (PCG)	BBB+ / Baa1	6/30/2019	Natural Gas	\$ 2.22	1.29	1.60	0.31			
				6/30/2020	Natural Gas	\$ 2.39	2.39	2.43	0.04			
				6/30/2021	Natural Gas	\$ 0.15	0.15	0.14	(0.01)			
<b>SUBTOTAL Direct Energy</b>						<b>\$ 4.76</b>	<b>3.83</b>	<b>4.17</b>	<b>0.34</b>	<b>2.50</b>	<b>2.50</b>	Adequate Assurance
SO Utilities Admin	EDF Energy Services, LLC	EDF Trading Limited (PCG)	NR / Baa2	6/30/2019	Natural Gas	\$ 5.96	3.85	5.20	1.35			
				6/30/2020	Natural Gas	\$ 2.97	2.97	2.98	0.01			
				6/30/2021	Natural Gas	\$ 2.56	2.56	2.46	(0.10)			
				6/30/2022	Natural Gas	\$ 2.57	2.57	2.49	(0.08)			
<b>SUBTOTAL EDF</b>						<b>\$ 14.06</b>	<b>11.95</b>	<b>13.13</b>	<b>1.18</b>	<b>3.00</b>	<b>3.00</b>	Adequate Assurance
SO Utilities Admin	Exelon Generation Company LLC	Exelon Generation Company LLC	BBB / Baa2	6/30/2019	Electricity	\$ 0.44	0.16	0.18	0.02			
				6/30/2020	Electricity	\$ 0.25	0.25	0.24	(0.01)			
				6/30/2021	Electricity	\$ 0.16	0.16	0.16	0.00			
<b>SUBTOTAL Exelon</b>						<b>\$ 0.85</b>	<b>0.57</b>	<b>0.58</b>	<b>0.01</b>	<b>5.00</b>		Credit Assurance
SO Utilities Admin	TransAlta Energy Marketing (US) Inc.	TransAlta Corp (PCG)	BBB- / Ba1	6/30/2019	Electricity	\$ 0.41	0.11	0.12	0.01			
				6/30/2020	Electricity	\$ -	0.00	0.00	0.00			
				6/30/2021	Electricity	\$ -	0.00	0.00	0.00			
				6/30/2022	Electricity	\$ 0.13	0.13	0.14	0.01			
<b>SUBTOTAL TransAlta</b>						<b>\$ 0.54</b>	<b>\$ 0.24</b>	<b>\$ 0.26</b>	<b>\$ 0.02</b>	<b>2.50</b>	<b>2.50</b>	Rating Triggers
SO Utilities Admin	Shell Energy North America (US), L.P.	Shell Energy North America (US), L.P.	A / A3	6/30/2019	Electricity	\$ 1.61	0.46	0.50	0.04			
				6/30/2020	Electricity	\$ 0.57	0.57	0.56	(0.01)			
				6/30/2021	Electricity	\$ 0.24	0.24	0.23	(0.01)			
				6/30/2022	Electricity	\$ 0.16	0.16	0.16	0.00			
				6/30/2023	Electricity	\$ 0.06	0.06	0.06	0.00			
				6/30/2024	Electricity	\$ 0.06	0.06	0.06	0.00			
				6/30/2025	Electricity	\$ 0.06	0.06	0.06	0.00			
<b>SUBTOTAL Shell</b>						<b>\$ 2.76</b>	<b>1.61</b>	<b>1.63</b>	<b>0.02</b>	<b>5.00</b>		Rating Triggers
<b>PEI Renewables</b>												
SO Utilities Admin	Rail Splitter Wind Farm LLC	HSBC Bank USA, (LOC)	AA- / Aa3	6/30/2019	Electricity	\$ 0.96	0.64	0.56	(0.08)			
				6/30/2020	Electricity	\$ 0.96	0.96	0.73	(0.23)			
				6/30/2021	Electricity	\$ 0.96	0.96	0.64	(0.32)			
				6/30/2022	Electricity	\$ 0.96	0.96	0.50	(0.46)			
				6/30/2023	Electricity	\$ 0.96	0.96	0.49	(0.47)			
				6/30/2024	Electricity	\$ 0.96	0.96	0.49	(0.47)			
				6/30/2025	Electricity	\$ 0.96	0.96	0.48	(0.48)			
				6/30/2026	Electricity	\$ 0.96	0.96	0.48	(0.48)			
				6/30/2027	Electricity	\$ 0.20	0.20	0.09	(0.11)			
<b>SUBTOTAL Rail Splitter</b>						<b>\$ 7.88</b>	<b>7.56</b>	<b>4.46</b>	<b>(3.10)</b>	<b>2.50</b>		LOC
<b>SUBTOTAL PHYSICALS</b>						<b>\$ 32.53</b>	<b>27.38</b>	<b>26.14</b>	<b>(1.24)</b>			
<b>Grand Total</b>						<b>\$ 142.14</b>	<b>89.67</b>		<b>(3.46)</b>			

\*Negative termination value means the System or PEI is obligated to the counterparty (transaction is "underwater").

CSP - Credit Support Provider  
LOC - Letter of Credit provided

PCG - Parental Company Guarantee provided  
WR - Withdrawn Rating