

Reported to the Board of Trustees July 21, 2016

Derivatives Use Report

- Summary
- Dashboard

May 31, 2016

Prepared By Enterprise Risk Management

University of Illinois

Introduction

As determined by the University's Derivatives Use Policy (The Policy) which was approved by the Board of Trustees in July 2010 and updated November 2014, the University'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). The PEI Policy is similar to the University policy, but also provides requirements for physical delivery transactions (which apply to the PEI forward purchase contracts). This report provides information on the University'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. 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 University/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 rating to qualify as a counterparty. The financial institutions JPMorgan Chase Bank and Morgan Stanley meet this requirement. Morgan Stanley however, does have a split rating of BBB+/A3. Deutsche Bank (credit support provider for Loop Financial Products) at BBB+/Baa2 does not meet The Policy requirement. Deutsche Bank was down rated by Moody's on May 23 from Baa1 to Baa2, an action which triggered an Additional Termination Event. The Capital Financing team is considering the University's options. 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. 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.

University Total NTE

The combined current notional value of these derivative agreements is \$199.59 million. Should there be <u>immediate</u> termination of all agreements, the combined NTE for all outstanding agreements is a negative \$19.75 million, unfavorable to the University. The liability is mainly due to the MTM on the interest rate swaps, which is in line with the current market environment. 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 May 31, 2016 aggregate mark-to-market value or total NTE of all interest rate swaps is a negative \$18.02 million, which would be a liability of the University to each of the swap counterparties if the swaps were terminated. This is a result of the current market environment. 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 default, or (ii) the long-term rating on the University's bonds is withdrawn, suspended or reduced below BBB+/Baa1 on the COPs 2004 and UIC SC 2008 and reduced below BBB/Baa2 on the HSFS 2008 bonds.

On May 24, S&P revised their methodology for rating jointly supported obligations. As a result, the long-term joint credit rating on HSFS 2008 was lowered to AA+/A-1+, as well as the long-term joint credit rating on UIC SC 08 to AA+/A-1. The underlying South Campus and HSFS ratings were not changed.

The current underlying ratings are: COPs 2004, AA-/Aa3; UIUC SC 2008, AA-/A1; and HSFS 2008, A/A2. The AFS, COPs, and South Campus ratings have a negative outlook with both Moody's and S&P. HSFS has a negative outlook with Moody's but stable for S&P.

The COPs 2004 continue to reprice well above the index as the source of repayment is noted as state appropriations and other legally available non appropriated funds. The Capital Financing team is considering a fixed-rate refinancing of the variable-rate certificates which would include borrowing additional funds to terminate the interest rate swap. The Urbana campus and the Chicago campus are considering this proposal.

Although after the report date, on June 8 Moody's downgraded the state of Illinois bonds from Baa1 to Baa2, with a negative outlook. A negative outlook by the rating agencies implies the possibility of a rating change if certain conditions occur. On June 9, Standard & Poor's downgraded the state of Illinois bonds from A- to BBB+. Both rating agencies note a factor in the decision is the on-going budget stalemate, and weakened financial management and fiscal position. The Capital Financing team is closely monitoring this situation.

As a result of the rating action on the state, both S&P and Moody's have the University of Illinois under review for a possible downgrade.

Financial Hedging NTE (Futures - Energy Commodity Transactions)

The total NTE of all PEI futures contracts is positive \$0.10 million, favorable to PEI/The University. If all of the agreements were terminated as of May 31, 2016 F Stone would have an obligation to PEI.

Physical Hedging NTE (Forward Purchases - Energy Commodity Transactions)

The total NTE of all physical energy hedges is a negative \$1.83 million, unfavorable to PEI/The University. If all of the agreements were terminated as of May 31, 2016 PEI would have an obligation to all counterparties except Shell.

Counterparty Concentration

Morgan Stanley, with a total notional value of \$113.89 million, exceeds the 50% Policy limit with 57% of the \$199.59 million current notional total. The University has two interest rate swaps with this counterparty; both predate The Policy and are coincident with related bond issues. Future use of Morgan Stanley as a hedging counterparty would require approval by the VP/CFO as an exception to The Policy.

Material Events¹

Margin exposure with INTL FC Stone equaled \$98,867.50. Added \$1.7 million in electric hedges during the month. New natural gas hedges totaled \$1.68 million.

Deutsche Bank was down rated by Moody's on May 23 from Baa1 to Baa2, an action which triggered an Additional Termination Event. The Capital Financing team is considering the University's options.

On May 24, S&P revised their methodology for rating jointly supported obligations. As a result, the long-term joint credit rating on HSFS 2008 was lowered to AA+/A-1+, as well as the long-term joint credit rating on UIC SC 08 to AA+/A-1. The underlying South Campus and HSFS ratings were not changed.

Summary of Collateral Posted by the University (Thresholds)

With respect to the University, the threshold requirement in all of the interest rate swap agreements is infinite, which means the University 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, the same as the University guarantee. Margin exposure with INTL F Stone Financial is \$98,867.50.

The University does provide guaranty agreements to PEI's energy commodity vendors including \$12.5 million with Sequent, \$10 million each with Shell, TransAlta, and BP Canada Energy Marketing Corp., and \$5 million with Exelon. The University 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 University (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, so this is noted as a predated-exception on the Dashboard report.

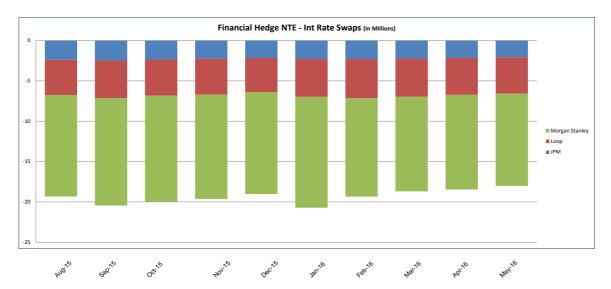
The contracts with Sequent, Exelon, and BP do not address collateral thresholds with bond rating triggers. Sequent, Exelon, and BP provide recourse through Credit or Adequate Assurances provisions if reasonable grounds exist regarding unsatisfactory creditworthiness or performance. It is incumbent upon 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. 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.

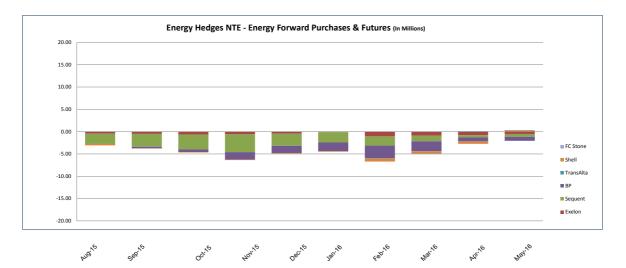
The Policy The PEI Policy Interest Rate Swaps								
Counterparty CreditMaximum NTE -RatingNet of CollateralS&P / Moody'sFINANCIAL		Maximum NTE - Net of Collateral PHYSICAL		Counterparty Credit Rating S&P / Moody's	Maximum NTE - N of Collateral			
AAA / Aja Category	\$35 million	\$35 million						
AA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

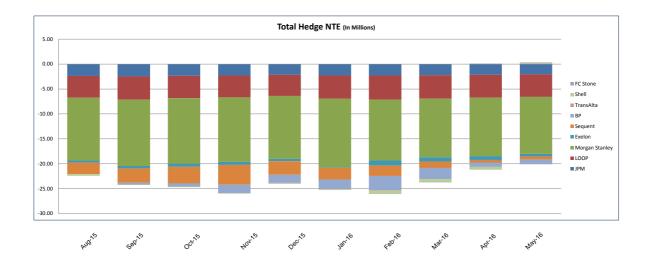
Collateral Requirements of Counterparties / Thresholds

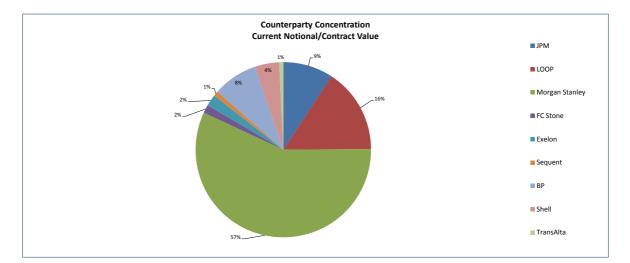
¹Items reflected in the Material Events section relate to the Policy requirements and may not conform to material events for financial reporting.

Hedging Position Dashboard









	Responsible		Rated Entity/	Bond Rating (S&P /			Underlying		g Contract	Current Notional / Contract	Market Value	*MTM or NTE	Univ Guarantee Limit	Counterparty
Org	Unit	Counterparty	Exchange	Moody's)	Derivative Type	Expires	Asset / Liability	(in	Millions)	(in Millions)	(in Millions)	(in Mill)	(in Mill)	Threshold
	I Hedges		0											
(Interest R	ate Swaps): Capital	Morgan Stanley	Quai	ifying Rating A-	/ A3									Predated
University	Financing	Capital	Morgan Stanley	BBB+/A3	Int Rate Swap	8/15/2021	COPs 2004	\$	143.67	95.03		(9.33)		Exception
,	Capital	Morgan Stanley						-				()		Predated
University	Financing	Capital	Morgan Stanley	BBB+ / A3	Int Rate Swap	1/15/2022	UIC SC 2008	\$	27.40	18.86		(2.12)		Exception
							SUBTOTAL MS	\$	171.07	113.89		(11.45)		
	Capital	JP Morgan	JP Morgan Chase Bank, N.A.	4. (4-0	Int Data Owner	4/45/0000	1110 00 0000	¢	00.05	40.50		(0.07)		Predated
University	Financing Capital	Chase Bank, Loop Financial	Bank, N.A. Deutsche Bank AG	A+ / Aa3	Int Rate Swap	1/15/2022	UIC SC 2008	\$	26.85	18.50		(2.07)		Exception Predated
University	Financing	Products, I,	(CSP)	BBB + / Baa2	Int Rate Swap	10/1/2026	HSFS 2008	\$	40.88	31.17		(4.50)		Exception
							UBTOTAL SWAPS	\$	238.80	163.56		(18.02)		
(PEI Future	es Contracts):													
•	,	INTL FCStone	InterContinental		Futures		Nat Gas Mult							
PEI	Utilities Admin	Financial Inc.	Exchange (ICE)	A / A2	Contract	6/30/2018	FY2018	\$	0.95	0.95	1.00	0.05		
		INTL FCStone	InterContinental		Futures		Nat Gas Mult							
PEI	Utilities Admin	Financial Inc.	Exchange (ICE)	A / A2	Contract	6/30/2019	FY2019	\$	2.08	2.08	2.13	0.05		
							UBTOTAL Futures	\$	3.03 241.83	3.03	3.13 3.13	0.10		
Dhysical	Hedges					SOBI	OTAL FINANCIAL	\$	241.83	100.59	3.13	(17.92)		
-	•			lifying Rating										
(PEI Energ	y Forward Pur	chases): Energy	BBB-/Baa3 AGL Resources Inc.	or BB+/Ba1 with	Forward		Natural Gas							
PEI	Utilities Admin		(PCG)	BBB+/WR	Purchase	6/30/2016	Mult FY16	\$	16.55	0.89				
F 61	Otilities Authin	Energy	AGL Resources Inc.	DDD+/ WIX	Forward	0/30/2010	Natural Gas	φ	10.55	0.03				
PEI	Utilities Admin		(PCG)	BBB+/WR	Purchase	6/30/2017	Mult FY17	\$	0.77	0.86				
						SU	JBTOTAL Sequent	\$	17.32	1.75	1.12	(0.63)	12.50	Adequate
		-												Assurance
PEI	I Millinia a A aluasia	Energy	BP Corporation North America, Inc. (PCG)	A- / A3	Forward Purchase	6/30/2017	Natural Gas Mult FY17	\$	11.24	11.24				
FEI	Utilities Admin	Energy	BP Corporation North	A-/ A3	Forward	0/30/2017	Natural Gas	φ	11.24	11.24				
PEI	Utilities Admin		America , Inc. (PCG)	A- / A3	Purchase	6/30/2018	Mult FY18	\$	5.26	5.25				
. =:		, and the second second					SUBTOTAL BP	\$	16.50	16.49	15.60	(0.89)	10.00	Adequate
														Assurance
		Exelon	Exelon Generation		Forward		Electricity Mult							
PEI	Utilities Admin	Generation Exelon	Company LLC Exelon Generation	BBB / Baa2	Purchase Forward	6/30/2016	FY16 Electricity Mult	\$	3.78	0.49				
PEI	Utilities Admin	Generation	Company LLC	BBB / Baa2	Purchase	6/30/2017	FY17	\$	2.64	2.64				
		Exelon	Exelon Generation		Forward		Electricity Mult	-						
PEI	Utilities Admin	Generation	Company LLC	BBB / Baa2	Purchase	6/30/2018	FY18	\$	0.66	0.66				
		Exelon	Exelon Generation		Forward	0/00/0040	Electricity Mult	•						
PEI	Utilities Admin	Generation	Company LLC	BBB / Baa2	Purchase	6/30/2019	FY19 SUBTOTAL Exelon	\$	0.44	0.44	3.71	(0.52)	5.00	Credit
						3	OBTOTAL EXCION	φ	7.52	4.23	3.71	(0.52)	5.00	Assurance
		Energy	TransAlta Corp		Forward		Electricity Mult							ribbaranoo
PEI	Utilities Admin		(PCG)	BBB-/Ba1	Purchase	6/30/2016	FY16	\$	0.46	0.07				
		Energy	TransAlta Corp		Forward		Electricity Mult							
PEI	Utilities Admin		(PCG)	BBB- / Ba1	Purchase	6/30/2017	FY17	\$	0.05	0.05				
PEI	Utilities Admin	Energy Marketing (US)	TransAlta Corp (PCG)	BBB-/Ba1	Forward Purchase	6/30/2018	Electricity Mult FY18	\$	0.99	0.99				
	Gaines Aumin	TransAlta	TransAlta Corp	DDD-/Dal	Forward	0/30/2018	Electricity Mult	φ	0.99	0.99				
PEI	Utilities Admin		(PCG)	BBB-/Ba1	Purchase	6/30/2019	FY19	\$	0.41	0.41				
						SUB	TOTAL TransAlta	\$	1.91	1.52	1.47	(0.05)	10.00	Rating
					_									Triggers
DEI	Litilition Admin	Shell Energy	Shell Energy North	A / A 2	Forward	6/20/2040	Electricity Mult	¢	1.00	0.40				
PEI	Utilities Admin	North America Shell Energy	America (US), L.P. Shell Energy North	A / A3	Purchase Forward	6/30/2016	FY16 Electricity Mult	\$	1.80	0.16				
PEI	Utilities Admin	North America	America (US), L.P.	A / A3	Purchase	6/30/2017	FY17	\$	3.89	3.89				
		Shell Energy	Shell Energy North		Forward		Electricity Mult							
PEI	Utilities Admin		America (US), L.P.	A / A3	Purchase	6/30/2018	FY18	\$	3.89	3.89				
PEI	Utilities Admin	Shell Energy North America	Shell Energy North America (US), L.P.	A / A3	Forward Purchase	6/30/2019	Electricity Mult FY19	\$	1.06	1.06				
	ounues Aumin	Shell Energy	Shell Energy North	A / AS	Forward	0/30/2019	Electricity Mult	φ	1.00	1.06				
PEI	Utilities Admin		America (US), L.P.	A / A3	Purchase	6/30/2020	FY20	\$	0.01	0.01				
							SUBTOTAL Shell	\$	10.65	9.01	9.27	0.26		
						SUBT	OTAL PHYSICALS	\$	53.90	33.00	31.17	(1.83)		
_							GRAND TOTAL	\$	295.73	199.59	34.30	(19.75)		
Grand T	otal							+			00	(

*Negative termination value means the University 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