March 3, 2016

REVISION TO DEFINITION OF TRANSMISSION OPERATOR NOGRR 149 (APPEAL)

Presentation to ERCOT Reliability and Operations Task Force (ROS)

Nodal Operating Guides – Section 1, Subsection 1.4T (Definition of Transmission Operator)

Existing Definition

Transmission Operator (TO)
Entity responsible for the safe and reliable operation of its own portion or designated portion of the ERCOT Transmission System.

Every Transmission Service Provider (TSP) or Distribution Service Provider (DSP) in the ERCOT Region shall either register as a TO, or designate a TO as its representative and with the authority to act on its behalf.

Proposed Definition

Transmission Operator (TO)
Entity responsible for the safe and reliable operation of its own portion or designated portion of the ERCOT Transmission System.

Every Transmission Service Provider (TSP) in the ERCOT Region shall either register as a TO, or designate a TO as its representative and with the authority to act on its behalf.

Every Distribution Service Provider (DSP) in the ERCOT Region with an annual peak load exceeding 25 MW shall either register as a TO, or designate a TO as its representative and with the authority to act on its behalf.

Every DSP in the ERCOT Region with an annual Peak load of 25 MW and below which is required by North American Electric Reliability Corporation (NERC) to be registered as a distribution provider, or any other applicable NERC registration, shall either register as a TO, or designate a TO as its representative and with the authority to act on its behalf.

SPPG PARTICIPATING MOU'S

▪ City of Seymour	▪ City of Bridgeport
▪ City of Robstown	▪ City of Sanger
▪ City of Farmersville	▪ City of Hearne

DSP SERVICE CHARACTERISTICS – SUMMER PEAK LOAD (2015)

▪ City of Seymour - 9 MW	▪ City of Bridgeport - 14 MW
▪ City of Robstown - 21 MW	▪ City of Sanger - 13 MW
▪ City of Farmersville - 9 MW	▪ City of Hearne - 12 MW

Average Size – 13 MW

DSP SERVICE CHARACTERISTICS – RETAIL REVENUE METERS (2015)

▪ City of Seymour	- 1,600	▪ City of Bridgeport	- 2,250
▪ City of Robstown	- 4,500	▪ City of Sanger	- 2,200
▪ City of Farmersville	- 1,400	▪ City of Hearne	- 2,500

Average Number of Meters – 2,400

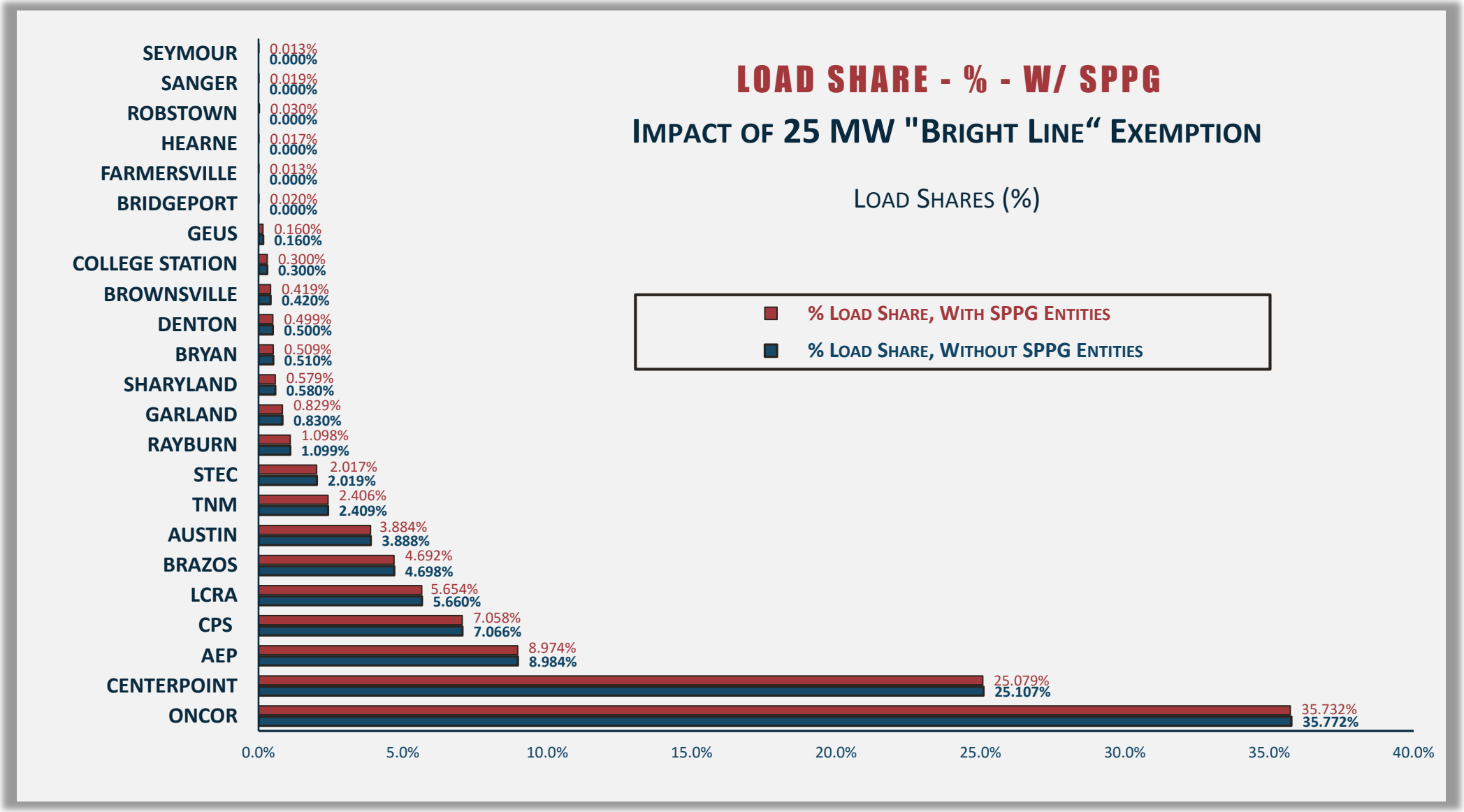
DSP SERVICE CHARACTERISTICS – FACILITIES OWNED

	Generation Owned	Transmission Owned	Distribution Substation Owner	Distribution Feeder Breaker Owner	Distribution Feeder Breaker Operator
Seymour	None	None	Brazos	City (8)	City
Robstown	None	None	City	City (9)	City
Farmersville	None	None	Sharyland	Sharyland (2)	Sharyland
Bridgeport	None	None	Brazos	Brazos (3)	City
Sanger	None	None	Brazos	Brazos (4)	City
Hearne	None	None	City	City (3)	City

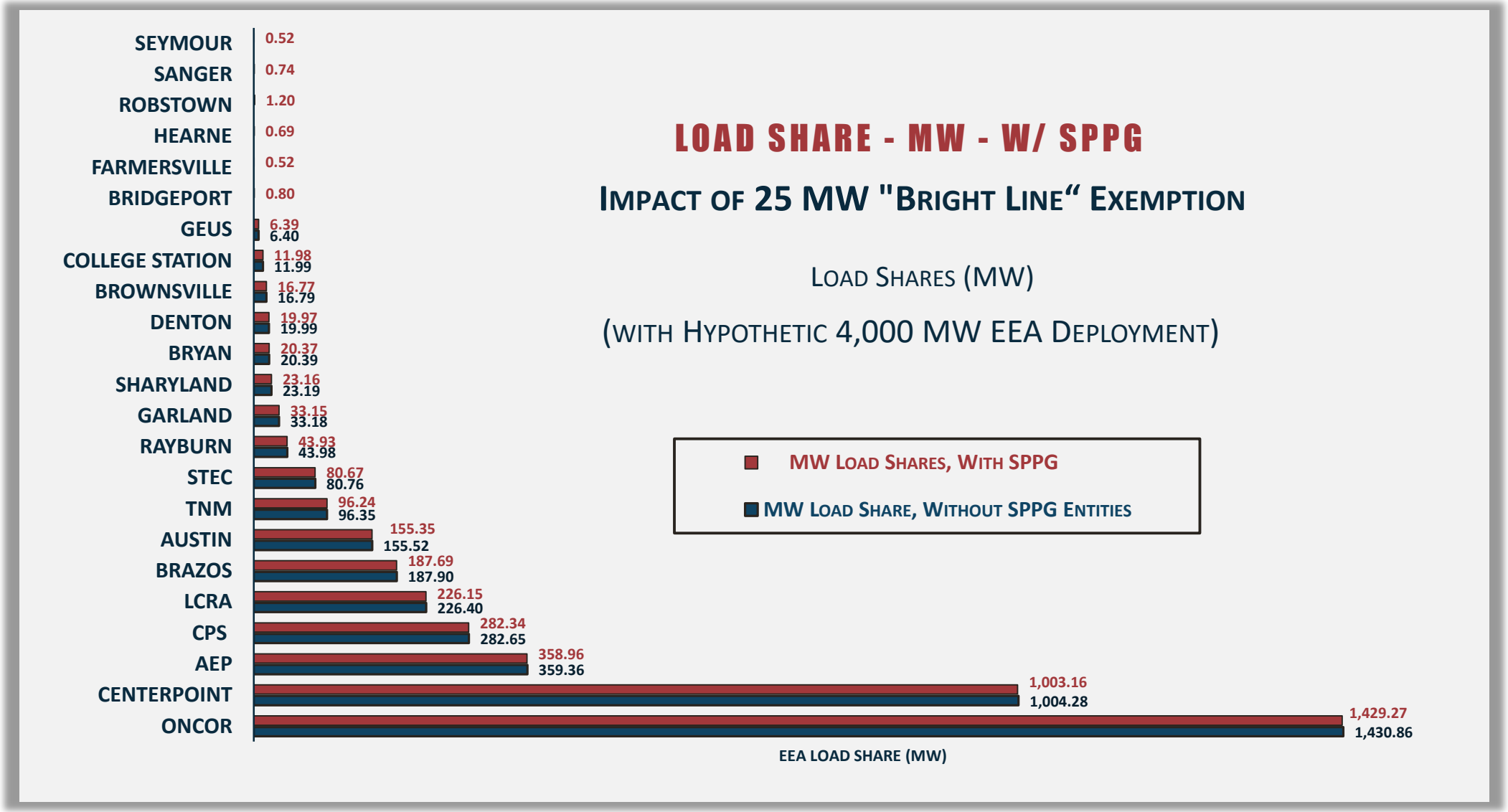
DSP SERVICE CHARACTERISTICS – WHOLESALE POWER SUPPLIER AND POI

	Wholesale Power Supplier	Transmission Service Provider (Point of Interconnection)
Seymour	AEP	BEPC
Robstown	AEP	AEP
Farmersville	Garland P&L	Sharyland Utilities
Bridgeport	AEP	BEPC
Sanger	AEP	BEPC
Hearne	AEP	BEPC

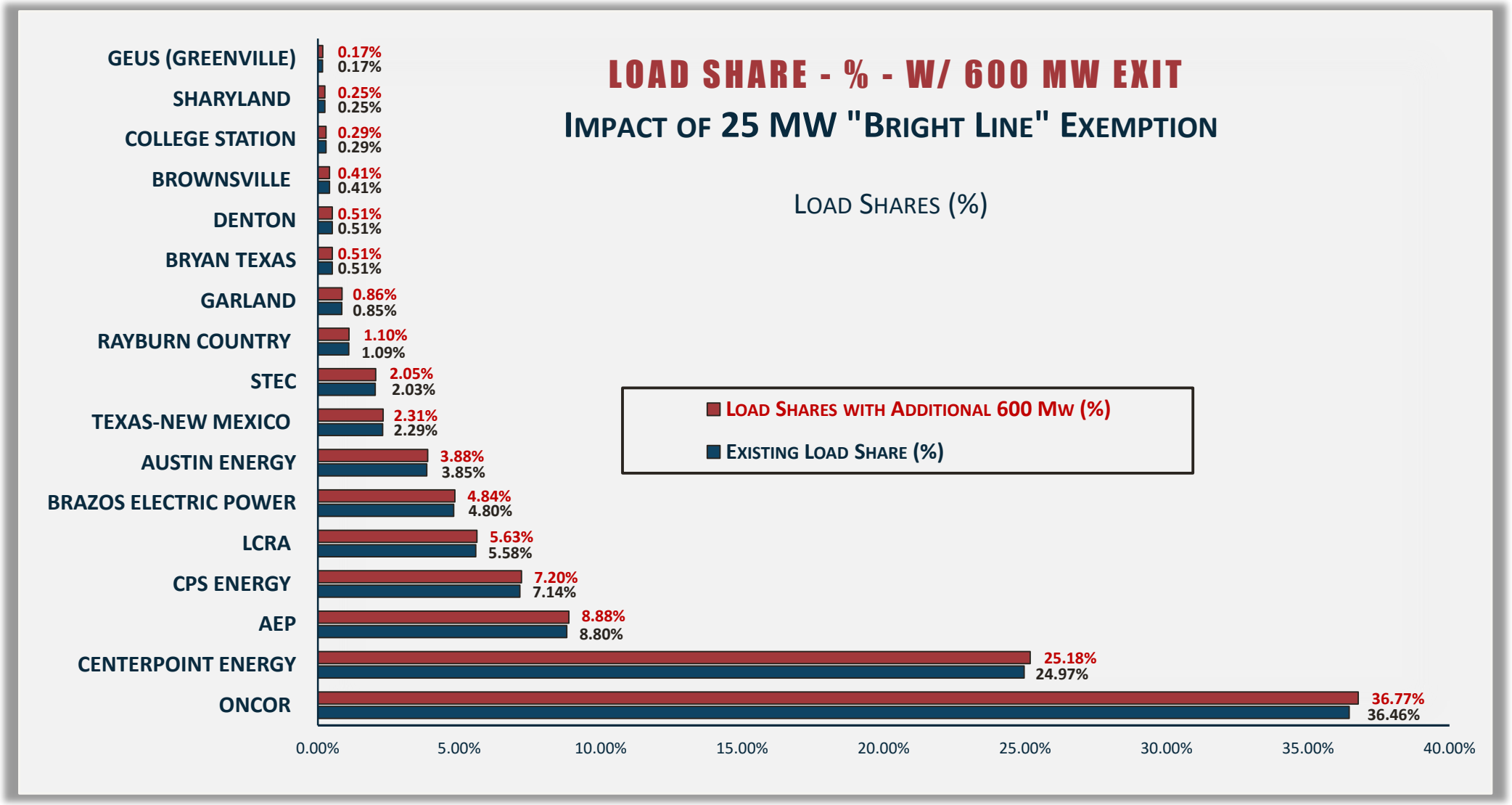
Impact of SPPG on % Load Shed


LOAD SHARE - % - W/ SPPG
IMPACT OF 25 MW "BRIGHT LINE" EXEMPTION
LOAD SHARES (%)
% LOAD SHARE, WITH SPPG ENTITIES
% LOAD SHARE, WITHOUT SPPG ENTITIES
SEYMOUR 0.013% 0.000%
SANGER 0.019% 0.000%
ROBSTOWN 0.030% 0.000%
HEARNE 0.017% 0.000%
FARMERSVILLE 0.013% 0.000%
BRIDGEPORT 0.020% 0.000%
GEUS 0.160% 0.160%
COLLEGE STATION 0.300% 0.300%
BROWNSVILLE 0.419% 0.420%
DENTON 0.499% 0.500%
BRYAN 0.509% 0.510%
SHARYLAND 0.579% 0.580%
GARLAND 0.829% 0.830%
RAYBURN 1.098% 1.099%
STEC 2.017% 2.019%
TNM 2.406% 2.409%
AUSTIN 3.884% 3.888%
BRAZOS 4.692% 4.698%
LCRA 5.654% 5.660%
CPS 7.058% 7.066%
AEP 8.974% 8.984%
CENTERPOINT 25.079% 25.107%
ONCOR 35.732% 35.772%
0.0% 5.0% 10.0% 15.0% 20.0% 25.0% 30.0% 35.0% 40.0%

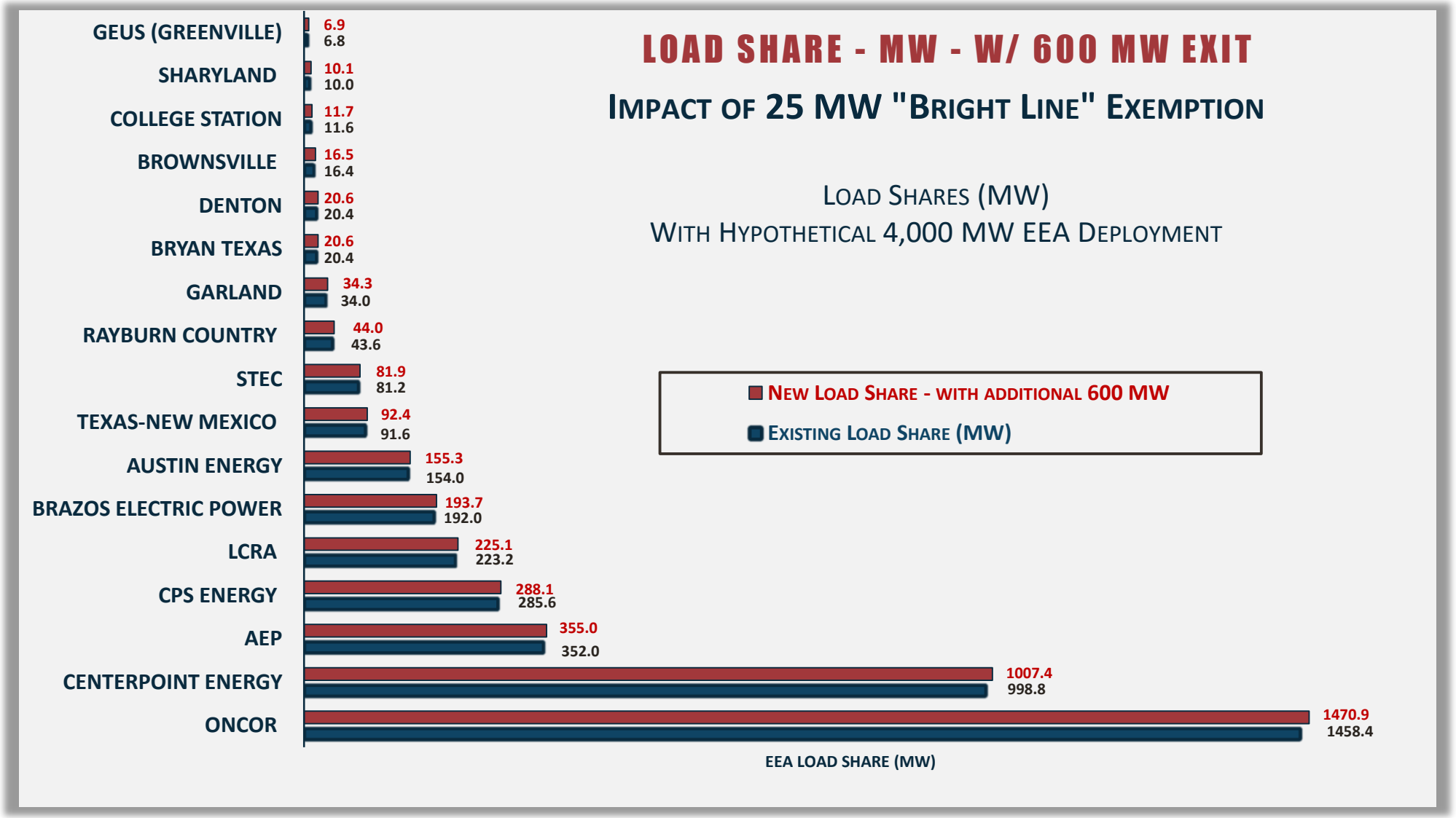
Impact of SPPG on MW Load Shed


LOAD SHARE - MW - W/ SPPG
IMPACT OF 25 MW "BRIGHT LINE" EXEMPTION
LOAD SHARES (MW)
(WITH HYPOTHETIC 4,000 MW EEA DEPLOYMENT)
MW LOAD SHARES, WITH SPPG
MW LOAD SHARE, WITHOUT SPPG ENTITIES
SEYMOUR 0.52
SANGER 0.74
ROBSTOWN 1.20
HEARNE 0.69
FARMERSVILLE 0.52
BRIDGEPORT 0.80
GEUS 6.39 6.40
COLLEGE STATION 11.98 11.99
BROWNSVILLE 16.77 16.79
DENTON 19.97 19.99
BRYAN 20.37 20.39
SHARYLAND 23.16 23.19
GARLAND 33.15 33.18
RAYBURN 43.93 43.98
STEC 80.67 80.76
TNM 96.24 96.35
AUSTIN 155.35 155.52
BRAZOS 187.69 187.90
LCRA 226.15 226.40
CPS 282.34 282.65
AEP 358.96 359.36
CENTERPOINT 1,003.16 1,004.28
ONCOR 1,429.27 1,430.86
EEA LOAD SHARE (MW)

Load Shares (%) After Loss of 600 MW Of Exempted DSP Load


LOAD SHARE - % - W/ 600 MW EXIT
IMPACT OF 25 MW "BRIGHT LINE" EXEMPTION
LOAD SHARES (%)
LOAD SHARES WITH ADDITIONAL 600 MW (%)
EXISTING LOAD SHARE (%)
GEUS (GREENVILLE) 0.17% 0.17%
SHARYLAND 0.25% 0.25%
COLLEGE STATION 0.29% 0.29%
BROWNSVILLE 0.41% 0.41%
DENTON 0.51% 0.51%
BRYAN TEXAS 0.51% 0.51%
GARLAND 0.86% 0.85%
RAYBURN COUNTRY 1.10% 1.09%
STEC 2.05% 2.03%
TEXAS-NEW MEXICO 2.31% 2.29%
AUSTIN ENERGY 3.88% 3.85%
BRAZOS ELECTRIC POWER 4.84% 4.80%
LCRA 5.63% 5.58%
CPS ENERGY 7.20% 7.14%
AEP 8.88% 8.80%
CENTERPOINT ENERGY 25.18% 24.97%
ONCOR 36.77% 36.46%
0.00% 5.00% 10.00% 15.00% 20.00% 25.00% 30.00% 35.00% 40.00%

Load Shares (MW) After Loss of 600 MW Of Exempted DSP Load


LOAD SHARE - MW - W/ 600 MW EXIT
IMPACT OF 25 MW "BRIGHT LINE" EXEMPTION
LOAD SHARES (MW)
WITH HYPOTHETICAL 4,000 MW EEA DEPLOYMENT
NEW LOAD SHARE - WITH ADDITIONAL 600 MW
EXISTING LOAD SHARE (MW)
GEUS (GREENVILLE) 6.9 6.8
SHARYLAND 10.1 10.0
COLLEGE STATION 11.7 11.6
BROWNSVILLE 16.5 16.4
DENTON 20.6 20.4
BRYAN TEXAS 20.6 20.4
GARLAND 34.3 34.0
RAYBURN COUNTRY 44.0 43.6
STEC 81.9 81.2
TEXAS-NEW MEXICO 92.4 91.6
AUSTIN ENERGY 155.3 154.0
BRAZOS ELECTRIC POWER 193.7 192.0
LCRA 225.1 223.2
CPS ENERGY 288.1 285.6
AEP 355.0 352.0
CENTERPOINT ENERGY 1007.4 998.8
ONCOR 1470.9 1458.4
EEA LOAD SHARE (MW)

OPERATING GUIDES – SECTION 2.6.1 (1) – AUTOMATIC FIRM LOAD SHEDDING

Frequency Threshold	Load Relief Obligation	Bridgeport	Farmersville	Hearne	Robstown	Sanger	Seymour		Total UFLS Obligation (MW)
59.3 HZ	5% of the to ERCOT System Load	.70 MW	.44 MW	.60 MW	1.05 MW	.64 MW	.45 MW		4.48 MW
58.9 HZ	An additional 10% of the ERCOT System Load	2.10 MW	1.32 MW	1.80 MW	3.15 MW	1.91 MW	1.35 MW		13.44 MW
58.5 HZ	An additional 10% of the ERCOT System Load	3.50 MW	2.20 MW	3.00 MW	5.25 MW	3.18 MW	2.25 MW		22.38 MW
	SPPG Individual Load Share Obligation	3.50 MW	2.20 MW	3.00 MW	5.25 MW	3.18 MW	2.25 MW		

ANALYSIS OF POTENTIAL EEA AND UFLS OBLIGATIONS - CONCLUSIONS

- Individual SPPG Load Shares for UFLS are **VERY Small**
- Individual SPPG Load Shares for EEA are **VERY, VERY Small**

QUESTION RAISED: "DOES SIZE MATTER"?

CONCLUSIONS

- The six SPPG entities' load shares would add **low** to **no** value to an ERCOT emergency operations event.
- The load shares of the fifty-three ERCOT entities with peak loads of 25 MW or less will be **low** value to an ERCOT emergency operations event.
- The reallocation of the aggregate 600 MW representing the fifty-three ERCOT entities with peak loads of 25 MW or less does not appear to place an unreasonable additional burden on existing TSPs.
- The prospect of exempting up to fifty-three ERCOT entities from TO responsibilities would arguably have a positive impact on ERCOT reliability and efficient operations by virtue of having fewer entities to manage during an emergency operations event and less non-emergency recurring training, drills, etc.

QUESTIONS?