

APPENDIX A
**ANALYSIS OF TRANSMISSION AND DISTRIBUTION ASSETS
TO ASSESS THE IMPACT OF THE
DEFINITION OF TRANSMISSION FACILITIES
PER ATTACHMENT AI
OF
SOUTHWEST POWER POOL
OPEN ACCESS TRANSMISSION TARIFF**

Introduction:

The Empire District Electric Company (Empire or Company) has prepared an analysis of its investment in transmission and distribution facilities as of December 31, 2007, to determine if it is necessary and reasonable to reclassify its facilities to meet the definition of Transmission Facilities contained within the Southwest Power Pool (SPP) Open Access Transmission Tariff (OATT). In Order No. 888, the Federal Energy Regulatory Commission (FERC) indicated that it would give deference to determinations made by state public utility commissions regarding the distinction between distribution and transmission. In addition to employing the SPP criteria for inclusion of facilities in the definition of Transmission Facilities, Empire used the Seven Factor Test promulgated in Order No. 888 to identify local distribution facilities. In addition to applying the seven factor test and making recommendations consistent with the essential elements of Order No. 888, the state public utility commissions may also consider any other factors they believe are appropriate in light of the Company's historical uses of particular facilities.

SPP Transmission Definition Implementation Schedule

Pursuant to Section IV (below) of Attachment AI of the SPP OATT, transmission owning members of the SPP are required to make a filing(s) with their appropriate regulatory authority by or before October 1, 2008, regarding which of the transmission owner's facilities are Transmission Facilities, as that term is defined in the SPP OATT. In determining whether its facilities are Transmission Facilities, the transmission owner may reclassify existing assets within its current Property Accounting records. Empire requested an extension from FERC to the October 1, 2008 filing date and was granted an extension to December 1, 2008 to make its filing(s) with its appropriate regulatory authorities.

IV. Within three (3) years [October 1, 2008] from the date of acceptance by FERC of this Attachment AI to the Tariff [October 1, 2005], each Transmission Owner shall file a request(s) based on this Attachment with its appropriate regulatory authority or authorities for a determination as to which of its facilities are Transmission Facilities. Each Transmission Owner that is not subject to regulation by a regulatory authority shall apply to SPP for such a determination.

Each Transmission Owner shall use reasonable efforts to cause the aforementioned determinations to be made and the applicable transmission service rates to be adjusted accordingly as soon as possible after such determinations are finalized.

Existing Classification of Transmission and Distribution Investment:

Substations:

Currently, all of the various property units within an individual substation are either classified as transmission or distribution. Existing substations primarily used for transmission lines are classified as transmission investment whereas, substations used primarily for distribution load are classified as distribution investment. All costs for individual substations can be identified down to individual units of property.

Transmission Lines:

Empire has historically classified all transmission lines operated at 34.5kV and higher as transmission investment. Transmission line units of property are recorded by vintage year, voltage level and location, but the units of property have not been recorded for the individual line segment.

Empire has used a job order system to accumulate costs and has historically recorded the final costs in the appropriate account within the FERC account code system, based on the FERC accounting rules regarding such investments. The SPP definition of Transmission Facilities is slightly different from the definition that has been used historically by the FERC, and this study was undertaken to determine what if any impact the SPP definition has on Empire.

New SPP Method:

Empire used the criteria specified in the SPP specifications as outlined in Attachment AI of SPP's OATT, FERC Electric Tariff, Fifth Revised Volume No. 1, to analyze its existing investment in transmission and distribution assets to determine if a reclassification of the investment in these facilities is reasonable and necessary. The following is an excerpt of the definitions included in the SPP OATT.

SPP Standard for Inclusion of Facilities

Transmission Facilities shall include all facilities that meet the following criteria:

1. All existing non-radial power lines, substations, and associated facilities, operated at 60 kV or above, plus all radial lines and associated facilities operated at or above 60 kV that serve two or more eligible customers not Affiliates of each other. Rate treatment for transmission upgrades completed after October 1, 2005 will be determined pursuant to Section 1.3 (h) (currently (j)) of this Tariff. For the purpose of the application of this criterion, "open loops" are radial lines. At such time an existing radial is incorporated into a looped transmission circuit that

existing radial would be eligible for inclusion in rates on the same basis as the remainder of the facilities in the loop.

2. All facilities that are utilized for interconnecting the various internal zones to each other as well as those facilities that interconnect SPP with other surrounding entities.
3. Control equipment and facilities necessary to control and protect facilities qualifying as Transmission Facilities.
4. For substations connected to power lines qualifying as Transmission facilities, where power is transformed from a voltage higher than 60 kV to a voltage lower than 60 kV, facilities on the high voltage side of the transformer will be included with the exception of transformer isolation equipment.
5. The portion of the direct-current interconnections with areas outside of the SPP region (DC ties) that are owned by a Transmission Owner in the SPP region, including those portions of the DC tie that operate at a voltage lower than 60 kV.
6. All facilities operated below 60 kV that have been determined to be transmission pursuant to the seven (7) factor test set forth in FERC Order No. 888, 61 Fed Reg. 21,540, 21,620 (1996), or any applicable successor test.

For transmission facilities operated below 60kV, Empire applied THE SEVEN FACTOR TEST.

In Order No. 888, the Federal Energy Regulatory Commission identified seven indicators of whether a facility used for retail wheeling would be an interstate transmission facility subject to federal jurisdiction or a local delivery facility subject to state commission jurisdiction. The seven indicators are:

1. Local distribution facilities are normally in close proximity to retail customers.
2. Local distribution facilities are normally radial in character.
3. Power flows into local distribution facilities; it rarely, if ever, flows out.
4. When power enters a local distribution facility, it is not re-consigned or transported on to some other market.
5. Power entering a local distribution facility is consumed in a comparatively restricted geographical area.
6. Meters are based at the transmission/local distribution interface to measure flows into the local distribution system.
7. Local distribution facilities will be of reduced voltage.

The Seven Factor Test was used to determine if Empire's lines operated at 34.5 kV met the definition of Transmission. All of Empire's looped 34.5kV facilities that "do not" meet all of the requirements of the Seven Factor Test will be classified as transmission for purposes of this analysis. These lines typically run numerous miles between loads. In most instances there are distribution substations between the 34.5kV line and the customer. All 34.5kV

radials, except those feeding more than one entity, were classified as distribution in this analysis of Empire's investment.

Analysis Protocols

Substation Methodology, Prior to January 1, 2008

Empire's accounting department provided a list of all substation property units, which numbered over 10,000, from the fixed asset accounting system. As mentioned previously, Empire has historically classified all of the assets within a substation as either transmission or distribution, in the aggregate. However, under the definition of Transmission Facilities in the SPP OATT the individual property units within an individual substation must be broken down into the transmission and distribution functions. The list of property units in the various substations and their assignment to the function of transmission or distribution has been consolidated into one spreadsheet support document, entitled 'Substation Assets.xls'.

As a first step in the analysis of investment in 179 substations, Empire identified all of the substations that are exclusively used for the transmission or distribution functions. The property unit investment in each one of these substations was reviewed to determine if they were consistent with the definition in the SPP OATT. All of the asset classifications within these substations were identified as part of the Empire analysis. This particular part of the analysis involved 117 substations.

The remaining 62 substations which had to be analyzed had both transmission and distribution characteristics. As a first step in the analysis of these substations, all property unit items with a cost less than \$5000 (immaterial) were set aside. The next step involved an examination of the remaining major property units with an objective of coding them as distribution, transmission or common assets using the guidelines established in the SPP OATT. After the major property units in an individual substation were classified as distribution or transmission, the common and immaterial property investment within each individual substation was classified as either distribution or transmission based upon the majority of functional usage found during the analysis of major property units.

In all cases, the original cost of the property units per the fixed asset system and the estimated related accumulated depreciation were accounted for in the analysis¹. This analysis captured the "net book" value of the assets that technically qualified for potential reclassification using the SPP OATT transmission definition. The results of this analysis can be found in Attachment A to this report.

¹ Accumulated Depreciation: Empire uses the "mass asset" method of depreciation; therefore accumulated depreciation is not "assigned" to each asset. Instead a depreciation rate (approved by the FERC and state jurisdictions) is applied to the original cost of the asset. Total depreciation is recorded for each FERC account category of assets. Therefore, a methodology had to be developed to estimate the amount of depreciation associated with these assets. This methodology was as follows:

- 1) All historical depreciation rates (by jurisdiction) were obtained from accounting
- 2) Rates prior to 1953 were ignored, because all assets with vintage dates prior to 1953 were assumed to be fully depreciated.
- 3) A depreciation table was created for each asset class and State to calculate the accumulated depreciation factor for every month from January 1, 1953 to January 1, 2008.

Transmission Line Methodology, Prior to January 1, 2008

Transmission line investment has been analyzed using the definition per the SPP OATT. The largest impact of the definition was related to radial transmission lines. All radial transmission lines serving only Company retail customers were classified as distribution for purposes of the analysis. The miles of transmission line affected by the SPP definition of distribution was determined by engineering based on a review of engineering records. Attachment B contains a list of transmission lines that would meet the new definition of distribution.

Due to the level of detail contained in Empire's Continuing Property Records ("CPR"), the original cost and related accumulated depreciation were calculated in total for the various transmission lines by voltage and physical location. This was used to determine an average "net book" cost per mile for the various transmission line voltages by location. This average cost per mile was applied to the miles of transmission line that did not meet the SPP OATT definition of transmission and had the possibility of being reclassified as distribution investment. The results of this analysis can be found in Attachment A to this report. If these assets are reclassified then this "net book" cost per mile method would be used on an ongoing basis to make the appropriate re-classifications between transmission and distribution for FERC, regulatory and rate making filings.

Classification of New Substation Investment, Post January 1, 2008

Empire will follow the definition of Transmission Facilities specified in the SPP FERC Electric Tariff, Fifth Revised Volume No. 1 and FERC's Seven Factor Test as discussed previously to classify new investment in new substations after December 31, 2007.

Common assets, such as control buildings, fences, land, ground grids, and communication equipment in each substation will be placed into the classification, transmission or distribution, which has the greatest value of non-common assets.

Classification of New Transmission Line Investment, Post January 1, 2008

Empire will follow the transmission definitions specified in the SPP OATT to classify investment in new transmission facilities placed in service after December 31, 2007.

Once Empire has obtained an order from each of its four state regulatory commissions, Empire will make an appropriate filing at FERC in coordination with the SPP.

Results:

After analysis of the Empire's transmission and distribution assets and applying the definition of Transmission Facilities contained in the SPP OATT, it appears that the net investment in Transmission Facilities would decline by \$2.9 million. This reclassification of investment would cause a decrease in overall transmission revenue requirement of approximately \$537,000 using an annual carrying rate of 18.53 percent. This decline in overall Company transmission revenue requirement represents only 2.9 percent of the \$18.4 million transmission revenue requirement filed at the FERC in 1995² for Empire, and only 0.13 percent of Empire's overall retail, wholesale and transmission revenue earned during the calendar year ending December 31, 2007. In addition, the potential reclassification represents around 2.2 percent of the net investment in transmission facilities at December 31, 2007 and less than 1 percent of the net investment in distribution facilities at December 31, 2007. As indicated, the potential impact of any reclassification of these existing facilities is insignificant. The secondary impact of the reclassification on the various retail and wholesale jurisdictional customer is also insignificant, with the shifts in revenue of less than one-half of one percent in all jurisdictions and monthly impacts of less than \$0.30 for an average residential customer using 750 kWh a month.

As shown in the following Attachment A Table, the net decrease in transmission investment using the SPP OATT definition of Transmission Facilities, consists of reclassifications of currently classified transmission plant potentially moving to distribution. The most significant change in the latter category has to do with the net investment (\$1.25 million) in a portion of Empire's existing 69 kV Transmission Facilities changing to distribution due to its current normally open radial operating/emergency use only status. The classification status of this system could swing back to transmission if the interconnection point with the neighboring utility were closed. If the radial 69 kV facilities were to remain in transmission investment, the net change in transmission investment under the definition in the SPP OATT would become even more insignificant. Again the resulting change in the overall transmission revenue requirement, an increase, would be insignificant/deminimus.

² Empire's current transmission revenue requirement was based upon its investment and operating expense levels during 1995. Since that time Empire has invested several million dollars in its transmission facilities, but has not reflected this increase in investment or other increases in transmission operating costs in its OATT revenue requirement.

Regulatory Approval Process:

The FERC granted Empire an extension of the filing date of its transmission analysis until December 1, 2008. Empire made the request on September 10, 2008 in Docket No. ER05-1285-000 and FERC granted the request on September 17th. This added time allowed Empire until December 1, 2008, to make its request for transmission accounting determinations at the Missouri Public Service Commission (MOPSC), the Kansas Corporation Commission (KCC), the Arkansas Public Service Commission (APSC) and the Oklahoma Corporation Commission (OCC).

Included in each of the state filings will be an overview of the methodology used in the analysis and the potential effects of such a reclassification of investment. None of the state filings will request any changes to existing retail rates at this time.

Conclusion:

As indicated earlier, Empire prepared an analysis of its investment in existing transmission and distribution property as of December 31, 2007, using the SPP criteria for Transmission Facilities, to determine which of Empire's investments would remain Transmission Facilities. The SPP OATT requires Empire to apply to the appropriate regulatory authorities for a determination as to which of Empire's assets within the property accounting system and the related FERC accounts are Transmission Facilities. The results of Empire's analysis indicate that the overall impact of the application of the SPP's definition is immaterial, and that the existing classification of the investment in transmission and distribution facilities as of December 31, 2007, is reasonable and that no reclassification of investment balances between transmission and distribution is necessary.

Therefore, Empire's applications to its regulatory jurisdictions in the states of Missouri, Kansas, Arkansas and Oklahoma will request that the Commission's issue an order to:

- (1) authorize Empire to make no changes to the current classification of investment in transmission and distribution facilities recorded on Empire's books and records prior to January 1, 2008; and
- (2) accept, as reasonable, the methodology used to determine which of Empire's transmission and distribution assets are Transmission Facilities, and the resulting determinations by Empire regarding transmission and distribution assets placed in service prior to January 1, 2008, described herein; and
- (3) authorize Empire to utilize the SPP criteria and definition to classify transmission and distribution assets placed in service after January 1, 2008;

Attachment A-Table

Description – Total Company	<u>Original Cost</u>	<u>Accum. Depr</u>	<u>Net Cost</u>
Transmission (350-356)	<u>\$191,595,344</u>	<u>\$60,143,640</u>	<u>\$131,451,671</u>
Potential Changes:			
34.5 kV	(598,562)	(380,809)	(217,753)
69 kV	(6,854,561)	(2,394,943)	(4,459,618)
Substation:			
Dist. To Trans.	12,665,373	4,218,069	8,447,304
Trans. To Dist.	<u>(9,611,060)</u>	<u>(2,960,155)</u>	<u>(6,650,905)</u>
Total	<u>(4,398,810)</u>	<u>(1,517,838)</u>	<u>(2,880,972)</u>
Transmission As Adjusted	<u>\$187,196,501</u>	<u>\$58,625,802</u>	<u>\$128,570,699</u>
Percent Change			(2.19)%
Distribution (360-386)	<u>\$596,340,979</u>	<u>\$223,385,220</u>	<u>\$372,955,759</u>
Potential Changes:			
34.5 kV	598,562	380,809	217,753
69 kV	6,854,561	2,394,943	4,459,618
Substation:			
Dist. To Trans.	(12,665,373)	(4,218,069)	(8,447,304)
Trans. To Dist.	<u>9,611,060</u>	<u>2,960,155</u>	<u>6,650,905</u>
Total	<u>4,398,810</u>	<u>1,517,838</u>	<u>2,880,972</u>
Distribution As Adjusted	<u>\$600,739,789</u>	<u>\$224,903,058</u>	<u>\$375,836,731</u>
Percent Change			0.77%

Attachment B – Table

Pre-January 2008 (Existing) Transmission Radial Lines to be classified as Distribution Per SPP Method

From Location	To Location	Voltage	Mileage	State	Service to:	Cost	Book Value
Chetopa Tap	Chetopa #299	34.5	0.82	KS	City of Chetopa	15,517	6,286
Twin Valley #388	KS/OK Stateline	34.5	1.25	KS		23,654	9,583
KS/OK Stateline	Welch #186	34.5	8.682	OK		238,394	26,388
Humansville #308	Collins #318	34.5	7.455	MO		252,243	137,907
Oronogo #110	Missouri Steel Castings	34.5	2.032	MO	Out of Service	68,754	37,589
Columbus #94	Scammon #66	69	10.25	KS		534,172	341,643
Sekan Tap	Sherwin #444	69	2.46	KS		128,201	81,994
Sekan Tap	Sherman City #425	69		KS		-	-
Columbus Tap	Columbus #282	69		KS		-	-
Fairland West #363	Fairland Southwest #428	69	1.699	OK		42,235	20,422
Fairland West #363	Fairland Shell #261	69	0.093	OK	Enbridge Pipeline	2,312	1,118
Commerce Tap	Commerce North #381	69	3.956	OK		98,341	47,552
Baxter Springs Tap	Baxter Springs 12th St. #291	69	2.94	KS		153,216	97,993
Riverton Jct	Riverton #406	69	0.02	KS		1,042	667
Riverton #167	Gulf Jayhawk #339	69	3.52	KS		183,442	117,325

Attachment B – Table(continued)

Pre-January 2008 (Existing) Transmission Radial Lines to be classified as Distribution Per SPP Method

Joplin Explorer Tap	Joplin Explorer #449	69	0.967	MO	Explorer Pipeline	55,286	36,308
Racine Jct	Seneca East #375	69	5.074	MO		290,097	190,511
Noel SW #435	Southwest City #414	69	5.19	MO		296,729	194,867
Joplin W 7th #145	Joplin Vickers #266	69	0.27	MO	Able Manufacturing	15,437	10,138
Galena Tap	Galena #278	69	0.055	MO		3,145	2,065
Joplin 4th & Division	Joplin 2nd Division #372	69	0.205	MO		11,720	7,697
Oakland East #280	Webb City Tom St. #105	69	2.016	MO		115,261	75,694
Pillsbury Tap	Pillsbury #447	69	0.018	MO		1,029	676
Neosho Linde Tap	Neosho Linde #314	69	0.181	MO	Praxair	10,348	6,796
Neosho Rocketdyne Tap	Neosho Rocketdyne #296	69	0.12	MO		6,861	4,506
Diamond Jct. #131	Diamond Shell Tap	69	1.54	MO		88,047	57,822
Diamond Shell Tap	Diamond Shell #242	69	1.04	MO	Enbridge Pipeline	59,460	39,048
Diamond Shell Tap	Granby	69	4.019	MO		229,779	150,900
Sarcoxie Tap	Sarcoxie #362	69	4.332	MO		247,674	162,652
Monett East #416 Jct.	Purdy #390	69	9.275	MO		530,281	348,244
Monett East #416 Jct.	Monett East #416	69	0.357	MO	City of Monett	20,411	13,404

Attachment B – Table (continued)

Pre-January 2008 (Existing) Transmission Radial Lines to be classified as Distribution Per SPP Method

Monett South #376 Jct.	Monett South #376	69	0.188	MO	City of Monett	10,749	7,059
Monett City #311 Jct.	Monett City #311	69	0.093	MO	City of Monett	5,317	3,492
Monett North #352 Jct.	Monett North #352	69	0.284	MO	City of Monett	16,237	10,663
Monett #383	Monett NO West	69	7.811	MO		446,580	293,276
Monett #383	Monett NO East	69	3.8	MO		217,258	142,677
Mt. Vernon East #351	Mt Vernon #348	69	0.976	MO	City of Mt. Vernon	55,801	36,645
Albatross #262	Rescue Explorer #364	69	7.218	MO	Magellan and Explorer	412,676	271,011
Jasper South Tap	Jasper South #344	69	1.019	MO	Magellan	58,259	38,260
Heatonville Cherokee Tap	Heatonville Cherokee Sub338	69	0.267	MO	Conoco and Razorback	15,265	10,025
City Utilities Tap	City Utilities Sub	69	1.207	MO	City Utilities Springfield	69,008	45,319
Willard North #445	Willard #369	69	2.101	MO		120,121	78,885
Bolivar Burns #73	Hermitage East #209	69	24.79	MO		1,417,323	930,780
Hermitage East #209	MOPub Tie	69	8.57	MO		489,974	321,774
Buffalo South #342	Buffalo North #409	69	5.239	MO		299,530	196,706
Buffalo Shell Tap	Buffalo Shell #243	69	0.205	MO	Enbridge Pipeline	11,720	7,697
Brighton Explorer Tap	Brighton Explorer #450	69	1.473	MO	Explorer Pipeline	84,216	55,306
Totals			145.1			7,453,123	4,677,371

**Summary of Existing Transmission Lines For Possible Re-classification
to High Voltage Distribution (HVD)**

		Radial miles	% HVD	Installed cost HVD(\$)	Book Value HVD(\$)
Sum of Mileage					
State	Voltage	Total			
KS	34.5	2.07	6.8%	39,172	15,869
	69	19.19	53.3%	1,000,074	639,623
KS Total		21.26		1,039,245	655,493
MO	34.5	9.49	22.6%	320,996	175,496
	69	99.90	15.0%	5,711,600	3,750,903
MO Total		109.39		6,032,596	3,926,398
OK	34.5	9.09	100.0%	238,394	26,388
	69	5.75	19.9%	142,887	69,092
OK Total		14.84		381,281	95,480
ARK Total		0			0
Grand Total		145.49		7,453,123	4,677,371