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BEFORE THE KANSAS CORPORATION COMMISSION
OF THE STATE OF KANSAS

MAY 17 2013

by
State Corporation Commission
of Kansas

In the Matter of the Application of Mid-Kansas)
Electric Company, LLC for Approval to Make)
Certain Changes to its Charges for Electric) Docket No. 13-MKEE- 699 -RTS
Services in the Geographic Service Territory)
Served by Southern Pioneer Electric Company.)

PREFILED DIRECT TESTIMONY OF

CHANTRY C. SCOTT
CHIEF FINANCIAL OFFICER – VP OF FINANCE & ACCOUNTING
SOUTHERN PIONEER ELECTRIC COMPANY

ON BEHALF OF

MID-KANSAS ELECTRIC COMPANY, LLC

May 17, 2013

1 **I. INTRODUCTION AND BACKGROUND**

2 **Q. Please state your name and business address.**

3 A. My name is Chantry C. Scott. My business address for legal service is 1850 W.
4 Oklahoma, Ulysses Kansas 67880 and for mail receipt is PO Box 430, Ulysses Kansas
5 67880-0430.

6 **Q. What is your profession?**

7 A. I am the Chief Financial Officer – VP of Finance & Accounting (“CFO”) of Southern
8 Pioneer Electric Company, (“Southern Pioneer”), with its corporate office in Ulysses,
9 Kansas and distribution-customer service offices located in both Liberal and Medicine
10 Lodge, Kansas. I am also CFO of Pioneer, a member-owned electric cooperative and
11 100% owner of Southern Pioneer.

12 **Q. Please describe the business activities of Southern Pioneer.**

13 A. As a Mid-Kansas Electric Company, LLC (“Mid-Kansas”) distribution member-system
14 and owner, and pursuant to the July 2, 2007 Electric Customer Service Agreement
15 approved by the Kansas Corporation Commission (“Commission” or “KCC”) on
16 December 21, 2007 in Docket No. 08-MKEE-099-MIS, Southern Pioneer provides retail
17 and distribution service to approximately 17,300 retail consumers in 34 communities.
18 Southern Pioneer also provides sub-transmission service to 34.5kV sub-transmission
19 users.

20 **Q. Please describe your responsibilities with Southern Pioneer.**

21 A. As the CFO, I work directly for the President-Chief Executive Officer. I am responsible
22 for assisting in establishing financial policy and rates, implementing Board approved
23 strategic programs, the overall financial operations of Southern Pioneer to ensure reliable

1 service at a competitive cost, all while using generally accepted accounting and industry
2 business practices.

3 **Q. What is the purpose of your testimony in this proceeding?**

4 A. The purpose of my testimony is to support the Application of Mid-Kansas and Southern
5 Pioneer in this abbreviated rate case filing requesting approval to make certain changes to
6 its charges for electric services in the geographic service territory served by Southern
7 Pioneer. In Docket No. 12-MKEE-380-RTS (“the 380 Docket”), the Commission allowed
8 Southern Pioneer to file an abbreviated rate case pursuant to K.A.R. 82-1-231(b)(3)(A).
9 This Application seeks recovery of additional debt service costs, including debt coverage,
10 related to debt levels in excess of Southern Pioneer's level of debt existing at the time of
11 its last general rate proceeding, and as identified by the parties in the 380 Docket¹. All
12 other regulatory procedures and principles established by the Commission in the 380
13 Docket remain unchanged. Specifically, my testimony will summarize the additional debt
14 incurred by Southern Pioneer for capital expenditures, both construction and equipment,
15 since the conclusion of the 380 Docket through the end of the 2012 calendar year.

16 **Q. Are you sponsoring exhibits?**

17 A. Yes, my testimony is supported by **Exhibit CCS-1, Exhibit CCS-2, Exhibit CCS-3, and**
18 **Exhibit CCS-4.**

19 **Q. What is your educational background?**

20 A. I graduated from the University of Kansas in 2000 with a Bachelor of Science in both
21 Accounting and Business Administration and in 2001 with a Master of Accounting and

¹ The level of debt existing at the conclusion of the 380 Docket was identified by the parties as \$90,441,809. See *Joint Motion for Approval of Settlement Agreement* filed in the 380 Docket on May 21, 2012, ¶ 9. See also *Exhibit CCS-3* attached to this testimony

1 Information Systems. I attended and completed various industry specific trainings
2 including National Rural Electric Cooperative Association's Financial Planning and
3 Strategies Workshop and the Cooperative Financial Professional Certificate program.

4 **Q. What is your professional background?**

5 A. I began work at Pioneer Electric Cooperative, Inc. ("Pioneer") in June of 2001 as Senior
6 Accountant, where I assisted the Manager of Finance and Administration in completing
7 general accounting activities. In December 2003, I was promoted to Manager of
8 Accounting where I oversaw the Financial Accounting department's activities such as
9 budgeting, financial forecasting, monthly and annual reporting, and various other
10 accounting activities. In May 2011, I was promoted to my current position of Chief
11 Financial Officer and VP of Finance and Accounting at Pioneer. Pursuant to the Services
12 Agreement, dated July 7, 2006 between Pioneer and Southern Pioneer, I was also
13 appointed Southern Pioneer's Chief Financial Officer and VP of Finance and Accounting.

14 **Q. Have you previously presented testimony before the KCC?**

15 A. Yes. I provided prefiled direct and rebuttal testimony in the 380 Docket.

16 **II. CAPITAL EXPENDITURES**

17 **Q. Since the conclusion of the 380 Docket, has Southern Pioneer incurred expenditures**
18 **for capital related construction and equipment?**

19 A. Yes.

20 **Q. Will you please identify the amount of capital expenditures Southern Pioneer**
21 **incurred and for what period?**

22 A. During 2012, Southern Pioneer spent approximately \$12,048,135 for capital construction
23 related activities and approximately \$627,535 for capital equipment before taking into

1 account any funds received from consumers or other third parties as permitted by
2 Commission rules, regulations and orders.

3 **Q. Can you quantify the net amount spent for construction and equipment, after**
4 **adjusting for projects where funds may be received from a consumer or other third**
5 **parties?**

6 A. My **Exhibit CCS-1** provides a listing of projects on a net basis. As listed in my **Exhibit**
7 **CCS-1**, the net capital expenditures relating to these projects were approximately
8 \$9,269,805 and the capital expenditures relating to equipment were \$627,535. Combined,
9 these 2012 capital expenditures total approximately \$9,897,340.

10 **Q. Can you categorically summarize the nature of these projects?**

11 A. My **Exhibit CCS-1** provides a detailed listing that includes the Loan Project Code using the
12 RUS coding system, work order number, a general description, and the net amount spent
13 after adjusting for any aid in construction, if any. While not all-inclusive, categorically
14 speaking, these loan funds were used for Automatic Meter Information (AMI) related
15 equipment, substation equipment, individual pole replacements, transformers, increases to
16 line capacity, secondary replacements, security lighting, equipment and vehicles. All
17 expenditures are consistent with the Southern Pioneer 2011-2014 Construction Work Plan,
18 which was included as "Attachment C" to the Commission's Order issued June 25, 2012 in
19 the 380 Docket², or as approved by the Board of Directors, if applicable or required, in order
20 to provide reliable service or meet the needs of customers. For purposes of convenience, I
21 have attached the "Attachment C" of the June 25th Order to my testimony as **Exhibit CCS-2**.

22

² See Commission Order in the 380 Docket titled "*Order Approving Settlement Agreement with Modifications*", Page 16, filed June 25, 2012 (the "380 Order").

1 **III.ADDITIONAL DEBT INCURRED**

2 **Q. Since the conclusion of the 380 Docket, has Southern Pioneer incurred additional**
 3 **debt or borrowed loan funds for capital expenditures outlined earlier in your**
 4 **testimony?**

5 A. Yes.

6 **Q. Who was Southern Pioneer’s lender in this loan transaction and how much money**
 7 **was borrowed?**

8 A. On December 19, 2012, Southern Pioneer fixed \$9,000,000 of new debt drawn on the
 9 approved CoBank loan, NO. RX0435T4-1.

10 **Q. Your Exhibit CCS-3 is attached showing the loans existing and included in the 380**
 11 **Docket. Can you please update the Exhibit to include the new CoBank loan, NO.**
 12 **RX0435T4-1?**

13 A. Yes. The table immediately below shows a listing of Southern Pioneer’s loans, including
 14 any loans drawn since the filing of the 380 Docket.

15 **SOUTHERN PIONEER TOTAL LONG-TERM DEBT**

16

Note Designation	Note Holder	Date of Origination	Original Outstanding Principle	Interest Rate	12/31/12 Outstanding Principle
RX0435T1A	CoBank	24-Oct-11	\$ 6,121,214.60	6.66%	\$ 5,847,161.10
RX0435T2	CoBank	24-Oct-11	\$ 20,861,364.76	5.37%	\$ 20,516,455.86
RX0435T4	CoBank	24-Oct-11	\$ 63,688,239.37	5.37%	\$ 62,658,569.36
Total LT Debt			\$ 90,670,818.73		\$ 89,022,186.32
RX0435T4-1	CoBank	19-Dec-12	\$ 9,000,000.00	4.75%	\$ 9,000,000.00
New Total LT Debt			\$ 99,670,818.73		\$ 98,022,186.32

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1 A. Southern Pioneer uses debt, as needed, to maintain appropriate levels of available cash
2 throughout the year. Available cash is needed to cover operating expenses, as well as the
3 construction projects and capital expenditures described above. To cover these
4 obligations, the full \$9,000,000 was needed during 2012.

5 **Q. Can you quantify the additional debt service associated with the new CoBank loan,**
6 **NO. RX0435T4-1?**

7 A. Yes. In my **Exhibit CCS-4**, I show the payment schedule for the new CoBank loan. The
8 loan is a construction loan, which is interest only through October 2015. Initially,
9 Southern Pioneer's debt service will increase by \$433,438 annually.

10 **Q. Did the parties in the 380 Docket agree to a DSC level to be applied to the new debt**
11 **service in calculating the new revenue requirement needed for Southern Pioneer?**

12 A. Yes. The parties agreed to use a DSC level of 1.80 times debt service.

13 **Q. After applying the level of 1.80 times debt service on the new debt, what additional**
14 **revenue requirement is Southern Pioneer seeking?**

15 A. In order to cover a 1.80 times DSC level on the new debt service of \$433,438, Southern
16 Pioneer is seeking additional revenue of \$780,188 annually.

17 **Q. Can you summarize your testimony, please?**

18 A. Yes. As of December 31, 2012, Southern Pioneer's outstanding debt was \$98,022,186, of
19 which \$9,000,000 is related to new debt that was not included in the 380 Docket filing.
20 The parties in the 380 Docket agreed that Southern Pioneer could recover additional debt
21 service costs, including debt coverage, related to debt levels in excess of Southern
22 Pioneer's level of debt existing at the time of its last general rate proceeding, the 380
23 Docket. At the time of the 380 Docket, total debt was \$90,441,809. Southern Pioneer

1 continues to make debt service payments on these notes, which totaled approximately
2 \$89,022,186 as of December 31, 2012. Southern Pioneer is seeking debt service recovery
3 on the new \$9,000,000 of additional debt held by CoBank at a 1.80 times DSC level,
4 which totals \$780,188 annually.

5 **Q. Does this conclude your Direct Testimony?**

6 A. Yes, it does.

EXHIBIT CCS-1

Loan Project	Work Order #	Description	Net Cost	Work Plan	Budget
1300-01	29120241	SPEC Facility Planning	\$ 15,390.67	X	
705	29120260	AMI	\$ 1,024.43	X	
705	29120269	AMI Liberal Collectors	\$ 26,108.09	X	
705	29120270	AMI Routers	\$ 44,355.63	X	
705	29120271	AMI Meters	\$ 2,006,791.69	X	
705	29120272	AMI Installation	\$ 111,597.58	X	
705	29120273	AMI Project Management	\$ 56,441.77	X	
1300-01	63120017	ML New Office Building	\$ 6,457.48	X	
1000-06	63110015	Satanta-NE Sublete	\$ 4,533.29	X	
1000-08	30110011	Cudahy-E Fowler	\$ 15,840.63	X	
1000-08	30110012	Cudahy-E Fowler	\$ 1,051.10	X	
1000-08	30110013	Cudahy-E Fowler	\$ 48,334.14	X	
1000-08	30110018	Cudahy-E Fowler	\$ 59,030.86	X	
1000-08	30120001	Cudahy-E Fowler	\$ 21,335.28	X	
1000-09	30110019	Cudahy-E Fowler-Englewood	\$ 87,093.87	X	
1000-09	20110020	Cudahy-E Fowler-Englewood	\$ 127,136.81	X	
1000-09	20110021	Cudahy-E Fowler-Englewood	\$ 428,037.73	X	
1000-10	30120002	Exchange Point 5-S Victory	\$ 282,573.66	X	
1000-10	30120011	Exchange Point 5-S Victory	\$ 17,474.71	X	
1000-15	62110001	Sun City - N CO/HWY 54	\$ 131,369.64	X	
1000-15	63110001	Sun City - N CO/HWY 54	\$ 96,142.07	X	
1000-18	63110003	Sun City - S Sun Junction	\$ 679,727.91	X	
1000-21	30120014	Liberal E-1427 N SW 1196	\$ 137,328.09	X	
1000-21	30120019	Liberal E-1427 N SW 1196	\$ 18,461.87	X	
606-06	30110042	Other Transmission Pole Replacements	\$ 8,205.21	X	
606-06	30110043	Other Transmission Pole Replacements	\$ 12,869.82	X	
606-06	30120004	Other Transmission Pole Replacements	\$ 14,776.56	X	
606-06	30120005	Other Transmission Pole Replacements	\$ 14,124.39	X	
606-06	30120006	Other Transmission Pole Replacements	\$ 226.85	X	
606-06	30120007	Other Transmission Pole Replacements	\$ 2,945.04	X	
606-06	30120008	Other Transmission Pole Replacements	\$ 4,028.80	X	
606-06	30120010	Other Transmission Pole Replacements	\$ 11,064.41	X	

EXHIBIT CCS-1

Loan Project	Work Order #	Description	Net Cost	Work Plan	Budget
606-06	30120012	Other Transmission Pole Replacements	\$ 9,564.20	X	
606-06	30120016	Other Transmission Pole Replacements	\$ 289.58	X	
606-06	63110009	Other Transmission Pole Replacements	\$ 117.74	X	
606-06	30120018	Other Transmission Pole Replacements	\$ 4,898.34	X	
606-06	30120020	Other Transmission Pole Replacements	\$ 3,255.63	X	
300-26	62120021	ML E Replace 2P - T2 1/0	\$ 252,740.68	X	
300-26	63120008	ML E Replace 2P - T2 1/0	\$ 5,565.61	X	
300-35	29110325	Fowler - Englewood Junction	\$ 8,305.85	X	
300-35	29110327	Fowler - Englewood Junction	\$ 913.57	X	
300-36	29120215	Englewood Junction - Victory	\$ 61,733.79	X	
300-43	29120325	4th & Oklahoma	\$ 5,088.76	X	
300-43	29120267	4th & Oklahoma	\$ 44,788.34	X	
400-02	63090022	H&H Move Existing	\$ 1,701,094.38	X	
400-03	29090176	Meade Lake Road	\$ 23,664.63	X	
601-01	SE Invoices	Transformers and Meters	\$ 595,068.54	X	
602	29120028	Increase Capacity	\$ 495.60	X	
602	29120032	Increase Capacity	\$ 1,002.14	X	
602	29120048	Increase Capacity	\$ 192.55	X	
602	29120072	Increase Capacity	\$ 776.00	X	
602	29120080	Increase Capacity	\$ 446.24	X	
602	29120088	Increase Capacity	\$ 619.36	X	
602	29120096	Increase Capacity	\$ 560.02	X	
602	29120176	Increase Capacity	\$ 481.25	X	
602	29120184	Increase Capacity	\$ 275.94	X	
602	29120192	Increase Capacity	\$ 674.15	X	
602	62120018	Increase Capacity	\$ 18,987.62	X	
602	62120046	Increase Capacity	\$ 3,946.48	X	
602	62120105	Increase Capacity	\$ 1,291.56	X	
602	62120148	Increase Capacity	\$ 120.78	X	
602	29120104	Increase Capacity	\$ 224.96	X	
602	29120112	Increase Capacity	\$ 180.55	X	
602	29120120	Increase Capacity	\$ 307.83	X	

EXHIBIT CCS-1

Loan Project	Work Order #	Description	Net Cost	Work Plan	Budget
602	29120128	Increase Capacity	\$ 529.29	X	
602	29120160	Increase Capacity	\$ 618.55	X	
602	62110222	Increase Capacity	\$ 106.23	X	
602	62120010	Increase Capacity	\$ 1,676.42	X	
602	62120014	Increase Capacity	\$ 346.75	X	
602	62120017	Increase Capacity	\$ 8,010.71	X	
602	62120041	Increase Capacity	\$ 1,080.57	X	
602	62120052	Increase Capacity	\$ 6,914.07	X	
602	62120099	Increase Capacity	\$ 380.88	X	
602	62120101	Increase Capacity	\$ 225.91	X	
602	62120103	Increase Capacity	\$ 348.03	X	
602	62120108	Increase Capacity	\$ 521.84	X	
602	62120109	Increase Capacity	\$ 545.50	X	
602	62120114	Increase Capacity	\$ 2,621.07	X	
602	62120115	Increase Capacity	\$ 2,783.42	X	
602	62120116	Increase Capacity	\$ 3,344.05	X	
602	62120120	Increase Capacity	\$ 311.72	X	
602	62120127	Increase Capacity	\$ 2,922.85	X	
606-01	29110235	Pole Replacements	\$ 56,213.36	X	
606-01	29110256	Pole Replacements	\$ 14,317.55	X	
606-01	29120216	Pole Replacements	\$ 9,375.15	X	
606-01	29120264	Pole Replacements	\$ 6,919.37	X	
606-01	30120013	Pole Replacements	\$ 4,577.53	X	
606-01	62120135	Pole Replacements	\$ 63,316.22	X	
606-01	62120137	Pole Replacements	\$ 821.02	X	
606-01	62120138	Pole Replacements	\$ 11,813.47	X	
606-01	62120140	Pole Replacements	\$ 4,183.24	X	
606-01	62120141	Pole Replacements	\$ 3,400.40	X	
606-01	62120143	Pole Replacements	\$ 14,737.06	X	
606-01	62120146	Pole Replacements	\$ 4,319.73	X	
606-01	62120149	Pole Replacements	\$ 6,796.13	X	
606-01	62120150	Pole Replacements	\$ 23,112.26	X	

EXHIBIT CCS-1

Loan Project	Work Order #	Description	Net Cost	Work Plan	Budget
606-01	62120151	Pole Replacements	\$ 12,135.67	X	
606-01	62120156	Pole Replacements	\$ 5,143.91	X	
606-01	62130002	Pole Replacements	\$ 1,220.47	X	
606-01	63120020	Pole Replacements	\$ 25,328.29	X	
606-01	63130001	Pole Replacements	\$ 1,000.19	X	
606-01	63130002	Pole Replacements	\$ 2,575.17	X	
606-01	62110057	Pole Replacements	\$ 308.35	X	
606-01	62110173	Pole Replacements	\$ 510.95	X	
606-01	62110183	Pole Replacements	\$ 306.73	X	
606-02	62110116	Copper Replacements	\$ 78,228.02	X	
606-02	62110220	Copper Replacements	\$ 27,207.18	X	
606-03	29120331	Secondary Replacements	\$ 45,118.68	X	
606-03	62120044	Secondary Replacements	\$ 626.50	X	
606-03	62120069	Secondary Replacements	\$ 523.99	X	
606-03	62120110	Secondary Replacements	\$ 5,918.69	X	
606-03	62120132	Secondary Replacements	\$ 276.52	X	
606-03	62120136	Secondary Replacements	\$ 1,056.35	X	
606-03	62120159	Secondary Replacements	\$ 230.69	X	
606-03	62110206	Secondary Replacements	\$ 54.93	X	
606-03	29120316	Secondary Replacements	\$ 20,084.23	X	
606-03	62110165	Secondary Replacements	\$ 366.49	X	
606-03	62120022	Secondary Replacements	\$ 3,792.90	X	
606-03	62120080	Secondary Replacements	\$ 351.43	X	
606-04	62120003	CSP Replacements	\$ 2,348.05	X	
606-04	62120024	CSP Replacements	\$ 495.16	X	
606-04	62120025	CSP Replacements	\$ 960.58	X	
606-04	62120032	CSP Replacements	\$ 19,930.37	X	
606-04	62120106	CSP Replacements	\$ 375.66	X	
606-04	62110209	CSP Replacements	\$ 2,606.93	X	
606-04	62110210	CSP Replacements	\$ 305.93	X	
606-04	62120034	CSP Replacements	\$ 1,083.98	X	
606-06	29110326	Misc Replacements	\$ 402.00	X	

EXHIBIT CCS-1

Loan Project	Work Order #	Description	Net Cost	Work Plan	Budget
606-06	29110335	Misc Replacements	\$ 1,624.98	X	
606-06	29110336	Misc Replacements	\$ 1,296.65	X	
606-06	29110339	Misc Replacements	\$ 735.09	X	
606-06	29110343	Misc Replacements	\$ 194.32	X	
606-06	29110353	Misc Replacements	\$ 44.94	X	
606-06	29110354	Misc Replacements	\$ 154.06	X	
606-06	29110360	Misc Replacements	\$ 10,053.64	X	
606-06	29110366	Misc Replacements	\$ 812.28	X	
606-06	29110367	Misc Replacements	\$ 662.70	X	
606-06	29110368	Misc Replacements	\$ 105.44	X	
606-06	29110369	Misc Replacements	\$ 105.44	X	
606-06	29110371	Misc Replacements	\$ 1,031.62	X	
606-06	29110372	Misc Replacements	\$ 765.80	X	
606-06	29110373	Misc Replacements	\$ 746.96	X	
606-06	29110380	Misc Replacements	\$ 650.56	X	
606-06	29110381	Misc Replacements	\$ 352.91	X	
606-06	29110382	Misc Replacements	\$ 668.16	X	
606-06	29110383	Misc Replacements	\$ 364.67	X	
606-06	29110384	Misc Replacements	\$ 288.55	X	
606-06	29110385	Misc Replacements	\$ 717.79	X	
606-06	29110387	Misc Replacements	\$ 14,143.59	X	
606-06	29110388	Misc Replacements	\$ 509.52	X	
606-06	29110393	Misc Replacements	\$ 900.54	X	
606-06	29110394	Misc Replacements	\$ 909.76	X	
606-06	29120064	Misc Replacements	\$ 1,207.46	X	
606-06	29120194	Misc Replacements	\$ 5,638.15	X	
606-06	29120195	Misc Replacements	\$ 70.75	X	
606-06	29120196	Misc Replacements	\$ 396.45	X	
606-06	29120197	Misc Replacements	\$ 3,565.70	X	
606-06	29120200	Misc Replacements	\$ 16,588.00	X	
606-06	29120201	Misc Replacements	\$ 2,565.69	X	
606-06	29120202	Misc Replacements	\$ 118.35	X	

EXHIBIT CCS-1

Loan Project	Work Order #	Description	Net Cost	Work Plan	Budget
606-06	29120204	Misc Replacements	\$ 4,015.96	X	
606-06	29120205	Misc Replacements	\$ 399.38	X	
606-06	29120207	Misc Replacements	\$ 957.32	X	
606-06	29120210	Misc Replacements	\$ 6,390.79	X	
606-06	29120212	Misc Replacements	\$ 3,817.07	X	
606-06	29120217	Misc Replacements	\$ 6,087.65	X	
606-06	29120219	Misc Replacements	\$ 2,288.13	X	
606-06	29120221	Misc Replacements	\$ 917.43	X	
606-06	29120222	Misc Replacements	\$ 12,248.93	X	
606-06	29120223	Misc Replacements	\$ 4,587.44	X	
606-06	29120226	Misc Replacements	\$ 1,105.12	X	
606-06	29120227	Misc Replacements	\$ 705.00	X	
606-06	29120229	Misc Replacements	\$ 805.54	X	
606-06	29120230	Misc Replacements	\$ 525.23	X	
606-06	29120231	Misc Replacements	\$ 37,159.44	X	
606-06	29120232	Misc Replacements	\$ 6,107.46	X	
606-06	29120234	Misc Replacements	\$ 4,358.66	X	
606-06	29120235	Misc Replacements	\$ 745.17	X	
606-06	29120236	Misc Replacements	\$ 294.99	X	
606-06	29120237	Misc Replacements	\$ 8,506.52	X	
606-06	29120238	Misc Replacements	\$ 8,403.98	X	
606-06	29120242	Misc Replacements	\$ 3,064.80	X	
606-06	29120244	Misc Replacements	\$ 3,233.74	X	
606-06	29120245	Misc Replacements	\$ 7,873.09	X	
606-06	29120247	Misc Replacements	\$ 1,275.59	X	
606-06	29120248	Misc Replacements	\$ 140,287.96	X	
606-06	29120249	Misc Replacements	\$ 1,526.87	X	
606-06	29120250	Misc Replacements	\$ 202.29	X	
606-06	29120251	Misc Replacements	\$ 927.80	X	
606-06	29120252	Misc Replacements	\$ 6,912.14	X	
606-06	29120253	Misc Replacements	\$ 3,063.65	X	
606-06	29120255	Misc Replacements	\$ 20,911.92	X	

EXHIBIT CCS-1

Loan Project	Work Order #	Description	Net Cost	Work Plan	Budget
606-06	29120256	Misc Replacements	\$ 5,498.77	X	
606-06	29120257	Misc Replacements	\$ 797.46	X	
606-06	29120261	Misc Replacements	\$ 2,434.59	X	
606-06	29120262	Misc Replacements	\$ 94,979.84	X	
606-06	29120266	Misc Replacements	\$ 1,116.40	X	
606-06	29120268	Misc Replacements	\$ 426.43	X	
606-06	29120276	Misc Replacements	\$ 2,411.24	X	
606-06	29120278	Misc Replacements	\$ 6,505.82	X	
606-06	29120283	Misc Replacements	\$ 1,133.47	X	
606-06	29120289	Misc Replacements	\$ 1,194.83	X	
606-06	29120290	Misc Replacements	\$ 3,169.54	X	
606-06	29120291	Misc Replacements	\$ 829.30	X	
606-06	29120292	Misc Replacements	\$ 223.37	X	
606-06	29120293	Misc Replacements	\$ 3,923.18	X	
606-06	29120294	Misc Replacements	\$ 6,572.60	X	
606-06	29120296	Misc Replacements	\$ 1,062.80	X	
606-06	29120298	Misc Replacements	\$ 3,174.77	X	
606-06	29120300	Misc Replacements	\$ 4,527.17	X	
606-06	29120301	Misc Replacements	\$ 3,567.40	X	
606-06	29120304	Misc Replacements	\$ 3,306.10	X	
606-06	29120307	Misc Replacements	\$ 4,560.52	X	
606-06	29120312	Misc Replacements	\$ 1,127.44	X	
606-06	29120313	Misc Replacements	\$ 1,257.93	X	
606-06	29120318	Misc Replacements	\$ 860.25	X	
606-06	29120322	Misc Replacements	\$ 812.40	X	
606-06	29120326	Misc Replacements	\$ 1,250.50	X	
606-06	29120332	Misc Replacements	\$ 503.21	X	
606-06	29120333	Misc Replacements	\$ 18,361.33	X	
606-06	29120334	Misc Replacements	\$ 680.14	X	
606-06	29120335	Misc Replacements	\$ 1,062.98	X	
606-06	29120338	Misc Replacements	\$ 1,568.23	X	
606-06	29120339	Misc Replacements	\$ 2,838.11	X	

EXHIBIT CCS-1

Loan Project	Work Order #	Description	Net Cost	Work Plan	Budget
606-06	29120340	Misc Replacements	\$ 3,734.58	X	
606-06	29120341	Misc Replacements	\$ 14,954.22	X	
606-06	29120343	Misc Replacements	\$ 20,576.38	X	
606-06	29120344	Misc Replacements	\$ 77.32	X	
606-06	29120345	Misc Replacements	\$ 4,340.64	X	
606-06	29120347	Misc Replacements	\$ 4,381.48	X	
606-06	29120348	Misc Replacements	\$ 973.21	X	
606-06	30120015	Misc Replacements	\$ 1,615.12	X	
606-06	62110133	Misc Replacements	\$ 1,464.57	X	
606-06	62110186	Misc Replacements	\$ 22,473.30	X	
606-06	62120015	Misc Replacements	\$ 4,633.15	X	
606-06	62120026	Misc Replacements	\$ 1,394.92	X	
606-06	62120042	Misc Replacements	\$ 5,070.77	X	
606-06	62120067	Misc Replacements	\$ 1,247.03	X	
606-06	62120107	Misc Replacements	\$ 6,808.79	X	
606-06	62120128	Misc Replacements	\$ 217.88	X	
606-06	62120130	Misc Replacements	\$ 429.47	X	
606-06	62120131	Misc Replacements	\$ 242.66	X	
606-06	62120163	Misc Replacements	\$ 119.91	X	
606-06	63110010	Misc Replacements	\$ 375.67	X	
606-06	63120001	Misc Replacements	\$ 4,453.39	X	
606-06	63120002	Misc Replacements	\$ 552.50	X	
606-06	63120004	Misc Replacements	\$ 8,662.62	X	
606-06	62110109	Misc Replacements	\$ 47.34	X	
606-06	62110132	Misc Replacements	\$ 36.28	X	
606-06	62110134	Misc Replacements	\$ 12.53	X	
606-06	29120214	Misc Replacements	\$ 3,399.29	X	
606-06	29120233	Misc Replacements	\$ 1,259.94	X	
606-06	29120284	Misc Replacements	\$ 1,626.83	X	
606-06	29110281	Misc Replacements	\$ 1.66	X	
606-06	29120225	Misc Replacements	\$ 8,812.81	X	
606-06	29120274	Misc Replacements	\$ 6,486.68	X	

EXHIBIT CCS-1

Loan Project	Work Order #	Description	Net Cost	Work Plan	Budget
606-06	29120277	Misc Replacements	\$ 2,928.89	X	
606-06	29120280	Misc Replacements	\$ 15,196.01	X	
606-06	29120288	Misc Replacements	\$ 72,959.21	X	
606-06	29120303	Misc Replacements	\$ 4,942.59	X	
606-06	29120314	Misc Replacements	\$ 1,385.52	X	
606-06	29120315	Misc Replacements	\$ 1,681.85	X	
606-06	29120319	Misc Replacements	\$ 389.34	X	
606-06	29120329	Misc Replacements	\$ 5,567.09	X	
606-06	62110167	Misc Replacements	\$ 477.78	X	
606-06	62110174	Misc Replacements	\$ 134.46	X	
606-06	62110215	Misc Replacements	\$ 143.62	X	
606-06	29120203	Misc Replacements	\$ 19,473.07	X	
606-06	29120308	Misc Replacements	\$ 12,811.11	X	
606-06	29120320	Misc Replacements	\$ 1,326.98	X	
606-06	62110088	Misc Replacements	\$ 523.94	X	
606-06	62120006	Misc Replacements	\$ 2,017.28	X	
606-06	62120033	Misc Replacements	\$ 1,484.02	X	
606-06	62120047	Misc Replacements	\$ 4,383.44	X	
606-06	62120051	Misc Replacements	\$ 1,290.11	X	
606-06	62120062	Misc Replacements	\$ 1,636.33	X	
606-06	62120070	Misc Replacements	\$ 2,033.03	X	
606-06	62120071	Misc Replacements	\$ 675.06	X	
606-06	62120078	Misc Replacements	\$ 2,513.28	X	
606-06	62120079	Misc Replacements	\$ 3,343.58	X	
606-06	62120084	Misc Replacements	\$ 40,057.27	X	
606-06	62120102	Misc Replacements	\$ 1,289.22	X	
606-06	62120112	Misc Replacements	\$ 5,441.65	X	
606-06	62120123	Misc Replacements	\$ 330.61	X	
702-01	29120006	Security Light Installation	\$ 637.92	X	
702-01	29120013	Security Light Installation	\$ 3,209.29	X	
702-01	29120014	Security Light Installation	\$ 3,569.09	X	
702-01	29120022	Security Light Installation	\$ 522.86	X	

EXHIBIT CCS-1

Loan Project	Work Order #	Description	Net Cost	Work Plan	Budget
702-01	29120027	Security Light Installation	\$ 756.10	X	
702-01	29120029	Security Light Installation	\$ 1,791.39	X	
702-01	29120030	Security Light Installation	\$ 918.96	X	
702-01	29120037	Security Light Installation	\$ 320.54	X	
702-01	29120038	Security Light Installation	\$ 363.88	X	
702-01	29120042	Security Light Installation	\$ 132.64	X	
702-01	29120045	Security Light Installation	\$ 1,388.00	X	
702-01	29120046	Security Light Installation	\$ 648.00	X	
702-01	29120061	Security Light Installation	\$ 126.18	X	
702-01	29120070	Security Light Installation	\$ 57.18	X	
702-01	29120077	Security Light Installation	\$ 664.05	X	
702-01	29120085	Security Light Installation	\$ 717.17	X	
702-01	29120093	Security Light Installation	\$ 74.69	X	
702-01	29120094	Security Light Installation	\$ 299.90	X	
702-01	29120097	Security Light Installation	\$ 321.46	X	
702-01	29120113	Security Light Installation	\$ 40.58	X	
702-01	29120161	Security Light Installation	\$ 557.99	X	
702-01	29120165	Security Light Installation	\$ 122.39	X	
702-01	29120166	Security Light Installation	\$ 233.23	X	
702-01	29120169	Security Light Installation	\$ 40.50	X	
702-01	29120173	Security Light Installation	\$ 1,376.99	X	
702-01	29120174	Security Light Installation	\$ 671.79	X	
702-01	29120177	Security Light Installation	\$ 288.12	X	
702-01	29120181	Security Light Installation	\$ 153.15	X	
702-01	29120182	Security Light Installation	\$ 262.17	X	
702-01	29120189	Security Light Installation	\$ 1,606.62	X	
702-01	29120190	Security Light Installation	\$ 94.52	X	
702-01	29120199	Security Light Installation	\$ 1,272.37	X	
702-01	29120240	Security Light Installation	\$ 143.76	X	
702-01	29120265	Security Light Installation	\$ 1,416.64	X	
702-01	29120327	Security Light Installation	\$ 199.83	X	
702-01	62120162	Security Light Installation	\$ 342.60	X	

EXHIBIT CCS-1

Loan Project	Work Order #	Description	Net Cost	Work Plan	Budget
702-01	29120239	Security Light Installation	\$ 1,088.04	X	
702-01	29120101	Security Light Installation	\$ 137.91	X	
702-01	29120102	Security Light Installation	\$ 273.47	X	
702-01	29120109	Security Light Installation	\$ 166.45	X	
702-01	29120114	Security Light Installation	\$ 215.26	X	
702-01	29120118	Security Light Installation	\$ 208.51	X	
702-01	29120121	Security Light Installation	\$ 120.06	X	
702-01	29120125	Security Light Installation	\$ 1,490.08	X	
702-01	29120141	Security Light Installation	\$ 680.35	X	
702-01	29120142	Security Light Installation	\$ 314.23	X	
702-01	29120149	Security Light Installation	\$ 93.35	X	
702-01	29120150	Security Light Installation	\$ 324.59	X	
702-01	29120153	Security Light Installation	\$ 256.33	X	
702-01	29120157	Security Light Installation	\$ 366.07	X	
702-01	29120158	Security Light Installation	\$ 877.02	X	
702-01	62110166	Security Light Installation	\$ 94.16	X	
702-01	62110170	Security Light Installation	\$ 134.64	X	
702-01	62110184	Security Light Installation	\$ 94.16	X	
702-01	62110194	Security Light Installation	\$ 188.32	X	
702-01	62110202	Security Light Installation	\$ 5.87	X	
702-01	62120020	Security Light Installation	\$ 1,434.54	X	
702-01	62120043	Security Light Installation	\$ 490.48	X	
702-01	62120093	Security Light Installation	\$ 251.33	X	
702-01	62120113	Security Light Installation	\$ 174.48	X	
702-02	29110392	Security Light Replacement	\$ 3,452.90	X	
702-02	62120012	Security Light Replacement	\$ 2,168.42	X	
702-02	29110378	Security Light Replacement	\$ 340.56	X	
702-02	29120323	Security Light Replacement	\$ 2,406.67	X	
702-02	62120011	Security Light Replacement	\$ 4,228.50	X	
606-06	29120285	Misc Replacements	\$ 5,647.54	X	
606-06	29120295	Misc Replacements	\$ 917.65	X	
606-06	29120302	Misc Replacements	\$ 4,040.44	X	

EXHIBIT CCS-1

Loan Project	Work Order #	Description	Net Cost	Work Plan	Budget
606-06	63120005	Misc Replacements	\$ 7,579.53	X	
606-06	63120009	Misc Replacements	\$ 44,828.47	X	
606-06	63120010	Misc Replacements	\$ 26,879.69	X	
606-06	62110130	Misc Replacements	\$ 122.65	X	
606-06	62120036	Misc Replacements	\$ 3,544.64	X	
606-06	62120073	Misc Replacements	\$ 4,279.12	X	
601-01	29110242	Refurbishing Transformer	\$ 5,123.56	X	
705	29130001	AMI Meters	\$ 419,759.70	X	
705	29130003	AMI Collectors	\$ 27,660.41	X	
606-01	30110014	Pole Replacements	\$ 198.40	X	
606-06	30120009	Replace B1713	\$ 27,431.11	X	
705	62130003	ML AMI	\$ 400.00	X	
Total Capital Expenditures - Construction			\$ 9,269,805.28		
		Line Locator (ML)	\$ 4,317		X
		Line Locator (L)	\$ 5,029		X
		37' Service Bucket (L) - Replacement	\$ 103,502		X
		37' Service Bucket (L) - Replacement	\$ 107,079		X
		60' Material Handler (L) - Replacement	\$ 224,910		X
		Pickup (ML)	\$ 36,560		X
		Car - Energy Services Coordinator	\$ 33,433		X
		60' Digger	\$ 77,447		X (Board Approved)
		Pickup (L)	\$ 35,258		X (Board Approved)
Total Capital Expenditures - Equipment			\$ 627,535.10		
Overall Total			\$ 9,897,340.38		

Section I
Executive Summary

Attachment C

Southern Pioneer Electric Company
Kansas - 060 - Barber

2011-2014 Construction Work Plan

Section I
Executive Summary

Purpose of Report

This report documents the engineering analysis of, and summarizes the proposed construction for, the electric distribution system of Southern Pioneer Electric Company (SPEC). It will cover a four-year period from 2011 to 2014. This report also provides engineering support, in the form of descriptions, cost, and justifications of the required new facilities. Once justified, a Rural Utilities Service (RUS) loan application will be submitted to finance the proposed construction projects.

Results of Proposed Construction

Upon completion of the projects proposed in this construction work plan (CWP), Southern Pioneer will adequately provide dependable electric service based on a 2014 forecast as shown in Table 1-1 (from the April 2009 Power Requirement Study (PRS)). This study is approved by RUS with 2008 being the last full year of actual data. The data can be found in Table 1-2 on the following page. This data includes 12,690 urban/rural residential consumers with an average usage of 783 kWh per consumer per month, 27 irrigation consumers with an average usage of 4,149 kWh per consumer per month, 3,957 small commercial consumers with an average usage of 3,241 kWh per consumer per month, 4 large commercial consumers with an average usage of 9,030,973 kWh per consumer per month, and 185 street and highway consumers with an average usage of 1,144 kWh per consumer per month for 2008. The number of idle services at the end of 2009 was 1,536. This number could increase or decrease by 2014, as Southern Pioneer decommissions these services when time is available.

Section I
Executive Summary

Table 1-1

<u>2014 PRS Forecast</u>					
	Residential	Irrigation	General/Small Commercial	Large Commercial	Total Cons. 2014
Consumers	12,687	45	4,097	5	17,019
kWh/Consumer/Month	810	3,598	3,218	7,438,896	

Table 1-2

<u>2008 PRS Actuals</u>					
	Residential	Irrigation	General/Small Commercial	Large Commercial	Total Cons. 2008
Consumers	12,690	27	3,957	4	16,863
kWh/Consumer/Month	783	4,149	3,241	9,030,973	

General Basis of Study

This study of Southern Pioneer's distribution system includes 25 distribution substations, feeding 817.2 miles of line which are operated at 13.8-kV. This territory serves both rural and urban areas totaling 16,863 consumers (2008 Actual consumers, PRS). Its largest urban consumers are the cities of Liberal and Medicine Lodge.

Section I
Executive Summary

Table 1-3

<u>SPEC 34.5kV Transmission Lines (miles)*</u>					
	1 – Phase	V – Phase	3 – Phase	Total	System-Wide Total
Overhead (OH)	-	-	298.4	298.4	298.4
Underground (UGD)	-	-	-	-	

Table 1-4

<u>SPEC 13.8kV Distribution Lines (miles)*</u>					
	1 – Phase	V – Phase	3 – Phase	Total	System-Wide Total
Overhead (OH)	259.8	113.8	423.9	797.5	817.2
Underground (UGD)	12.1	0.3	7.3	19.7	

*Totals are based on the latest version of the SPEC WindMil model used for this study. For the year ended December 2009, RUS Form 7 shows totals of 302.47 miles for transmission lines and 800.69 for distribution lines. RUS Form 7 totals do not include 200 (4.5 miles) and 800 (7.9 miles) projects.

Forecasted for 2009 the expected number of consumers in Southern Pioneer's PRS totaled 16,838. AS shown in the SPEC Financial & Statistical Report (RUS Form 7) dated December 2009, the system's consumer numbers in 2009 were 18,603. The PRS projects the number of consumers in 2013 to reach 17,019.

Section I
Executive Summary

Service Area and Power Supply

Southern Pioneer's territory includes 16,863 consumers (2008 actual consumers, PRS) located in Barber, Clark, Comanche, Haskell, Kingman, Kiowa, Meade, Pratt, Reno, and Seward counties. Throughout these counties, Southern Pioneer serves 25 distribution substations operated at 13.8-kV. These substations feed 50 primary distribution circuits, containing approximately 797.5 miles of overhead distribution line. The overhead distribution line sizes range from 8A CWC to 477 MCM ACSR. Southern Pioneer also serves 19.7 miles of underground distribution. All power is supplied by Mid-Kansas Electric Company, LLC under an Electric Customer Service Agreement.

Southern Pioneer is headquartered in the City of Medicine Lodge, County of Barber, State of Kansas. Southern Pioneer provides electric service for part of the rural areas of Barber, Clark, Comanche, Haskell, Kingman, Kiowa, Meade, Pratt, Reno, and Seward Counties. The two most significant urban areas served within Southern Pioneer's territory include Liberal (2000 population = 19,666) and Medicine Lodge (2000 population = 3,708).

The economy of the area is primarily agricultural. Most businesses in the area have developed around services for agriculture, gas, and oil production activities. Wheat, cotton, sorghum, corn, cattle and swine are among the most important agricultural resources in this area. The irrigation of crops using ground water from the Ogallala Aquifer continues despite decreased aquifer levels due to rainfall shortages. Natural gas, crude oil production and related services are the primary economic development activity. Natural gas production in the area has also declined in recent years as the field depletes. Oil production in the area has declined over the last few years.

Section I
Executive Summary

Table 1-5

The following data is from Southern Pioneer's 12/31/2009 – RUS Form 7:

Number of Consumers:	18,603
MWh Purchased:	696,386
MWh Sold:	685,327
Maximum kW Demand:	130,648
Total Utility Plant:	\$90,055,867 (\$4,840 / consumer)
Consumers/Mile:	22.7

Section I
Executive Summary

Substation Transformer & Circuit Load Data

Substation/ Voltage L-L	Transformer Base kVA	Circuit	Actual kW 2010	Proj. kW 2014	% Annual Growth
4th & Okla. 34.5/13.8-kV	1-7,500		5,155	6,208	4.8%
		South-21	2,226	2,407	2.0%
		North-22	2,931	3,768	6.5%
15th Street 34.5/13.8-kV	1-7,500		5,752	6,252	2.0%
		West-942	2,747	2,970	2.0%
		East-941	3,005	3,251	2.0%
Coldwater 34.5/13.8-kV	1-5,000		2,757	2,984	2.0%
		North-44	197	209	2.0%
		East-45	1,194	1,294	2.0%
		South-46	1,366	1,484	2.0%
Cunningham 34.5/13.8-kV	1-2,500		2,287	2,476	2.0%
		North-10	1,406	1,522	2.0%
		West-11	265	287	2.0%
		South-12	616	667	2.0%
East Liberal 34.5/13.8-kV	1-7,500		3,306	2,409	-7.6%
		South-121	202	224	2.6%
		North-122	3,104	2,180	-8.5%

**Section I
Executive Summary**

<u>Substation/</u> <u>Voltage L-L</u>	<u>Transformer</u> <u>Base kVA</u>	<u>Circuit</u>	<u>Actual kW</u> <u>2010</u>	<u>Proj. kW</u> <u>2014</u>	<u>% Annual</u> <u>Growth</u>
East Pine	1-7,500				
34.5/13.8-kV					
			4,661	5,174	2.6%
		West-451	3,316	3,664	2.5%
		East-452	1,345	1,489	2.6%
Englewood	1-2,800				
34.5/13.8-kV					
			534	578	2.0%
		South-781	534	578	2.0%
Fowler	1-2,500				
34.5/13.8-kV					
			1,131	1,224	2.0%
		West-441	586	635	2.0%
		East-442	545	589	2.0%
H & H	1-2,500				
34.5/13.8-kV					
			1,354	1,466	2.0%
		South-797	1,001	1,084	2.0%
		North-807	353	381	2.0%
Haviland	1-3,500				
34.5/13.8-kV					
			2,342	2,535	2.0%
		West-491	420	450	2.0%
		East-492	1,934	2,085	2.0%
Kismet	1-1,000				
34.5/13.8-kV					
			685	0	Retired
		West-541	685	0	Retired

Section I
Executive Summary

Substation/ Transformer	Actual kW	Proj. kW	% Annual
<u>Voltage L-L</u> <u>Base kVA</u> <u>Circuit</u>	<u>2010</u>	<u>2014</u>	<u>Growth</u>
Med. Lodge 1-8,400 34.5/13.8-kV	7,234	7,830	2.0%
South-3	2,044	2,217	2.0%
West-4	970	1,051	2.0%
SE-809	3,759	4,058	2.0%
Minneola 1-2,500 34.5/13.8-kV	1,315	1,423	2.0%
West-361	519	562	2.0%
East-362	796	861	2.0%
North Walnut 1-8,400 34.5/13.8-kV	3,012	3,260	2.0%
West-5	858	928	2.0%
South-6	1,748	1,894	2.0%
East-7	406	437	2.0%
North Liberal 1-20,000 115/13.8-kV	0	3,317	-
West	0	0	-
East	0	3,317	-
Okie Hayne 1-2,500 34.5/13.8-kV	988	0	Retired
West-780	988	0	Retired

Section I
Executive Summary

<u>Substation/</u> <u>Voltage L-L</u>	<u>Transformer</u> <u>Base kVA</u>	<u>Circuit</u>	<u>Actual kW</u> <u>2010</u>	<u>Proj. kW</u> <u>2014</u>	<u>% Annual</u> <u>Growth</u>
Plains	1-5,000				
34.5/13.8-kV					
			2,310	2,515	2.0%
		West-341	940	1,017	2.0%
		East-342	1,370	1,482	2.0%
Pratt	3-833				
34.5/13.8-kV					
			1,642	1,777	2.0%
		East-563	74	88	2.0%
		West-710	1,568	1,709	2.0%
Satanta City	1-5,000				
34.5/13.8-kV					
			2,685	2,906	2.0%
		North-691	2,042	2,210	2.0%
		South-692	643	696	2.0%
Sharon	1-3,500				
34.5/13.8-kV					
			956	1,035	2.0%
		South-23	956	1,035	2.0%
Sublette	1-5,000				
34.5/13.8-kV					
			3,968	4,295	2.0%
		West-321	1,880	2,033	2.0%
		East-322	2,088	2,262	2.0%

Section I
Executive Summary

Substation/ Transformer	Actual kW	Proj. kW	% Annual
<u>Voltage L-L</u> <u>Base kVA</u> <u>Circuit</u>	<u>2010</u>	<u>2014</u>	<u>Growth</u>
Sun City 1-2,500 34.5/13.8-kV	741	802	2.0%
North-16	693	749	2.0%
South-17	48	49	2.0%
Tice 1-1,500 34.5/13.8-kV	510	552	2.0%
North-901	510	552	2.0%
Tucker Road 1-7,500 34.5/13.8-kV	4,693	4,497	-1.1%
East-51	2,271	2,445	2.0%
West-52	2,422	2,037	-4.2%
West Liberal 1-20,000 115/13.8-kV	6,541	7,076	2.0%
North-351	3,630	4,314	4.4%
South-352	2,911	2,739	-1.5%
West Pine 1-7,500 34.5/13.8-kV	4,350	4,696	1.9%
West-851	2,537	2,729	1.8%
East-852	1,813	1,947	1.8%
Mead Lake 1-2800 Road 34.5/13.8kV	0	1,800	-
West-Okle	0	1,000	-
East-Kismet	0	736	-

Section I
Executive Summary

Total	70,725	79,087**	2.8%
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***Transformer is 100% or greater of BASE kVA**

****Load Growth includes all changes made to substation boundaries**

-Substation kW includes line and substation transformer losses

-Substation feeder kW includes line losses

Section 1

Executive Summary

NEW CONSTRUCTION (CODE 100)

	RUS Code	Average Cost Per Consumer	Number of Consumers	No. of Miles	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
New Consumers	101	\$2,273	176	22.50	\$1,600,000	\$400,000	\$400,000	\$400,000	\$400,000
Total 740C (Code 100)				22.50	\$1,600,000	\$400,000	\$400,000	\$400,000	\$400,000

NEW LINES AND TIE LINES (CODE 200)

Substation and Circuit	RUS Code	Existing Conductor/No. of Phases	Recommended Conductor/No. of Phases	Cost Per Mile	No. of Miles	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
Exchange Pt. 5 (Minnesota)										
361 South	200-01	N/A N/A	T2 1/0 ACSR (UB) Three-Phase	\$70,000	1.50	\$105,000	\$0	\$105,000	\$0	\$0
Mead Lake Road										
North	200-02	N/A N/A	T2 1/0 ACSR (UB) Three-Phase	\$70,000	3.00	\$210,000	\$210,000	\$0	\$0	\$0
South	200-03	N/A Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	2.00	\$140,000	\$140,000	\$0	\$0	\$0
Total 740C (Code 200)					6.50	\$455,000	\$350,000	\$105,000	\$0	\$0

* Denotes Carry-Over

Section I
Executive Summary

LINE CONVERSIONS AND RECONDUCTING (CODE 300)

Substation and Circuit	RUS Code	Existing Conductor/No. of Phases	Recommended Conductor/No. of Phases	Cost Per Mile	No. of Miles	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
Medicine Lodge										
846 North	300-01*	N/A	T2 1/0 ACSR Three-Phase	N/A	4.00	\$160,000	\$160,000	\$0	\$0	\$0
846 North	300-02*	N/A	N/A	N/A	4.00	\$105,000	\$105,000	\$0	\$0	\$0
846 North	300-25	N/A mixed	T2 1/0 ACSR Three-Phase	\$70,000	6.00	\$420,000	\$420,000	\$0	\$0	\$0
East	300-26	mixed Two-Phase	T2 1/0 ACSR Three-Phase	\$70,000	2.50	\$175,000	\$175,000	\$0	\$0	\$0
Haviland										
492 East	300-27	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	3.50	\$245,000	\$245,000	\$0	\$0	\$0
East Liberal										
122 Neust	300-28	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	11.00	\$770,000	\$0	\$0	\$0	\$770,000
122 Neust	300-29	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	2.00	\$140,000	\$0	\$0	\$0	\$140,000
122 Neust	300-30	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	1.00	\$70,000	\$0	\$0	\$0	\$70,000
122 North	300-31	mixed Three-Phase	T2 4/0 ACSR (UB) Three-Phase	\$90,000	2.50	\$225,000	\$225,000	\$0	\$0	\$0
Sublette										
322 Neust	300-32	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	7.00	\$490,000	\$0	\$0	\$490,000	\$0
Satsata										
691 Neust	300-33	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	2.00	\$140,000	\$0	\$0	\$140,000	\$0
692 South	300-34	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	2.00	\$140,000	\$0	\$0	\$140,000	\$0
Fowler										
442 Neust	300-35	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	1.00	\$70,000	\$70,000	\$0	\$0	\$0
Muscola										
362 North	300-36	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	1.00	\$70,000	\$70,000	\$0	\$0	\$0
361 South	300-37	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	0.50	\$35,000	\$35,000	\$0	\$0	\$0

* Denotes Carry-Over

Section 1
Executive Summary

LINE CONVERSIONS AND RECONDUCTORING (CODE 300)

Substation and Circuit	RUS Code	Existing Conductor/No. of Phases	Recommended Conductor/No. of Phases	Cost Per Mile	No. of Miles	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
Gimarra River South	300-38	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	1.00	\$70,000	\$0	\$0	\$0	\$70,000
Sea City 16	North 300-39	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	9.20	\$644,000	\$0	\$644,000	\$0	\$0
Pratt 710	West 300-40	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	8.00	\$560,000	\$360,000	\$0	\$0	\$0
Coldwater 44	East 300-41	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	1.00	\$70,000	\$0	\$0	\$70,000	\$0
H&H 807	Neast 300-42	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	6.00	\$420,000	\$0	\$0	\$420,000	\$0
4th & Oklahoma 22	North 300-43	1/0 ACSR Three-Phase	477 ACSR (UB) Three-Phase	\$90,000	0.25	\$22,500	\$22,500	\$0	\$0	\$0
15th Street 941	East 300-44	1/0 & 2/0 ACSR	4/0 ACSR (UB)	\$70,000	0.67	\$46,900	\$46,900	\$0	\$0	\$0
Eaglewood South	300-45	mixed Three-phase	42 ACSR Three-Phase		5.00	\$380,000	\$380,000	\$0	\$0	\$0
Total (Code 300)					81.12	\$5,468,400	\$2,514,400	\$644,000	\$1,260,000	\$1,050,000
Total 740C (Code 300)					81.12	\$5,468,400	\$2,514,400	\$644,000	\$1,260,000	\$1,050,000

(UB) - Underbuild
* Discrete Carry-Over

Section 1

Executive Summary

NEW SUBSTATIONS, SWITCHING STATIONS, METERING POINTS, ETC. (CODE 400)

Substation	RUS Code	Item	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
SeaCrude	400-01*	New SeaCrude 34.5/41.8kV substation	\$900,000	\$900,000	\$0	\$0	\$0
H&H	400-02	Relocate existing H&H Substation	\$800,000	\$800,000	\$0	\$0	\$0
Mead Lake Road	400-03	Combine existing substations Okic and Kismet	\$300,000	\$800,000	\$0	\$0	\$0
Total 740C (Code 400)			\$2,500,000	\$2,500,000	\$0	\$0	\$0

SUBSTATION CHANGES (CODE 500)

Substation	RUS Code	Item	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
Sharps	500-01*	Rebuild and reconfigure equipment to comply with NESC Code	\$500,000	\$0	\$500,000	\$0	\$0
Pratt	500-06*	Rebuild and reconfigure equipment to comply with NESC Code	\$500,000	\$0	\$0	\$500,000	\$0
Costs	500-07*	New 34.5/13.8kV Substation	\$600,000	\$600,000	\$0	\$0	\$0
Cudahy	500-08	Rebuild substation to increase capacity	\$1,500,000	\$0	\$0	\$0	\$1,500,000
West Liberal	500-09	Add 115/13.8kV bays and equipment to replace existing 34.5/13.8kV	\$850,000	\$0	\$0	\$0	\$850,000
North Liberal	500-10	Add 115/13.8kV bays and equipment to increase 13.8kV capacity in Liberal	\$1,000,000	\$0	\$0	\$0	\$1,000,000
East Liberal	500-11	Replace Main Bus Breaker 1614	\$150,000	\$0	\$150,000	\$0	\$0
Total 740C (Code 500)			\$5,100,000	\$600,000	\$650,000	\$500,000	\$3,350,000

* Denotes Carry-Over

MISCELLANEOUS DISTRIBUTION EQUIPMENT (CODE 600)

Substation	RUS Code	Item	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
603 - Sectionalizing Equipment							
	603-01	Sectionalizing Equip.	\$340,000	\$100,000	\$80,000	\$80,000	\$80,000
	603-02	34.5kV Breakers	\$360,000	\$80,000	\$80,000	\$120,000	\$80,000
	603-03	34.5kV Capacitor Bank TSC Switch Replacement	\$360,000	\$120,000	\$80,000	\$80,000	\$80,000
	603-04	Coldwater Throwover Scheme	\$120,000	\$120,000	\$0	\$0	\$0
Total 740C (Code 603)			\$1,180,000	\$420,000	\$240,000	\$280,000	\$240,000

Section 1

Executive Summary

MISCELLANEOUS DISTRIBUTION EQUIPMENT (CODE 600)

Substation	RUS Code	Item	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
604 - Regulators							
	604-01	Spare Regs./Failures Circuit Fixes	\$180,000	\$60,000	\$40,000	\$40,000	\$40,000
	604-02		\$12,000	\$12,000	\$0	\$0	\$0
Total 740C (Code 604)			\$192,000	\$72,000	\$40,000	\$40,000	\$40,000

MISCELLANEOUS DISTRIBUTION EQUIPMENT (CODE 600)

Substation	RUS Code	Item	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
605 - Capacitors							
	605-01	Circuit Fixes	\$7,150	\$7,150	\$0	\$0	\$0
Total 740C (Code 604)			\$7,150	\$7,150	\$0	\$0	\$0

601, 602, 606 - Other Equipment

Item	RUS Code	Average Cost	No.	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
Cost of Meters	601-01			\$160,000	\$40,000	\$40,000	\$40,000	\$40,000
Overhead Transformers	601-01			\$800,000	\$200,000	\$200,000	\$200,000	\$200,000
Padmount Transformers	601-01			\$399,040	\$99,760	\$99,760	\$99,760	\$99,760
SCADA/Metering, SPEC Substations	601-02			\$200,000	\$50,000	\$50,000	\$50,000	\$50,000
Service Upgrades	602			\$240,000	\$60,000	\$60,000	\$60,000	\$60,000
Osage Pole Replacement	606-01			\$3,500,000	\$625,000	\$625,000	\$625,000	\$625,000
Copper Replacement	606-02			\$1,200,000	\$300,000	\$300,000	\$300,000	\$300,000
Open Wire Secondary Replacement	606-03			\$400,000	\$100,000	\$100,000	\$100,000	\$100,000
CSP Replacement (including new traf cost)	606-04			\$500,000	\$125,000	\$125,000	\$125,000	\$125,000
Ungrounded Circuits	606-05			\$1,490,600	\$372,650	\$372,650	\$372,650	\$372,650
Cost of Unit Replacements	606-06			\$1,320,000	\$330,000	\$330,000	\$330,000	\$330,000
Total (Code 601, 602, 606)				\$9,209,640	\$2,670,360	\$2,179,760	\$2,179,760	\$2,179,760
Total 740C (Code 600)				\$10,588,790	\$3,169,310	\$2,459,760	\$2,499,760	\$2,459,760

Section 1

Executive Summary

* - Misc. Distribution Units Includes lightning arrestors, cutouts, Anchor guys and grounds

MISCELLANEOUS DISTRIBUTION EQUIPMENT (CODE 700)

Substation	RUS Code	Item	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost	
701 - Engineering Fees		Substation Design and Code Compliance Evaluation	\$120,000	\$30,000	\$30,000	\$30,000	\$30,000	
702 - Streetlight Maintenance								
	702-01	Install	\$138,000	\$34,500	\$34,500	\$34,500	\$34,500	
	702-02	Replace	\$52,000	\$13,000	\$13,000	\$13,000	\$13,000	
705 - AMR								
	705	Automatic Radio Meter Read	\$1,100,000	\$275,000	\$275,000	\$275,000	\$275,000	
Total 740C (Code 700)			\$1,410,000	\$352,500	\$352,500	\$352,500	\$352,500	
Distribution Total (740C)				110.12	\$27,122,190	\$9,886,410	\$4,611,260	\$5,012,260

NEW TRANSMISSION LINE (CODE 800)

Substation and Circuit	RUS Code	Existing Conductor/No. of Phases	Recommended Conductor/No. of Phases	Cost Per Mile	No. of Miles	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
Cannington	800-01*	N/A	T2 1/0 ACSR	\$70,000	1.90	\$370,000	\$370,000	\$0	\$0	\$0
Southwestern Heights	800-02	N/A	T2 4/0 ACSR	\$120,000	6.00	\$720,000	\$0	\$0	\$0	\$720,000
Total 740C (Code 800)						\$1,090,000	\$370,000	\$0	\$0	\$720,000

Section 1

NEW SUBSTATIONS, SWITCHING STATIONS, METERING POINTS, ETC. (CODE 900)

Substation	RUS Code	Item	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
Sem Crude	900-01	New SemCrude 115/34.5kV substation	\$1,500,000	\$1,500,000	\$0	\$0	\$0
Southwestern Heights	900-02	New Southwestern Heights Substation	\$1,500,000	\$0	\$0	\$0	\$1,500,000
Total 740C (Code 900)			\$3,000,000	\$1,500,000	\$0	\$0	\$1,500,000

* Denotes Carry-Over

Section 1

LINE CONVERSIONS AND RECONDUCTING SUB-TRANSMISSION (CODE 1000)

Substation and Circuit	RUS Code	Existing Conductor/No. of Phases	Recommended Conductor/No. of Phases	Cost Per Mile	No. of Miles	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost	
Tie 901	Near	1000-01	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	4.50	\$540,000	\$0	\$0	\$540,000	\$0
East Liberal 1384	Near	1000-02	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	11.00	\$1,320,000	\$0	\$0	\$0	\$1,320,000
1384	Near	1000-03	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	7.00	\$840,000	\$0	\$0	\$0	\$840,000
1384	Near	1000-04	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	13.00	\$1,560,000	\$0	\$0	\$0	\$1,560,000
Sablette Near	1000-05	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	7.00	\$840,000	\$0	\$0	\$840,000	\$0	
Saranta Near	1000-06	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	9.00	\$1,080,000	\$0	\$0	\$1,080,000	\$0	
West	1000-07	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	5.00	\$600,000	\$0	\$0	\$600,000	\$0	
Cadaky East	1000-08	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	8.00	\$960,000	\$960,000	\$0	\$0	\$0	
East	1000-09	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	11.00	\$1,320,000	\$1,320,000	\$0	\$0	\$0	
Exchange Pt. 5 Near	1000-10	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	1.50	\$180,000	\$180,000	\$0	\$0	\$0	
Near	1000-11	T2 1/0 & #2 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	21.50	\$2,580,000	\$0	\$2,580,000	\$0	\$0	

Section 1

LINE CONVERSIONS AND RECONDUCTING SUB-TRANSMISSION (CODE 1000)

Substation and Circuit	RUS Code	Existing Conductor/No. of Phases	Recommended Conductor/No. of Phases	Cost Per Mile	No. of Miles	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
Cimarron River										
South	1000-12	2/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	1.00	\$120,000	\$0	\$0	\$0	\$120,000
Pratt										
West	1000-13	2/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	3.50	\$420,000	\$0	\$420,000	\$0	\$0
Sea City										
North	1000-14	2/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	9.20	\$1,104,000	\$0	\$1,104,000	\$0	\$0
North	1000-15	2/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	7.00	\$840,000	\$840,000	\$0	\$0	\$0
South	1000-16	T2 1/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	7.00	\$840,000	\$0	\$0	\$840,000	\$0
South	1000-17	2/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	9.00	\$1,080,000	\$0	\$0	\$0	\$1,080,000
South	1000-18	2/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	6.00	\$720,000	\$720,000	\$0	\$0	\$0
Medicine Lodge										
South	1000-19	2/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	6.20	\$744,000	\$0	\$0	\$744,000	\$0
South	1000-20	#4 Copper Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	5.50	\$660,000	\$0	\$0	\$660,000	\$0
North Liberal										
East	1000-21	1/0 ACSR Three-Phase	4/0 ACSR Three-Phase	\$70,000	0.50	\$35,000	\$35,000	\$0	\$0	\$0
Pratt										
West	1000-22	2/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	1.00	\$120,000	\$120,000	\$0	\$0	\$0
Total 740C (Code 1000)					154.40	\$18,503,000	\$4,175,000	\$4,104,000	\$5,304,000	\$4,920,000

HEADQUARTERS FACILITIES (CODE 1300)

RUS Code	Location	Item	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
1300-01	Medicane Lodge	New Service Center	\$2,400,000	\$0	\$0	\$0	\$2,400,000
1300-02	Liberal	Service Center Expansion	\$600,000	\$600,000	\$0	\$0	\$0
Total 740C (Code 700)			\$3,000,000	\$600,000	\$0	\$0	\$2,400,000

ALL OTHER (CODE 1500)

RUS Code	Location	Item	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
1500-01	Liberal	Oil Containment and Pad	\$150,000	\$150,000	\$0	\$0	\$0
1500-02	System Wide	Update Fence and Grounding in Substations	\$200,000	\$50,000	\$50,000	\$50,000	\$50,000
Total 740C (Code 700)			\$350,000	\$200,000	\$50,000	\$50,000	\$50,000

(From Page 5)	Distribution Total (740C)	110.12	\$27,122,190	\$9,886,410	\$4,611,260	\$5,012,260	\$7,612,260
	Transmission Total (740C)	162.30	\$26,343,000	\$7,245,000	\$4,154,000	\$3,534,000	\$9,590,000
Total Distribution and Transmission Total (740C)		272.42	\$53,465,190	\$17,131,410	\$8,765,260	\$10,366,260	\$17,202,260

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0572-0032. The time required to complete this information collection is estimated to average 10 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

This data will be used by RUS to review your financial situation. Your response is required (7 USC 901 et seq.) and is not confidential.

<p>USDA-RUS</p> <p>COST ESTIMATES AND LOAN BUDGET</p> <p>FOR ELECTRIC BORROWERS</p> <p>To: U.S. Dept. of Agriculture, RUS, Washington, D.C. 20250</p> <p>INSTRUCTIONS See also "MyFBus" through "MyBus"</p>	<p><i>Form Approved</i></p> <p>OMB No. 0572-0032</p> <p>BORROWER AND LOAN DESIGNATION</p> <p>COST ESTIMATES AS OF: (August, 2010)</p>																																																																																																																																																																																																																																																																									
<p>SECTION A. COST ESTIMATES</p>	<p>LOAN PERIOD <u>4</u> YEARS</p>																																																																																																																																																																																																																																																																									
<p>1. DISTRIBUTION</p> <p>100 a. New Line: (Excluding Tie-Lines)</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"></td> <td style="width: 15%; text-align: center;"><u>Construction</u></td> <td style="width: 15%; text-align: center;"><u>Consumers</u></td> <td style="width: 15%; text-align: center;"><u>Miles</u></td> <td style="width: 40%;"></td> </tr> <tr> <td>100</td> <td>Overhead/URD</td> <td>176</td> <td>22.50</td> <td></td> </tr> <tr> <td colspan="3">Total Consumers <u>176</u></td> <td>Total Miles <u>22.50</u></td> <td></td> </tr> <tr> <td colspan="3"></td> <td>Less Contributions</td> <td></td> </tr> <tr> <td colspan="4">Subtotal (New Line - code 100)</td> <td style="text-align: right;">\$1,600,000</td> </tr> </table> <p>200 b. New Tie-Lines</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"></td> <td style="width: 40%; text-align: center;"><u>Line Designation</u></td> <td style="width: 15%; text-align: center;"><u>Miles</u></td> <td style="width: 30%;"></td> </tr> <tr> <td>200-01</td> <td>241-798 Englewood to Englewood Junction</td> <td style="text-align: center;">1.50</td> <td style="text-align: right;">\$105,000</td> </tr> <tr> <td>200-02</td> <td>Mead Lake Road to the City of Kismet</td> <td style="text-align: center;">3.00</td> <td style="text-align: right;">210,000</td> </tr> <tr> <td>200-03</td> <td>Mead Lake Road to Okie</td> <td style="text-align: center;">2.00</td> <td style="text-align: right;">140,000</td> </tr> <tr> <td>204</td> <td></td> <td style="text-align: center;">0.00</td> <td style="text-align: right;">0</td> </tr> <tr> <td>205</td> <td></td> <td style="text-align: center;">0.00</td> <td style="text-align: right;">0</td> </tr> <tr> <td>206</td> <td></td> <td style="text-align: center;">0.00</td> <td style="text-align: right;">0</td> </tr> <tr> <td colspan="2">Subtotal Code 200 from page 1A</td> <td style="text-align: center;">0.00</td> <td style="text-align: right;">0</td> </tr> <tr> <td colspan="2">Subtotal Code 200 (includes subtotals from pages 1A)</td> <td style="text-align: center;">6.50</td> <td style="text-align: right;">\$455,000</td> </tr> </table> <p>300 c. Conversion and Line Changes</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"></td> <td style="width: 40%; text-align: center;"><u>Line Designation</u></td> <td style="width: 15%; text-align: center;"><u>Miles</u></td> <td style="width: 30%;"></td> </tr> <tr> <td>300-01</td> <td>0846 Reconductor 4 miles of three-phase (Medicine Lodge)</td> <td style="text-align: center;">4.00</td> <td style="text-align: right;">\$160,000</td> </tr> <tr> <td>300-02</td> <td>0846 Replace poles (Medicine Lodge)</td> <td style="text-align: center;">3.00</td> <td style="text-align: right;">105,000</td> </tr> <tr> <td>300-25</td> <td>Medicine Lodge north-846, Isabel to Nashville</td> <td style="text-align: center;">6.00</td> <td style="text-align: right;">420,000</td> </tr> <tr> <td>300-26</td> <td>Medicine Lodge-east, replace existing 2-phase with T21/0 3-phase</td> <td style="text-align: center;">2.50</td> <td style="text-align: right;">175,000</td> </tr> <tr> <td>300-27</td> <td>266-727A Wellsford to SW120th along HWY54</td> <td style="text-align: center;">3.50</td> <td style="text-align: right;">245,000</td> </tr> <tr> <td>300-28</td> <td>242-701 East Liberal to River</td> <td style="text-align: center;">11.00</td> <td style="text-align: right;">770,000</td> </tr> <tr> <td>300-29</td> <td>242-701 Kismet to Plains</td> <td style="text-align: center;">2.00</td> <td style="text-align: right;">140,000</td> </tr> <tr> <td>300-30</td> <td>242-703A Plains to CMS Copeland</td> <td style="text-align: center;">1.00</td> <td style="text-align: right;">70,000</td> </tr> <tr> <td>300-31</td> <td>East Liberal north-122, remaining feeder not 477 ACSR</td> <td style="text-align: center;">2.50</td> <td style="text-align: right;">225,000</td> </tr> <tr> <td>300-32</td> <td>242-704B Sublette to Tice</td> <td style="text-align: center;">7.00</td> <td style="text-align: right;">490,000</td> </tr> <tr> <td colspan="2">Subtotal Code 300 from page 1A</td> <td style="text-align: center;">0.00</td> <td style="text-align: right;">2,668,400</td> </tr> <tr> <td colspan="2">Subtotal Code 300 from page 1B</td> <td style="text-align: center;">0.00</td> <td style="text-align: right;">0</td> </tr> <tr> <td colspan="2">Subtotal Code 300 (includes subtotals from pages 1A&B)</td> <td style="text-align: center;">42.50</td> <td style="text-align: right;">\$5,468,400</td> </tr> </table> <p>400 d. New Substations, Switching Stations, Metering Points, etc.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"></td> <td style="width: 20%; text-align: center;"><u>Station Designation</u></td> <td style="width: 10%; text-align: center;"><u>kVA</u></td> <td style="width: 10%; text-align: center;"><u>kV to kV</u></td> <td style="width: 45%;"></td> </tr> <tr> <td>400-01</td> <td>SemCrude, NW of Cunningham</td> <td style="text-align: center;">3500</td> <td style="text-align: center;">34.5/4.16</td> <td style="text-align: right;">\$900,000</td> </tr> <tr> <td>400-02</td> <td>H&H, Move existing</td> <td style="text-align: center;">3500</td> <td style="text-align: center;">34.5/13.8</td> <td style="text-align: right;">800,000</td> </tr> <tr> <td>400-03</td> <td>Mead Lake Road, Combine Kismet/Ok</td> <td style="text-align: center;">2800</td> <td style="text-align: center;">34.5/13.8</td> <td style="text-align: right;">800,000</td> </tr> <tr> <td>404</td> <td></td> <td></td> <td></td> <td style="text-align: right;">0</td> </tr> <tr> <td>405</td> <td></td> <td></td> <td></td> <td style="text-align: right;">0</td> </tr> <tr> <td>406</td> <td></td> <td></td> <td></td> <td style="text-align: right;">0</td> </tr> <tr> <td colspan="4">Subtotal</td> <td style="text-align: right;">\$2,500,000</td> </tr> </table>		<u>Construction</u>	<u>Consumers</u>	<u>Miles</u>		100	Overhead/URD	176	22.50		Total Consumers <u>176</u>			Total Miles <u>22.50</u>					Less Contributions		Subtotal (New Line - code 100)				\$1,600,000		<u>Line Designation</u>	<u>Miles</u>		200-01	241-798 Englewood to Englewood Junction	1.50	\$105,000	200-02	Mead Lake Road to the City of Kismet	3.00	210,000	200-03	Mead Lake Road to Okie	2.00	140,000	204		0.00	0	205		0.00	0	206		0.00	0	Subtotal Code 200 from page 1A		0.00	0	Subtotal Code 200 (includes subtotals from pages 1A)		6.50	\$455,000		<u>Line Designation</u>	<u>Miles</u>		300-01	0846 Reconductor 4 miles of three-phase (Medicine Lodge)	4.00	\$160,000	300-02	0846 Replace poles (Medicine Lodge)	3.00	105,000	300-25	Medicine Lodge north-846, Isabel to Nashville	6.00	420,000	300-26	Medicine Lodge-east, replace existing 2-phase with T21/0 3-phase	2.50	175,000	300-27	266-727A Wellsford to SW120th along HWY54	3.50	245,000	300-28	242-701 East Liberal to River	11.00	770,000	300-29	242-701 Kismet to Plains	2.00	140,000	300-30	242-703A Plains to CMS Copeland	1.00	70,000	300-31	East Liberal north-122, remaining feeder not 477 ACSR	2.50	225,000	300-32	242-704B Sublette to Tice	7.00	490,000	Subtotal Code 300 from page 1A		0.00	2,668,400	Subtotal Code 300 from page 1B		0.00	0	Subtotal Code 300 (includes subtotals from pages 1A&B)		42.50	\$5,468,400		<u>Station Designation</u>	<u>kVA</u>	<u>kV to kV</u>		400-01	SemCrude, NW of Cunningham	3500	34.5/4.16	\$900,000	400-02	H&H, Move existing	3500	34.5/13.8	800,000	400-03	Mead Lake Road, Combine Kismet/Ok	2800	34.5/13.8	800,000	404				0	405				0	406				0	Subtotal				\$2,500,000	<table style="width: 100%; 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COST ESTIMATE AND LOAN BUDGET FOR ELECTRIC BORROWERS		BORROWER AND LOAN DESIGNATION		0
SECTION A. COST ESTIMATES (Page 1 Continuation Sheet)			BORROWER'S COST ESTIMATES	RUS USE ONLY
200 b. New Tie-Lines (Continued)				
	Line Designation	Miles		
207		0.00	\$0	
208		0.00	0	
209		0.00	0	
210		0.00	0	
211		0.00	0	
212		0.00	0	
213		0.00	0	
214		0.00	0	
215		0.00	0	
216		0.00	0	
<i>Subtotal Code 200 (transfers to page 1)</i>		0.00	\$0	
300 c. Conversion and Line Changes (Continued)				
	Line Designation	Miles		
300-33	242-704C Satanla to Sublette	2.00	140,000	
300-34	242-783 Satanla to Satanla 115kV	2.00	140,000	
300-35	242-706A Fowler to Englewood Junction	1.00	70,000	
300-36	241-706 Englewood Junction to Victory meter at Ford County Line	1.00	70,000	
300-37	Minneola south-361, Minneola to Englewood Junction	0.50	35,000	
300-38	242-785 Cimarron River Junction to Cimarron River Plant	1.00	70,000	
300-39	266-725A Coats to Sun City	9.20	644,000	
300-40	266-725B Coats to HWY54	8.00	560,000	
300-41	266-719A Coldwater east along HWY 160	1.00	70,000	
300-42	266-723B Hazleton to H&H	6.00	420,000	
300-43	4th & Oklahoma north-21, north of G-78	0.25	22,500	
300-44	13th Street east-911 east of consumer transformer 3132S	0.67	46,900	
300-45	Englewood-south, Rebuild taps throughout the City of Englewood	5.00	380,000	
345				
346		0.00	0	
347		0.00	0	
348		0.00	0	
349		0.00	0	
350		0.00	0	
351		0.00	0	
352		0.00	0	
353		0.00	0	
354		0.00	0	
355		0.00	0	
356		0.00	0	
357		0.00	0	
358		0.00	0	
359		0.00	0	
360		0.00	0	
361		0.00	0	
362		0.00	0	
363		0.00	0	
364		0.00	0	
365		0.00	0	
366		0.00	0	
367		0.00	0	
368		0.00	0	
369		0.00	0	
370		0.00	0	
371		0.00	0	
<i>Subtotal Code 300 (transfers to page 1)</i>		0.00	\$2,668,400	

COST ESTIMATE AND LOAN BUDGET FOR ELECTRIC BORROWERS		BORROWER AND LOAN DESIGNATION	
SECTION A. COST ESTIMATES (Page 2 Continuation Sheet)		BORROWER'S COST ESTIMATES	RUS USE ONLY
300	c. Conversion and Line Changes (Continued)		
	Line Designation		
	Miles		
372		0.00	\$0
373		0.00	0
374		0.00	0
375		0.00	0
376		0.00	0
377		0.00	0
378		0.00	0
379		0.00	0
380		0.00	0
381		0.00	0
382		0.00	0
383		0.00	0
384		0.00	0
385		0.00	0
386		0.00	0
387		0.00	0
388		0.00	0
389		0.00	0
390		0.00	0
391		0.00	0
392		0.00	0
393		0.00	0
394		0.00	0
395		0.00	0
396		0.00	0
397		0.00	0
398		0.00	0
399		0.00	0
300.1		0.00	0
300.2		0.00	0
300.3		0.00	0
300.4		0.00	0
300.5		0.00	0
300.6		0.00	0
300.7		0.00	0
300.8		0.00	0
300.9		0.00	0
301		0.00	0
301.1		0.00	0
301.2		0.00	0
301.3		0.00	0
301.4		0.00	0
301.5		0.00	0
301.6		0.00	0
301.7		0.00	0
301.8		0.00	0
301.9		0.00	0
302		0.00	0
302.1		0.00	0
302.2		0.00	0
302.3		0.00	0
302.4		0.00	0
302.5		0.00	0
302.6		0.00	0
302.7		0.00	0
302.8		0.00	0
302.9		0.00	0
303		0.00	0
Subtotal Code 300 (transfers to page 1).....		0.00	\$0

BORROWER AND LOAN DESIGNATION				0	
SECTION A. COST ESTIMATES (cont.)				BORROWER'S COST ESTIMATES	RUS USE ONLY
500 e. Substation, Switching Station, Metering Point Changes					
Station Designation		Description of Changes			
500-01	Sharon	Rebuild and reconfigure equipment to comply with NESC Code		\$500,000	
500-06	Frait	Rebuild and reconfigure equipment to comply with NESC Code		500,000	
500-07	Coats	Carry-over, New 34.5/13.8kV Coats Substation		600,000	
500-08	Cudahy	Substation rebuild to increase capacity		1,500,000	
500-09	West Liberal	Add 115/13.8kV bays and equipment to replace 34.5/13.8kV bays		850,000	
500-10	North Liberal	Add new 115/13.8kV bays and equipment in existing substation		1,000,000	
500-11	East Liberal	New 34.5kV Breaker		150,000	
509				0	
Subtotal From Page 2A				0	
Subtotal				\$5,100,000	
600 f. Miscellaneous Distribution Equipment					
601-01 (1) Transformers and Meters					
Construction		Transformers		Meters	
Underground	580	\$399,040	0	\$0	\$399,040
Overhead	1163	\$800,000	914	\$160,000	960,000
601-02 SCADA SPEC Subs / Metering (\$200,000)				200,000	
Subtotal code 601 ... (included in total of all 600 codes below)				\$1,559,040	
602 (2) Sets of Service Wires to increase Capacity				240,000	
603-01 (3) Sectionalizing Equipment Sectionalizing Equipment (\$340,000)				1,180,000	
603-02 34.5kV Breakers (\$360,000)					
603-03 34.5kV Capacitor Bank TSC Switch Replacements (\$360,000)					
603-04 Coldwater Throwover Scheme (\$120,000)					
604-01 (4) Regulators Spare Regulators / Replace Failures				180,000	
604-02 Circuit Fixes				12,000	
605-01 (5) Capacitors Circuit Fixes				7,150	
606-01 (6) Ordinary Replacements Replacements for Pole Inspection (\$2,500,000)				7,410,600	
606-02 Copper Replacement (\$1,200,000)					
606-03 Open Wire Secondary Replacement (\$400,000)					
606-04 CSP Replacement (\$100,000)					
606-05 Ungrounded three-phase (\$1,490,600)					
606-06 Cost of Unit Replacements (total = \$1,320,000)					
606-07 (Poles (\$1,000,000), Misc, (\$320,000))					
606-08					
606-09					
Subtotal ALL 600 codes				\$10,588,790	
700 g. Other Distribution Items					
701 (1) Engineering Fees Substation Design and Code Compliance Evaluation				\$120,000	
702-01 (2) Security Lights Install (\$138,000)				190,000	
702-02 Replace (\$52,000)					
703 (3) Reimbursement of General Fund Consumers 0 Miles 0.00				0	
704 (4) Load Management & SCADA				0	
705 (5) Automated Meter Reading Equip Automatic Radio Meter Read				1,100,000	
706 (6) Broadband over Power line (BPL)				0	
Subtotal				\$1,410,000	
TOTAL DISTRIBUTION.....				\$27,122,190	
800 2. Transmission					
a. New Line					
Line Designation		Voltage	Wire Size	Miles	
800-01	Cunningham to SemCrude	34.5kV	T2 1/0 ACSR	1.90	\$370,000
800-02	Southwestern Heights to Plains	34.5kV	T2 4/0 ACSR	6.00	720,000
803					0
804					0
805					0
806					0
807					0
808					0
809					0
810					0
Subtotal Code 800 From Page 2A				0.00	
Subtotal Code 800 (includes subtotals from Page 2)				7.90	\$1,090,000

COST ESTIMATE AND LOAN BUDGET FOR ELECTRIC BORROWERS				BORROWER AND LOAN DESIGNAT	0
SECTION A. COST ESTIMATES (Page 2 Continuation Sheet)				BORROWER'S COST ESTIMATES	RUS USE ONLY
500 a. Substation, Switch Stations, Metering Point Changes (Continued)					
	<u>Station Designation</u>	<u>Description of Changes</u>			
510				\$0	
511				0	
512				0	
513				0	
514				0	
515				0	
516				0	
517				0	
518				0	
519				0	
520				0	
521				0	
522				0	
523				0	
524				0	
525				0	
526				0	
527				0	
528				0	
529				0	
530				0	
531				0	
532				0	
533				0	
534				0	
535				0	
536				0	
537				0	
538				0	
539				0	
540				0	
541				0	
542				0	
543				0	
544				0	
545				0	
546				0	
547				0	
548				0	
549				0	
550				0	
551				0	
552				0	
553				0	
554				0	
<i>Subtotal (transfers to page 2)</i>				\$0	
800 a. New Line (Continued)					
	<u>Line Designator</u>	<u>Voltage</u>	<u>Wire Size</u>	<u>Miles</u>	
811					\$0
812					0
813					0
814					0
815					0
816					0
817					0
818					0
819					0
820					0
<i>Subtotal - Miles (transfers to page 2) ..</i>				0.00	\$0

**ATTACHMENT TO RUS FORM 740c
REIMBURSEMENT SCHEDULE
DISTRIBUTION FACILITIES - BUDGET PURPOSE NO. 1**

WORK ORDER INVENTORIES						SPECIAL EQUIPMENT SUMMARIES		
WORK ORDER INVENTORY SUMMARY				CONS. CONNECT	MILES BUILT	*YTBS/P	MONTH	AMOUNT
*YTBS/P	NUMBER	MONTH	AMOUNT					
	224	Jan-07					Jan-07	
	226	Feb-07					Feb-07	
	228	Mar-07					Mar-07	
	227	Apr-07					Apr-07	
	228	May-07					May-07	
	229	Jun-07					Jun-07	
	230	Jul-07					Jul-07	
	231	Aug-07					Aug-07	
	232	Sep-07					Sep-07	
	233	Oct-07					Oct-07	
	234	Nov-07					Nov-07	
	235	Dec-07					Dec-07	
	248	Jan-08					Jan-08	
	249	Feb-08					Feb-08	
	250	Mar-08					Mar-08	
	251	Apr-08					Apr-08	
	252	May-08					May-08	
	253	Jun-08					Jun-08	
	254	Jul-08					Jul-08	
	255	Aug-08					Aug-08	
	256	Sep-08					Sep-08	
	257	Oct-08					Oct-08	
	258	Nov-08					Nov-08	
	259	Dec-08					Dec-08	
	260	Dec-08 A					Dec-08 A	
	261	Dec-08 B					Dec-08 B	
	262	Dec-08 C					Dec-08 C	
	263	Dec-08 D					Dec-08 D	
	264	Dec-08 E					Dec-08 E	
	265	Dec-08 F					Dec-08 F	
	266	Dec-08 G					Dec-08 G	
	267	Dec-08 H					Dec-08 H	
Subtotal							Subtotal	
	Work Orders Inventories		\$0.00	0	0.00		Special Equipment Summaries ..	\$0.00
GRAND TOTAL								\$ -

*YTBS/P - Yet to be Submitted or Partial. Insert a "Y" for Yet to be Submitted or "P" if the Work Order Summary or SE Summary is a Partial

COST ESTIMATE AND LOAN BUDGET FOR ELECTRIC BORROWERS			BORROWER AND LOAN DESIGNATION		0	
SECTION A. COST ESTIMATES (cont.)					BORROWER'S COST ESTIMATES	RUS USE ONLY
900	b. New Substation, Switching Station, etc.					
	<u>Station Designation</u>	<u>kVA</u>	<u>kV TO kV</u>			
900-01	SemCrude, NW of Cunningham	10,000	115/34.5		\$1,900,000	
900-02	Southwestern Heights	10,000	115/34.5		1,500,000	
903					0	
904					0	
905					0	
906					0	
907					0	
908					0	
	<i>Subtotal Code 900 From Page 3A</i>				0	
	<i>Subtotal Code 900</i>				\$3,400,000	
1000	c. Line and Station Changes					
	<u>Line/Station Designation</u>	<u>Description of Changes</u>				
1000-01	242-704A Tice-northeast	Gray County Line to Tice, 34.5kV, 4.5 miles			\$540,000	
1000-02	242-701 East Liberal-northeast	East Liberal to River, 34.5kV, 11 miles			1,320,000	
1000-03	242-701 East Liberal-northeast	Kismet to Plains, 34.5kV, 7 miles			840,000	
1000-04	242-703A East Liberal-northeast	Plains to CMS Copeland 34.5kV, 13 miles			1,560,000	
1000-05	242-704B Sublette-northeast	Line and add Distribution between Sublette and Tice, 34.5kV, 7 miles			840,000	
1000-06	242-704C Satanta-northeast	Satanta to Sublette, 34.5kV, 9 miles			1,080,000	
1000-07	242-783 Satanta-west	Satanta to Satanta 115kV, 34.5kV, 5 miles			600,000	
1000-08	242-707 Cudahy-east	Cudahy to Fowler, 34.5kV, 8 miles			960,000	
1000-09	242-706A Cudahy-east	Fowler to Englewood Junction, 34.5kV, 11 miles			1,320,000	
	<i>Subtotal Code 1000 From page 3B</i>				9,443,000	
	<i>Subtotal Code 1000</i>				\$18,503,000	
1100	d. Other Transmission Items					
1101	(1) R/W Procurement				\$0	
1102	(2) Engineering Fees				0	
1103	(3) Reimbursement of General Funds	Miles	0.00		0	
1104	(4)				0	
	<i>Subtotal</i>				\$0	
	TOTAL TRANSMISSION.....				\$22,993,000	
1200	3. GENERATION (Including Step-up Station at Plant)					
1201	a Fuel	Nameplate Rating	_____ kW		\$0	
1202	b.				0	
	TOTAL GENERATION.....				\$0	
1300	4. HEADQUARTERS FACILITIES					
1300-01	(1) Medicine Lodge - New Service Center				\$2,400,000	
1300-02	(2) Liberal - Service Center Expansion				600,000	
	TOTAL HEADQUARTERS FACILITIES.....				\$3,000,000	

COST ESTIMATE AND LOAN BUDGET FOR ELECTRIC BORROWERS			BORROWER AND LOAN DESIGNATION		0
SECTION A. COST ESTIMATES (Page 3 Continuation Sheet)			BORROWER'S COST ESTIMATES		RUS USE ONLY
900	b. New Substation, Switching Station, etc. (Continued)				
	Station Designation	kVA	kV TO kV		
909				\$0	
910				0	
911				0	
912				0	
913				0	
914				0	
915				0	
916				0	
917				0	
918				0	
919				0	
920				0	
921				0	
922				0	
923				0	
924				0	
925				0	
926				0	
927				0	
928				0	
929				0	
930				0	
931				0	
932				0	
933				0	
934				0	
935				0	
936				0	
937				0	
938				0	
939				0	
940				0	
941				0	
942				0	
943				0	
944				0	
945				0	
946				0	
947				0	
948				0	
949				0	
950				0	
951				0	
952				0	
953				0	
954				0	
955				0	
956				0	
957				0	
958				0	
959				0	
960				0	
961				0	
962				0	
963				0	
964				0	
965				0	
	Subtotal Code 900 (transfers to page 3).....			\$0	

COST ESTIMATE AND LOAN BUDGET FOR ELECTRIC BORROWERS		BORROWER AND LOAN DESIGNATION	0
SECTION A. COST ESTIMATES (Page 3 Continuation Sheet)		BORROWER'S COST ESTIMATES	RUS USE ONLY
1000	c. Line and Station Changes(Continued)		
	Line/Station Designation	Description of Changes	
1000-10	241-706 Exchange Pt. 5-south	Englewood Jct. to Victory meter, 34.5kV, 1.5 miles	5180,000
1000-11	241-798 Exchange Pt. 5-south	Englewood Jct. to Englewood Substation, 34.5kV, 21.5 miles	2,580,000
1000-12	242-785 Cimarron River-south	Cimarron River Jct. to Cimarron River Plant, 34.5kV, 1 mile	120,000
1000-13	266-727A Pratt-west	Wellsford to SW120th along HWY54, 34.5kV, 3.5 mile	420,000
1000-14	266-725A Sun City-north	Coats to Sun City, 34.5kV, 9.2 miles	1,104,000
1000-15	266-723D Sun City-north	Coats to HWY54, 34.5kV, 7 miles	840,000
1000-16	266-719A Sun City-south	Coldwater going east on HWY160, 34.5kV, 7mile	840,000
1000-17	266-719B Sun City-south	Coldwater to Barber County Line, 34.5kV, 9 miles	1,080,000
1000-18	266-719C Sun City-south	Barber County Line to Sun Junction, 34.5kV, 6 mile	720,000
1000-19	266-723A Medicine Lodge-south	Hazleton to Harper County Line, 34.5kV, 6.2 miles	744,000
1000-20	266-723B Medicine Lodge-south	Hazleton to H&H, 5.5 miles	660,000
1000-21	North Liberal east-1427	North of switch 1196, 34.5kV, 0.5 miles	35,000
1000-22	Pratt-west	Continuation of project 1000-13	120,000
1023			0
1024			0
1025			0
1026			0
1027			0
1028			0
1029			0
1030			0
1031			0
1032			0
1033			0
1034			0
1035			0
1036			0
1037			0
1038			0
1039			0
1040			0
1041			0
1042			0
1043			0
1044			0
1045			0
1046			0
1047			0
1048			0
1049			0
1050			0
1051			0
1052			0
1053			0
1054			0
1055			0
1056			0
1057			0
1058			0
1059			0
1060			0
1061			0
1062			0
1063			0
1064			0
1065			0
1066			0
1067			0
1068			0
1069			0
1070			0
1071			0
Subtotal Code 1000 (transfers to page 3).....			\$9,443,000

**ATTACHMENT TO RUS FORM 740c
REIMBURSEMENT SCHEDULE
TRANSMISSION FACILITIES - BUDGET PURPOSE NO. 2**

WORK ORDER INVENTORIES

WORK ORDER INVENTORY SUMMARY				MILES BUILT
*YTBS/P	NUMBER	MONTH	AMOUNT	
	224	Jan-07		
	225	Feb-07		
	226	Mar-07		
	227	Apr-07		
	228	May-07		
	229	Jun-07		
	230	Jul-07		
	231	Aug-07		
	232	Sep-07		
	233	Oct-07		
	234	Nov-07		
	235	Dec-07		
	248	Jan-08		
	249	Feb-08		
	250	Mar-08		
	251	Apr-08		
	252	May-08		
	253	Jun-08		
	254	Jul-08		
	255	Aug-08		
	256	Sep-08		
	257	Oct-08		
	258	Nov-08		
	259	Dec-08		
	260	Dec-08 A		
	261	Dec-08 B		
	262	Dec-08 C		
	263	Dec-08 D		
	264	Dec-08 E		
	265	Dec-08 F		
	266	Dec-08 G		
	267	Dec-08 H		

Subtotal Work Order Inventories \$0.00 0.00

* YTBS/P - Yes to be Submitted or Partial. Insert a "Y" for Yet to be Submitted or "P" if the Work Order Summary or SE Summary is a Partial

COST ESTIMATE AND LOAN BUDGET FOR ELECTRIC BORROWERS		BORROWER AND LOAN DESIGNATION	
SECTION A. COST ESTIMATES (cont.)		BORROWER'S COST ESTIMATES	RUS USE ONLY
1400	5. ACQUISITIONS		
1401	a. _____ Consumers _____ Miles	\$0	
1402	b. _____	0	
	TOTAL ACQUISITIONS.....	\$0	
1500	6. ALL OTHER		
1500-01	a Liberal Spare Yrtd - Oil containment and Pad	\$150,000	
1500-02	b Fence and Grounding for System Wide Substations	200,000	
1503	c. _____	0	
1504	d. _____	0	
1505	e. _____	0	
	TOTAL ALL OTHER.....	\$350,000	
SECTION B. SUMMARY OF AMOUNTS AND SOURCES OF FINANCING			
1. GRAND TOTAL - ALL COSTS		\$53,465,190	
2. FUNDS AND MATERIALS AVAILABLE FOR FACILITIES			
a.	Loan Funds	\$0	
b.	Materials and Special Equipment	0	
c.	General Funds		
	Purpose 1	\$0	
	Purpose 2	\$0	
	Purpose 3	\$0	
	Purpose 4	\$0	
	Purpose 5	\$0	
	Purpose 6	\$0	
	Total General Funds Applied	\$0	
d.	Total Available Funds and Materials	\$0	
3. NEW FINANCING REQUESTED FOR FACILITIES		\$53,465,190	
4. RUS LOAN REQUESTED FOR FACILITIES.....		100%	\$53,465,000
5. TOTAL SUPPLEMENTAL LOAN REQUESTED		\$190	
National Rural Utilities Cooperative Finance Corporation			
Name of Supplemental Lender			
6. CAPITAL TERM CERTIFICATE PURCHASES (CFC Loan only)		0%	\$0
7. SUPPLEMENTAL LOAN REQUESTED FOR FACILITIES.....		0%	\$190
8. 100% SUPPLEMENTAL LOANS (SEE RUS Bulletin 20-14)*			\$0
<small>* Identify in section A by budget purpose and separate subtotals.</small>			
SECTION C. CERTIFICATION			
We, the undersigned, certify that:			
1. Upon completion of the electrical facilities contained herein and any others uncompleted at this time but for which financing is available, the system will be capable of adequately and dependably serving the projected load for the loan period as contained in our current RUS approved Power Requirement Study and Construction Work Plan.			
2. Negotiations have been or will be initiated with our power supplier, where necessary, to obtain new delivery points and/or additional capacity at existing ones to adequately supply the projected load upon which this loan application is based.			
3. The data contained herein and all supporting documents have, to the best of my knowledge, been prepared correctly and in accordance with 7 CFR 1710.401(a)(3)			
_____		_____	
Date		Signature of Borrower's Manager	
_____		_____	
Date		Signature of Borrower's President	

Corporate Name of Borrower			
GFR Initials _____			

Attachment to 740c

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Borrower and Loan Designation

STATEMENT

Statement certifying that at least 90% of the Loan funds are for facilities with a useful life of 33 years or longer as required by 7 CFR 1710.115.

To facilitate the determination of the final maturity for this RUS Loan,

0

does hereby certify that:

At least 90% of the Loan funds requested as part of this loan application and included on the RUS Form 740c (Cost Estimates and Loan Budget for Electric Borrowers) are for facilities with an anticipated useful life of 33 years or longer.

Less than 90% of the Loan funds requested as part of this loan application and included on the RUS Form 740c (Cost Estimates and Loan Budget for Electric Borrowers) are for facilities with an anticipated useful life of 33 years or longer. A schedule has been attached to this statement listing the facilities with an anticipated useful life of less than 33 years, the anticipated useful life of those facilities and the associated cost estimates (see attached).

Date

Title:

Useful Life Certification

INSTRUCTIONS FOR PREPARATION OF RUS FORM 740c
(See 7 CFR 1710, Subpart I, for Additional Information)

If additional space is required for any item, attach continuation sheets as needed.

Prepare an original and one copy of this form for submission to RUS as part of the loan application.

Insert the borrower and loan designation, the date used for preparation of cost estimates, and the number of years the application is to cover.

SECTION A. COST ESTIMATES

The borrower should insert cost estimates only in the column titled "Borrower's Cost Estimates." RUS will complete the column headed "RUS Use Only" when the borrower's cost estimate varies from RUS's.

Estimates should be obtained from a current construction Work Plan which is in agreement with an approved long-range engineering study.

All estimates shown hereon should include material, labor and overhead costs, less any contributions in aid of construction (i.e., NET COST).

Where reimbursement of general funds for completed construction is requested, insert the amount under the appropriate budget purpose. On a separate sheet, itemize and describe the general fund expenditures to be reimbursed, showing applicable budget purpose and amount per item.

1. DISTRIBUTION:

a. NEW LINE:

Insert number of consumers, number of miles, and total estimated cost including R/W clearing. (Estimates for underground and overhead construction should be shown separately.) Do not duplicate costs shown separately in items 1.f. and 1.g. Indicate the number of total new consumers to be served and total of new miles to be constructed. (Miles of secondary, services and underbuild should be included in the pole line miles shown.)

b. NEW TIE-LINES:

Show location by map reference and substation designation, line voltage (kV), conductor size and phasing, miles and estimated cost of each new tie-line. Also show whether the construction is overhead or underground. If there is insufficient space to itemize each tie-line, insert the total miles and estimated cost and give a description of each tie-line on an attached sheet.

c. CONVERSION AND LINE CHANGES:

Show location by map reference and substation designation, indicate old and new conductor size and phasing, miles, and estimated cost. Also show whether the construction is overhead or underground. If there is insufficient space to itemize each conversion and line change, insert the total estimated cost and give a detailed description of each conversion and line change on an attached sheet.

d. NEW SUBSTATIONS, SWITCHING STATIONS, METERING POINTS, ETC.:

For each new station, insert the station designation shown in the Construction Work Plan, the kVA rating, high and low side voltage classification, and estimated cost. (If procurement of station sites is to be financed with loan funds, the cost should be included in the estimate for the station.)

e. **SUBSTATION, SWITCHING STATION AND METERING POINT CHANGES:**

Identify each station by the designation shown in the Construction Work Plan and describe the changes to be made and the estimated cost.

f. **MISCELLANEOUS DISTRIBUTION EQUIPMENT:**

(1) Show the number and the total estimated installed cost of all transformers and meters used to serve new and existing consumers in this loan. Furnish separate estimates for underground and overhead construction.

(2) Insert the number of sets of service wires and estimated cost in this loan application to increase the capacity of existing consumers.

(3)-(5) Insert the estimated cost of new sectionalizing equipment, line voltage regulators and capacitors.

(6) Insert the net cost of ordinary replacements (installed cost of new facility less original cost of facility being replaced).

(7)-(10) Use these lines to show the estimated cost of other distribution equipment not listed above.

g. **OTHER DISTRIBUTION ITEMS:**

(1) Insert estimated cost of engineering fees (include details in the Construction Work Plan). Only those engineering costs associated with distribution facilities and not included in the cost estimates for items i.a. through i.f. should be included (i.e., long-range plans, sectionalizing studies, etc.).

(2) Insert the estimated cost of security lights.

(3) and (4) Use these lines to show purpose, type, and estimated cost of other distribution items not listed above.

TOTAL DISTRIBUTION: Enter the sum of subtotals i.a. through i.g. above.

2. **TRANSMISSION:**

a. **NEW LINE:**

For each new line, insert the line designation (i.e., Westover to Shady Grove) as shown in the Construction Work Plan, line voltage (kV), wire size, miles, and total estimated cost including R/W clearing.

b. **NEW SUBSTATIONS, SWITCHING STATIONS, ETC.:**

For each new station, insert the station designation as shown in the Construction Work Plan, kVA rating, high and low side voltage classification, and estimated cost. (New stations under this item should not be mistaken for new stations under Item 1 - Distribution. Any station not used for distribution purposes shall be considered a transmission station, except for the generating plant step-up substation which should be shown under Item 3.) If procurement of station sites is to be financed with loan funds, this cost should be included in the estimate for the station.

c. **LINE AND STATION CHANGES:**

For each conversion or line change, insert the line or station designation as shown in the Construction Work Plan, a description of changes, and the total estimated cost.

d. **OTHER TRANSMISSION ITEMS:**

- (1) Insert all cost anticipated for the purchase, and/or procurement of transmission line right-of-way except attorney fees and clearing, which should be shown under Items 6 and 2.a., respectively.
- (2) Insert the estimated cost of engineering fees (including details in the Construction Work Plan). Only those engineering costs associated with transmission projects, and not already included in the line and station cost estimates of Item 2.a., b. and c., should be shown (i.e., environmental reports, system studies, etc.).
- (3) - (6) Use these lines to show purpose, type, and estimated cost of transmission items not listed above (i.e., transmission-related communications or control equipment, etc.).

TOTAL TRANSMISSION: Enter the sum of subtotals 2.a through 2.d. above.

3. **GENERATION (including step-up station at plant):**

- a. Insert the kind of fuel to be used in the plant, the nameplate rating (kW), and the total estimated cost. (A detailed breakdown of each proposed generation project should be attached to this form, indicating the various items for which financing is requested. This breakdown should be in the form of, or supported by, an engineer's report.)
- b. Use this line to show the estimated cost of generating facilities not included above.

TOTAL GENERATION: Enter the sum of Items 3.a. and 3.b. above.

4. **HEADQUARTERS FACILITIES**

a. **NEW OR ADDITIONAL FACILITIES:**

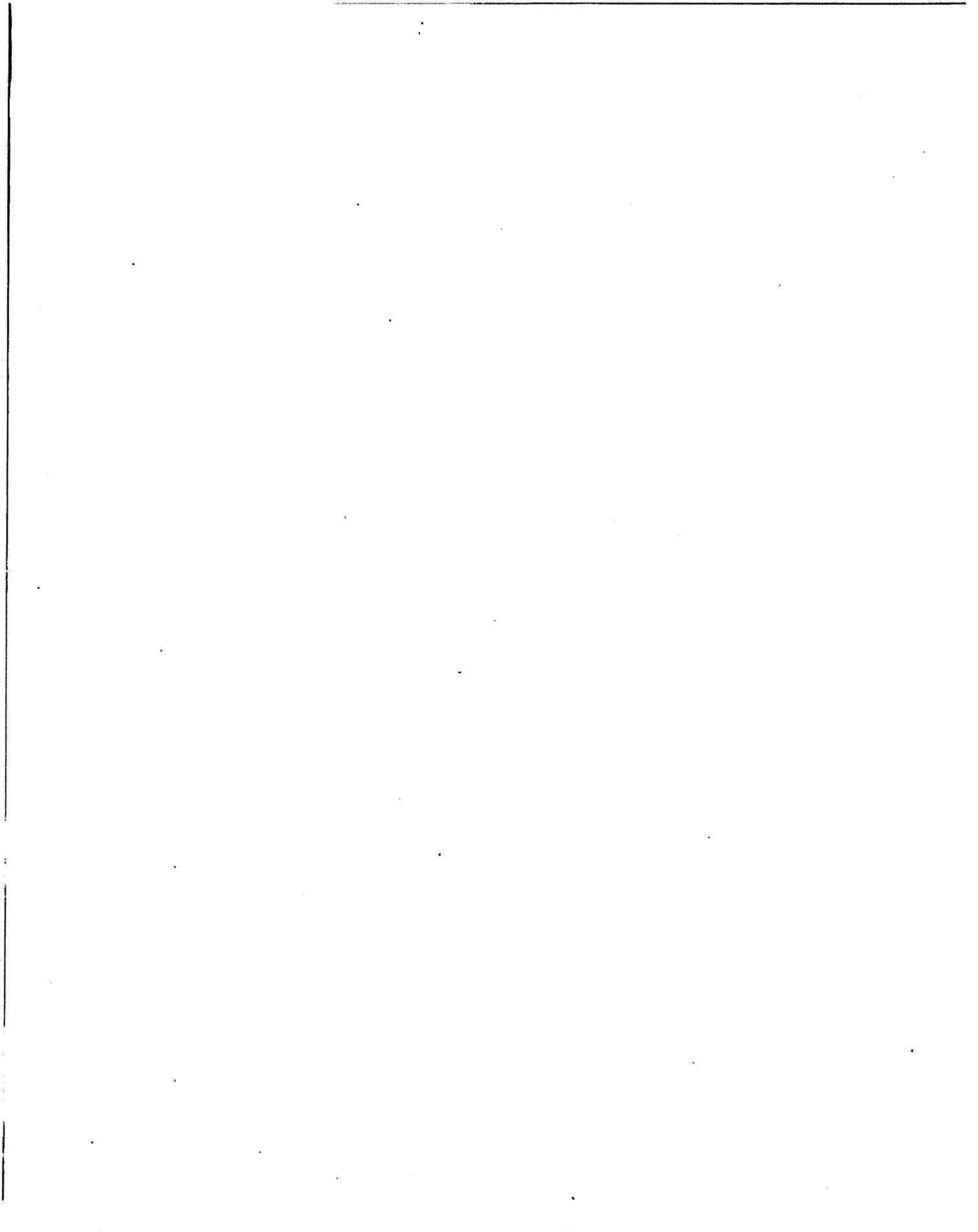
Insert total estimated cost. Complete and attach an original and one copy of RUS Form 740g for each project. (See Instructions on reverse of RUS form 740g.)

- b. Use this line to show the estimated cost of headquarters facilities not included above.

TOTAL HEADQUARTERS FACILITIES: Enter the total of Items 4.a. and 4.b. above.

5. **ACQUISITIONS:**

- a. Insert the number of consumers, miles or line to be acquired, and the total cost of the proposed acquisition. On a separate sheet, itemize: (1) the approximate purchase price of the acquisition; (Give breakdown and apportioned purchase price of distribution, transmission and/or generating plant facilities.) (2) a description and estimated costs of rehabilitation and integration; (3) Engineering fees.
- b. Use this line to show the kinds and estimated cost of facilities to be acquired not included above.



TOTAL ACQUISITIONS: Enter the total of Items 5.a. and 5.b. above.

6. ALL OTHER:
a. - e.

These lines are to be used for costs not listed above, such as legal fees, general plant equipment, etc. (Funds for general plant equipment generally will only be approved in initial loans.) All requests for funds under this budget purpose should be accompanied by a breakdown and justification for the requested funds.

TOTAL ALL OTHER: Enter the sum of Items 6.a. through 6.d. above.

SECTION B. SUMMARY OF AMOUNTS AND SOURCES OF FINANCING

Note: Items 1 and 3 below may require adjustment before entering in final form (see "ADJUSTMENT" below). All other items may be entered in final form.

1. GRAND TOTAL - ALL COSTS:

Insert the total of Budget Purposes 1 through 6 above.

2. FUNDS AND MATERIALS AVAILABLE FOR FACILITIES:

a. LOAN FUNDS:

Insert the total amount of funds available from prior loans, as of the "Cut-Off" date, which are not required for original loan purposes. Attach RUS Form 602 and an explanation if necessary.

b. MATERIALS AND SPECIAL EQUIPMENT:

Insert the dollar value of materials and special equipment on hand which will be used for the proposed construction. Attach information identifying, by budget purpose, the kinds of materials or special equipment being applied to this loan and their dollar value. Do not include materials and special equipment needed for normal operation of the system.

c. GENERAL FUNDS:

Insert the total amount of general funds available for construction of the facilities listed (i.e., general funds now available plus general funds to become available during the loan period.) For existing general funds, attach a statement indicating the need for any adjusted general funds in excess of RUS guidelines which will not be used for the proposed construction (attach RUS Form 740a).

d. TOTAL AVAILABLE FUNDS FOR FACILITIES:

Insert the total of Items 2.a., b. and c. of this section and enter as Item 2.d.

3. NEW FINANCING REQUESTED FOR FACILITIES:

Subtract Item 2.d. from Item 1 and enter as Item 3.

4. RUS LOAN REQUESTED FOR FACILITIES:

Insert the percentage of plant financing to be obtained from RUS (see 7 CFR 1710.110). Multiply Item 3 by the decimal equivalent of this percentage; round to the nearest thousand and enter as Item 4.

5. TOTAL SUPPLEMENTAL LOAN REQUESTED:

Insert the percentage of plant financing to be obtained from a supplemental lender and the lender's corporate name. Multiply Item 3 by the decimal equivalent of this percentage and round to the nearest thousand.

Note: Where CFC is the supplemental lender, the result of the above calculation should be divided by 0.95 before rounding to the nearest thousand.

6. CAPITAL TERM CERTIFICATE PURCHASES (CFC LOANS ONLY):

Multiply Item 5 by 0.05 and enter as Item 6. For loans made by supplemental lenders other than CFC, enter zero.

7. SUPPLEMENTAL LOAN REQUESTED FOR FACILITIES:

Subtract Item 6 from Item 5 and enter as Item 7.

ADJUSTMENT: After the above calculations have been completed, adjust Item 3 such that it equals Item 4 plus Item 7. Next adjust Item 1 and a cost estimate in Section A such that Item 2 plus Item 3 equals Item 1.

SECTION C. CERTIFICATION

Manager and board president must sign and date form (original and one copy). Insert borrower's corporate name.

Section I
Executive Summary

Summary of Plant Investment

Table 1-6 is a summary of the estimated plant investment for each of the next 10 years. The first four years correspond to this 2010-2014 CWP. The estimates for distribution system projects from 2014 through 2019 are based on an average of the projects' costs from 2011 through 2014 and an increase of 5% per year for inflation. The transmission system project estimates from 2014 through 2019 are based on expected future transmission system projects.

Table 1-6

Four-Year Summary of Plant Investment

<u>Year</u>	<u>Specified Distribution Projects</u>	<u>Unspecified Distribution Projects</u>	<u>Total Distribution</u>	<u>Transmission System Project</u>	<u>Headquarters Facilities & Other</u>	<u>Grand Total</u>
2011	\$6,364,400	\$3,522,010	\$9,886,410	\$6,445,000	\$800,000	\$17,131,410
2012	\$1,799,000	\$2,812,260	\$4,611,260	\$4,104,000	\$50,000	\$8,765,260
2013	\$2,160,000	\$2,852,260	\$5,012,260	\$5,304,000	\$50,000	\$10,366,260
2014	\$4,800,000	\$2,812,260	\$7,612,260	\$7,140,000	\$2,450,000	\$17,202,260
Total:	\$15,123,400	\$11,998,790	\$27,122,190	\$22,993,000	\$3,350,000	\$53,465,190
Four Year Average:	\$3,780,850	\$2,999,698	\$6,780,548	\$5,748,250	\$837,500	\$13,366,298

Forecast of Plant Investment

<u>Year</u>	<u>Specified Distribution Projects</u>	<u>Unspecified Distribution Projects</u>	<u>Total Distribution</u>	<u>Transmission System Project</u>	<u>Headquarters Facilities</u>	<u>Grand Total</u>
2015	\$3,969,893	\$3,149,682	\$7,119,575	\$6,035,663	\$879,375	\$14,034,612
2016	\$4,168,387	\$3,307,166	\$7,475,554	\$6,337,446	\$923,344	\$14,736,343
2017	\$4,376,806	\$3,472,525	\$7,849,331	\$6,654,318	\$969,511	\$15,473,160
2018	\$4,595,647	\$3,646,151	\$8,241,798	\$6,987,034	\$1,017,986	\$16,246,818
2019	\$4,825,429	\$3,828,459	\$8,653,888	\$7,336,385	\$1,068,886	\$17,059,159
2020	\$5,066,701	\$4,019,882	\$9,086,582	\$7,703,205	\$1,122,330	\$17,912,117
2021	\$5,320,036	\$4,220,876	\$9,540,911	\$8,088,365	\$1,178,447	\$18,807,723

Section II
Basis of Study and Proposed Construction

Southern Pioneer Electric Company

Kansas - 060 - Barber

2011 - 2014 Construction Work Plan

Section II
Basis of Study and Proposed Construction

Design Criteria

The proposed construction is required to meet the following minimum standards of adequacy for voltages, safety, and reliability.

1. The maximum voltage drop on primary distribution lines is not to exceed 8 volts, (120 volt base), after re-regulation.
2. The maximum voltage drop on primary distribution lines is not to exceed 16 volts, (120 volt base), unregulated.
3. The minimum voltage on primary distribution lines is not to drop below 118 volts, (120 volt base).
4. The maximum voltage on primary distribution lines not to exceed 126 volts, (120 volt base).
5. Poles and/or cross arms are to be replaced if found to be physically deteriorated by visual inspection and/or tests.
6. Conductors (and associated poles and hardware as required) are to be replaced if conductor is old, in poor condition, has excessive sag, or is found to contain an average of over 2 splices per phase per span in a 1 mile section.
7. Primary distribution lines are to be rebuilt and/or relocated if they are found to be unsafe or in violation (when constructed) of the current National Electric Safety Code or other applicable code clearances.

Section II
Basis of Study and Proposed Construction

8. Transformers are to be replaced for any thermal loading found to be in excess of 105% of the nameplate rating.
9. System improvements are to be considered, and made if necessary, in specific areas where members have experienced excessive outages, excluding outages cause by major storms or the power supplier.
10. New primary conductor sizes are to be determined on a case by case basis using WindMil software, a trademark of Milsoft Utility Solutions, Inc. (www.milsoft.com). The final proposed conductor may be modified to conform to the cooperative's standard sizes and recommendations.
11. All new primary construction is to be overhead except where underground is required to comply with governmental or environmental regulations, local restrictions, or favorable economics.
12. All new transmission and distribution lines to be designed and built according to RUS standard construction specifications and guidelines.
13. Distribution lines are to be re-phased if completion will result in a loss savings of 0.5 kilowatts or greater.

Distribution Line and Equipment Installed Costs (2010 dollars)

Prices based on 20 poles per mile of single phase and 22 poles per mile of three-phase. The figures are based on the most current costs of labor, transportation and material (all of which are included in the \$/mile) with variables not included such as weather conditions, rock, clearing of rite of way and other unexpected costs. Prices reflect under-build (UB) and over-head (OH) pricing plus 10% engineering overhead.

New Lines – Distribution

	<u>\$/Mile</u>
Three Phase; OH, 477 ACSR	90,000
Three Phase; OH, T2 4/0 ACSR	90,000

Section II
Basis of Study and Proposed Construction

Three Phase; OH, T2 1/0 ACSR	70,000
Three Phase; OH, 4/0 ACSR	70,000
Three Phase; OH, #2 ACSR	60,000

New Lines – Transmission

	<u>\$/Mile</u>
Three Phase; OH, 477 ACSR	120,000
Three Phase; OH, T2 4/0 ACSR	120,000
Three Phase; OH, T2 1/0 ACSR	90,000

Line Regulators

	<u>\$/Unit/Phase w/Labor</u>
50 Amp – Single Phase	6,500
75 Amp – Single Phase	7,000
100 Amp – Single Phase	8,500
150 Amp – Single Phase	10,000
219 Amp – Single Phase	15,000
330 Amp – Single Phase	20,000
Removal	1,500
Relocation	1,500

Capacitors

	<u>\$/Unit/Phase w/Labor</u>
50 kVAR – Fixed	800
100 kVAR – Fixed	850
150 kVAR – Fixed	900
200 kVAR – Fixed	950
300 kVAR – Fixed	1,050

Section II
Basis of Study and Proposed Construction

Switch Controls	20,000
Removal	325
Relocation	500

Economic Assumptions

Annual cost of peak kW losses for 34.5kV substations

Cimarron Substation	392 \$/kW
Cudahy Substation	269 \$/kW
East Liberal Substation	304 \$/kW
East Pine Substation	207 \$/kW
Greensburg Substation	183 \$/kW
Medicine Lodge Substation	209 \$/kW
North Liberal Substation	245 \$/kW
Pratt Substation	290 \$/kW
Satanta Substation	245 \$/kW
Sun City Substation	178 \$/kW
Tice Substation	244 \$/kW
West Liberal Substation	215 \$/kW

Annual cost of peak kW losses for 13.8kV substations

4 th & Oklahoma Substation	207 \$/kW
15 th Street Substation	215 \$/kW
Coldwater Substation	178 \$/kW
Cunningham Substation	290 \$/kW
East Liberal Substation	304 \$/kW
East Pine Substation	207 \$/kW
Englewood Substation	225 \$/kW

Section II
Basis of Study and Proposed Construction

Fowler Substation	269 \$/kW
H & H Substation	209 \$/kW
Haviland Substation	290 \$/kW
Medicine Lodge Substation	209 \$/kW
Minneola Substation	225 \$/kW
North Walnut Substation	209 \$/kW
Plains Substation	304 \$/kW
Pratt Substation	290 \$/kW
Satanta City Substation	245 \$/kW
Sharon Substation	209 \$/kW
Sublette Substation	245 \$/kW
Sun City Substation	178 \$/kW
Tice Substation	244 \$/kW
Tucker Road Substation	215 \$/kW
West Liberal Substation	215 \$/kW
West Pine Substation	207 \$/kW

Estimated annual cost of peak kW losses on new substations

Mead Lake Road Substation	304 \$/kW
Semcrude Substation	290 \$/kW
Southwestern Heights Substation	304 \$/kW

Annual power cost increase = 3.0%

Present worth discount factor = 5.0%

Compound annual load growth rate expected = 2.0%

System average power factor = 96.7%

Average annual load factor = 61.5%

Life expectancy for distribution line = 30 years

Section II
Basis of Study and Proposed Construction

Life expectancy for URD distribution and sub-transmission = 20 years

Life expectancy for capacitors = 10 years

Life expectancy for voltage regulators = 10 years

Study of Southern Pioneer Electric Company Previous 2004-2007 CWP Items

<u>Code</u>	<u>Substation/Circuit</u>	<u>Project Description</u>	<u>Cost</u>	<u>Status</u>
301	Med. Lodge – 0846	Reconductor 4.0 miles of 3- Φ line using T2 Raven	\$160,000	Carry-Over
302	Med. Lodge – 0846	Replace Poles	\$105,000	Carry-Over
303	Med. Lodge – R0019	Lake arrowhead Rebuild add Neutral 2.0 miles	\$80,000	Completed
304	Med. Lodge – R0019	Lake arrowhead Replace Poles 2.0 miles	\$70,000	Completed
305	Med. Lodge – R0019	West to 99 Springs Rebuild access 5.0 miles	\$39,300	Completed
306	Pratt – R4073	Replace poles add neutral 40 poles 2.0 miles	\$100,000	Completed
307	Pratt – R4073	J&J ranch replace poles add neutral 4.0 miles	\$280,000	Completed
308	Cunningham – R4048	Add neutral Benny Bach rural 5.0 miles	\$250,000	Completed
309	242 – 702	Rebuild 8 th street Liberal Road Move 2.0 miles	\$240,000	Completed
310	242 – 704	Rebuild add distribution between Sublette and Tice 4.0 miles	\$300,000	Drop
311	266 – 720	Rebuild Coldwater to Greensburg All poles new T2 Raven 21.0 miles	\$1,764,000	Completed

Section II
Basis of Study and Proposed Construction

Code	Substation/Circuit	Project Description	Cost	Status
312	241 - 798	Minneola to Englewood 20 structures 1.0 miles	\$60,000	Drop
313	242 - 704	Replace 35 structures Satanta to Sublette 1.75 miles	\$112,000	Drop
314	266 - 722	Replace structures Medicine Lodge to Kiowa 7.0 miles	\$420,000	Completed
315	266 - 722	Replace #4 copper conductor with T2 Raven 1.0 miles	\$40,000	Completed
316	266 - 722	Add Neutral	\$70,000	Completed
317	266-725 (FEMA)	Replace 88 structures Haviland to 4 corners	\$270,000	Drop
318	266-725 (FEMA)	Add neutral or shield	\$85,000	Drop
501	112 Sharon	Rebuild and reconfigure equipment to comply with NESC Code	\$500,000	Carry-Over
502	054 Kismet	Rebuild Move to comply with NESC and water issues	\$500,000	Drop
503	278 Okie Pipeline	Rebuild to Comply with NESC Code	\$500,000	Drop
504	178 Englewood	Rebuild and reconfigure equipment to comply with NESC Code	\$500,000	Carry-Over
505	296 H&H	Rebuild and reconfigure equipment to comply with NESC Code	\$500,000	Drop

Section II
Basis of Study and Proposed Construction

<u>Code</u>	<u>Substation/Circuit</u>	<u>Project Description</u>	<u>Cost</u>	<u>Status</u>
506	408 Pratt	Rebuild and reconfigure equipment to comply with NESC Code	\$500,000	Carry-Over
507	Coats	<i>Amendment</i> Build new 34.5/13.8kV Substation	\$600,000	Carry-Over

Miscellaneous Distribution Equipment (Code 600 Projects)

<u>Code</u>	<u>Substation/Circuit</u>	<u>Project Description</u>	<u>Cost</u>	<u>Status</u>
601	System-wide	Transformers and Meters	\$1,462,676	Completed
602	System-wide	Sets of Service Wires to Increase Capacity	\$125,500	Completed
603	System-wide	Sectionalizing Equipment	\$210,000	Completed
604	System-wide	Regulators	\$30,261	Completed
605	System-wide	Capacitors	\$10,610	Completed
606	System-wide	Ordinary Replacements	\$3,356,118	Completed
702	System-wide	Security Lights	\$50,000	Completed

* "Incomplete" projects are defined as not done or not done according to the previous CWP description.

** Based on most recent models provided by SPEC.

Section II
Basis of Study and Proposed Construction

Analysis of Long Range Plan

Recommendations from the four-year CWP dramatically reduce system losses and improve system reliability. This supports a long-term outlook for Southern Pioneer on investments and benefits the future. These benefits include covering Southern Pioneer's load expansion, load growth, and offer the least amount of cost to their Co-op.

Analysis of Operations and Maintenance Surveys

As indicated by the Southern Pioneer's RUS Form 300, completed in December 2009, the engineering and the operation and maintenance programs were found to be satisfactory with some exceptions. Southern Pioneer's primary goals since their previous work-plan include continued work on projects such as Osmose inspection and replacement, copper replacement, and open wire secondary replacements. One particular goal Southern Pioneer would like to address is distribution transformer loading. SPEC has addressed the issue by adding plans to feed 13.8kV distribution from new 115/13.8kV transformers located in North Liberal and West Liberal substations. This is especially important to increase transformer capacity during contingency conditions. Also, Southwestern Heights, a new 115/34.5kV substation will be added south of Plains to eliminate low voltages in the area during contingency conditions.

Service Reliability

Service reliability is one of the most important measures of the quality of service to consumers. The general public is growing accustomed to nearly uninterrupted service. Numerous or extended power outages have a detrimental effect on public relations and consumer confidence in the performance of Southern Pioneer. Complying with the increasing demand for greater service continuity requires diligence in performing daily operation and maintenance activities, routine inspection of main feeder lines, careful attention to system planning, and a properly designed and maintained protective coordination scheme. The average annual outage time per consumer by cause for year 2009 is shown in table 2-1. The one year average annual hours of outage per

Section II
Basis of Study and Proposed Construction

customer was 100.39 minutes, which does not exceed the RUS goal of an average of 120 minutes or less.

As indicated by table 2-1, 66.95 percent of the average annual hours outages are attributable to the major storms. Southern Pioneer's Osmose Inspections and Copper Replacement Programs will reduce future exposure to storm damage.

Table 2-1
SPEC Summary of Average Consumer Minutes Interruption Time

<u>Year</u>	<u>Power Supplier</u>	<u>Major Storm</u>	<u>Scheduled</u>	<u>All Other</u>	<u>Total</u>
2009	19.33	3.60	13.86	67.21	100.39

Section III
Required Construction Items

Southern Pioneer Electric Company
Kansas - 060 - Barber

2011 - 2014 Construction Work Plan

Section III
Required Construction Items

Cost of Line Construction for New Overhead/Underground Services

	<u>Actual</u> <u>2008</u>	<u>Estimated</u> <u>2011</u>	<u>Estimated</u> <u>2012</u>	<u>Estimated</u> <u>2013</u>	<u>Estimated</u> <u>2014</u>	<u>Estimated</u> <u>2011-2014</u>
Number of New						
Overhead/URD Services	44	44	44	44	44	176
Primary Line Required	15	15	15	15	15	60
Service Drop Only	29	29	29	29	29	116
Lineal Feet of New						
Overhead/URD Line	29,700	29,700	29,700	29,700	29,700	118,800
Single-phase Primary	6,750	6,750	6,750	6,750	6,750	27,000
Two-phase Primary	0	0	0	0	0	0
Three-phase Primary	3,375	3,375	3,375	3,375	3,375	13,500
Service Drop	19,575	19,575	19,575	19,575	19,575	78,300
Average Length /						
Overhead/URD Member	675	675	675	675	675	675
Cost of New						
Overhead/URD Line	\$5,812,611	\$1,287,975	\$1,352,650	\$1,420,250	\$1,491,100	\$5,551,975
Single-Phase Primary	\$45,450	\$45,450	\$45,450	\$45,450	\$45,450	\$181,800
Two-Phase Primary	\$0	\$0	\$0	\$0	\$0	\$0
Three-Phase Primary	\$22,725	\$22,725	\$22,725	\$22,725	\$22,725	\$90,900
Service Drop	\$131,805	\$131,805	\$131,805	\$131,805	\$131,805	\$527,220
Average Cost /						
Overhead/URD Member	\$4,545	\$4,545	\$4,545	\$4,545	\$4,545	\$4,545

Section III
Required Construction Items

Distribution Lines – Changes

New Distribution Construction Item – New Line – 13.8 kV – Englewood

Year: 2012

CFR Code: 200-01

Estimated Cost: \$105,000

Description of Proposed Construction

Construct 1.5 miles of three-phase T2 1/0 ACSR underbuild south of Exchange Pt. 5 (Minneola) located between line section NE1/4 Sec 14, T30S R25W and line section SE1/4 Sec 14, T30S R25W.

Reasons for Proposed Construction

- 1) Due to the implementation of water wells south of Englewood Junction, Southern Pioneer Electric Company deems it beneficial to place the load on the 13.8kV circuit underbuild to provide relief for 34.5kV circuit going south to Englewood.
- 2) To serve the new water wells, the 13.8kV circuit underbuild must be extended.

New Distribution Construction Item – New Line – 13.8 kV – Mead Lake Road - Kismet

Year: 2011

CFR Code: 200-02

Estimated Cost: \$210,000

Description of Proposed Construction

Construct 3.0 miles of three-phase T2 1/0 ACSR between the new Mead Lake Road Substation and Kismet located between line sections at SW1/4 Sec. 18, T33S R31W and E1/2 Sec. 4, T33S R31W.

Reasons for Proposed Construction

- 1) New line is needed to feed the city of Kismet from the new Mead Lake Road Substation that combines the existing Okie and Kismet Substations.

Section III
Required Construction Items

New Distribution Construction Item – New Line – 13.8 kV – Mead Lake Road - Okie

Year: 2011

CFR Code: 200-03

Estimated Cost: \$140,000

Description of Proposed Construction

Construct 2.0 miles of three-phase 13.8kV T2 I/O ACSR line underbuild (34.5kV circuit) between the new Mead Lake Road Substation and Okie located between line sections at SW1/4 Sec. 18, T33S R31W and W1/2 Sec. 24, T33S R32W.

Reasons for Proposed Construction

- 1) New line is needed to feed Okie distribution from the new Mead Lake Road Substation that combines the existing Okie and Kismet Substations.

New Distribution Construction Item – Overhead – 13.8 kV – Medicine Lodge - 0846

Carry-Over

Year: 2011

CFR Code: 300-01

Estimated Cost: \$160,000

Description of Proposed Construction

Rebuild and reconductor 4.0 miles of three-phase 13.8kV line to T2 I/O ACSR north of Medicine Lodge located between line sections SE1/4 Sec 2, T32S R12W and N1/2 Sec 25, T31S R12W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.

Section III
Required Construction Items

- a. Circuit losses will improve by 2 kW at peak demand (saving: 6,751 kWh/yr; \$419/yr; Present Worth = \$9,175).
- b. The voltage at the end of line section S1/2 Sec 24 T31S R11W of the Medicine Lodge 0846 circuit will improve from 118.7 volts to 119.5 volts.

New Distribution Construction Item – Overhead – 13.8 kV – Medicine Lodge - 0846

Carry-Over

Year: 2011

CFR Code: 300-02

Estimated Cost: \$105,000

Description of Proposed Construction

Replace poles along the Medicine Lodge-0846 circuit as necessary.

Reasons for Proposed Construction

- 1) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.

New Distribution Construction Item – Overhead – 13.8 kV – Medicine Lodge – Nashville

Year: 2011

CFR Code: 300-25

Estimated Cost: \$420,000

Description of Proposed Construction

Rebuild and re-conductor 6.0 miles of three-phase 13.8kV line from varying conductor to T2 1/0 ACSR between Isabel Road and Nashville located between line sections at NW1/4 Sec 16, T30S R11W and NE1/4 Sec 17, T30S R10W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.

Section III
Required Construction Items

- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.

New Distribution Construction Item – Overhead – 13.8 kV – Medicine Lodge - east

Year: 2011

CFR Code: 300-26

Estimated Cost: \$175,000

Description of Proposed Construction

Rebuild and reconductor 2.5 miles of two-phase 13.8kV line from varying conductor to three-phase T2 1/0 ACSR east of Medicine lodge between line sections at W1/2 Sec. 8, T32S R11W and SE1/4 Sec. 9, T32S R11W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

New Distribution Construction Item – Overhead – 13.8 kV – Haviland –
(Line Number 266-727 A)

Year: 2011

CFR Code: 300-27

Estimated Cost: \$245,000

Description of Proposed Construction

Rebuild and reconductor 3.5 miles of three-phase 13.8kV line underbuild (34.5kV circuit) from varying conductor to T2 1/0 ACSR Wellsford and SW120th along Highway 54 located between line sections at W1/2 Sec 12, T28S R16W and E1/2 Sec 9, T28S R15W.

Section III
Required Construction Items

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 10 kW at peak demand (saving: 46,775 kWh/yr; \$2,900/yr; Present Worth = \$63,567).
 - b. The voltage at the end of line section NE1/4 Sec 9 T28S R15W of the Haviland east circuit will improve from 133.3 volts to 115.5 volts.

New Distribution Construction Item – Overhead – 13.8 kV – East Liberal – River

(Line Number 242-701)

Year: 2014

CFR Code: 300-28

Estimated Cost: \$770,000

Description of Proposed Construction

Rebuild and reconductor 11.0 miles of three-phase 13.8kV line underbuild (34.5kV circuit) from varying conductor to T2 1/0 ACSR northeast of East Liberal located between line sections at NE1/4 Sec 34, T34S R33W and Sec 25, T33S R32W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Section III
Required Construction Items

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.

New Distribution Construction Item – Overhead – 13.8 kV – East Liberal – Kismet to
Plains (Line Number 242-701)

Year: 2014

CFR Code: 300-29

Estimated Cost: \$140,000

Description of Proposed Construction

Rebuild and re-conductor 2.0 miles of three-phase 13.8kV line underbuild (34.5kV circuit) from varying conductor to T2 1/0 ACSR between Kismet and Plains located between line sections at NE 1/4 Sec 20, T32S R30W and N1/2 Sec 30 T32S R30W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 1 kW at peak demand (saving: 3,376 kWh/yr; \$209/yr; Present Worth = \$4,581).
 - b. The voltage at the end of line section N1/2 Sec 30 T32S R30W of the East Liberal northeast circuit will improve from 125.2 volts to 125.3 volts.

Section III
Required Construction Items

New Distribution Construction Item – Overhead – 13.8 kV – East Liberal – Plains CMS
(Line Number 242-703 A)

Year: 2014

CFR Code: 300-30

Estimated Cost: \$70,000

Description of Proposed Construction

Rebuild and reconductor 1.0 miles of three-phase 13.8kV line underbuild (34.5kV circuit) from varying conductor to T2 1/0 ACSR between Plains and CMS Copeland located between line sections at SE1/4 Sec 17, T32S R30W and NE1/4 Sec 8, T32S R30W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will decrease voltage drop.
 - a. The voltage at the end of line section NE1/4 Sec 17 T32S R30W of the East Liberal northeast circuit will improve from 124.8 volts to 125.1 volts.

New Distribution Construction Item – Overhead – 13.8 kV – East Liberal –
(Circuit north-122)

Year: 2011

CFR Code: 300-31

Estimated Cost: \$225,000

Description of Proposed Construction

Rebuild and reconductor 2.5 miles of three-phase 13.8kV line underbuild (34.5kV circuit) from varying conductor to T2 4/0 ACSR on the East Liberal north circuit to the North Liberal

Section III
Required Construction Items

Substation for anything that is not T2 4/0 ACSR located between line sections at NW1/4 Sec. 35, T34S R33W to W1/2 Sec. 27, T34S R33W. (Refer to Appendix A)

Reasons for Proposed Construction

- 1) During an analysis of switching scenarios for the Liberal area, it was found that this line section overloaded for backfeed scenarios.
- 2) The water pumping station located on the end of the feed is a large load and causes voltage issues.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 47 kW at peak demand (saving: 230,323 kWh/yr; \$14,280/yr; Present Worth = \$313,009).
 - b. The voltage at the end of line section W1/2 Sec 27 T34S R33W of the 4th & Oklahoma north circuit will improve from 119.1 volts to 120.6 volts.
- 3) Increased line capacity will allow for more reliable backfeeds under contingency conditions.

New Distribution Construction Item – Overhead – 13.8 kV – East Liberal – Sublette to Tice
(Line Number 242-703 B)

Year: 2013

CFR Code: 300-32

Estimated Cost: \$490,000

Description of Proposed Construction

Rebuild and reconductor 7.0 miles of three-phase 13.8kV line underbuild (34.5kV circuit) from varying conductor to T2 1/0 ACSR between Sublette and Tice Substation located between line sections at W1/2 Sec 32, T29S R32W and E1/2 Sec 20, T29S R31W.

Section III
Required Construction Items

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 5 kW at peak demand (saving: 19,728 kWh/yr; \$1,223/yr; Present Worth = \$26,811).
 - b. The voltage at the end of line section S1/2 Sec 19 T29S R31W of the Sublette northeast circuit will improve from 122.7 volts to 124.2 volts.

New Distribution Construction Item – Overhead – 13.8 kV – East Liberal –
(Line Number 242-703 C)

Year: 2013

CFR Code: 300-33

Estimated Cost: \$140,000

Description of Proposed Construction

Rebuild and reductor 2.0 miles of three-phase 13.8kV line underbuild (34.5kV circuit) from varying conductor to T2 I/O ACSR between Satanta and Sublette located between line sections at W1/2 Sec 18, T30S R33W and NE1/4 Sec 8, T30S R33W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Section III
Required Construction Items

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses.
 - a. Circuit losses will improve by 6 kW at peak demand (saving: 23,674 kWh/yr; \$1,468/yr; Present Worth = \$32,173).

New Distribution Construction Item – Overhead – 13.8 kV – Satanta –
(Line Number 242-783)

Year: 2013

CFR Code: 300-34

Estimated Cost: \$140,000

Description of Proposed Construction

Rebuild and reconductor 2.0 miles of three-phase 13.8kV line underbuild (34.5kV circuit) from varying conductor to T2 1/0 ACSR between Satanta 34.5/13.8kV Substation and Satanta 115/34.5kV Substation located between line sections at W1/2 Sec 18, T30S R33W and S1/2 Sec 17 T30S R33W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 1 kW at peak demand (saving: 3,946 kWh/yr; \$245/yr; Present Worth = \$5,370).
 - b. The voltage at the end of line section S1/2 Sec 17 T30S R33W of the Satanta south circuit will improve from 124.8 volts to 125.1 volts.

Section III
Required Construction Items

New Distribution Construction Item – Overhead – 13.8 kV – Fowler – Englewood Junction
(Line Number 242-706 A)

Year: 2011

CFR Code: 300-35

Estimated Cost: \$70,000

Description of Proposed Construction

Rebuild and reconductor 1.0 miles of three-phase 13.8kV line underbuild (34.5kV circuit) from varying conductor to T2 1/0 ACSR between Fowler and Englewood Junction located between line sections at SW1/4 Sec 6, T31S R26W and NE1/4 Sec 6 T31S R26W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.

New Distribution Construction Item – Overhead – 13.8 kV – Englewood Junction –
(Line Number 242-706)

Year: 2011

CFR Code: 300-36

Estimated Cost: \$70,000

Description of Proposed Construction

Rebuild and reconductor 1.0 miles of three-phase 13.8kV line underbuild (34.5kV circuit) from varying conductor to T2 1/0 ACSR between Englewood Junction and the Victory meter at the Ford County Line located between line sections at N1/2 Sec 14, T30S R25W and SE1/4 Sec 2, T30S R25W in conjunction with project 300-43.

Section III
Required Construction Items

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.

**New Distribution Construction Item – Overhead – 13.8 kV – Englewood Junction –
(Line Number 242-706)**

Year: 2011

CFR Code: 300-37

Estimated Cost: \$35,000

Description of Proposed Construction

Rebuild and reconductor 0.5 miles of three-phase 13.8kV line underbuild (34.5kV circuit) from varying conductor to T2 1/0 ACSR between Englewood Junction and the Victory meter at the Ford County Line located between line sections at N1/2 Sec 14, T30S R25W and SE1/4 Sec 2, T30S R25W in conjunction with project 300-32.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.

Section III
Required Construction Items

New Distribution Construction Item – Overhead – 13.8 kV – East Liberal – Cimarron
River (Line Number 242-785)

Year: 2014

CFR Code: 300-38

Estimated Cost: \$70,000

Description of Proposed Construction

Rebuild and reconductor 1.0 miles of three-phase 13.8kV line underbuild (34.5kV circuit) from varying conductor to T2 1/0 ACSR between Cimarron River Junction and Cimarron River Plant located between line sections at N1/2 Sec 25, T33S R32W and E1/2 Sec 23, T33S R32W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.

New Distribution Construction Item – Overhead – 13.8 kV – Coats – Sun City
(Line Number 266-725 A)

Year: 2012

CFR Code: 300-39

Estimated Cost: \$644,000

Description of Proposed Construction

Rebuild and reconductor 9.2 miles of three-phase 13.8kV line underbuild (34.5kV circuit) from varying conductor to T2 1/0 ACSR between Coats and Sun City located between line sections at S1/2 Sec 15, T29S R14W and N1/2 Sec 2, T31S R15W.

Section III
Required Construction Items

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 6 kW at peak demand (saving: 17,187 kWh/yr; \$1,066/yr; Present Worth = \$23,357).
 - b. The voltage at the end of line section E1/2 Sec 35 T30S R15W of the Sun City north circuit will improve from 124.0 volts to 124.1 volts.

New Distribution Construction Item – Overhead – 13.8 kV – Coats – Highway 160
(Line Number 266-725 B)

Year: 2011

CFR Code: 300-40

Estimated Cost: \$105,000

Description of Proposed Construction

Rebuild and reconductor 8.0 miles of three-phase 13.8kV line underbuild (34.5kV circuit) from varying conductor to T2 1/0 ACSR between Coats and Highway 54 located between line sections at SW1/4 Sec 14, T29S R14W and W1/2 Sec 2, T28S R14W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Section III
Required Construction Items

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 51 kW at peak demand (saving: 238,551 kWh/yr; \$14,790/yr; Present Worth = \$324,190).
 - b. The voltage at the end of line section NE1/2 Sec 22 T29S R14W of the Pratt west circuit will improve from 115.1 volts to 121.1 volts.

New Distribution Construction Item – Overhead – 13.8 kV – Coldwater –
(Line Number 266-719 A)

Year: 2013

CFR Code: 300-41

Estimated Cost: \$70,000

Description of Proposed Construction

Rebuild and reconductor 1.0 miles of three-phase 13.8kV line underbuild (34.5kV circuit) from varying conductor to T2 I/O ACSR east of Coldwater and Highway 160 located on line section E1/2 Sec 7, T32S R18W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.

**Section III
Required Construction Items**

**New Distribution Construction Item – Overhead – 13.8 kV – Hazelton to H&H –
(Line Number 266-723 B)**

Year: 2013

CFR Code: 300-42

Estimated Cost: \$420,000

Description of Proposed Construction

Rebuild and reconductor 6.0 miles of three-phase 13.8kV line underbuild (34.5kV circuit) from varying conductor to T2 1/0 ACSR between Hazelton and H&H Substation located between line sections at NE1/4 Sec 16, T34S R10W to SW1/4 Sec 36, T34S R11W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 4 kW at peak demand (saving: 13,503 kWh/yr; \$837/yr; Present Worth = \$18,350).
 - b. The voltage at the end of line section NE1/4 Sec 16 T34S R10W of the H&H northeast circuit will improve from 123.7 volts to 125.1 volts.

Section III
Required Construction Items

New Distribution Construction Item – Overhead – 13.8 kV – 4th & Oklahoma –
(Circuit north-21)

Year: 2011

CPR Code: 300-43

Estimated Cost: \$22,500

Description of Proposed Construction

Rebuild and reconductor 0.25 miles of three-phase 13.8kV line underbuild (34.5kV circuit) from 1/0 ACSR to 477 north of switch G-78 located on line section W1/2 Sec. 33, T34S R33W.

Reasons for Proposed Construction

- 1) During an analysis of switching scenarios for the Liberal area, it was found that this line section overloaded for backfeed scenarios. (Refer to Appendix A)

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 5 kW at peak demand (saving: 16,690 kWh/yr; \$1,035/yr; Present Worth = \$22,681).
 - b. The voltage at the end of line section W1/2 Sec 33 T34S R33W of the 4th & Oklahoma north circuit will improve from 124.6 volts to 124.9 volts.
- 3) Increased line capacity will allow for more reliable backfeeds under contingency conditions.

**Section III
Required Construction Items**

**New Distribution Construction Item – Overhead – 13.8 kV – 15th Street –
(Circuit east-941)**

Year: 2011

CFR Code: 300-44

Estimated Cost: \$46,900

Description of Proposed Construction

Rebuild and reconductor 0.67 miles of three-phase 13.8kV line underbuild (34.5kV circuit) from 1/0 & 2/0 ACSR to 4/0 ACSR east of consumer transformer 3132S located on line section S1/2 Sec. 28, T34S R33W. (Refer to Appendix A)

Reasons for Proposed Construction

- 1) During an analysis of switching scenarios for the Liberal area, it was found that this line section overloaded for backfeed scenarios.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Increased line capacity will allow for more reliable backfeeds under contingency conditions.

New Distribution Construction Item – Overhead – 13.8 kV – Englewood - south

Year: 2011

CFR Code: 300-45

Estimated Cost: \$380,000

Description of Proposed Construction

Rebuild and reconductor 5.0 miles of 13.8kV taps along a 3.0 mile stretch of line running through the City of Englewood from varying conductor to three-phase #2 ACSR located between line sections at NE1/4 Sec. 24, T34S R25W and S1/2 Sec. 1, T35S R25W.

Section III
Required Construction Items

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

New Distribution Substation Item – Substation – 115/34.5 kV – SemCrude

Carry-Over

Year: 2011

CFR Code: 400-01

Estimated Cost: \$900,000

Description of Proposed Construction

Construct a new 5/7MVA 34.5/41.6kV substation northwest of Cunningham Substation located near SW1/4 Sec 29 T27S R10W.

Reasons for Proposed Construction

- 1) To serve new Semcrude load addition in conjunction with project 800-01.
 - a. The worst voltages in Kismet will increase from 121.8 to 123.5 volts and the worst voltage in Plains will decrease from 124.9 to 124.6 volts.

New Distribution Substation Item – Substation – 34.5/13.8 kV – H&H

Year: 2011

CFR Code: 400-02

Estimated Cost: \$800,000

Description of Proposed Construction

Construct a new 2.8MVA H&H substation to replace the old H&H substation located on line section NE1/4 Sec 20, T34S R10W.

Reasons for Proposed Construction

- 1) Existing substation is located in an undesirable location and needs to be relocated.
- 2) Existing substation does not meet the current NESC standards.

Section III
Required Construction Items

Results of Proposed Construction

- 1) Raising equipment to the NESC elevation standard level will make it safe for the general public and for operating and maintenance personnel.
- 2) Upgrading the ground grid will insure proper means of carrying and dissipating electric currents into the earth under normal and fault conditions without exceeding any operating and equipment limits or adversely affecting continuity of service. It will also provide safe values for the touch and step voltages produced in a fault condition.
- 3) Compliance with NESC Standards and IEEE-80 Guide.

New Distribution Substation Item – Substation – 34.5/13.8 kV – Mead Lake Road

Year: 2011

CFR Code: 400-03

Estimated Cost: \$800,000

Description of Proposed Construction

Construct a new 34.5/13.8kV substation located on line section SW1/4 Sec. 18, T33S R31W.

Reasons for Proposed Construction

- 1) Mead Lake Road will replace the Okie and Kismet existing 34.5/13.8kV transformers.
- 2) Raising equipment to the NESC elevation standard level will make it safe for the general public and for operating and maintenance personnel.
- 3) Upgrading the ground grid will insure proper means of carrying and dissipating electric currents into the earth under normal and fault conditions without exceeding any operating and equipment limits or adversely affecting continuity of service. It will also provide safe values for the touch and step voltages produced in a fault condition.
- 4) Compliance with NESC Standards and IEEE-80 Guide.

Results of Proposed Construction

- 1) As an alternative to building two new substations to comply with NESC criteria, it was decided by Southern Pioneer Electric Company to build one new substation (Mead Lake Road) and feed two load groups from the new combined substation transformer. By building one substation to replace the existing two substations, losses increase by 1kW at

Section III
Required Construction Items

peak demand (losing: 4,900 kWh/yr; \$304/yr; Present Worth = \$6,663). Three miles of 13.8kV line needs to be built to connect the new substation to the City of Kismet at a cost of \$210,000 and 1.5 miles of rebuild to connect to Okie (Project 300-45, Age and condition).

- 2) A new substation in the area will cost \$800,000. The net gain by rebuilding only one combined substation instead of rebuilding the two existing substations is \$583,337. $[(\$800,000 + \$800,000) - (\$800,000 + \$210,000 + \$6,663)]$.

New Distribution Substation Item – Substation – Sharon

Carry-Over

Year: 2012

CFR Code: 500-01

Estimated Cost: \$500,000

Description of Proposed Construction

Rebuild and reconfigure equipment at the existing Sharon Substation located on line section NE1/4 Sec 5, T32S R10W.

Reasons for Proposed Construction

- 1) Existing substation does not meet the NESC Standards or the IEEE-80 Guide for grounding.

Results for Proposed Construction

- 1) Raising equipment to the NESC elevation standard level will make it safe for the general public and for operating and maintenance personnel.
- 2) Upgrading the ground grid will insure proper means of carrying and dissipating electric currents into the earth under normal and fault conditions without exceeding any operating and equipment limits or adversely affecting continuity of service. It will also provide safe values for the touch and step voltages produced in a fault condition.
- 3) Compliance with NESC Standards and IEEE-80 Guide.

Section III
Required Construction Items

New Distribution Substation Item – Substation – Pratt

Carry-Over

Year: 2013

CFR Code: 500-06

Estimated Cost: \$500,000

Description of Proposed Construction

Rebuild and reconfigure equipment at the existing Pratt Substation located on line section NE1/4 Sec 5, T32S R10W.

Reasons for Proposed Construction

Existing substation does not meet the NESC Standards or the IEEE-80 Guide for grounding.

Results for Proposed Construction

- 1) Raising equipment to the NESC elevation standard level will make it safe for the general public and for operating and maintenance personnel.
- 2) Upgrading the ground grid will insure proper means of carrying and dissipating electric currents into the earth under normal and fault conditions without exceeding any operating and equipment limits or adversely affecting continuity of service. It will also provide safe values for the touch and step voltages produced in a fault condition.
- 3) Compliance with NESC Standards and IEEE-80 Guide.

New Distribution Substation Item – Substation – East Liberal

Carry-over

Year: 2011

CFR Code: 500-07

Estimated Cost: \$600,000

Description of Proposed Construction

Install a new 34.5/13.8kV Coats Substation.

Section III
Required Construction Items

Reasons for Proposed Construction

- 1) Southern Pioneer Electric Company determined the need for a new distribution substation in the area.

New Distribution Substation Item – Substation – 115/34.5 kV – Cudahy

Year: 2014

CFR Code: 500-08

Estimated Cost: \$1,500,000

Description of Proposed Construction

Rebuild the existing Cudahy Substation located at S1/2 Sec 2, T31S R28W.

Reasons for Proposed Construction

- 1) The substation needs to be rebuilt to increase the capacity.

Results for Proposed Construction

- 1) Raising equipment to the NESC elevation standard level will make it safe for the general public and for operating and maintenance personnel.
- 2) Upgrading the ground grid will insure proper means of carrying and dissipating electric currents into the earth under normal and fault conditions without exceeding any operating and equipment limits or adversely affecting continuity of service. It will also provide safe values for the touch and step voltages produced in a fault condition.
- 3) Compliance with NESC Standards and IEEE-80 Guide.

New Distribution Substation Item – Substation – 115/13.8 kV – West Liberal

Year: 2014

CFR Code: 500-09

Estimated Cost: \$850,000

Description of Proposed Construction

Replace two existing 34.5/13.8kV bays with a 115/13.8kV 20MVA transformer to supply two new bays and equipment located at E1/2 Sec. 31, T34S R33W.

Section III
Required Construction Items

Reasons for Proposed Construction

- 1) The installation of these new bays will increase capacity and allow for future load grow.
- 2) During contingency conditions, West Liberal lacks capacity for backfeed scenarios. See Section D – Electric Distribution Study.

Results for Proposed Construction

- 1) Capacity to the 13.8kV circuit will increase to the transformer rating (21MVA). West Liberal will serve load by relieving the West Liberal 34.5/13.8kV transformer.

New Distribution Substation Item – Substation – 115/13.8 kV – North Liberal

Year: 2014

CFR Code: 500-10

Estimated Cost: \$1,000,000

Description of Proposed Construction

Construct a new 115/13.8kV 20MVA transformer to supply two new bays and equipment located at E1/2 Sec. 21, T32S R33W.

Reasons for Proposed Construction

- 1) The installation of these new bays will relive other 13.8kV circuits and increases the capacity to allow for grow of the 13.8kV circuit.
- 2) During contingency conditions North Liberal needs capacity for backfeed scenarios. See Section D – Electric Distribution Study.

Results for Proposed Construction

- 1) Capacity to the 13.8kV circuit will increase by the transformer rating (21MVA). North Liberal will serve load by relieving East Liberal 13.8kV north feeder by 3.3MW.
- 2) Constructing this substation will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 78 kW at peak demand (saving: 382,239 kWh/yr; \$23,699/yr; Present Worth = \$519,416).
 - b. The area's worst voltage at the end of line section S1/2 Sec 27 T34S R33W will improve from 120.6 volts to 123.7 volts.

Section III
Required Construction Items

- c. The lowest voltage point on the East Liberal north feeder will increase from 120.6 volts to 123.8 volts.

New Distribution Substation Item – Substation – East Liberal

Year: 2012

CFR Code: 500-11

Estimated Cost: \$150,000

Description of Proposed Construction

Replace existing 34.5kV Main Bus Breaker 1614 located at NE1/4 Sec 34, T34S R33W.

Reasons for Proposed Construction

- 1) This new electronic recloser will allow us to monitor power quality and provide us with a way to monitor load growth on this feeder. It will also allow coordination flexibility with downline and upline protective equipment.

Results for Proposed Construction

- 1) Raising equipment to the NESC elevation standard level will make it safe for the general public and for operating and maintenance personnel.
- 2) Upgrading the ground grid will insure proper means of carrying and dissipating electric currents into the earth under normal and fault conditions without exceeding any operating and equipment limits or adversely affecting continuity of service. It will also provide safe values for the touch and step voltages produced in a fault condition.
- 3) Compliance with NESC Standards and IEEE-80 Guide.

**Section III
Required Construction Items**

Substation Changes

Cost of Meters – Code 601-01

	Actual 2008	Estimated 2011	Estimated 2012	Estimated 2013	Estimated 2014	Estimated 2011–2014
Number of Meters and						
Sockets Purchased	8,385	229	229	229	229	914
Single Phase	5,618	128	128	128	128	512
Three Phase	2,767	101	101	101	101	402
Average Cost/						
Meters and Sockets	\$35	\$88	\$88	\$88	\$88	\$352
Single Phase	\$30	\$73	\$73	\$73	\$73	\$292
Three Phase	\$47	\$117	\$117	\$117	\$117	\$468
Average Installation Cost						
Meters and Sockets	\$35	\$87	\$87	\$87	\$87	\$348
Single Phase	\$29	\$73	\$73	\$73	\$73	\$292
Three Phase	\$47	\$117	\$117	\$117	\$117	\$468
Installed Cost of						
Meters and Sockets	\$590,372	\$40,000	\$40,000	\$40,000	\$40,000	\$160,000
Single Phase	\$330,608	\$22,400	\$22,400	\$22,400	\$22,400	\$89,600
Three Phase	\$259,764	\$17,600	\$17,600	\$17,600	\$17,600	\$70,400
Average Installed Cost/						
Meters and Sockets	\$70	\$175	\$175	\$175	\$175	\$700
Single Phase	\$59	\$146	\$146	\$146	\$146	\$584
Three Phase	\$94	\$234	\$234	\$234	\$234	\$936

Section III
Required Construction Items

Cost of Overhead Transformers – Code 601-01

	Actual 2008	Estimated 2011	Estimated 2012	Estimated 2013	Estimated 2014	Estimated 2011 – 2014
Number of Overhead						
Transformers Purchased	1,397	291	291	291	291	1,164
25 KVA	1,201	246	246	246	246	984
50 KVA	126	26	26	26	26	104
100 KVA	70	15	15	15	15	60
167 KVA	n/a	3	3	3	3	12
Average Cost /						
Overhead Transformer	\$259	\$430	\$430	\$430	\$430	\$1,720
25 KVA	\$167	\$162	\$162	\$162	\$162	\$648
50 KVA	\$207	\$187	\$187	\$187	\$187	\$748
100 KVA	\$403	\$337	\$337	\$337	\$337	\$1,348
167 KVA	n/a	\$912	\$912	\$912	\$912	\$3,648
Average Installation						
Cost / Overhead						
Transformer	\$258	\$258	\$258	\$258	\$258	\$1,032
25 KVA	\$258	\$258	\$258	\$258	\$258	\$1,032
50 KVA	\$258	\$258	\$258	\$258	\$258	\$1,032
100 KVA	\$258	\$258	\$258	\$258	\$258	\$1,032
167 KVA	n/a	\$258	\$258	\$258	\$258	\$1,032
Installed Cost /						
Overhead Transformer	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$800,000
25 KVA	\$510,425	\$110,807	\$110,807	\$110,807	\$110,807	\$443,228
50 KVA	\$58,590	\$12,184	\$12,184	\$12,184	\$12,184	\$48,736
100 KVA	\$46,270	\$9,619	\$9,619	\$9,619	\$9,619	\$38,476
167 KVA	n/a	\$4,104	\$4,104	\$4,104	\$4,104	\$16,416
Average Installed Cost of						
Overhead Transformer	\$517	\$688	\$688	\$688	\$688	\$2,752
25 KVA	\$425	\$450	\$450	\$450	\$450	\$1,800
50 KVA	\$465	\$475	\$475	\$475	\$475	\$1,900
100 KVA	\$661	\$625	\$625	\$625	\$625	\$2,500
167 KVA	n/a	\$1200	\$1200	\$1200	\$1200	\$4,800

Section III
Required Construction Items

Cost of Padmount Transformers – Code 601-01

	Actual <u>2008</u>	Estimated <u>2011</u>	Estimated <u>2012</u>	Estimated <u>2013</u>	Estimated <u>2014</u>	Estimated <u>2011–2014</u>
Number of Padmount						
Transformers Purchased	1,880	145	145	145	145	580
Under 37.5 KVA	338	26	26	26	26	104
37.5 KVA – 100 KVA	207	16	16	16	16	64
Over 100 KVA	1,335	103	103	103	103	412
Average Cost /						
Padmount Transformer	\$229	\$400	\$400	\$400	\$400	\$1,600
Under 37.5 KVA	\$137	\$162	\$162	\$162	\$162	\$648
37.5 KVA – 100 KVA	\$187	\$262	\$262	\$262	\$262	\$1,048
Over 100 KVA	\$363	\$776	\$776	\$776	\$776	\$3,104
Average Installation						
Cost / Padmount						
Transformer						
Under 37.5 KVA	\$288	\$288	\$288	\$288	\$288	\$1,152
37.5 KVA – 100 KVA	\$288	\$288	\$288	\$288	\$288	\$1,152
Over 100 KVA	\$288	\$288	\$288	\$288	\$288	\$1,152
Installed Cost of						
Padmount Transformer	\$972,304	\$99,760	\$99,760	\$99,760	\$99,760	\$399,040
Under 37.5 KVA	\$143,650	\$11,700	\$11,700	\$11,700	\$11,700	\$46,800
37.5 KVA – 100 KVA	\$113,850	\$8,800	\$8,800	\$8,800	\$8,800	\$35,200
Over 100 KVA	\$768,960	\$109,592	\$109,592	\$109,592	\$109,592	\$438,368
Average Installed Cost /						
Padmount Transformer	\$517	\$688	\$688	\$688	\$688	\$2,752
Under 37.5 KVA	\$425	\$450	\$450	\$450	\$450	\$1,800
37.5 KVA – 100 KVA	\$475	\$550	\$550	\$550	\$550	\$2,200
Over 100 KVA	\$651	\$1,064	\$1,064	\$1,064	\$1,064	\$4,256

Section III
Required Construction Items

Miscellaneous Distribution Equipment – SCADA SPEC Substations / Metering

Year: 2011-2014

CFR Code: 601-02

Estimated Cost: \$200,000

Description of Proposed Construction

Install SCADA equipment and high side metering for all 34.5kV substations.

Reasons for Proposed Construction

- 1) Due to the lack of necessary equipment in the majority of substations, Southern Pioneer Electric Company cannot access information needed for engineering analysis.
- 2) Metering on the high side will allow Southern Pioneer Electric Company to isolate the 34.5kV system and quantify losses for the circuits.

Cost of Service Uprates – Code 602

	Actual 2008	Estimated 2011	Estimated 2012	Estimated 2013	Estimated 2014	Estimated 2011–2014
Number of Uprates	187	90	90	90	90	360
Average Cost/Uprate	\$670	\$670	\$670	\$670	\$670	\$2,680
Total Cost of Uprates	\$125,500	\$60,000	\$60,000	\$60,000	\$60,000	\$240,000

Sectionalizing Equipment

Year: 2011-2014

CFR Code: 603-01

Estimated Cost: \$340,000

Description of Proposed Construction

Install oil circuit reclosers and electronic breakers throughout the system on an as required basis.

Reasons for Proposed Construction

- 1) The above work is required to improve system protection and increase reliability.

Section III
Required Construction Items

Miscellaneous Distribution Equipment – 34.5kV Breakers - System

Year: 2011-2014 CFR Code: 603-02 Estimated Cost: \$360,000

Description of Proposed Construction

Install 34.5kV Breakers throughout the system on an as required basis.

Reasons for Proposed Construction

- 1) The above work is required to improve system protection and increase reliability.

Miscellaneous Distribution Equipment – 34.5kV Capacitor Switches - System

Year: 2011-2014 CFR Code: 603-03 Estimated Cost: \$360,000

Description of Proposed Construction

Replace 34.5kV Capacitor Bank TSC Switches throughout the system on an as required basis.

Reasons for Proposed Construction

- 1) The above work is required to improve system protection and increase reliability.

Miscellaneous Distribution Equipment – Coldwater – Throw-over Scheme

Year: 2011 CFR Code: 603-04 Estimated Cost: \$120,000

Description of Proposed Construction

Insert a new throw-over scheme to feed Coldwater distribution from Greensburg for a contingency along the line to Sun City located at E1/2 Sec 1, T32S R19W.

Reasons for Proposed Construction

- 1) The above work is required to improve system protection and increase reliability.

**Section III
Required Construction Items**

Miscellaneous Distribution Equipment – Voltage Regulators - System

Year: 2011-2014

CFR Code: 604-01

Estimated Cost: \$180,000

Description of Proposed Construction

Install regulators throughout the system on an as required basis.

Reasons for Proposed Construction

- 1) Due to the age and condition of existing Voltage Regulators, Southern Pioneer Electric Company considers it a priority for their current construction work plan replacement program.**
- 2) Future anticipated load level growth necessitated this upgrade.**

Section III
 Required Construction Items

Distribution Line Voltage Regulators

(Additions and Changes)

CFR Code: 604-02

Estimated Cost: \$12,000

<u>Substation</u>	<u>Circuit</u>	<u>Line</u>		<u>Load</u>	<u>Existing</u>	<u>Recomm.</u>	<u>Max(*)</u>	<u>Status</u>	<u>Note</u>
		<u>Section</u>	<u>Quantity</u>	<u>Amps</u>	<u>Amps</u>	<u>Amps</u>	<u>Volt Drop</u>		
<i>Pratt</i>	<i>East</i>	<i>SE332711</i>	<i>3</i>	<i>548</i>	<i>509.3</i>	<i>-</i>	<i>9.3</i>	<i>Relocate</i>	<i>1</i>
Pratt	East	SE312711	3	548 min	-	509.3	2.3	Install	2
<i>H & H</i>	<i>Southwest</i>	<i>W023512</i>	<i>3</i>	<i>150</i>	<i>100.6</i>	<i>-</i>	<i>10.7</i>	<i>Relocate</i>	<i>3</i>
H & H	Southwest	B123512	3	150 min	-	100.6	3.2	Install	4
<i>Pratt</i>	<i>West</i>	<i>S112814</i>	<i>3</i>	<i>328</i>	<i>310.4</i>	<i>-</i>	<i>12.9</i>	<i>Relocate</i>	<i>5</i>
Pratt	West	SE102814	3	75 min	-	38.2	11.4	Install	6
<i>Pratt</i>	<i>West</i>	<i>S142914</i>	<i>3</i>	<i>150</i>	<i>125.1</i>	<i>-</i>	<i>11.4</i>	<i>Relocate</i>	<i>7</i>
Pratt	West	SW112914	3	150 min	-	125.5	9.5	Install	8

* Maximum voltage drop on the circuit (8 Volts is the maximum allowed) not to exceed 118V on a 120V base

** *Italics represent a feeder's EXISTING Regulator Setup and its maximum voltage drop*

NOTE: Estimated Cost reflects new projects plus Carry-Over projects (Carry-Over projects are not listed above)

Section III
Required Construction Items

<u>Note</u>	<u>Cost</u>	<u>Ten Year Present Worth</u>	<u>Description/Explanation</u>
1	\$1,500	\$0	Relocate three 548 amp (min) regulators on the Pratt east feeder beginning at line section in W1/2 Sec 9 T35S R12W. The relocation of these regulators is necessary to increase the voltage levels for the line section upline from the existing location.
2	\$1,500	\$3,662	Install three 548 amp (min) regulators two miles west of the current location to the line on section E1/2 Sec 12 T35S R12W. The load flow analysis indicated these regulators are necessary to maintain appropriate voltages on this line. The voltage will increase from 115.3 to 122.8 volts and will save 5kW in losses.
3	\$1,500	\$0	Relocate three 150 amp (min) regulators on the H&H southwest feeder beginning at line section in SE1/4 Sec 33 T27S R11W. The relocation of these regulators is necessary to increase the voltage levels for the line section upline from the existing location.
4	\$1,500	\$19,218	Install three 150 amp (min) regulators four miles east of the current location to the line on section SE1/4 Sec 31 T27S R11W. The load flow analysis indicated these regulators are necessary to maintain appropriate voltages on this line. The voltage will

**Section III
Required Construction Items**

			increase from 117.6 to 118.3 volts and will save 12kW in losses.
5	\$1,500	\$0	Relocate three 328 amp (min) regulators on the Pratt east feeder beginning at line section in S1/2 Sec 11 T28S R14W. The relocation of these regulators is necessary to comply with RUS criteria of not cascading voltage regulators. Southern Pioneer Electric Company is currently in violation.
6	\$1,500	(\$5,074)	Install three 328 amp (min) regulators one mile northeast of the current location to the line on section SW1/4 Sec 10 T28S R14W. The load flow analysis indicated these regulators are necessary to maintain appropriate voltages on this line. The voltage will increase from 122.0 to 122.9 volts.
7	\$1,500	\$0	Relocate three 150 amp (min) regulators on the Pratt east feeder beginning at line section in S1/2 Sec 14 T29S R14W. The relocation of these regulators is necessary to comply with RUS criteria of not cascading voltage regulators. Southern Pioneer Electric Company is currently in violation.
8	\$1,500	\$6,357	Install three 150 amp (min) regulators three miles north of the current location to the line on section S1/2 Sec 11 T29S R14W. The load flow analysis indicated these regulators are necessary to maintain appropriate voltages on this line. The voltage will increase from 119.0 to 119.1 volts and will save 1kW in losses.

Section III
Required Construction Items

Distribution Line Capacitors

(Additions and Changes)

CFR Code: 605-01

Estimated Cost: \$7,150

<u>Substation</u>	<u>Circuit</u>	<u>Number</u>	<u>Node</u> <u>(kVAR)</u>	<u>Bank size</u> <u>Size (kVAR)</u>	<u>Capacitor</u> <u>Status</u>	<u>Cost</u>	<u>Note</u>
Greensburg	South	3	1,350	1,200	Fixed	\$1,350	1
Medicine Lodge	North	2	90	200	Fixed	\$500	2
Pratt	East	3	5,227	1,350	Fixed	\$500	3
Pratt	East	3	251	150	Fixed	\$1,050	4
Pratt	West	3	172	150	Fixed	\$900	5
Pratt	West	3	580	300	Fixed	\$900	6
Pratt	West	3	70	150	Fixed	\$900	7
Pratt	West	3	284	300	Fixed	\$1,050	8

**Section III
Required Construction Items**

<u>Note</u>	<u>Cost</u>	<u>Ten Year Present Worth</u>	<u>Description/Explanation</u>
1	\$1,350	\$19,218	Increase the size of the existing capacitor bank from 600 to 1,200kVAR on the line section SE1/4 Sec 1 T32S R19W. The analysis indicated that the voltage at the end of the line section will improve from 117.6 to 118.3 volts.
2	\$500	\$0	Relocate the existing 200kVAR capacitor bank 0.75 miles east from E1/2 Sec 25 T30S R12W to S1/2 Sec 25 T30S R12W. The analysis indicated that moving the capacitor bank would improve the power factor for the area.
3	\$500	\$45,663	Relocate the existing 1,350kVAR capacitor bank 7.5 miles east from SW1/4 Sec 36 T27S R12W to SE1/4 Sec 31 T27S R11W. The analysis indicated that moving the capacitor bank would improve the the voltage from 115.8 to 116.7 volts and decrease losses by 18kW.
4	\$1,050	\$0	Replace existing 300kVAR capacitor bank located at S1/2 Sec 8 T29S R09W with a 150kVAR capacitor bank. The analysis indicated that moving the capacitor bank would increase the power factor in the area.

Section III
Required Construction Items

5	\$900	\$38,052	Install a 150kVAR capacitor bank on the line section SE1/4 Sec 21 T29S R13W. The analysis indicated that the voltage at the end of the line section will improve from 117.0 to 117.3 volts and decrease losses by 15kW.
6	\$900	\$27,905	Install a 150kVAR capacitor bank on the line section NW1/4 Sec 21 T28S R14W. The analysis indicated that the voltage at the end of the line section will improve from 113.5 to 115.3 volts and decrease losses by 11kW.
7	\$900	\$0	Replace existing capacitor bank located at SW1/4 Sec 6 T28S R14W with a 150kVAR capacitor bank. The analysis indicated that moving the capacitor bank would increase the power factor in the area.
8	\$1,050	\$48,200	Install a 300kVAR capacitor bank on the line section SE1/4 Sec 1 T28S R15W. The analysis indicated that the voltage at the end of the line section will improve from 116.5 to 118.4 volts and decrease losses by 19kW.

Section III
Required Construction Items

Cost of Pole Replacements for Pole Inspection Program Code 606-01

	Actual 2005 – 2008	Estimated 2011	Estimated 2012	Estimated 2013	Estimated 2014	Estimated 2011 – 2014
Number of Poles Replaced	2,480	250	250	250	250	1,000
Average Installed Cost/ Poles	\$1,176	\$2,500	\$2,500	\$2,500	\$2,500	\$10,000
Total Cost of Pole Replacements	\$2,916,929	\$625,000	\$625,000	\$625,000	\$625,000	\$2,500,000

Reasons for Proposed Construction

The above work is required to increase service continuity.

Results of Proposed Construction

The inspection of the poles is estimated to identify 17% of the 3,000 poles inspected per year as needed to be replaced. Thus, this project will result in the replacement of 2,040 poles over the life of this CWP.

Miscellaneous Distribution Equipment – Copper Replacement - System

Year: 2011-2014

CFR Code: 606-02

Estimated Cost: \$1,200,000

Description of Proposed Construction

Replace copper conductor on an as needed basis throughout the system.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.
- 3) Future anticipated load level growth necessitated this upgrade.

Section III
Required Construction Items

Miscellaneous Distribution Equipment – Open Wire Secondary Replacement - System

Year: 2011-2014

CFR Code: 606-03

Estimated Cost: \$400,000

Description of Proposed Construction

Replace open wire secondary conductor on an as needed basis throughout the system.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing lines are old and deteriorating.

Miscellaneous Distribution Equipment – CSP Replacement - System

Year: 2011-2014

CFR Code: 606-04

Estimated Cost: \$500,000

Description of Proposed Construction

Replace CSP transformers on an as needed basis throughout the system. Southern Pioneer Electric Company estimates 300 14.4kV transformers that are in need of replacement due to age and no grounding. The total price includes the new transformer cost and is considered separate from the transformer replacement program in project 601.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing transformers are old and deteriorating.
- 3) Existing transformers do not have a grounding connection and present a safety risk to Southern Pioneer Electric Company employees.

Section III
Required Construction Items

Miscellaneous Distribution Equipment – Ungrounded Circuit - System

Year: 2011-2014

CFR Code: 606-05

Estimated Cost: \$1,490,600

Description of Proposed Construction

Install a ground or shield wire to all systems missing a grounding connection throughout the Southern Pioneer Electric Company system on an as needed basis.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company considers it a priority for their current construction work plan replacement program.
- 2) Existing systems not containing a grounding connection present a safety risk.
- 3) Existing grounded systems have a very high resistance to ground and present a safety concern.

Section III
Required Construction Items

Cost of Unit Replacements Code 606-06

	<u>Actual</u> <u>2005-2008</u>	<u>Estimated</u> <u>2011</u>	<u>Estimated</u> <u>2012</u>	<u>Estimated</u> <u>2013</u>	<u>Estimated</u> <u>2014</u>	<u>Estimated</u> <u>2011-2014</u>
Number of Poles Replaced	2,480	100	100	100	100	400
Average Installed Cost/ Poles	\$1,176	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
Total Cost of Pole Replacements	\$2,916,929	\$250,000	\$250,000	\$250,000	\$250,000	\$1,000,000
Number of Miscellaneous Units Replaced*	-	\$80,000	\$80,000	\$80,000	\$80,000	\$320,000

*Miscellaneous Units include lightning arresters, cutouts, anchor gny's and grounds.

Section III
Required Construction Items

Other Distribution Items – Engineering Fees

Year: 2011-2014 CFR Code: 701 Estimated Cost: \$120,000

Description

Southern Pioneer Electric Company will use funds on an as needed basis for Substation Design, Code Compliance Evaluation, and Harmonics Studies.

Other Distribution Items – Security Lights

Year: 2011-2014 CFR Code: 702-01 Estimated Cost: \$138,000

Description of Proposed Construction

Install private area lights (PAL) and street lights as requested.

Other Distribution Items – Security Lights

Year: 2011-2014 CFR Code: 702-02 Estimated Cost: \$52,000

Description of Proposed Construction

Replace private area lights (PAL) and street lights as needed.

Automatic Radio Meter Read / Load Control System

Year: 2011-2014 CFR Code: 705 Estimated Cost: \$1,100,000

Description of Proposed Construction

Install the hardware for an automatic meter reading system for 3,000 meters per year. The average cost for both single-phase and three-phase meters is \$25 per meter for labor and \$67 dollars per meter for hardware. Southern Pioneer Electric Company will spend an average of

Section III
Required Construction Items

\$275,000 per year.

Reasons for Proposed Construction

The above work is required to develop an automatic meter reading system for Southern Pioneer Electric Company's entire system and to provide Southern Pioneer Electric Company the capability to control the load for selected services.

Results of Proposed Construction

- 1) Development of an automatic meter reading system is expected to reduce meter reading expenses and provide a more timely billing cycle.
- 2) Replacement of all meter loops in the system is expected to reduce the amount of load losses experienced by Southern Pioneer Electric Company.
- 3) Installation of the load control units is expected to improve Southern Pioneer Electric Company's capability of controlling their load during peak, thus reducing their exposure to increased power costs.

New Transmission Construction Item – Overhead – 34.5 kV – Cunningham

Carry-Over

Year: 2011

CFR Code: 800-01

Estimated Cost: \$370,000

Description of Proposed Construction

Construct 1.9 miles of new three-phase T2 1/0 ACSR between SemCrude and Cunningham. The cost is a special case scenario and was determined by a price quoted from a contractor.

Reasons for Proposed Construction

- 1) To serve Cunningham from SemCrude.

Section III
Required Construction Items

New Transmission Construction Item – Overhead – 34.5 kV – Southwestern Heights

Year: 2014

CFR Code: 800-02

Estimated Cost: \$720,000

Description of Proposed Construction

Construct 6.0 miles of new three-phase T2 4/0 ACSR between the new Southwestern Heights Substation and 34.5kV line south of Plains located from NE1/4 Sec 18 T33S R30W to NE1/4 Sec 20 T32S R30W.

Reasons for Proposed Construction

- 1) To serve Plains under normal conditions.
- 2) Due to problems in contingency scenarios, Southern Pioneer Electric Company requires a new substation for backfeeds of Kismet and Plains.

Results of Proposed Construction

- 1) For the new backfeed scenario, the worst voltage will increase from 104.6 volts to 123.0 volts.
- 2) A study for feeding scenarios using the new Southwestern Heights Substation determined that the new substation will feed the city of Plains. The new line from Southwestern Heights should tap the existing line at NE1/4 Sec 20 T32S R30W and feed north to Plains.
- 3) Constructing this line will reduce system losses and decrease voltage drop under normal conditions.
 - a. Circuit losses will improve by 143 kW at peak demand (saving: 700,771 kWh/yr; \$43,448/yr; Present Worth = \$952,346).
 - b. The worst voltages in Kismet will increase from 121.8 to 123.5 volts and the worst voltage in Plains will decrease from 124.9 to 124.6 volts.

Section III
Required Construction Items

New Distribution Substation Item – Substation – 115/34.5 kV – SemCrude

Year: 2011

CFR Code: 900-01

Estimated Cost: \$1,900,000

Description of Proposed Construction

Construct a new 10MVA 115/34.5kV substation northwest of Cunningham. Substation located near SW1/4 Sec 29 T27S R10W.

Reasons for Proposed Construction

- 1) To serve new Semcrude load addition in conjunction with project 800-01.

New Distribution Substation Item – Substation – 115/34.5 kV – Southwestern Heights

Year: 2014

CFR Code: 900-02

Estimated Cost: \$1,100,000

Description of Proposed Construction

Construct a new 115/34.5kV substation south of Plains located near NE1/4 Sec 18 T33S R30W in conjunction with project 800-02.

Reasons for Proposed Construction

- 1) Due to problems during contingency conditions, Southern Pioneer Electric Company requires a new substation for backfeeds to Plains and Meade Lake Road.
- 2) Under contingency conditions, Plains and Kismet are fed from Victory Electric Cooperative. The resulting voltage in Kismet is 104.6 volts and in violation of RUS criteria.

Results of Proposed Construction

- 2) For the new backfeed scenario, the worst voltage will increase from 104.6 volts to 123.0 volts.
- 3) Under normal operating conditions, the new Southwestern Heights Substation will feed the city of Plains.

Section III
Required Construction Items

- 4) The new substation will serve the City of Plains via 6 miles of new 34.5kV line, which will tap the existing 34.5kV line at NE1/4 Sec 20 T32S R30W.
- 5) Constructing this line will reduce system losses and decrease voltage drop under normal and emergency conditions.
 - a. Circuit losses will improve by 143 kW at peak demand (saving: 700,771 kWh/yr; \$43,448/yr; Present Worth = \$952,346).

New Transmission Construction Item – Overhead – 34.5 kV – Tice –
(Line 242-704 A)

Year: 2013

CFR Code: 1000-01

Estimated Cost: \$540,000

Description of Proposed Construction

Rebuild and reconductor 4.5 miles of three-phase from T21/0 and 4/0 ACSR to T2 4/0 ACSR between Tice and the Gray County Line located between line sections at NE1/4 Sec 20, T29S R31S and SE1/4 Sec 12, T29S R31S.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.

Section III
Required Construction Items

New Transmission Construction Item – Overhead – 34.5 kV – East Liberal –
(Line 242-701)

Year: 2014

CFR Code: 1000-02

Estimated Cost: \$1,320,000

Description of Proposed Construction

Rebuild and reconductor 11.0 miles of three-phase from T21/0 and 4/0 ACSR to T2 4/0 ACSR between East Liberal and the river located between line sections at NE1/4 Sec 34, T34S R33W and Sec 25, T33S R32W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 113 kW at peak demand (saving: 553,756 kWh/yr; \$34,333/yr; Present Worth = \$752,553).
 - b. The voltage at the end of line section NE1/4 Sec 25 T33S R32W of the East Liberal northeast circuit will improve from 120.9 volts to 122.8 volts.

Section III
Required Construction Items

**New Transmission Construction Item – Overhead – 34.5 kV – East Liberal –
(Line 242-701)**

Year: 2014

CFR Code: 1000-03

Estimated Cost: \$840,000

Description of Proposed Construction

Rebuild and reconductor 7.0 miles of three-phase from T21/0 and 4/0 ACSR to T2 4/0 ACSR between Kismet and Plains located between line sections at E1/2 Sec 4, T33S R31W and SE1/4 Sec 17, T32S R30W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 27 kW at peak demand (saving: 132,313 kWh/yr; \$8,203/yr; Present Worth = \$179,814).
 - b. The voltage at the end of line section SE1/4 Sec 17 T32S R30W of the East Liberal northeast circuit will improve from 125.1 volts to 125.9 volts.

Section III
Required Construction Items

New Transmission Construction Item – Overhead – 34.5 kV – East Liberal –
(Line 242-703 A)

Year: 2014

CFR Code: 1000-04

Estimated Cost: \$1,560,000

Description of Proposed Construction

Rebuild and reconductor 13.0 miles of three-phase from T21/0 and 4/0 ACSR to T2 4/0 ACSR between Plains and CMS Copeland located between line sections at SE1/4 Sec 17, T32S R30W and NE1/4 Sec 16, T30S R30W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.

New Transmission Construction Item – Overhead – 34.5 kV – Sublette –
(Line 242-704 B)

Year: 2013

CFR Code: 1000-05

Estimated Cost: \$840,000

Description of Proposed Construction

Rebuild and reconductor 7.0 miles of three-phase from T21/0 and 4/0 ACSR to T2 4/0 ACSR between Sublette and Tice Substation located between line sections at W1/2 Sec 32, T29S R32W and E1/2 Sec 20, T29S R31W.

Section III
Required Construction Items

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.

New Transmission Construction Item -- Overhead -- 34.5 kV -- Sublette --
(Line 242-704 C)

Year: 2013

CFR Code: 1000-06

Estimated Cost: \$1,080,000

Description of Proposed Construction

Rebuild and reconductor 9.0 miles of three-phase from T21/0 and 4/0 ACSR to T2 4/0 ACSR between Satanta and Sublette located between line sections at W1/2 Sec 18, T30S R33W and W1/2 Sec 32, T29S R32W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 25 kW at peak demand (saving: 98,642 kWh/yr; \$6,116/yr; Present Worth = \$134,054).

Section III
Required Construction Items

- b. The voltage at the end of line section W1/2 Sec 32 T29S R32W of the Satanta northeast circuit will improve from 123.1 volts to 123.9 volts.

New Transmission Construction Item -- Overhead -- 34.5 kV -- Satanta --
(Line 242-783)

Year: 2013

CFR Code: 1000-07

Estimated Cost: \$600,000

Description of Proposed Construction

Rebuild and reconductor 5.0 miles of three-phase from T21/0 and 4/0 ACSR to T2 4/0 ACSR between Satanta and Satanta 115kV located between line sections at W1/2 Sec 18, T30S R33W and S1/2 Sec 14, T30S R33W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 44 kW at peak demand (saving: 173,610 kWh/yr; \$10,764/yr; Present Worth = \$235,935).
 - b. The voltage at the end of line section E1/2 Sec 32 T30S R33W of the Satanta west circuit will improve from 124.7 volts to 125.6 volts.

Section III
Required Construction Items

New Transmission Construction Item – Overhead – 34.5 kV – Cudahy –
(Line 242-707)

Year: 2011

CFR Code: 1000-08

Estimated Cost: \$960,000

Description of Proposed Construction

Rebuild and reconductor 8.0 miles of three-phase from T21/0 and 4/0 ACSR to T2 4/0 ACSR between Cudahy and Fowler located between line sections at SW1/4 Sec 2, T31S R28W and SE1/4 Sec 1 T31S R27W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 7 kW at peak demand (saving: 30,316 kWh/yr; \$1,880/yr; Present Worth = \$41,199).
 - b. The voltage at the end of line section NE1/4 Sec 12 T31S R27W of the Cudahy east circuit will improve from 123.7 volts to 124.2 volts.

Section III
Required Construction Items

New Transmission Construction Item – Overhead – 34.5 kV – Fowler –
(Line 242-706 A)

Year: 2011

CFR Code: 1000-09

Estimated Cost: \$1,320,000

Description of Proposed Construction

Rebuild and reconductor 11.0 miles of three-phase from T21/0 and 4/0 ACSR to T2 4/0 ACSR between Fowler and Englewood Junction located between lines section SE1/4 Sec 1 T31S R27W and N1/2 Sec 14, T30S R25W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 1 kW at peak demand (saving: 4,331 kWh/yr; \$269/yr; Present Worth = \$8,601).
 - b. The voltage at the end of line section N1/2 Sec 14 T30S R25W of the Cudahy east circuit will improve from 124.1 volts to 124.2 volts.

**Section III
Required Construction Items**

**New Transmission Construction Item – Overhead – 34.5 kV – Englewood Junction –
(Line 242-706)**

Year: 2011

CFR Code: 1000-10

Estimated Cost: \$180,000

Description of Proposed Construction

Rebuild and reconductor 1.5 miles of three-phase from T21/0 and 4/0 ACSR to T2 4/0 ACSR between Englewood Junction and the Victory meter at the Ford County line located between line sections at N1/2 Sec 14, T30S R25W and SE1/4 Sec 2, T30S R25W .

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.

**New Transmission Construction Item – Overhead – 34.5 kV – Englewood –
(Line 241-798)**

Year: 2012

CFR Code: 1000-11

Estimated Cost: \$2,580,000

Description of Proposed Construction

Rebuild and reconductor 21.5 miles of three-phase from T2 1/0 and #2 ACSR to T2 4/0 ACSR between Englewood and Englewood Junction located between line sections at N1/2 Sec 14, T30S R25W and SE1/4 Sec 24, T33S R25W.

Section III
Required Construction Items

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 56 kW at peak demand (saving: 203,611 kWh/yr; \$12,624/yr; Present Worth = \$276,706).
 - b. The voltage at the end of line section SE1/4 Sec 24 T33S R25W of the Exchange Pt. 5 south circuit will improve from 121.6 volts to 123.6 volts.

New Transmission Construction Item – Overhead – 34.5 kV – East Liberal –
(Line 242-785)

Year: 2014

CFR Code: 1000-12

Estimated Cost: \$120,000

Description of Proposed Construction

Rebuild and reconductor 1.0 miles of three-phase from 2/0 ASCR to T2 4/0 ACSR between Cimarron River Junction and Cimarron River Plant located between line sections at N1/2 Sec 25, T33S R32W and E1/2 Sec 23, T33S R32W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Section III
Required Construction Items

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.

New Transmission Construction Item – Overhead – 34.5 kV – Hazelton –
(Line 266-727 A)

Year: 2012

CFR Code: 1000-13

Estimated Cost: \$420,000

Description of Proposed Construction

Rebuild and reconductor 3.5 miles of three-phase from 2/0 ACSR to T2 4/0 ACSR between Wellsford and SW 120th along Highway 54 located between line sections at W1/2 Sec 12, T28S R16W and E1/2 Sec 9, T28S R15W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 18 kW at peak demand (saving: 84,194 kWh/yr; \$5,220/yr; Present Worth = \$114,420).
 - b. The voltage at the end of line section S1/2 Sec 11 T28S R16W of the Pratt east circuit will improve from 119.2 volts to 120.0 volts.

Section III
Required Construction Items

New Transmission Construction Item – Overhead – 34.5 kV – Sun City –
(Line 266-725 A)

Year: 2012

CFR Code: 1000-14

Estimated Cost: \$1,104,000

Description of Proposed Construction

Rebuild and reconductor 9.2 miles of three-phase from 2/0 ACSR to T2 4/0 ACSR between Coats and Sun City located between line sections at S1/2 Sec 15, T29S R14W and N1/2 Sec 2, T31S R15W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.

New Transmission Construction Item – Overhead – 34.5 kV – Coats –
(Line 266-725 B)

Year: 2011

CFR Code: 1000-15

Estimated Cost: \$840,000

Description of Proposed Construction

Rebuild and reconductor 7.0 miles of three-phase from 2/0 ACSR to T2 4/0 ACSR between Coats and Highway 54 located between line sections at SW1/4 Sec 14, T29S R14W and W1/2 Sec 2, T28S R14W.

Section III
Required Construction Items

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Increased line capacity will allow for more reliable backfeeds under contingency conditions.

New Transmission Construction Item – Overhead – 34.5 kV – Coldwater –
(Line 266-719 A)

Year: 2013

CFR Code: 1000-16

Estimated Cost: \$840,000

Description of Proposed Construction

Rebuild and reconductor 7.0 miles of three-phase from 1/0 ACSR to T2 4/0 ACSR east of Coldwater along Highway 160 located between line sections at SW1/4 Sec 5, T32S R18W and NE1/4 Sec 9, T32S R17W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.

Section III
Required Construction Items

- a. Circuit losses will improve by 25 kW at peak demand (saving: 71,614 kWh/yr; \$4,440/yr; Present Worth = \$97,323).
- b. The voltage at the end of line section SE1/4 Sec 6 T32S R18W of the Sun City south circuit will improve from 116.1 volts to 117.3 volts.

New Transmission Construction Item – Overhead – 34.5 kV – Coldwater –
(Line 266-719 B)

Year: 2014

CFR Code: 1000-17

Estimated Cost: \$1,080,000

Description of Proposed Construction

Rebuild and reconductor 9.0 miles of three-phase from 2/0 ACSR to T2 4/0 ACSR between Coldwater and the Barber County line located between line sections at SW1/4 Sec 3, T32S R17W and SE1/4 Sec 1, T32S R16W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 64 kW at peak demand (saving: 183,331 kWh/yr; \$11,367/yr; Present Worth = \$249,146).
 - b. The voltage at the end of line section SE1/4 Sec 2 T32S R17W of the Sun City south circuit will improve from 119.2 volts to 122.1 volts.

Section III
Required Construction Items

New Transmission Construction Item – Overhead – 34.5 kV – Sun Junction –
(Line 266-719 C)

Year: 2011

CFR Code: 1000-18

Estimated Cost: \$720,000

Description of Proposed Construction

Rebuild and reconductor 6.0 miles of three-phase from 2/0 ACSR to T2 4/0 ACSR between the Barber County line and Sun Junction located between line sections at SW1/4 Sec 6, T32S R15W and NE1/4 Sec 34, T31S R15W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 25 kW at peak demand (saving: 71,614 kWh/yr; \$4,440/yr; Present Worth = \$97,323).
 - b. The voltage at the end of line section SE1/4 Sec 3 T32S R15W of the Sun City south circuit will improve from 124.4 volts to 125.4 volts.

Section III
Required Construction Items

New Transmission Construction Item – Overhead – 34.5 kV – Hazelton –
(Line 266-723 A)

Year: 2013

CFR Code: 1000-19

Estimated Cost: \$744,000

Description of Proposed Construction

Rebuild and reconductor 6.2 miles of three-phase from 2/0 ACSR to T2 4/0 ACSR from Hazelton to the Harper County line located between line sections at NE1/4 Sec 16, T34S R10W and SB1/4 Sec 25, T33S R10W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.

New Transmission Construction Item – Overhead – 34.5 kV – Hazelton –
(Line 266-723 B)

Year: 2013

CFR Code: 1000-20

Estimated Cost: \$660,000

Description of Proposed Construction

Rebuild and reconductor 5.5 miles of three-phase from #4 Copper to T2 4/0 ACSR between Hazelton and H&H located between line sections at NE1/4 Sec 16, T34S R10W and SW1/4 Sec 36, T34S R11W.

Section III
Required Construction Items

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.

New Transmission Construction Item – Overhead – 34.5 kV – North Liberal –
(Circuit east-1427)

Year: 2011

CFR Code: 1000-21

Estimated Cost: \$35,000

Description of Proposed Construction

Rebuild and reconductor 0.5 miles of three-phase from 1/0 ACSR to 4/0 ACSR north of switch 1196 located on line section W1/2 Sec. 33, T34S R33W. (Refer to Appendix A)

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses.
 - a. Circuit losses will improve by 10 kW at peak demand (saving: 39,559 kWh/yr; \$2,453/yr; Present Worth = \$53,768).
- 3) Increased line capacity will allow for more reliable backfeeds under contingency conditions.

Section III
Required Construction Items

New Transmission Construction Item – Overhead – 34.5 kV – Pratt –

(Line 266-725 B)

Year: 2011

CFR Code: 1000-22

Estimated Cost: \$120,000

Description of Proposed Construction

Rebuild and reductor 1.0 miles of three-phase from 2/0 ACSR to T2 4/0 ACSR between Coats and Highway 54 located between line sections at SW1/4 Sec 14, T29S R14W and W1/2 Sec 2, T28S R14W.

Reasons for Proposed Construction

- 1) Due to the age and condition of the existing varying conductors, Southern Pioneer Electric Company has experienced a number of outages and poor service quality and consider it a priority for their current construction work plan replacement program.
- 2) Existing poles and lines are old and deteriorating.

Results of Proposed Construction

- 1) Newer poles and cross-arms will provide better system reliability.
- 2) Constructing this line will reduce system losses and decrease voltage drop.
 - a. Circuit losses will improve by 6 kW at peak demand (saving: 28,065 kWh/yr; \$1,740/yr; Present Worth = \$38,140).
- 3) The voltage at the end of line section W1/2 Sec 2, T28S R14W of the Pratt east circuit will improve from 123.5 volts to 123.7 volts.

New Headquarters Facilities Item – Service Center – Medicine Lodge

Year: 2014

CFR Code: 1300-01

Estimated Cost: \$2,400,000

Description of Proposed Construction

New service center in Medicine Lodge to combine customer service, warehousing, and line personnel into one facility.

Section III
Required Construction Items

New Headquarters Facilities Item – Service Center – Liberal

Year: 2011

CFR Code: 1300-02

Estimated Cost: \$750,000

Description of Proposed Construction

Expand the existing service center in Liberal. SPEC requires the changes to add space for additional warehousing, vehicle storage, a new conference room, and a tornado shelter.

All Other – Liberal Spare Yard

Year: 2011

CFR Code: 1500-01

Estimated Cost: \$150,000

Description of Proposed Construction

Contract the design and installation of a storage facility for large distribution equipment in the Liberal Spare Yard. The facility must meet the NESC requirements for large distribution transformers and include concrete pads and oil containment.

Reasons for Proposed Construction

- 1) The Liberal area lacks the proper storage facilities to accommodate large distribution equipment within the NESC criteria.
- 2) Current and future anticipated load levels and the need for a local storage facility necessitated this upgrade.

All Other – Fence and Grounding - System

Year: 2011-2014

CFR Code: 1500-02

Estimated Cost: \$200,000

Description of Proposed Construction

Update existing substations throughout Southern Pioneer Electric Company with the proper fence and grounding. Upgrades will begin with Pratt Substation and Southern Pioneer Electric Company will analyze all substations and replace existing equipment on an as needed basis.

Section III
Required Construction Items

Reasons for Proposed Construction

- 1) Due to the age and condition of these substations, Southern Pioneer Electric Company considers it a priority for their current construction work plan replacement program.
- 2) The fence and grounding in several substations must be replaced to comply with current NESC codes.

Section 1

Executive Summary

NEW CONSTRUCTION (CODE 100)

	RUS Code	Average Cost Per Consumer	Number of Consumers	No. of Miles	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
New Consumers	101	\$31,545	176	22.50	\$5,551,975	\$1,387,994	\$1,387,994	\$1,387,994	\$1,387,994
Total 740C (Code 100)				22.50	\$5,551,975	\$1,387,994	\$1,387,994	\$1,387,994	\$1,387,994

NEW LINES AND TIE-LINES (CODE 200)

Substation and Circuit	RUS Code	Existing Conductor/No. of Phases	Recommended Conductor/No. of Phases	Cost Per Mile	No. of Miles	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
Exchange Pt. S South	200-01	N/A N/A	T2 1/0 ACSR (UB) Three-Phase	\$70,000	1.50	\$105,000	\$0	\$105,000	\$0	\$0
Mead Lake Road West	200-02	N/A N/A	T2 1/0 ACSR (UB) Three-Phase	\$70,000	3.00	\$210,000	\$210,000	\$0	\$0	\$0
Total 740C (Code 200)					4.50	\$315,000	\$210,000	\$105,000	\$0	\$0

* Denotes Carry-Over

Section 1
Executive Summary

LINE CONVERSIONS AND RECONDUCTORING (CODE 300)

Substation and Circuit	RUS Code	Existing Conductor/No. of Phases	Recommended Conductor/No. of Phases	Cost Per Mile	No. of Miles	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
Medicine Lodge										
North	300-01*	N/A	T2 1/0 ACSR (UB)	N/A	4.00	\$160,000	\$160,000	\$0	\$0	\$0
North	300-02*	N/A	Three-Phase	N/A	4.00	\$105,000	\$105,000	\$0	\$0	\$0
Haviland (FEMA)										
East	300-17	Replace ES structures, Haviland to Four Corners	N/A		N/A	\$270,000	\$270,000	\$0	\$0	\$0
(FEMA)										
East	300-18	Add Neutral or Shield Wire	N/A		N/A	\$85,000	\$85,000	\$0	\$0	\$0
East	300-39	N/A	N/A							
		mixed	T2 1/0 ACSR (UB)	\$70,000	3.50	\$245,000	\$245,000	\$0	\$0	\$0
		Three-Phase	Three-Phase							
East Liberal										
Neast	300-25	mixed	T2 1/0 ACSR (UB)	\$70,000	11.00	\$770,000	\$0	\$0	\$0	\$770,000
		Three-Phase	Three-Phase							
Neast	300-26	mixed	T2 1/0 ACSR (UB)	\$70,000	2.00	\$140,000	\$0	\$0	\$0	\$140,000
		Three-Phase	Three-Phase							
Neast	300-27	mixed	T2 1/0 ACSR (UB)	\$70,000	2.00	\$140,000	\$0	\$0	\$0	\$140,000
		Three-Phase	Three-Phase							
North	300-42	mixed	477 ACSR (UB)	\$90,000	2.50	\$225,000	\$225,000	\$0	\$0	\$0
		Three-Phase	Three-Phase							
Sublette										
Neast	300-28	mixed	T2 1/0 ACSR (UB)	\$70,000	7.00	\$490,000	\$0	\$0	\$490,000	\$0
		Three-Phase	Three-Phase							
Saratoga										
Neast	300-29	mixed	T2 1/0 ACSR (UB)	\$70,000	2.00	\$140,000	\$0	\$0	\$140,000	\$0
		Three-Phase	Three-Phase							
South	300-30	mixed	T2 1/0 ACSR (UB)	\$70,000	2.00	\$140,000	\$0	\$0	\$140,000	\$0
		Three-Phase	Three-Phase							
Fowler										
Neast	300-31	mixed	T2 1/0 ACSR (UB)	\$70,000	1.00	\$70,000	\$70,000	\$0	\$0	\$0
		Three-Phase	Three-Phase							
Minnesota										
North	300-32	mixed	T2 1/0 ACSR (UB)	\$70,000	1.50	\$105,000	\$105,000	\$0	\$0	\$0
		Three-Phase	Three-Phase							

* Denotes Carry-Over

Section 1
Executive Summary

LINE CONVERSIONS AND RECONDUCTORING (CODE 300)

Substation and Circuit	RUS Code	Existing Conductor/No. of Phases	Recommended Conductor/No. of Phases	Cost Per Mile	No. of Miles	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
Cinnarvon River South	300-33	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	1.00	\$70,000	\$0	\$0	\$0	\$70,000
Cunningham West	300-34	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	11.00	\$770,000	\$0	\$770,000	\$0	\$0
Sum City North	300-35	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	9.20	\$644,000	\$0	\$644,000	\$0	\$0
Pratt West	300-36	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	8.00	\$560,000	\$560,000	\$0	\$0	\$0
Coldwater East	300-37	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	1.00	\$70,000	\$0	\$0	\$70,000	\$0
H&H Neat	300-38	mixed Three-Phase	T2 1/0 ACSR (UB) Three-Phase	\$70,000	6.00	\$420,000	\$0	\$0	\$420,000	\$0
4th & Oklahoma North	300-40	1/0 ACSR Three-Phase	477 ACSR (UB) Three-Phase	\$90,000	0.25	\$22,500	\$22,500	\$0	\$0	\$0
15th Street East	300-41	1/0 & 2/0 ACSR Three-Phase	4/0 ACSR (UB) Three-Phase	\$70,000	0.67	\$46,900	\$46,900	\$0	\$0	\$0
Total (FERMA)					0.00	\$355,000	\$355,000	\$0	\$0	\$0
Total (Code 300)					79.62	\$5,333,400	\$1,539,400	\$1,414,000	\$1,260,000	\$1,120,000
Total 740C (Code 300)					79.62	\$5,688,400	\$1,894,400	\$1,414,000	\$1,260,000	\$1,120,000

(UB) - Underbuild
FERMA projects reflect the 15% cost to Pioneer
* Denotes Carry-Over

Section 1

Executive Summary

NEW SUBSTATIONS, SWITCHING STATIONS, METERING POINTS, ETC. (CODE 400)

Substation	RUS Code	Item	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
SemCrude	400-01	New SemCrude substation to feed Cunningham	\$1,500,000	\$1,500,000	\$0	\$0	\$0
Southwestern Heights	400-02	New Southwestern Heights Substation	\$1,500,000	\$0	\$0	\$0	\$1,500,000
H&H	400-03	Relocate existing H&H Substation	\$1,100,000	\$0	\$1,100,000	\$0	\$0
Mead Lake Road	400-04	Combine existing substations Okie and Kismet	\$1,200,000	\$1,200,000	\$0	\$0	\$0
Total 740C (Code 400)			\$5,300,000	\$2,700,000	\$1,100,000	\$0	\$1,500,000

SUBSTATION CHANGES (CODE 500)

Substation	RUS Code	Item	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
Sharon	500-01	Rebuild and reconfigure equipment to comply with NESC Code	\$300,000	\$300,000	\$0	\$0	\$0
Englewood	500-04	Rebuild and reconfigure equipment to comply with NESC Code	\$300,000	\$300,000	\$0	\$0	\$0
Pratt	500-06	Rebuild and reconfigure equipment to comply with NESC Code	\$300,000	\$300,000	\$0	\$0	\$0
East Liberal	500-07	Insert new 34.5kV Breaker	\$150,000	\$0	\$150,000	\$0	\$0
Cudaby	500-08	Rebuild substation to increase capacity	\$1,500,000	\$0	\$0	\$0	\$1,500,000
West Liberal	500-09	Add 115/13.8kV bays and equipment to replace existing 34.5/13.8kV	\$850,000	\$0	\$0	\$0	\$850,000
North Liberal	500-10	Add 115/13.8kV bays and equipment to increase 13.8kV capacity in Liberal	\$1,000,000	\$0	\$0	\$0	\$1,000,000
Total 740C (Code 500)			\$5,000,000	\$1,500,000	\$150,000	\$0	\$3,350,000

Section 1

Executive Summary

MISCELLANEOUS DISTRIBUTION EQUIPMENT (CODE 600)

Substation	RUS Code	Item	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
603 - Sectionalizing Equipment	603-01	Sectionalizing Equip. 34.5kV Breakers	\$440,000	\$160,000	\$120,000	\$80,000	\$80,000
	603-02		\$320,000	\$80,000	\$80,000	\$80,000	\$80,000
Total 740C (Code 603)			\$760,000	\$240,000	\$200,000	\$160,000	\$160,000

MISCELLANEOUS DISTRIBUTION EQUIPMENT (CODE 600)							
Substation	RUS Code	Item	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
604 - Regulators	604-01	Spare Regs./Failures	\$160,000	\$40,000	\$40,000	\$40,000	\$40,000
Total 740C (Code 604)			\$160,000	\$40,000	\$40,000	\$40,000	\$40,000

601,602,606 - Other Equipment

Item	RUS Code	Average Cost	No.	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
Cost of Meters	601			\$900,000	\$225,000	\$225,000	\$225,000	\$225,000
Overhead Transformers	601			\$467,840	\$116,960	\$116,960	\$116,960	\$116,960
Padmount Transformers	601			\$399,040	\$99,760	\$99,760	\$99,760	\$99,760
Service Upgrades	602			\$402,000	\$100,500	\$100,500	\$100,500	\$100,500
Lightning Arrestor Program	606-01			\$40,000	\$10,000	\$10,000	\$10,000	\$10,000
Spare Yard Liberal - Oil Containment and Pad	606-02			\$150,000	\$37,500	\$37,500	\$37,500	\$37,500
Update Fence and Grounding	606-03			\$400,000	\$100,000	\$100,000	\$100,000	\$100,000
SCADA SPEC Substations	606-04			\$200,000	\$50,000	\$50,000	\$50,000	\$50,000
Osmose Inspection	606-05			\$600,000	\$150,000	\$150,000	\$150,000	\$150,000
Osmose Pole Replacement	606-06			\$2,400,000	\$600,000	\$600,000	\$600,000	\$600,000
Crossarm Replacement	606-07			\$1,600,000	\$400,000	\$400,000	\$400,000	\$400,000
Copper Replacement	606-08			\$800,000	\$200,000	\$200,000	\$200,000	\$200,000
Open Wire Secondary Replacement	606-09			\$2,200,000	\$550,000	\$550,000	\$550,000	\$550,000
CSP Replacement	606-10			\$500,000	\$125,000	\$125,000	\$125,000	\$125,000
Ungrounded Three-phase	606-11			\$1,000,000	\$250,000	\$250,000	\$250,000	\$250,000
Tree Trimming	606-12			\$1,600,000	\$400,000	\$400,000	\$400,000	\$400,000
Tapster Protection	606-13			\$80,000	\$20,000	\$20,000	\$20,000	\$20,000
Cost of Unit Replacements	606-14			\$3,801,600	\$950,400	\$950,400	\$950,400	\$950,400
Total (Code 601, 602, 606)				\$17,540,480	\$4,385,120	\$4,385,120	\$4,385,120	\$4,385,120
Total 740C (Code 600)				\$18,460,480	\$4,665,120	\$4,625,120	\$4,585,120	\$4,585,120

* - Misc. Distribution Units includes lightning arrestors, cutouts, Anchor guys and grounds

Section 1

Executive Summary

MISCELLANEOUS DISTRIBUTION EQUIPMENT (CODE 700)								
Substation	RUS Code	Item	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost	
701 - Engineering Fees		Substation Design and Evaluation	\$120,000	\$30,000	\$30,000	\$30,000	\$30,000	
702 - Streetlight Maintenance	702-01	Install	\$138,000	\$34,500	\$34,500	\$34,500	\$34,500	
	702-02	Replace	\$52,000	\$13,000	\$13,000	\$13,000	\$13,000	
705 - AMR	705	Automatic Radial Meter Read	\$1,000,000	\$250,000	\$250,000	\$250,000	\$250,000	
Total 740C (Code 700)			\$1,310,000	\$327,500	\$327,500	\$327,500	\$327,500	
Distribution Total (740C)			106.62	\$41,625,855	\$12,685,014	\$9,109,614	\$7,560,614	\$12,270,614

NEW TRANSMISSION LINE (CODE 800)

Substation and Circuit	RUS Code	Existing Conductor/No. of Phases	Recommended Conductor/No. of Phases	Cost Per Mile	No. of Miles	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
Cummingsham	800-01*	N/A N/A	T2 1/0 ACSR	\$70,000	1.90	\$133,000	\$133,000	\$0	\$0	\$0
Total 740C (Code 800)					1.90	\$133,000	\$133,000	\$0	\$0	\$0

LINE CONVERSIONS AND RECONDUCTORING SUB-TRANSMISSION (CODE 1000)

Substation and Circuit	RUS Code	Existing Conductor/No. of Phases	Recommended Conductor/No. of Phases	Cost Per Mile	No. of Miles	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
Tice Neast	1000-01	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	4.50	\$540,000	\$0	\$0	\$540,000	\$0
East Liberal Neast	1000-02	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	11.00	\$1,320,000	\$0	\$0	\$0	\$1,320,000
Neast	1000-03	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	7.00	\$840,000	\$0	\$0	\$0	\$840,000
Neast	1000-04	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	13.00	\$1,560,000	\$0	\$0	\$0	\$1,560,000
Sublette Neast	1000-05	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	7.00	\$840,000	\$0	\$0	\$840,000	\$0
Saratoga Neast	1000-06	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	9.00	\$1,080,000	\$0	\$0	\$1,080,000	\$0
West	1000-07	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	5.00	\$600,000	\$0	\$0	\$600,000	\$0
Cadsky East	1000-08	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	8.00	\$960,000	\$960,000	\$0	\$0	\$0
East	1000-09	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	11.00	\$1,320,000	\$1,320,000	\$0	\$0	\$0
Exchange Pt. 5 Neast	1000-10	T2 1/0 & 4/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	1.50	\$180,000	\$180,000	\$0	\$0	\$0
Neast	1000-12	T2 1/0 & #2 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	21.50	\$2,580,000	\$0	\$2,580,000	\$0	\$0

LINE CONVERSIONS AND RE-CONDUCTORING SUB-TRANSMISSION (CODE 1000)

Substation and Circuit	RUS Code	Existing Conductor/No. of Phases	Recommended Conductor/No. of Phases	Cost Per Mile	No. of Miles	Extended Cost	1st Year 740C Cost	2nd Year 740C Cost	3rd Year 740C Cost	4th Year 740C Cost
Cimarron River South	1000-11	2/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	1.00	\$120,000	\$0	\$0	\$0	\$120,000
Frost East	1000-13	T2 1/0 & 2/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	11.00	\$1,320,000	\$0	\$1,320,000	\$0	\$0
Frost East	1000-21	2/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	3.50	\$420,000	\$0	\$420,000	\$0	\$0
Frost West San City North	1000-15	2/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	8.00	\$960,000	\$960,000	\$0	\$0	\$0
San City North	1000-14	2/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	9.20	\$1,104,000	\$0	\$1,104,000	\$0	\$0
San City South	1000-16	T2 1/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	7.00	\$840,000	\$0	\$0	\$840,000	\$0
San City South	1000-17	2/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	9.00	\$1,080,000	\$0	\$0	\$0	\$1,080,000
San City South	1000-18	2/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	6.00	\$720,000	\$720,000	\$0	\$0	\$0
Medicine Lodge South	1000-19	2/0 ACSR Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	6.20	\$744,000	\$0	\$0	\$744,000	\$0
Medicine Lodge South	1000-20	#4 Copper Three-Phase	T2 4/0 ACSR Three-Phase	\$120,000	5.50	\$660,000	\$0	\$0	\$660,000	\$0
North Liberal East	1000-22	1/0 ACSR Three-Phase	4/0 ACSR Three-Phase	\$70,000	0.50	\$35,000	\$35,000	\$0	\$0	\$0
Total 740C (Code 1000)					165.40	\$19,823,000	\$4,173,000	\$5,424,000	\$5,304,000	\$4,920,000
(From Page 5)	Distribution Total (740C)				106.62	\$41,625,855	\$12,635,014	\$9,109,614	\$7,560,614	\$12,270,614
	Transmission Total (740C)				167.30	\$19,956,000	\$4,308,000	\$5,424,000	\$5,304,000	\$4,920,000
Total Distribution and Transmission Total (740C)					273.92	\$61,581,855	\$16,993,014	\$14,533,614	\$12,864,614	\$17,190,614

EXHIBIT CCS-3
(Southern Pioneer Long-Term Debt)
380 Docket

Note Designation	Note Holder	Date of Origination	Original Outstanding Principle	Interest Rate	12/31/11 Outstanding Principle
RX0435T1A	CoBank	24-Oct-11	\$ 6,121,214.60	6.66%	\$ 6,083,352.15
RX0435T2	CoBank	24-Oct-11	\$ 20,861,364.76	5.37%	\$ 20,813,402.21
RX0435T4	CoBank	24-Oct-11	\$ 63,688,239.37	5.37%	\$ 63,545,054.89
Total LT Debt			\$ 90,670,818.73		\$ 90,441,809.25

EXHIBIT CCS-4

CoBank T4-1 Loan Amortization

			Fixed to Maturity on Interest Rate		12/20/2012 4.75%	
	Days	Principal Balance	Principal Payment	Interest Payment	Total Payment	
12/20/2012		\$ 9,000,000.00				
1/20/2013	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
2/20/2013	28	\$ 9,000,000.00	\$ -	\$ 33,250.00	\$ 33,250.00	
3/20/2013	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
4/20/2013	30	\$ 9,000,000.00	\$ -	\$ 35,625.00	\$ 35,625.00	
5/20/2013	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
6/20/2013	30	\$ 9,000,000.00	\$ -	\$ 35,625.00	\$ 35,625.00	
7/20/2013	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
8/20/2013	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
9/20/2013	30	\$ 9,000,000.00	\$ -	\$ 35,625.00	\$ 35,625.00	
10/20/2013	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
11/20/2013	30	\$ 9,000,000.00	\$ -	\$ 35,625.00	\$ 35,625.00	
12/20/2013	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
1/20/2014	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
2/20/2014	28	\$ 9,000,000.00	\$ -	\$ 33,250.00	\$ 33,250.00	
3/20/2014	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
4/20/2014	30	\$ 9,000,000.00	\$ -	\$ 35,625.00	\$ 35,625.00	
5/20/2014	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
6/20/2014	30	\$ 9,000,000.00	\$ -	\$ 35,625.00	\$ 35,625.00	
7/20/2014	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
8/20/2014	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
9/20/2014	30	\$ 9,000,000.00	\$ -	\$ 35,625.00	\$ 35,625.00	
10/20/2014	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
11/20/2014	30	\$ 9,000,000.00	\$ -	\$ 35,625.00	\$ 35,625.00	
12/20/2014	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
1/20/2015	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
2/20/2015	28	\$ 9,000,000.00	\$ -	\$ 33,250.00	\$ 33,250.00	
3/20/2015	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
4/20/2015	30	\$ 9,000,000.00	\$ -	\$ 35,625.00	\$ 35,625.00	
5/20/2015	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
6/20/2015	30	\$ 9,000,000.00	\$ -	\$ 35,625.00	\$ 35,625.00	
7/20/2015	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
8/20/2015	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
9/20/2015	30	\$ 9,000,000.00	\$ -	\$ 35,625.00	\$ 35,625.00	
10/20/2015	31	\$ 9,000,000.00	\$ -	\$ 36,812.50	\$ 36,812.50	
11/20/2015	30	\$ 8,981,226.10	\$ 18,773.90	\$ 35,625.00	\$ 54,398.90	
12/20/2015	31	\$ 8,962,403.54	\$ 18,822.56	\$ 36,735.71	\$ 55,558.27	
1/20/2016	31	\$ 8,943,532.19	\$ 18,871.35	\$ 36,658.72	\$ 55,530.07	
2/20/2016	29	\$ 8,924,611.94	\$ 18,920.25	\$ 34,221.43	\$ 53,141.68	
3/20/2016	31	\$ 8,905,642.65	\$ 18,969.29	\$ 36,504.14	\$ 55,473.43	

EXHIBIT CCS-4

CoBank T4-1 Loan Amortization

			Fixed to Maturity on		12/20/2012	
			Interest Rate		4.75%	
	Days	Principal Balance	Principal Payment	Interest Payment	Total Payment	
4/20/2016	30	\$ 8,886,624.20	\$ 19,018.45	\$ 35,251.50	\$ 54,269.95	
5/20/2016	31	\$ 8,867,556.46	\$ 19,067.74	\$ 36,348.76	\$ 55,416.50	
6/20/2016	30	\$ 8,848,439.31	\$ 19,117.15	\$ 35,100.74	\$ 54,217.89	
7/20/2016	31	\$ 8,829,272.61	\$ 19,166.70	\$ 36,192.57	\$ 55,359.27	
8/20/2016	31	\$ 8,810,056.24	\$ 19,216.37	\$ 36,114.18	\$ 55,330.55	
9/20/2016	30	\$ 8,790,790.06	\$ 19,266.18	\$ 34,873.14	\$ 54,139.32	
10/20/2016	31	\$ 8,771,473.95	\$ 19,316.11	\$ 35,956.77	\$ 55,272.88	
11/20/2016	30	\$ 8,752,107.78	\$ 19,366.17	\$ 34,720.42	\$ 54,086.59	
12/20/2016	31	\$ 8,732,691.42	\$ 19,416.36	\$ 35,798.55	\$ 55,214.91	
1/20/2017	31	\$ 8,713,224.74	\$ 19,466.68	\$ 35,719.13	\$ 55,185.81	
2/20/2017	28	\$ 8,693,707.61	\$ 19,517.13	\$ 32,190.52	\$ 51,707.65	
3/20/2017	31	\$ 8,674,139.90	\$ 19,567.71	\$ 35,559.68	\$ 55,127.39	
4/20/2017	30	\$ 8,654,521.47	\$ 19,618.43	\$ 34,335.14	\$ 53,953.57	
5/20/2017	31	\$ 8,634,852.20	\$ 19,669.27	\$ 35,399.40	\$ 55,068.67	
6/20/2017	30	\$ 8,615,131.95	\$ 19,720.25	\$ 34,179.62	\$ 53,899.87	
7/20/2017	31	\$ 8,595,360.60	\$ 19,771.35	\$ 35,238.28	\$ 55,009.63	
8/20/2017	31	\$ 8,575,538.00	\$ 19,822.60	\$ 35,157.41	\$ 54,980.01	
9/20/2017	30	\$ 8,555,664.03	\$ 19,873.97	\$ 33,944.84	\$ 53,818.81	
10/20/2017	31	\$ 8,535,738.55	\$ 19,925.48	\$ 34,995.04	\$ 54,920.52	
11/20/2017	30	\$ 8,515,761.43	\$ 19,977.12	\$ 33,787.30	\$ 53,764.42	
12/20/2017	31	\$ 8,495,732.54	\$ 20,028.89	\$ 34,831.83	\$ 54,860.72	
1/20/2018	31	\$ 8,475,651.74	\$ 20,080.80	\$ 34,749.91	\$ 54,830.71	
2/20/2018	28	\$ 8,455,518.90	\$ 20,132.84	\$ 31,312.82	\$ 51,445.66	
3/20/2018	31	\$ 8,435,333.88	\$ 20,185.02	\$ 34,585.42	\$ 54,770.44	
4/20/2018	30	\$ 8,415,096.55	\$ 20,237.33	\$ 33,389.86	\$ 53,627.19	
5/20/2018	31	\$ 8,394,806.77	\$ 20,289.78	\$ 34,420.08	\$ 54,709.86	
6/20/2018	30	\$ 8,374,464.41	\$ 20,342.36	\$ 33,229.44	\$ 53,571.80	
7/20/2018	31	\$ 8,354,069.33	\$ 20,395.08	\$ 34,253.89	\$ 54,648.97	
8/20/2018	31	\$ 8,333,621.39	\$ 20,447.94	\$ 34,170.46	\$ 54,618.40	
9/20/2018	30	\$ 8,313,120.45	\$ 20,500.94	\$ 32,987.25	\$ 53,488.19	
10/20/2018	31	\$ 8,292,566.38	\$ 20,554.07	\$ 34,002.97	\$ 54,557.04	
11/20/2018	30	\$ 8,271,959.04	\$ 20,607.34	\$ 32,824.74	\$ 53,432.08	
12/20/2018	31	\$ 8,251,298.30	\$ 20,660.74	\$ 33,834.61	\$ 54,495.35	
1/20/2019	31	\$ 8,230,584.00	\$ 20,714.30	\$ 33,750.10	\$ 54,464.40	
2/20/2019	28	\$ 8,209,816.03	\$ 20,767.97	\$ 30,407.44	\$ 51,175.41	
3/20/2019	31	\$ 8,188,994.23	\$ 20,821.80	\$ 33,580.43	\$ 54,402.23	
4/20/2019	30	\$ 8,168,118.47	\$ 20,875.76	\$ 32,414.77	\$ 53,290.53	
5/20/2019	31	\$ 8,147,188.61	\$ 20,929.86	\$ 33,409.87	\$ 54,339.73	
6/20/2019	30	\$ 8,126,204.50	\$ 20,984.11	\$ 32,249.29	\$ 53,233.40	
7/20/2019	31	\$ 8,105,166.01	\$ 21,038.49	\$ 33,238.43	\$ 54,276.92	
8/20/2019	31	\$ 8,084,072.99	\$ 21,093.02	\$ 33,152.38	\$ 54,245.40	

EXHIBIT CCS-4

CoBank T4-1 Loan Amortization

			Fixed to Maturity on Interest Rate		12/20/2012 4.75%	
	Days	Principal Balance	Principal Payment	Interest Payment	Total Payment	
9/20/2019	30	\$ 8,062,925.31	\$ 21,147.68	\$ 31,999.46	\$ 53,147.14	
10/20/2019	31	\$ 8,041,722.82	\$ 21,202.49	\$ 32,979.60	\$ 54,182.09	
11/20/2019	30	\$ 8,020,465.38	\$ 21,257.44	\$ 31,831.82	\$ 53,089.26	
12/20/2019	31	\$ 7,999,152.85	\$ 21,312.53	\$ 32,805.93	\$ 54,118.46	
1/20/2020	31	\$ 7,977,785.08	\$ 21,367.77	\$ 32,718.76	\$ 54,086.53	
2/20/2020	29	\$ 7,956,361.93	\$ 21,423.15	\$ 30,526.11	\$ 51,949.26	
3/20/2020	31	\$ 7,934,883.26	\$ 21,478.67	\$ 32,543.73	\$ 54,022.40	
4/20/2020	30	\$ 7,913,348.93	\$ 21,534.33	\$ 31,408.91	\$ 52,943.24	
5/20/2020	31	\$ 7,891,758.79	\$ 21,590.14	\$ 32,367.80	\$ 53,957.94	
6/20/2020	30	\$ 7,870,112.69	\$ 21,646.10	\$ 31,238.21	\$ 52,884.31	
7/20/2020	31	\$ 7,848,410.49	\$ 21,702.20	\$ 32,190.95	\$ 53,893.15	
8/20/2020	31	\$ 7,826,652.05	\$ 21,758.44	\$ 32,102.18	\$ 53,860.62	
9/20/2020	30	\$ 7,804,837.22	\$ 21,814.83	\$ 30,980.50	\$ 52,795.33	
10/20/2020	31	\$ 7,782,965.85	\$ 21,871.37	\$ 31,923.95	\$ 53,795.32	
11/20/2020	30	\$ 7,761,037.80	\$ 21,928.05	\$ 30,807.57	\$ 52,735.62	
12/20/2020	31	\$ 7,739,052.92	\$ 21,984.88	\$ 31,744.80	\$ 53,729.68	
1/20/2021	31	\$ 7,717,011.05	\$ 22,041.87	\$ 31,654.88	\$ 53,696.75	
2/20/2021	28	\$ 7,694,912.07	\$ 22,098.98	\$ 28,510.07	\$ 50,609.05	
3/20/2021	31	\$ 7,672,755.81	\$ 22,156.26	\$ 31,474.33	\$ 53,630.59	
4/20/2021	30	\$ 7,650,542.13	\$ 22,213.68	\$ 30,371.33	\$ 52,585.01	
5/20/2021	31	\$ 7,628,270.88	\$ 22,271.25	\$ 31,292.84	\$ 53,564.09	
6/20/2021	30	\$ 7,605,941.91	\$ 22,328.97	\$ 30,195.24	\$ 52,524.21	
7/20/2021	31	\$ 7,583,555.07	\$ 22,386.84	\$ 31,110.42	\$ 53,497.26	
8/20/2021	31	\$ 7,561,110.21	\$ 22,444.86	\$ 31,018.85	\$ 53,463.71	
9/20/2021	30	\$ 7,538,607.18	\$ 22,503.03	\$ 29,929.39	\$ 52,432.42	
10/20/2021	31	\$ 7,516,045.83	\$ 22,561.35	\$ 30,835.00	\$ 53,396.35	
11/20/2021	30	\$ 7,493,426.01	\$ 22,619.82	\$ 29,751.01	\$ 52,370.83	
12/20/2021	31	\$ 7,470,747.57	\$ 22,678.44	\$ 30,650.19	\$ 53,328.63	
1/20/2022	31	\$ 7,448,010.35	\$ 22,737.22	\$ 30,557.43	\$ 53,294.65	
2/20/2022	28	\$ 7,425,214.21	\$ 22,796.14	\$ 27,516.26	\$ 50,312.40	
3/20/2022	31	\$ 7,402,358.99	\$ 22,855.22	\$ 30,371.19	\$ 53,226.41	
4/20/2022	30	\$ 7,379,444.53	\$ 22,914.46	\$ 29,301.00	\$ 52,215.46	
5/20/2022	31	\$ 7,356,470.69	\$ 22,973.84	\$ 30,183.98	\$ 53,157.82	
6/20/2022	30	\$ 7,333,437.30	\$ 23,033.39	\$ 29,119.36	\$ 52,152.75	
7/20/2022	31	\$ 7,310,344.22	\$ 23,093.08	\$ 29,995.80	\$ 53,088.88	
8/20/2022	31	\$ 7,287,191.29	\$ 23,152.93	\$ 29,901.34	\$ 53,054.27	
9/20/2022	30	\$ 7,263,978.36	\$ 23,212.93	\$ 28,845.13	\$ 52,058.06	
10/20/2022	31	\$ 7,240,705.27	\$ 23,273.09	\$ 29,711.69	\$ 52,984.78	
11/20/2022	30	\$ 7,217,371.86	\$ 23,333.41	\$ 28,661.13	\$ 51,994.54	
12/20/2022	31	\$ 7,193,977.98	\$ 23,393.88	\$ 29,521.06	\$ 52,914.94	
1/20/2023	31	\$ 7,170,523.46	\$ 23,454.52	\$ 29,425.37	\$ 52,879.89	

EXHIBIT CCS-4

CoBank T4-1 Loan Amortization

			Fixed to Maturity on Interest Rate		12/20/2012 4.75%	
	Days	Principal Balance	Principal Payment	Interest Payment	Total Payment	
2/20/2023	28	\$ 7,147,008.16	\$ 23,515.30	\$ 26,491.10	\$ 50,006.40	
3/20/2023	31	\$ 7,123,431.92	\$ 23,576.24	\$ 29,233.25	\$ 52,809.49	
4/20/2023	30	\$ 7,099,794.58	\$ 23,637.34	\$ 28,196.92	\$ 51,834.26	
5/20/2023	31	\$ 7,076,095.98	\$ 23,698.60	\$ 29,040.13	\$ 52,738.73	
6/20/2023	30	\$ 7,052,335.96	\$ 23,760.02	\$ 28,009.55	\$ 51,769.57	
7/20/2023	31	\$ 7,028,514.36	\$ 23,821.60	\$ 28,846.01	\$ 52,667.61	
8/20/2023	31	\$ 7,004,631.02	\$ 23,883.34	\$ 28,748.58	\$ 52,631.92	
9/20/2023	30	\$ 6,980,685.78	\$ 23,945.24	\$ 27,726.66	\$ 51,671.90	
10/20/2023	31	\$ 6,956,678.49	\$ 24,007.29	\$ 28,552.94	\$ 52,560.23	
11/20/2023	30	\$ 6,932,608.98	\$ 24,069.51	\$ 27,536.85	\$ 51,606.36	
12/20/2023	31	\$ 6,908,477.09	\$ 24,131.89	\$ 28,356.30	\$ 52,488.19	
1/20/2024	31	\$ 6,884,282.65	\$ 24,194.44	\$ 28,257.59	\$ 52,452.03	
2/20/2024	29	\$ 6,860,025.51	\$ 24,257.14	\$ 26,341.94	\$ 50,599.08	
3/20/2024	31	\$ 6,835,705.50	\$ 24,320.01	\$ 28,059.41	\$ 52,379.42	
4/20/2024	30	\$ 6,811,322.47	\$ 24,383.03	\$ 27,058.00	\$ 51,441.03	
5/20/2024	31	\$ 6,786,876.24	\$ 24,446.23	\$ 27,860.20	\$ 52,306.43	
6/20/2024	30	\$ 6,762,366.66	\$ 24,509.58	\$ 26,864.72	\$ 51,374.30	
7/20/2024	31	\$ 6,737,793.56	\$ 24,573.10	\$ 27,659.96	\$ 52,233.06	
8/20/2024	31	\$ 6,713,156.77	\$ 24,636.79	\$ 27,559.45	\$ 52,196.24	
9/20/2024	30	\$ 6,688,456.13	\$ 24,700.64	\$ 26,572.91	\$ 51,273.55	
10/20/2024	31	\$ 6,663,691.47	\$ 24,764.66	\$ 27,357.64	\$ 52,122.30	
11/20/2024	30	\$ 6,638,862.63	\$ 24,828.84	\$ 26,377.11	\$ 51,205.95	
12/20/2024	31	\$ 6,613,969.44	\$ 24,893.19	\$ 27,154.79	\$ 52,047.98	
1/20/2025	31	\$ 6,589,011.74	\$ 24,957.70	\$ 27,052.97	\$ 52,010.67	
2/20/2025	28	\$ 6,563,989.36	\$ 25,022.38	\$ 24,342.74	\$ 49,365.12	
3/20/2025	31	\$ 6,538,902.13	\$ 25,087.23	\$ 26,848.54	\$ 51,935.77	
4/20/2025	30	\$ 6,513,749.88	\$ 25,152.25	\$ 25,883.15	\$ 51,035.40	
5/20/2025	31	\$ 6,488,532.44	\$ 25,217.44	\$ 26,643.05	\$ 51,860.49	
6/20/2025	30	\$ 6,463,249.65	\$ 25,282.79	\$ 25,683.77	\$ 50,966.56	
7/20/2025	31	\$ 6,437,901.33	\$ 25,348.32	\$ 26,436.49	\$ 51,784.81	
8/20/2025	31	\$ 6,412,487.32	\$ 25,414.01	\$ 26,332.80	\$ 51,746.81	
9/20/2025	30	\$ 6,387,007.44	\$ 25,479.88	\$ 25,382.76	\$ 50,862.64	
10/20/2025	31	\$ 6,361,461.53	\$ 25,545.91	\$ 26,124.63	\$ 51,670.54	
11/20/2025	30	\$ 6,335,849.41	\$ 25,612.12	\$ 25,180.79	\$ 50,792.91	
12/20/2025	31	\$ 6,310,170.91	\$ 25,678.50	\$ 25,915.38	\$ 51,593.88	
1/20/2026	31	\$ 6,284,425.86	\$ 25,745.05	\$ 25,810.35	\$ 51,555.40	
2/20/2026	28	\$ 6,258,614.09	\$ 25,811.77	\$ 23,217.46	\$ 49,029.23	
3/20/2026	31	\$ 6,232,735.43	\$ 25,878.66	\$ 25,599.47	\$ 51,478.13	
4/20/2026	30	\$ 6,206,789.70	\$ 25,945.73	\$ 24,671.24	\$ 50,616.97	
5/20/2026	31	\$ 6,180,776.72	\$ 26,012.98	\$ 25,387.49	\$ 51,400.47	
6/20/2026	30	\$ 6,154,696.33	\$ 26,080.39	\$ 24,465.57	\$ 50,545.96	

EXHIBIT CCS-4

CoBank T4-1 Loan Amortization

			Fixed to Maturity on		12/20/2012	
			Interest Rate		4.75%	
	Days	Principal Balance	Principal Payment	Interest Payment	Total Payment	
7/20/2026	31	\$ 6,128,548.35	\$ 26,147.98	\$ 25,174.42	\$ 51,322.40	
8/20/2026	31	\$ 6,102,332.60	\$ 26,215.75	\$ 25,067.47	\$ 51,283.22	
9/20/2026	30	\$ 6,076,048.91	\$ 26,283.69	\$ 24,155.07	\$ 50,438.76	
10/20/2026	31	\$ 6,049,697.10	\$ 26,351.81	\$ 24,852.73	\$ 51,204.54	
11/20/2026	30	\$ 6,023,276.99	\$ 26,420.11	\$ 23,946.72	\$ 50,366.83	
12/20/2026	31	\$ 5,996,788.41	\$ 26,488.58	\$ 24,636.88	\$ 51,125.46	
1/20/2027	31	\$ 5,970,231.18	\$ 26,557.23	\$ 24,528.53	\$ 51,085.76	
2/20/2027	28	\$ 5,943,605.12	\$ 26,626.06	\$ 22,056.69	\$ 48,682.75	
3/20/2027	31	\$ 5,916,910.06	\$ 26,695.06	\$ 24,311.00	\$ 51,006.06	
4/20/2027	30	\$ 5,890,145.81	\$ 26,764.25	\$ 23,421.10	\$ 50,185.35	
5/20/2027	31	\$ 5,863,312.20	\$ 26,833.61	\$ 24,092.33	\$ 50,925.94	
6/20/2027	30	\$ 5,836,409.05	\$ 26,903.15	\$ 23,208.94	\$ 50,112.09	
7/20/2027	31	\$ 5,809,436.17	\$ 26,972.88	\$ 23,872.53	\$ 50,845.41	
8/20/2027	31	\$ 5,782,393.39	\$ 27,042.78	\$ 23,762.21	\$ 50,804.99	
9/20/2027	30	\$ 5,755,280.52	\$ 27,112.87	\$ 22,888.64	\$ 50,001.51	
10/20/2027	31	\$ 5,728,097.38	\$ 27,183.14	\$ 23,540.70	\$ 50,723.84	
11/20/2027	30	\$ 5,700,843.79	\$ 27,253.59	\$ 22,673.72	\$ 49,927.31	
12/20/2027	31	\$ 5,673,519.57	\$ 27,324.22	\$ 23,318.03	\$ 50,642.25	
1/20/2028	31	\$ 5,646,124.53	\$ 27,395.04	\$ 23,206.27	\$ 50,601.31	
2/20/2028	29	\$ 5,618,658.50	\$ 27,466.03	\$ 21,604.27	\$ 49,070.30	
3/20/2028	31	\$ 5,591,121.28	\$ 27,537.22	\$ 22,981.87	\$ 50,519.09	
4/20/2028	30	\$ 5,563,512.70	\$ 27,608.58	\$ 22,131.52	\$ 49,740.10	
5/20/2028	31	\$ 5,535,832.57	\$ 27,680.13	\$ 22,756.31	\$ 50,436.44	
6/20/2028	30	\$ 5,508,080.70	\$ 27,751.87	\$ 21,912.67	\$ 49,664.54	
7/20/2028	31	\$ 5,480,256.90	\$ 27,823.80	\$ 22,529.58	\$ 50,353.38	
8/20/2028	31	\$ 5,452,360.99	\$ 27,895.91	\$ 22,415.77	\$ 50,311.68	
9/20/2028	30	\$ 5,424,392.79	\$ 27,968.20	\$ 21,582.26	\$ 49,550.46	
10/20/2028	31	\$ 5,396,352.10	\$ 28,040.69	\$ 22,187.27	\$ 50,227.96	
11/20/2028	30	\$ 5,368,238.74	\$ 28,113.36	\$ 21,360.56	\$ 49,473.92	
12/20/2028	31	\$ 5,340,052.52	\$ 28,186.22	\$ 21,957.59	\$ 50,143.81	
1/20/2029	31	\$ 5,311,793.25	\$ 28,259.27	\$ 21,842.30	\$ 50,101.57	
2/20/2029	28	\$ 5,283,460.74	\$ 28,332.51	\$ 19,624.13	\$ 47,956.64	
3/20/2029	31	\$ 5,255,054.80	\$ 28,405.94	\$ 21,610.82	\$ 50,016.76	
4/20/2029	30	\$ 5,226,575.25	\$ 28,479.55	\$ 20,801.26	\$ 49,280.81	
5/20/2029	31	\$ 5,198,021.89	\$ 28,553.36	\$ 21,378.14	\$ 49,931.50	
6/20/2029	30	\$ 5,169,394.53	\$ 28,627.36	\$ 20,575.50	\$ 49,202.86	
7/20/2029	31	\$ 5,140,692.97	\$ 28,701.56	\$ 21,144.26	\$ 49,845.82	
8/20/2029	31	\$ 5,111,917.03	\$ 28,775.94	\$ 21,026.86	\$ 49,802.80	
9/20/2029	30	\$ 5,083,066.51	\$ 28,850.52	\$ 20,234.67	\$ 49,085.19	
10/20/2029	31	\$ 5,054,141.22	\$ 28,925.29	\$ 20,791.15	\$ 49,716.44	
11/20/2029	30	\$ 5,025,140.96	\$ 29,000.26	\$ 20,005.98	\$ 49,006.24	

EXHIBIT CCS-4

CoBank T4-1 Loan Amortization

			Fixed to Maturity on		12/20/2012	
			Interest Rate		4.75%	
	Days	Principal Balance	Principal Payment	Interest Payment	Total Payment	
12/20/2029	31	\$ 4,996,065.55	\$ 29,075.41	\$ 20,554.22	\$ 49,629.63	
1/20/2030	31	\$ 4,966,914.78	\$ 29,150.77	\$ 20,435.30	\$ 49,586.07	
2/20/2030	28	\$ 4,937,688.46	\$ 29,226.32	\$ 18,349.99	\$ 47,576.31	
3/20/2030	31	\$ 4,908,386.40	\$ 29,302.06	\$ 20,196.52	\$ 49,498.58	
4/20/2030	30	\$ 4,879,008.40	\$ 29,378.00	\$ 19,429.03	\$ 48,807.03	
5/20/2030	31	\$ 4,849,554.26	\$ 29,454.14	\$ 19,956.50	\$ 49,410.64	
6/20/2030	30	\$ 4,820,023.78	\$ 29,530.48	\$ 19,196.15	\$ 48,726.63	
7/20/2030	31	\$ 4,790,416.77	\$ 29,607.01	\$ 19,715.24	\$ 49,322.25	
8/20/2030	31	\$ 4,760,733.03	\$ 29,683.74	\$ 19,594.14	\$ 49,277.88	
9/20/2030	30	\$ 4,730,972.36	\$ 29,760.67	\$ 18,844.57	\$ 48,605.24	
10/20/2030	31	\$ 4,701,134.56	\$ 29,837.80	\$ 19,350.99	\$ 49,188.79	
11/20/2030	30	\$ 4,671,219.43	\$ 29,915.13	\$ 18,608.66	\$ 48,523.79	
12/20/2030	31	\$ 4,641,226.77	\$ 29,992.66	\$ 19,106.59	\$ 49,099.25	
1/20/2031	31	\$ 4,611,156.37	\$ 30,070.40	\$ 18,983.91	\$ 49,054.31	
2/20/2031	28	\$ 4,581,008.05	\$ 30,148.32	\$ 17,035.66	\$ 47,183.98	
3/20/2031	31	\$ 4,550,781.59	\$ 30,226.46	\$ 18,737.60	\$ 48,964.06	
4/20/2031	30	\$ 4,520,476.79	\$ 30,304.80	\$ 18,013.51	\$ 48,318.31	
5/20/2031	31	\$ 4,490,093.45	\$ 30,383.34	\$ 18,490.01	\$ 48,873.35	
6/20/2031	30	\$ 4,459,631.37	\$ 30,462.08	\$ 17,773.29	\$ 48,235.37	
7/20/2031	31	\$ 4,429,090.34	\$ 30,541.03	\$ 18,241.13	\$ 48,782.16	
8/20/2031	31	\$ 4,398,470.16	\$ 30,620.18	\$ 18,116.21	\$ 48,736.39	
9/20/2031	30	\$ 4,367,770.62	\$ 30,699.54	\$ 17,410.61	\$ 48,110.15	
10/20/2031	31	\$ 4,336,991.52	\$ 30,779.10	\$ 17,865.40	\$ 48,644.50	
11/20/2031	30	\$ 4,306,132.65	\$ 30,858.87	\$ 17,167.26	\$ 48,026.13	
12/20/2031	31	\$ 4,275,193.81	\$ 30,938.84	\$ 17,613.28	\$ 48,552.12	
1/20/2032	31	\$ 4,244,174.78	\$ 31,019.03	\$ 17,486.73	\$ 48,505.76	
2/20/2032	29	\$ 4,213,075.36	\$ 31,099.42	\$ 16,239.86	\$ 47,339.28	
3/20/2032	31	\$ 4,181,895.34	\$ 31,180.02	\$ 17,232.65	\$ 48,412.67	
4/20/2032	30	\$ 4,150,634.51	\$ 31,260.83	\$ 16,553.34	\$ 47,814.17	
5/20/2032	31	\$ 4,119,292.67	\$ 31,341.84	\$ 16,977.25	\$ 48,319.09	
6/20/2032	30	\$ 4,087,869.60	\$ 31,423.07	\$ 16,305.53	\$ 47,728.60	
7/20/2032	31	\$ 4,056,365.09	\$ 31,504.51	\$ 16,720.52	\$ 48,225.03	
8/20/2032	31	\$ 4,024,778.93	\$ 31,586.16	\$ 16,591.66	\$ 48,177.82	
9/20/2032	30	\$ 3,993,110.91	\$ 31,668.02	\$ 15,931.42	\$ 47,599.44	
10/20/2032	31	\$ 3,961,360.82	\$ 31,750.09	\$ 16,332.93	\$ 48,083.02	
11/20/2032	30	\$ 3,929,528.44	\$ 31,832.38	\$ 15,680.39	\$ 47,512.77	
12/20/2032	31	\$ 3,897,613.56	\$ 31,914.88	\$ 16,072.86	\$ 47,987.74	
1/20/2033	31	\$ 3,865,615.96	\$ 31,997.60	\$ 15,942.32	\$ 47,939.92	
2/20/2033	28	\$ 3,833,535.44	\$ 32,080.52	\$ 14,281.30	\$ 46,361.82	
3/20/2033	31	\$ 3,801,371.78	\$ 32,163.66	\$ 15,680.22	\$ 47,843.88	
4/20/2033	30	\$ 3,769,124.76	\$ 32,247.02	\$ 15,047.10	\$ 47,294.12	

EXHIBIT CCS-4

CoBank T4-1 Loan Amortization

		Fixed to Maturity on		12/20/2012	
		Interest Rate		4.75%	
	Days	Principal Balance	Principal Payment	Interest Payment	Total Payment
5/20/2033	31	\$ 3,736,794.17	\$ 32,330.59	\$ 15,416.77	\$ 47,747.36
6/20/2033	30	\$ 3,704,379.79	\$ 32,414.38	\$ 14,791.48	\$ 47,205.86
7/20/2033	31	\$ 3,671,881.40	\$ 32,498.39	\$ 15,151.94	\$ 47,650.33
8/20/2033	31	\$ 3,639,298.79	\$ 32,582.61	\$ 15,019.01	\$ 47,601.62
9/20/2033	30	\$ 3,606,631.73	\$ 32,667.06	\$ 14,405.56	\$ 47,072.62
10/20/2033	31	\$ 3,573,880.01	\$ 32,751.72	\$ 14,752.13	\$ 47,503.85
11/20/2033	30	\$ 3,541,043.41	\$ 32,836.60	\$ 14,146.61	\$ 46,983.21
12/20/2033	31	\$ 3,508,121.71	\$ 32,921.70	\$ 14,483.85	\$ 47,405.55
1/20/2034	31	\$ 3,475,114.68	\$ 33,007.03	\$ 14,349.19	\$ 47,356.22
2/20/2034	28	\$ 3,442,022.11	\$ 33,092.57	\$ 12,838.62	\$ 45,931.19
3/20/2034	31	\$ 3,408,843.78	\$ 33,178.33	\$ 14,078.83	\$ 47,257.16
4/20/2034	30	\$ 3,375,579.46	\$ 33,264.32	\$ 13,493.34	\$ 46,757.66
5/20/2034	31	\$ 3,342,228.93	\$ 33,350.53	\$ 13,807.06	\$ 47,157.59
6/20/2034	30	\$ 3,308,791.97	\$ 33,436.96	\$ 13,229.66	\$ 46,666.62
7/20/2034	31	\$ 3,275,268.35	\$ 33,523.62	\$ 13,533.88	\$ 47,057.50
8/20/2034	31	\$ 3,241,657.85	\$ 33,610.50	\$ 13,396.76	\$ 47,007.26
9/20/2034	30	\$ 3,207,960.24	\$ 33,697.61	\$ 12,831.56	\$ 46,529.17
10/20/2034	31	\$ 3,174,175.30	\$ 33,784.94	\$ 13,121.45	\$ 46,906.39
11/20/2034	30	\$ 3,140,302.80	\$ 33,872.50	\$ 12,564.44	\$ 46,436.94
12/20/2034	31	\$ 3,106,342.51	\$ 33,960.29	\$ 12,844.71	\$ 46,805.00
1/20/2035	31	\$ 3,072,294.21	\$ 34,048.30	\$ 12,705.80	\$ 46,754.10
2/20/2035	28	\$ 3,038,157.67	\$ 34,136.54	\$ 11,350.42	\$ 45,486.96
3/20/2035	31	\$ 3,003,932.66	\$ 34,225.01	\$ 12,426.91	\$ 46,651.92
4/20/2035	30	\$ 2,969,618.95	\$ 34,313.71	\$ 11,890.57	\$ 46,204.28
5/20/2035	31	\$ 2,935,216.31	\$ 34,402.64	\$ 12,146.57	\$ 46,549.21
6/20/2035	30	\$ 2,900,724.51	\$ 34,491.80	\$ 11,618.56	\$ 46,110.36
7/20/2035	31	\$ 2,866,143.32	\$ 34,581.19	\$ 11,864.77	\$ 46,445.96
8/20/2035	31	\$ 2,831,472.50	\$ 34,670.82	\$ 11,723.32	\$ 46,394.14
9/20/2035	30	\$ 2,796,711.83	\$ 34,760.67	\$ 11,207.91	\$ 45,968.58
10/20/2035	31	\$ 2,761,861.07	\$ 34,850.76	\$ 11,439.33	\$ 46,290.09
11/20/2035	30	\$ 2,726,919.99	\$ 34,941.08	\$ 10,932.37	\$ 45,873.45
12/20/2035	31	\$ 2,691,888.35	\$ 35,031.64	\$ 11,153.86	\$ 46,185.50
1/20/2036	31	\$ 2,656,765.92	\$ 35,122.43	\$ 11,010.57	\$ 46,133.00
2/20/2036	29	\$ 2,621,552.47	\$ 35,213.45	\$ 10,165.82	\$ 45,379.27
3/20/2036	31	\$ 2,586,247.76	\$ 35,304.71	\$ 10,722.88	\$ 46,027.59
4/20/2036	30	\$ 2,550,851.55	\$ 35,396.21	\$ 10,237.23	\$ 45,633.44
5/20/2036	31	\$ 2,515,363.60	\$ 35,487.95	\$ 10,433.69	\$ 45,921.64
6/20/2036	30	\$ 2,479,783.68	\$ 35,579.92	\$ 9,956.65	\$ 45,536.57
7/20/2036	31	\$ 2,444,111.55	\$ 35,672.13	\$ 10,143.00	\$ 45,815.13
8/20/2036	31	\$ 2,408,346.97	\$ 35,764.58	\$ 9,997.10	\$ 45,761.68
9/20/2036	30	\$ 2,372,489.70	\$ 35,857.27	\$ 9,533.04	\$ 45,390.31

EXHIBIT CCS-4

CoBank T4-1 Loan Amortization

			Fixed to Maturity on		12/20/2012	
			Interest Rate		4.75%	
	Days	Principal Balance	Principal Payment	Interest Payment	Total Payment	
10/20/2036	31	\$ 2,336,539.50	\$ 35,950.20	\$ 9,704.14	\$ 45,654.34	
11/20/2036	30	\$ 2,300,496.13	\$ 36,043.37	\$ 9,248.80	\$ 45,292.17	
12/20/2036	31	\$ 2,264,359.34	\$ 36,136.79	\$ 9,409.67	\$ 45,546.46	
1/20/2037	31	\$ 2,228,128.89	\$ 36,230.45	\$ 9,261.86	\$ 45,492.31	
2/20/2037	28	\$ 2,191,804.55	\$ 36,324.34	\$ 8,231.70	\$ 44,556.04	
3/20/2037	31	\$ 2,155,386.07	\$ 36,418.48	\$ 8,965.09	\$ 45,383.57	
4/20/2037	30	\$ 2,118,873.21	\$ 36,512.86	\$ 8,531.74	\$ 45,044.60	
5/20/2037	31	\$ 2,082,265.72	\$ 36,607.49	\$ 8,666.78	\$ 45,274.27	
6/20/2037	30	\$ 2,045,563.35	\$ 36,702.37	\$ 8,242.30	\$ 44,944.67	
7/20/2037	31	\$ 2,008,765.86	\$ 36,797.49	\$ 8,366.92	\$ 45,164.41	
8/20/2037	31	\$ 1,971,873.01	\$ 36,892.85	\$ 8,216.41	\$ 45,109.26	
9/20/2037	30	\$ 1,934,884.54	\$ 36,988.47	\$ 7,805.33	\$ 44,793.80	
10/20/2037	31	\$ 1,897,800.21	\$ 37,084.33	\$ 7,914.22	\$ 44,998.55	
11/20/2037	30	\$ 1,860,619.77	\$ 37,180.44	\$ 7,512.13	\$ 44,692.57	
12/20/2037	31	\$ 1,823,342.97	\$ 37,276.80	\$ 7,610.45	\$ 44,887.25	
1/20/2038	31	\$ 1,785,969.55	\$ 37,373.42	\$ 7,457.98	\$ 44,831.40	
2/20/2038	28	\$ 1,748,499.28	\$ 37,470.27	\$ 6,598.17	\$ 44,068.44	
3/20/2038	31	\$ 1,710,931.90	\$ 37,567.38	\$ 7,151.85	\$ 44,719.23	
4/20/2038	30	\$ 1,673,267.16	\$ 37,664.74	\$ 6,772.44	\$ 44,437.18	
5/20/2038	31	\$ 1,635,504.81	\$ 37,762.35	\$ 6,844.13	\$ 44,606.48	
6/20/2038	30	\$ 1,597,644.59	\$ 37,860.22	\$ 6,473.87	\$ 44,334.09	
7/20/2038	31	\$ 1,559,686.25	\$ 37,958.34	\$ 6,534.81	\$ 44,493.15	
8/20/2038	31	\$ 1,521,629.53	\$ 38,056.72	\$ 6,379.55	\$ 44,436.27	
9/20/2038	30	\$ 1,483,474.18	\$ 38,155.35	\$ 6,023.12	\$ 44,178.47	
10/20/2038	31	\$ 1,445,219.95	\$ 38,254.23	\$ 6,067.82	\$ 44,322.05	
11/20/2038	30	\$ 1,406,866.57	\$ 38,353.38	\$ 5,720.66	\$ 44,074.04	
12/20/2038	31	\$ 1,368,413.79	\$ 38,452.78	\$ 5,754.48	\$ 44,207.26	
1/20/2039	31	\$ 1,329,861.35	\$ 38,552.44	\$ 5,597.19	\$ 44,149.63	
2/20/2039	28	\$ 1,291,209.00	\$ 38,652.35	\$ 4,913.10	\$ 43,565.45	
3/20/2039	31	\$ 1,252,456.48	\$ 38,752.52	\$ 5,281.40	\$ 44,033.92	
4/20/2039	30	\$ 1,213,603.52	\$ 38,852.96	\$ 4,957.64	\$ 43,810.60	
5/20/2039	31	\$ 1,174,649.87	\$ 38,953.65	\$ 4,963.98	\$ 43,917.63	
6/20/2039	30	\$ 1,135,595.27	\$ 39,054.60	\$ 4,649.66	\$ 43,704.26	
7/20/2039	31	\$ 1,096,439.45	\$ 39,155.82	\$ 4,644.90	\$ 43,800.72	
8/20/2039	31	\$ 1,057,182.15	\$ 39,257.30	\$ 4,484.74	\$ 43,742.04	
9/20/2039	30	\$ 1,017,823.11	\$ 39,359.04	\$ 4,184.68	\$ 43,543.72	
10/20/2039	31	\$ 978,362.06	\$ 39,461.05	\$ 4,163.18	\$ 43,624.23	
11/20/2039	30	\$ 938,798.74	\$ 39,563.32	\$ 3,872.68	\$ 43,436.00	
12/20/2039	31	\$ 899,132.89	\$ 39,665.85	\$ 3,839.95	\$ 43,505.80	
1/20/2040	31	\$ 859,364.24	\$ 39,768.65	\$ 3,677.70	\$ 43,446.35	
2/20/2040	29	\$ 819,492.52	\$ 39,871.72	\$ 3,288.26	\$ 43,159.98	

EXHIBIT CCS-4

CoBank T4-1 Loan Amortization

		Fixed to Maturity on		12/20/2012	
		Interest Rate		4.75%	
	Days	Principal Balance	Principal Payment	Interest Payment	Total Payment
3/20/2040	31	\$ 779,517.47	\$ 39,975.05	\$ 3,351.95	\$ 43,327.00
4/20/2040	30	\$ 739,438.81	\$ 40,078.66	\$ 3,085.59	\$ 43,164.25
5/20/2040	31	\$ 699,256.28	\$ 40,182.53	\$ 3,024.51	\$ 43,207.04
6/20/2040	30	\$ 658,969.61	\$ 40,286.67	\$ 2,767.89	\$ 43,054.56
7/20/2040	31	\$ 618,578.53	\$ 40,391.08	\$ 2,695.37	\$ 43,086.45
8/20/2040	31	\$ 578,082.77	\$ 40,495.76	\$ 2,530.16	\$ 43,025.92
9/20/2040	30	\$ 537,482.06	\$ 40,600.71	\$ 2,288.24	\$ 42,888.95
10/20/2040	31	\$ 496,776.13	\$ 40,705.93	\$ 2,198.45	\$ 42,904.38
11/20/2040	30	\$ 455,964.70	\$ 40,811.43	\$ 1,966.41	\$ 42,777.84
12/20/2040	31	\$ 415,047.50	\$ 40,917.20	\$ 1,865.02	\$ 42,782.22
1/20/2041	31	\$ 374,024.25	\$ 41,023.25	\$ 1,697.66	\$ 42,720.91
2/20/2041	28	\$ 332,894.69	\$ 41,129.56	\$ 1,381.81	\$ 42,511.37
3/20/2041	31	\$ 291,658.54	\$ 41,236.15	\$ 1,361.63	\$ 42,597.78
4/20/2041	30	\$ 250,315.52	\$ 41,343.02	\$ 1,154.48	\$ 42,497.50
5/20/2041	31	\$ 208,865.35	\$ 41,450.17	\$ 1,023.86	\$ 42,474.03
6/20/2041	30	\$ 167,307.75	\$ 41,557.60	\$ 826.76	\$ 42,384.36
7/20/2041	31	\$ 125,642.45	\$ 41,665.30	\$ 684.34	\$ 42,349.64
8/20/2041	31	\$ 83,869.17	\$ 41,773.28	\$ 513.91	\$ 42,287.19
9/20/2041	30	\$ 41,987.63	\$ 41,881.54	\$ 331.98	\$ 42,213.52
10/20/2041	31	\$ 0.00	\$ 41,987.63	\$ 171.74	\$ 42,159.37
			\$ 9,000,000.00	\$ 7,635,049.25	

VERIFICATION

STATE OF KANSAS)
) ss
COUNTY OF GRANT)

The undersigned, Chantry C. Scott, upon oath first duly sworn, states that he is an officer of Southern Pioneer Electric Company, and that he has prepared the foregoing testimony, that he is familiar with the contents thereof, and that the statements contained therein are true and correct to the best of his knowledge and belief.



Chantry C. Scott

Subscribed and sworn to before me this 26 day of April, 2013.



Notary Public



My appointment expires: 12/3/16