Opal Securities, Inc.

Equities ECN Schedule

Route	ADD LIQUIDITY ($/share)	REMOVE LIQUIDITY ($/Share)	Description	Time of Operation
SMART	(0.0035)	(0.0035)	Smart Router	4:00am - 8:00pm
ARCA	0.0020	(0.0035)	Smart Router. Posts on exchange	4:00am - 8:00pm
NSDQ	0.0020	(0.0035)	Smart Router. Posts on exchange	4:00am - 8:00pm
PDQMID	(0.0020)	(0.0020)	Smart Route. Includes midpoint route	9:30am - 4:00pm
HAWK	(0.0035)	(0.0035)	Aggressive dark aggregator route. Sweeps dark pool and midpoints	9:30am - 4:00pm
AGGR	(0.0035)	(0.0035)	Dark aggregator route. Sweeps major dark pool destinations	9:30am - 4:00pm
TSEC15	(0.0035)	(0.0035)	TWAP route. Will work the order from time of entry for 15 seconds	9:30am - 4:00pm
TWAP2	(0.0025)	(0.0025)	TWAP route. Will work the order from time of entry for 2 minutes	9:30am - 4:00pm
TWAP5	(0.0025)	(0.0025)	TWAP route. Will work the order from time of entry for 5 minutes	9:30am - 4:00pm
TWAP15	(0.0025)	(0.0025)	TWAP route. Will work the order from time of entry for 15 minutes	9:30am - 4:00pm
TWAP30	(0.0025)	(0.0025)	TWAP route. Will work the order from time of entry for 30 minutes	9:30am - 4:00pm
TWAP60	(0.0025)	(0.0025)	TWAP route. Will work the order from time of entry for 60 minutes	9:30am - 4:00pm
TWAP	(0.0025)	(0.0025)	TWAP route. Will work the order from time of entry to 4:00 PM	9:30am - 4:00pm
EXTT5	(0.0035)	(0.0035)	TWAP route. Will work the order from time of entry for 5 minutes	4:00am - 8:00pm
EXTT15	(0.0035)	(0.0035)	TWAP route. Will work the order from time of entry for 15 minutes	4:00am - 8:00pm
VWAP5	(0.0025)	(0.0025)	VWAP route. Will work the order from time of entry for 5 minutes	9:30am - 4:00pm
VWAP60	(0.0025)	(0.0025)	VWAP route. Will work the order from time of entry for 60 minutes	9:30am - 4:00pm
VWAP	(0.0025)	(0.0025)	VWAP route. Will work the order from time of entry to 4:00 PM	9:30am - 4:00pm

*Under $1 stocks will be charged at the remove liquidity price

Options ECN Schedule

Route	ADD LIQUIDITY ($/contract)	REMOVE LIQUIDITY ($/contract)	Description	Time of Operation
SMARTO	(0.5000)	(0.5000)	Instinet Smart Router	9:30am - 4:00pm
SMARTOO	(0.5000)	(0.5000)	Instinet Smart Router Complex Order	9:30am - 4:00pm