



**Exhibit A:
May 17, 2019 Addition to Nodal Exchange Contract
Specification**

NODAL EXCHANGE CONTRACT SPECIFICATIONS

ERCOT HB PAN Monthly Day Ahead Off-Peak Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial Off-Peak Power, ERCOT HB_PAN, Day Ahead
Contract Code	LPU
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of Off-Peak hours within the month traded, so in a month with 400 Off-Peak hours, the Lot Size equals 400 MWh. The definition of Off-Peak hours is Hour Ending (HE) 0100 – 0600 and HE 2300 – 2400, Monday through Friday, CPT and all hours for Saturday, Sunday, and all NERC Holidays.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The fourth business day of June or January. In June, the new expiries in the 13th planning year (January – May) are available for trading; in January, the new expiries in the 13th calendar year (June – December) are available for trading.
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	Current calendar/planning year plus 12 full calendar or planning years
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Settlement Point Prices for all Off-Peak hours. These price files can be found at the following link or at successor location. http://mis.ercot.com/misapp/GetReports.do?reportTypeId=12331 ERCOT correction prices are found at a different location, and are currently posted at: http://mis.ercot.com/misapp/GetReports.do?reportTypeId=13044 (SPP file only)
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	1,292 MW
Margin Unit	US Dollars

NODAL EXCHANGE CONTRACT SPECIFICATIONS

ERCOT HB PAN Monthly Day Ahead On-Peak Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial On-Peak Power, ERCOT HB_PAN, Day Ahead
Contract Code	LPV
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of On-Peak hours within the month traded, so in a month with 332 On-Peak hours, the Lot Size equals 332 MWh. The definition of On-Peak hours is Hour Ending (HE) 0700 – 2200 Monday through Friday, Central Prevailing Time (CPT), excluding NERC Holidays.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The fourth business day of June or January. In June, the new expiries in the 13th planning year (January – May) are available for trading; in January, the new expiries in the 13th calendar year (June – December) are available for trading.
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	Current calendar/planning year plus 12 full calendar or planning years
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Settlement Point Prices for all On-Peak hours. These price files can be found at the following link or at successor location. http://mis.ercot.com/misapp/GetReports.do?reportTypeId=12331 ERCOT correction prices are found at a different location, and are currently posted at: http://mis.ercot.com/misapp/GetReports.do?reportTypeId=13044 (SPP file only)
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	1,525 MW
Margin Unit	US Dollars

NODAL EXCHANGE CONTRACT SPECIFICATIONS

ERCOT HB PAN Monthly Real Time Off-Peak Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial Off-Peak Power, ERCOT HB_PAN, Real Time
Contract Code	LPY
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of Off-Peak hours within the month traded, so in a month with 400 Off-Peak hours, the Lot Size equals 400 MWh. The definition of Off-Peak hours is Hour Ending (HE) 0100 – 0600 and HE 2300 – 2400, Monday through Friday, CPT and all hours for Saturday, Sunday, and all NERC Holidays.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The fourth business day of June or January. In June, the new expiries in the 13th planning year (January – May) are available for trading; in January, the new expiries in the 13th calendar year (June – December) are available for trading.
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	Current calendar/planning year plus 12 full calendar or planning years
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Real Time hourly 15-minute Settlement Point Prices for all Off-Peak hours. These price files can be found at the following link or at successor location. http://mis.ercot.com/misapp/GetReports.do?reportTypeId=12301 ERCOT correction prices are found at a different location, and are currently posted at: http://mis.ercot.com/misapp/GetReports.do?reportTypeId=13045 (SPP file only)
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	1,292 MW
Margin Unit	US Dollars

NODAL EXCHANGE CONTRACT SPECIFICATIONS

ERCOT HB PAN Monthly Real Time On-Peak Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial On-Peak Power, ERCOT HB_PAN, Real Time
Contract Code	LPZ
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of On-Peak hours within the month traded, so in a month with 332 On-Peak hours, the Lot Size equals 332 MWh. The definition of On-Peak hours is Hour Ending (HE) 0700 – 2200 Monday through Friday, Central Prevailing Time (CPT), excluding NERC Holidays.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The fourth business day of June or January. In June, the new expiries in the 13th planning year (January – May) are available for trading; in January, the new expiries in the 13th calendar year (June – December) are available for trading.
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	Current calendar/planning year plus 12 full calendar or planning years
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Real Time hourly 15-minute Settlement Point Prices for all On-Peak hours. These price files can be found at the following link or at successor location. http://mis.ercot.com/misapp/GetReports.do?reportTypeId=12301 ERCOT correction prices are found at a different location, and are currently posted at: http://mis.ercot.com/misapp/GetReports.do?reportTypeId=13045 (SPP file only)
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	1,525 MW
Margin Unit	US Dollars

NODAL EXCHANGE CONTRACT SPECIFICATIONS

ERCOT HB PAN Monthly Day Ahead 7x8 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 7x8 Power, ERCOT HB_PAN, Day Ahead
Contract Code	LPT
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0600 and HE 2300 – 2400, Sunday through Saturday, CPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The fourth business day of June or January. In June, the new expiries in the 13th planning year (January – May) are available for trading; in January, the new expiries in the 13th calendar year (June – December) are available for trading.
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	Current calendar/planning year plus 12 full calendar or planning years
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Settlement Point Prices for all 7x8 hours. These price files can be found at the following link or at successor location. http://mis.ercot.com/misapp/GetReports.do?reportTypeId=12331 ERCOT correction prices are found at a different location, and are currently posted at: http://mis.ercot.com/misapp/GetReports.do?reportTypeId=13044 (SPP file only)
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	1,211 MW
Margin Unit	US Dollars

NODAL EXCHANGE CONTRACT SPECIFICATIONS

ERCOT HB PAN Monthly Day Ahead 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, ERCOT HB_PAN, Day Ahead
Contract Code	LPS
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0700 – 2200, Sunday, Saturday, and all NERC holidays, CPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The fourth business day of June or January. In June, the new expiries in the 13th planning year (January – May) are available for trading; in January, the new expiries in the 13th calendar year (June – December) are available for trading.
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	Current calendar/planning year plus 12 full calendar or planning years
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Day Ahead hourly Settlement Point Prices for all 2x16 hours. These price files can be found at the following link or at successor location. http://mis.ercot.com/misapp/GetReports.do?reportTypeId=12331 ERCOT correction prices are found at a different location, and are currently posted at: http://mis.ercot.com/misapp/GetReports.do?reportTypeId=13044 (SPP file only)
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	1,427 MW
Margin Unit	US Dollars

NODAL EXCHANGE CONTRACT SPECIFICATIONS

ERCOT HB PAN Monthly Real Time 7x8 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 7x8 Power, ERCOT HB_PAN, Real Time
Contract Code	LPX
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 7x8 hours within the month traded, so in a month with 248 7x8 hours, the Lot Size equals 248 MWh. The definition of 7x8 hours is Hour Ending (HE) 0100 – 0600 and HE 2300 – 2400, Sunday through Saturday, CPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The fourth business day of June or January. In June, the new expiries in the 13th planning year (January – May) are available for trading; in January, the new expiries in the 13th calendar year (June – December) are available for trading.
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	Current calendar/planning year plus 12 full calendar or planning years
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Real Time hourly 15-minute Settlement Point Prices for all 7x8 hours. These price files can be found at the following link or at successor location. http://mis.ercot.com/misapp/GetReports.do?reportTypeId=12301 ERCOT correction prices are found at a different location, and are currently posted at: http://mis.ercot.com/misapp/GetReports.do?reportTypeId=13045 (SPP file only)
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	1,211 MW
Margin Unit	US Dollars

NODAL EXCHANGE CONTRACT SPECIFICATIONS

ERCOT HB PAN Monthly Real Time 2x16 Power Contract

ITEM	SPECIFICATION
Contract Description	Monthly Cash Settled Financial 2x16 Power, ERCOT HB_PAN, Real Time
Contract Code	LPW
Hours of Trading	As defined at http://www.nodalexchange.com
Unit of Trading	1 lot, based on 1 MW for each hour of the contract
Lot Size	Variable, expressed in megawatt hour (MWh). The Lot Size will equal 1 MW multiplied by the number of 2x16 hours within the month traded, so in a month with 144 2x16 hours, the Lot Size equals 144 MWh. The definition of 2x16 hours is Hour Ending (HE) 0700 – 2200, Sunday, Saturday, and all NERC holidays, CPT.
Currency	US Dollars
Min Price Fluctuation	\$0.0001 per MWh
Minimum Tick	\$0.0001 per MWh
First Trading Day	The fourth business day of June or January. In June, the new expiries in the 13th planning year (January – May) are available for trading; in January, the new expiries in the 13th calendar year (June – December) are available for trading.
Last Trading Day	The third business day following the last calendar day of the month
Contract Series	Current calendar/planning year plus 12 full calendar or planning years
Fixed Price	The traded price or the previous day's settlement price
Daily Settlement Price	Determined by the Exchange based on exchange activity, other market data, and extrapolation to traded contracts, as appropriate
Final Settlement Price	The final settlement price will be determined by the Exchange at approximately 3 pm EPT on the Last Trading Day. The final settlement price is the average of the Real Time hourly 15-minute Settlement Point Prices for all 2x16 hours. These price files can be found at the following link or at successor location. http://mis.ercot.com/misapp/GetReports.do?reportTypeId=12301 ERCOT correction prices are found at a different location, and are currently posted at: http://mis.ercot.com/misapp/GetReports.do?reportTypeId=13045 (SPP file only)
Final Settlement (Payment) Date	The first business day following the Last Trading Day
Position Limit	1,427 MW
Margin Unit	US Dollars