



Cash Collateral Update

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September 17, 2018
Credit Subcommittee

- Identified cash collateral investment options
- Reviewed current interest rate environment
- Reviewed administrative processes necessary to manage an environment that provides multiple cash collateral options

PJM explored cash collateral investment options

- Reviewed current practices of other ISO/RTO's
 - Commercial bank deposit accounts
 - Treasury / Government money market funds
 - Prime / floating net asset value money market funds

- Reviewed various treasury/government money market fund options
 - BlackRock
 - Fidelity
 - Morgan Stanley

- Reviewed commercial bank deposit options
 - PNC Bank
 - Bank of America

- Interest rates on short-term cash investments have slowly risen from March 2016 thru September 2018
- The interest rates for the PNC Bank deposits as compared to treasury/government money market mutual funds have changed as follows:

	<u>PNC Bank Account</u>	<u>Treasury/Gov't Funds</u>
January 2016	0.15%	0.01%
July 2018	1.15%	1.70%
September 1, 2018	1.50%	1.79% - 1.87%
September 14, 2018	1.80%	1.79% - 1.87%

- Prime money market fund interest rates in September range between 1.90% - 2.16%

PJM reviewed administrative processes necessary to manage an environment that provides multiple cash collateral options

- Multiple institutions necessary to provide appropriate options
 - Prime fund option not considered viable given floating NAV and possible liquidity fees, and redemptions gates
- Additional collateral agreements necessary
- Member limitations necessary regarding changing options
- Opportunity for errors increase with increasing options and associated providers
- Managing additional relationships, system interfaces, accounting, and reconciliation

PNC Bank has committed to monthly market reviews

- Review major providers of treasury/government money market funds and identify maximum and minimum rates and will adjust accordingly to stay within range
- Monthly adjustment will provide assurance that the cash collateral deposit interest rate will rarely lag the largest treasury/government fund providers



DAILY RATE SHEET FOR 09/10/2018

GOVERNMENT MONEY MARKET FUNDS

Fund Name	Fund ID	Ticker	1-d (365) Yield*	7-d Cur Yield*
BlackRock Federal Trust Fund	11	TFFXX	1.85	1.85
BlackRock FedFund	30	TFDXX	1.85	1.85
Dreyfus Govt Cash Mgmt	289	DGCXX	1.84	1.84
Dreyfus Govt Sec Cash Mgmt	227	DIPXX	1.81	1.81
Federated Govt Obligatons	5	GOIXX	1.83	1.84
Fidelity Govt Fund	57	FIGXX	1.83	1.83
Goldman Sachs Fin Sq Govt Fund	465	FGTXX	1.87	1.87
Invesco Govt & Agency Portfolio	1941	AGCXX	1.83	1.82
Invesco Premier US Govt Money Port	1949	IUGXX	1.84	1.84
JP Morgan Federal Fund	836	JFMXX	1.82	1.80
JP Morgan US Govt MMF	3164	OGVXX	1.84	1.84
Morgan Stanley Govt	8302	MVRXX	1.85	1.85
PNC Govt Money Market	405	PKIXX	1.79	1.79
Wells Fargo Govt MMF	1751	GVIXX	1.82	1.82
Western Asset Instit Govt Res	4512	INGXX	1.85	1.83
Max			1.87	1.87
Min			1.79	1.79

TREASURY MONEY MARKET FUNDS

Fund Name	Fund ID	Ticker	1-d(365) Yield*	7-d Cur Yield*
BlackRock T-Fund	60	TSTXX	1.84	1.85
Dreyfus Treas and Agency Cash Mgmt	521	DTRXX	1.85	1.86
Federated Treas Obligations Fund	68	TOIXX	1.85	1.86
Fidelity Treas Fund	695	FISXX	1.84	1.84
Goldman Sachs Fin Sq Treas Obl Fund	468	FTOXX	1.85	1.85
Goldman Sachs Fin Sq Treas Soln Fund	520	FEDXX	1.86	1.85
Invesco Treas Portfolio	1946	TYCXX	1.82	1.83
JP Morgan US Treas Plus	3918	IJTXX	1.81	1.81
Morgan Stanley Treas	8304	MISXX	1.85	1.85
UBS Select Treas Institutional Fund	36	SETXX	1.83	1.84
Wells Fargo Treas Plus MMF	793	PISXX	1.82	1.83
BlackRock Treas Trust Fund	62	TTTXX	1.85	1.85
Dreyfus Treas Sec Cash Mgmt	761	DIRXX	1.83	1.83
Federated US Treas Cash Res	125	UTIXX	1.86	1.84
Fidelity Treas Only	680	FSIXX	1.87	1.86
Goldman Sachs Fin Sq Treas Instr Fund	506	FTIXX	1.86	1.85
JP Morgan 100% US Treas	3163	CJTXX	1.86	1.85
Morgan Stanley Inst. Treas	8305	MSUXX	1.84	1.83
PNC Treas Money Market	431	PDIXX	1.80	1.79
Western Asset Instit US Treas Res	348	CIIXX	1.85	1.84
Max			1.87	1.86
Min			1.80	1.79

* Assets and yields as of previous business day

- PJM recommends continued use of PNC Bank deposit accounts for cash collateral
 - Interest-bearing accounts
 - Aa2-rated institution
 - Full availability of funds at all times
 - FDIC insurance up to \$250,000 per Tax ID
- No additional administrative processes are necessary
- PJM will continue relationship reviews and monitor PNC Bank financial performance taking prudent action if any concerns arise
- PJM will provide an annual update regarding Cash Collateral Deposits at a Credit Subcommittee meeting