

Figure 1. Crude Oil Prices: History and Projections (2003\$/BBL)

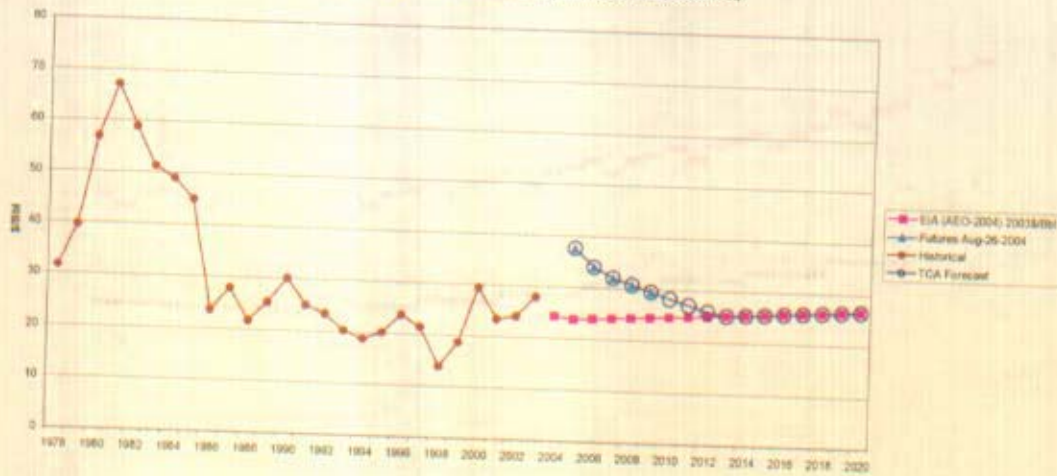


Figure 2. Natural Gas Spot Prices at Henry Hub: History and Projections (2003\$/MMBtu)

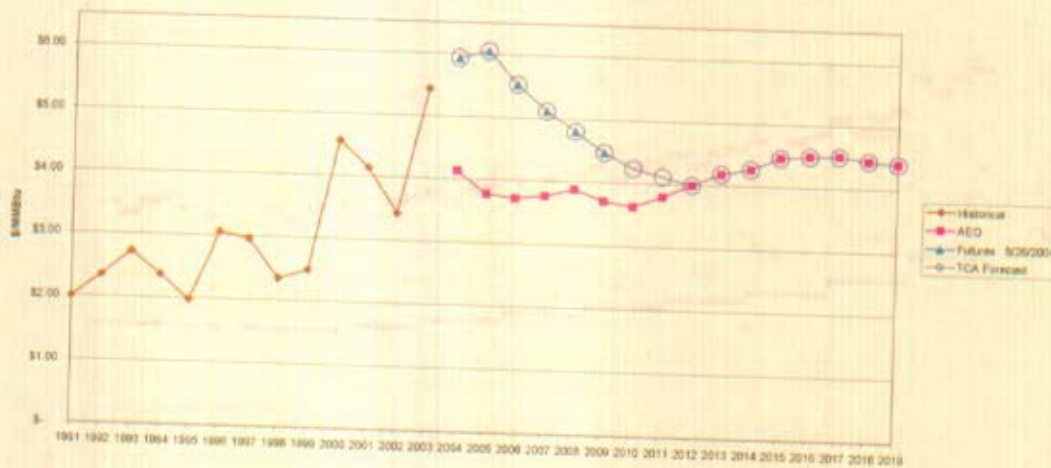


Figure 3. Fuel Price Forecast: Midwest Region (MI, IL, WI, IN, MN)

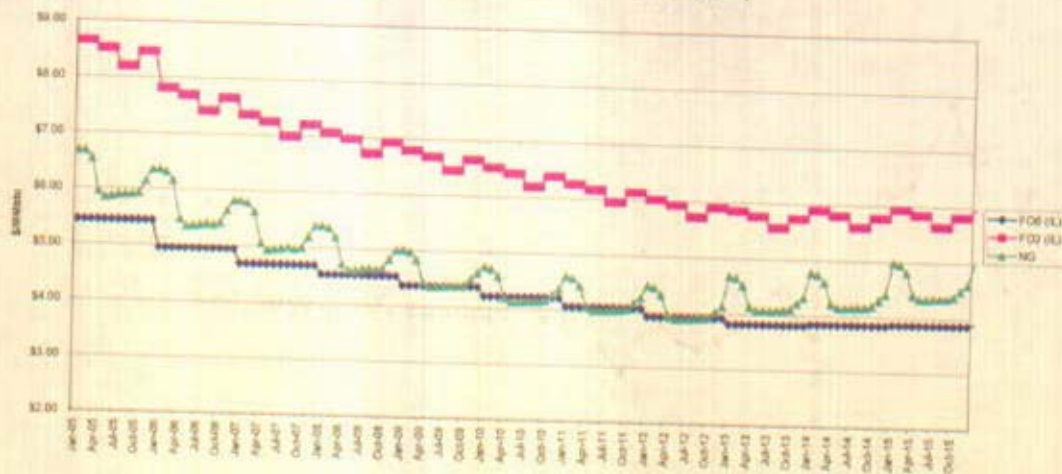


Figure 4. Fuel Price Forecast: South Atlantic - South (AL, AR, LA, MS, TN)

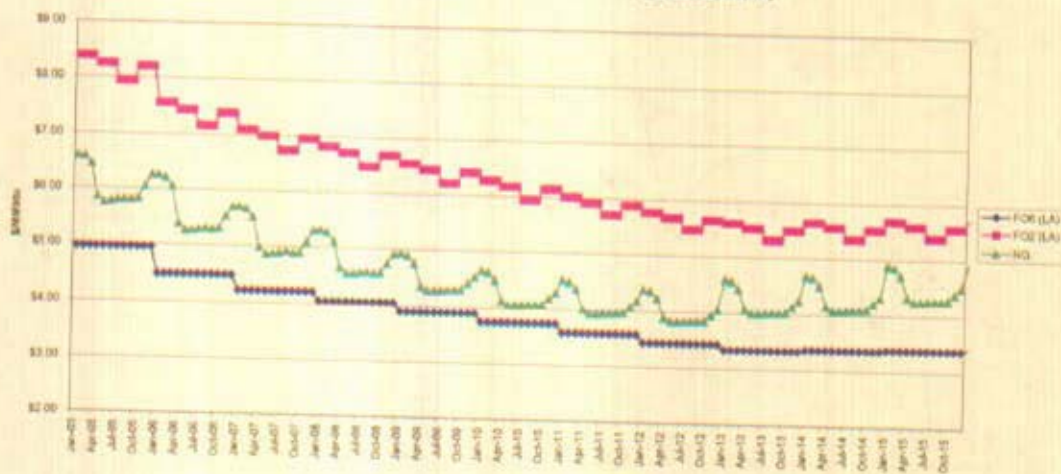


Figure 5. Fuel Price Forecast: South Atlantic East

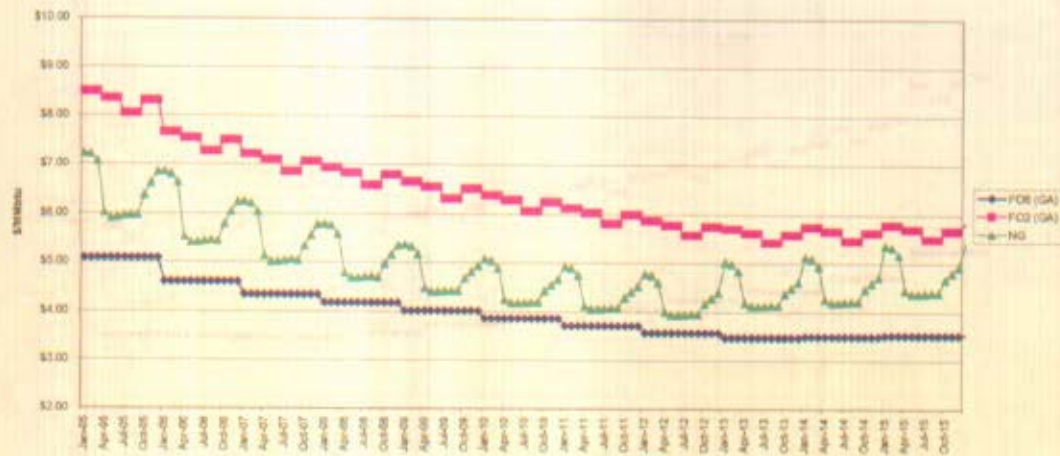


Figure 6. Fuel Price Forecast: Appalachia (W. PA, WV, OH, KY)

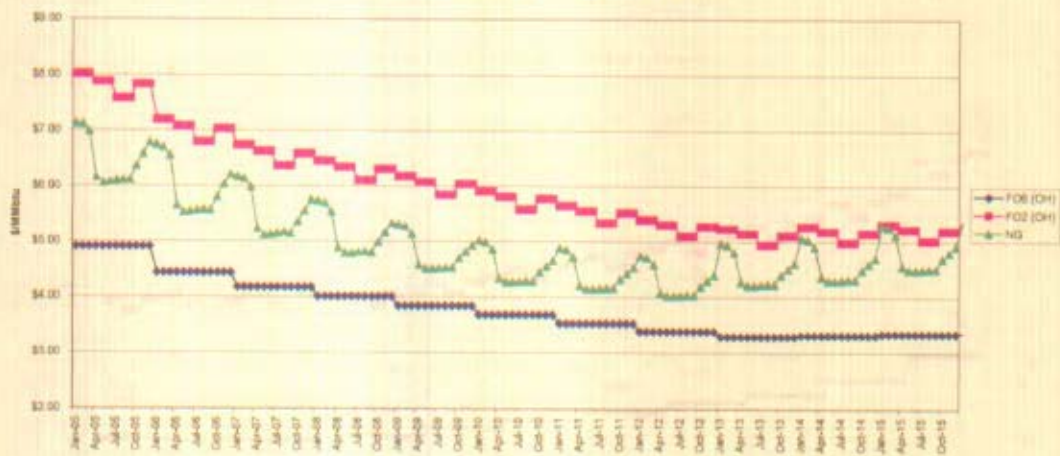


Figure 7. Fuel Price Forecast: Midcon (OK, KS)

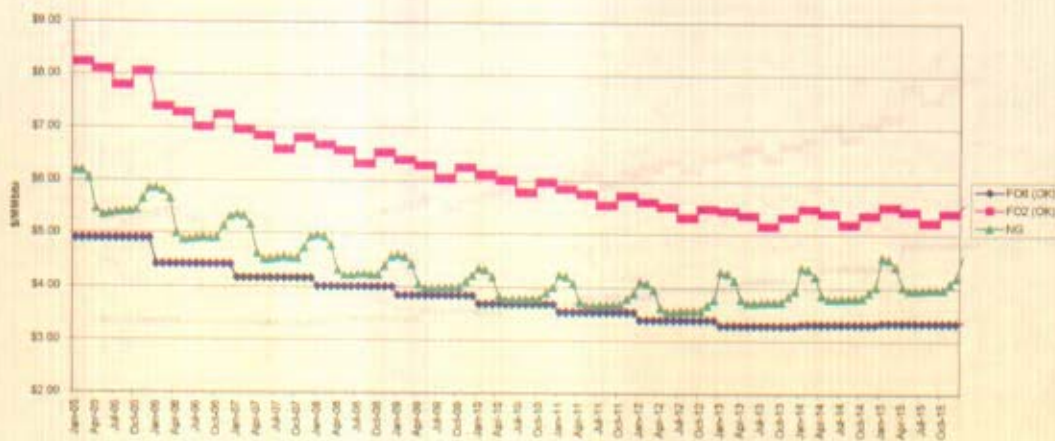


Figure 8. Fuel Price Forecast: Iowa-Missouri-Nebraska

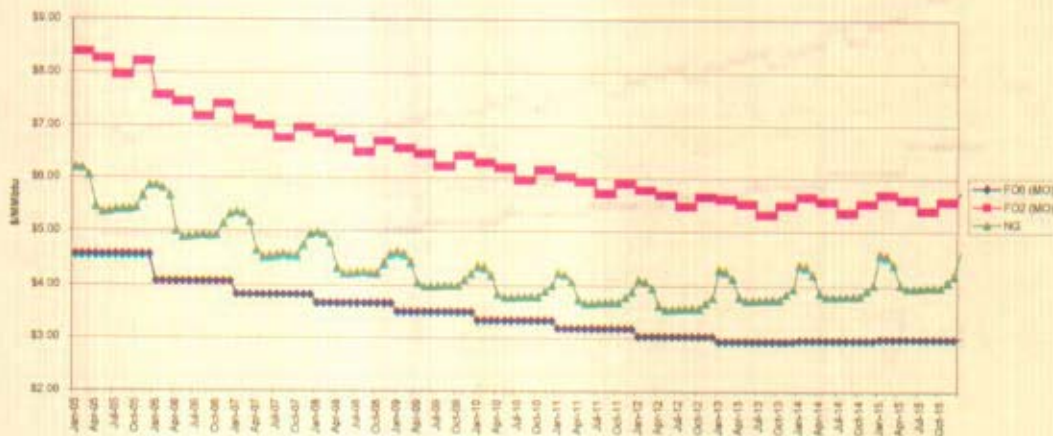
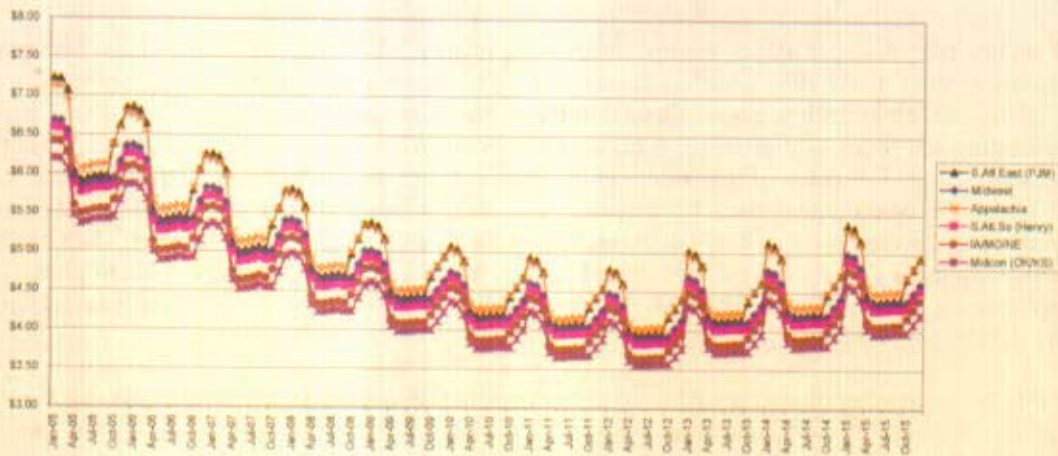


Figure 9. Comparison of Regional Monthly Natural Gas Prices (2005-2015)



Appendix 3-3: Wheeling Rates

Wheeling rates are “per MWh” charges for moving energy from one control area to another in an electric system. In MAPS, wheeling rates are applied to net interregional power flows and are used by the optimization engine in determining the most economically efficient dispatch of generating resources to meet load in each model hour. Wheeling rates are considered for both commitment and dispatch of generating units; however, the rates between any two areas may be different for commitment than for dispatch. For the current analysis, the wheeling rates for commitment were based on the day-ahead firm transmission rates in the individual companies’ tariffs, while the rate for dispatch was based on the real-time rates. As it is impossible to precisely replicate the transmission tariffs in MAPS, the resulting rates were vetted for reasonableness with the CBTF.

Table 3-3.1 gives an overview of the wheeling rates between SPP, MISO, SERC and the Aquila and Cleco control areas for the Base and EIS cases; Table 3-3.2 shows these rates for the Aquila case. Table 3-3.3 shows control area specific wheel-out rates for SPP areas. These rates are used as the inter-area wheeling rates in the Stand Alone case.

Table 3-3.1 Wheeling Rates (Dispatch) in Base and EIS Cases

FROM	TO						
	Region	Scenario	SPP	MISO	SERC	Aquila	Cleco
	SPP	EIS & BC	-	Tariff	Tariff	Tariff	Tariff
		SA	Tariff	Tariff	Tariff	Tariff	Tariff
	MISO	EIS & BC	\$2	-	\$2	-	NA
		SA	\$2	-	\$2	-	NA
	SERC	EIS & BC	\$2	\$2	-	\$2	-
		SA	\$2	\$2	-	\$2	-
	Aquila	EIS & BC	Tariff	-	Tariff	-	NA
		SA	Tariff	-	Tariff	-	NA
	Cleco	EIS & BC	\$4	NA	\$4	NA	-
		SA	\$4	NA	\$4	NA	-

Table 3-3.2 Wheeling Rates (Dispatch) in Aquila Base and EIS Cases

FROM	TO						
	Region	Scenario	SPP	MISO	SERC	Aquila	Cleco
	SPP	EIS & BC	-	Tariff	Tariff	-	Tariff
	MISO	EIS & BC	\$2	-	\$2	\$2	NA
	SERC	EIS & BC	\$2	\$2	-	\$2	-
	Aquila	EIS & BC	-	\$2	\$2	-	NA
	Cleco	EIS & BC	\$4	NA	\$4	NA	-

Table 3-3.3 Wheel-out rates for SPP and Aquila companies

Company	Commitment	Dispatch
Public Service Company of Oklahoma and Southwestern Electric Power Company	\$2	\$2
City Utilities of Springfield, Missouri	\$2	\$3
Empire	\$2	\$2
Grand River Dam Authority	\$3	\$7
Kansas City Power and Light Company	\$2	\$2
Mid-West Energy	\$4	\$6
Oklahoma Gas & Electric Company	\$2	\$2
Southwestern Power Administration	\$1	\$2
Southwestern Public Service	\$2	\$3
Western Resources, Inc	\$2	\$2
Western Farmers Electric Cooperative	\$3	\$3
Aquila Companies		
Missouri Public Service	\$1	\$1
West Plains	\$2	\$3



Appendices 4-1, 4-2, 4-3, and 4-4

Appendix 4-1 Benefits (Costs) by Company for the Stand-Alone Case

Table 1
Benefits/(Costs) of Moving from Base Case to Stand Alone Case
(2006-2015, thousands of January 2006 present value dollars; positive numbers are benefits)

Source:		Table 3	Table 6	Table 7	Table 8	Table 9	Table 10	Table 11	
		Trade Benefits	Wheeling Charges	Wheeling Revenues	Costs to Provide Functions	FERC Charges	Transm. Constr. Costs	Withdrawal Oblig.	Total
TOs Under SPP Tariff									
AEP	IOU	(8,259)	(139,645)	136,610	69	6,260	(5,502)	(12,377)	(22,845)
Empire	IOU	(3,565)	(40,370)	20,573	(707)	1,106	(829)	(1,803)	(25,595)
KCPL	IOU	(4,582)	(5,057)	73,733	(10,815)	3,166	(823)	(4,731)	50,891
OGE	IOU	(1,025)	(87,249)	76,844	(3,536)	5,383	(811)	(8,187)	(18,580)
SPS	IOU	(1,114)	(26,670)	76,126	(3,252)	5,239	1,400	(7,229)	44,500
Westar Energy	IOU	(471)	(67,678)	67,847	(13,614)	1,874	1,345	(6,183)	(16,879)
Midwest Energy	Coop	(10)	(2,818)	6,767	(7,822)	295	327	(670)	(3,931)
Western Farmers	Coop	(962)	(70,356)	17,903	1,071	1,684	1,543	(2,050)	(51,168)
SWPA	Fed	(26)	(33,261)	12,409	(9)	370	2,159	(1,297)	(19,655)
GRDA	State	(179)	(26,182)	20,201	(4,814)	1,087	603	(1,485)	(10,769)
Springfield, MO	Muni	(672)	(511)	6,574	(2,543)	853	1,080	(1,234)	3,547
Sub-Total		(20,864)	(499,797)	515,585	(45,970)	27,315	494	(47,246)	(70,484)
Other Typical Assessment Paying Members									
AECC	Coop	(3,133)	(10,344)	10,119	5	934	(405)	(1,298)	(4,121)
Kansas City, KS	Muni	(1,975)	(651)	9,487	(1,479)	652	-	(1,084)	4,950
OMPA	Muni	(666)	(8,378)	6,549	(160)	781	(89)	(1,022)	(2,985)
Independence, MO	Muni	(219)	(953)	(83)	(455)	344	-	(688)	(2,054)
Sub-Total		(5,993)	(20,326)	26,073	(2,089)	2,711	(494)	(4,092)	(4,210)
Total of Above		(26,857)	(520,124)	541,657	(48,060)	30,027	-	(51,338)	(74,694)
Others									
Cleco Power		(1,471)	(107)	(659)					(2,238)
City of Lafayette, LA		(68)	(21)	(132)					(221)
LEPA		(2)	(12)	(75)					(90)
Aquila - MPS/SJ		(464)	(5,694)	(494)					(6,653)
Sunflower		(144)	595	-					452
Aquila - West Plains		(561)	(6,427)	6,443					(545)
Merchants in SPP		(8,645)	-	-					(8,645)
Rest of Eastern Interconnect		(15,585)	(11,808)	(3,141)					(30,534)
Grand Total		(53,797)	(543,599)	543,599					

Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 2

State Allocation for Multi-State Utilities

Benefits/(Costs) of Moving from Base Case to Stand Alone Case

(2006-2015, thousands of January 2006 present value dollars; positive numbers are benefits)

State Allocation for Multi-State Investor-Owned Utilities

	Wholesale	Retail							Total
		Arkansas	Louisiana	Kansas	Missouri	New Mexico	Oklahoma	Texas	
AEP	12.7%	10.8%	14.1%				44.6%	17.8%	100.0%
Empire	6.4%	3.0%		5.2%	82.7%		2.7%		100.0%
KCPL - Trade	1.0%			41.4%	57.7%				100.0%
KCPL - Other	13.5%			38.8%	47.7%				100.0%
OGE	9.4%	10.5%					80.1%		100.0%
SPS	40.1%			0.1%		13.3%	1.2%	45.3%	100.0%
Westar Energy	12.7%			87.3%					100.0%

Allocations are based on net energy for load, except for KCPL - Other which is based on 4 summer months coincident peak and applies to all KCPL cost-benefit components other than Trade Benefits

In the calculation below, AEP trade benefits are subdivided between PSO and Swepco using the generation of each operating company before the allocation by state. PSO is in Oklahoma only, and Swepco is in Arkansas, Louisiana and Texas.

Benefits/(Costs) of Moving from Base Case to Stand-Alone Case (K\$)

	Wholesale	Retail							Total
		Arkansas	Louisiana	Kansas	Missouri	New Mexico	Oklahoma	Texas	
AEP	(2,901)	(2,307)	(3,012)				(10,822)	(3,802)	(22,845)
Empire	(1,633)	(773)		(1,326)	(21,167)		(696)	-	(25,595)
KCPL	7,430			19,637	23,824				50,891
OGE	(1,743)	(1,958)					(14,879)		(18,580)
SPS	17,853			44		5,914	521	20,167	44,500
Westar Energy	(2,144)			(14,735)					(16,879)
Total	16,863	(5,038)	(3,012)	3,621	2,657	5,914	(25,877)	16,365	11,492

Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 3
Trade Benefits - Stand Alone Case
(Thousands of Dollars)

		<u>Present</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
		<u>Value</u>										
Transmission Owners Under SPP Tariff												
AEP	IOU	(8,259)	(2,267)	(1,860)	(1,433)	(985)	(516)	(667)	(823)	(987)	(1,158)	(1,185)
Empire	IOU	(3,565)	(1,077)	(866)	(644)	(413)	(170)	(235)	(304)	(376)	(451)	(461)
KCPL	IOU	(4,582)	(1,324)	(1,058)	(779)	(486)	(179)	(307)	(440)	(579)	(725)	(741)
OGE	IOU	(1,025)	(224)	(182)	(139)	(93)	(45)	(94)	(145)	(198)	(254)	(260)
SPS	IOU	(1,114)	(29)	(61)	(95)	(131)	(168)	(217)	(269)	(322)	(378)	(387)
Westar Energy	IOU	(471)	(148)	(116)	(82)	(47)	(10)	(24)	(39)	(55)	(71)	(73)
Midwest Energy	Coop	(10)	(4)	(3)	(2)	(1)	(0)	(0)	(1)	(1)	(1)	(1)
Western Farmers	Coop	(962)	(306)	(238)	(166)	(90)	(11)	(45)	(80)	(117)	(156)	(160)
SWPA	Fed	(26)	(5)	(5)	(4)	(3)	(2)	(3)	(4)	(4)	(5)	(5)
GRDA	State	(179)	(50)	(40)	(30)	(19)	(7)	(13)	(18)	(24)	(31)	(31)
Springfield, MO	Muni	(672)	(228)	(180)	(130)	(77)	(22)	(33)	(44)	(55)	(66)	(68)
Sub-Total		(20,864)	(5,662)	(4,608)	(3,503)	(2,345)	(1,131)	(1,638)	(2,167)	(2,719)	(3,296)	(3,372)
Other Typical Assessment Paying Members												
AECC	Coop	(3,133)	(976)	(780)	(575)	(359)	(134)	(191)	(252)	(315)	(380)	(389)
Kansas City, KS	Muni	(1,975)	(657)	(519)	(373)	(221)	(62)	(98)	(137)	(177)	(219)	(224)
OMPA	Muni	(666)	(204)	(162)	(118)	(72)	(23)	(40)	(57)	(75)	(94)	(96)
Independence, MO	Muni	(219)	(54)	(44)	(34)	(24)	(13)	(20)	(26)	(33)	(40)	(41)
Sub-Total		(5,993)	(1,891)	(1,505)	(1,100)	(676)	(232)	(349)	(472)	(600)	(733)	(750)
Total of Above		(26,857)	(7,553)	(6,113)	(4,603)	(3,021)	(1,363)	(1,987)	(2,638)	(3,319)	(4,029)	(4,122)
Others												
Cleco Power		(1,471)	(645)	(497)	(342)	(180)	(9)	(9)	(9)	(8)	(8)	(8)
City of Lafayette, LA		(68)	(26)	(20)	(14)	(7)	(1)	(2)	(3)	(5)	(6)	(6)
LEPA		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(1)	(1)	(1)	(1)
Aquila - MPS/SJ		(464)	(108)	(90)	(71)	(52)	(31)	(44)	(58)	(73)	(88)	(90)
Sunflower		(144)	(30)	(26)	(23)	(18)	(14)	(17)	(19)	(22)	(24)	(25)
Aquila - West Plains		(561)	(206)	(161)	(113)	(64)	(12)	(19)	(28)	(36)	(45)	(46)
Merchants in SPP		(8,645)	1,473	1,355	1,230	1,100	962	(1,353)	(3,775)	(6,308)	(8,956)	(9,162)
Rest of Eastern Interconnect		(15,585)	(5,125)	(4,035)	(2,891)	(1,693)	(438)	(777)	(1,131)	(1,501)	(1,888)	(1,931)
Grand Total		(53,797)	(12,220)	(9,588)	(6,827)	(3,935)	(906)	(4,208)	(7,662)	(11,273)	(15,045)	(15,391)

Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 4
Increase in Owned Generation Production Cost -- Moving from Base Case to Stand-Alone Case
(Thousands of Dollars)

		<u>Present</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
		<u>Value</u>										
Transmission Owners Under SPP Tariff												
AEP	IOU	116,690	8,307	12,399	16,674	21,140	25,802	24,223	22,559	20,805	18,958	19,395
Empire	IOU	48,428	5,938	6,597	7,283	7,997	8,741	8,489	8,221	7,936	7,634	7,810
KCP&L	IOU	(37,496)	(3,665)	(4,039)	(4,428)	(4,833)	(5,254)	(6,287)	(7,363)	(8,487)	(9,657)	(9,880)
OGE	IOU	(11,099)	440	(24)	(509)	(1,017)	(1,547)	(2,348)	(3,185)	(4,060)	(4,972)	(5,087)
SPS	IOU	39,436	1,355	3,241	5,213	7,273	9,426	8,927	8,401	7,846	7,261	7,428
Westar Energy	IOU	10,724	1,231	1,353	1,479	1,611	1,748	1,834	1,923	2,015	2,111	2,159
Midwest Energy	Coop	146	32	28	23	18	13	16	19	22	25	25
Western Farmers	Coop	7,313	2,175	1,395	577	(278)	(1,174)	(96)	1,032	2,212	3,445	3,525
SWPA	Fed	(2)	(0)	(0)	(0)	(1)	(1)	(1)	(0)	(0)	0	0
GRDA	State	(359)	(40)	(50)	(60)	(71)	(83)	(71)	(59)	(47)	(33)	(34)
Springfield, MO	Muni	(8,403)	(2,745)	(2,216)	(1,663)	(1,082)	(474)	(517)	(562)	(609)	(657)	(672)
Sub-Total		165,378	13,029	18,683	24,589	30,758	37,197	34,170	30,985	27,635	24,114	24,669
Other Typical Assessment Paying Members												
AECC	Coop	30,583	3,929	4,290	4,666	5,056	5,463	5,281	5,089	4,884	4,668	4,775
Kansas City, KS	Muni	(11,030)	(1,710)	(1,686)	(1,660)	(1,632)	(1,602)	(1,668)	(1,736)	(1,806)	(1,878)	(1,922)
OMPA	Muni	11,589	1,642	1,650	1,657	1,664	1,670	1,797	1,929	2,065	2,207	2,258
Independence, MO	Muni	3,840	481	516	553	591	630	645	661	677	693	709
Sub-Total		34,981	4,342	4,770	5,216	5,679	6,161	6,066	5,942	5,821	5,690	5,821
Total of Above		200,359	17,372	23,453	29,805	36,437	43,358	40,226	36,927	33,455	29,804	30,490
Others												
Cleco Power		(11,358)	(3,705)	(3,075)	(2,415)	(1,723)	(998)	(839)	(673)	(496)	(315)	(322)
City of Lafayette, LA		900	236	189	140	89	35	68	102	138	175	180
LEPA		(86)	(1)	(12)	(23)	(35)	(47)	(30)	(13)	6	26	26
Aquila - MPS/SJ		(9,371)	(1,571)	(1,623)	(1,676)	(1,731)	(1,788)	(1,544)	(1,289)	(1,020)	(739)	(756)
Sunflower		4,865	271	491	721	962	1,213	1,087	955	817	671	687
Aquila - West Plains		6,384	1,377	1,213	1,040	858	668	740	815	893	975	997
Merchants in SPP		(107,281)	(6,064)	(10,408)	(14,948)	(19,692)	(24,645)	(23,135)	(21,542)	(19,863)	(18,096)	(18,512)
Rest of Eastern Interconnect		(30,614)	4,306	(640)	(5,816)	(11,230)	(16,889)	(12,364)	(7,622)	(2,656)	2,543	2,602
Grand Total		53,797	12,220	9,588	6,827	3,935	906	4,208	7,662	11,273	15,045	15,391

Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 5
Increase in Owned Generation -- Moving from Base Case to Stand-Alone Case
(Thousands of MWh)

		<u>Total</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Transmission Owners Under SPP Tariff												
AEP	IOU	5,243	337	425	513	600	688	634	579	525	470	470
Empire	IOU	1,946	160	177	193	210	226	215	205	194	183	183
KCP&L	IOU	(2,479)	(197)	(208)	(218)	(229)	(239)	(253)	(267)	(281)	(294)	(294)
OGE	IOU	(683)	(33)	(40)	(46)	(53)	(60)	(70)	(81)	(92)	(103)	(103)
SPS	IOU	1,423	(4)	53	110	167	224	206	189	171	154	154
Westar Energy	IOU	209	22	20	18	15	13	17	21	25	29	29
Midwest Energy	Coop	3	1	0	0	0	0	0	0	0	0	0
Western Farmers	Coop	277	46	31	15	0	(15)	5	24	44	63	63
SWPA	Fed	(22)	(1)	(1)	(2)	(3)	(3)	(3)	(3)	(2)	(2)	(2)
GRDA	State	(99)	(7)	(8)	(8)	(9)	(9)	(10)	(11)	(12)	(13)	(13)
Springfield, MO	Muni	(299)	(34)	(33)	(32)	(31)	(30)	(29)	(28)	(28)	(27)	(27)
Sub-Total		5,519	289	416	542	669	796	712	628	545	461	461
Other Typical Assessment Paying Members												
AECC	Coop	1,616	145	153	162	170	178	172	166	160	155	155
Kansas City, KS	Muni	(884)	(98)	(94)	(90)	(86)	(82)	(84)	(85)	(87)	(89)	(89)
OMPA	Muni	334	30	31	31	31	31	33	35	36	38	38
Independence, MO	Muni	148	8	10	13	15	18	17	17	17	16	16
Sub-Total		1,214	86	100	115	130	145	139	132	126	120	120
Total of Above		6,733	375	516	658	799	941	851	761	671	581	581
Others												
Cleco Power		(302)	(96)	(75)	(54)	(33)	(13)	(10)	(8)	(6)	(3)	(3)
City of Lafayette, LA		21	4	3	2	1	1	1	2	2	3	3
LEPA		(1)	(0)	(0)	(0)	(0)	(1)	(0)	(0)	0	0	0
Aquila - MPS/SJ		(330)	(16)	(22)	(29)	(35)	(41)	(40)	(38)	(37)	(36)	(36)
Sunflower		122	4	8	12	15	19	17	14	12	10	10
Aquila - West Plains		203	31	27	23	19	16	16	17	18	18	18
Merchants in SPP		(4,432)	(156)	(276)	(395)	(514)	(633)	(582)	(532)	(482)	(432)	(432)
Rest of Eastern Inter/Other		(2,013)	(145)	(181)	(217)	(253)	(289)	(252)	(215)	(178)	(141)	(141)
Grand Total		-	-	-	-	-	-	-	-	-	-	-

Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 6
Increase in Transmission Wheeling Charges -- Moving from Base Case to StandAlone Case
(Thousands of Dollars)

		Present Value	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Transmission Owners Under SPP Tariff												
AEP	IOU	139,645	19,552	20,688	21,866	23,088	24,353	23,367	22,323	21,218	20,050	20,511
Empire	IOU	40,370	6,625	6,499	6,364	6,220	6,065	6,064	6,060	6,053	6,042	6,181
KCPL	IOU	5,057	1,002	902	798	688	572	632	694	758	825	844
OGE	IOU	87,249	14,408	13,998	13,562	13,098	12,606	12,883	13,166	13,455	13,750	14,067
SPS	IOU	26,670	2,337	2,996	3,684	4,401	5,150	5,106	5,057	5,002	4,943	5,057
Westar Energy	IOU	67,678	7,071	8,094	9,160	10,272	11,429	11,954	12,497	13,059	13,640	13,953
Midwest Energy	Coop	2,818	294	337	381	428	476	498	520	544	568	581
Western Farmers	Coop	70,356	8,952	9,542	10,154	10,789	11,448	11,744	12,047	12,358	12,676	12,968
SWPA	Fed	33,261	5,103	5,089	5,071	5,050	5,026	5,122	5,220	5,319	5,421	5,545
GRDA	State	26,182	2,821	3,178	3,551	3,939	4,343	4,567	4,799	5,039	5,288	5,409
Springfield, MO	Muni	511	205	135	61	(16)	(96)	(29)	41	114	191	196
Sub-Total		499,797	68,369	71,458	74,652	77,956	81,372	81,906	82,422	82,918	83,394	85,312
Other Typical Assessment Paying Members												
AECC	Coop	10,344	1,448	1,532	1,620	1,710	1,804	1,731	1,654	1,572	1,485	1,519
Kansas City, KS	Muni	651	129	116	103	88	74	81	89	98	106	109
OMPA	Muni	8,378	1,267	1,277	1,286	1,295	1,304	1,311	1,317	1,323	1,328	1,358
Independence, MO	Muni	953	123	131	139	147	155	159	162	165	169	173
Sub-Total		20,326	2,967	3,056	3,147	3,241	3,337	3,282	3,222	3,157	3,068	3,159
Total of Above		520,124	71,336	74,514	77,800	81,197	84,710	85,188	85,644	86,076	86,462	88,471
Others												
Cleco Power		107	(3)	2	8	14	20	24	29	34	39	40
City of Lafayette, LA		21	(1)	0	2	3	4	5	6	7	8	8
LEPA		12	(0)	0	1	2	2	3	3	4	4	5
Aquila - MPS/SJ		5,694	734	780	828	877	929	948	968	988	1,009	1,032
Sunflower		(595)	(26)	(50)	(76)	(103)	(130)	(128)	(126)	(124)	(121)	(124)
Aquila - West Plains		6,427	671	769	870	975	1,085	1,135	1,187	1,240	1,295	1,325
Merchants in SPP		-	-	-	-	-	-	-	-	-	-	-
Rest of Eastern Interconnect		11,808	1,529	1,573	1,618	1,665	1,712	1,881	2,057	2,240	2,431	2,487
Grand Total		543,599	74,241	77,588	81,050	84,630	88,332	89,057	89,768	90,465	91,147	93,243



Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 7
Increase in Transmission Wheeling Revenues -- Moving from Base Case to Stand Alone Case
(Thousands of Dollars)

		Present Value	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Transmission Owners Under SPP Tariff												
AEP	IOU	136,610	18,640	19,496	20,382	21,299	22,246	22,405	22,558	22,707	22,851	23,377
Empire	IOU	20,573	2,807	2,936	3,069	3,207	3,350	3,374	3,397	3,420	3,441	3,520
KCPL	IOU	73,733	10,061	10,523	11,001	11,496	12,007	12,092	12,175	12,256	12,334	12,617
OGE	IOU	76,844	10,485	10,967	11,465	11,981	12,514	12,603	12,689	12,773	12,854	13,150
SPS	IOU	76,126	10,387	10,864	11,358	11,869	12,397	12,485	12,571	12,654	12,734	13,027
Westar Energy	IOU	67,847	9,258	9,683	10,123	10,578	11,049	11,127	11,203	11,277	11,349	11,610
Midwest Energy	Coop	6,767	923	966	1,010	1,055	1,102	1,110	1,117	1,125	1,132	1,158
Western Farmers	Coop	17,903	2,443	2,555	2,671	2,791	2,915	2,936	2,956	2,976	2,995	3,064
SWPA	Fed	12,409	1,693	1,771	1,851	1,935	2,021	2,035	2,049	2,063	2,076	2,123
GRDA	State	20,201	2,756	2,883	3,014	3,150	3,290	3,313	3,336	3,358	3,379	3,457
Springfield, MO	Muni	6,574	897	938	981	1,025	1,071	1,078	1,086	1,093	1,100	1,125
Sub-Total		515,585	70,351	73,583	76,926	80,384	83,961	84,558	85,138	85,701	86,244	88,227
Other Typical Assessment Paying Members												
AECC	Coop	10,119	1,381	1,444	1,510	1,578	1,648	1,660	1,671	1,682	1,693	1,732
Kansas City, KS	Muni	9,487	1,294	1,354	1,415	1,479	1,545	1,556	1,567	1,577	1,587	1,623
OMPA	Muni	6,549	894	935	977	1,021	1,067	1,074	1,081	1,089	1,096	1,121
Independence, MO	Muni	(83)	(6)	(9)	(12)	(15)	(18)	(17)	(16)	(15)	(14)	(14)
Sub-Total		26,073	3,563	3,724	3,891	4,063	4,241	4,273	4,303	4,333	4,361	4,462
Total of Above		541,657	73,914	77,307	80,817	84,447	88,202	88,831	89,441	90,033	90,605	92,689
Others												
Cleco Power		(659)	(211)	(170)	(127)	(83)	(36)	(42)	(48)	(54)	(60)	(62)
City of Lafayette, LA		(132)	(42)	(34)	(25)	(17)	(7)	(8)	(9)	(11)	(12)	(12)
LEPA		(75)	(24)	(19)	(15)	(9)	(4)	(5)	(5)	(6)	(7)	(7)
Aquila - MPS/SJ		(494)	(36)	(53)	(70)	(88)	(107)	(102)	(95)	(89)	(82)	(84)
Sunflower		-	-	-	-	-	-	-	-	-	-	-
Aquila - West Plains		6,443	879	920	961	1,005	1,049	1,057	1,064	1,071	1,078	1,103
Merchants in SPP		-	-	-	-	-	-	-	-	-	-	-
Rest of Eastern Interconnect		(3,141)	(239)	(362)	(490)	(625)	(765)	(874)	(579)	(480)	(375)	(384)
Grand Total		543,599	74,241	77,588	81,050	84,630	88,332	89,057	89,768	90,465	91,147	93,243

Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 8
Costs Incurred for Provision of SPP Functions, 2006-2015

				SPP Provides Functions	Transmission Owners Provide/Procure SPP Functions	Additional Cost Incurred If StandAlone	Additional Cost Net of Allocation Below
Transmission Owners Under SPP Tariff							
AEP	IOU			28,881	28,806	(75)	(69)
Empire	IOU			4,372	5,079	707	707
KCPL	IOU			13,846	24,661	10,815	10,815
OGE	IOU			22,570	26,292	3,722	3,536
SPS	IOU			21,589	24,842	3,252	3,252
Westar Energy	IOU			21,551	35,165	13,614	13,614
Midwest Energy	Coop			879	8,701	7,822	7,822
Western Farmers	Coop			5,020	3,924	(1,096)	(1,071)
SWPA	Fed			1,102	1,111	9	9
GRDA	State	A		3,241	8,055	4,814	4,814
Springfield, MO	Muni	A		2,542	5,085	2,543	2,543
Total				125,595	171,720	46,125	45,970
Other Typical Assessment Paying Members:							
<i>Control Area Operators:</i>							
Kansas City, KS	Muni	A		1,944	3,424	1,479	1,479
Independence, MO	Muni	A		1,026	1,481	455	455
<i>Others within Control Areas:</i>							
				Avg Load Ratio Share of Control Area			
				AEP	OGE	Westar	WFEC
AECC	Coop			6.8%			
OMPA	Muni			1.4%	5.0%		2.3%
Total				8.1%	5.0%	0.0%	2.3%
Total of Above						48,060	48,060

A: Based on average \$/MWh costs for MIDW, WFEC, and SWPA.



Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 9
Savings in FERC Fees if Stand Alone and Not Part of SPP RTO
Thousands of Dollars

		FERC Fees Based on 1999-2003 Average		Allocated FERC Fees if Part of SPP RTO		Savings in FERC Fees if Not Part of SPP RTO	
		2006	PV2006-15	2006	PV2006-15	2006	PV2006-15
TOs Under SPP Tariff							
AEP	IOU	487	3,426	1,377	9,686	889	6,260
Empire	IOU	51	360	208	1,466	157	1,106
KCP&L	IOU	210	1,477	660	4,643	450	3,166
OGE	IOU	311	2,186	1,076	7,569	765	5,383
SPS	IOU	285	2,001	1,029	7,240	745	5,239
Westar Energy	IOU	762	5,354	1,027	7,228	266	1,874
Midwest Energy	Coop	0	0	42	295	42	295
Western Farmers	Coop	0	0	239	1,684	239	1,684
SWPA	Fed	0	0	53	370	53	370
GRDA	State	0	0	155	1,087	155	1,087
Springfield, MO	Muni	0	0	121	853	121	853
Sub-Total		2,106	14,805	5,988	42,120	3,881	27,315
Other Typical Assessment Paying Members							
AECC	Coop	0	0	133	934	133	934
Kansas City, KS	Muni	0	0	93	652	93	652
OMPA	Muni	0	0	111	781	111	781
Independence, MO	Muni	0	0	49	344	49	344
Sub-Total		0	0	385	2,711	385	2,711
Total of Above		2,106	14,805	6,373	44,831	4,267	30,027



Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 10
Savings/(Additional Costs) Under Stand Alone Cost Allocation Method
vs. Base Case Method for 2006-2010 Transmission Projects
(thousands of revenue requirements dollars)

	2006-2010 Annual Average	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Present Value	Present Value Net of Allocation Below
Estimated Ramp-up (A)		20%	40%	60%	80%	100%	100%	100%	100%	100%	100%		
Transmission Owners Under SPP Tariff													
AEP	(1,274)	(255)	(509)	(764)	(1,019)	(1,274)	(1,274)	(1,274)	(1,274)	(1,274)	(1,274)	(5,990)	(5,502)
Empire	(176)	(35)	(70)	(106)	(141)	(176)	(176)	(176)	(176)	(176)	(176)	(829)	(829)
KCPPL	(175)	(35)	(70)	(105)	(140)	(175)	(175)	(175)	(175)	(175)	(175)	(823)	(823)
OGE	(181)	(36)	(73)	(109)	(145)	(181)	(181)	(181)	(181)	(181)	(181)	(853)	(811)
SPS	298	60	119	179	238	298	298	298	298	298	298	1,400	1,400
Westar	286	57	114	172	229	286	286	286	286	286	286	1,345	1,345
Midwest Energy	70	14	28	42	56	70	70	70	70	70	70	327	327
Westar Energy	336	67	134	201	269	336	336	336	336	336	336	1,579	1,543
SWPA	459	92	184	275	367	459	459	459	459	459	459	2,159	2,159
GRDA	128	26	51	77	103	128	128	128	128	128	128	603	603
Springfield, MO	230	46	92	138	184	230	230	230	230	230	230	1,080	1,080
Total													494
Other Typical Assessment Paying Members													
		Load Share of Control Area										Pres Value Allocated	
		AEP	OGE	Westar	WFEC							Share	
AECC		6.8%										(405)	
OMPA		1.4%	5.0%		2.3%							(89)	
		8.1%	5.0%	0.0%	2.3%							(494)	

CRA assumed that the 2006-2010 transmission projects would enter service on a pro-rata annual basis over the 5-year period.

Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 11
SPP Withdrawal Obligations
(thousands of dollars)

Transmission Owners Under SPP Tariff		
AEP	IOU	12,377
Empire	IOU	1,803
KCPL	IOU	4,731
OGE	IOU	8,187
SPS	IOU	7,229
Westar Energy	IOU	6,183
Midwest Energy	Coop	670
Western Farmers	Coop	2,050
SWPA	Fed	1,297
GRDA	State	1,485
Springfield, MO	Muni	<u>1,234</u>
Sub-Total		47,246
Other Typical Assessment Paying Members		
AECC	Coop	1,298
Kansas City, KS	Muni	1,084
OMPA	Muni	1,022
Independence, MO	Muni	<u>688</u>
Sub-Total		4,092
Total of Above		51,338

Source: July 27, 2004 SPP Finance Committee
Recommendation to the Board of Directors

Appendix 4-2 Benefits (Costs) by Company for the EIS Market Case

Table 1
Benefits/(Costs) of Moving from Base Case to EIS Market Case

(2006-2015, thousands of January 2006 present value dollars; positive numbers indicate benefits)

Source		Table 3	Table 6	Table 7	Table 8	Table 9	
		Trade	Transmission	Transmission	SPP	Participant	
		Benefits	Charges	Charges	IE Imple-	IE Imple-	Total
			Paid	Collected	mentation	mentation	
					Costs	Costs	
TOs Under SPP Tariff							
AEP	IOU	106,541	17,012	(14,092)	(24,099)	(26,860)	58,502
Empire	IOU	61,646	(66)	(2,122)	(3,648)	(7,936)	47,874
KCPL	IOU	31,082	1,249	(7,606)	(11,553)	(15,328)	(2,156)
OGE	IOU	126,375	10,435	(7,927)	(18,833)	(14,739)	95,310
SPS	IOU	100,178	2,738	(7,853)	(18,015)	(7,676)	69,372
Westar Energy	IOU	73,009	(1,221)	(6,999)	(17,983)	(19,394)	27,412
Midwest Energy	Coop	925	(51)	(698)	(733)	(132)	(689)
Western Farmers	Coop	86,958	(722)	(1,847)	(4,189)	(4,989)	75,211
SWPA	Fed	5,627	239	(1,280)	(920)	(2,472)	1,194
GRDA	State	11,775	(6,992)	(2,084)	(2,705)	(4,967)	(4,971)
Springfield, MO	Muni	10,160	1,767	(678)	(2,121)	(3,135)	5,992
Sub-Total		614,277	24,388	(53,185)	(104,801)	(107,629)	373,050
Other Typical Assessment Paying Members							
AECC	Coop	26,131	1,260	(1,044)	(2,325)	-	24,023
Kansas City, KS	Muni	6,209	161	(979)	(1,622)	-	3,768
OMPA	Muni	17,768	792	(676)	(1,943)	-	15,941
Independence, MO	Muni	3,200	(847)	(9)	(856)	-	1,487
Sub-Total		53,308	1,365	(2,708)	(6,746)	-	45,220
Total of Above		667,585	25,754	(55,893)	(111,547)	(107,629)	418,270
Others							
Cleco Power		12,462	1,023	10,592			24,077
City of Lafayette, LA		2,106	204	2,116			4,426
LEPA		608	117	1,211			1,936
Aquila - MPS/SJ		1,811	(5,061)	(56)			(3,307)
Sunflower		451	(1,820)	-			(1,369)
Aquila - West Plains		3,640	(116)	(665)			2,860
Merchants in SPP		123,868	-	-			123,868
Rest of Eastern Interconnect		360,049	38,589	(15,995)			382,643
Grand Total		1,172,581	58,690	(58,690)			

Appendix 4-2: Benefits (Costs) by Company for the EIS Market Case (cont.)

Table 2
State Allocation for Multi-State Utilities
Benefits/(Costs) of Moving from Base Case to EIS Market Case
(2005-2014, thousands of January 2006 present value dollars)

State Allocation for Multi-State Utilities

	Wholesale	Retail						Total
		Arkansas	Louisiana	Kansas	Missouri	New Mexico	Oklahoma	
AEP	12.7%	10.8%	14.1%				44.6%	100.0%
Empire	6.4%	3.0%		5.2%	82.7%		2.7%	100.0%
KCPL - Trade	1.0%			41.4%	57.7%			100.0%
KCPL - Other	13.5%			38.8%	47.7%			100.0%
OG&E	9.4%	10.5%					80.1%	100.0%
SPS	40.1%			0.1%		13.3%	1.2%	100.0%
Westar Energy	12.7%			87.3%				100.0%

Allocations are based on net energy for load, except for KCPL - Other which is based on 4 summer months coincident peak and applies to all KCPL cost-benefit components other than Trade Benefits

In the calculation below, AEP trade benefits are subdivided between PSO and Swepeco using the generation of each operating company before the allocation by state. PSO is in Oklahoma only, and Swepeco is in Arkansas, Louisiana and Texas.

Benefits/(Costs) of Moving from Base Case to EIS Case

	Wholesale	Retail						Total
		Arkansas	Louisiana	Kansas	Missouri	New Mexico	Oklahoma	
AEP	7,430	(2,942)	(3,840)				62,703	58,502
Empire	3,054	1,446		2,480	39,592		1,302	47,874
KCPL	(4,183)			(46)	2,073			(2,156)
OG&E	8,940	10,046					76,324	95,310
SPS	27,832			69		9,219	812	69,372
Westar Energy	3,481			23,930				27,412
Total	46,555	8,550	(3,840)	26,433	41,664	9,219	141,141	296,313

Appendix 4-2: Benefits (Costs) by Company for the EIS Market Case (cont.)

Table 3
Trade Benefits - EIS Case
(Thousands of Dollars)

		Present Value	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Transmission Owners Under SPP Tariff												
AEP	IOU	106,541	7,263	10,281	13,434	16,726	20,163	20,905	21,670	22,459	23,274	23,809
Empire	IOU	61,846	8,663	8,881	9,105	9,334	9,569	9,847	10,133	10,427	10,728	10,975
KCPL	IOU	31,082	3,284	4,132	5,018	5,943	6,907	6,121	5,295	4,428	3,518	3,599
OGE	IOU	126,375	12,900	15,050	17,292	19,630	22,066	22,700	23,352	24,022	24,710	25,279
SPS	IOU	100,178	7,468	10,428	13,521	16,751	20,122	19,902	19,860	19,397	19,112	19,551
Westar Energy	IOU	73,009	7,011	9,135	11,353	13,668	16,084	14,549	12,935	11,239	9,458	9,676
Midwest Energy	Coop	925	80	100	120	141	163	171	180	188	197	202
Western Farmers	Coop	86,958	7,603	9,406	11,288	13,252	15,300	16,075	16,877	17,708	18,568	18,995
SWPA	Fed	5,627	573	668	767	871	979	1,010	1,042	1,075	1,108	1,134
GRDA	State	11,775	1,021	1,288	1,564	1,853	2,155	2,212	2,270	2,330	2,391	2,446
Springfield, MO	Muni	10,160	821	1,081	1,353	1,636	1,932	1,956	1,980	2,004	2,028	2,074
Sub-Total		614,277	56,686	70,450	84,816	99,806	115,440	115,447	115,393	115,276	115,092	117,739
Other Typical Assessment Paying Members												
AECC	Coop	26,131	2,840	3,820	4,844	5,913	7,029	5,594	4,090	2,513	861	881
Kansas City, KS	Muni	5,209	1,378	1,290	1,197	1,100	997	842	679	509	330	338
OMPA	Muni	17,768	2,470	2,636	2,808	2,988	3,173	3,008	2,833	2,649	2,454	2,511
Independence, MO	Muni	3,200	259	329	404	481	562	598	635	674	715	731
Sub-Total		53,308	6,946	8,075	9,254	10,482	11,761	10,042	8,238	6,345	4,360	4,461
Total of Above		667,585	63,632	78,525	94,069	110,287	127,202	125,489	123,631	121,621	119,453	122,200
Others												
Cleco Power		12,462	1,835	1,587	1,326	1,053	766	1,511	2,289	3,103	3,953	4,044
City of Lafayette, LA		2,106	233	224	214	204	193	305	422	544	672	687
LEPA		608	28	49	71	94	119	125	132	139	146	150
Aquila - MPS/SJ		1,811	1,094	767	425	67	(308)	(209)	(106)	3	116	118
Sunflower		451	(136)	(101)	(64)	(25)	16	115	219	328	441	451
Aquila - West Plains		3,640	15	305	608	925	1,256	1,009	750	479	194	199
Merchants in SPP		123,868	4,184	9,353	14,757	20,406	26,306	26,785	27,273	27,769	28,274	28,924
Rest of Eastern Interconnect		360,049	34,304	42,047	50,129	58,559	67,352	67,200	67,005	66,766	66,480	68,009
Grand Total		1,172,581	105,189	132,756	161,537	191,571	222,901	222,330	221,616	220,751	219,729	224,783

Appendix 4-2: Benefits (Costs) by Company for the EIS Market Case (cont.)

Table 4
Increase in Owned Generation Production Costs -- Moving from Base Case to EIS Case
(Thousands of Dollars)

		<u>Present Value</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Transmission Owners Under SPP Tariff												
AEP	IOU	(888,481)	(127,063)	(126,334)	(125,505)	(124,570)	(123,527)	(135,838)	(148,241)	(161,352)	(174,988)	(179,012)
Empire	IOU	(169,838)	(24,840)	(24,857)	(24,861)	(24,853)	(24,831)	(26,222)	(27,665)	(29,160)	(30,710)	(31,416)
KCPL	IOU	(71,448)	(6,856)	(8,991)	(11,219)	(13,546)	(15,973)	(14,330)	(12,603)	(10,788)	(8,884)	(9,088)
OGE	IOU	(699,283)	(98,264)	(98,391)	(98,472)	(98,505)	(98,487)	(107,805)	(117,499)	(127,583)	(138,067)	(141,243)
SPS	IOU	(340,068)	(31,438)	(39,043)	(46,982)	(55,266)	(63,905)	(63,893)	(63,847)	(63,765)	(63,645)	(65,109)
Westar Energy	IOU	(63,341)	(7,997)	(7,003)	(5,959)	(4,864)	(3,715)	(8,038)	(12,559)	(17,263)	(22,218)	(22,729)
Midwest Energy	Coop	(307)	(49)	(49)	(48)	(47)	(46)	(46)	(47)	(47)	(46)	(46)
Western Farmers	Coop	(304,676)	(31,269)	(35,139)	(39,171)	(43,369)	(47,740)	(52,557)	(57,571)	(62,788)	(68,214)	(69,783)
SWPA	Fed	(2)	(0)	(0)	(0)	(1)	(1)	(1)	(0)	0	0	0
GRDA	State	802	111	110	109	107	106	121	138	155	172	176
Springfield, MO	Muni	(32,096)	(4,936)	(4,807)	(4,670)	(4,524)	(4,369)	(4,753)	(5,151)	(5,565)	(5,996)	(6,134)
Sub-Total		(2,568,737)	(332,602)	(344,505)	(356,780)	(369,437)	(382,488)	(413,162)	(445,045)	(478,176)	(512,596)	(524,386)
Other Typical Assessment Paying Members												
AECC	Coop	(68,569)	(8,018)	(9,710)	(11,475)	(13,317)	(15,237)	(13,254)	(11,171)	(8,986)	(6,694)	(6,848)
Kansas City, KS	Muni	8,086	2,042	1,860	1,667	1,465	1,253	999	733	454	162	166
OMPA	Muni	(95,492)	(11,767)	(12,756)	(13,788)	(14,859)	(15,973)	(16,231)	(16,493)	(16,759)	(17,028)	(17,419)
Independence, MO	Muni	(11,562)	(966)	(1,186)	(1,415)	(1,654)	(1,904)	(2,101)	(2,307)	(2,521)	(2,743)	(2,806)
Sub-Total		(167,537)	(18,708)	(21,794)	(25,011)	(28,365)	(31,861)	(30,587)	(29,238)	(27,811)	(26,303)	(26,908)
Total of Above		(2,736,273)	(351,310)	(366,299)	(381,791)	(397,803)	(414,349)	(443,749)	(474,283)	(505,987)	(538,898)	(551,293)
Others												
Cleco Power		(337,351)	(44,777)	(49,600)	(54,620)	(59,845)	(65,281)	(59,740)	(53,908)	(47,777)	(41,336)	(42,266)
City of Lafayette, LA		(10,562)	(1,214)	(1,095)	(970)	(839)	(701)	(1,411)	(2,152)	(2,927)	(3,737)	(3,823)
LEPA		(4,351)	(233)	(374)	(522)	(677)	(838)	(880)	(923)	(968)	(1,015)	(1,038)
Aquila - MPS/SJ		(11,834)	(4,462)	(3,531)	(2,556)	(1,534)	(463)	(457)	(451)	(443)	(436)	(446)
Sunflower		(10,206)	(1,188)	(1,176)	(1,163)	(1,148)	(1,133)	(1,535)	(1,955)	(2,393)	(2,851)	(2,916)
Aquila - West Plains		(688)	(1,470)	(839)	(178)	514	1,237	853	451	29	(412)	(421)
Merchants in SPP		2,670,459	304,351	330,856	358,419	387,075	416,859	450,306	485,070	521,195	558,725	571,576
Rest of Eastern Interconnect		(731,775)	(4,886)	(40,698)	(78,155)	(117,314)	(158,232)	(165,718)	(173,464)	(181,479)	(189,771)	(194,136)
Grand Total		(1,172,581)	(105,189)	(132,756)	(161,537)	(191,571)	(222,901)	(222,330)	(221,616)	(220,751)	(219,729)	(224,783)

Appendix 4-2: Benefits (Costs) by Company for the EIS Market Case (cont.)

Table 5
Increase in Owned Generation – Moving from Base Case to EIS Case
(Thousands of MWh)

		Total	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Transmission Owners Under SPP Tariff												
AEP	IOU	(27,888)	(2,351)	(2,426)	(2,502)	(2,578)	(2,654)	(2,790)	(2,926)	(3,063)	(3,199)	(3,199)
Empire	IOU	(6,483)	(688)	(661)	(633)	(606)	(579)	(609)	(639)	(669)	(700)	(700)
KCPL	IOU	(1,774)	(160)	(194)	(228)	(262)	(296)	(235)	(175)	(115)	(54)	(54)
OGE	IOU	(18,714)	(1,650)	(1,678)	(1,706)	(1,735)	(1,763)	(1,861)	(1,958)	(2,056)	(2,154)	(2,154)
SPS	IOU	(6,732)	(426)	(573)	(719)	(866)	(1,012)	(1,018)	(1,023)	(1,028)	(1,033)	(1,033)
Westar Energy	IOU	164	(66)	21	109	196	284	155	27	(102)	(230)	(230)
Midwest Energy	Coop	(7)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Western Farmers	Coop	(9,255)	(567)	(652)	(737)	(823)	(908)	(982)	(1,055)	(1,128)	(1,202)	(1,202)
SWPA	Fed	(282)	(24)	(25)	(25)	(26)	(26)	(28)	(30)	(31)	(33)	(33)
GRDA	State	(506)	(35)	(40)	(45)	(50)	(55)	(55)	(56)	(57)	(57)	(57)
Springfield, MO	Muni	(774)	(44)	(55)	(65)	(76)	(86)	(88)	(89)	(90)	(91)	(91)
Sub-Total		(74,052)	(6,012)	(6,283)	(6,554)	(6,825)	(7,096)	(7,510)	(7,925)	(8,339)	(8,754)	(8,754)
Other Typical Assessment Paying Members												
AEC	Coop	(3,114)	(242)	(307)	(373)	(438)	(503)	(413)	(322)	(232)	(142)	(142)
Kansas City, KS	Muni	645	116	104	92	80	68	57	46	35	24	24
OMPA	Muni	(3,166)	(274)	(292)	(310)	(328)	(346)	(338)	(330)	(322)	(314)	(314)
Independence, MO	Muni	(391)	(22)	(26)	(30)	(34)	(38)	(42)	(45)	(49)	(53)	(53)
Sub-Total		(6,027)	(422)	(521)	(621)	(720)	(820)	(736)	(652)	(568)	(484)	(484)
Total of Above		(80,079)	(6,433)	(6,804)	(7,175)	(7,545)	(7,916)	(8,246)	(8,577)	(8,907)	(9,238)	(9,238)
Others												
Cleco Power		(12,347)	(1,065)	(1,194)	(1,322)	(1,450)	(1,579)	(1,425)	(1,271)	(1,117)	(963)	(963)
City of Lafayette, LA		(275)	(20)	(18)	(16)	(15)	(13)	(22)	(31)	(40)	(50)	(50)
LEPA		(76)	(2)	(4)	(5)	(7)	(8)	(9)	(9)	(10)	(11)	(11)
Aquila - MPS/SJ		(315)	(114)	(84)	(55)	(26)	3	(1)	(5)	(8)	(12)	(12)
Sunflower		(263)	(18)	(18)	(19)	(19)	(19)	(25)	(30)	(35)	(40)	(40)
Aquila - West Plains		394	1	22	43	64	85	67	50	32	14	14
Merchants in SPP		115,285	8,309	9,102	9,895	10,689	11,482	12,082	12,682	13,281	13,881	13,881
Rest of Eastern Inter/Other		(22,324)	(657)	(1,002)	(1,347)	(1,691)	(2,036)	(2,422)	(2,809)	(3,196)	(3,582)	(3,582)
Grand Total												



Appendix 4-2: Benefits (Costs) by Company for the EIS Market Case (cont.)

Table 6
Increase in Transmission Wheeling Charges -- Moving from Base Case to EIS Case
(Thousands of Dollars)

		Present Value	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Transmission Owners Under SPP Tariff												
AEP	IOU	(17,012)	(1,946)	(2,163)	(2,388)	(2,622)	(2,866)	(2,948)	(3,032)	(3,118)	(3,207)	(3,281)
Empire	IOU	66	122	89	55	18	(20)	(37)	(56)	(76)	(96)	(98)
KCPL	IOU	(1,249)	(121)	(143)	(166)	(189)	(214)	(225)	(236)	(248)	(260)	(266)
OGE	IOU	(10,435)	(746)	(985)	(1,235)	(1,496)	(1,768)	(1,956)	(2,152)	(2,356)	(2,568)	(2,627)
SPS	IOU	(2,738)	-	(161)	(320)	(504)	(688)	(663)	(637)	(608)	(579)	(592)
Westar Energy	IOU	1,221	240	228	214	200	185	171	157	141	125	128
Midwest Energy	Coop	51	10	9	9	8	8	7	7	6	5	5
Western Farmers	Coop	722	74	82	89	97	106	122	138	155	173	177
SWPA	Fed	(239)	37	13	(11)	(36)	(63)	(71)	(79)	(87)	(96)	(98)
GRDA	State	6,992	930	975	1,023	1,072	1,123	1,148	1,175	1,201	1,228	1,257
Springfield, MO	Muni	(1,767)	(104)	(126)	(149)	(172)	(197)	(299)	(405)	(516)	(632)	(646)
Sub-Total		(24,388)	(1,504)	(2,180)	(2,886)	(3,624)	(4,394)	(4,750)	(5,121)	(5,506)	(5,906)	(6,042)
Other Typical Assessment Paying Members												
AECC	Coop	(1,260)	(144)	(160)	(177)	(194)	(212)	(218)	(225)	(231)	(238)	(243)
Kansas City, KS	Muni	(161)	(16)	(18)	(21)	(24)	(28)	(29)	(30)	(32)	(33)	(34)
OMPA	Muni	(792)	(67)	(83)	(99)	(116)	(134)	(145)	(156)	(168)	(180)	(184)
Independence, MO	Muni	847	116	118	120	121	123	133	143	154	165	169
Sub-Total		(1,365)	(111)	(144)	(178)	(214)	(251)	(259)	(268)	(277)	(286)	(292)
Total of Above		(25,754)	(1,615)	(2,324)	(3,064)	(3,838)	(4,645)	(5,010)	(5,389)	(5,782)	(6,191)	(6,334)
Others												
Cleco Power		(1,023)	(10)	(54)	(100)	(148)	(196)	(222)	(246)	(271)	(297)	(304)
City of Lafayette, LA		(204)	(2)	(11)	(20)	(30)	(40)	(44)	(49)	(54)	(59)	(61)
LEPA		(117)	(1)	(6)	(11)	(17)	(23)	(25)	(28)	(31)	(34)	(35)
Aquila - MPS/SJ		5,061	694	704	714	724	734	794	856	921	988	1,011
Sunflower		1,820	80	157	237	321	408	396	383	369	354	362
Aquila - West Plains		116	23	22	20	19	18	16	15	13	12	12
Merchants in SPP		-	-	-	-	-	-	-	-	-	-	-
Rest of Eastern Interconnect		(38,589)	(6,159)	(6,268)	(6,380)	(6,493)	(6,608)	(6,167)	(5,702)	(5,212)	(4,696)	(4,804)
Grand Total		(58,690)	(6,990)	(7,781)	(8,605)	(9,462)	(10,354)	(10,262)	(10,160)	(10,047)	(9,925)	(10,153)

Appendix 4-2: Benefits (Costs) by Company for the EIS Market Case (cont.)

Table 7
Increase in Transmission Wheeling Revenues -- Moving from Base Case to EIS Case
(Thousands of Dollars)

		<u>Present</u> <u>Value</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Transmission Owners Under SPP Tariff												
AEP	IOU	(14,092)	(2,046)	(2,120)	(2,197)	(2,276)	(2,357)	(2,296)	(2,230)	(2,160)	(2,086)	(2,134)
Empire	IOU	(2,122)	(308)	(319)	(331)	(343)	(355)	(346)	(336)	(325)	(314)	(321)
KCPL	IOU	(7,606)	(1,104)	(1,144)	(1,186)	(1,228)	(1,272)	(1,239)	(1,204)	(1,166)	(1,126)	(1,152)
OGE	IOU	(7,927)	(1,151)	(1,193)	(1,236)	(1,280)	(1,326)	(1,291)	(1,254)	(1,215)	(1,173)	(1,200)
SPS	IOU	(7,853)	(1,140)	(1,182)	(1,224)	(1,268)	(1,313)	(1,279)	(1,243)	(1,204)	(1,163)	(1,189)
Westar Energy	IOU	(6,999)	(1,016)	(1,053)	(1,091)	(1,130)	(1,171)	(1,140)	(1,108)	(1,073)	(1,036)	(1,060)
Midwest Energy	Coop	(698)	(101)	(105)	(109)	(113)	(117)	(114)	(110)	(107)	(103)	(106)
Western Farmers	Coop	(1,847)	(268)	(278)	(288)	(298)	(309)	(301)	(292)	(283)	(273)	(280)
SWPA	Fed	(1,280)	(186)	(193)	(200)	(207)	(214)	(209)	(203)	(196)	(189)	(194)
GRDA	State	(2,084)	(303)	(314)	(325)	(337)	(349)	(339)	(330)	(319)	(308)	(316)
Springfield, MO	Muni	(678)	(98)	(102)	(106)	(110)	(113)	(110)	(107)	(104)	(100)	(103)
Sub-Total		(53,185)	(7,723)	(8,002)	(8,291)	(8,569)	(8,895)	(8,664)	(8,416)	(8,153)	(7,873)	(8,055)
Other Typical Assessment Paying Members												
AECC	Coop	(1,044)	(152)	(157)	(163)	(169)	(175)	(170)	(165)	(160)	(155)	(158)
Kansas City, KS	Muni	(979)	(142)	(147)	(153)	(158)	(164)	(159)	(155)	(150)	(145)	(148)
OMPA	Muni	(676)	(98)	(102)	(105)	(109)	(113)	(110)	(107)	(104)	(100)	(102)
Independence, MO	Muni	(9)	(6)	(5)	(4)	(3)	(1)	0	2	3	5	5
Sub-Total		(2,708)	(398)	(411)	(424)	(438)	(453)	(439)	(425)	(410)	(395)	(404)
Total of Above		(55,893)	(8,121)	(8,413)	(8,715)	(9,027)	(9,348)	(9,103)	(8,842)	(8,564)	(8,268)	(8,458)
Others												
Cleco Power		10,592	1,695	1,487	1,269	1,040	800	1,298	1,819	2,364	2,932	3,000
City of Lafayette, LA		2,116	339	297	253	208	160	259	363	472	586	599
LEPA		1,211	194	170	145	119	91	148	208	270	335	343
Aquila - MPS/SJ		(56)	(37)	(30)	(23)	(16)	(8)	1	10	19	29	30
Sunflower		-	-	-	-	-	-	-	-	-	-	-
Aquila - West Plains		(665)	(97)	(100)	(104)	(107)	(111)	(108)	(105)	(102)	(98)	(101)
Merchants in SPP		-	-	-	-	-	-	-	-	-	-	-
Rest of Eastern Interconnect		(15,995)	(963)	(1,191)	(1,430)	(1,679)	(1,938)	(2,757)	(3,613)	(4,507)	(5,440)	(5,565)
Grand Total		(58,690)	(6,990)	(7,781)	(8,605)	(9,462)	(10,354)	(10,262)	(10,160)	(10,047)	(9,925)	(10,153)

Appendix 4-2: Benefits (Costs) by Company for the EIS Market Case (cont.)

Table 8
Annual SPP Assessments for Implementation and Operation of EIS Market
(Thousands of Dollars)

		Present Value	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Transmission Owners Under SPP Tariff												
AEP	IOU	24,099	3,806	4,492	4,491	3,574	3,610	3,649	3,080	3,151	3,224	3,298
Empire	IOU	3,648	576	680	680	541	547	552	466	477	488	499
KCPL	IOU	11,553	1,825	2,154	2,153	1,713	1,731	1,749	1,476	1,511	1,545	1,581
OGE	IOU	18,833	2,974	3,510	3,510	2,793	2,822	2,851	2,407	2,462	2,519	2,577
SPS	IOU	18,015	2,845	3,358	3,357	2,671	2,699	2,728	2,302	2,355	2,410	2,465
Westar Energy	IOU	17,983	2,840	3,352	3,352	2,667	2,694	2,723	2,298	2,351	2,406	2,461
Midwest Energy	Coop	733	116	137	137	109	110	111	94	96	98	100
Western Farmers	Coop	4,189	662	781	781	621	628	634	535	548	560	573
SWPA	Fed	920	145	171	171	136	138	139	118	120	123	126
GRDA	State	2,705	427	504	504	401	405	410	346	354	362	370
Springfield, MO	Muni	2,121	335	395	395	315	318	321	271	277	284	290
Sub-Total		104,801	16,550	19,534	19,532	15,541	15,701	15,867	13,392	13,702	14,019	14,343
Other Typical Assessment Paying Members												
AECC	Coop	2,325	367	433	433	345	348	352	297	304	311	318
Kansas City, KS	Muni	1,622	256	302	302	241	243	246	207	212	217	222
OMPA	Muni	1,943	307	362	362	288	291	294	248	254	260	266
Independence, MO	Muni	856	135	160	159	127	128	130	109	112	114	117
Sub-Total		6,746	1,065	1,257	1,257	1,000	1,011	1,021	862	882	902	923
Total of Above		111,547	17,616	20,792	20,789	16,541	16,711	16,889	14,254	14,584	14,921	15,266
Tariff Admin Fees by others		17,266	2,743	3,215	3,214	2,558	2,584	2,611	2,204	2,255	2,307	2,360
Total EIS Costs		128,813	20,359	24,007	24,003	19,098	19,295	19,500	16,458	16,839	17,228	17,626

Appendix 4-2: Benefits (Costs) by Company for the EIS Market Case (cont.)

Table 9
Costs Incurred Internally by EIS Market Participants
(Thousand of Dollars)

		Present										
		Value	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Transmission Owners Under SPP Tariff												
AEP	IOU	26,860	6,063	5,128	4,909	4,692	4,476	2,522	2,580	2,639	2,700	2,762
Empire	IOU	7,936	1,727	1,091	1,106	1,122	1,138	1,154	1,171	1,189	1,207	1,226
KCPL	IOU	15,328	2,624	2,203	2,232	2,283	2,291	2,343	2,397	2,453	2,509	2,567
OGE	IOU	14,739	2,524	2,366	2,356	2,357	2,359	2,021	2,067	2,115	2,163	2,213
SPS	IOU	7,676	1,638	1,452	1,404	1,356	1,308	748	766	783	801	820
Westar Energy	IOU	19,394	3,670	2,986	2,950	2,957	2,966	2,976	2,987	2,605	2,665	2,727
Midwest Energy	Coop	132	138	-	-	-	-	-	-	-	-	-
Western Farmers	Coop	4,989	931	691	707	723	739	756	774	792	810	829
SWPA (A)	Fed	2,472	479	354	353	360	366	371	375	379	383	388
GRDA (A)	State	4,967	942	697	707	721	736	749	763	777	791	805
Springfield, MO (A)	Muni	3,135	595	440	446	455	464	473	481	490	499	508
Sub-Total		107,629	21,330	17,407	17,169	17,026	16,844	14,114	14,361	14,221	14,529	14,844
Other Typical Assessment Paying Members												
AECC	Coop	-	-	-	-	-	-	-	-	-	-	-
Kansas City, KS	Muni	-	-	-	-	-	-	-	-	-	-	-
OMPA	Muni	-	-	-	-	-	-	-	-	-	-	-
Independence, MO	Muni	-	-	-	-	-	-	-	-	-	-	-
Sub-Total		-	-	-	-	-	-	-	-	-	-	-
Total of Above		107,629	21,330	17,407	17,169	17,026	16,844	14,114	14,361	14,221	14,529	14,844

A: Estimated based on the cost per mWh of Net Energy for Load of Western Farmers

Appendix 4-3 Costs Incurred for Provision of SPP's Current Functions

1. Introduction

In addition to its long-running role as a NERC reliability council, SPP performs six additional reliability/transmission provider functions for transmission-owning members: reliability coordination, tariff administration, OASIS administration, ATC/TTC calculations, scheduling agent, and regional transmission planning. As part of this cost-benefit study, CRA was asked to evaluate the costs and benefits to SPP transmission owners that result from SPP's provision of these additional functions.

Overall, SPP's provision of these additional functions is estimated to provide cost savings to the eleven transmission owners under the SPP tariff of \$46.1 million (January 1, 2006 present value) over the 2006–2015 period. However, as discussed below, individual transmission owner savings vary depending in large part on the extent to which transmission provider functions and responsibilities have been transferred from the transmission owning member's facilities and resources to the SPP. The level of transmission provider functions and responsibilities maintained by an individual transmission owner provides the foundation for self-provision of all transmission provider functions. This foundation varies among the transmission owning members in the SPP.

To perform this evaluation, (1) the specific functions currently performed by SPP were defined, (2) the projected annual charges to each transmission owner for SPP to supply the additional reliability/transmission provider functions were estimated, (3) the annual costs each transmission owner would incur to perform or procure these additional reliability/transmission provider functions if SPP did not provide them were estimated, and (4) the difference between these two sets of costs was calculated to derive the cost saving that each transmission owner obtains from SPP provision of these additional functions. Each of these four steps is described in detail below.

1.1. Additional Functions Currently Performed by SPP

For purposes of this study, SPP's role as a NERC reliability council is defined as SPP Function 1, and it is assumed that SPP would continue to provide this function for member companies. The additional reliability/transmission provider functions currently performed by SPP are categorized as SPP Functions 2 through 7, defined below.

SPP Function 2: Reliability Coordination

As a NERC-recognized reliability coordinator, SPP maintains the reliability of the electric transmission system of its members and has the authority to direct actions required to maintain adequate regional generation capacity, adequate system voltage levels, and transmission system loading within specified limits. SPP also coordinates planned transmission and generation outages with its members and neighbors. The primary method utilized by SPP to relieve excessive loading on transmission facilities is NERC's Transmission Loading Relief (TLR) procedure.

SPP Function 3: Tariff Administration

SPP administers an Open Access Transmission Tariff (OATT) providing regional transmission service in all or part of eight southwestern states. Tariff-related services are as follows: calculating and posting ATC, which is broken out as a separate function below; processing requests for service; performing impact and facility studies; performing generation

interconnection studies; providing tariff billing; providing revenue and transmission construction cost recovery distribution; and providing regulatory assistance.

SPP Function 4: OASIS Administration

SPP administers an Open Access Same-time Information System (OASIS) for administration of transmission service, including provision of qualified staff and supervision for day and night coverage and procurement and maintenance of the necessary telecommunications infrastructure to support the service. SPP also maintains and updates various transmission information and OATT business practice documents.

SPP Function 5: ATC/AFC/TTC Calculations

SPP calculates and maintains current and projected ATC/AFC/TTC/TRM figures. SPP utilizes these data to respond to requests for transmission service. SPP also maintain a "Scenario Analyzer" that allows a transmission customer to estimate available transmission capacity.

SPP Function 6: Scheduling Agent

SPP administers and approves regional scheduling through an electronic scheduling system known as RTO_SS (Regional Transmission Organization Scheduling System). SPP acts as a scheduling entity for all interchange transactions using SPP regional transmission service. For one transmission-owning member, SPP provides Control Area level scheduling approval service.

SPP Function 7: Regional Transmission Planning

SPP is responsible for planning, and for directing or arranging, transmission expansions, additions, and upgrades that will enable it to provide efficient, reliable, and non-discriminatory transmission service across the SPP region. SPP also coordinates planning efforts with transmission owners and appropriate state authorities.

1.2 SPP Charges to Transmission Owners for Provision of Functions 2 through 7

SPP estimated the costs it incurs to provide Functions 2 through 7 based directly on its annual budgeting process. In making this estimate, SPP deducted from its total annual budgeted expenditures the budgeted costs associated with the following:

- 1) Reliability council activities (SPP Function 1)
- 2) FERC fees that will be assessed directly to SPP rather than to SPP members once SPP is an RTO
- 3) SPP market development activities related to implementation of an energy imbalance market and other market/RTO development activities

As noted above, it is assumed for purposes of this study that SPP continues to serve as a NERC reliability council (SPP Function 1); these costs are therefore removed from the total SPP budget in arriving at the net cost for SPP provision of Functions 2 through 7. The FERC fees payable to FERC by member companies will be assessed directly to SPP when SPP is an RTO, and then in turn assessed by SPP to member companies. These fees must therefore be removed from the total SPP budget in arriving at the net cost for SPP provision of Functions 2 through 7. Finally, the SPP budget includes significant expenditures to develop and implement the Energy Imbalance market and further market/RTO development. These costs must therefore also be removed from the total SPP budget in arriving at the net cost for SPP provision of Functions 2 through 7.

The SPP budgets for 2006 and 2007 were analyzed. The total SPP budget for 2006 is \$55.7 million. The net amount attributable to provision of SPP Functions 2 through 7 was estimated to be \$21.6 million. Similarly, the total SPP budget for 2007 is \$63.0 million, of which \$23.2 million was estimated to be attributable to provision of SPP Functions 2 through 7. SPP annual budget projections are available only through 2007. Expenditures by SPP for Functions 2 through 7 thereafter are assumed to increase at the general rate of inflation.

The eleven transmission-owning members under the SPP tariff pay membership fees, NERC assessments, and SPP assessments to SPP. The membership fees and NERC assessments are intended to compensate SPP for expenditures related to reliability council activities (SPP Function 1). Remaining SPP expenditures are recovered through an SPP assessment for many SPP members (including all eleven transmission owners under the SPP tariff) along with Schedule 1 tariff fees for other SPP members and customers.¹

The total SPP projected costs for Functions 2 through 7 were allocated individually to the eleven SPP transmission owners under the SPP tariff using each owner's share of the annual total SPP Assessment.² For example, American Electric Power was allocated 18.7%, or \$4.0 million, of the \$21.6 million in SPP costs incurred in providing Functions 2 through 7 in 2006.

1.3 Transmission Owner Costs to Perform/Procure SPP Functions 2 Through 7 if Not Provided by SPP

To perform this evaluation, each SPP transmission owner was asked to estimate the additional costs it would incur over the 2006–2015 period to perform or procure the six additional functions currently performed by SPP.

These additional costs were separated into salaries, benefits, other O&M, and capital additions. By default, SPP budget estimates for the provision of Functions 2 through 7 include administrative and general (A&G) expenditures (e.g., office space and supplies) incurred at SPP. A similar application of A&G expenditures must therefore be added to the transmission owner costs. Using historical A&G (net of benefits) to salary ratios at each transmission owner, A&G expenditures were estimated by applying these ratios to the salary costs estimated by each transmission owner.³

CRA converted these wage, benefits, other O&M, capital additions, and A&G inputs into the annual revenue that would be required for each transmission owner to perform or procure the six additional functions currently performed by SPP. To arrive at the annual revenue requirement, capital additions were depreciated over the expected book life of each asset acquired, and return, associated income taxes, and property taxes were applied.

¹ Those members paying a SPP Assessment are also assessed Schedule 1 charges; payment of these Schedule 1 charges is credited against the member's SPP Assessment.

² Each member's SPP Assessment is based on the member's share of the total SPP Schedule 1 billing units and total SPP member load eligible to take, but not taking, Network Integration Transmission Service.

³ A similar method is traditionally used to assign A&G expenditures to the transmission function in developing OATT transmission rates, meaning that these additional A&G costs would be assigned to transmission in determining transmission rates if these costs were incurred by the transmission owner. While it is plausible that incremental short-term expenditures at the transmission owner would not cause a commensurate increase in transmission owner A&G costs, given that this study encompasses a 10-year horizon and that transmission owner costs are being compared to SPP costs that include a full allocation of A&G, a full allocation of A&G was also applied to transmission owner costs.

To refine the data, CRA made follow-up data requests and met with respondents to evaluate the assumptions applied by each transmission owner.

Each transmission owner faces a unique situation in performing these additional functions, depending on the tasks it currently performs. Some transmission owners, such as Midwest Energy, perform little in the way of transmission-related operating functions, and would have to expend considerable sums to develop the capabilities to perform these functions. Others, based on particular aspects of their control area, continue to perform some transmission-related tasks, and adding new functions would require smaller incremental expenditures.

Summarized below are some of the key factors that drive the additional costs that would be incurred by each transmission owner.⁴ The transmission owners are grouped first by those currently under the SPP tariff, and next by other responding transmission owners.

1.3.1 Transmission Owners Under the SPP Tariff

American Electric Power (AEP)

The AEP-west control area located in SPP comprises Public Service of Oklahoma, Southwestern Electric Power Company, and a small portion of AEP Texas North Company. For Functions 2 (Reliability Coordinator) and 5 (ATC/AFC calculations), AEP estimated its additional costs for the AEP-west control area if SPP did not provide these functions using the amounts it paid PJM to provide similar services in the AEP-east control area. For Function 3 (Tariff Administration), SPP had performed these services under contract for the AEP-east control area, and these costs were used as an estimate for the AEP-west control area. In addition, it was estimated that one full-time equivalent (FTE) employee would be required to perform the incremental billing functions associated with Function 3. With regard to Function 4 (OASIS Administration), AEP's hardware and support costs for the AEP-east OASIS were used to estimate the cost if AEP-west were to perform this function. AEP estimates that it would require eight additional FTEs in the AEP-west control area to perform Functions 6 (Scheduling) and 7 (Regional Transmission Planning). Due to the combined operation of the AEP-west control area, cost and staffing figures were developed jointly for the three individual AEP-west operating companies.

Empire

SPP provides complete tariff services for Empire. Empire's five transmission operators spend only a small fraction of their time on Reliability Coordination (Function 2), and approximately three Empire District FTEs complement the services SPP provides to Empire for Functions 3 through 7. If SPP were to not supply Functions 2 through 7 to Empire, the utility estimates that nine additional FTEs would be needed. In addition, \$250,000 in capital costs would be incurred for computer hardware, software, and licenses in 2006.

Grand River Dam Authority

Grand River Dam Authority did not provide information for Part I of this study. For purposes of this study, costs were estimated using the average cost per net energy of load derived for the other non-investor-owned transmission owners under the SPP tariff (Midwest Energy, Southwestern Power Administration, and Western Farmers).

⁴ The assumptions provided are solely for the analytic purposes defined in this study, and do not imply that any entity would be adding or removing staff based upon any outcome of this study.

Kansas City Power & Light

Kansas City Power & Light currently sells only network service under its existing OATT. It estimates that it would require nineteen additional FTEs to perform the services now provided by SPP for Functions 2 through 7. In addition, \$975,000 would be required for the purchase of OASIS, tariff administration, and accounting hardware and software in 2006.

Midwest Energy

Midwest Energy relies on SPP for provision of Functions 2 through 7, and has minimal staff and associated equipment related to these functions. Midwest Energy does not sell any new service under its existing tariff, and does not operate its own independent OASIS site. Midwest Energy estimates that it would require seven FTEs to perform these SPP functions internally. In addition, \$670,000 in capital costs would be incurred for computer hardware and software in 2006.

Oklahoma Gas & Electric

Oklahoma Gas & Electric currently uses Open Access Technology International (OATI) and RTO_SS on its system, and estimates that it would require seventeen additional FTEs if it were to perform Functions 2 through 7 internally. Some additional payments to OATI would be required. In addition, an estimated \$700,000 in start-up costs and expenditures for new computer hardware and software would be required in 2006.

Southwestern Public Service

An additional thirteen FTEs would be required at Southwestern Public Service to perform Functions 2 through 5 and Function 7. Scheduling (Function 6) would probably be procured from OATI at roughly \$35,000 per year if not obtained from SPP. Some additional labor would be required to coordinate with OATI. OASIS administration would require labor for set-up and maintenance in addition to hardware/software expenses. Additional expenditures of \$25,000 for computer hardware and software in 2006 also would be required to perform these functions.

Southwestern Power Administration

The costs that Southwestern Power Administration would incur for Function 2 (Reliability Coordination) and Function 4 (OASIS Administration) were estimated on the assumption that these functions would be procured from the Tennessee Valley Authority. Existing Southwestern Power Administration staff would perform the four other SPP functions without a further increase in staffing.

Springfield, Missouri

City Utilities of Springfield, Missouri did not provide information for Part 1 of this study. For purposes of this study, costs were estimated using the average cost per net energy of load derived for the other non-investor-owned transmission owners currently under the SPP tariff (Midwest Energy, Southwestern Power Administration, and Western Farmers).

Westar Energy

Westar Energy does not sell any new service under its existing tariff, performs few functions on its OASIS system, and does only minor work with respect to calculating ATC/AFC on its

system.⁵ It estimates that it would require nineteen additional FTEs, including IT support, to perform Functions 2 through 7. In addition, roughly \$1 million in capital costs would be incurred for the purchase of OASIS, tariff administration, scheduling, and accounting hardware and software in 2006.

Western Farmers

Western Farmers estimates that it would require three additional FTEs, \$35,000 per year in additional O&M, and capital investment of \$160,000 to provide Functions 2 through 7.

1.3.2 Other Control Area Operators Paying a SPP Assessment

The Board of Public Utilities of Kansas City, Kansas, and City Power and Light, of Independence, Missouri, did not provide information for Part 1 of this study. For purposes of this study, costs were estimated using the average cost per net energy of load derived for the other non-investor-owned transmission owners currently under the SPP tariff (Midwest Energy, Southwestern Power Administration, and Western Farmers).

1.4 Results

Table 1 lists the cost savings over 2006–2015 that would result from the SPP provision of Functions 2 through 7.⁶ The total cost savings to the Transmission Owners under the SPP Tariff are \$46.1 million (January 2006 present value) over this period. Table 2 provides annual detail for the cost savings over the 2006–2015 period. Table 3 gives further details on the calculation of the SPP charges for Functions 2 through 7.

Savings vary from owner to owner because of the specific characteristics noted above regarding their respective control areas. Midwest Energy and Westar rely on SPP for nearly all responsibilities related to Functions 2 through 7 and thus would incur considerable additional costs if SPP were no longer to supply these functions. Oklahoma Gas & Electric and Southwestern Public Service continue to supply certain transmission-related functions that could be used as a foundation for performing Functions 2 through 7, and thus their resulting savings, while significant, are lower. On the low end of cost savings, AEP's costs to procure or supply Functions 2 through 7 are roughly in line with the costs that AEP would be charged by SPP for provision of these functions, and Western Farmers' costs would be somewhat lower under self-provision.

As a general observation, most transmission owner projections are based on a presumption that transmission functions currently performed internally by each owner would continue over the next 10 years. However, over the longer term, additional responsibilities might be transferred to SPP, creating opportunities for greater cost savings than estimated here.

⁵ Westar Energy administers only a few grandfathered Transmission Service Agreements. All new requests for transmission service in the Westar Energy system are submitted to and processed by SPP according to the SPP OATT.

⁶ A discount rate of 10% was applied to obtain present values.



Table 1

Costs Incurred for Provision of SPP Functions 2 through 7, 2005-2014*Millions of January 1, 2006 Present Value Revenue Requirement Dollars*

		<u>SPP Provides Functions 2 to 7</u>	<u>Transmission Owners Provide/Procure Functions 2 to 7</u>	<u>Additional Cost if Stand Alone</u>
Transmission Owners Under SPP Tariff				
AEP	IOU	28.9	28.8	(0.1)
Empire District	IOU	4.4	5.1	0.7
Kansas City Power & Light	IOU	13.8	24.7	10.8
Oklahoma Gas & Electric	IOU	22.6	26.3	3.7
Southwestern Public Service	IOU	21.6	24.8	3.3
Westar	IOU	21.6	35.2	13.6
Midwest Energy	Coop	0.9	8.7	7.8
Western Farmers	Coop	5.0	3.9	(1.1)
Southwestern Power Authority	Fed	1.1	1.1	0.0
Grand River Dam Authority	State	3.2	8.1	4.8
City of Springfield	Muni	2.5	5.1	2.5
Total		125.6	171.7	46.1
Other Control Area Operators				
Board of Public Util., Kansas City	IOU	1.9	3.4	1.5
City P&L, Independence, MO	IOU	1.0	1.5	0.5

Table 2: Cost Incurred for Provision of SPP Functions 2 Through 7

STAND ALONE COST FOR UTILITY TO PERFORM/PROCURE FUNCTIONS 2-7 (000\$)

	PrValue	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TOs Under the SPP Tariff											
IOU AEP	28,806	4,337	4,154	4,250	4,348	4,448	4,550	4,654	4,762	4,871	4,983
IOU Empire District	5,079	819	821	824	721	737	754	771	789	807	826
IOU KCPL	24,661	3,940	3,388	3,466	3,546	4,315	3,711	3,796	3,884	4,726	4,064
IOU OGE	26,292	4,008	4,011	4,065	3,881	3,969	4,051	4,144	4,240	4,337	4,437
IOU SPS	24,842	2,715	3,573	3,920	4,033	4,091	3,975	4,234	4,316	4,399	4,484
IOU Westar	35,165	5,190	5,269	5,357	5,386	5,487	5,438	5,563	5,691	5,822	5,956
Coop Midwest Energy	8,701	1,385	1,397	1,409	1,422	1,231	1,259	1,287	1,316	1,346	1,377
Coop Western Farmers	3,924	566	586	596	608	619	630	617	631	645	661
Fed SWPA	1,111	158	162	165	169	173	177	181	185	190	194
* State GRDA	8,055	1,237	1,258	1,273	1,290	1,186	1,211	1,223	1,251	1,279	1,309
* Muni City of Springfield	5,085	781	794	804	814	749	765	772	790	807	826
Total	171,720	25,137	25,413	26,131	26,217	27,006	26,521	27,245	27,854	29,230	29,116
Other Control Area Operators											
* Muni KACY	3,424	526	535	541	548	504	515	520	532	544	556
* Muni INDN	1,481	227	231	234	237	218	223	225	230	235	241

* Based on average \$/MWh costs for Western Farmers, Midwest Energy and SWPA.

SPP ASSESSMENT FOR FUNCTIONS 2-7 (000\$)

	PrValue	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TOs Under the SPP Tariff											
IOU AEP	28,881	4,035	4,350	4,289	4,388	4,488	4,592	4,697	4,805	4,916	5,029
IOU Empire District	4,372	611	659	649	664	680	695	711	727	744	761
IOU KCP&L	13,846	1,934	2,085	2,056	2,103	2,152	2,201	2,252	2,304	2,357	2,411
IOU OGE	22,570	3,153	3,399	3,352	3,429	3,508	3,588	3,671	3,755	3,842	3,930
IOU SPS	21,589	3,016	3,252	3,206	3,280	3,355	3,432	3,511	3,592	3,675	3,759
IOU Westar	21,551	3,011	3,246	3,200	3,274	3,349	3,426	3,505	3,586	3,668	3,753
Coop Midwest Energy	879	123	132	131	134	137	140	143	146	150	153
Coop Western Farmers	5,020	701	756	745	763	780	798	816	835	854	874
Fed SWPA	1,102	154	166	164	167	171	175	179	183	188	192
State GRDA	3,241	453	488	481	492	504	515	527	539	552	564
Muni City of Springfield	2,542	355	383	378	386	395	404	413	423	433	443
Total	125,595	17,548	18,916	18,651	19,080	19,519	19,968	20,427	20,897	21,378	21,869
Other Control Area Operators											
Muni KACY	1,944	272	293	289	295	302	309	316	324	331	339
Muni INDN	1,026	143	154	152	156	159	163	167	171	175	179

ADDITIONAL COST IF STANDALONE (000\$)

	PrValue	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TOs Under the SPP Tariff											
IOU AEP_SPP	(75)	302	(195)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)
IOU Empire District	707	208	163	175	56	58	59	60	62	63	65
IOU KCPL	10,815	2,005	1,303	1,410	1,442	2,163	1,510	1,544	1,580	2,369	1,653
IOU OGE	3,722	854	611	713	452	461	463	473	484	495	507
IOU SPS	3,252	(301)	321	714	753	736	543	723	724	725	725
IOU Westar	13,614	2,179	2,023	2,157	2,112	2,138	2,012	2,058	2,105	2,154	2,203
Coop MWEnergy	7,822	1,263	1,265	1,279	1,289	1,094	1,119	1,144	1,170	1,197	1,224
Coop Western Farmers	(1,096)	(135)	(170)	(149)	(155)	(161)	(168)	(199)	(204)	(209)	(213)
Fed SWPA	9	4	(4)	2	2	2	2	2	2	2	2
State GRDA	4,814	784	770	792	797	683	696	696	711	727	744
Muni City of Springfield	2,543	426	411	426	428	354	361	359	367	375	383
Total	46,125	7,589	6,497	7,480	7,137	7,487	6,553	6,818	6,957	7,852	7,247
Other Control Area Operators											
Muni KACY	1,479	254	242	252	253	202	206	204	208	213	218
Muni INDN	455	84	77	82	81	59	60	58	59	61	62

Table 3: SPP Assessments for SPP Functions 2 through 7

	<u>2006 Projection</u>		<u>2007 Projection</u>	
Total SPP Budgeted Costs	55,675,550		63,043,003	
less Member Fees	(1,100,000)		(1,100,000)	
less NERC Assessment	(723,180)		(737,644)	
less FERC Fees Assessment	(7,344,000)		(7,490,880)	
less Miscellaneous Income	(1,080,000)		(1,080,000)	
SPP Assessment Required	45,428,368		52,634,477	
less Market Development costs	(23,842,553)		(29,388,064)	
SPP Assessments for Functions 2-7	21,585,815		23,246,413	

	<u>2006</u>		<u>2007</u>	
	<u>Cost for Functions</u>		<u>Cost for</u>	
<u>Members Paying SPP Assessment</u>	<u>Assessments</u>	<u>Share</u>	<u>Assessments</u>	<u>Share</u>
AEP - SWEPSCO & PSO	8,417,687	18.7%	9,848,694	18.7%
Oklahoma Gas & Electric Company	6,578,373	14.6%	7,696,696	14.6%
Southwestern Public Service Company	6,292,501	14.0%	7,362,226	14.0%
Westar Energy-(KGE&KPL)	6,281,445	13.9%	7,349,291	14.0%
Kansas City Power & Light Company	4,035,525	9.0%	4,721,564	9.0%
Western Farmers Electric Cooperative	1,463,161	3.2%	1,711,898	3.3%
Empire District Electric Company	1,274,376	2.8%	1,491,020	2.8%
Grand River Dam Authority	944,732	2.1%	1,105,336	2.1%
Arkansas Electric Cooperative Corporation	811,947	1.8%	949,978	1.8%
Southwestern Power Administration	321,233	0.7%	375,843	0.7%
City Utilities, Springfield, Missouri	740,965	1.6%	866,929	1.6%
Board of Public Util., Kansas City, KS	566,724	1.3%	663,067	1.3%
Oklahoma Municipal Power Authority	678,595	1.5%	793,956	1.5%
East Texas Electric Coop	89,517	0.2%	104,735	0.2%
Northeast Texas Electric Coop.	775,511	1.7%	907,348	1.7%
Tex-La Electric Coop. of Texas	113,975	0.3%	133,351	0.3%
Kansas Electric Power Coop. (KEPCo)	279,516	0.6%	327,034	0.6%
City Power & Light, Independence, Missouri	298,920	0.7%	349,736	0.7%
Midwest Energy, Inc.	256,192	0.6%	299,745	0.6%
	40,220,895	89.3%	47,058,447	89.4%
Tariff Admin Fees paid by other customers	4,809,335	10.7%	5,576,030	10.6%
TOTAL	45,030,230	100.0%	52,634,477	100.0%

Appendix 4-4 Costs Incurred Internally by EIS Market Participants

In addition to assessments for SPP expenditures, participants in the EIS market will incur significant expenditures for increased labor and for computer hardware and software. In response to a data request by CRA, each potential EIS market participant provided a detailed estimate of the additional annual labor, O&M, and capital costs that would be required over the study period to participate in the EIS market. CRA converted these costs to annual revenue requirements and are summarized in Table 2-6 in Appendix 4-2.

CRA discussed the responses to its data request with respondents to help ensure consistency in approach. Table 1 summarizes the additional annual FTEs and labor and benefit costs for the year 2008 estimated by each participant. The table also lists the projected capital costs over the entire study period.

Table 1
Incremental Costs Incurred Internally by EIS Market Participants
(Thousands of 2005 Dollars)

Summary of 2008 Expenses by Company

	<u>AEP</u>	<u>Empire</u>	<u>KCPL</u>	<u>OGE</u>	<u>SPS</u>	<u>Westar</u>	<u>WFEC</u>
Incremental FTEs							
Project Management	-	-	1.0	-	-	-	-
Business	12.0	3.0	10.3	2.5	6.0	-	2.0
IT	3.0	3.0	2.5	1.8	1.0	4.0	1.0
Other	-	1.0	-	4.0	-	-	1.0
Total	15.0	7.5	13.8	8.3	8.3	15.0	4.0
Incremental Expenses (K\$)							
Direct Labor (Wages)	800	450	1,089	796	420	1,245	250
Benefits	400	180	436	282	168	495	120
SubTotal	1,200	630	1,525	1,078	1,078	1,740	370
Other O&M							
Professional Services	-	50	30	-	-	25	250
Travel	-	10	38	10	15	7	10
Software/hardware	1,000	150	317	124	50	400	-
Other (specify)	-	5	175	-	-	-	-
SubTotal	1,000	215	560	134	65	432	260
Incremental A&G	-	-	-	551	-	-	30
Total Expenses	2,200	845	2,085	1,763	653	2,172	660

Summary of 2006-14 Capital Additions by Company (including start-up capital spent in late 2005)

	<u>AEP</u>	<u>Empire</u>	<u>KCPL</u>	<u>OGE</u>	<u>SPS</u>	<u>Westar</u>	<u>WFEC</u>
Total Capital Additions	8,700	1,200	-	1,625	2,500	2,500	-

Cost estimates vary considerably from participant to participant, in large part because each participant has a different perspective on how it will interface with the IES market and on the amount of risk it will take on in undertaking active management of its IES market participation.

Three transmission owners under the SPP tariff (GRDA, SWPA and City of Springfield) did not provide data, and their additional costs were estimated using the average cost per MWh for Western Farmers. No data are available for the costs that might be incurred by EIS market participants that are not transmission owners under the SPP tariff. While these costs likely exist, no cost has been included in this study for these participants.



Table 3-3.3 Wheel-out rates for SPP and Aquila companies

Company	Commitment	Dispatch
Public Service Company of Oklahoma and Southwestern Electric Power Company	\$2	\$2
City Utilities of Springfield, Missouri	\$2	\$3
Empire	\$2	\$2
Grand River Dam Authority	\$3	\$7
Kansas City Power and Light Company	\$2	\$2
Mid-West Energy	\$4	\$6
Oklahoma Gas & Electric Company	\$2	\$2
Southwestern Power Administration	\$1	\$2
Southwestern Public Service	\$2	\$3
Western Resources, Inc	\$2	\$2
Western Farmers Electric Cooperative	\$3	\$3
Aquila Companies		
Missouri Public Service	\$1	\$1
West Plains	\$2	\$3



Appendices 4-1, 4-2, 4-3, and 4-4

Appendix 4-1 Benefits (Costs) by Company for the Stand-Alone Case

Table 1
Benefits/(Costs) of Moving from Base Case to Stand Alone Case
 (2006-2015, thousands of January 2006 present value dollars; positive numbers are benefits)

Source:		Table 3	Table 6	Table 7	Table 8	Table 9	Table 10	Table 11	
		<u>Trade</u>	<u>Wheeling</u>	<u>Wheeling</u>	<u>Costs to</u>	<u>FERC</u>	<u>Transm.</u>	<u>With-</u>	
		<u>Benefits</u>	<u>Charges</u>	<u>Revenues</u>	<u>Provide</u>	<u>Charges</u>	<u>Constr.</u>	<u>drawal</u>	<u>Total</u>
					<u>Functions</u>		<u>Costs</u>	<u>Oblig.</u>	
TOs Under SPP Tariff									
AEP	IOU	(8,259)	(139,645)	136,610	69	6,260	(5,502)	(12,377)	(22,845)
Empire	IOU	(3,565)	(40,370)	20,573	(707)	1,106	(829)	(1,803)	(25,595)
KCP&L	IOU	(4,582)	(5,057)	73,733	(10,815)	3,166	(823)	(4,731)	50,891
OGE	IOU	(1,025)	(87,249)	76,844	(3,536)	5,383	(811)	(8,187)	(18,580)
SPS	IOU	(1,114)	(26,670)	76,126	(3,252)	5,239	1,400	(7,229)	44,500
Westar Energy	IOU	(471)	(67,678)	67,847	(13,614)	1,874	1,345	(6,183)	(16,879)
Midwest Energy	Coop	(10)	(2,818)	6,767	(7,822)	295	327	(670)	(3,931)
Western Farmers	Coop	(962)	(70,356)	17,903	1,071	1,684	1,543	(2,050)	(51,168)
SWPA	Fed	(26)	(33,261)	12,409	(9)	370	2,159	(1,297)	(19,655)
GRDA	State	(179)	(26,182)	20,201	(4,814)	1,087	603	(1,485)	(10,769)
Springfield, MO	Muni	(672)	(511)	6,574	(2,543)	853	1,080	(1,234)	3,547
Sub-Total		(20,864)	(499,797)	515,585	(45,970)	27,315	494	(47,246)	(70,484)
Other Typical Assessment Paying Members									
AECC	Coop	(3,133)	(10,344)	10,119	5	934	(405)	(1,298)	(4,121)
Kansas City, KS	Muni	(1,975)	(651)	9,487	(1,479)	652	-	(1,084)	4,950
OMPA	Muni	(666)	(8,378)	6,549	(160)	781	(89)	(1,022)	(2,985)
Independence, MO	Muni	(219)	(953)	(83)	(455)	344	-	(688)	(2,054)
Sub-Total		(5,993)	(20,326)	26,073	(2,089)	2,711	(494)	(4,092)	(4,210)
Total of Above		(26,857)	(520,124)	541,657	(48,060)	30,027	-	(51,338)	(74,694)
Others									
Cleco Power		(1,471)	(107)	(659)					(2,238)
City of Lafayette, LA		(68)	(21)	(132)					(221)
LEPA		(2)	(12)	(75)					(90)
Aquila - MPS/SJ		(464)	(5,694)	(494)					(6,653)
Sunflower		(144)	595	-					452
Aquila - West Plains		(561)	(6,427)	6,443					(545)
Merchants in SPP		(8,645)	-	-					(8,645)
Rest of Eastern Interconnect		(15,585)	(11,808)	(3,141)					(30,534)
Grand Total		(53,797)	(543,599)	543,599					



Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 2
State Allocation for Multi-State Utilities
Benefits/(Costs) of Moving from Base Case to Stand Alone Case
 (2006-2015, thousands of January 2006 present value dollars; positive numbers are benefits)

State Allocation for Multi-State Investor-Owned Utilities

Wholesale	Retail							Total
	Arkansas	Louisiana	Kansas	Missouri	New Mexico	Oklahoma	Texas	
AEP	12.7%	10.8%	14.1%			44.6%	17.8%	100.0%
Empire	6.4%	3.0%	5.2%	82.7%		2.7%		100.0%
KCPL - Trade	1.0%		41.4%	57.7%				100.0%
KCPL - Other	13.5%		38.8%	47.7%				100.0%
OGE	9.4%	10.5%				80.1%		100.0%
SPS	40.1%		0.1%		13.3%	1.2%	45.3%	100.0%
Westar Energy	12.7%		87.3%					100.0%

Allocations are based on net energy for load, except for KCPL - Other which is based on 4 summer months coincident peak and applies to all KCPL cost-benefit components other than Trade Benefits
 In the calculation below, AEP trade benefits are subdivided between PSO and Swepeco using the generation of each operating company before the allocation by state. PSO is in Oklahoma only, and Swepeco is in Arkansas, Louisiana and Texas.

Benefits/(Costs) of Moving from Base Case to Stand-Alone Case (K\$)

Wholesale	Retail							Total
	Arkansas	Louisiana	Kansas	Missouri	New Mexico	Oklahoma	Texas	
AEP	(2,901)	(2,307)	(3,012)			(10,822)	(3,802)	(22,845)
Empire	(1,633)	(773)	(1,326)	(21,167)		(696)	-	(25,595)
KCPL	7,430		19,637	23,824				50,891
OGE	(1,743)	(1,958)				(14,879)		(18,580)
SPS	17,853		44		5,914	521	20,167	44,500
Westar Energy	(2,144)		(14,735)					(16,879)
Total	16,863	(5,038)	(3,012)	3,621	2,657	5,914	(25,877)	11,492



Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 3
Trade Benefits - Stand Alone Case
(Thousands of Dollars)

		Present Value	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Transmission Owners Under SPP Tariff												
AEP	IOU	(8,259)	(2,267)	(1,860)	(1,433)	(985)	(516)	(667)	(823)	(987)	(1,158)	(1,185)
Empire	IOU	(3,565)	(1,077)	(866)	(644)	(413)	(170)	(235)	(304)	(376)	(451)	(461)
KCP&L	IOU	(4,582)	(1,324)	(1,058)	(779)	(486)	(179)	(307)	(440)	(579)	(725)	(741)
OGE	IOU	(1,025)	(224)	(182)	(139)	(93)	(45)	(94)	(145)	(198)	(254)	(260)
SPS	IOU	(1,114)	(29)	(61)	(95)	(131)	(168)	(217)	(269)	(322)	(378)	(387)
Westar Energy	IOU	(471)	(148)	(116)	(82)	(47)	(10)	(24)	(39)	(55)	(71)	(73)
Midwest Energy	Coop	(10)	(4)	(3)	(2)	(1)	(0)	(0)	(1)	(1)	(1)	(1)
Western Farmers	Coop	(962)	(306)	(238)	(166)	(90)	(11)	(45)	(80)	(117)	(156)	(160)
SWPA	Fed	(26)	(5)	(5)	(4)	(3)	(2)	(3)	(4)	(4)	(5)	(5)
GRDA	State	(179)	(50)	(40)	(30)	(19)	(7)	(13)	(18)	(24)	(31)	(31)
Springfield, MO	Muni	(672)	(228)	(180)	(130)	(77)	(22)	(33)	(44)	(55)	(66)	(68)
Sub-Total		(20,864)	(5,662)	(4,608)	(3,503)	(2,345)	(1,131)	(1,638)	(2,167)	(2,719)	(3,296)	(3,372)
Other Typical Assessment Paying Members												
AECC	Coop	(3,133)	(976)	(780)	(575)	(359)	(134)	(191)	(252)	(315)	(380)	(389)
Kansas City, KS	Muni	(1,975)	(657)	(519)	(373)	(221)	(82)	(98)	(137)	(177)	(219)	(224)
OMPA	Muni	(666)	(204)	(162)	(118)	(72)	(23)	(40)	(57)	(75)	(94)	(96)
Independence, MO	Muni	(219)	(54)	(44)	(34)	(24)	(13)	(20)	(26)	(33)	(40)	(41)
Sub-Total		(5,993)	(1,891)	(1,505)	(1,100)	(676)	(232)	(349)	(472)	(600)	(733)	(750)
Total of Above		(26,857)	(7,553)	(6,113)	(4,603)	(3,021)	(1,363)	(1,987)	(2,638)	(3,319)	(4,029)	(4,122)
Others												
Cleco Power		(1,471)	(645)	(497)	(342)	(180)	(9)	(9)	(9)	(8)	(8)	(8)
City of Lafayette, LA		(68)	(26)	(20)	(14)	(7)	(1)	(2)	(3)	(5)	(6)	(6)
LEPA		(2)	(0)	(0)	(0)	(0)	(0)	(0)	(1)	(1)	(1)	(1)
Aquila - MPS/SJ		(464)	(108)	(90)	(71)	(52)	(31)	(44)	(58)	(73)	(88)	(90)
Sunflower		(144)	(30)	(26)	(23)	(18)	(14)	(17)	(19)	(22)	(24)	(25)
Aquila - West Plains		(561)	(206)	(161)	(113)	(64)	(12)	(19)	(28)	(36)	(45)	(46)
Merchants in SPP		(8,645)	1,473	1,355	1,230	1,100	962	(1,353)	(3,775)	(6,308)	(8,956)	(9,162)
Rest of Eastern Interconnect		(15,585)	(5,125)	(4,035)	(2,891)	(1,693)	(438)	(777)	(1,131)	(1,501)	(1,888)	(1,931)
Grand Total		(53,797)	(12,220)	(9,588)	(6,827)	(3,935)	(906)	(4,208)	(7,662)	(11,273)	(15,045)	(15,391)



Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 4
Increase in Owned Generation Production Cost -- Moving from Base Case to Stand-Alone Case
(Thousands of Dollars)

		Present Value	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Transmission Owners Under SPP Tariff												
AEP	IOU	116,690	8,307	12,399	16,674	21,140	25,802	24,223	22,559	20,805	18,958	19,395
Empire	IOU	48,428	5,938	6,597	7,283	7,997	8,741	8,489	8,221	7,936	7,634	7,810
KCPL	IOU	(37,496)	(3,665)	(4,039)	(4,428)	(4,833)	(5,254)	(6,287)	(7,363)	(8,487)	(9,657)	(9,880)
OGE	IOU	(11,099)	440	(24)	(509)	(1,017)	(1,547)	(2,348)	(3,185)	(4,060)	(4,972)	(5,087)
SPS	IOU	39,436	1,355	3,241	5,213	7,273	9,426	8,927	8,401	7,846	7,261	7,428
Westar Energy	IOU	10,724	1,231	1,353	1,479	1,611	1,748	1,834	1,923	2,015	2,111	2,159
Midwest Energy	Coop	146	32	28	23	18	13	16	19	22	25	25
Western Farmers	Coop	7,313	2,175	1,395	577	(278)	(1,174)	(96)	1,032	2,212	3,445	3,525
SWPA	Fed	(2)	(0)	(0)	(0)	(1)	(1)	(1)	(0)	(0)	0	0
GRDA	State	(359)	(40)	(50)	(60)	(71)	(83)	(71)	(59)	(47)	(33)	(34)
Springfield, MO	Muni	(8,403)	(2,745)	(2,216)	(1,663)	(1,082)	(474)	(517)	(562)	(609)	(657)	(672)
Sub-Total		165,378	13,029	18,683	24,589	30,758	37,197	34,170	30,985	27,635	24,114	24,669
Other Typical Assessment Paying Members												
AECC	Coop	30,583	3,929	4,290	4,666	5,056	5,463	5,281	5,089	4,884	4,668	4,775
Kansas City, KS	Muni	(11,030)	(1,710)	(1,636)	(1,660)	(1,632)	(1,602)	(1,668)	(1,736)	(1,806)	(1,878)	(1,922)
OMPA	Muni	11,589	1,642	1,650	1,657	1,664	1,670	1,797	1,929	2,065	2,207	2,258
Independence, MO	Muni	3,840	481	516	553	591	630	645	661	677	693	709
Sub-Total		34,981	4,342	4,770	5,216	5,679	6,161	6,056	5,942	5,821	5,690	5,821
Total of Above		200,359	17,372	23,453	29,805	36,437	43,358	40,226	36,927	33,455	29,804	30,490
Others												
Cleco Power		(11,358)	(3,705)	(3,075)	(2,415)	(1,723)	(998)	(839)	(673)	(498)	(315)	(322)
City of Lafayette, LA		900	236	189	140	89	35	68	102	138	175	180
LEPA		(86)	(1)	(12)	(23)	(35)	(47)	(30)	(13)	6	26	26
Aquila - MPS/SJ		(9,371)	(1,571)	(1,623)	(1,676)	(1,731)	(1,788)	(1,544)	(1,289)	(1,020)	(739)	(756)
Sunflower		4,865	271	491	721	962	1,213	1,087	955	817	671	687
Aquila - West Plains		6,384	1,377	1,213	1,040	858	668	740	815	893	975	997
Merchants in SPP		(107,281)	(6,064)	(10,408)	(14,948)	(19,692)	(24,645)	(23,135)	(21,542)	(19,863)	(18,096)	(18,512)
Rest of Eastern Interconnect		(30,614)	4,306	(640)	(5,816)	(11,230)	(16,889)	(12,364)	(7,622)	(2,656)	2,543	2,602
Grand Total		53,797	12,220	9,588	6,827	3,935	906	4,208	7,662	11,273	15,045	15,391

Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 5
Increase in Owned Generation -- Moving from Base Case to StandAlone Case
 (Thousands of MWh)

		<u>Total</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Transmission Owners Under SPP Tariff												
AEP	IOU	5,243	337	425	513	600	688	634	579	525	470	470
Empire	IOU	1,946	160	177	193	210	226	215	205	194	183	183
KCP&L	IOU	(2,479)	(197)	(208)	(218)	(229)	(239)	(253)	(267)	(281)	(294)	(294)
OGE	IOU	(683)	(33)	(40)	(46)	(53)	(60)	(70)	(81)	(92)	(103)	(103)
SPS	IOU	1,423	(4)	53	110	167	224	206	189	171	154	154
Westar Energy	IOU	209	22	20	18	15	13	17	21	25	29	29
Midwest Energy	Coop	3	1	0	0	0	0	0	0	0	0	0
Western Farmers	Coop	277	46	31	15	0	(15)	5	24	44	63	63
SWPA	Fed	(22)	(1)	(1)	(2)	(3)	(3)	(3)	(3)	(2)	(2)	(2)
GRDA	State	(99)	(7)	(8)	(8)	(9)	(9)	(10)	(11)	(12)	(13)	(13)
Springfield, MO	Muni	(299)	(34)	(33)	(32)	(31)	(30)	(29)	(28)	(28)	(27)	(27)
Sub-Total		5,519	289	416	542	669	796	712	628	545	461	461
Other Typical Assessment Paying Members												
AECC	Coop	1,616	145	153	162	170	178	172	166	160	155	155
Kansas City, KS	Muni	(884)	(98)	(94)	(90)	(86)	(82)	(84)	(85)	(87)	(89)	(89)
OMPA	Muni	334	30	31	31	31	31	33	35	36	38	38
Independence, MO	Muni	148	8	10	13	15	18	17	17	17	16	16
Sub-Total		1,214	86	100	115	130	145	139	132	126	120	120
Total of Above		6,733	375	516	658	799	941	851	761	671	581	581
Others												
Cleco Power		(302)	(96)	(75)	(54)	(33)	(13)	(10)	(8)	(6)	(3)	(3)
City of Lafayette, LA		21	4	3	2	1	1	1	2	2	3	3
LEPA		(1)	(0)	(0)	(0)	(0)	(1)	(0)	(0)	0	0	0
Aquila - MPS/SJ		(330)	(16)	(22)	(29)	(35)	(41)	(40)	(38)	(37)	(36)	(36)
Sunflower		122	4	8	12	15	19	17	14	12	10	10
Aquila - West Plains		203	31	27	23	19	16	16	17	18	18	18
Merchants in SPP		(4,432)	(156)	(276)	(395)	(514)	(633)	(582)	(532)	(482)	(432)	(432)
Rest of Eastern Inter/Other		(2,013)	(145)	(181)	(217)	(253)	(289)	(252)	(215)	(178)	(141)	(141)
Grand Total												



Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 6
Increase in Transmission Wheeling Charges -- Moving from Base Case to StandAlone Case
(Thousands of Dollars)

		Present Value	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Transmission Owners Under SPP Tariff												
AEP	IOU	139,645	19,552	20,688	21,866	23,088	24,353	23,367	22,323	21,218	20,050	20,511
Empire	IOU	40,370	6,625	6,499	6,364	6,220	6,065	6,064	6,060	6,053	6,042	6,181
KCPL	IOU	5,057	1,002	902	798	688	572	632	694	758	825	844
OGE	IOU	87,249	14,408	13,998	13,562	13,098	12,606	12,883	13,166	13,455	13,750	14,067
SPS	IOU	26,670	2,337	2,996	3,684	4,401	5,150	5,106	5,057	5,002	4,943	5,057
Westar Energy	IOU	67,678	7,071	8,094	9,160	10,272	11,429	11,954	12,497	13,059	13,640	13,953
Midwest Energy	Coop	2,818	294	337	381	428	476	498	520	544	568	581
Western Farmers	Coop	70,356	8,952	9,542	10,154	10,789	11,448	11,744	12,047	12,358	12,676	12,968
SWPA	Fed	33,261	5,103	5,089	5,071	5,050	5,026	5,122	5,220	5,319	5,421	5,545
GRDA	State	26,182	2,821	3,178	3,551	3,939	4,343	4,567	4,799	5,039	5,288	5,409
Springfield, MO	Muni	511	205	135	61	(16)	(96)	(29)	41	114	191	196
Sub-Total		499,797	68,369	71,458	74,652	77,956	81,372	81,906	82,422	82,918	83,394	85,312
Other Typical Assessment Paying Members												
AECC	Coop	10,344	1,448	1,532	1,620	1,710	1,804	1,731	1,654	1,572	1,485	1,519
Kansas City, KS	Muni	651	129	116	103	88	74	81	89	98	106	109
OMPA	Muni	8,378	1,267	1,277	1,286	1,295	1,304	1,311	1,317	1,323	1,328	1,358
Independence, MO	Muni	953	123	131	139	147	155	159	162	165	169	173
Sub-Total		20,326	2,967	3,056	3,147	3,241	3,337	3,282	3,222	3,157	3,088	3,159
Total of Above		520,124	71,336	74,514	77,800	81,197	84,710	85,188	85,644	86,076	86,482	88,471
Others												
Cleco Power		107	(3)	2	8	14	20	24	29	34	39	40
City of Lafayette, LA		21	(1)	0	2	3	4	5	6	7	8	8
LEPA		12	(0)	0	1	2	2	3	3	4	4	5
Aquila - MPS/SJ		5,694	734	780	828	877	929	948	968	988	1,009	1,032
Sunflower		(595)	(26)	(50)	(76)	(103)	(130)	(128)	(126)	(124)	(121)	(124)
Aquila - West Plains		6,427	671	769	870	975	1,085	1,135	1,187	1,240	1,295	1,325
Merchants in SPP		-	-	-	-	-	-	-	-	-	-	-
Rest of Eastern Interconnect		11,808	1,529	1,573	1,618	1,665	1,712	1,881	2,057	2,240	2,431	2,487
Grand Total		543,599	74,241	77,588	81,050	84,630	88,332	89,057	89,768	90,465	91,147	93,243

Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 7
Increase in Transmission Wheeling Revenues – Moving from Base Case to Stand Alone Case
(Thousands of Dollars)

		Present Value	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Transmission Owners Under SPP Tariff												
AEP	IOU	136,610	18,640	19,496	20,382	21,299	22,246	22,405	22,558	22,707	22,851	23,377
Empire	IOU	20,573	2,807	2,936	3,069	3,207	3,350	3,374	3,397	3,420	3,441	3,520
KCP&L	IOU	73,733	10,061	10,523	11,001	11,496	12,007	12,092	12,175	12,256	12,334	12,617
OGE	IOU	76,844	10,485	10,967	11,465	11,981	12,514	12,603	12,689	12,773	12,854	13,150
SPS	IOU	76,126	10,387	10,864	11,358	11,869	12,397	12,485	12,571	12,654	12,734	13,027
Westar Energy	IOU	67,847	9,258	9,683	10,123	10,578	11,049	11,127	11,203	11,277	11,349	11,610
Midwest Energy	Coop	6,767	923	966	1,010	1,055	1,102	1,110	1,117	1,125	1,132	1,158
Western Farmers	Coop	17,903	2,443	2,555	2,671	2,791	2,915	2,936	2,956	2,976	2,995	3,064
SWPA	Fed	12,409	1,693	1,771	1,851	1,935	2,021	2,035	2,049	2,063	2,076	2,123
GRDA	State	20,201	2,756	2,883	3,014	3,150	3,290	3,313	3,336	3,358	3,379	3,457
Springfield, MO	Muni	6,574	897	938	981	1,025	1,071	1,078	1,086	1,093	1,100	1,125
Sub-Total		515,585	70,351	73,583	76,926	80,384	83,961	84,558	85,138	85,701	86,244	88,227
Other Typical Assessment Paying Members												
AECC	Coop	10,119	1,381	1,444	1,510	1,578	1,648	1,660	1,671	1,682	1,693	1,732
Kansas City, KS	Muni	9,487	1,294	1,354	1,415	1,479	1,545	1,556	1,567	1,577	1,587	1,623
OMPA	Muni	6,549	894	935	977	1,021	1,067	1,074	1,081	1,089	1,096	1,121
Independence, MO	Muni	(83)	(6)	(9)	(12)	(15)	(18)	(17)	(16)	(15)	(14)	(14)
Sub-Total		26,073	3,563	3,724	3,891	4,063	4,241	4,273	4,303	4,333	4,361	4,462
Total of Above		541,657	73,914	77,307	80,817	84,447	88,202	88,831	89,441	90,033	90,605	92,689
Others												
Cleco Power		(659)	(211)	(170)	(127)	(83)	(36)	(42)	(48)	(54)	(60)	(62)
City of Lafayette, LA		(132)	(42)	(34)	(25)	(17)	(7)	(8)	(9)	(11)	(12)	(12)
LEPA		(75)	(24)	(19)	(15)	(9)	(4)	(5)	(5)	(6)	(7)	(7)
Aquila - MPS/SJ		(494)	(36)	(53)	(70)	(88)	(107)	(102)	(95)	(89)	(82)	(84)
Sunflower		-	-	-	-	-	-	-	-	-	-	-
Aquila - West Plains		6,443	879	920	961	1,005	1,049	1,057	1,064	1,071	1,078	1,103
Merchants in SPP		-	-	-	-	-	-	-	-	-	-	-
Rest of Eastern Interconnect		(3,141)	(239)	(362)	(490)	(625)	(765)	(674)	(579)	(480)	(375)	(384)
Grand Total		543,599	74,241	77,588	81,050	84,630	88,332	89,057	89,768	90,465	91,147	93,243



Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 8
Costs Incurred for Provision of SPP Functions, 2006-2015

			<u>SPP Provides Functions</u>	<u>Transmission Owners Provide/Procure SPP Functions</u>	<u>Additional Cost Incurred If StandAlone</u>	<u>Additional Cost Net of Allocation Below</u>
Transmission Owners Under SPP Tariff						
AEP	IOU		28,881	28,806	(75)	(69)
Empire	IOU		4,372	5,079	707	707
KCPL	IOU		13,846	24,661	10,815	10,815
OGE	IOU		22,570	26,292	3,722	3,536
SPS	IOU		21,589	24,842	3,252	3,252
Westar Energy	IOU		21,551	35,165	13,614	13,614
Midwest Energy	Coop		879	8,701	7,822	7,822
Western Farmers	Coop		5,020	3,924	(1,096)	(1,071)
SWPA	Fed		1,102	1,111	9	9
GRDA	State	A	3,241	8,055	4,814	4,814
Springfield, MO	Muni	A	2,542	5,085	2,543	2,543
Total			125,595	171,720	46,125	45,970
Other Typical Assessment Paying Members:						
<i>Control Area Operators:</i>						
Kansas City, KS	Muni	A	1,944	3,424	1,479	1,479
Independence, MO	Muni	A	1,026	1,481	455	455
<i>Others within Control Areas:</i>						
			Avg Load Ratio Share of Control Area			
			<u>AEP</u>	<u>OGE</u>	<u>Westar</u>	<u>WFEC</u>
AECC	Coop		6.8%			
OMPA	Muni		1.4%	5.0%		2.3%
Total			8.1%	5.0%	0.0%	2.3%
Total of Above					48,060	48,060

A: Based on average \$/MWh costs for MIDW, WFEC, and SWPA.

Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 9
Savings in FERC Fees if Stand Alone and Not Part of SPP RTO
Thousands of Dollars

		FERC Fees Based on 1999-2003 Average		Allocated FERC Fees if Part of SPP RTO		Savings in FERC Fees if Not Part of SPP RTO	
		2006	PV2006-15	2006	PV2006-15	2006	PV2006-15
TOs Under SPP Tariff							
AEP	IOU	487	3,426	1,377	9,686	889	6,260
Empire	IOU	51	360	208	1,466	157	1,106
KCPL	IOU	210	1,477	660	4,643	450	3,166
OGE	IOU	311	2,186	1,076	7,569	765	5,383
SPS	IOU	285	2,001	1,029	7,240	745	5,239
Westar Energy	IOU	762	5,354	1,027	7,228	266	1,874
Midwest Energy	Coop	0	0	42	295	42	295
Western Farmers	Coop	0	0	239	1,684	239	1,684
SWPA	Fed	0	0	53	370	53	370
GRDA	State	0	0	155	1,087	155	1,087
Springfield, MO	Muni	0	0	121	853	121	853
Sub-Total		2,106	14,805	5,988	42,120	3,881	27,315
Other Typical Assessment Paying Members							
AECC	Coop	0	0	133	934	133	934
Kansas City, KS	Muni	0	0	93	652	93	652
OMPA	Muni	0	0	111	781	111	781
Independence, MO	Muni	0	0	49	344	49	344
Sub-Total		0	0	385	2,711	385	2,711
Total of Above		2,106	14,805	6,373	44,831	4,267	30,027



Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 10
Savings/(Additional Costs) Under Stand Alone Cost Allocation Method
vs. Base Case Method for 2006-2010 Transmission Projects
(thousands of revenue requirements dollars)

	2006-2010 Annual Average	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Present Value	Present Value Net of Allocation Below
Estimated Ramp-up (A)		20%	40%	60%	80%	100%	100%	100%	100%	100%	100%		
Transmission Owners Under SPP Tariff													
AEP	(1,274)	(255)	(509)	(764)	(1,019)	(1,274)	(1,274)	(1,274)	(1,274)	(1,274)	(1,274)	(5,990)	(5,502)
Empire	(176)	(35)	(70)	(106)	(141)	(176)	(176)	(176)	(176)	(176)	(176)	(829)	(829)
KCP&L	(175)	(35)	(70)	(105)	(140)	(175)	(175)	(175)	(175)	(175)	(175)	(823)	(823)
OGE	(181)	(36)	(73)	(109)	(145)	(181)	(181)	(181)	(181)	(181)	(181)	(853)	(811)
SPS	298	60	119	179	238	298	298	298	298	298	298	1,400	1,400
Westar	286	57	114	172	229	286	286	286	286	286	286	1,345	1,345
Midwest Energy	70	14	28	42	56	70	70	70	70	70	70	327	327
Westar Energy	336	67	134	201	269	336	336	336	336	336	336	1,579	1,543
SWPA	459	92	184	275	367	459	459	459	459	459	459	2,159	2,159
GRDA	128	26	51	77	103	128	128	128	128	128	128	603	603
Springfield, MO	230	46	92	138	184	230	230	230	230	230	230	1,080	1,080
Total		-	-	-	-	-	-	-	-	-	-	-	494
Other Typical Assessment Paying Members													
	Load Share of Control Area				Pres Value Allocated								
	AEP	OGE	Westar	WFEC	Share								
AECC	6.8%				(405)								
OMPA	1.4%	5.0%		2.3%	(89)								
	8.1%	5.0%	0.0%	2.3%	(494)								

CRA assumed that the 2006-2010 transmission projects would enter service on a pro-rata annual basis over the 5-year period.



Appendix 4-1: Benefits (Costs) by Company for the Stand-Alone Case (cont.)

Table 11
SPP Withdrawal Obligations
(thousands of dollars)

Transmission Owners Under SPP Tariff		
AEP	IOU	12,377
Empire	IOU	1,803
KCPL	IOU	4,731
OGE	IOU	8,187
SPS	IOU	7,229
Westar Energy	IOU	6,183
Midwest Energy	Coop	670
Western Farmers	Coop	2,050
SWPA	Fed	1,297
GRDA	State	1,485
Springfield, MO	Muni	<u>1,234</u>
Sub-Total		47,246
Other Typical Assessment Paying Members		
AECC	Coop	1,298
Kansas City, KS	Muni	1,084
OMPA	Muni	1,022
Independence, MO	Muni	<u>688</u>
Sub-Total		4,092
Total of Above		51,338

*Source: July 27, 2004 SPP Finance Committee
Recommendation to the Board of Directors*



Appendix 4-2 Benefits (Costs) by Company for the EIS Market Case

Table 1

Benefits/(Costs) of Moving from Base Case to EIS Market Case

(2006-2015, thousands of January 2006 present value dollars; positive numbers indicate benefits)

Source:		Table 3	Table 6	Table 7	Table 8	Table 9	
		Trade	Transmission	Transmission	SPP	Participant	
		Benefits	Charges Paid	Charges Collected	IE Implementation Costs	IE Implementation Costs	Total
TOs Under SPP Tariff							
AEP	IOU	106,541	17,012	(14,092)	(24,099)	(26,860)	58,502
Empire	IOU	61,646	(66)	(2,122)	(3,648)	(7,936)	47,874
KCPL	IOU	31,082	1,249	(7,606)	(11,553)	(15,328)	(2,156)
OGE	IOU	126,375	10,435	(7,927)	(18,833)	(14,739)	95,310
SPS	IOU	100,178	2,738	(7,853)	(18,015)	(7,676)	69,372
Westar Energy	IOU	73,009	(1,221)	(6,999)	(17,983)	(19,394)	27,412
Midwest Energy	Coop	925	(51)	(698)	(733)	(132)	(689)
Western Farmers	Coop	86,958	(722)	(1,847)	(4,189)	(4,989)	75,211
SWPA	Fed	5,627	239	(1,280)	(920)	(2,472)	1,194
GRDA	State	11,775	(6,992)	(2,084)	(2,705)	(4,967)	(4,971)
Springfield, MO	Muni	10,160	1,767	(678)	(2,121)	(3,135)	5,992
	Sub-Total	614,277	24,388	(53,185)	(104,801)	(107,629)	373,050
Other Typical Assessment Paying Members							
AECC	Coop	26,131	1,260	(1,044)	(2,325)	-	24,023
Kansas City, KS	Muni	6,209	161	(979)	(1,622)	-	3,768
OMPA	Muni	17,768	792	(676)	(1,943)	-	15,941
Independence, MO	Muni	3,200	(847)	(9)	(856)	-	1,487
	Sub-Total	53,308	1,365	(2,708)	(6,746)	-	45,220
Total of Above		667,585	25,754	(55,893)	(111,547)	(107,629)	418,270
Others							
Cleco Power		12,462	1,023	10,592			24,077
City of Lafayette, LA		2,106	204	2,116			4,426
LEPA		608	117	1,211			1,936
Aquila - MPS/SJ		1,811	(5,061)	(56)			(3,307)
Sunflower		451	(1,820)	-			(1,369)
Aquila - West Plains		3,640	(116)	(665)			2,860
Merchants in SPP		123,868	-	-			123,868
Rest of Eastern Interconnect		360,049	38,589	(15,995)			382,643
Grand Total		1,172,581	58,690	(58,690)			

Appendix 4-2: Benefits (Costs) by Company for the EIS Market Case (cont.)

Table 2
State Allocation for Multi-State Utilities
Benefits/(Costs) of Moving from Base Case to EIS Market Case
(2005-2014, thousands of January 2006 present value dollars)

State Allocation for Multi-State Utilities

	Wholesale	Retail						Total
		Arkansas	Louisiana	Kansas	Missouri	New Mexico	Oklahoma	
AEP	12.7%	10.8%	14.1%				44.6%	100.0%
Empire	6.4%	3.0%		5.2%	82.7%		2.7%	100.0%
KCPL - Trade	1.0%			41.4%	57.7%			100.0%
KCPL - Other	13.5%			38.8%	47.7%			100.0%
OG&E	9.4%	10.5%					80.1%	100.0%
SPS	40.1%			0.1%		13.3%	1.2%	100.0%
Westar Energy	12.7%			87.3%				100.0%

Allocations are based on net energy for load, except for KCPL - Other which is based on 4 summer months coincident peak and applies to all KCPL cost-benefit components other than Trade Benefits

In the calculation below, AEP trade benefits are subdivided between PSO and Swepeco using the generation of each operating company before the allocation by state. PSO is in Oklahoma only, and Swepeco is in Arkansas, Louisiana and Texas.

Benefits/(Costs) of Moving from Base Case to EIS Case

	Wholesale	Retail						Total
		Arkansas	Louisiana	Kansas	Missouri	New Mexico	Oklahoma	
AEP	7,430	(2,942)	(3,840)				62,703	58,502
Empire	3,054	1,446		2,480	39,592		1,302	47,874
KCPL	(4,183)			(46)	2,073			(2,156)
OG&E	8,940	10,046					76,324	95,310
SPS	27,832			69		9,219	812	69,372
Westar Energy	3,481			23,930				27,412
Total	46,555	8,550	(3,840)	26,433	41,664	9,219	141,141	296,313

Appendix 4-2: Benefits (Costs) by Company for the EIS Market Case (cont.)

Table 3
Trade Benefits - EIS Case
(Thousands of Dollars)

		<u>Present Value</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Transmission Owners Under SPP Tariff												
AEP	IOU	106,541	7,263	10,281	13,434	16,726	20,163	20,905	21,670	22,459	23,274	23,809
Empire	IOU	61,646	8,663	8,881	9,105	9,334	9,569	9,847	10,133	10,427	10,728	10,975
KCPPL	IOU	31,082	3,284	4,132	5,018	5,943	6,907	6,121	5,295	4,428	3,518	3,599
OGE	IOU	126,375	12,900	15,050	17,292	19,630	22,066	22,700	23,352	24,022	24,710	25,279
SPS	IOU	100,178	7,468	10,428	13,521	16,751	20,122	19,902	19,660	19,397	19,112	19,551
Westar Energy	IOU	73,009	7,011	9,135	11,353	13,668	16,084	14,549	12,935	11,239	9,458	9,676
Midwest Energy	Coop	925	80	100	120	141	163	171	180	188	197	202
Western Farmers	Coop	86,958	7,603	9,406	11,288	13,252	15,300	16,075	16,877	17,708	18,568	18,995
SWPA	Fed	5,627	573	668	767	871	979	1,010	1,042	1,075	1,108	1,134
GRDA	State	11,775	1,021	1,286	1,564	1,853	2,155	2,212	2,270	2,330	2,391	2,446
Springfield, MO	Muni	10,160	821	1,081	1,353	1,636	1,932	1,956	1,980	2,004	2,028	2,074
Sub-Total		614,277	56,686	70,450	84,816	99,806	115,440	115,447	115,393	115,276	115,092	117,739
Other Typical Assessment Paying Members												
AECC	Coop	26,131	2,840	3,820	4,844	5,913	7,029	5,594	4,090	2,513	861	881
Kansas City, KS	Muni	6,209	1,378	1,290	1,197	1,100	997	842	679	509	330	338
OMPA	Muni	17,768	2,470	2,633	2,808	2,988	3,173	3,008	2,833	2,649	2,454	2,511
Independence, MO	Muni	3,200	259	329	404	481	562	598	635	674	715	731
Sub-Total		53,308	6,946	8,075	9,254	10,482	11,761	10,042	8,238	6,345	4,360	4,461
Total of Above		667,585	63,632	78,525	94,069	110,287	127,202	125,489	123,631	121,621	119,453	122,200
Others												
Cleco Power		12,462	1,835	1,587	1,326	1,053	766	1,511	2,289	3,103	3,953	4,044
City of Lafayette, LA		2,106	233	224	214	204	193	305	422	544	672	687
LEPA		608	28	49	71	94	119	125	132	139	146	150
Aquila - MPS/SJ		1,811	1,094	767	425	67	(308)	(209)	(106)	3	116	118
Sunflower		451	(136)	(101)	(64)	(25)	16	115	219	328	441	451
Aquila - West Plains		3,640	15	305	608	925	1,256	1,009	750	479	194	199
Merchants in SPP		123,868	4,184	9,353	14,757	20,406	26,306	26,785	27,273	27,769	28,274	28,924
Rest of Eastern Interconnect		360,049	34,304	42,047	50,129	58,559	67,352	67,200	67,005	66,766	66,480	68,009
Grand Total		1,172,581	105,189	132,756	161,537	191,571	222,901	222,330	221,616	220,751	219,729	224,783

Appendix 4-2: Benefits (Costs) by Company for the EIS Market Case (cont.)

Table 4
Increase in Owned Generation Production Costs -- Moving from Base Case to EIS Case
(Thousands of Dollars)

		<u>Present</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
		<u>Value</u>										
Transmission Owners Under SPP Tariff												
AEP	IOU	(888,481)	(127,063)	(126,334)	(125,505)	(124,570)	(123,527)	(135,638)	(148,241)	(161,352)	(174,988)	(179,012)
Empire	IOU	(169,838)	(24,840)	(24,857)	(24,861)	(24,853)	(24,831)	(26,222)	(27,665)	(29,160)	(30,710)	(31,416)
KCP&L	IOU	(71,448)	(6,856)	(8,991)	(11,219)	(13,546)	(15,973)	(14,330)	(12,603)	(10,788)	(8,884)	(9,088)
OGE	IOU	(699,283)	(98,264)	(98,391)	(98,472)	(98,505)	(98,487)	(107,805)	(117,499)	(127,583)	(138,067)	(141,243)
SPS	IOU	(340,068)	(31,438)	(39,043)	(46,982)	(55,266)	(63,905)	(63,893)	(63,847)	(63,765)	(63,645)	(65,109)
Westar Energy	IOU	(63,341)	(7,997)	(7,003)	(5,959)	(4,864)	(3,715)	(8,038)	(12,559)	(17,283)	(22,218)	(22,729)
Midwest Energy	Coop	(307)	(49)	(49)	(48)	(47)	(46)	(46)	(47)	(47)	(48)	(49)
Western Farmers	Coop	(304,676)	(31,269)	(35,139)	(39,171)	(43,369)	(47,740)	(52,557)	(57,571)	(62,788)	(68,214)	(69,783)
SWPA	Fed	(2)	(0)	(0)	(0)	(1)	(1)	(1)	(0)	0	0	0
GRDA	State	802	111	110	109	107	106	121	138	155	172	176
Springfield, MO	Muni	(32,096)	(4,936)	(4,807)	(4,670)	(4,524)	(4,369)	(4,753)	(5,151)	(5,565)	(5,996)	(6,134)
Sub-Total		(2,568,737)	(332,602)	(344,505)	(356,780)	(369,437)	(382,488)	(413,162)	(445,045)	(478,176)	(512,596)	(524,385)
Other Typical Assessment Paying Members												
AECC	Coop	(68,569)	(8,018)	(9,710)	(11,475)	(13,317)	(15,237)	(13,254)	(11,171)	(8,986)	(6,694)	(6,848)
Kansas City, KS	Muni	8,086	2,042	1,860	1,667	1,465	1,253	999	733	454	162	166
OMPA	Muni	(95,492)	(11,767)	(12,758)	(13,788)	(14,859)	(15,973)	(16,231)	(16,493)	(16,759)	(17,028)	(17,419)
Independence, MO	Muni	(11,562)	(966)	(1,186)	(1,415)	(1,654)	(1,904)	(2,101)	(2,307)	(2,521)	(2,743)	(2,806)
Sub-Total		(167,537)	(18,708)	(21,794)	(25,011)	(28,365)	(31,861)	(30,587)	(29,238)	(27,811)	(26,303)	(26,908)
Total of Above		(2,736,273)	(351,310)	(366,299)	(381,791)	(397,803)	(414,349)	(443,749)	(474,283)	(505,987)	(538,898)	(551,293)
Others												
Cleco Power		(337,351)	(44,777)	(49,600)	(54,620)	(59,845)	(65,281)	(59,740)	(53,908)	(47,777)	(41,336)	(42,286)
City of Lafayette, LA		(10,562)	(1,214)	(1,095)	(970)	(839)	(701)	(1,411)	(2,152)	(2,927)	(3,737)	(3,823)
LEPA		(4,351)	(233)	(374)	(522)	(677)	(838)	(880)	(923)	(968)	(1,015)	(1,038)
Aquila - MPS/SJ		(11,834)	(4,462)	(3,531)	(2,556)	(1,534)	(463)	(457)	(451)	(443)	(436)	(446)
Sunflower		(10,206)	(1,188)	(1,176)	(1,163)	(1,148)	(1,133)	(1,535)	(1,955)	(2,393)	(2,851)	(2,918)
Aquila - West Plains		(688)	(1,470)	(839)	(178)	514	1,237	853	451	29	(412)	(421)
Merchants in SPP		2,670,459	304,351	330,856	358,419	387,075	416,859	450,306	485,070	521,195	558,725	571,576
Rest of Eastern Interconnect		(731,775)	(4,886)	(40,698)	(78,155)	(117,314)	(158,232)	(165,718)	(173,464)	(181,479)	(189,771)	(194,136)
Grand Total		(1,172,581)	(105,189)	(132,756)	(161,537)	(191,571)	(222,901)	(222,330)	(221,616)	(220,751)	(219,729)	(224,783)

Appendix 4-2: Benefits (Costs) by Company for the EIS Market Case (cont.)

Table 5
Increase in Owned Generation – Moving from Base Case to EIS Case
(Thousands of MWh)

		<u>Total</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Transmission Owners Under SPP Tariff												
AEP	IOU	(27,688)	(2,351)	(2,426)	(2,502)	(2,578)	(2,654)	(2,790)	(2,926)	(3,063)	(3,199)	(3,199)
Empire	IOU	(6,483)	(688)	(661)	(633)	(606)	(579)	(609)	(639)	(669)	(700)	(700)
KCP&L	IOU	(1,774)	(160)	(194)	(228)	(262)	(296)	(235)	(175)	(115)	(54)	(54)
OGE	IOU	(18,714)	(1,650)	(1,678)	(1,706)	(1,735)	(1,763)	(1,861)	(1,958)	(2,056)	(2,154)	(2,154)
SPS	IOU	(8,732)	(426)	(573)	(719)	(866)	(1,012)	(1,018)	(1,023)	(1,028)	(1,033)	(1,033)
Westar Energy	IOU	164	(66)	21	109	196	284	155	27	(102)	(230)	(230)
Midwest Energy	Coop	(7)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Western Farmers	Coop	(9,255)	(567)	(652)	(737)	(823)	(908)	(982)	(1,055)	(1,128)	(1,202)	(1,202)
SWPA	Fed	(282)	(24)	(25)	(25)	(26)	(26)	(28)	(30)	(31)	(33)	(33)
GRDA	State	(506)	(35)	(40)	(45)	(50)	(55)	(56)	(56)	(57)	(57)	(57)
Springfield, MO	Muni	(774)	(44)	(55)	(65)	(76)	(86)	(88)	(89)	(90)	(91)	(91)
Sub-Total		(74,052)	(6,012)	(6,283)	(6,554)	(6,825)	(7,096)	(7,510)	(7,925)	(8,339)	(8,754)	(8,754)
Other Typical Assessment Paying Members												
AECC	Coop	(3,114)	(242)	(307)	(373)	(438)	(503)	(413)	(322)	(232)	(142)	(142)
Kansas City, KS	Muni	645	116	104	92	80	68	57	46	35	24	24
OMPA	Muni	(3,166)	(274)	(292)	(310)	(328)	(346)	(338)	(330)	(322)	(314)	(314)
Independence, MO	Muni	(391)	(22)	(26)	(30)	(34)	(38)	(42)	(45)	(49)	(53)	(53)
Sub-Total		(6,027)	(422)	(521)	(621)	(720)	(820)	(736)	(652)	(568)	(484)	(484)
Total of Above		(80,079)	(6,433)	(6,804)	(7,175)	(7,545)	(7,916)	(8,246)	(8,577)	(8,907)	(9,238)	(9,238)
Others												
Cleco Power		(12,347)	(1,065)	(1,194)	(1,322)	(1,450)	(1,579)	(1,425)	(1,271)	(1,117)	(963)	(963)
City of Lafayette, LA		(275)	(20)	(18)	(16)	(15)	(13)	(22)	(31)	(40)	(50)	(50)
LEPA		(76)	(2)	(4)	(5)	(7)	(8)	(9)	(9)	(10)	(11)	(11)
Aquila - MPS/SJ		(315)	(114)	(84)	(55)	(26)	3	(1)	(5)	(8)	(12)	(12)
Sunflower		(263)	(18)	(18)	(19)	(19)	(19)	(25)	(30)	(35)	(40)	(40)
Aquila - West Plains		394	1	22	43	64	85	67	50	32	14	14
Merchants in SPP		115,285	8,309	9,102	9,895	10,689	11,482	12,082	12,682	13,281	13,881	13,881
Rest of Eastern Inter/Other		(22,324)	(657)	(1,002)	(1,347)	(1,691)	(2,036)	(2,422)	(2,809)	(3,196)	(3,582)	(3,582)
Grand Total												

Appendix 4-2: Benefits (Costs) by Company for the EIS Market Case (cont.)

Table 6
Increase in Transmission Wheeling Charges -- Moving from Base Case to EIS Case
(Thousands of Dollars)

		Present Value	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Transmission Owners Under SPP Tariff												
AEP	IOU	(17,012)	(1,946)	(2,163)	(2,388)	(2,622)	(2,866)	(2,948)	(3,032)	(3,118)	(3,207)	(3,281)
Empire	IOU	66	122	89	55	18	(20)	(37)	(56)	(76)	(96)	(98)
KCPL	IOU	(1,249)	(121)	(143)	(166)	(189)	(214)	(225)	(236)	(248)	(260)	(266)
OGE	IOU	(10,435)	(746)	(985)	(1,235)	(1,496)	(1,768)	(1,956)	(2,152)	(2,356)	(2,568)	(2,627)
SPS	IOU	(2,738)	-	(161)	(329)	(504)	(688)	(663)	(637)	(608)	(579)	(592)
Westar Energy	IOU	1,221	240	228	214	200	185	171	157	141	125	128
Midwest Energy	Coop	51	10	9	9	8	8	7	7	6	5	5
Western Farmers	Coop	722	74	82	89	97	106	122	138	155	173	177
SWPA	Fed	(239)	37	13	(11)	(36)	(63)	(71)	(79)	(87)	(96)	(98)
GRDA	State	6,992	930	975	1,023	1,072	1,123	1,148	1,175	1,201	1,228	1,257
Springfield, MO	Muni	(1,767)	(104)	(126)	(149)	(172)	(197)	(299)	(405)	(516)	(632)	(646)
Sub-Total		(24,388)	(1,504)	(2,180)	(2,886)	(3,624)	(4,394)	(4,750)	(5,121)	(5,506)	(5,906)	(6,042)
Other Typical Assessment Paying Members												
AECC	Coop	(1,260)	(144)	(160)	(177)	(194)	(212)	(218)	(225)	(231)	(238)	(243)
Kansas City, KS	Muni	(161)	(16)	(18)	(21)	(24)	(28)	(29)	(30)	(32)	(33)	(34)
OMPA	Muni	(792)	(67)	(83)	(99)	(116)	(134)	(145)	(156)	(168)	(180)	(184)
Independence, MO	Muni	847	116	118	120	121	123	133	143	154	165	169
Sub-Total		(1,365)	(111)	(144)	(178)	(214)	(251)	(259)	(268)	(277)	(286)	(292)
Total of Above		(25,754)	(1,615)	(2,324)	(3,064)	(3,838)	(4,645)	(5,010)	(5,389)	(5,782)	(6,191)	(6,334)
Others												
Cleco Power		(1,023)	(10)	(54)	(100)	(148)	(199)	(222)	(246)	(271)	(297)	(304)
City of Lafayette, LA		(204)	(2)	(11)	(20)	(30)	(40)	(44)	(49)	(54)	(59)	(61)
LEPA		(117)	(1)	(6)	(11)	(17)	(23)	(25)	(28)	(31)	(34)	(35)
Aquila - MPS/SJ		5,061	694	704	714	724	734	794	856	921	988	1,011
Sunflower		1,820	80	157	237	321	408	396	383	369	354	362
Aquila - West Plains		116	23	22	20	19	18	16	15	13	12	12
Merchants in SPP		-	-	-	-	-	-	-	-	-	-	-
Rest of Eastern Interconnect		(38,589)	(6,159)	(6,268)	(6,380)	(6,493)	(6,608)	(6,167)	(5,702)	(5,212)	(4,696)	(4,804)
Grand Total		(58,690)	(6,990)	(7,781)	(8,605)	(9,462)	(10,354)	(10,262)	(10,160)	(10,047)	(9,925)	(10,153)

Appendix 4-2: Benefits (Costs) by Company for the EIS Market Case (cont.)

Table 7
Increase in Transmission Wheeling Revenues -- Moving from Base Case to EIS Case
(Thousands of Dollars)

		Present Value	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Transmission Owners Under SPP Tariff												
AEP	IOU	(14,092)	(2,046)	(2,120)	(2,197)	(2,276)	(2,357)	(2,298)	(2,230)	(2,160)	(2,086)	(2,134)
Empire	IOU	(2,122)	(308)	(319)	(331)	(343)	(355)	(346)	(336)	(325)	(314)	(321)
KCP&L	IOU	(7,606)	(1,104)	(1,144)	(1,186)	(1,228)	(1,272)	(1,239)	(1,204)	(1,166)	(1,126)	(1,152)
OGE	IOU	(7,927)	(1,151)	(1,193)	(1,236)	(1,280)	(1,326)	(1,291)	(1,254)	(1,215)	(1,173)	(1,200)
SPS	IOU	(7,853)	(1,140)	(1,182)	(1,224)	(1,268)	(1,313)	(1,279)	(1,243)	(1,204)	(1,163)	(1,189)
Westar Energy	IOU	(6,999)	(1,016)	(1,053)	(1,091)	(1,130)	(1,171)	(1,140)	(1,108)	(1,073)	(1,036)	(1,060)
Midwest Energy	Coop	(698)	(101)	(105)	(109)	(113)	(117)	(114)	(110)	(107)	(103)	(106)
Western Farmers	Coop	(1,847)	(268)	(278)	(288)	(298)	(309)	(301)	(292)	(283)	(273)	(280)
SWPA	Fed	(1,280)	(186)	(193)	(200)	(207)	(214)	(209)	(203)	(196)	(189)	(194)
GRDA	State	(2,084)	(303)	(314)	(325)	(337)	(349)	(339)	(330)	(319)	(308)	(316)
Springfield, MO	Muni	(678)	(98)	(102)	(106)	(110)	(113)	(110)	(107)	(104)	(100)	(103)
Sub-Total		(53,185)	(7,723)	(8,002)	(8,291)	(8,589)	(8,895)	(8,664)	(8,416)	(8,153)	(7,873)	(8,055)
Other Typical Assessment Paying Members												
AECC	Coop	(1,044)	(152)	(157)	(163)	(169)	(175)	(170)	(165)	(160)	(155)	(158)
Kansas City, KS	Muni	(979)	(142)	(147)	(153)	(158)	(164)	(159)	(155)	(150)	(145)	(148)
OMPA	Muni	(676)	(98)	(102)	(105)	(109)	(113)	(110)	(107)	(104)	(100)	(102)
Independence, MO	Muni	(9)	(6)	(5)	(4)	(3)	(1)	0	2	3	5	5
Sub-Total		(2,708)	(398)	(411)	(424)	(438)	(453)	(439)	(425)	(410)	(395)	(404)
Total of Above		(55,893)	(8,121)	(8,413)	(8,715)	(9,027)	(9,348)	(9,103)	(8,842)	(8,564)	(8,268)	(8,458)
Others												
Cleco Power		10,592	1,695	1,487	1,269	1,040	800	1,298	1,819	2,364	2,932	3,000
City of Lafayette, LA		2,116	339	297	253	208	160	259	363	472	586	599
LEPA		1,211	194	170	145	119	91	148	208	270	335	343
Aquila - MPS/SJ		(56)	(37)	(30)	(23)	(16)	(8)	1	10	19	29	30
Sunflower		-	-	-	-	-	-	-	-	-	-	-
Aquila - West Plains		(665)	(97)	(100)	(104)	(107)	(111)	(108)	(105)	(102)	(98)	(101)
Merchants in SPP		-	-	-	-	-	-	-	-	-	-	-
Rest of Eastern Interconnect		(15,995)	(963)	(1,191)	(1,430)	(1,679)	(1,938)	(2,757)	(3,613)	(4,507)	(5,440)	(5,565)
Grand Total		(58,690)	(6,990)	(7,781)	(8,605)	(9,462)	(10,354)	(10,262)	(10,160)	(10,047)	(9,925)	(10,153)

Appendix 4-2: Benefits (Costs) by Company for the EIS Market Case (cont.)

Table 8
Annual SPP Assessments for Implementation and Operation of EIS Market
(Thousands of Dollars)

		<u>Present</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
		<u>Value</u>										
Transmission Owners Under SPP Tariff												
AEP	IOU	24,099	3,806	4,492	4,491	3,574	3,610	3,649	3,080	3,151	3,224	3,298
Empire	IOU	3,648	576	680	680	541	547	552	466	477	488	499
KCP&L	IOU	11,553	1,825	2,154	2,153	1,713	1,731	1,749	1,476	1,511	1,545	1,581
OGE	IOU	18,833	2,974	3,510	3,510	2,793	2,822	2,851	2,407	2,462	2,519	2,577
SPS	IOU	18,015	2,845	3,358	3,357	2,671	2,699	2,728	2,302	2,355	2,410	2,465
Westar Energy	IOU	17,983	2,840	3,352	3,352	2,667	2,694	2,723	2,298	2,351	2,406	2,461
Midwest Energy	Coop	733	116	137	137	109	110	111	94	96	98	100
Western Farmers	Coop	4,189	662	781	781	621	628	634	535	548	560	573
SWPA	Fed	920	145	171	171	136	138	139	118	120	123	126
GRDA	State	2,705	427	504	504	401	405	410	346	354	362	370
Springfield, MO	Muni	2,121	335	395	395	315	318	321	271	277	284	290
Sub-Total		104,801	16,550	19,534	19,532	15,541	15,701	15,867	13,392	13,702	14,019	14,343
Other Typical Assessment Paying Members												
AECC	Coop	2,325	367	433	433	345	348	352	297	304	311	318
Kansas City, KS	Muni	1,622	256	302	302	241	243	246	207	212	217	222
OMPA	Muni	1,943	307	362	362	288	291	294	248	254	260	266
Independence, MO	Muni	856	135	160	159	127	128	130	109	112	114	117
Sub-Total		6,746	1,065	1,257	1,257	1,000	1,011	1,021	862	882	902	923
Total of Above		111,547	17,616	20,792	20,789	16,541	16,711	16,889	14,254	14,584	14,921	15,266
Tariff Admin Fees by others		17,266	2,743	3,215	3,214	2,558	2,584	2,611	2,204	2,255	2,307	2,360
Total EIS Costs		128,813	20,359	24,007	24,003	19,098	19,295	19,500	16,458	16,839	17,228	17,626



Appendix 4-2: Benefits (Costs) by Company for the EIS Market Case (cont.)

Table 9
Costs Incurred Internally by EIS Market Participants
(Thousand of Dollars)

		Present Value	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Transmission Owners Under SPP Tariff												
AEP	IOU	26,860	6,063	5,128	4,909	4,692	4,476	2,522	2,580	2,639	2,700	2,762
Empire	IOU	7,936	1,727	1,091	1,106	1,122	1,138	1,154	1,171	1,189	1,207	1,226
KCP&L	IOU	15,328	2,624	2,203	2,232	2,283	2,291	2,343	2,397	2,453	2,509	2,567
OGE	IOU	14,739	2,524	2,366	2,356	2,357	2,359	2,021	2,067	2,115	2,163	2,213
SPS	IOU	7,676	1,638	1,452	1,404	1,356	1,308	748	766	783	801	820
Westar Energy	IOU	19,394	3,670	2,986	2,950	2,957	2,966	2,976	2,987	2,605	2,665	2,727
Midwest Energy	Coop	132	138	-	-	-	-	-	-	-	-	-
Western Farmers	Coop	4,989	931	691	707	723	739	756	774	792	810	829
SWPA (A)	Fed	2,472	479	354	353	360	366	371	375	379	383	388
GRDA (A)	State	4,967	942	697	707	721	736	749	763	777	791	805
Springfield, MO (A)	Muni	3,135	595	440	446	455	464	473	481	490	499	508
Sub-Total		107,629	21,330	17,407	17,169	17,026	16,844	14,114	14,361	14,221	14,529	14,844
Other Typical Assessment Paying Members												
AECC	Coop	-	-	-	-	-	-	-	-	-	-	-
Kansas City, KS	Muni	-	-	-	-	-	-	-	-	-	-	-
OMPA	Muni	-	-	-	-	-	-	-	-	-	-	-
Independence, MO	Muni	-	-	-	-	-	-	-	-	-	-	-
Sub-Total		-	-	-	-	-	-	-	-	-	-	-
Total of Above		107,629	21,330	17,407	17,169	17,026	16,844	14,114	14,361	14,221	14,529	14,844

A: Estimated based on the cost per mWh of Net Energy for Load of Western Farmers



Appendix 4-3 Costs Incurred for Provision of SPP's Current Functions

1. Introduction

In addition to its long-running role as a NERC reliability council, SPP performs six additional reliability/transmission provider functions for transmission-owning members: reliability coordination, tariff administration, OASIS administration, ATC/TTC calculations, scheduling agent, and regional transmission planning. As part of this cost-benefit study, CRA was asked to evaluate the costs and benefits to SPP transmission owners that result from SPP's provision of these additional functions.

Overall, SPP's provision of these additional functions is estimated to provide cost savings to the eleven transmission owners under the SPP tariff of \$46.1 million (January 1, 2006 present value) over the 2006–2015 period. However, as discussed below, individual transmission owner savings vary depending in large part on the extent to which transmission provider functions and responsibilities have been transferred from the transmission owning member's facilities and resources to the SPP. The level of transmission provider functions and responsibilities maintained by an individual transmission owner provides the foundation for self-provision of all transmission provider functions. This foundation varies among the transmission owning members in the SPP.

To perform this evaluation, (1) the specific functions currently performed by SPP were defined, (2) the projected annual charges to each transmission owner for SPP to supply the additional reliability/transmission provider functions were estimated, (3) the annual costs each transmission owner would incur to perform or procure these additional reliability/transmission provider functions if SPP did not provide them were estimated, and (4) the difference between these two sets of costs was calculated to derive the cost saving that each transmission owner obtains from SPP provision of these additional functions. Each of these four steps is described in detail below.

1.1. Additional Functions Currently Performed by SPP

For purposes of this study, SPP's role as a NERC reliability council is defined as SPP Function 1, and it is assumed that SPP would continue to provide this function for member companies. The additional reliability/transmission provider functions currently performed by SPP are categorized as SPP Functions 2 through 7, defined below.

SPP Function 2: Reliability Coordination

As a NERC-recognized reliability coordinator, SPP maintains the reliability of the electric transmission system of its members and has the authority to direct actions required to maintain adequate regional generation capacity, adequate system voltage levels, and transmission system loading within specified limits. SPP also coordinates planned transmission and generation outages with its members and neighbors. The primary method utilized by SPP to relieve excessive loading on transmission facilities is NERC's Transmission Loading Relief (TLR) procedure.

SPP Function 3: Tariff Administration

SPP administers an Open Access Transmission Tariff (OATT) providing regional transmission service in all or part of eight southwestern states. Tariff-related services are as follows: calculating and posting ATC, which is broken out as a separate function below; processing requests for service; performing impact and facility studies; performing generation



interconnection studies; providing tariff billing; providing revenue and transmission construction cost recovery distribution; and providing regulatory assistance.

SPP Function 4: OASIS Administration

SPP administers an Open Access Same-time Information System (OASIS) for administration of transmission service, including provision of qualified staff and supervision for day and night coverage and procurement and maintenance of the necessary telecommunications infrastructure to support the service. SPP also maintains and updates various transmission information and OATT business practice documents.

SPP Function 5: ATC/AFC/TTC Calculations

SPP calculates and maintains current and projected ATC/AFC/TTC/TRM figures. SPP utilizes these data to respond to requests for transmission service. SPP also maintain a "Scenario Analyzer" that allows a transmission customer to estimate available transmission capacity.

SPP Function 6: Scheduling Agent

SPP administers and approves regional scheduling through an electronic scheduling system known as RTO_SS (Regional Transmission Organization Scheduling System). SPP acts as a scheduling entity for all interchange transactions using SPP regional transmission service. For one transmission-owning member, SPP provides Control Area level scheduling approval service.

SPP Function 7: Regional Transmission Planning

SPP is responsible for planning, and for directing or arranging, transmission expansions, additions, and upgrades that will enable it to provide efficient, reliable, and non-discriminatory transmission service across the SPP region. SPP also coordinates planning efforts with transmission owners and appropriate state authorities.

1.2 SPP Charges to Transmission Owners for Provision of Functions 2 through 7

SPP estimated the costs it incurs to provide Functions 2 through 7 based directly on its annual budgeting process. In making this estimate, SPP deducted from its total annual budgeted expenditures the budgeted costs associated with the following:

- 1) Reliability council activities (SPP Function 1)
- 2) FERC fees that will be assessed directly to SPP rather than to SPP members once SPP is an RTO
- 3) SPP market development activities related to implementation of an energy imbalance market and other market/RTO development activities

As noted above, it is assumed for purposes of this study that SPP continues to serve as a NERC reliability council (SPP Function 1); these costs are therefore removed from the total SPP budget in arriving at the net cost for SPP provision of Functions 2 through 7. The FERC fees payable to FERC by member companies will be assessed directly to SPP when SPP is an RTO, and then in turn assessed by SPP to member companies. These fees must therefore be removed from the total SPP budget in arriving at the net cost for SPP provision of Functions 2 through 7. Finally, the SPP budget includes significant expenditures to develop and implement the Energy Imbalance market and further market/RTO development. These costs must therefore also be removed from the total SPP budget in arriving at the net cost for SPP provision of Functions 2 through 7.



The SPP budgets for 2006 and 2007 were analyzed. The total SPP budget for 2006 is \$55.7 million. The net amount attributable to provision of SPP Functions 2 through 7 was estimated to be \$21.6 million. Similarly, the total SPP budget for 2007 is \$63.0 million, of which \$23.2 million was estimated to be attributable to provision of SPP Functions 2 through 7. SPP annual budget projections are available only through 2007. Expenditures by SPP for Functions 2 through 7 thereafter are assumed to increase at the general rate of inflation.

The eleven transmission-owning members under the SPP tariff pay membership fees, NERC assessments, and SPP assessments to SPP. The membership fees and NERC assessments are intended to compensate SPP for expenditures related to reliability council activities (SPP Function 1). Remaining SPP expenditures are recovered through an SPP assessment for many SPP members (including all eleven transmission owners under the SPP tariff) along with Schedule 1 tariff fees for other SPP members and customers.¹

The total SPP projected costs for Functions 2 through 7 were allocated individually to the eleven SPP transmission owners under the SPP tariff using each owner's share of the annual total SPP Assessment.² For example, American Electric Power was allocated 18.7%, or \$4.0 million, of the \$21.6 million in SPP costs incurred in providing Functions 2 through 7 in 2006.

1.3 Transmission Owner Costs to Perform/Procure SPP Functions 2 Through 7 if Not Provided by SPP

To perform this evaluation, each SPP transmission owner was asked to estimate the additional costs it would incur over the 2006–2015 period to perform or procure the six additional functions currently performed by SPP.

These additional costs were separated into salaries, benefits, other O&M, and capital additions. By default, SPP budget estimates for the provision of Functions 2 through 7 include administrative and general (A&G) expenditures (e.g., office space and supplies) incurred at SPP. A similar application of A&G expenditures must therefore be added to the transmission owner costs. Using historical A&G (net of benefits) to salary ratios at each transmission owner, A&G expenditures were estimated by applying these ratios to the salary costs estimated by each transmission owner.³

CRA converted these wage, benefits, other O&M, capital additions, and A&G inputs into the annual revenue that would be required for each transmission owner to perform or procure the six additional functions currently performed by SPP. To arrive at the annual revenue requirement, capital additions were depreciated over the expected book life of each asset acquired, and return, associated income taxes, and property taxes were applied.

¹ Those members paying a SPP Assessment are also assessed Schedule 1 charges: payment of these Schedule 1 charges is credited against the member's SPP Assessment.

² Each member's SPP Assessment is based on the member's share of the total SPP Schedule 1 billing units and total SPP member load eligible to take, but not taking, Network Integration Transmission Service.

³ A similar method is traditionally used to assign A&G expenditures to the transmission function in developing OATT transmission rates, meaning that these additional A&G costs would be assigned to transmission in determining transmission rates if these costs were incurred by the transmission owner. While it is plausible that incremental short-term expenditures at the transmission owner would not cause a commensurate increase in transmission owner A&G costs, given that this study encompasses a 10-year horizon and that transmission owner costs are being compared to SPP costs that include a full allocation of A&G, a full allocation of A&G was also applied to transmission owner costs.



To refine the data, CRA made follow-up data requests and met with respondents to evaluate the assumptions applied by each transmission owner.

Each transmission owner faces a unique situation in performing these additional functions, depending on the tasks it currently performs. Some transmission owners, such as Midwest Energy, perform little in the way of transmission-related operating functions, and would have to expend considerable sums to develop the capabilities to perform these functions. Others, based on particular aspects of their control area, continue to perform some transmission-related tasks, and adding new functions would require smaller incremental expenditures.

Summarized below are some of the key factors that drive the additional costs that would be incurred by each transmission owner.⁴ The transmission owners are grouped first by those currently under the SPP tariff, and next by other responding transmission owners.

1.3.1 Transmission Owners Under the SPP Tariff

American Electric Power (AEP)

The AEP-west control area located in SPP comprises Public Service of Oklahoma, Southwestern Electric Power Company, and a small portion of AEP Texas North Company. For Functions 2 (Reliability Coordinator) and 5 (ATC/AFC calculations), AEP estimated its additional costs for the AEP-west control area if SPP did not provide these functions using the amounts it paid PJM to provide similar services in the AEP-east control area. For Function 3 (Tariff Administration), SPP had performed these services under contract for the AEP-east control area, and these costs were used as an estimate for the AEP-west control area. In addition, it was estimated that one full-time equivalent (FTE) employee would be required to perform the incremental billing functions associated with Function 3. With regard to Function 4 (OASIS Administration), AEP's hardware and support costs for the AEP-east OASIS were used to estimate the cost if AEP-west were to perform this function. AEP estimates that it would require eight additional FTEs in the AEP-west control area to perform Functions 6 (Scheduling) and 7 (Regional Transmission Planning). Due to the combined operation of the AEP-west control area, cost and staffing figures were developed jointly for the three individual AEP-west operating companies.

Empire

SPP provides complete tariff services for Empire. Empire's five transmission operators spend only a small fraction of their time on Reliability Coordination (Function 2), and approximately three Empire District FTEs complement the services SPP provides to Empire for Functions 3 through 7. If SPP were to not supply Functions 2 through 7 to Empire, the utility estimates that nine additional FTEs would be needed. In addition, \$250,000 in capital costs would be incurred for computer hardware, software, and licenses in 2006.

Grand River Dam Authority

Grand River Dam Authority did not provide information for Part 1 of this study. For purposes of this study, costs were estimated using the average cost per net energy of load derived for the other non-investor-owned transmission owners under the SPP tariff (Midwest Energy, Southwestern Power Administration, and Western Farmers).

⁴ The assumptions provided are solely for the analytic purposes defined in this study, and do not imply that any entity would be adding or removing staff based upon any outcome of this study.



Kansas City Power & Light

Kansas City Power & Light currently sells only network service under its existing OATT. It estimates that it would require nineteen additional FTEs to perform the services now provided by SPP for Functions 2 through 7. In addition, \$975,000 would be required for the purchase of OASIS, tariff administration, and accounting hardware and software in 2006.

Midwest Energy

Midwest Energy relies on SPP for provision of Functions 2 through 7, and has minimal staff and associated equipment related to these functions. Midwest Energy does not sell any new service under its existing tariff, and does not operate its own independent OASIS site. Midwest Energy estimates that it would require seven FTEs to perform these SPP functions internally. In addition, \$670,000 in capital costs would be incurred for computer hardware and software in 2006.

Oklahoma Gas & Electric

Oklahoma Gas & Electric currently uses Open Access Technology International (OATI) and RTO_SS on its system, and estimates that it would require seventeen additional FTEs if it were to perform Functions 2 through 7 internally. Some additional payments to OATI would be required. In addition, an estimated \$700,000 in start-up costs and expenditures for new computer hardware and software would be required in 2006.

Southwestern Public Service

An additional thirteen FTEs would be required at Southwestern Public Service to perform Functions 2 through 5 and Function 7. Scheduling (Function 6) would probably be procured from OATI at roughly \$35,000 per year if not obtained from SPP. Some additional labor would be required to coordinate with OATI. OASIS administration would require labor for set-up and maintenance in addition to hardware/software expenses. Additional expenditures of \$25,000 for computer hardware and software in 2006 also would be required to perform these functions.

Southwestern Power Administration

The costs that Southwestern Power Administration would incur for Function 2 (Reliability Coordination) and Function 4 (OASIS Administration) were estimated on the assumption that these functions would be procured from the Tennessee Valley Authority. Existing Southwestern Power Administration staff would perform the four other SPP functions without a further increase in staffing.

Springfield, Missouri

City Utilities of Springfield, Missouri did not provide information for Part 1 of this study. For purposes of this study, costs were estimated using the average cost per net energy of load derived for the other non-investor-owned transmission owners currently under the SPP tariff (Midwest Energy, Southwestern Power Administration, and Western Farmers).

Westar Energy

Westar Energy does not sell any new service under its existing tariff, performs few functions on its OASIS system, and does only minor work with respect to calculating ATC/AFC on its



system.⁵ It estimates that it would require nineteen additional FTEs, including IT support, to perform Functions 2 through 7. In addition, roughly \$1 million in capital costs would be incurred for the purchase of OASIS, tariff administration, scheduling, and accounting hardware and software in 2006.

Western Farmers

Western Farmers estimates that it would require three additional FTEs, \$35,000 per year in additional O&M, and capital investment of \$160,000 to provide Functions 2 through 7.

1.3.2 Other Control Area Operators Paying a SPP Assessment

The Board of Public Utilities of Kansas City, Kansas, and City Power and Light, of Independence, Missouri, did not provide information for Part 1 of this study. For purposes of this study, costs were estimated using the average cost per net energy of load derived for the other non-investor-owned transmission owners currently under the SPP tariff (Midwest Energy, Southwestern Power Administration, and Western Farmers).

1.4 Results

Table 1 lists the cost savings over 2006–2015 that would result from the SPP provision of Functions 2 through 7.⁶ The total cost savings to the Transmission Owners under the SPP Tariff are \$46.1 million (January 2006 present value) over this period. Table 2 provides annual detail for the cost savings over the 2006–2015 period. Table 3 gives further details on the calculation of the SPP charges for Functions 2 through 7.

Savings vary from owner to owner because of the specific characteristics noted above regarding their respective control areas. Midwest Energy and Westar rely on SPP for nearly all responsibilities related to Functions 2 through 7 and thus would incur considerable additional costs if SPP were no longer to supply these functions. Oklahoma Gas & Electric and Southwestern Public Service continue to supply certain transmission-related functions that could be used as a foundation for performing Functions 2 through 7, and thus their resulting savings, while significant, are lower. On the low end of cost savings, AEP's costs to procure or supply Functions 2 through 7 are roughly in line with the costs that AEP would be charged by SPP for provision of these functions, and Western Farmers' costs would be somewhat lower under self-provision.

As a general observation, most transmission owner projections are based on a presumption that transmission functions currently performed internally by each owner would continue over the next 10 years. However, over the longer term, additional responsibilities might be transferred to SPP, creating opportunities for greater cost savings than estimated here.

⁵ Westar Energy administers only a few grandfathered Transmission Service Agreements. All new requests for transmission service in the Westar Energy system are submitted to and processed by SPP according to the SPP OATT.

⁶ A discount rate of 10% was applied to obtain present values.



Table 1

Costs Incurred for Provision of SPP Functions 2 through 7, 2005-2014

Millions of January 1, 2006 Present Value Revenue Requirement Dollars

		<u>SPP Provides Functions 2 to 7</u>	<u>Transmission Owners Provide/Procure Functions 2 to 7</u>	<u>Additional Cost If StandAlone</u>
Transmission Owners Under SPP Tariff				
AEP	IOU	28.9	28.8	(0.1)
Empire District	IOU	4.4	5.1	0.7
Kansas City Power & Light	IOU	13.8	24.7	10.8
Oklahoma Gas & Electric	IOU	22.6	26.3	3.7
Southwestern Public Service	IOU	21.6	24.8	3.3
Westar	IOU	21.6	35.2	13.6
Midwest Energy	Coop	0.9	8.7	7.8
Western Farmers	Coop	5.0	3.9	(1.1)
Southwestern Power Authority	Fed	1.1	1.1	0.0
Grand River Dam Authority	State	3.2	8.1	4.8
City of Springfield	Muni	2.5	5.1	2.5
Total		125.6	171.7	46.1
Other Control Area Operators				
Board of Public Util., Kansas City	IOU	1.9	3.4	1.5
City P&L, Independence, MO	IOU	1.0	1.5	0.5

Table 2: Cost Incurred for Provision of SPP Functions 2 Through 7
STAND ALONE COST FOR UTILITY TO PERFORM/PROCURE FUNCTIONS 2-7 (000\$)

	PrValue	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TOs Under the SPP Tariff											
IOU AEP	28,806	4,337	4,154	4,250	4,348	4,448	4,550	4,654	4,762	4,871	4,983
IOU Empire District	5,079	819	821	824	721	737	754	771	789	807	826
IOU KCPL	24,661	3,940	3,388	3,466	3,546	4,315	3,711	3,796	3,884	4,726	4,064
IOU OGE	26,292	4,008	4,011	4,065	3,881	3,969	4,051	4,144	4,240	4,337	4,437
IOU SPS	24,842	2,715	3,573	3,920	4,033	4,091	3,975	4,234	4,316	4,399	4,484
IOU Westar	35,165	5,190	5,269	5,357	5,386	5,487	5,438	5,563	5,691	5,822	5,956
Coop Midwest Energy	8,701	1,385	1,397	1,409	1,422	1,231	1,259	1,287	1,316	1,346	1,377
Coop Western Farmers	3,924	566	586	596	608	619	630	617	631	645	661
Fed SWPA	1,111	158	162	165	169	173	177	181	185	190	194
* State GRDA	8,055	1,237	1,258	1,273	1,290	1,186	1,211	1,223	1,251	1,279	1,309
* Muni City of Springfield	5,085	781	794	804	814	749	765	772	790	807	826
Total	171,720	25,137	25,413	26,131	26,217	27,006	26,521	27,245	27,854	29,230	29,116
Other Control Area Operators											
* Muni KACY	3,424	526	535	541	548	504	515	520	532	544	556
* Muni INDN	1,481	227	231	234	237	218	223	225	230	235	241

* Based on average \$ MWh costs for Western Farmers, Midwest Energy and SWPA.

SPP ASSESSMENT FOR FUNCTIONS 2-7 (000\$)

	PrValue	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TOs Under the SPP Tariff											
IOU AEP	28,881	4,035	4,350	4,289	4,388	4,488	4,592	4,697	4,805	4,916	5,029
IOU Empire District	4,372	611	659	649	664	680	695	711	727	744	761
IOU KCPL	13,846	1,934	2,085	2,056	2,103	2,152	2,201	2,252	2,304	2,357	2,411
IOU OGE	22,570	3,152	3,399	3,352	3,429	3,508	3,588	3,671	3,755	3,842	3,930
IOU SPS	21,589	3,016	3,252	3,206	3,280	3,355	3,432	3,511	3,592	3,675	3,759
IOU Westar	21,551	3,011	3,246	3,200	3,274	3,349	3,426	3,505	3,586	3,668	3,753
Coop Midwest Energy	879	125	132	131	134	137	140	143	146	150	153
Coop Western Farmers	5,020	701	756	745	763	780	798	816	835	854	874
Fed SWPA	1,102	154	166	164	167	171	175	179	183	188	192
State GRDA	3,241	453	488	481	492	504	515	527	539	552	564
Muni City of Springfield	2,542	355	383	378	386	395	404	413	423	433	443
Total	125,595	17,548	18,916	18,651	19,080	19,519	19,968	20,427	20,897	21,378	21,869
Other Control Area Operators											
Muni KACY	1,944	272	293	289	295	302	309	316	324	331	339
Muni INDN	1,026	143	154	152	156	159	163	167	171	175	179

ADDITIONAL COST IF STANDALONE (000\$)

	PrValue	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
TOs Under the SPP Tariff											
IOU AEP_SPP	(75)	302	(195)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)
IOU Empire District	707	208	163	175	56	58	59	60	62	63	65
IOU KCPL	10,815	2,005	1,303	1,410	1,442	2,163	1,510	1,544	1,580	2,369	1,653
IOU OGE	3,722	854	611	713	452	461	463	473	484	495	507
IOU SPS	3,252	(301)	321	714	753	736	543	723	724	725	725
IOU Westar	13,614	2,179	2,023	2,157	2,112	2,138	2,012	2,058	2,105	2,154	2,203
Coop MWEnergy	7,822	1,263	1,265	1,279	1,289	1,094	1,119	1,144	1,170	1,197	1,224
Coop Western Farmers	(1,096)	(155)	(170)	(149)	(155)	(161)	(168)	(199)	(204)	(209)	(213)
Fed SWPA	9	4	(4)	2	2	2	2	2	2	2	2
State GRDA	4,814	784	770	792	797	683	696	696	711	727	744
Muni City of Springfield	2,543	426	411	426	428	354	361	359	367	375	383
Total	46,125	7,589	6,497	7,480	7,137	7,487	6,553	6,818	6,957	7,852	7,247
Other Control Area Operators											
Muni KACY	1,479	254	242	252	253	202	206	204	208	213	218
Muni INDN	455	34	77	82	81	59	60	58	59	61	62



Table 3: SPP Assessments for SPP Functions 2 through 7

	<u>2006 Projection</u>		<u>2007 Projection</u>	
Total SPP Budgeted Costs	55,675,550		63,043,003	
less Member Fees	(1,100,000)		(1,100,000)	
less NERC Assessment	(723,180)		(737,644)	
less FERC Fees Assessment	(7,344,000)		(7,490,880)	
less Miscellaneous Income	(1,080,000)		(1,080,000)	
SPP Assessment Required	45,428,368		52,634,477	
less Market Development costs	(23,842,553)		(29,388,064)	
SPP Assessments for Functions 2-7	21,585,815		23,246,413	
	<u>2006</u>		<u>2007</u>	
<u>Members Paying SPP Assessment</u>	<u>Assessments</u>	<u>Share</u>	<u>Assessments</u>	<u>Share</u>
AEP - SWEPCO & PSO	8,417,687	18.7%	9,848,694	18.7%
Oklahoma Gas & Electric Company	6,578,373	14.6%	7,696,696	14.6%
Southwestern Public Service Company	6,292,501	14.0%	7,362,226	14.0%
Westar Energy-(KGE&KPL)	6,281,445	13.9%	7,349,291	14.0%
Kansas City Power & Light Company	4,035,525	9.0%	4,721,564	9.0%
Western Farmers Electric Cooperative	1,463,161	3.2%	1,711,898	3.3%
Empire District Electric Company	1,274,376	2.8%	1,491,020	2.8%
Grand River Dam Authority	944,732	2.1%	1,105,336	2.1%
Arkansas Electric Cooperative Corporation	811,947	1.8%	949,978	1.8%
Southwestern Power Administration	321,233	0.7%	375,843	0.7%
City Utilities, Springfield, Missouri	740,965	1.6%	866,929	1.6%
Board of Public Util., Kansas City,KS	566,724	1.3%	663,067	1.3%
Oklahoma Municipal Power Authority	678,595	1.5%	793,956	1.5%
East Texas Electric Coop.	89,517	0.2%	104,735	0.2%
Northeast Texas Electric Coop.	775,511	1.7%	907,348	1.7%
Tex-La Electric Coop. of Texas	113,975	0.3%	133,351	0.3%
Kansas Electric Power Coop. (KEPCo)	279,516	0.6%	327,034	0.6%
City Power & Light, Independence, Missouri	298,920	0.7%	349,736	0.7%
Midwest Energy, Inc.	256,192	0.6%	299,745	0.6%
	40,220,895	89.3%	47,058,447	89.4%
Tariff Admin Fees paid by other customers	4,809,335	10.7%	5,576,030	10.6%
TOTAL	45,030,230	100.0%	52,634,477	100.0%



Appendix 4-4 Costs Incurred Internally by EIS Market Participants

In addition to assessments for SPP expenditures, participants in the EIS market will incur significant expenditures for increased labor and for computer hardware and software. In response to a data request by CRA, each potential EIS market participant provided a detailed estimate of the additional annual labor, O&M, and capital costs that would be required over the study period to participate in the EIS market. CRA converted these costs to annual revenue requirements and are summarized in Table 2-6 in Appendix 4-2.

CRA discussed the responses to its data request with respondents to help ensure consistency in approach. Table 1 summarizes the additional annual FTEs and labor and benefit costs for the year 2008 estimated by each participant. The table also lists the projected capital costs over the entire study period.

Table 1
Incremental Costs Incurred Internally by EIS Market Participants
(Thousands of 2005 Dollars)

Summary of 2008 Expenses by Company

	<u>AEP</u>	<u>Empire</u>	<u>KCPL</u>	<u>OGE</u>	<u>SPS</u>	<u>Westar</u>	<u>WFEC</u>
Incremental FTEs							
Project Management	-	-	1.0	-	-	-	-
Business	12.0	3.0	10.3	2.5	6.0	-	2.0
IT	3.0	3.0	2.5	1.8	1.0	4.0	1.0
Other	-	1.0	-	4.0	-	-	1.0
Total	15.0	7.5	13.8	8.3	8.3	15.0	4.0
Incremental Expenses (K\$)							
Direct Labor (Wages)	800	450	1,089	796	420	1,245	250
Benefits	400	180	436	282	168	495	120
SubTotal	1,200	630	1,525	1,078	1,078	1,740	370
Other O&M							
Professional Services	-	50	30	-	-	25	250
Travel	-	10	38	10	15	7	10
Software/hardware	1,000	150	317	124	50	400	-
Other (specify)	-	5	175	-	-	-	-
SubTotal	1,000	215	560	134	65	432	260
Incremental A&G	-	-	-	551	-	-	30
Total Expenses	2,200	845	2,085	1,763	653	2,172	660

Summary of 2006-14 Capital Additions by Company

(including start-up capital spent in late 2005)

	<u>AEP</u>	<u>Empire</u>	<u>KCPL</u>	<u>OGE</u>	<u>SPS</u>	<u>Westar</u>	<u>WFEC</u>
Total Capital Additions	8,700	1,200	-	1,625	2,500	2,500	-



Cost estimates vary considerably from participant to participant, in large part because each participant has a different perspective on how it will interface with the IES market and on the amount of risk it will take on in undertaking active management of its IES market participation.

Three transmission owners under the SPP tariff (GRDA, SWPA and City of Springfield) did not provide data, and their additional costs were estimated using the average cost per MWh for Western Farmers. No data are available for the costs that might be incurred by EIS market participants that are not transmission owners under the SPP tariff. While these costs likely exist, no cost has been included in this study for these participants.