To: **Board of Trustees and Attorney**

A regular meeting of the Board of Trustees has been scheduled for July 12, 2021 at 7:00 p.m.

Proposed Agenda:

1. Call to Order
2. Reading and Approval of Minutes
3. Presentation of Check Register
4. Presidents Report
5. Attorneys Report
6. Sunflower EPC Report
7. KEC Report
8. General Managers Report
9. Old Business –
   a. Construction Work Plan – Mr. Doug Somerhalder, PE
   b. Policy 524 – Drug and Alcohol-Free Workplace
10. New Business
    a. Kansas Hazard Mitigation Plan Resolution
    b. Board Policy 113 Capital Credits
    c. KEC Summer Meeting – NRECA Delegates
11. Safety Report
12. Executive Session – if requested
13. Adjourn

Upcoming Events:

LSEC Annual Meeting	July 20	
Sunflower Board	July 21	Hays, KS
KEC RESAP Field Observation	July 23	
KEC Summer Meeting	July 31-Aug 2	Overland Park, KS

MINUTES OF THE REGULAR JUNE 2021
MEETING OF THE BOARD OF TRUSTEES
OF THE LANE-SCOTT ELECTRIC COOPERATIVE, INC.

CALL TO ORDER

A regular meeting of the Board of Trustees of the Lane-Scott Electric Cooperative, Inc., was held on Monday, June 7, 2021, in the offices of the cooperative at 410 South High Street, Dighton, Kansas. President Richard Jennison called the meeting to order at 7:03 p.m. In addition to President Richard Jennison, the other trustees in attendance were: Rad Roehl, Harold Hoss, Randy Evans, Eric Doll, Richard Sorem, Chad Griffith, Paul Seib Jr., and Craig Ramsey. Also present Richard McLeon IV, Doug Somerhalder, PE, and Joseph Gasper, Attorney.

CONSTRUCTION WORK PLAN

Doug Somerhalder, P.E with C.H. Guernsey & Company presented the 2022-2024 Construction Work Plan to the board. Highlights of his presentation include the following:

- The overall cost of the CWP is $5.6 million. The improvements were made based on input from Manager McLeon and Nate Burns along with an analysis of the system. The focus of the CWP is communications, line maintenance and Headquarters' improvement.
- The three Dighton substations will have low side metering installed at a cost of $210,910 which will allow direct retail billing as well as a LSEC access charge if the City of Dighton should change wholesale power providers.
- Pole replacements will cost approximately $2.3 million or about 40% of the CWP cost. This will increase the pole inspection to get back on a 10-year inspection cycle. Much of the Aquila system has not been inspected since acquisition.
- Two-way radio communications systems will cost $750,000. The upgrade will convert the analog radios to digital and add up to four new towers.
- The Headquarter' updates will cost $280,500 and include updates to the server room to improve security. North yard improvements will include leveling the lot with rock as well as pouring 265 yards of concrete for storage of transformers and other equipment.
- The CWP provides for replacement of 10 miles of copper-weld line.
- There were three areas identified with voltage issues and all three areas are addressed with the CWP.

Secretary President

- Manager McLeon expects that the CWP will be able to be paid with cash reserves from the last CWP. He has discussed a Power Vision loan with CFC to act as a safety net in the event cash become short.

Doug Somerhalder left the meeting after the conclusion of the CWP presentation.

MINUTES OF PRIOR MEETING

President Jennison called for action on the minutes of the prior meeting held on May 3, 2021. *Hearing no corrections to the minutes, President Jennison declared the minutes stand approved as corrected.*

CASH DISBURSEMENTS

President Jennison called for questions regarding the check list for the month.

There were no questions regarding the checks.

PRESIDENT'S REPORT

President Jennison had no current items to report.

ATTORNEY'S REPORT

Attorney Gasper had no current items to report.

REPORT OF SUNFLOWER DELEGATE

A copy of the Sunflower report was included in the board packet and emailed to the trustees.

Paul Seib Jr., Lane-Scott's delegate to Sunflower, added to the written report:

- The prairie chicken listing has become an issue again and will have to be addressed.
- Sunflower is reviewing future replacement of staff due to upcoming retirements.
- Manager McLeon added that renewables make up approximately 15% of Sunflower's portfolio and that the only baseload generation is Holcomb 1.

KEC REPORT

Secretary President

Trustee Hoss reported that there was a KEC meeting on May 5 & 6. A report of the meeting was included in the board packet.

Manager McLeon added that the KEC summer meeting will be July 31-August 2 in Overland Park. The future legislation regarding marijuana legalization and increased minimum wage was discussed at the last KEC manager meeting.

MANAGER'S REPORT

Manager McLeon commented on the following matters:

- The credit card statements were presented to the Trustees for review.
- The residential rate was 13.81 cents, and the overall rate was 11.75 cents.
- ASAI shows 100.0% service availability.
- Kansas Homeland Security has prepared hazard mitigation plans with local entities. They have requested LSEC to endorse the plan. In the request, the language states that LSEC participated in the process and would agree to invest $52,900,000 to enhance upgrades within the county. LSEC did not participate in the process nor has the financial ability to agree to upgrades at that level. At this time, LSEC will not endorse the plan with those provisions included.
- IT is working on the server room with racks being on order. The consolidation of all IT resources into one room is being done for security reasons.
- There were 41 applicants for the LSEC scholarship. Six $1,500 scholarships were awarded. The recipients were Eli Rupp, Patrick O'Toole, Kyle Doll, Kaden Bradstreet, Alysson Foos, and Kiley Whipple.
- Dighton schools collected 3,465 items for the Lane County Food Bank.
- The June billing for the native members included the capital credit allocation statement. These were included in the MKEC system by mistake. Letters were sent with statements to all business and statements will be included in all the next month billing.
- The deferred storm expenses added $297,393 to the wholesale power cost. The month showed a $244,017 Operating Loss and $235,247 loss in Total Margins. Year-to-date shows a negative Operating margin of $511,297 and negative Total Margins of $489,032.
- The past due accounts are decreasing.
- The turn ratios on the resale side are improving.
- Interest in the generators remains high and units are about 36 weeks out.
- The year-to-date non-operating margins are $22,265.
- The Black Dog past due is down to $701.

RECEIPT OF MANAGER'S REPORT

Secretary President

The board received the Manager's report as indicated herein, and there were no follow-up questions.

SAFETY REPORT

A safety report was included in the board packet.

The demo trailer is being put on hold due to the increased cost estimate for the project.

OLD BUSINESS

Attorney Gasper reviewed the draft drug and alcohol policy with the board. This new policy will change to a one strike policy from the previous two strikes policy. The board discussed the draft and Attorney Gasper will make recommended changes for further discussion.

NEW BUSINESS

1. Nominating Committee Report

- Attorney Gasper reported that the nominating committee met and nominated Harold Hoss, Craig Ramsey, Dick Jennison, and Sara McWhirter. A contested position will be between Dick Jennison and Sara McWhirter.

2. Cost of Service Study

- LSEC sent requests for proposal to Guernsey and Power Systems Engineering. Power Engineers do not perform COSS.
- $40,000 was budgeted for the 2021 COSS.
- The last COSS was prepared by Doug Shepard six years ago and focused strictly on updating rates.
- This COSS will be a comprehensive look at revenue requirements and current rate design adequacy.
- Guernsey presented a base proposal of $21,000 with an option to add an adjusted test year analysis with a 10-year financial forecast for $25,000-$30,000.
- Power Systems Engineering proposed $37,500-$39.500 for the COSS with an additional cost of $6,000-$8,000 for a financial forecast.
- Staff recommends the Guernsey proposal as the most value for the cost for the 2021 COSS.

Secretary President

- The board discussed the proposals and the Guernsey presentation for the CWP.
- *A motion to engage Guernsey to conduct the 2021 LSEC Cost of Service Study was made, duly seconded, and carried.*

3. CFC Integrity Fund

- LSEC has contributed $250 to the CFC integrity fund in past years. CFC has requested donations in the amount of 5% of the capital credits which would be approximately $750 for LSEC. The board discussed the donation request.
- *A motion to approve a donation equal to the amount of 5% of the CFC patronage capital to the CFC integrity fund was made, duly seconded, and carried.*

4. Office Closure Request

- The safety committee has requested the office be closed October 21 from 10:00 a.m. to 12:00 p.m. for active shooter training so that all office personnel may attend.
- *A motion to approve the request to close the office October 21 from 10:00 a.m. to 12:00 p.m. so that all employees may attend active shooter training was made, duly seconded, and carried.*

5. Third Quarter Calendar.

- Holidays fall on the first Monday in July and September and the KEC Summer meeting is on the first Monday in August. Staff recommends re-scheduling the Trustee board meeting to the second Monday in July, August, and September.
- *A motion to re-schedule the July, August, and September board meetings to the second Monday of each month at 7:00 p.m. due to meeting and holiday conflicts was made, duly seconded, and carried.*

6. Executive Session.

A motion to enter executive session to discuss a personnel matter was made, duly seconded, and carried at 8:53 p.m. The board came back into regular session at 9:20 p.m.

ADJOURNMENT

A motion to adjourn the meeting was made, seconded, and carried at 9:23 p.m., on Monday, June 7, 2021.

Secretary President

Accounts Payable
Check Register

05/11/2021 To 06/10/2021

Bank Account: 2 - FIRST STATE BANK

Check / Tran	Date	Pmt Type	Vendor	Vendor Name	Reference	Amount
2418	05/11/2021	WIRE	1160	S&T TELEPHONE COOP ASSN.	Monthly Invoice	856.46
2416	05/12/2021	WIRE	384	UPS	Monthly Invoice	31.65
2417	05/12/2021	WIRE	124	GOLDEN BELT TELEPHONE	Monthly Invoice	190.46
2426	05/12/2021	WIRE	265	HASLER - POSTAGE ACH	Postage	250.00
47084	05/17/2021	CHK	1	UNITI TOWERS LLC	Deposit Refund	8,693.47
47085	05/17/2021	CHK	20	BASIN ELECTRIC POWER COOP	April Dispatch Fees	2,128.66
47086	05/17/2021	CHK	40	KANSAS ELECTRIC COOPERATIVES	Monthly Invoice	9,262.52
47087	05/17/2021	CHK	105	CITY OF NESS CITY	Monthly Invoice	26.24
47088	05/17/2021	CHK	107	CINTAS CORPORATION #449	Monthly Invoice	245.59
47089	05/17/2021	CHK	117	NESS CITY FARM & FEED	Monthly Invoice	11.92
47090	05/17/2021	CHK	169	AMERICAN ELECTRIC-GARDEN CITY	Monthly Invoice	10,793.12
47091	05/17/2021	CHK	189	COBANK ACB	Overpayment on loan 00063705 T01	22,035.47
47092	05/17/2021	CHK	220	LANDIS+GYR TECHNOLOGY, INC	April SaaS Monthly Fee	870.53
47093	05/17/2021	CHK	248	CENTRAL PUMP & SUPPLY	Monthly Invoice	3.24
47094	05/17/2021	CHK	304	STECKLINE COMMUNICATIONS INC	Advertising	200.00
47095	05/17/2021	CHK	361	ANN M JENNINGS	Food Drive supplies	97.86
47096	05/17/2021	CHK	406	RICHARD MCLEON	Mtg Expense reimbursement	161.28
47097	05/17/2021	CHK	477	TABOR COLLEGE	Scholarship-Alysson Foos ID#176215	1,500.00
47098	05/17/2021	CHK	478	FORT HAYS STATE UNIVERSITY	Kaden Bradstreet Scholarship ID#49805126	1,500.00
47099	05/17/2021	CHK	1139	LANE COUNTY HOSPITAL	Dellon Shelton-CDL Physical	244.50
47100	05/17/2021	CHK	1225	CINTAS CORPORATION	Monthly Invoice	335.79
47101	05/17/2021	CHK	9999	REGINA AREVALO	INACTIVE REFUND	136.82
47102	05/17/2021	CHK	9999	JONATHAN FLAX	INACTIVE REFUND	123.80
47103	05/17/2021	CHK	9999	DANI MORENO	INACTIVE REFUND	159.95
47104	05/17/2021	CHK	9999	RENEE PIROTH	INACTIVE REFUND	136.63
47105	05/17/2021	CHK	9999	DUSTIN REAM ESTATE	INACTIVE REFUND	377.68

Accounts Payable
Check Register

05/11/2021 To 06/10/2021

Bank Account: 2 - FIRST STATE BANK

Check / Tran	Date	Pmt Type	Vendor	Vendor Name	Reference	Amount
47106	05/17/2021	CHK	9999	DOLORES ROBIE	INACTIVE REFUND	29.38
2420	05/18/2021	WIRE	1229	SCHABEN SANITATION	Monthly Invoice	491.43
2419	05/19/2021	WIRE	274	VERIZON WIRELESS	Monthly Invoice	1,267.18
2422	05/25/2021	WIRE	101	ATMOS ENERGY	Monthly Invoice	81.33
2423	05/25/2021	WIRE	263	KS DEPT OF REVENUE - SALES TAX	Sales Tax	19,917.37
2424	05/25/2021	WIRE	264	KS DEPT OF REVENUE - USE TAX	Use Tax	3.14
47107	05/26/2021	CHK	1	LANE COUNTY LIONS CLUB	Flags-Donation	350.00
47108	05/26/2021	CHK	1	RANSOM VFW	Barbara Davis Memorial	50.00
47109	05/26/2021	CHK	14	OFFICE SOLUTIONS, INC	Kyocera Copier	7,529.25
47110	05/26/2021	CHK	40	KANSAS ELECTRIC COOPERATIVES	PCB Workshop	645.00
47111	05/26/2021	CHK	105	CITY OF NESS CITY	Franchise Fee	4,989.77
47112	05/26/2021	CHK	108	Z BOTTLING CORP	Water bottles	603.72
47113	05/26/2021	CHK	134	SOLIDA TREE SERVICE, INC.	Tree Trimming	6,541.83
47114	05/26/2021	CHK	135	CITY OF BAZINE	Franchise Fee	1,128.64
47115	05/26/2021	CHK	160	SHULL OIL COMPANY	Monthly Fuel Invoice	5,597.59
47116	05/26/2021	CHK	183	HIBU INC - WEST	Advertising	124.00
47117	05/26/2021	CHK	218	SPENCER PEST CONTROL	Pest Control	108.50
47118	05/26/2021	CHK	361	ANN M JENNINGS	Supplies-Food Drive Challenge	134.40
47119	05/26/2021	CHK	427	DIGHTON HERALD LLC	Subscriptions	72.00
47120	05/26/2021	CHK	429	IT1 CONSULTING LLC	Monthly Invoice	361.95
47121	05/26/2021	CHK	467	DIGHTON CHIROPRACTIC	Dr. Bennett visits	200.00
47122	05/26/2021	CHK	472	C.H. GUERSNEY & COMPANY	Rate Schedule Labor	19,430.42
47123	05/26/2021	CHK	478	FORT HAYS STATE UNIVERSITY	Kiley Whipple Scholarship ID 75804479	1,500.00
47124	05/26/2021	CHK	480	FITZGERALD FURNITURE	Microwave for Ness office	216.99
47125	05/26/2021	CHK	903	NISC	Monthly Invoice	9,059.92
47126	05/26/2021	CHK	1231	KMSDA	2021 Membership Dues	100.00

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05/11/2021 To 06/10/2021

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Check / Tran	Date	Pmt Type	Vendor	Vendor Name	Reference	Amount
47127	05/26/2021	CHK	5	JOAN J STIEBEN	Cap Cr Estate Retire reissue	660.07
2425	05/27/2021	WIRE	1290	WEX BANK	Monthly Invoice	32.00
2421	05/28/2021	WIRE	1239	CULLIGAN OF DODGE CITY	Monthly Invoice	132.37
47128	06/01/2021	CHK	1	NESS CITY ROTARY CLUB	Meeting dues	38.00
47129	06/01/2021	CHK	73	STANION WHOLESALE ELEC CO INC	Monthly Invoice	21,680.91
47130	06/01/2021	CHK	79	POSTMASTER	Postage-Newsletter	99.43
47131	06/01/2021	CHK	107	CINTAS CORPORATION #449	Monthly Invoice-Ness City	71.56
47132	06/01/2021	CHK	172	TYNDALE COMPANY, INC.	Bradstreet-Clothing Allowance	429.50
47133	06/01/2021	CHK	182	G.E.M.S. INC	Monthly Invoice	243.67
47134	06/01/2021	CHK	298	OVERLEASE K-LAWN	Lawn Care-Weed Control	108.50
47135	06/01/2021	CHK	317	JOHN DEERE FINANCIAL	chain & oil for chain saw	98.37
47136	06/01/2021	CHK	383	HUXFORD POLE AND TIMBER CO INC	Monthly Invoice	27,425.71
47137	06/01/2021	CHK	462	176 KEYS DUELINGPIANOS SHOW	Deposit -Xmas Party Entertainment	622.50
47138	06/01/2021	CHK	506	K&J FOODS	Monthly Invoice	511.67
47139	06/01/2021	CHK	1243	TRI-CENTRAL OFFICE SUP-HAYS	Office Supplies	357.45
47140	06/01/2021	CHK	1244	PROTECTIVE EQUIPMENT TESTING	Gloves-Testing	125.05
2427	06/02/2021	WIRE	1187	MIDWEST ENERGY	Monthly Invoice	418.00
2428	06/03/2021	WIRE	274	VERIZON WIRELESS	Monthly Invoice	314.24
2430	06/07/2021	WIRE	468	U.S. BANK	Monthly Invoice	1,456.23
2433	06/07/2021	WIRE	1224	NRECA RETIREMENT & SECURITY	NRECA RS - Group Insurance	50,068.52
2434	06/07/2021	WIRE	62	NRECA GROUP BENEFITS TRUST	NRECA Gr 1-June Group Insurance	2,836.08
2435	06/07/2021	WIRE	180	NRECA	MRECA Gr 1 Adm Fee-June Gr Ins Adm Fee	229.32
2429	06/09/2021	WIRE	168	ONLINE INFORMATION SERVICES, INC	Online Utility Exchange	87.49
2431	06/09/2021	WIRE	1267	AFLAC	Premiums	465.84
2432	06/10/2021	WIRE	18	CITY OF DIGHTON	Monthly Invoice	1,445.44
47141	06/10/2021	CHK	1	JOHN BEATON	Nominating Committee Mtg	129.34

Accounts Payable
Check Register

05/11/2021 To 06/10/2021

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Check / Tran	Date	Pmt Type	Vendor	Vendor Name	Reference	Amount
47142	06/10/2021	CHK	1	LEX BUSH	Nominating Committee Mtg	110.08
47143	06/10/2021	CHK	1	LANE COPELAND	Nominating Commitee Mtg	142.00
47144	06/10/2021	CHK	1	K-STATE STUDENT FINANCIAL ASSIST	Kyle Doll-Scholarship	1,500.00
47145	06/10/2021	CHK	1	LANE COUNTY AMUSEMENT ASSOCIA	Sponsorship-Paratrooper	100.00
47146	06/10/2021	CHK	1	NORTH CENTRAL TECHNICAL COLLEG	Patrick O'Toole Scholarship	1,500.00
47147	06/10/2021	CHK	1	RANDY SCHEUERMAN	Nominating Committee Mtg	129.12
47148	06/10/2021	CHK	1	KENNY SCHLEGEL	Nominating Committee Mtg	100.00
47149	06/10/2021	CHK	14	OFFICE SOLUTIONS, INC	Service Contract	59.68
47150	06/10/2021	CHK	15	ERIC DOLL	June Board Meeting	389.20
47151	06/10/2021	CHK	30	HAROLD HOSS	June Board Meeting	1,370.79
47152	06/10/2021	CHK	40	KANSAS ELECTRIC COOPERATIVES	Monthly Invoice	9,019.91
47153	06/10/2021	CHK	45	BUMPER TO BUMPER OF DIGHTON	Monthly Invoice	144.32
47154	06/10/2021	CHK	55	NESS COUNTY NEWS	Advertising	163.60
47155	06/10/2021	CHK	60	PAUL SEIB JR	June Board Meeting	386.96
47156	06/10/2021	CHK	63	RICHARD JENNISON	June Board Meeting	364.56
47157	06/10/2021	CHK	96	STEPHENS LUMBER - DIGHTON	Monthly Invoice	40.45
47158	06/10/2021	CHK	104	HOME OIL CO	Monthly Fuel Invoice	429.50
47159	06/10/2021	CHK	105	CITY OF NESS CITY	Postage and Pay Station	616.65
47160	06/10/2021	CHK	107	CINTAS CORPORATION #449	Monthly Invoice	245.59
47161	06/10/2021	CHK	134	SOLIDA TREE SERVICE, INC.	Tree Trimming	4,160.10
47162	06/10/2021	CHK	169	AMERICAN ELECTRIC-GARDEN CITY	Monthly Invoice	1,393.28
47163	06/10/2021	CHK	179	RAD ROEHL	June Board Meeting	360.08
47164	06/10/2021	CHK	181	BAKER DISTRIBUTING CO	Monthly Invoice	120.36
47165	06/10/2021	CHK	184	JOHNSTONE SUPPLY	Monthly Invoice	497.70
47166	06/10/2021	CHK	202	CHAD GRIFFITH	June Board Meeting	392.00
47167	06/10/2021	CHK	238	ILLINOIS MUTUAL	Premiums	153.20

Accounts Payable
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05/11/2021 To 06/10/2021

Bank Account: 2 - FIRST STATE BANK

Check / Tran	Date	Pmt Type	Vendor	Vendor Name	Reference	Amount
47168	06/10/2021	CHK	241	MILLRODS LLC	Scissor Lift Rent	1,125.00
47169	06/10/2021	CHK	261	LOCKE SUPPLY CO	Monthly Invoice	63.17
47170	06/10/2021	CHK	269	ANIXTER INC	Monthly Invoices	1,018.81
47171	06/10/2021	CHK	272	LEWIS AUTOMOTIVE GROUP INC	Monthly Invoice	631.60
47172	06/10/2021	CHK	306	BORDER STATES INDUSTRIES INC	Monthly Invoice	7,526.58
47173	06/10/2021	CHK	366	DIANA KUHLMAN	Milege Reimbursement	71.68
47174	06/10/2021	CHK	387	WESTERN FUEL & SUPPLY	Monthly Fuel Invoice	276.05
47175	06/10/2021	CHK	392	TRUCK CENTER COMPANIES	Monthly Invoice	178.87
47176	06/10/2021	CHK	395	DOLLAR GENERAL - REGIONS 410526	Monthly Invoice	63.91
47177	06/10/2021	CHK	406	RICHARD MCLEON	Per Diem-Meeting Exp	152.50
47178	06/10/2021	CHK	427	DIGHTON HERALD LLC	Advertising	117.00
47179	06/10/2021	CHK	429	IT1 CONSULTING LLC	Software	222.58
47180	06/10/2021	CHK	442	QUADIENT INC.	Postage Machine Exp	328.70
47181	06/10/2021	CHK	450	RANDALL G EVANS	June Baord Meeting	350.56
47182	06/10/2021	CHK	453	SCOTT CO HARDWARE	Monthly Invoice	42.49
47183	06/10/2021	CHK	459	YESTERDAYS BODY SHOP	Repairs Truck #193	162.75
47184	06/10/2021	CHK	479	CASE BECKMAN	Lawn Care for April and May	685.00
47185	06/10/2021	CHK	481	CARTMILL FLORAL & CREATIONS	Cookies for Board Mtg	93.74
47186	06/10/2021	CHK	489	VERNIE'S TRUX-N-EQUIP., INC	Monthly Invoice	99.80
47187	06/10/2021	CHK	773	BRETZ, INC.	Monthly Invoice	96.00
47188	06/10/2021	CHK	790	SOLOMON CORPORATION	Monthly Invoice	31,788.81
47189	06/10/2021	CHK	903	NISC	Monthly Invoice	10,028.96
47190	06/10/2021	CHK	1016	KANSAS ONE-CALL SYSTEM INC	Locate Fees	99.60
47191	06/10/2021	CHK	1030	THE SCOTT COUNTY RECORD	Advertising	262.11
47192	06/10/2021	CHK	1169	WASHER SPECIALTIES CO.	Monthly Invoice	200.77
47193	06/10/2021	CHK	1172	WESTERN SUPPLY COMPANY	Monthly Invoice	1,461.89

Accounts Payable
Check Register

05/11/2021 To 06/10/2021

Bank Account: 2 - FIRST STATE BANK

Check / Tran	Date	Pmt Type	Vendor	Vendor Name	Reference	Amount
47194	06/10/2021	CHK	1197	GARDEN CITY WHOLESALE SUPPLY	Monthly Invoice	4,063.30
47195	06/10/2021	CHK	1248	COMPLIANCE ONE	Drug & Alcohol Testing	270.75
47196	06/10/2021	CHK	1251	TECHLINE, LTD	Monthly Invoice	12,759.50
47197	06/10/2021	CHK	1263	RICHARD SOREM	June Board Meeting	398.16
47198	06/10/2021	CHK	1285	TIFCO INDUSTRIES	Monthly Invoice	128.51
47199	06/10/2021	CHK	1292	COMFORT PRODUCTS DISTRIBUTING L	Monthly Invoice	101.21
47200	06/10/2021	CHK	1300	CRAIG RAMSEY	June Board Meeting	378.00
47201	06/10/2021	CHK	1303	LANE COUNTY IMPLEMENT, INC	Sealant #117	14.76
47202	06/10/2021	CHK	9999	GATEWAY RESOURCES, LLC	INACTIVE REFUND	599.70
47203	06/10/2021	CHK	9999	NADINE HALL	INACTIVE REFUND	48.06
47204	06/10/2021	CHK	9999	KDHE STORAGE TNKSEC	INACTIVE REFUND	6,889.08
47205	06/10/2021	CHK	9999	SHERYL KUNTZSCH	INACTIVE REFUND	186.35
47206	06/10/2021	CHK	9999	MRS EDWIN MUNSCH	INACTIVE REFUND	331.90

Total Payments for Bank Account - 2 :	(143)	358,202.05
Total Voids for Bank Account - 2 :	(0)	0.00
Total for Bank Account - 2 :	(143)	358,202.05
Grand Total for Payments :	(143)	358,202.05
Grand Total for Voids :	(0)	0.00
Grand Total :	(143)	358,202.05

Payroll/Labor
Check Register

Pay Date: 05/01/2021 To 05/31/2021

Empl	Name	Gross Pay	Other Pay	Hours	Advances	Deductions/ ER Taxes	Txbl Benefits/ ER PTO	Taxes/ ER Benefits	Net Pay
5	KATHERINE E LEWIS	10,145.62	0.00	160.00	0.00	1,194.02	82.92	3,101.82	5,849.78
						768.84	0.00	5,414.32	
17	DAVID L HOWARD	23,562.39	0.00	438.84	0.00	1,089.92	-38.55	9,364.59	13,107.88
						1,795.83	0.00	4,009.50	
21	CARRIE M BORELL	4,788.95	0.00	163.50	0.00	623.86	23.76	812.25	3,352.84
						356.28	0.00	3,973.10	
22	REBECCA L CAMPBELL	4,160.00	0.00	160.00	0.00	715.56	11.92	733.40	2,711.04
						300.16	0.00	3,761.86	
26	RICHARD A MCLEON	18,750.00	0.00	160.00	0.00	687.64	265.82	6,643.73	11,418.63
						1,454.71	0.00	6,659.52	
34	KALO M MANN	6,653.58	0.00	173.00	0.00	1,104.70	196.06	1,502.11	4,046.77
						515.93	0.00	3,721.44	
35	NATHAN A BURNS	5,769.60	0.00	160.00	0.00	699.58	37.90	1,467.01	3,603.01
						440.53	0.00	3,163.98	
50	KASEY R JENKINSON	7,398.82	0.00	166.00	0.00	1,357.34	32.26	1,582.94	4,458.54
						556.58	0.00	5,023.76	
55	BENJAMIN L MANN	8,261.70	0.00	178.00	0.00	1,299.62	31.76	1,891.92	5,070.16
						630.69	0.00	3,712.00	
74	DAL S HAWKINSON	7,366.16	0.00	172.50	0.00	967.82	11.34	1,589.09	4,809.25
						552.49	0.00	4,915.28	
84	MICHAEL S POLLOCK	6,643.74	0.00	171.00	0.00	1,352.14	12.58	1,122.32	4,169.28
						497.33	0.00	4,646.34	
85	CHAD A RUPP	7,848.08	0.00	176.00	0.00	941.26	92.44	1,681.58	5,225.24
						595.57	0.00	4,915.28	
89	CHRIS R TERHUNE	7,796.98	0.00	177.00	0.00	1,056.48	29.64	2,339.19	4,401.31
						586.85	0.00	4,915.28	
91	LARRY D KRAFT	7,501.15	0.00	173.00	0.00	851.46	82.66	1,460.80	5,188.89
						568.27	0.00	4,915.28	
93	MYRON E SEIB	7,332.11	0.00	172.00	0.00	1,185.44	53.78	1,338.83	4,807.84
						553.13	0.00	4,915.28	
99	KEVIN A BRADSTREET	7,652.15	0.00	173.00	0.00	827.34	35.28	2,173.55	4,651.26
						584.74	0.00	2,998.42	
108	MARK R MCCULLOCH	6,269.52	0.00	173.00	0.00	1,832.10	43.86	1,453.10	2,984.32
						479.22	0.00	3,176.30	

Payroll/Labor
Check Register

Pay Date: 05/01/2021 To 05/31/2021

Empl	Name	Gross Pay	Other Pay	Hours	Advances	Deductions/ ER Taxes	Txbl Benefits/ ER PTO	Taxes/ ER Benefits	Net Pay
117	LEIGHTON J AYERS	7,747.36	0.00	180.00	0.00	720.34	24.10	1,716.00	5,311.02
						582.62	0.00	4,712.44	
129	STACEY L FOOS	216.84	0.00	13.75	0.00	0.00	0.00	16.62	200.22
						19.18	0.00	0.00	
130	ANN MARIE JENNINGS	3,867.21	0.00	160.00	0.00	510.68	16.14	705.76	2,650.77
						275.61	0.00	3,074.62	
131	DIANA KUHLMAN	3,817.60	0.00	160.00	0.00	678.02	21.50	589.19	2,550.39
						285.63	0.00	2,442.20	
132	DELLON SHELTON	4,691.12	0.00	171.00	0.00	262.90	3.10	1,202.98	3,225.24
						355.36	0.00	1,885.12	
134	SCOTT A BRIAND	3,148.30	0.00	163.80	0.00	160.42	6.00	438.71	2,549.17
						239.47	0.00	1,961.78	
135	BLAKE MCVICKER	6,000.00	0.00	160.00	0.00	469.06	6.36	1,469.17	4,061.77
						487.77	0.00	2,113.00	
136	ELI O RUPP	255.00	0.00	17.00	0.00	0.00	0.00	23.54	231.46
						22.57	0.00	0.00	
	Grand Total:	$ 177,643.98	$ 0.00	4,172.39	$ 0.00	$ 20,587.70	$ 1,082.63	$ 46,420.20	$ 110,636.08
						$ 13,505.36	$ 0.00	$ 91,026.10	

SUNFLOWER ELECTRIC POWER CORPORATION
A Touchstone Energy® Cooperative
. . . energy done right

SUNFLOWER ELECTRIC POWER CORPORATION BOARD MEETING – JUNE 18, 2021

CURRENT ACTIVITIES

Generation Capacity
Statistics on the capacity-weighted average fleet age by fuel group and ISO/RTO were discussed. Sunflower's capacity-weighted average for natural gas steam units is 54 years; natural gas combustion units, 45 years; Holcomb Station unit, 38 years, and RICE units, 7 years.

July Board Meeting
Anticipated topics for next month's Board meeting include the safety department structure and Safety Continuous Improvement Team (SCIT), Member leases, and Member 34.5 kV assets.

PRESIDENT'S REPORT

Generation
The Burns & McDonnell (B&McD) power quality study completed last year identified that operating FD4 as a synchronous condenser could significantly contribute to improving fault tolerance around Dodge City and enhancing the existing transmission system in supporting load growth in the area. Sunflower's transmission planning indicates the conversion of FD4—at a estimated $11-$12M—to be significantly lower in cost than transmission solutions for area reliability concerns. The next step is to complete a more detailed study to develop a scope that includes specific design, cost, and schedule estimates. Once these facets are determined, Sunflower staff will introduce the project during the 2021 fall local planning process and during Southwest Power Pool's integrated transmission planning process. Staff recommended proceeding with the scoping study and the Board approved.

Staff updated the Board on the Fort Dodge Station rail agreement and maintenance plan. The existing rail agreement between predecessor companies was executed in 1967. Cargill is currently expanding rail facilities. Cargill, as the sole user of the rail spur from the BNSF mainline to the property, is responsible for all maintenance costs including capital improvements. Since the last known use of the rail spur crossing FDS property by Sunflower's predecessor was approximately 40 years ago, rail switch, track, ties, and ballast are in poor condition. In addition, prior to the Mid-Kansas acquisition, the rail across the access road was paved over, and the Fort Dodge Station access road is in poor condition and has been budgeted for resurfacing. Sunflower staff will remove one rail switch and the track across the access road to allow resurfacing, neither of which will have an operational impact on Cargill.

As part of the Garden City SWEEP and Power Distribution Center projects at the Garden City site Wheatland and Sunflower entered into agreements related to real estate ownership. There were mismatches between ownership and use of the properties going back decades. Sunflower and Wheatland are purchasing property from each other pursuant to the agreements at values established by an independent appraisal process.

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Power Supply and Delivery
Sunflower continues to receive settlement data from the SPP on the February cold weather event. Sunflower anticipated significant make whole payment credits will come through in addition to a few charges on the load side. The settlements coming through today indicate a much higher proportion of charges versus credits. Settlement charges are still coming through the next few days. In the meantime, Sunflower has filed disputes on the rationale of some of the charges.

Transmission Policy and Planning
On June 11, 2021, FERC rejected without prejudice SPP's filing for the Transmission Cost Allocation Waiver, which would have established a process through which, on a case-by-case basis, the costs of Byway facilities (100 kV to 300 kV) can be fully allocated to the SPP region, instead of the 33/67 regional/zonal allocation. While FERC stated its support of SPP's efforts to proactively address transmission cost allocation matters, the Commission gave three reasons for its rejection of the filing. SPP is expected to revise and refile the Cost Allocation Waiver adopting the FERC recommendations. We are working with SPP to identify the timeline and process for revising the filing.

On June 3, 2021, FERC released its initial decision on the SPP Zonal Placement Process for the GridLiance/Tri-County Facilities. In its decision, FERC determined that the GridLiance facilities are transmission facilities under Attachment AI because they satisfy the threshold requirement of meeting one of the six Attachment AI criteria; SPP's Zonal Placement Process found that the GridLiance facilities should be placed into an existing zone; and that serious doubt has not been raised regarding whether the costs included in the GridLiance ATRR are the result of prudent decision-making. Briefs on exceptions to the initial decision are due on July 5, and briefs opposing exceptions to the initial decision are due July 26.

FERC Order 2222, also referred to as the 2x4 Order, addresses the use of Distributed Energy Resources (DERs) behind and in front of distribution meters. SPP will host a series of stakeholder meetings to review FERC Order 2222. The first meeting will be held June 22. Registration information was emailed to the Members earlier this month and anyone experiencing difficulty registering should contact Al Tamimi. Sunflower encouraged participation in the meetings. Additional stakeholder meetings will be held July 19, August 16, September 20, and October 18. SPP staff will remain on the call following the scheduled time to address any questions from Members.

Technology Services
Staff reported on "patches," a technical term used to describe the installation of a security update ("band aid") to fix an identified vulnerability ("wound") within a software product. Sunflower's patch management process is a key defense mechanism that supports a variety of information technology assets (desktop/laptop computers, servers, peripheral equipment, etc.) It is estimated that approximately 60% of all industry data breaches are attributed to poor patch management practices, and industry benchmarking suggests monthly success completion percentages of 85% or higher should be maintained for newly introduced patches for proper cyber security defense. Sunflower actively manages, monitors, and consistently delivers over 95% success in monthly patching across all information technology-related infrastructure.

Financials
Overall Member loads were down 3.14% from budget for the month and 3.19% year to date. Large industrial loads were up 0.57% from budget for the month and down 1.20% from budget year to date. Year-to-date operating expenses were 3.53% from budget for the month and down 5.96% from budget year to date. The Cold Weather Event caused an increase in the ECA of

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$276.22/MWh over budget for the month of February and was the primary contributor to the increase in the year-to-date average Member rate of $107.91/MWh.

External Affairs and Member Services
The third Sunflower Member Satisfaction Survey was disseminated from April 19 thru May 14. The online survey was emailed to 109 directors and employees at Sunflower's seven Member co-ops with 58 surveys returned. The survey covered ten work areas at Member co-ops, and a 8.35 score (on a 1-10 scale) was given for overall Sunflower satisfaction. Survey results also provided feedback on strengths and opportunities for Sunflower.

BOARD ACTION

Board action: The Board selected Tom Ruth, voting delegate, and Frank Joy, alternate delegate to represent Sunflower for the NRECA Director Election.

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8. **General Manager's Report**

A. Rates and Reliability Dashboard

Rate Summary - May 2021

	current month ($/kWh	*year to date ($/kWh)*
Residential	0.1530	0.1305
Residential - Seasonal	0.2305	0.2087
Irrigation	0.0968	0.0880
C&I 1000kVa or less	0.1277	0.1139
C&I over 1000 kVA	0.1127	0.1069
Public Street and Lighting	0.1403	0.1307
Other Sales to Public Authorities	0.1719	0.1406
Sales for Resale - Other	0.0700	0.1168
Total Sales price per kWh:	0.1208	0.1143

May 2021		
SAIDI	0.11	Interruption DURATION / average for every member (hrs)
SAIFI	0.49	Interruption FREQUENCY / Average # of Interruptions per customer
CAIDI	0.23	Customer Average Interruption Duration Index - IF you are out, how long to expect (hrs).
ASAI	99.99%	Service Availability (Winter Storm Uri is not included)

B. Administration

1) Strategic Plan 2nd Quarter Update. Our progress on the Strategic Plan has increased from an average of 41.25% to 49.75%. For each Strategic Goal:
   a. Demonstrate Leadership in employee and public safety. The second quarter has focused on completing the updated Safety Manual (project begun in 2015), OSHA SHARP investigation, and preparing for the KEC RSAP Observation.
   b. Identify, assess, and mitigate cyber security risks. Carrie has made great strides in this area. Her report is attached to the July 12, 2021, Strategic Plan Update.
   c. Complete and evaluate the results of a cost-of-service study. We have completed the first Request for Information and are providing data as needed. Guernsey has begun determining our revenue requirement study.
   d. Assess and complete all remaining elements of the 2019 Strategic Plan. The remaining elements are Capital Credit discounting (this will be presented to the Board July 12, 2021, for consideration) and Succession Planning. There is a Bylaws Amendment going to the membership at the 2021 Annual Meeting to address Board succession and I am developing options for consideration for key employee succession planning.
2) LSEC Christmas Party. The Christmas Party is planned for December 18 at the St. Theresa Parish Hall in Dighton.
3) Annual Meeting Update. Ann Marie has done a great job pulling everything together. The Dinner begins at 6:30 with the Meeting at 7:30. The Agenda and Program are included in the Board Report.
4) OSHA SHARP. The US Department of Labor administers the Safety & Health Achievement Recognition Program (SHARP) through OSHA. According to the OSHA website,

"The program recognizes small business employers who have used OSHA's On-Site Consultation Program services and operate exemplary safety and health programs. Acceptance of your worksite into SHARP from OSHA is an achievement of status that singles you out among your business peers as a model for worksite safety and health."

The OSHA On-Site Consultation Program provides small business owners no-cost consultation services to address hazards and improve workplace safety and health without fear of citations or monetary penalties. These programs are funded by OSHA and run by state grantees that are knowledgeable about the needs of the small businesses they serve.

Once we have achieved SHARP status, we will be granted an exemption from OSHA programmed inspections for up to 2 years initially. Subsequent renewals are granted for up to three years. We established the SHARP status at my last cooperative, and we found it to be a great compliment to RESAP. Chris is working with OSHA to set-up our initial On-Site Consultation. Midwest Energy is the only Kansas electric cooperative listed as achieving SHARP recognition.

5) The Credit Card records are available for the Boards review.

C. Operations Report
1) Operations continues to focus on Maintenance of the system to include inspections and various repairs due to normal age, use, and storm damages.
2) New Construction included various connections and service expansions.

D. Member Services highlights (Ann Marie)
1) Success Sharing Program. We received 14 applications and awarded four $1000.00 grants to:
   a. Frank Stull American Legion Auxiliary, Ness City: The grant will be used to help install a handicap ramp at the VFW meeting room. The meeting room is used for community civic and private events.
   b. Lane County Lions Club: Grant funds are to be used to support their signature program "Feeding Our Community." They currently provide 45 meals a week to the youth and homebound of Lane County.
   c. Ness County Fire District #1: The fire department will be using the funds to purchase firefighting equipment such as firefighter's bunker gear, SCBA gear (oxygen bottles), foam, gel, and other fire retardants.
   d. Western Kansas Child Advocacy Center, Scott City (provides service to 34 counties in western Kansas including all our service area except Hodgeman Co.). The advocacy center is part of the first response for reports of child abuse. They provide a safe, child & teen friendly atmosphere following the abuse, and provide advocacy, mentorship, and therapy to help in the healing process from the trauma of abuse. The grant will be used to purchase educational and prevention

resources such as handouts on bullying, unhealthy relationships, body safety, domestic violence, and child sexual and physical abuse.

2) Co-ops Vote: Lane-Scott will be hosting a Co-ops Vote Event on August 24th, at 11:30am at the Ness City Bank Building. KEC is responsible for the program and content. Lane-Scott will host and provide a light lunch. KEC is inviting legislators, and Lane-Scott provided contact information of local county commissioners, city council, and relevant Lane-Scott Key Accounts. Trustees will be receiving invitations from KEC as well.

E. Finance overview (Kathy)

1) Financials – May Form 7 Income Statement
   a. Year to Date Sales are up $198,273 over the 2016-2020 average.
   b. Total Operating Expenses are up $1,078,001 over the 2016-2020 average. This is the result of:
      i. Labor expenses are increased on the Income Statement because we are doing more Maintenance. When labor is directed to Construction, it is capitalized on the Balance Sheet. Once we begin the next CWP, labor expense will shift back to the Balance Sheet.
      ii. Depreciation expenses are up $15,834 per month due to the addition of Twin Springs and correcting je's from 2020. This is a non-cash expense.
      iii. Interest on long-term debt is up $136,712 year to date.
      iv. Various Work Orders were closed adding $120,502 in expenses.
   c. Cash Balances remain strong at $7,581,638.
   d. Ratios. Equity as a percent of assets is 34.13%, General Funds Level is 19.46%, and our current ratio is 1.96%.
2) Billing Past Due (current – June 1, 2021)
   a. 30 day – $2,732.94
   b. 60 day – 723.22
   c. 90 day – 4,159.77

F. Warehouse Report (Scott)

1) Inventory:
   a. Line Materials - $230,226. Turn Ratio: 0.420
   b. Resale Materials - $149,010. Turn Ratio: 0.633
   c. Generac. We have four generators waiting to be shipped and one in stock to be installed. Lead time continues to increase, with the 22/24kw generators now at 38 weeks out. We completed two estimates in June and are waiting to see if we get a win on either. The service plan, once complete, will add another avenue for margins. This will be presented in the new quotes given and we plan to reach out to those who have already purchased from us and offer this as well.
2) Electrician Update. The electricians have completed several smaller jobs this month and multiple calls continue to be added each week to their list. Along with the smaller jobs, we are still waiting for our larger jobs, Lane County Feeders and D&A Farms to complete

construction. We received 12,000' of duct for LCF which will be a roughly $25,000 sell once installed.

3) HVAC Update**.** As the weather heated up Mark became swamped with A/C calls. It was not unusual to get 5-7 calls per day. We sold and installed a new furnace and A/C unit for Lane County. There was also a new coil sold and installed in Ransom along with two new water heaters this month. Season checks continue to be completed as time allows.

G. <u>Non-Operating Margins (Kathy and Rebecca)</u>

1) Our year-to-date Non-Operating margins [Form 7, Part A, Lines 22(b) + Line 25(b) + Line 27(b)] is a $12,767 loss. Much of these results come from:
   a. A net loss of $16,224 in depreciation from the retirement of Unit 124. This 10-year-old service bucket was originally set-up on a 12-year depreciation schedule.
   b. Materials for work in progress that is not yet billed.
2) Retail Services.
   a. Initial figures posted a $21,904.41 loss in April and a YTD loss of $74,287.60.
   b. Resale Hours (YTD). Billable hours represent 74.23% of total hours.
   c. Outstanding Balances. (as of June 1, 2021)
      i. 30-60 day -$ 212.99
      ii. 60-90 day - 804.57 (
      iii. Over 90 day – 4,248.58 (Marcellus House Moving - $2,895.07, Black Dog – 701.00, Milken Farms - $539.58)
3) Interest earned (YTD) – $56,098.
4) Other capital Credits and patronage Dividends (YTD) – $21,597

Respectfully submitted,

Richard McLeon, MBA
General Manager

GM Report

Strategic Plan Update **July 12, 2021**

The Board of Trustees and General Manager of Lane-Scott Electric Cooperative met on November 5, 2020 in a Strategic Planning session that was facilitated by CFC's Lindy LaChance and Mike Lewis. The goals of the session were to achieve consensus on the strategic goals Lane-Scott EC will focus on during the next three years and develop an implementation plan for the strategic goals. The planning group achieved consensus on the following strategic goals:

Number	Strategic Goals	completion	Last update
1	**Demonstrate leadership in employee and public safety.** • Fully implement KEC Safety Accreditation. • Explore improved field communication technology. • Develop improved record keeping. • Ensure free flow of information via whistleblower policy.	36%	30%
2	**Identify, assess, and mitigate cyber security risks.** • Research and implement cybersecurity mitigation strategies. • Identify and make necessary investments in hardware, software, and facilities. • Establish a cybersecurity training and awareness regimen for employees and members.	45%	35%
3	**Complete and evaluate the results of a cost-of-service study.** • Line extension policy impact. • Rate structure and level impact. • Prepaid metering assessment. • Streamline security lighting program.	21%	5%
4	**Assess and complete all remaining elements of the 2019 Strategic Plan**. • Review existing plan progress. • Evaluate remaining goals for continued relevance. • Complete all incomplete goals and objectives.	97%	95%

Action Items:

- Present the strategic plan to the board at the January 2021 board meeting. The Board of Trustees met in regular session on January 11, 2021 and approved the Strategic Plan as presented. The Board also approved that the Strategic Plan would serve as the basis of the General Managers evaluation.
- Provide updates to the board on a quarterly basis. This is the first quarterly update.

Implementation and Overview.

Lane-Scott has limited staff and financial resources. This requires me to prioritize the primary Strategic Goals based on their immediate focus on risk, rates, and reliability. We are working on all of them but have dedicated the most effort as follows:

Goal 1: Demonstrate leadership in employee and public safety. **36% complete**.

Safety is an area where we will never be "done". This strategic goal was divided into four critical areas which the Safety Council has used as the basis for the 2021 Safety Program.

A. Fully implement the KEC Safety Accreditation. We are looking at this from two sides: first is the actual KEC Safety Accreditation Program, second is the LSEC Safety Program.
   i. RESAP / Annual Supervisory Inspections and improvements. This involved correcting items identified on various KEC and Federated Insurance inspections – *85% completed.*
   ii. Lane-Scott Safety Program.
      a. Employee
         1. Research and implement OSHA Emergency Action Plan (EAP) - *done.*
         2. Research and implement RUS electric program loan Emergency Response Plan (ERP) – *done.*
         3. Update / Develop Lane-Scott EAP and DRP – *25% completed*
         4. Review and implement Fire, Fire Extinguisher, Tornado, and General Evacuation Procedures and Drills – *implemented.*
         5. Employee Safety Training. This includes but is not limited to: CPR / AED, Live shooter, pole rescue, OSHA 10-hour, heat injuries, etc. – *implemented.*
      b. Public Safety
         1. Demonstration (Arching) Trailer – *delayed until 2022 due to higher trailer costs*.
         2. Storm Restoration Guide for Visiting Crew Booklet – *completed*
         3. Public Safety demonstrations and Training – *5%*
         4. Increased public safety messaging in KCL, social media, news print, and radio.
      c. Update Safety Manual – *completed.*

B. Explore improved field communication technology. This item will be researched in the 2021 Construction Work Plan along with aging metering concerns – *10% completed*.

C. Develop improved record keeping – *20% complete*.
   i. Electronic form templates are being created and tested for safety briefings, maintenance inspections, etc. – *10%*
   ii. Updates to SRS outage reason codes and ticket reporting – *completed.*
   iii. I am planning to hire a part-time / seasonal employee this summer to move documents to the iVue Document Vault if the financials allow*. I have removed this item after Winter Storm Uri presented some financial challenges.*

D. Ensure free flow of information via whistleblower policy. *60% complete*.
   i. Whistleblower policy updated and implemented – *completed.*
   ii. Discuss with employees at Safety meetings – *completed.*
   iii. We are planning an all-employee survey this year to measure employee satisfaction.

E. OSHA SHARP. We are exploring the OSHA SHARP program. *5% complete*. If LSEC is approved, we will be the only electric cooperative in Kansas approved by OSHA.

Goal 2: Identify, assess, and mitigate cyber security risks. 45% complete.

Cybersecurity is an area where we will never be "done". This strategic goal was divided into three critical areas which Carrie has used as the basis for a Cybersecurity Strategic Plan. Carrie has made great strides in our protection and has provided a Strategic Planning 2021 2nd Quarter – Cyber Security update which is included in the Board Packet.

A. Research and mitigate cybersecurity mitigation strategies. This is by far the most comprehensive item.
B. Identify and make necessary investments in hardware, software, and facilities.

C. Establish a cybersecurity training and awareness regimen for employees and members.

Goal 3: Complete and evaluate the results of a cost-of-service study. **21% complete**.

A. Data gathering. Rebecca and Kathy have begun uploading data to Guernsey – *75%*

B. Revenue Requirement. Guernsey has begun this study. *10% complete*.

C. Rate Design and review.

D. Financial Forecast.

The Cost-of-Service Study is scheduled for the third quarter of 2021. We have begun preparations as follows:

- Assemble a Tariff document. The components of the Tariff are currently scattered between Board Policies, Operating Policies, Rules and Regulations, and Rate Sheets. I am consolidating these into a single, comprehensive document – 50%

- Construction Work Plan. Much of the operations load data used in the CWP can be applied to the COSS for C&I rates. This is mainly demand information – done.

- COSS training. Kathy and Rebecca attended virtual COSS training class offered by Guernsey. This gives them insight into how rates are designed and what data is required - done

Strategic Planning 2021- 2nd Quarter – Cyber Security

A. ***Identify, assess, and mitigate cyber security risks.***

1. Research and implement cybersecurity mitigation strategies.
    a. Jan
        i. Researched Office 365 Email Quarantine Security Policy and Rules.
        ii. Implemented Office 365 Aggressive Spam Email Policy.
        iii. Review Manage Engine Desktop Central Patch Management and Risk Mitigation.
        iv. Review Office 365 Threat Management and Risk Mitigation.
        v. Data backups.
        vi. Implemented Software and Device Updates, Patching, and Upgrades.
        vii. Security System and Networking implementation plan – 1%.
        viii. Cyber Detect (2) 16GB RAM installation – 1%.
    b. Feb
        i. Researched a Company One Drive secure form storage.
        ii. Researched a Company Share Point secure form storage.
        iii. Researched new NACHA regulations requirements.
        iv. Researched Hot Spot and Mobile VPN options.
        v. Researched PhishER software integration with KnowBe4 software program.
        vi. Laptop critical vulnerabilities resolved.
        vii. Review Manage Engine Desktop Central Patch Management and Risk Mitigation.
        viii. Review Office 365 Threat Management and Risk Mitigation.
        ix. Implemented Software and Device Updates, Patching, and Upgrades.
        x. Data backups.
        xi. Cyber Detect (1) 16GB RAM stick is bad, requested replacement – 2%.
        xii. Domain drive partitioning for secure access – 25%
        xiii. Data retention
    c. Mar
        i. Review Manage Engine Desktop Central Patch Management and Risk Mitigation.
        ii. Review Office 365 Threat Management and Risk Mitigation.
        iii. Implemented Software and Device Updates, Patching, and Upgrades.
        iv. Data backups.
        v. Security System and Networking implementation plan – 3%.
        vi. Cyber Detect Incident and Response Hyper-V programming – 25%
        vii. Mobile VPN and firewall programming – 50%
        viii. Domain drive partitioning secure access and record retentions. – 50%
        ix. Research Microsoft Exchange server breach.
        x. Research Mobile VPN and hot spot securities.
        xi. Hard disk data retention.
        xii. Domain drive partitioning data sharing securities – 50%
    d. Apr
        i. Review Manage Engine Desktop Central Patch Management and Risk Mitigation.
        ii. Review Office 365 Threat Management and Risk Mitigation.
        iii. Implemented Software and Device Updates, Patching, and Upgrades.
        iv. Data backups.
        v. Security System and Networking implementation planning.
        vi. Cyber Detect Incident and Response Hyper-V server and software programming -

100%

e. May
   i. Review Manage Engine Desktop Central Patch Management and Risk Mitigation.
   ii. Review Office 365 Email Threat Management and Risk Mitigation.
   iii. Implemented Software and Device Updates, Patching, and Upgrades.
   iv. Data backups.
   v. Review Cyber Detect Vulnerability Management and Risk Mitigation.
f. June
   i. Review Manage Engine Desktop Central Patch Management and Risk Mitigation.
   ii. Review Office 365 Threat Management and Risk Mitigation.
   iii. Review Cyber Detect Vulnerability Management and Risk Mitigation.
   iv. Implemented Software and Device Updates, Patching, and Upgrades.
   v. Server critical update install error issue resolved.
   vi. Researched mobile VPN company data drive access.
   vii. Manage Engine 2MFA issues resolved.
   viii. Employee security permissions updated.
   ix. Research SCADA and OT cybersecurity.

2. *Identify and make necessary **investments in hardware, software, and facilities**.*
   a. Jan
      i. Monitors
      ii. Sonicwall TZ500 Firewall Software and Maintenance Annual Renewal
      iii. Crystal Report Pro Software Upgrade
   b. Feb
      i. Retail multi-function printer
      ii. Domain software license renewal
      iii. Microsoft licenses
      iv. Phone line adjustments
   c. Mar
      i. Trustee Laptop
      ii. iPad and iPhone
      iii. Microsoft licenses
   d. Apr
      i. MDMS module
   e. May
      i. Color printer replacement
   f. June
      i. Server racks and racks mounting kits.
      ii. APC UPS Battery backup units

3. *Establish a cybersecurity **training and awareness** regimen for **employees and members**.*
   a. Jan
      i. KnowBe4 Cybersecurity Training program – 100%
      ii. New employee cybersecurity fundamentals training campaign
      iii. IT Department “Updates on Modernized Ransomware Awareness” Webinar.

b. Feb
    i. KnowBe4 employee individual clickers cybersecurity training.
    ii. IT department NRECA IT Mentor Expectation and Cybersecurity Goals Conference Call – 13%
    iii. IT department - Sunflower Member Conference webinar cybersecurity session.
c. Mar
    i. New employee cybersecurity fundamentals training campaign.
    ii. NRECA IT Mentor program webinars on Cybersecurity/IT goals, resources, contacts, and templates – 26%
    iii. Microsoft conference on software features, upgrades, and securities.
    iv. KEC IT Summit committee webinar to plan cybersecurity awareness topics for meeting agenda.
d. Apr
    i. NRECA IT Mentor program webinars on Cybersecurity/IT policies, procedures, and employee procedures – 39%
    ii. Cyber Detect IDR software training – 25%
e. May
    i. NRECA IT Mentor program webinars on Cybersecurity/IT policies, procedures, and employee procedures – 52%
    ii. Cyber Detect Incident and Response Hyper-V server and software training – 50%
    iii. Researched NRECA Essence 2.0 cybersecurity tool testing program.
    iv. NRECA CIS Security Controls webinar.
    v. DOE 100-Day Cybersecurity Plan webinar.
f. June
    i. Axio Ransomware cybersecurity webinar.
    ii. DOE 100-Day Plan webinars and research concerning the cybersecurity of electric utilities industrial control systems and securing of the energy sector supply chain.
    iii. Tri-State Cybersecurity Summit webinar.
    iv. NRECA IT Mentor program webinars on Cybersecurity/IT project management, server and networking securities, and book resources on IT Cybersecurity leadership and management.
    v. Cyber Detect Incident and Response software and reporting training – 100%
    vi. Employee email scam awareness.
    vii. Microsoft patch management webinar.
    viii. Member utility scam alert awareness.

4. ***Technology Goals*** *– maximizing, utilization, resource requirements, and NISC utilization.*
    a. Jan
        i. Auditor VPN user set up – 100%
        ii. SmartHub test environment implemented – 100%
        iii. CR portal site transition – 100%
    b. Feb
        i. Researched Dashboard module reporting ability and template options.
        ii. Dashboard outage management templates additions – 100%
        iii. Researched Dashboard financial template additions – 20%

iv. Call Capture line addition options and pricing – 75%
v. Researched SmartHub payment arrangement process and programming – 75%
vi. Researched SmartHub budget billing process and programming – 75%

c. Mar
i. Mobile VPN and firewall programming – 50%
ii. Researched Dashboard metering and finance report custom programming options.
iii. Research Mosaic module.
iv. Geographics of meter equipment integration with tax district mapping – 80%
v. NACHA account validation regulation implementation – 100%
vi. Bill printer DOC1 conversion to Print Net software – 75%

d. Apr
i. Mobile VPN and firewall programming - 80%
ii. MDMS project implementation – 5%
iii. Security system network devices and server room project – 5%
iv. Researched iVue Connect stages and testing progress.

e. May
i. Mobile VPN and firewall programming - 100%
ii. MDMS project implementation – 5%
iii. Security system, server room, and networking project – 15%
iv. Server room and equipment project – 5%

f. June
i. MDMS project implementation – 40%
ii. Security system, server, room, and networking project implementation – 20%
iii. Server room and equipment install – 15%

Agenda

6:00 – 7:30 p.m.: Free Fair Rides

6:30 p.m.: Dinner – John Ross & Co. Signature Catering

7:30 p.m.: Call to Order

Introduction of Guests

Report of Quorum

Approval of Minutes of 2020 Annual Meeting

Treasurer's Report

Recognition of Employees and Trustees

Announcement of 2021 Continuing Education scholarship recipients

Kid Wind Presentation - Speech will be during the meeting and their demonstration will be set up behind the grandstands after the meeting

Manager's Report

Guest Speaker – Doug Shepard, VP of Management Consulting Services with Kansas Electric Cooperatives, Inc.

Election of Trustees and Proposed ByLaw Amendments

Unfinished Business

New Business

Raffle Prizes will be drawn throughout the meeting

Lane-Scott Electric Cooperative

A Touchstone Energy® Cooperative

2021 Annual Meeting Program

AGENDA

6-7:30 P.M.

Free Fair Rides

6:30 P.M.

Dinner
JOHN ROSS & CO.
SIGNATURE CATERING

7:30 P.M.

Call to Order

Introduction of Guests

Report of Quorum

Approval of Minutes of 2020 Annual Meeting

Treasurer's Report

Employee and Trustee Recognition

Announcement of 2021 Continuing Education Scholarship Recipients

KidWind Presentation
DIGHTON KIDWIND BTU CREW

Manager's Report

Guest Speaker
DOUG SHEPHERD, KEC

Election of Trustees and Proposed Bylaw Amendments

Unfinished Business

New Business

Door Prizes Throughout the Meeting

EXECUTIVE REPORT

RICHARD JENNISON
Board President

RICHARD MCLEON
General Manager

The year 2020 was a difficult, frustrating yet rewarding year. The COVID-19 pandemic affected every sector of our lives from how we shop, to where we work, and even how we worship. We experienced mandated quarantines, store closures and isolation from loved ones in hospitals and nursing homes. It was a difficult and frustrating year, but like the saying goes, "Every cloud has its silver lining." 2020 was no exception. Travel restrictions that shutdown automobile and air travel led to cleaner air in most cities. Quarantines brought families together for meals and game nights. Isolation from loved ones reminded us how precious those relationships can be.

Around Lane-Scott Electric Cooperative, the year 2020 was not a favorite, but considering your cooperative has weathered global and regional wars, depression, inflation, countless political swings and the great Dust Bowl, we did OK.

The lockdowns, travel restrictions and quarantines slowed oil and gas production nationally. Like most rural cooperatives in Kansas, oil and gas production constitute a large amount of Lane-Scott's electrical load. The financial impact on your cooperative was that total revenue fell to $16,137,299. This is a $1,689,809 (or 9.5%) loss in sales, with commercial and industrial accounts representing 98% of our losses. Lane-Scott is used to running lean, so we tightened our belts, deferred capital investments and finished the year with $488,304 in total margins.

Despite COVID-19, your electric cooperative remains financially strong.

- Equity as a percent of assets is 36.55%, 6.45% above our 10-year average.
- Our current and accrued assets exceeded liabilities by 2.5 to 1.

As a non-profit electric utility, your board of trustees strives to keep our rates among the lowest in Kansas. Lane-Scott Electric Cooperative rates averaged 10.17 cents per kilowatt-hour (kWh) in 2020. Residential rates averaged 11.4 cents per kWh; that is 16.65% below the 2020 Kansas electric cooperative average residential rate of 13.6 cents per kWh.

A Lane-Scott member using 908 kWh/month would pay an average of $103.60 per month or $1,243.23 per year. Lane-Scott's members saved an average of $248.43 per year over the average Kansas electric cooperative residential rates. In fact, only three of the 27 distribution electric cooperatives in Kansas had lower residential rates.

As I have said before, "You can't talk about rates without talking about reliability."

During the pandemic, we built over $1.4 million in infrastructure, always improving, always keeping an eye on what we can do to improve your system reliability. These investments are paying off. Our average service availability index has improved to 99.97%. Meaning, on average, electricity is available when you need it 99.97% of the time.

Know that whenever the power goes out, at whatever time, and in whatever weather the good Lord has decided to bless us with, your Lane-Scott Electric Cooperative linemen are on the job, restoring your light, your heat and your security.

No one likes a power outage but sometimes it is simply a fact of life. Know that whenever the power goes out, at whatever time, and in whatever weather the good Lord has decided to bless us with, your Lane-Scott Electric Cooperative linemen are on the job, restoring your light, your heat and your security.

Working around and near utility-grade electricity is dangerous. We remain focused on the safety of our employees, members and communities.

We hold monthly employee safety meetings and have invested thousands of dollars in equipment and training. This includes CPR and AED training as well as pole-top rescues and basic first aid.

We provide free electrical safety demonstrations for our first responders, member workplaces and throughout our communities.

Standard line clearances can put today's modern agricultural equipment operators within fatal reach of thousands of volts of electricity. With your help, we are identifying and raising power lines that could interfere with safe farming operations.

One of our guiding cooperative principles is "Commitment to Community" and your electric cooperative is proud to serve the communities we call home. In 2020, Lane-Scott began our Co-op Sharing Success Grant Program in partnership with CoBank, one of our financial institutions. As a customer of CoBank, we are able to provide grants to charitable organizations and causes in our local communities with a match contribution from CoBank.

Lane-Scott proudly supports local organizations through various donations — having contributed over $17,000 to our schools, fire departments, 4-H groups, continuing education scholarships for our youth, and veteran organizations, to name a few. We sponsored an annual food drive to help stock our food bank pantries and sent holiday care packages to active military from our service territory.

DESPITE COVID-19, YOUR ELECTRIC COOPERATIVE REMAINS FINANCIALLY STRONG.

Equity as a percent of assets is 36.55%, 6.45% above our 10-year average.

Our current and accrued assets exceeded liabilities by 2.5 to 1.

Lane-Scott also supports our communities with master electrician and HVAC services. We are expanding that support by offering Generac generators. Our master servicemen are trained and ready to install and service your award-winning Generac today.

We will continue to investigate new technologies and efficiencies to keep your rates affordable and your reliability high. We will also continue working with our friends and partners at Sunflower Electric to investigate and implement renewable energy options to protect our natural resources.

Despite the challenges of 2020, we were able to maintain low rates and high reliability. We took a few hits, as have so many individuals and businesses, but we were still able to expand our services and support our communities. I am honored to serve you and work alongside these great individuals at Lane-Scott Electric Cooperative.

GUEST SPEAKER

DOUG SHEPHERD is the vice president of management consulting services at Kansas Electric Cooperatives, Inc. and has over 32 years of service to rural electric cooperatives in Kansas. He advises rural electric cooperatives in the areas of finance, rates and taxes and serves as a lobbyist as part of the KEC's government relations team. He's a Nebraskan by birth, but the fifth generation to call Kansas home.

2020 ANNUAL MEETING MINUTES

The 2020 Annual Meeting of the Members of Lane-Scott Electric Cooperative, Inc. was held on Tuesday, July 14, 2020, at the Lane County Fairgrounds in Dighton, Lane County, Kansas. The meeting commenced at 7:30 p.m., pursuant to notice mailed to all members in accordance with the bylaws of the cooperative.

The meeting was called to order by President Richard Jennison. President Jennison welcomed those in attendance and introduced guests including Tom Ruth and Nolan Numerich of Western Co-op Electric; Lee Tafanelli CEO of Kansas Electric Cooperatives, Inc. (KEC); and Sunflower Electric Power Corporation CEO Stuart Lowry.

President Jennison next introduced the members of the board of trustees and legal counsel. Richard McLeon, general manager, was unable to be at the meeting due to a family emergency.

Joseph Gasper, legal counsel, certified notice of the annual meeting was mailed to members at each members address as it appears on the records of the cooperative and reported 85 members were in attendance and 87 signed mail-in ballots were received, for a total of 172 members constituting a quorum. Attorney Gasper called for any additional ballots and then announced the election had closed.

President Jennison referred the members to the printed minutes of the 2019 annual meeting appearing in the notice of the annual meeting. On motion duly made, seconded, and carried, the reading of the minutes of the 2019 annual meeting was waived and the minutes were approved as printed.

President Jennison referred the members to the printed treasurer's report. On a motion duly made, seconded and carried, the reading of the treasurer's report was waived, and the treasurer's report was approved as printed.

President Jennison recognized the Lane-Scott employees and thanked them for their hard work.

Chad Rupp and Dee Shull were recognized for their service of 15 years and were presented a watch.

Trustee Craig Ramsey was recognized for his service of 15 years and was presented a watch.

Trustee Ed Gough was recognized for his service of 24 years and retirement from the board and was presented with a rocking chair.

Kaden Bradstreet and Lexis Beasley presented a report about their experience at the 2019 Cooperative Youth Leadership Camp.

The Washington, D.C., Electric Cooperative Youth Tour was canceled this year.

President Jennison reported that Manager Richard McLeon was unable to attend and if any member has questions of him the member is welcome to meet with him at his office.

President Jennison then called for additional registrations. There were no additional registrations.

President Jennison introduced the guest speaker, Lee Tafannelli, CEO of KEC. Highlights of his presentation are as follows:

Prior to becoming the CEO at KEC, he was the Kansas Adjutant General of the Kansas Army and Air National Guard. He has also served in the Kansas Legislature from 2001-2005 and 2006-January 2011. He has served 40 years in military service.

His 40 years of military service was helpful in teaching him how to be agile and flexible since he started at KEC in the middle of a pandemic.

He has a goal to visit all 30 Kansas electric cooperatives in the first 100 days so that he can build relationships and learn the issues of concern. This will allow KEC to address the concerns of its members more efficiently.

KEC also assists rural communities through various programs.

KEC assists the local electric cooperatives on large tasks as well as providing support for government relations in the legislature and regulatory bodies.

In 2020, the Kansas legislature had more urban representatives than rural representatives for the first time in its history. This dynamic has made it more difficult for rural representatives to have rural issues as a primary concern. KEC presents rural issues to legislators as a service to its members.

KEC coordinates the mutual aid program for assistance during storms.

KEC publishes *Kansas Country Living* magazine providing communication to the cooperative members.

Attorney Gasper presided over the election of trustees. The members of the nominating committee met and submitted names of the following individuals as nominees for three trustee positions: Billie Barnett Jr., Alan Berndt, Randall Evans and Neil Wilson, to represent Lane County and Gove County; Richard Sorem, representing Finney County and Hodgeman County; and, Paul Seib Jr., representing Ness County and Rush County. Attorney Gasper explained that due to the pandemic the election was done by written ballot. The ballots will be counted by an anonymous group of members and the results will be printed in the Dighton Herald, Ness County News and posted on the Lane-Scott Facebook page.

President Jennison called for unfinished business. There was no unfinished business. President Jennison called for new business. There was no new business.

President Jennison thanked John Ross & Co. Signature Catering for the meal, and Howard Richards for the public address system.

There being no new business, President Jennison called for a motion to adjourn. By motion duly made, seconded, and carried the meeting was adjourned at 8:10 p.m. on July 14, 2020.

At various times during the meeting, attendance prizes were given away to members by drawing. The winners were: Darwin Whipple, Neil Wilson, Randall Evans, Amanda Doll, Boyd Shupe, Beverly Kerkhoff, Roberta Seifried, Darryl Johnson, Stan Bray, Whiterock Township Hall, City of Brownell, Steve Lockman, Cheyenne Township Firestation, Karey Clark, Tom Reed, Billie Barnett Jr., Yvonne Schmidt, Linda Foos and Cindy Fuentes.

FINANCIAL REPORT

BALANCE SHEET

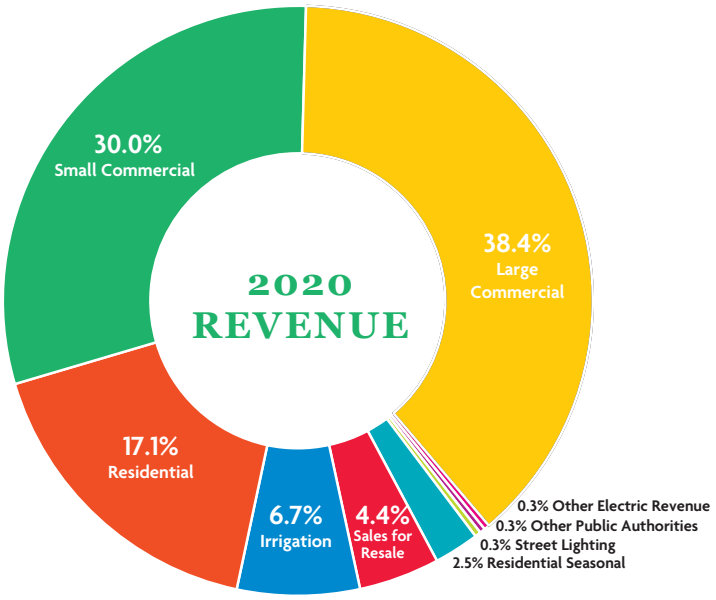
AS OF DEC. 31, 2020

ASSETS	2020	2019	2018
Total Utility Plant	$58,392,568	$56,926,974	$52,475,269
Less Depreciation	(17,927,950)	(16,568,059)	(15,398,228)
Net Value of our System	$40,464,618	$40,358,915	$37,077,041
Other Property & Investments	$12,143,151	$12,113,711	$10,396,169
Cash & Temporary Investments	$6,090,136	$3,003,584	$1,295,130
Receivables	$1,420,778	$1,390,602	$1,685,430
Pre-Payments	($1,093)	($589)	$11,388
Materials & Supplies	$328,131	$341,360	$374,002
Other Current Assets	$259,737	$450,005	$3,141
Deferred Debits	$578,382	$778,909	$948,413
Total Assets	$61,283,840	$58,436,497	$51,790,714
LIABILITIES & EQUITY			
Long Term Debt	$36,884,920	$33,968,143	$30,490,966
Capital Leases	$310,413	$459,945	$318,223
Accounts Payable	$830,964	$1,081,433	$1,176,985
Consumer Deposits	$121,550	$112,413	$125,592
Other Current & Accrued Liabilities	$734,456	$722,020	$615,627
Total Liabilities	$38,882,303	$36,343,954	$32,727,393
Equities & Margins	$22,401,537	$22,092,543	$19,063,321
Total Liabilities & Equity	$61,283,840	$58,436,497	$51,790,714

STATEMENT OF OPERATIONS

FOR YEAR ENDING DEC. 31, 2020

	2020	2019	2018
INCOME			
Operating Revenue	$16,137,299	$17,827,108	$17,802,551
EXPENSES			
Cost of Power	$9,219,252	$10,467,955	$10,698,587
Operations	$4,015,321	$3,720,981	$3,682,453
Depreciation & Amortization	$1,650,032	$1,599,510	$1,517,330
Interest	$1,339,441	$1,320,115	$1,213,814
Miscellaneous	$40,819	$14,349	$10,931
TOTAL EXPENSES	$16,264,865	$17,122,910	$17,123,115
OPERATING MARGINS	-$127,566	$704,198	$679,436
NON-OPERATING MARGINS	$615,870	$1,340,935	$662,335
PATRONAGE CAPITAL OR MARGINS	$488,304	$2,045,133	$1,341,771



PROPERTY TAXES PAID BY COUNTY

County	2020	2019	2018	2017
Finney	$63,666	$29,163	$27,362	$23,903
Gove	$12,744	$11,890	$12,122	$11,019
Hodgeman	$40,731	$38,465	$37,331	$31,302
Lane	$333,702	$325,103	$325,427	$299,234
Logan	$1,127	$1,083	$1,018	$911
Ness	$331,063	$317,417	$287,402	$247,365
Scott	$87,294	$86,616	$85,889	$73,344
Rush	$21,134	$20,682	$19,220	$16,720
Totals	**$891,461**	**$830,419**	**$795,771**	**$703,798**

RESPONDING TO A CALL FOR HELP

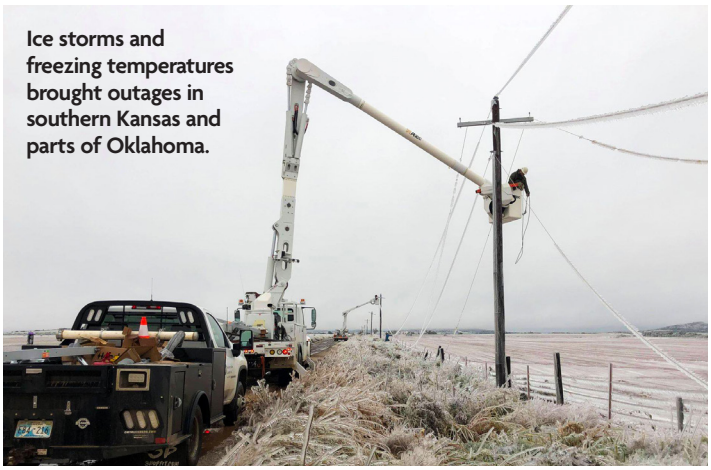
Cooperation Among Cooperatives is one of our Seven Cooperative Principles

In October 2020, Lane-Scott Electric responded to a mutual aid request from our co-op neighbors in Oklahoma when freezing rain and high winds damaged power lines and poles leaving thousands without electricity.

When natural disasters or other extreme circumstances occur, cooperatives step up to help — it's the cooperative way! Organized by Kansas Electric Cooperatives, Inc. 68 lineworkers from 13 Kansas co-ops and one subsidiary responded to the call. Lane-Scott Electric crews and other Kansas cooperatives worked alongside crews from CKenergy in Binger, Oklahoma, a small town southwest of El Reno. At one time during the storm more than 20,000 members were without power.

Four Lane-Scott lineworkers driving two bucket trucks left for Oklahoma on Oct. 30, 2021. The crew worked for seven days with extended shifts helping to restore power to residential meters. The linemen assisting were Ben Mann, Chad Rupp, Kevin Bradstreet and Dellon Shelton.

"When one of our fellow cooperatives is in need of help, we lend a hand however we can," said General Manager Richard McLeon. "Other cooperatives helped us when ice took our lines and poles down. We'll be there for them."



Ice storms and freezing temperatures brought outages in southern Kansas and parts of Oklahoma.

OKLAHOMA ASSOCIATION OF ELECTRIC COOPERATIVES

SHARING SUCCESS IN THE COMMUNITIES WE SERVE

Through a partnership with CoBank, one of our national partner banks, Lane-Scott began the CoBank Sharing Success Grant Program in 2020. The program is designed to provide grants to charitable organizations and causes in our local communities.

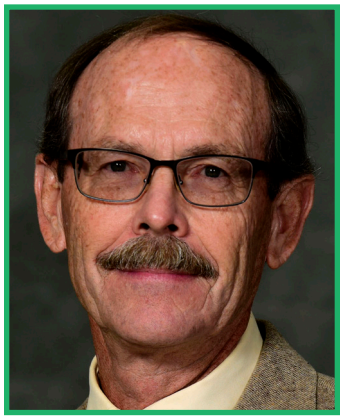
The CoBank Sharing Success Grant Program is designed to help its customers, such as Lane-Scott Electric, work with local organizations to improve their communities. CoBank is a national nonprofit cooperative bank owned by the rural American cooperatives it serves. Since the Sharing Success Program was established in 2012, CoBank and its customers have together contributed more than $50 million to groups such as volunteer fire departments, local schools, and hunger relief programs to name a few.

In 2020, Lane-Scott funded $2,000 in grants, which was matched by CoBank for a total of $4,000. These grants were awarded to four recipients: the **RANSOM UNITED METHODIST CHURCH** and **LANE COUNTY HEALTH DEPARTMENT** to support the Ness and Lane County Food Banks; the **DIGHTON ELECTRATHON TEAM;** and **KIDWIND TEAMS**.

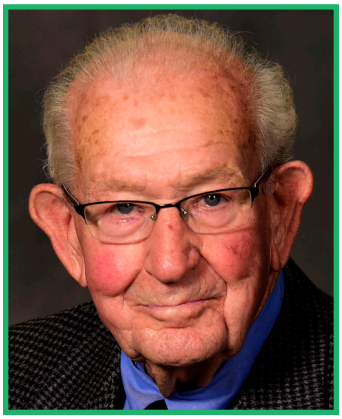
Applications are accepted at the beginning of each calendar year from 501(c)(3) non-profit organizations, and other non 501(c)(3)'s such as schools, government organizations like counties, municipalities, and their agencies or departments. Use of the grants must be to benefit a community or communities who receive electric service from Lane-Scott or whose purpose benefits members of Lane-Scott. The project must serve a public purpose and must be used within 12 months of its award. Funding amounts are determined annually based on the financial situation of Lane-Scott for the year.

COOPERATIVE TRUSTEES

RICHARD JENNISON
Board President
Lane & Gove counties



CRAIG RAMSEY
Vice President
Scott & Logan counties

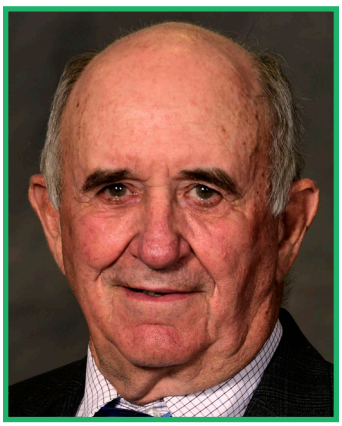


PAUL SEIB JR.
Secretary
Ness & Rush counties

ERIC DOLL
Treasurer
Finney & Hodgeman counties

RANDY EVANS
Trustee
Lane & Gove counties

CHAD GRIFFITH
Trustee
Scott & Logan counties



HAROLD HOSS
Trustee
Ness & Rush counties

RAD ROEHL
Trustee
Lane & Gove counties

RICHARD SOREM
Trustee
Finney & Hodgeman counties

OUR EMPLOYEES

RICHARD MCLEON
General Manager

KATHY LEWIS
Manager of Financial Services

REBECCA CAMPBELL
Billing Clerk

CARRIE BORELL
Information Technology

ANN MARIE JENNINGS
Member Service Coordinator

DIANA KUHLMAN
Cashier

KALO MANN
Master Electrician

MARK MCCULLOCH
HVAC Technician

MICHAEL POLLOCK
Master Electrician

NATE BURNS
Engineering Coordinator

KASEY JENKINSON
Crew Chief

BEN MANN
Crew Chief

DAL HAWKINSON
Journeyman Lineman

CHAD RUPP
Journeyman Lineman

CHRIS TERHUNE
Journeyman Lineman

MYRON SEIB
Journeyman Lineman

KEVIN BRADSTREET
Journeyman Lineman

LEIGHTON AYERS
Journeyman Lineman

SCOTT BRIAND
Warehouse

DELLON SHELTON
Apprentice Lineman

BLAKE MCVICKER
Apprentice Lineman

STACEY FOOS
Part Time Custodian

EMPLOYEE CELEBRATIONS

30 YEAR AWARD

KATHY LEWIS | MANAGER OF FINANCIAL SERVICES

Kathy began her career at Lane-Scott in January 1991 as a cashier. Before coming to Lane-Scott, she worked at the First State Bank in Healy. In 1994, she was promoted to manager of financial services and completed the Robert I. Kabat Management Internship Program in 2016. Along with her finance duties, she also manages and supervises the office staff.

KATHY LEWIS

15 YEAR AWARDS

MICHAEL POLLOCK | MASTER ELECTRICIAN

Michael first began working for Lane-Scott as a summer intern in June 2005 while completing the electrical program at Northwest Technical College. He became a full-time employee in July 2006. Michael has earned his master electrician certification.

CHRIS TERHUNE | JOURNEYMAN LINEMAN

Chris began working for Lane-Scott in October 2006 and completed his certification to become a journeyman lineman. He also serves as the safety coordinator for Lane-Scott. Prior to working at Lane-Scott he worked for the Garden City Co-op.

MICHAEL POLLOCK

CHRIS TERHUNE

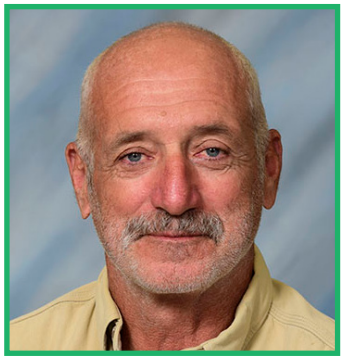
RETIREMENTS

LARRY KRAFT | JOURNEYMAN LINEMAN

Larry retired on June 2, 2021, after spending 42 years on the lines. Larry began working for Lane-Scott in 2007, with the previous 28 years he spent with Aquila. Larry plans to enjoy retirement by traveling, spending extra time with his grandkids and golfing.

DEE SHULL | WAREHOUSE CLERK

Dee retired on Feb. 8, 2021, working for 15 years as the warehouse clerk. Prior to working for Lane-Scott, she worked at Healy Co-op as the accounts payable clerk. Dee plans to spend more time with her kids during retirement and eventually hopes to move to Texas.



LARRY KRAFT

DEE SHULL

NEW HIRES

SCOTT BRIAND | WAREHOUSE

Scott was hired in January 2021 to fill the warehouse position where he's responsible for purchasing, inventory and warehouse management as well as assuming sales responsibilities for the resale department. Scott previously worked as the assistant manager at Sunrise Oil Field Supply in Ness City for 10 years.

BLAKE MCVICKER | APPRENTICE LINEMAN

Blake joined Lane-Scott in May 2021 as a fourth-year apprentice lineman. After graduating from Ness County High School in 2013, he immediately pursued his path to become a lineman completing the 15-week merchant program at the Rocky Mountain Lineman School in Colorado Springs. He spent the next four years contracting and traveling with Great Southwest Construction, High Power Distribution, Renewable Energy Service, BHI and Wheatland Electric.

SCOTT BRIAND

BLAKE MCVICKER

CONTINUING EDUCATION SCHOLARSHIP RECIPIENTS

KADEN BRADSTREET

KYLE DOLL

ALYSSON FOOS

PATRICK O'TOOLE

ELI RUPP

KILEY WHIPPLE

KADEN BRADSTREET is the son of Kevin and Mindy Bradstreet of Dighton. Kaden graduated from Dighton High School in May 2020 and completed his first year at Fort Hays State University in May. Kaden is pursuing a bachelor's degree in business marketing.

KYLE DOLL is the son of Jesse Doll. Kyle graduated from Garden City High School in May 2020 and completed his first year at Kansas State University. He selected K-State for its agriculture and technology programs. Upon graduating, he wants to take the knowledge gained from K-State back to southwest Kansas.

ALYSSON FOOS is the daughter of Bryan and Jennifer Foos of Ness City. She graduated from Ness City High School in May 2019 and completed her second year at Tabor College in Hillsboro in May. Alysson plans to graduate from Tabor College in December 2022, obtaining a degree in social work.

PATRICK O'TOOLE is the son of Michele and Darcy O'Toole of Ness City. Patrick graduated from Ness City High School in May 2021. Patrick will attend North Central Kansas Technical College in Hays to complete its plumbing, heating, ventilation, and air conditioning (PHVAC) program.

ELI RUPP is the son of Chad and Charlie Rupp of Dighton. Eli graduated from Dighton High School in May and plans to attend Hutchinson Community College where he can get his associate's degree as a heating, ventilation, and air conditioning (HVAC) technician.

KILEY WHIPPLE is the daughter of Toby and Michelle Whipple of Kalvesta. Kiley graduated from Ingalls High School in May and has been taking college classes through Dodge City Community College since July 2020. She plans to attend Fort Hays State University to obtain a bachelor's degree in agriculture education with a minor in elementary education.

NOMINATING COMMITTEE REPORT

A meeting of the Lane-Scott Electric Nominating Committee was held on June 7, 2021, at 6:30 p.m. in the office of the cooperative at 410 S. High Street in Dighton.

Members of the nominating committee present were Lex Bush representing Lane and Gove counties; Randy Scheuerman and John Beaton representing Logan and Scott counties; and Lane Copeland and Kenneth Schlegel representing Ness and Rush counties. Also attending were attorney Joseph Gasper and General Manager Richard McLeon.

By vote, the committee nominated the following individuals to be elected by the members at the annual meeting of members:

- **RICHARD JENNISON** and **SARA MCWHIRTER** for the position of trustee representing Lane and Gove counties.
- **CRAIG RAMSEY** for the position of trustee representing Scott and Logan counties.
- **HAROLD HOSS** for the position of trustee representing Ness and Rush counties.

BOARD CANDIDATES

LANE & GOVE

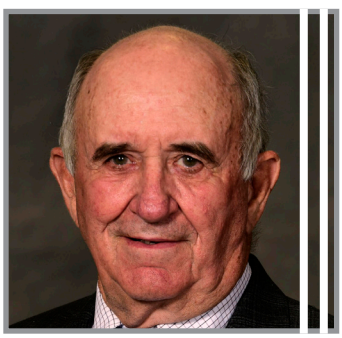
RICHARD JENNISON (incumbent): Richard Jennison is a lifelong resident of rural Healy in Lane County. He graduated from Healy High School and Kansas State University. Jennison and his wife, Diana, have three grown children. He has been a member of the Lane-Scott Electric Board of Trustees for 39 years, currently serving as president. He is an active member in the United Methodist Church of Healy.

LANE & GOVE

SARA MCWHIRTER: I have lived in Lane County for 33 years. I was born and raised in Kansas. When I first moved to Dighton, I only worked on the farm and ranch. After three years I went to work for Lane County Hospital and was a CNA and CMA for two years. I then worked for the Lane County Medical Clinic as the clinic nurse for 13 years. I left the clinic and hospital in 2006 when my son was deployed with the National Guard. He still continues to serve to this day. I have been a business owner of Sara's Storage Sheds since 2008 and my husband and I farmed and ranched together until his death in 2017. I continued to run the farm and ranch as trustee of his trust since his death. I was raised in Plainville, Kansas, graduating from Plainville High School. While in high school I was active in 4-H, FFA and multiple athletic events. I learned accounting in high school and have used it ever since. As the trustee of my husband's trust, I have managed and paid off loans, managed all the investments, as well as checking and money market accounts. I took care of the beef herd and bought and sold as needed. I realize that things are not simple and that we are in a difficult situation and uncertain times in the United States. We have all learned that life is a struggle and that there will always be ups and downs. I would like to work with Lane Scott to see what the future holds for the electric business and its stockholders.

SCOTT & LOGAN

CRAIG RAMSEY (incumbent): I am a lifelong resident of Scott County, having graduated from Scott Community High School, Colby Community College and Kansas State University. My wife and I have two grown children and nine grandchildren. I've served on the Lane-Scott Board for 15 years and have obtained the Credentialed Cooperative Director and Director Gold certifications through training by National Rural Electric Cooperative Association.



NESS & RUSH

HAROLD HOSS (incumbent): After serving with the 101st airborne division, I came home and went back to school, graduating from Emporia State Teachers College with a degree in elementary education. At this point, I received a teaching position with the southwest Kansas education cooperative and started farming. I taught school and farmed for three years. At this time farming won out and I devoted my time totally to farming. Thirty-six years ago, I was given the opportunity to serve on the Lane Scott board. I have had the pleasure of working with a lot of good and interesting people and would like to continue to work for the people of Lane-Scott.

PROPOSED BYLAW AMENDMENTS

The following nine proposed amendments to the Lane-Scott Electric Cooperative Inc. bylaws will be voted on by the membership present at the Lane-Scott Electric Annual Meeting on July 20, 2021.

ARTICLE III – MEETING OF MEMBERS

SECTION 5. VOTING. Each member shall be entitled to only one vote. All questions shall be decided by a vote of a majority of the members voting thereon in person, except as otherwise provided by law, the articles of incorporation or these bylaws. Individuals voting on behalf of non-natural person members must present evidence satisfactory to the Cooperative that the individual is duly authorized to vote for the non-natural person member. *(**PROPOSED AMENDMENT 1, ADDITION TO BYLAWS:** "The board of trustees may allow for voting by Members by in-person voting, voice vote, member written vote or electronic means. The board of trustees shall authorize a means of electronic voting only if the board of trustees is satisfied that such means includes functionality designed to prevent duplicate and unauthorized balloting.")*

SECTION 8. MEMBER ACTION BY WRITTEN BALLOT OR MAIL BALLOT.

A. Members may vote on any action that may be taken at any Member meeting *(**PROPOSED AMENDMENT 2, ADDITION TO BYLAWS**: "including election of trustees",)* without a Member Meeting by the Cooperative by delivering a written ballot ("Member Written Ballot") to every Member entitled to vote on the matter.

A 3a. Any material soliciting approval of any action by Member Written Ballot must: Contain, or be accompanied by, a copy or summary of each proposed action, *(**PROPOSED AMENDMENT 3, ADDITION TO BYLAWS:** "and if a trustee election is being held, a list of trustee nominees in alphabetical order along with blank spaces for additional nominees;")*

*(**PROPOSED AMENDMENT 4, ADDITION TO BYLAWS:** "Section 10. Virtual Meetings. During emergencies or conditions that make meeting in person difficult or impossible, the board of trustees is authorized to designate that a meeting of the Members may be held by virtual, electronic or other non in-person means ("Virtual Meeting"). The virtual meeting must allow for participation of all members in attendance. Any action taken at the Virtual Meeting shall have the same force and effect as action taken by in-person meetings or by member's written ballot. Quorum requirements for a virtual meeting shall be the same requirement for an in-person meeting.)*

ARTICLE IV – TRUSTEES

SECTION 2. ELECTION AND TENURE. At the annual meeting, three (3) trustees shall be elected to succeed those trustees whose terms have expired, for a period of three (3) years or until their successors shall have qualified. If an election of trustees shall not have been held on the day designated herein at the annual meeting or any adjournment thereof, the board of trustees shall cause an election to be held at a special meeting of the members as soon thereafter as conveniently may be held; trustees shall be elected by plurality vote of the members. *(**PROPOSED AMENDMENT 5, ADDITION TO BYLAWS:** "The election of trustees may be held by voice vote, mail-in ballot, written ballot or electronic ballot at the discretion of the board of trustees. In the event of a tie election, the winner of the election shall be determined by the flip of a coin.)*

SECTION 4. NOMINATIONS. The committee, keeping in mind the principle of geographical representation, shall prepare and post at the principal office of the Cooperative at least twenty (20) days before the meeting, a list of nominations for trustees, but any fifteen (15) or more members acting together may make other nominations by petition not less than *(**PROPOSED AMENDMENT 6, REVISION TO BYLAWS:** Changed from "fifteen (15) days" to" forty-five (45) days")* prior to the meeting and the Secretary shall post such nominations at the same place where the list of nominations made by the committee is posted. The Secretary shall be responsible for mailing with the notice of meeting or separately, but at least ten (10) days before the date of the meeting, a statement of the number of trustees to be elected and the names and addresses of the candidates, specifying separately the nominations made by the Committee on Nominations and also the nominations made by petition, if any. *(**PROPOSED AMENDMENT 7, REMOVAL OF BYLAW ITEM:** "Nothing contained herein shall, however, prevent additional nominations from the floor at the meeting of members.")*

SECTION 6. VACANCIES. Subject to the provisions of these bylaws with respect to the filling vacancies caused by the removal of trustees, the remaining trustees shall have the option to fill the vacancy by an affirmative vote of a majority of the remaining trustees for the unexpired portion of the term of the trustee in respect of whom the vacancy occurs *(**PROPOSED AMENDMENT 8, ADDITION TO BYLAWS:** "or the remaining trustees may upon a majority vote of the remaining trustees, choose to leave the vacancy unfilled until the next annual meeting or special meeting of the Members at which time the Members may elect a trustee for the unexpired term of the trustee in respect of whom the vacancy occurs.")*

ARTICLE V – MEETINGS OF TRUSTEES

*(**PROPOSED AMENDMENT 9, ADDITION TO BYLAWS:** "Section 9. Virtual Meetings. During emergencies or conditions that make meeting in person difficult or impossible, the board of trustees is authorized to designate that a meeting of the trustees may be held by virtual, electronic or other non in-person means ("Virtual Meeting"). The virtual meeting must allow for participation of all trustees in attendance. Any action taken at the Virtual Meeting shall have the same force and effect as action taken by in-person meetings. Quorum requirements for a virtual meeting shall be the same requirement for an in-person meeting.")*

OFFICIAL BALLOT

TRUSTEE ELECTIONS

Vote for one candidate per county district by marking an "X" in the box next to the candidate of your choice. Only one vote per membership. Any write-in candidates must meet the qualifications of a trustee under the cooperative bylaws and policies for the appropriate position.

Lane & Gove District

☐ **RICHARD JENNISON**

☐ **SARA MCWHIRTER**

☐ **WRITE-IN** _____

Ness & Rush District

☐ **HAROLD HOSS**

☐ **WRITE-IN** _____

Scott and Logan District

☐ **CRAIG RAMSEY**

☐ **WRITE-IN** _____

PROPOSED BYLAW AMENDMENTS

As printed on Page 11. Mark yes in favor of the proposed amendment or no to oppose.

☐**YES** ☐**NO** Amendment 1 of Article III Meeting of Members, Section 5. Voting

☐**YES** ☐**NO** Amendment 2 of Article III Meeting of Members, Section 8. Member Action by Written Ballot or Mail Ballot

☐**YES** ☐**NO** Amendment 3 of Article III Meeting of Members, Section 8. Member Action by Written Ballot or Mail Ballot

☐**YES** ☐**NO** Amendment 4 of Article III Meeting of Members, Section 10. Virtual Meetings

☐**YES** ☐**NO** Amendment 5 of Article IV Trustees, Section 2. Election and Tenure

☐**YES** ☐**NO** Amendment 6 of Article IV Trustees, Section 4. Nominations

☐**YES** ☐**NO** Amendment 7 of Article IV Trustees, Section 4. Nominations

☐**YES** ☐**NO** Amendment 8 of Article IV Trustees, Section 6. Vacancies

☐**YES** ☐**NO** Amendment 9 of Article V Meeting of Trustees, Section 9. Virtual Meetings

9. a. 2021 Construction Work Plan

Mr. Doug Somerhalder, P.E., Vice-President and Manager of Power Engineering with Guernsey has prepared our 2022-2024 Construction Work Plan and will be here to present it to the Board and answer questions.

The CWP was prepared with input and data from the LSEC Operations crew, Engineering staff, and the General Manager. This CWP has an estimated cost of $5,611,270 and focuses on communications, line maintenance, and Headquarters' improvements. Items of note are:

1. 500: Substation changes. This $210,910 item adds "low side" metering to the three Dighton substations and accomplishes two things:
    a. We will generate billings from our meters on the distribution side of the substation. This will avoid passing Sunflower billing errors to the City of Dighton.
    b. It allows us to develop a "Delivery Charge" should the City of Dighton change Wholesale energy providers.
2. 600 and 1100. Pole Replacements account for about 40% of the CWP at $2,324,400. Increasing our pole inspection program to get back on a 10-year cycle will increase our pole replacement costs. Much of the Aquila system has not been inspected since LSEC acquired it and it represents over ½ of our members and revenues.
3. 600. Two-way radio Communication systems add another $750,000 to the CWP. This upgrades our radios from analog to digital and adds four (4) prospective towers. We are working with Sunflower and Mobile Radio out of Great Bend, KS.
4. 1300: HQ and Facilities. Two items come to $280,500:
    a. Server Room. NRECA, NISC, and other industry specifications indicate that we need to add secure server racks and climate control to maintain a functional Server Room. To do this, we propose moving the servers to the current Operations Room, dividing the room in half by the construction of a wall and doorway. The rear half of the current room will house the servers, communications, metering, and all cybersecurity items. Carrie will office in the from half of the current office. Operations will then move into the current Server Room.
    b. North Yard improvements. The North Yard is currently a vacant lot. We propose leveling the lot, bringing in an estimated 66 loads (988 yards) of rock and pouring 265 yards of concrete for transformers and other equipment.

We will begin projects immediately and believe that we can largely fund this CWP without financing but have CFC lined-up for a Power Vision Loan if we get nervous.

Staff Requests that the Board approve the 2021-2024 Construction Work Plan.

121.73 | 121.32
121.73 | 121.32
17.18

122.79 | 122.05
115.66 | 114.86
23.20

122.95 | 123.03
122.51 | 123.44
26.27

116.88 | 116.75
116.80 | 116.67
11.13

Manning

117.90 | 110.44
117.61 | 109.94
9.2

123.40 | 123.41
123.40 | 123.41
12.82

119.49 | 119.08
119.49 | 119.08
12.39

Dighton Low

West City

North City

Dighton Hi

South City

123.54 | 123.32
123.52 | 123.30
26.29

125.72 | 125.72
125.72 | 125.72
7.12

Beeler

123.96 | 123.71
125.56 | 125.32
13.66

125.47 | 125.46
123.89 | 121.48
26.11

Ransom

124.42 | 124.27
126.00 | 125.86
16.65

125.84 | 125.45
125.45 | 124.26
8.57

124.53 | 124.23
124.53 | 123.03
11.75

McCracken

124.45 | 124.71
118.68 | 120.20
36.39

Ness 115

Alexander 115

Ness City

Bazine

124.63 | 124.02
123.83 | 121.67
18.72

125.00 | 125.05
125.79 | 122.67
10.55

122.92 | 122.33
122.92 | 122.33
11.85

123.38 | 122.79
123.38 | 122.79
8.42

117.03 | 116.31
112.50 | 111.71
19.92

124.67 | 124.68
124.67 | 124.68
15.28

Wheatland IC

113.93 | 113.76
113.93 | 113.76
26.23

122.25 | 121.60
122.25 | 121.60
26.92

122.00 | 121.90
122.00 | 121.90
34.83

123.13 | 123.24
118.43 | 119.45
32.19

Twin Springs Hi

Twin Springs Lo

S Existing Substation or MP

Regulator

Auto-transformer

Capacitor

Switch

2022 2024 Allocated Peak Load Year

Regulated Voltage Drop

Non-Regulated Voltage Drop

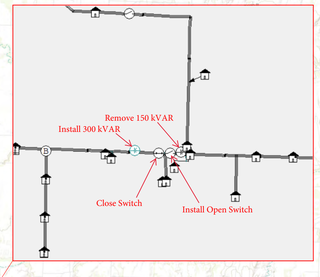
Miles from source

Lane-Scott Electric Cooperative

Existing 2020 System Map

APPROVED BY: DGS
DRAWN BY: SYB
DATE: 6/29/2021
JOB NO: KS00042030

guernsey ENGINEERS ARCHITECTS CONSULTANTS



121.32
121.32
17.18

122.50
114.87
23.20

123.10
123.53
26.27

116.75
116.67
11.13

Manning

Healy Air Break Switch Replaced

121.32
121.25
12.82

119.08
119.08
12.39

118.40
118.24
9.2

City of Dighton North Substation Upgrades
503

City of Dighton West Substation Upgrades
502

Dighton Low

West City

North City

Dighton Hi

South City

501

City of Dighton South Substation Upgrades

123.31
123.30
26.29

125.72
125.72
7.12

301
Connect through Utica Auto-Transformer station to be built

Open at span_30691
(Connects back through Utica Auto-Transformer now)

Open at span_15561
Connect back to Ransom

Beeler

124.30
125.11
13.66

125.46
121.48
26.11

Ransom

124.85
125.65
16.65

125.06
124.26
8.57

123.83
123.03
11.75

McCracken

124.71
120.20
36.39

Ness 115

Alexander 115

Ness City

124.02
121.20
18.72

Bazine

125.62
122.85
10.55

122.79
122.79
8.42

122.33
122.33
11.85

Open at span_1022
Connect back to Wheatland IC

122.24
120.85
19.92

Remove regulator "volt_79"

124.68
124.68
15.28

Wheatland IC 3 Phase electronic recloser upgrade

Close switch swit_75-B

Wheatland IC

123.62
116.45
26.23

Add 3 100A regulators "REG45116"

121.60
121.60
26.92

121.90
121.90
34.83

122.80
119.45
32.19

Twin Springs Hi

Twin Springs Lo

S Existing Substation or MP

Regulator

Auto-transformer

Capacitor

Switch

Regulated Voltage Drop

Non-Regulated Voltage Drop

Miles from source

Lane-Scott Electric Cooperative

Recommended 2024 System Map

APPROVED BY: DGS
DRAWN BY: SYB
DATE: 6/29/2021
JOB NO: KS00042030

guernsey
ENGINEERS
ARCHITECTS
CONSULTANTS

Kansas – 0042

LANE-SCOTT ELECTRIC COOPERATIVE, INC.
Dighton, Kansas

Mr. Richard McLeon, General Manager

2022-2024

CONSTRUCTION WORK PLAN

Project No. KS00042030

June 2021

Kansas – 0042

LANE-SCOTT ELECTRIC COOPERATIVE, INC.
Dighton, Kansas

Mr. Richard McLeon, General Manager

2022-2024

CONSTRUCTION WORK PLAN

June 2021

C. H. GUERNSEY & COMPANY
Engineers • Architects • Consultants
Oklahoma City, Oklahoma

guernsey
ENGINEERS
ARCHITECTS
CONSULTANTS

June 29, 2021

Mr. Richard McLeon, General Manager
Lane-Scott Electric Cooperative, Inc.
Post Office Box 758
410 S. High St.
Dighton, Kansas 67839

Dear Mr. McLeon:

Enclosed are two hard copies and two electronic copies of the 2022-2024 Construction Work Plan we have prepared for Lane-Scott Electric Cooperative.

We wish to express our appreciation for the assistance you and your staff have given us in the preparation of this work plan. We will be glad to discuss any questions you may have concerning the study.

Sincerely,
C. H. GUERNSEY & COMPANY

Douglas G. Somerhalder, PE
Manager, Power Engineering

Enclosure

5555 North Grand Boulevard
Oklahoma City, OK 73112-5507
405.416.8100
guernsey.us

TABLE OF CONTENTS

Page No.

SUMMARY OF THE REPORT

SUMMARY OF THE REPORT

The primary purpose of this work plan is to provide the Lane-Scott Electric Cooperative, Inc. (LSEC) with an analysis of the existing system capacity and operating conditions and to recommend the necessary system improvements and additions to enable LSEC to provide adequate and dependable service to its members through 2024. This plan will also provide the necessary engineering support for requests to borrow capital from the Cooperative Finance Corporation (CFC) or Rural Utilities Services (RUS) if needed.

This report contains a description and estimated costs of the facilities necessary to:

1. Line extensions for 90 new consumers with a total of 162 new service connections
2. Replace 762 deteriorated poles
3. Construct one new Auto-Transformer station
4. Upgrade three City of Dighton substations
5. Install 3 regulators
6. Install one capacitor bank
7. Install OCRs and a three-phase electronic recloser to improve system operations
8. Replace 10 miles of Copperweld conductor
9. Install miscellaneous distribution equipment
10. Replace 162 transmission poles.

The cost data used in this report were provided by LSEC (Appendix B) or were taken from recent construction contracts of similar RUS-financed projects. An inflation factor of 4.0% per year was used to account for anticipated increases in labor and material prices. The costs used in this plan include labor, materials, overheads, and engineering, except where specifically noted otherwise. A summary of the cost estimates can be found on Page S-9. Detailed cost estimates are included in Section II of this report.

It is estimated that the system improvements recommended in this work plan will result in an annual savings of $21,990 in kWh sales. It is also expected that the upgraded distribution lines and other system improvements will improve voltage levels, system reliability, and operating efficiency.

CERTIFICATION BY THE ENGINEER

Upon completion of the construction of the facilities proposed in this work plan, the Lane-Scott Electric Cooperative, Inc., (KS0042) will provide adequate and dependable service to 5,791 total consumers; 5,528 residential (including seasonal), irrigation and small commercial consumers using an average of 1,359 kWh per month per consumer; and to 263 special loads (large commercial accounts and public accounts) which are provided for on an individual basis. It is estimated that there will be 250 idle services.

The consumer projections and the annual kWh requirements used in this Work Plan are based on the projections shown in the 2020 Load Forecast Study (LFS) prepared by Sunflower Electric Cooperative and approved by the Board and Management of Lane-Scott Electric Cooperative, Inc. The projected system non-coincidental peak demand of 35,115 kW was used in the system modeling.

LCEC's most current Long-Range Plan was completed in 2002 by Peak Power Engineering. This was prior to LSEC acquiring what is now called the East portion of the system and includes the Alexander 115 Substation, serving Bazine and McCracken Substations as well as the Ness 115 Substation, serving Ness City and Ransom Substations. The Long-Range Plan projections for 2022 have already been surpassed by the cooperative and this study should be used as a reference only.

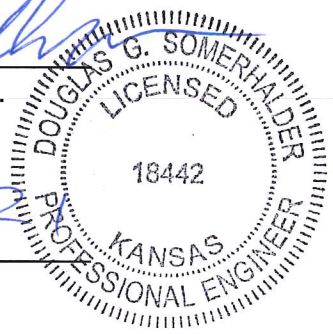
The technical material and data contained in this Construction Work Plan were prepared by or under the direct supervision of the undersigned, a licensed Professional Engineer.

C. H. GUERNSEY & COMPANY

By: Douglas G. Somerhalder

Douglas G. Somerhalder, P.E.

Date: 6-29-21



SUMMARY OF PLANT INVESTMENTS

Table I is a summary of plant investments for each of the next ten years. The first three years correspond to the 2022-2024 Work Plan period. The investment in new consumer connections was held constant except for inflation. This reflects the current pattern of 30 new connections per year.

System improvements after 2024 were held constant (except for inflation) to reflect the ongoing upgrading of older lines. Costs were inflated 4.0% annually to reflect expected increases in material and labor costs. Pole and conductor replacements are expected to remain constant over the next ten years except for inflation.

Table 1

Ten Year Summary of Plant Investment

Year	New Consumers	System Improvements	Pole & Conductor Replacements	Total
2022	$ 466,786.67	$ 760,176.67	$ 784,800.00	**$ 2,011,763.33**
2023	$ 466,786.67	$ 592,166.67	$ 784,800.00	**$ 1,843,753.33**
2024	$ 466,786.67	$ 504,166.67	$ 784,800.00	**$ 1,755,753.33**
2025	$ 485,458.13	$ 524,333.33	$ 816,192.00	**$ 1,825,983.47**
2026	$ 504,876.46	$ 545,306.67	$ 848,839.68	**$ 1,899,022.81**
2027	$ 525,071.52	$ 567,118.93	$ 882,793.27	**$ 1,974,983.72**
2028	$ 546,074.38	$ 589,803.69	$ 918,105.00	**$ 2,053,983.07**
2029	$ 567,917.35	$ 613,395.84	$ 954,829.20	**$ 2,136,142.39**
2030	$ 590,634.05	$ 637,931.67	$ 993,022.37	**$ 2,221,588.08**
2031	$ 614,259.41	$ 663,448.94	$ 1,032,743.26	**$ 2,310,451.61**

A copy of Trendbucks is included on Page S-11.

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

USDA-RUS	*Form Approved* *OMB No. 0572-0032*
COST ESTIMATES AND LOAN BUDGET FOR ELECTRIC BORROWERS	BORROWER AND LOAN DESIGNATION: KS0042
To: U.S. Dept. of Agriculture, RUS, Washington, D.C. 20250	CUT OFF DATE: (Month, Year)
INSTRUCTIONS *See tabs "Pg1 Instr" through "Pg4 Instr"*	
SECTION A. COST ESTIMATES	**LOAN PERIOD** 3 **YEARS** **CWP PERIOD** (W/ AMENDMENTS) 2022-2024 EXAMPLE: 2010-2011

						BORROWER'S COST ESTIMATES	RUS USE ONLY
1.	DISTRIBUTION						
100	a. New Line: (Excluding Tie-Lines)						
	Construction	Consumers			Miles		
101	Underground	9			0.53	$126,000	
102	Overhead	81			9.69	735,000	
	Total Consumers...	90	Total Miles		10.22		
			Less Contributions			0	
	Subtotal Code 100					$861,000	
200	b. New Tie-Lines						
	Line Designation				Miles		
	Subtotal Code 200 from page 1A				0.00	0	
	Subtotal Code 200 (Includes subtotals from pages 1A)				0.00	$0	
300	c. Conversion and Line Changes						
	Line Designation				Miles		
	300-05 Utica Autotransformer Station					$15,000	
	Subtotal Code 300 from page 1A				0.00	0	
	Subtotal Code 300 from page 1B				0.00	0	
	Subtotal Code 300 (Includes subtotals from pages 1A &B)				0.00	$15,000	
400	d. New Substations, Switching Stations, Metering Points, etc.						
	Station Designation		kVA		kV to kV		
						0	
						0	
						0	
						0	
	Subtotal Code 400					$0	

COST ESTIMATE AND LOAN BUDGET FOR ELECTRIC BORROWERS	BORROWER AND LOAN DESIGNATION	KS0042	
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		
500-07	City of Dighton South Sub Upgrades	$68,970	
500-08	City of Dighton West Sub Upgrades	74,970	
500-09	City of Dighton North Sub Upgrades	66,970	
		0	
		0	
		0	
		0	
		0	
		0	
Subtotal Code 500 From Page 2A		0	
Subtotal Code 500 (includes subtotals for Page 2A)		$210,910	
600 f. Miscellaneous Distribution Equipment			
601 Transformers and Meters			
Construction	Overhead / Underground		
Transformers	90 $175,200 / 12 $144,600	$319,800	
Meters		0	
Meters - AMR/AMI	360 $180,000	180,000	
Subtotal code 601 (included in total of all 600 codes below)		$499,800	
602 Increase Service Capacity			
603 Sectionalizing Equipment	23 OCRs, 1 Elec Recloser, 114 Arrestors, 128 Fused Cutouts, Switch	103,560	
604 Regulators	3	24,600	
605 Capacitors	1-300kVAr Bank	13,000	
606 Pole Replacements	762	1,676,400	
607 Miscellaneous Replacements		30,000	
608 Conductor Replacements	10 mi. Copperweld	480,000	
609 Miscellaneous Plant Additions		0	
610 Road Moves		0	
611 Line Relocations		0	
612 Step Up/Down Transformers		0	
613 System Monitoring Meters (Min/Max)		0	
615 Two Way Radio Communication System		750,000	
		0	
Subtotal Code 600 Form Page 2A		0	
*Subtotal **ALL** 600 codes*		$3,577,360	
700 g. Other Distribution Items			
701 Broadband over Power line (BPL)		$0	
702 Security Lights	74 lights	18,500	
703 Reimbursement of General Funds (Transferred from Distribution Reimbursement-Attachment 1)	Consumers 0 Miles 0.00	0	
704 Load Management		0	
705 Automated Meter Reading Equip. (AMR/AMI Except Meters and Retrofits)			
		0	
Subtotal Code 700 Form Page 2A		0	
Subtotal Code 700		$18,500	
TOTAL DISTRIBUTION.		**$4,682,770**	
2. Transmission			
800 a. New Line			
Line Designation / Voltage / Wire Size / Miles			
		$0	
		0	
		0	
		0	
		0	
		0	
		0	
		0	
		0	
Subtotal Code 800 From Page 2B	0.00	0	
Subtotal Code 800	0.00	$0	

COST ESTIMATE AND LOAN BUDGET FOR ELECTRIC BORROWERS		BORROWER AND LOAN DESIGNATION	KS0042

	SECTION A. COST ESTIMATES *(cont.)*	BORROWER'S COST ESTIMATES	RUS USE ONLY
900	b. New Substation, Switching Station, etc.		
	Station Designation / kVA / kV TO kV		
		$0	
		0	
		0	
		0	
		0	
		0	
		0	
		0	
	Subtotal Code 900 From Page 3A	0	
	Subtotal Code 900 (includes transfers from page 3A)	$0	
1000	c. Line and Station Changes		
	Line/Station Designation / Description of Changes		
		$0	
		0	
		0	
		0	
		0	
		0	
		0	
		0	
		0	
	Subtotal Code 1000 From page 3B	0	
	Subtotal Code 1000 (includes transfers from page 3B	$0	
1100	d. Other Transmission Items		
1101	R/W Procurement	$0	
1102	Engineering Fees		
1103	Reimbursement of General Funds(Transferred from Transmission Reimbursement-Attachment 2) Miles 0.00	0	
1104	Pole Replacements 162	648,000	
		0	
	Subtotal Code 1100	$648,000	
	TOTAL TRANSMISSION	**$648,000**	
3.	GENERATION (including Step-up Station at Plant)		
1200			
1201	a. Fuel _____ Nameplate Rating _____ kW	$0	
	b.	0	
	TOTAL GENERATION	**$0**	
4.	HEADQUARTERS FACILITIES		
1300			
1300-01	a. New or additional Facilities — Server Room Internal Construction	$100,000	
1300-02	b. North Yard Improvements (Dirt Work, Rock, and Concrete)	180,500	
	TOTAL HEADQUARTERS FACILITIES	**$280,500**	

COST ESTIMATE AND LOAN BUDGET FOR ELECTRIC BORROWERS	BORROWER AND LOAN DESIGNATION	KS0042

SECTION A. COST ESTIMATES *(cont.)*				BORROWER'S COST ESTIMATES	RUS USE ONLY
5. ACQUISITIONS					
1400					
1401 a.	_____ Consumers	_____ Miles		$0	
b.				0	
			TOTAL ACQUISITIONS	**$0**	
6. ALL OTHER					
1500					
1501	GIS Computer Hardware			$0	
1502	GIS Computer Software			0	
1503	Initial Data Collection Field Inventory Costs			0	
				0	
			Subtotal Code 1500 All Other from Page 4A	$0	
			Subtotal Code 1500 All Other	$0	
			TOTAL ALL OTHER	**$0**	

SECTION B. SUMMARY OF AMOUNTS AND SOURCES OF FINANCING

1. GRAND TOTAL - ALL COSTS				$5,611,270	
2. FUNDS AND MATERIALS AVAILABLE FOR FACILITIES					
a. Loan Funds . . From Budget Purpose(s)			$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				$5,611,270	
4. RUS LOAN REQUESTED FOR FACILITIES			0%	$0	
_____ *Name of Supplemental Lender*					
5. SUPPLEMENTAL LOAN REQUESTED FOR FACILITIES			100%	$5,611,270	
6. 100% SUPPLEMENTAL LOANS (LIEN ACCOMODATION)				$0	

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 Load Forecast 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 all appropriate sections of 7 CFR 1710

_____ _____
Date

_____ _____
Date

Lane-Scott Electric Cooperative
Corporate Name of Borrower

GFR Initials _____

USEFUL LIFE CERTIFICATION

KS0042
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,
Lane-Scott Electric Cooperative
does hereby certify that:

[X] 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

Signature:
Title:

Table 2 Loan Application Data Sheet - Cost Summary								
Code Group	**Project Code**	**Description**	**Quantity**	**Units**	**2022**	**2023**	**2024**	**Totals**
100: New Consumers	101	Underground	9	Consumers	$ 42,000.00	$ 42,000.00	$ 42,000.00	$ 126,000.00
	102	Overhead	81	Consumers	$ 245,000.00	$ 245,000.00	$ 245,000.00	$ 735,000.00
							Subtotal	**$ 861,000.00**
300: Conversion & Line Changes	300-05	Utica Autotransformer Station			$ 15,000.00	$ -	$ -	$ 15,000.00
							Subtotal	**$ 15,000.00**
500: Substation Changes	500-07	City of Dighton South Sub Upgrades			$ 68,970.00	$ -	$ -	$ 68,970.00
	500-08	City of Dighton West Sub Upgrades			$ 74,970.00	$ -	$ -	$ 74,970.00
	500-09	City of Dighton North Sub Upgrades			$ 66,970.00	$ -	$ -	$ 66,970.00
							Subtotal	**$ 210,910.00**
600: Distribution Equipment		**Transformers and Meters**						
	601	Transformers	102	Units	$ 106,600.00	$ 106,600.00	$ 106,600.00	$ 319,800.00
		Meters	360	Units	$ 60,000.00	$ 60,000.00	$ 60,000.00	$ 180,000.00
		Sectionalizing Equipment						
	603	Oil Circuit Reclosers (OCRs)	23	Units	$ 19,166.67	$ 19,166.67	$ 19,166.67	$ 57,500.00
		3 Phase Electronic Recloser for Wheatland IC	1	Unit	$ -	$ -	$ 20,000.00	$ 20,000.00
		Arrestors	114	Items	$ 1,900.00	$ 1,900.00	$ 1,900.00	$ 5,700.00
		3 Phase Air Break Switch - Healy	1	Unit	$ -	$ -	$ 5,000.00	$ 5,000.00
		Fuse Cutouts	128	Items	$ 5,120.00	$ 5,120.00	$ 5,120.00	$ 15,360.00
	604	Regulators	3	Items	$ 24,600.00	$ -	$ -	$ 24,600.00
	605	Capacitor (300 kVAr - Dighton Low)	1	Items	$ -	$ 13,000.00	$ -	$ 13,000.00
	606	Pole Replacements	762	Poles	$ 558,800.00	$ 558,800.00	$ 558,800.00	$ 1,676,400.00
	607	Misc. Hardware replacements (Guys/Anchors/Crossarms/etc..)			$ 10,000.00	$ 10,000.00	$ 10,000.00	$ 30,000.00
	608	Conductor Replacements - Copperweld	10	mi.	$ 160,000.00	$ 160,000.00	$ 160,000.00	$ 480,000.00
	615	Two Way Radio Communication System			$ 150,000.00	$ 300,000.00	$ 300,000.00	$ 750,000.00
							Subtotal	**$ 3,577,360.00**
700: Misc. Distribution	702	Security Lights	74	Items	$ 6,166.67	$ 6,166.67	$ 6,166.67	$ 18,500.00
							Subtotal	**$ 18,500.00**
1100: Transmission Items	1104	Transmission pole replacements	162	Poles	$ 216,000.00	$ 216,000.00	$ 216,000.00	$ 648,000.00
							Subtotal	**$ 648,000.00**
1300: Headquarters & Facilities	1300-01	Server Room Internal Construction			$ -	$ 100,000.00	$ -	$ 100,000.00
	1300-02	North Yard Improvements (Dirt Work, Rock, and Concrete)			$ 180,500.00	$ -	$ -	$ 180,500.00
							Subtotal	**$ 280,500.00**
				Totals:	**$ 2,011,763.33**	**$ 1,843,753.33**	**$ 1,755,753.33**	**$ 5,611,270.00**

Table 3			
Disposition of 2018 Construction Work Plan Amendment Projects			
Project Number	**Substation**	**Description**	**Status**
200-04	Dighton High	1.5 mi. 3ϕ #2 ACSR	Completed
200-05	Dighton High	2.5 mi. 1ϕ #2 ACSR	Cancelled
200-06	Beeler	.2 mi. 3ϕ #2 ACSR	Cancelled
200-07	Beeler	1.0 mi. 3ϕ #2 ACSR	Completed
200-08	Beeler	6.0 mi. 3ϕ #2 ACSR	Cancelled
200-09	Twin Springs	1.0 mi. 3ϕ 4/0 ACSR	Completed
200-10	Lane-Scott	10.0 mi. 1ϕ/3ϕ #2 ACSR	Cancelled
300-07	Dighton Low	3.0 mi. 3ϕ 336 ACSR	Completed
300-10	Manning	1.7 mi. 3ϕ #2 ACSR	Completed
300-11	Beeler	2.5 mi. 3ϕ #2 ACSR	Completed
300-12	Twin Springs	8.0 mi. 3ϕ 4/0 ACSR	Completed
400-03	Twin Springs	New Twin Springs Substation	Completed
500-01	Alexander	Transformer Replace/Relocate	Completed

Trendbucks

A Simple Analysis of Distribution and
and Transmission Investments
for
KS0042

01-Jun-21

Analysis and Data Input

Year	Distribution Additions from Line 15 Page 3 of the Form 7	Transmission Additions from Line 34 Page 3 of the Form 7	Total Investments Transmission Plus Distribution With No *Escalator*
2020	$4,301,842	$0	$4,301,842
2019	$2,004,915	$0	$2,004,915
2018	$3,108,423	$0	$3,108,423
2017	$1,323,373	$0	$1,323,373

Results

Historical investment average multiplied by the number of years

Two Year	Three Year	Four Year
$5,369,277	**$8,053,915**	**$10,738,553**

Escalation factor applied to historical data to determine values for future years (see below).

Two Year	Three Year	Four Year
$5,695,729	**$8,715,581**	**$11,856,228**

2020 = Please enter the year (4 digits please) of the last year-end operating report.
Adjusting this date will cause the spreadsheet to use the correct historical years.

4.00% = Escalation Factor

If work plan totals exceed the values in the last row, further justification needs to be attached to this sheet.

SECTION I

HISTORICAL DATA AND EXISTING SYSTEM ANALYSES

SECTION I - HISTORICAL AND EXISTING SYSTEM ANALYSES

This section comprises a summary of historical load data and a brief analysis of the capacity and performance of the existing distribution facilities under 2020 peak loading conditions.

SERVICE AREA

The Lane-Scott Electric Cooperative, Inc., (LSEC) owns and operates an electrical distribution system with headquarters located in Dighton, Kansas. The Lane-Scott Electric Cooperative purchases all its wholesale power from Sunflower Electric Power Corporation (Sunflower), of which LSEC is a member. Sunflower owns and operates all the transmission facilities. The LSEC service area surrounds all, or part of the towns of Healy, Utica, Arnold, Ransom, Bazine, Beeler, Ness City, Brownell, Arnold, Grigston, Manning, Alamota, Shields, Amy, Alexander, and McCracken.

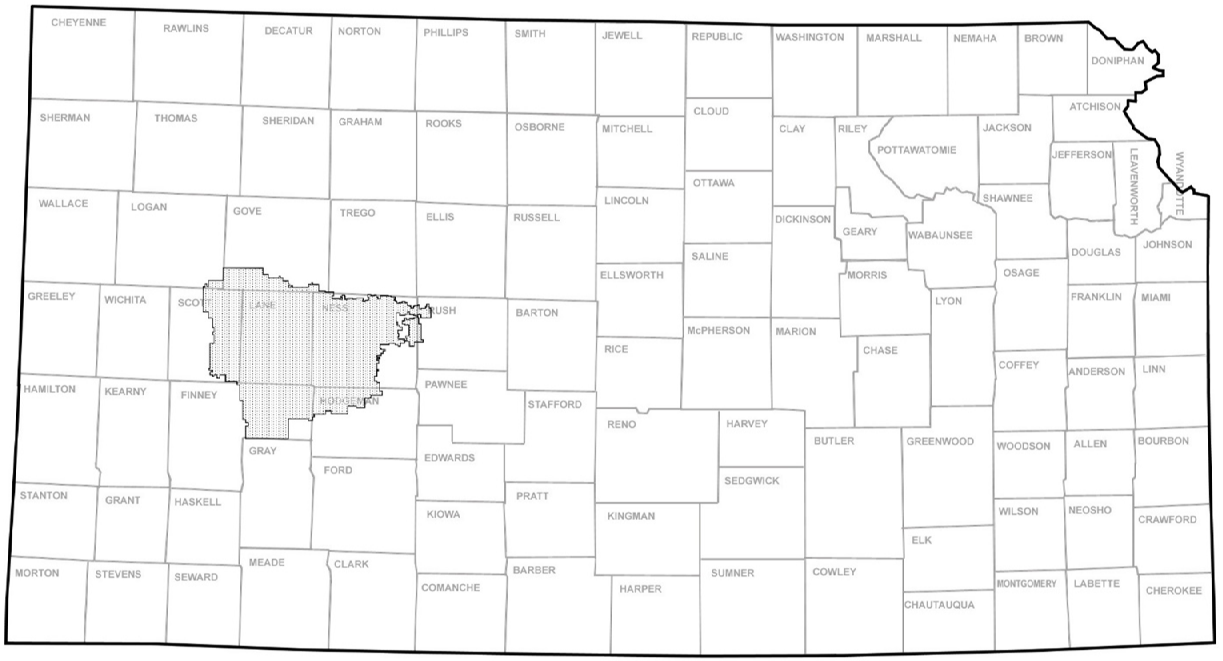
(See Service Area Map on Page I-2.).

Total energy sales for 2020 were distributed as follows:

1. residential – 16%,
2. irrigation - 6%,
3. small commercial – 30%,
4. large commercial – 41%
5. public and miscellaneous use - 7%

The largest impact was Residential and commercial sales at a combined 87% of the total energy sales. Small commercial sales account for 30% of the total sales in 2020.

State of Kansas



Lane-Scott Electric Cooperative
Service Area Map

HISTORICAL DATA

Historical data for the Lane-Scott Electric Cooperative system are shown on the graphs at the end of this section. Projections shown on the graphs are taken from the 2020 Load Forecast Study (LFS) prepared by Clearspring Energy Advisors and reflect data which starts in 2009.

As shown in Graph 1, the number of consumers served by LSEC has generally declined since 2016. In 2020 residential consumers accounted for 38.5% of total consumers. The LFS predicts that this slight downward trend is expected to continue through the Work Plan period. By the end of 2024 it is expected that LSEC will provide service to 5,791 consumers.

Since 2017, Graph 2 shows that the average monthly usage for general (i.e., residential, small commercial, and seasonal consumers) has stayed relatively constant since 2014, only differing by about 60 kWh in that time. In 2020 the average monthly usage was 1,394 kWh per consumer per month. According to the LFS It is expected that the average usage per consumer (through the work plan period) will hold steady, decreasing slightly through 2024 where it is projected to be 1,359 kWh. For these projections we utilized the LFS study done in-house by LSEC because the Sunflower study did not categorize the small and large consumers in a way reflective of how they appear on the historical Form 7 files and because of this would not yield a comparable usage.

Residential consumers account for 16% of total energy sales, with large and small commercial consumers accounting for 71% of all sales. These differing sales as well as annual requirements are shown on Graph No. 3 as well as total sales. The area between the purchase requirements and the total sales can be visualized as the losses in the system. This is shown in Graph No. 3.

The system peak demand (Graph No. 4) reflects system peak kW demand and the effects of weather conditions. Over the past six years the NPC has fluctuated about the 30,000 kW mark, with 2019 going as high as 31,828 kW and 2016 being as low as 27,714. According to the LFS the system is expected to level off and stay around the 28.7 MW range reaching 28,810 kW in 2024.

System losses (Graph No. 5) have hovered at between 6% and 7% since 2014, falling in 2020 to 3.5%, which is most likely due to the Sunflower billing issues for the City of Dighton in 2020. The Lane-Scott LFS did not provide an estimation of losses while the estimation of losses from the Clearspring Energy Advisors LFS showed losses back to the level prior to 2020. These losses are reflected in Graph 5. Losses as a percentage of system purchases tend to follow sales in an inverse manner. When energy sales increase, losses in percent decrease. Per the 2020 LFS losses are projected to be 6.53% of energy purchases by the end of this work plan period in 2024. System losses are discussed in more detail in Section III.

The annual load factor decreased from 61.46% in 2014 to 55.82% in 2017. From 2017 to 2020 the load factor increased to 61.08%. Based on projected system demand and total energy requirements, the system load factor is expected to increase slightly to 61.16% through 2024, (see Graph No. 6).

The investment per kilowatt-hour sold, shown in Graph No. 7. A steady increase in plant investment from $45.6 million in 2014 to 66.1 million through 2024. Revenue per kWh has maintained a steady trend from 2014 through 2020, only changing by a small amount from $18 million in 2014 to $16.4 million in 2020. Revenue is projected to slightly increase the next four years from $16.4million to $17.6 million in 2024.

Distribution operations and maintenance costs, as a percent of total plant investment, are shown in Graph No. 8. These costs oscillated with an upward trend from 3.18% in 2014 to 4.14% in 2020. Since 2014 the O&M costs have averaged 3.7%. With the completion of the recommended distribution projects in this Construction Work Plan, it is expected that O&M costs over the long run will hold steadily at 4.14% as pole and conductor replacements continue.

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 expecting nearly uninterrupted service. Numerous or extended power outages have a seriously detrimental effect on public relations and consumer confidence in the performance of the Cooperative. Complying with the increasing demand for greater service continuity requires diligence in performing daily operation and maintenance activities, routine inspection of main circuit lines, careful attention to system planning, and a properly designed and maintained protective coordination scheme.

The average annual outage time per consumer for the last five years is shown in Table 4. This is broken down into four general categories: Power Supply, Major Event, Planned, and All Other causes. The "All Other" category includes lightning, pole failures, transformer outages, animals, etc.

The Rural Utility Services, in its Bulletin 1730A-119, has established that RUS Borrowers that borrow funds from RUS are required to report the system average annual interruption in minutes per consumer. The “System Average Interruption Duration Index”, SAIDI, is the “Sum of Customer Interruption Durations” divided by the “Total Number of Customers Served”. The RUS recommendation for outages is less than 200 minutes in the “All Other” category. These values are seen in Table 4.

Table 4					
Summary of Service Interruptions - SAIDI (Minutes)					
Year	Power Supply	Major Event	Planned	All Other	Total
2016	0	0	0.6	230.4	231
2017	33.6	0	43.2	328.2	405
2018	0	0	0	167.4	167.4
2019	96	0	0	162	258
2020	12	0	0	135	147
Average	28.32	0	8.76	204.6	241.68

The Cooperative failed to maintain a satisfactory SAIDI rating for 2016 and 2017, however for the three years since, less than 200 minutes in the "All Other" category has been maintained. Improved maintenance practices are expected to continue improving the quality of service over the next five years. A continuing program of pole replacement, conductor replacement and improvements to the LSEC sectionalizing scheme, as well as the completion of the system improvements recommended in this Work Plan will help reduce outages in this broad category.

POWER SUPPLY

The Lane-Scott Electric Cooperative, Inc. purchases all its wholesale power from the Sunflower Electric Power Cooperative (Sunflower), of which LSEC is a member. Sunflower owns and operates all the transmission facilities which supply power to the LSEC distribution system.

EXISTING SYSTEM ANALYSIS

For the purposes of this study, LSEC's existing system is the system as it existed on December 31, 2020. The LSEC distribution system is comprised of 2,043 miles of energized distribution lines facilities, 2,035 miles of overhead and 8 miles of underground. The distribution system operates with fifteen substations; two substations operate at 34.5 kV; three substations operate at 24.9 kV; four substations operate at 13.8 kV; three substations operate at 13.2 kV; and three operate at 4.16 kV. Of the fifteen substations, seven of them are smaller substations that operate within and downline of larger substation areas. We do not have specific loading for these substations, but instead have the information for the larger substation areas they are a part of. For this reason, the tables dealing with substations found later in this document deal with only the eight larger substations. The present system maximum capacity is 151,000 kVA. The 2020 non-coincident peak of 36,418 kVA was 24% of the total system forced air capacity.

The actual 2020 system peak loads for each substation area were used to determine the load flow for the existing system. The results of the analysis are shown in the "Voltage Drop and Load-Flow Studies" section of this report. Voltage drops are shown on the Existing System, 2020 and 2024 Loads circuit diagrams included with the load-flow studies.

During the 2020 peak loading conditions, voltages less than the minimum acceptable level of 118 Volts established for this Work Plan period occurred on the circuits at Dighton Low, Manning, and Twin Springs Low. These substations as shown in the table below.

No actual field checks of voltage levels have been made. Some low voltage problems are suspected but have not been verified. It is recommended that LSEC develop a plan for systematically monitoring voltage levels in the substation areas designated in the table. Annual load-flow studies and voltage checks will help LSEC maintain adequate service.

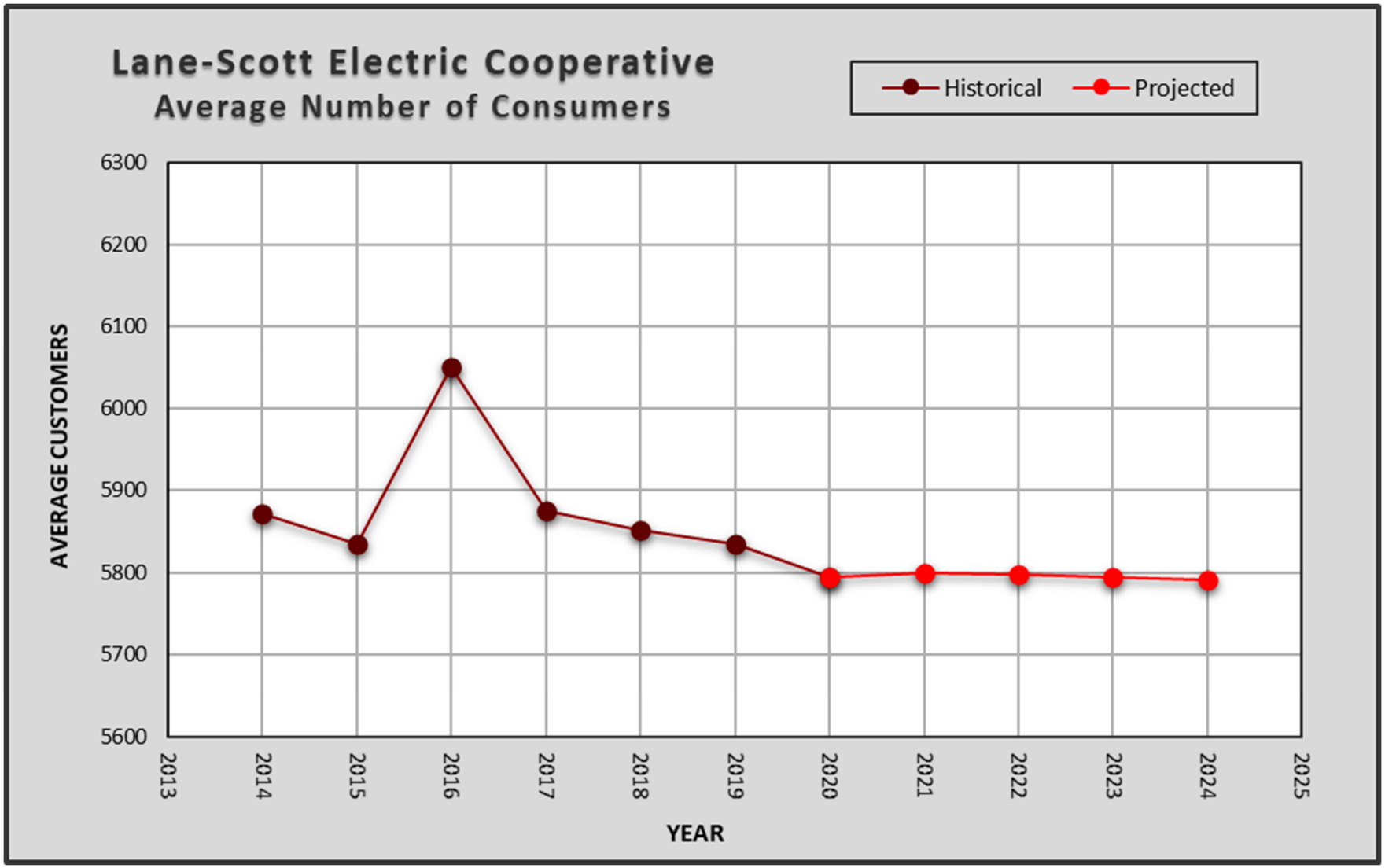
Low Voltage Study Existing System						
Substation	**Circuit**	**Span**	**Feet From Source**	**Miles From Source**	**2019 Regulated Low Voltage**	**2019 Non-Regulated Low Voltage**
Dighton Low	S1C2	span_167	48574	9.20	117.900	117.606
Manning	S4C1	span_35972	105174	19.92	117.034	112.497
Twin Springs Low	S7C1	span_2005	138500	26.23	113.929	113.929

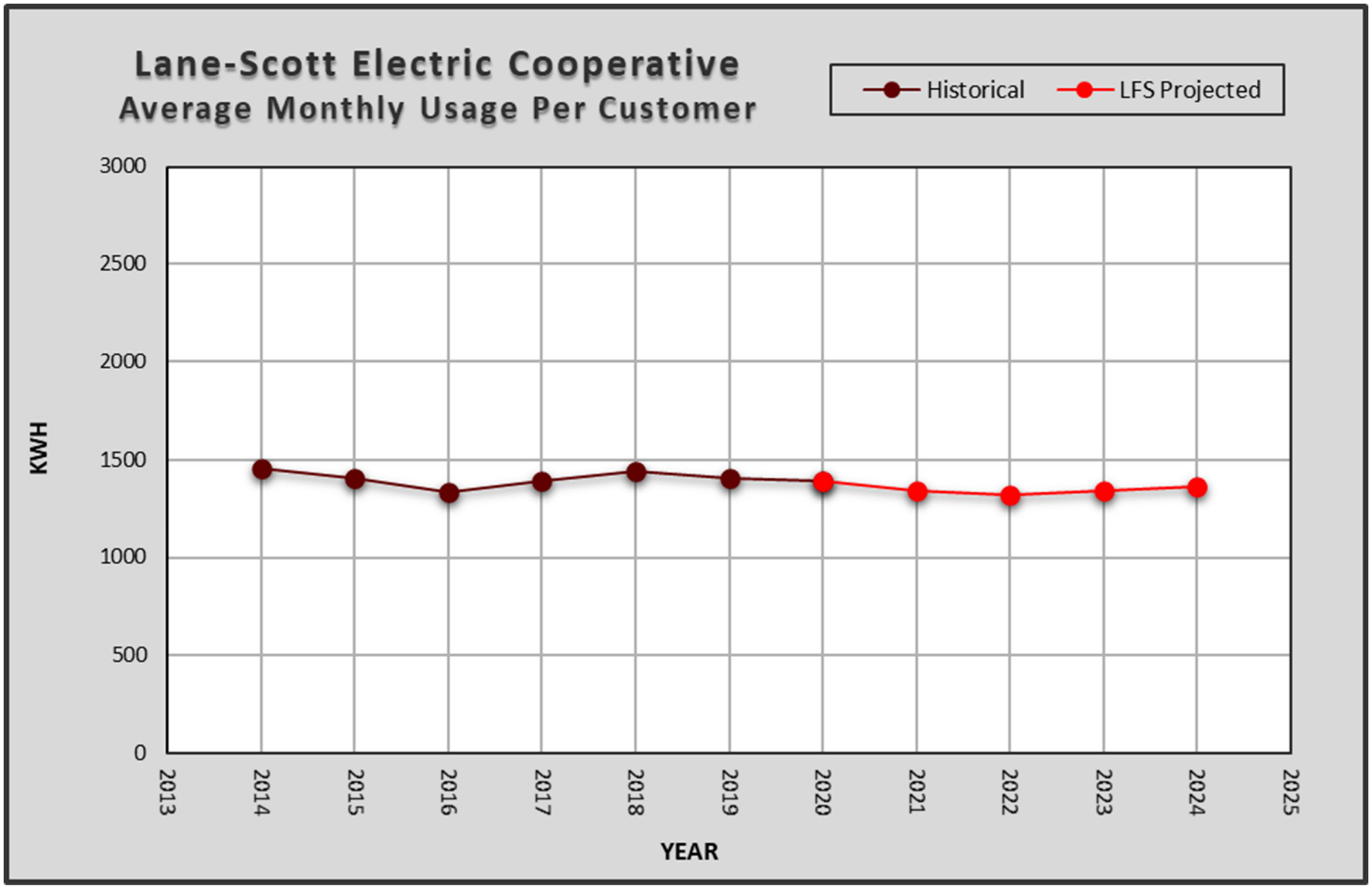
LONG-RANGE PLAN

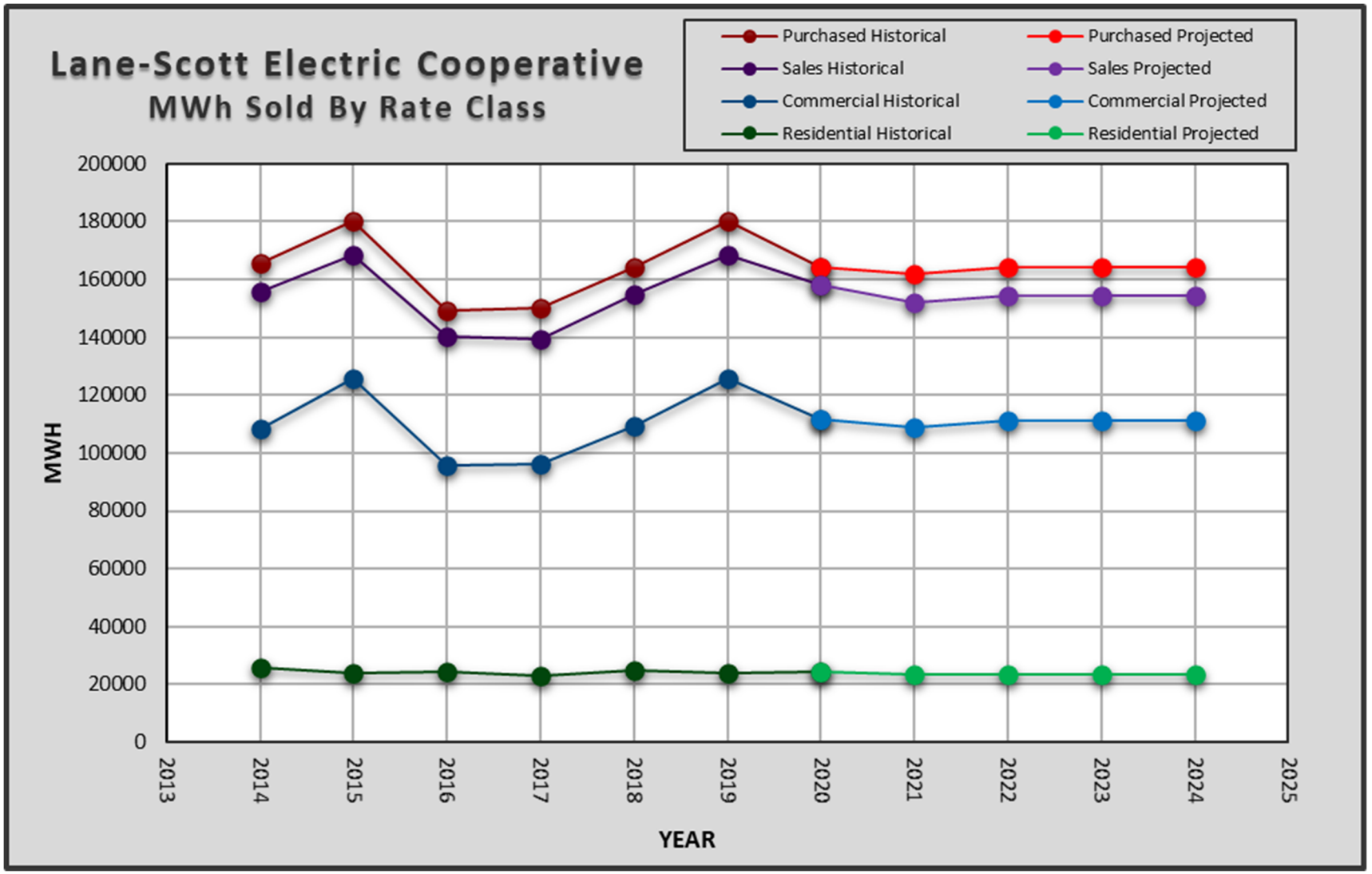
The projected long-range load of 29.2 MW (from the Load Forecast Study) is 1.4% more than the projected 2024 peak of 28.8 MW. The most current Long-Range Plan for LSEC was completed in 2002 by Peak Power Engineering. This was prior to LSEC acquiring what is now called the East portion of the system which includes the Alexander 115 Substation, serving Bazine and McCracken Substations as well as the Ness City 115 Substation, serving Ness City and Ransom Substations. The Long-Range Plan projections for 2022 have already been surpassed by the cooperative and this study should be used as a reference only.

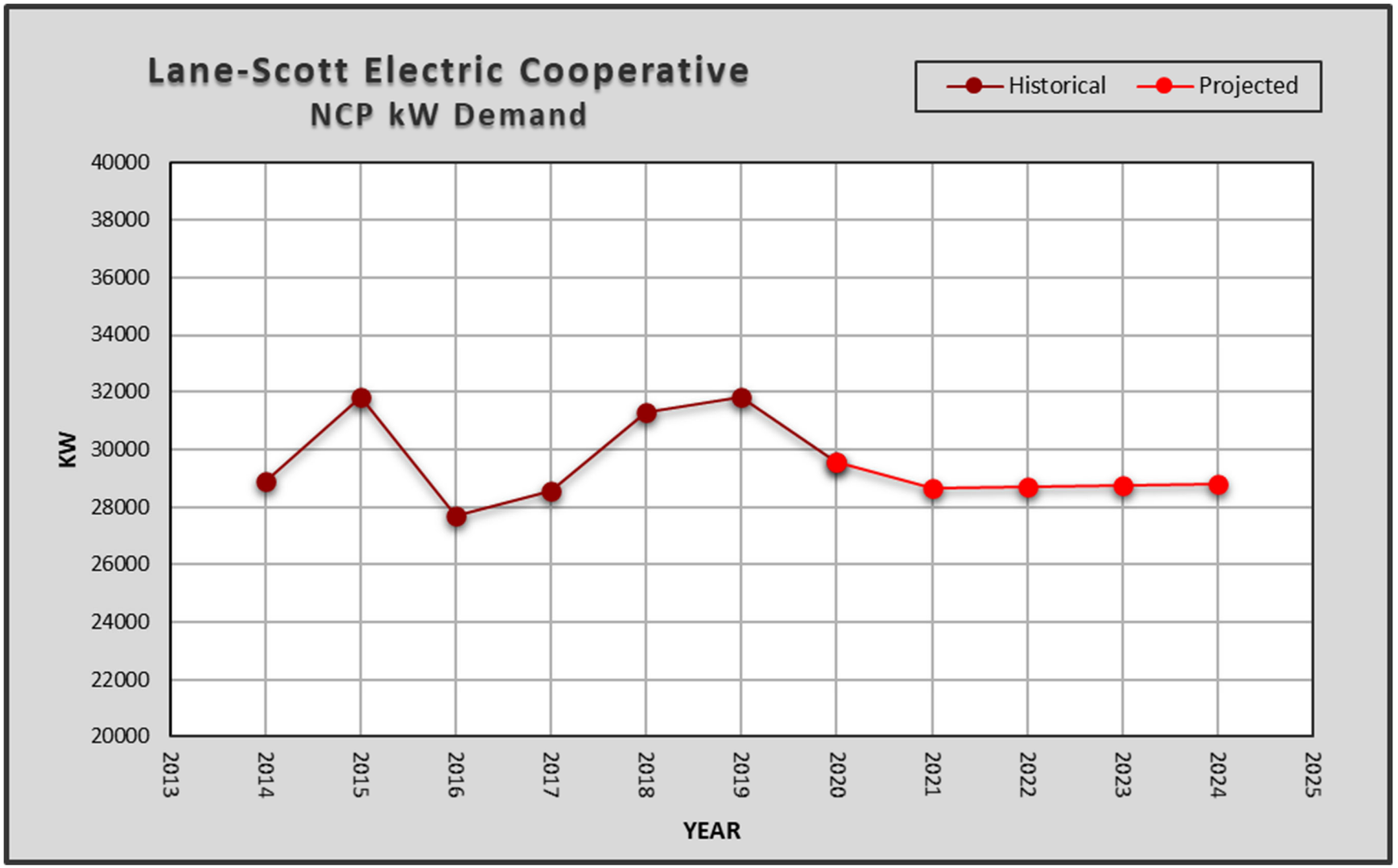
Table 5 compares the Year 2020, Year 2024 and Long-Range systems.

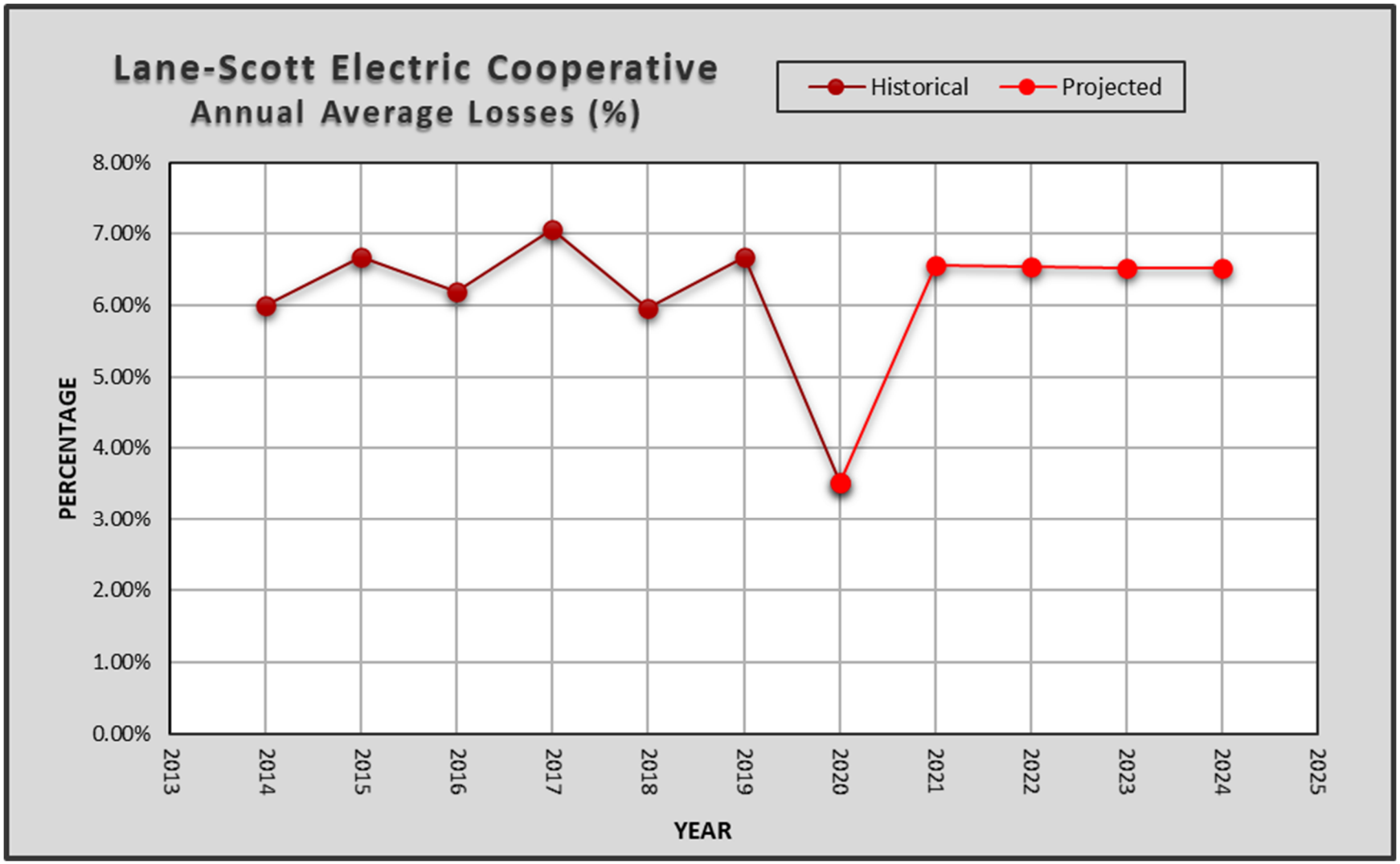
Table 5			
Comparative System Data			
Metric	**Recent Data - 2020**	**End of CWP - 2024**	**Long Range - 2039**
Consumers	5795	5791	5703
Distribution Line OH (Mi.)	2035.37	2045.06	-
Distribution Line UG (Mi.)	7.66	8.185	-
Substation Capacity (MVA)	151	151	151
System Peak (MW)	29.6	28.8	29.2
Energy Sold (MWh)	158,238	154,356	155,469
Energy Purchases (MWh)	164,012	164,435	165,588
Energy Losses (%)	3.52%	6.53%	6.51%
System Load Factor (%)	63%	65%	65%
Plant in Service ($1,000)	$ 58,108	$ 66,118	-
Investment/Consumer	$ 10,027	$ 11,417	-
Investment/kWh Sold	$ 0.37	$ 0.43	-

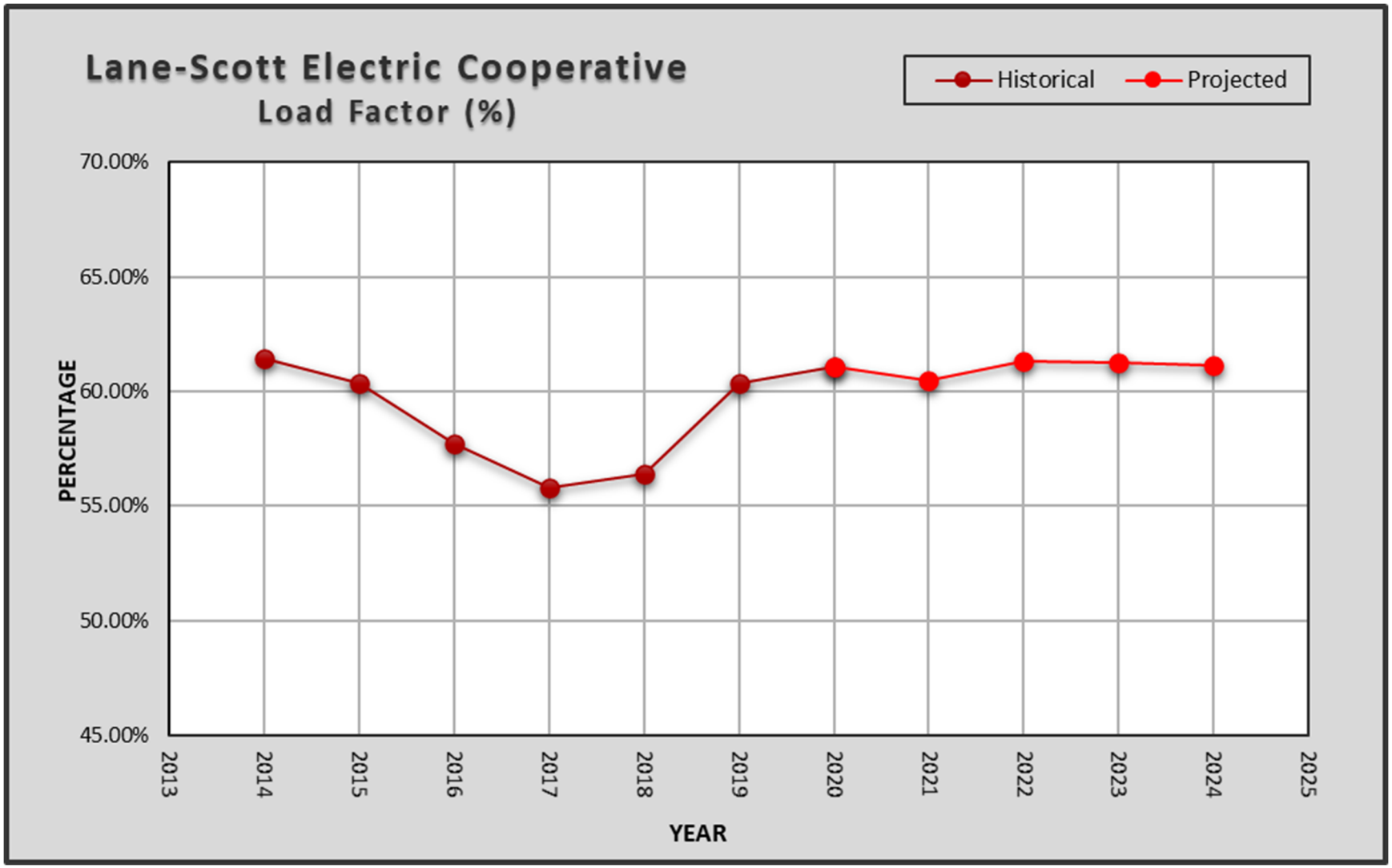

Lane-Scott Electric Cooperative
Average Number of Consumers
Historical
Projected
AVERAGE CUSTOMERS
6300
6200
6100
6000
5900
5800
5700
5600
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
YEAR

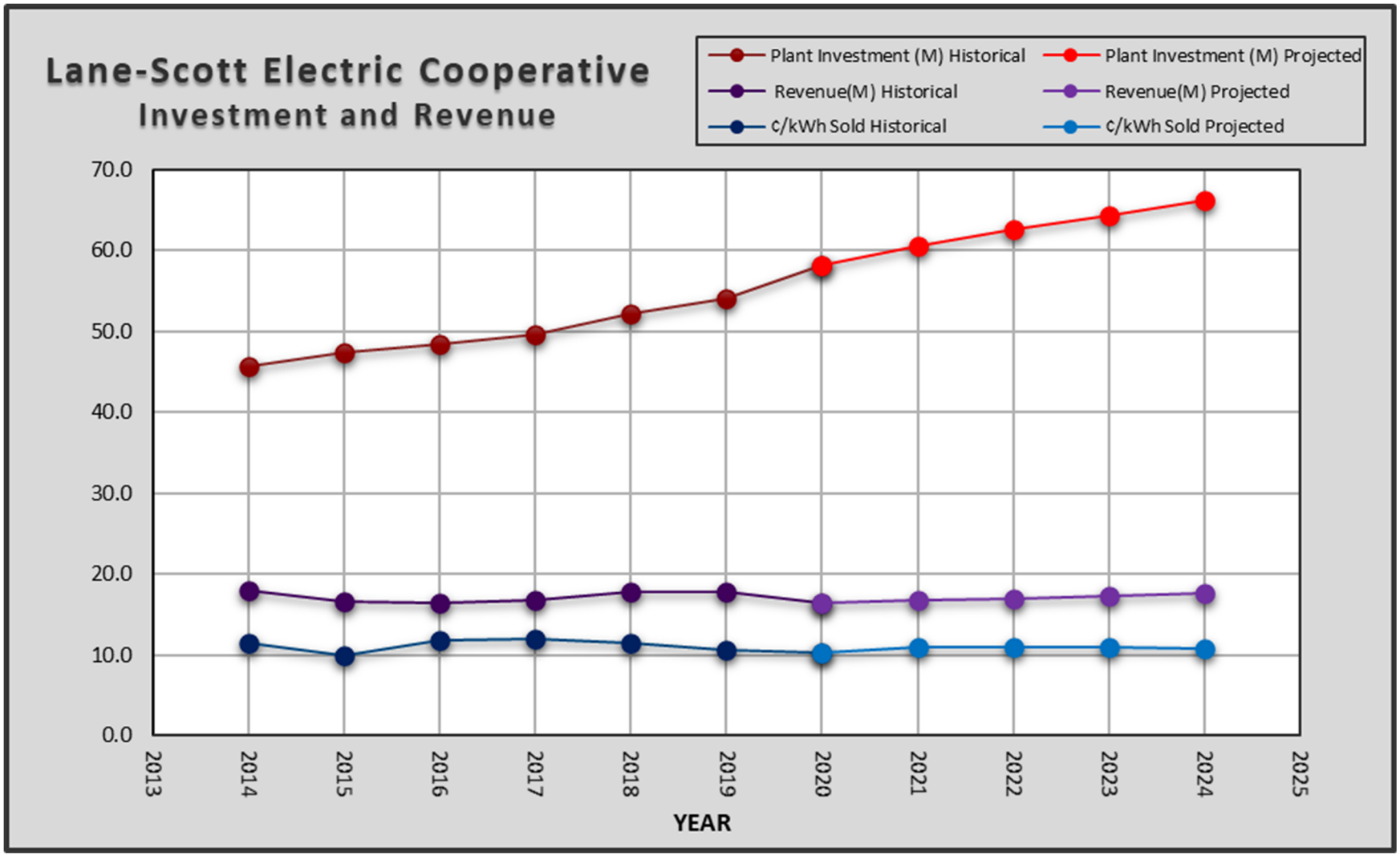

Lane-Scott Electric Cooperative
Average Monthly Usage Per Customer
Historical
LFS Projected
KWH
3000
2500
2000
1500
1000
500
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
YEAR

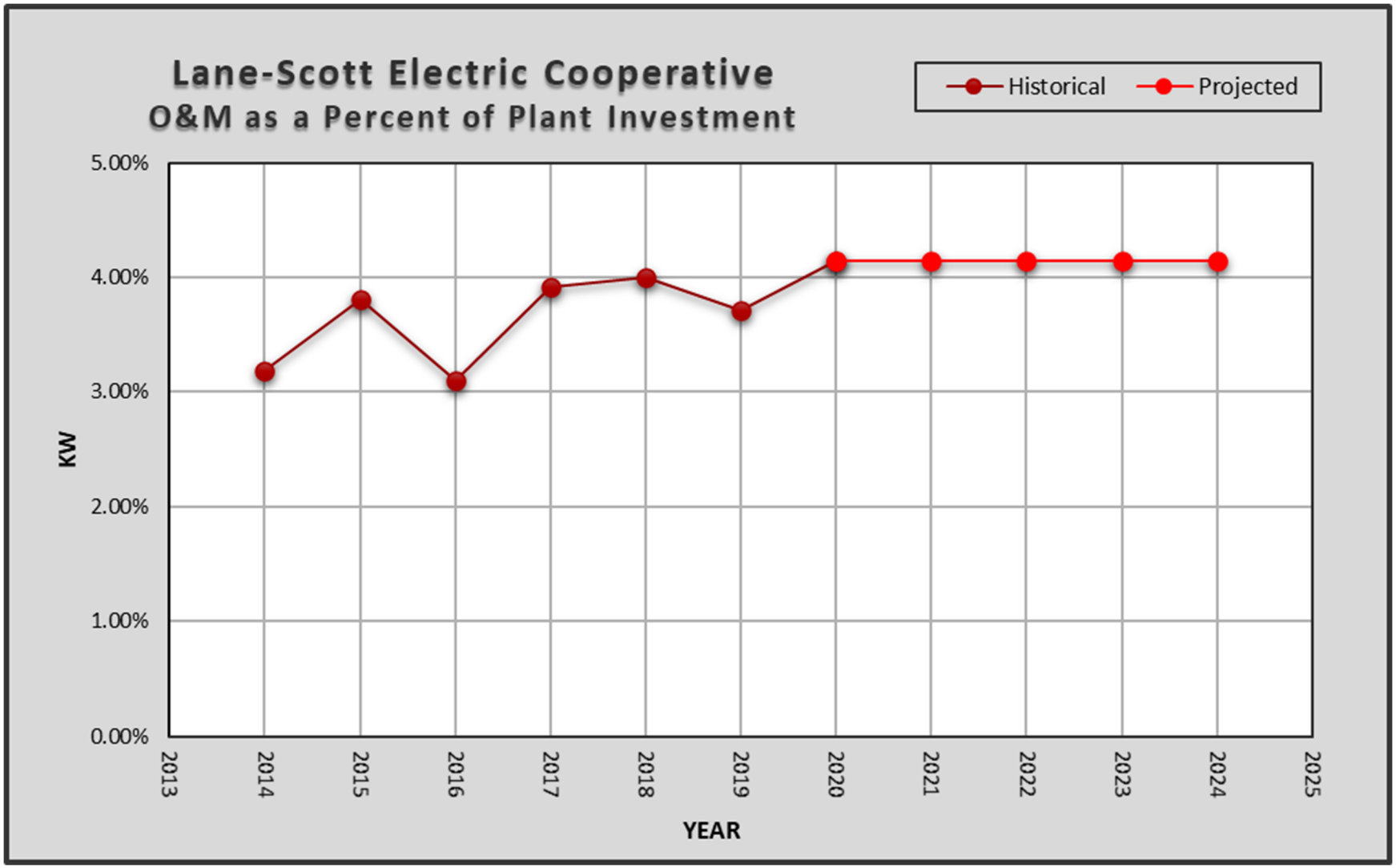

Lane-Scott Electric Cooperative
MWh Sold By Rate Class
Purchased Historical
Purchased Projected
Sales Historical
Sales Projected
Commercial Historical
Commercial Projected
Residential Historical
Residential Projected
MWH
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
YEAR


Lane-Scott Electric Cooperative
NCP kW Demand
Historical
Projected
40000
38000
36000
34000
32000
30000
28000
26000
24000
22000
20000
KW
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
YEAR


Lane-Scott Electric Cooperative
Annual Average Losses (%)
Historical
Projected
8.00%
7.00%
6.00%
5.00%
4.00%
3.00%
2.00%
1.00%
0.00%
PERCENTAGE
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
YEAR


Lane-Scott Electric Cooperative
Load Factor (%)
Historical
Projected
70.00%
65.00%
60.00%
55.00%
50.00%
45.00%
PERCENTAGE
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
YEAR


Lane-Scott Electric Cooperative
Investment and Revenue
Plant Investment (M) Historical
Plant Investment (M) Projected
Revenue(M) Historical
Revenue(M) Projected
¢/kWh Sold Historical
¢/kWh Sold Projected
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
YEAR


Lane-Scott Electric Cooperative
O&M as a Percent of Plant Investment
Historical
Projected
5.00%
4.00%
3.00%
2.00%
1.00%
0.00%
KW
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
YEAR

SECTION II – CONSTRUCTION WORK PLAN

Load Design Basis

The design criteria for the 2022-2024 Work Plan are based on the 2020 Load Forecast Study (LFS) prepared by Clearspring Energy Advisors. It is estimated that service will be extended to 90 new consumers in the 2022-2024 period. It is expected that there will be 5,791 total revenue-producing consumers by December 31, 2024.

The 2024 design load was determined as shown in Table 6, using the LFS projections.

Table 6
End of CWP Average Monthly Usage - 2024

Consumer Type	Number of Consumers	Consumer Usage (kWh/Cons./Mo.)	Total Usage (kWh/Mo.)
Residential (Including Seasonal)	3,305	622	2,056,832
Small Commercial	1,884	2,190	4,126,855
Public	73	11,216	818,772
Irrigation	339	1,791	607,241
Total Consumers	5,601		7,609,700
Average kWh/Mo./Cons.		1,359	

The electric system must have adequate capacity to serve the peak load. Peaking factors based on usages in the month in which the system peak occurred were calculated for each of the last two years. The average peaking factor of 1.79 was used to determine the 2024 peak design usage of 2,433 kWh/consumer (kWh/cons *avg peaking factor). Peaking factor calculations are shown in Table 7.

Table 7
Peaking Factor Calculations

2019	kWh	Consumers	kWh/cons.
Average Month	7,932,305	5,835	1,359
Peak Month	15,130,671	5,835	2,593
Peaking Factor: 1.91			
2020	**kWh**	**Consumers**	**kWh/cons.**
Average Month	7,813,377	5,795	1,348
Peak Month	13,055,179	5,795	2,253
Peaking Factor: 1.67			
Average Peaking Factor: 1.79			

100. NEW CONSUMER CONNECTIONS

In the 2019 - 2020 period, 57 new consumers requiring line extensions were added to the LSEC system:

Table 8.1

Historical Line Extensions For New Consumers 2019-2020

Type of Consumers	Number of Consumers	Primary Miles	Cost Per Consumer
101 - Underground			
Single Phase	0	0	$ -
Three Phase	5	0.35	$ 13,302.33
Total	5	0.35	
102 - Overhead			
Single Phase	27	2.37	$ 4,150.90
Three Phase	25	4.09	$ 12,237.09
Total	52	6.46	

The costs are exclusive of special equipment such as transformers and meters; but include contribution-in-aid to construction. Although the 2019 and 2020 Form 7s show a total of 109 new services connected, only 57 required line extensions. Table 8.2 lists the estimated costs for line extensions to new consumers over each year in the three-year period covered by this Work Plan.

Table 8.2			
Projected Line Extensions For New Consumers			
2022			
Type of Consumers	**Number of Consumers**	**Primary Miles**	**Cost Per Consumer**
101 - Underground			
Single Phase	0	0	$ -
Three Phase	3	0.175	$ 14,000.00
Total	3	0.175	
102 - Overhead			
Single Phase	14	1.185	$ 4,500.00
Three Phase	13	2.045	$ 14,000.00
Total	27	3.23	
2023			
Type of Consumers	**Number of Consumers**	**Primary Miles**	**Cost Per Consumer**
101 - Underground			
Single Phase	0	0	$ -
Three Phase	3	0.175	$ 14,000.00
Total	3	0.175	
102 - Overhead			
Single Phase	14	1.185	$ 4,500.00
Three Phase	13	2.045	$ 14,000.00
Total	27	3.23	
2024			
Type of Consumers	**Number of Consumers**	**Primary Miles**	**Cost Per Consumer**
101 - Underground			
Single Phase	0	0	$ -
Three Phase	3	0.175	$ 14,000.00
Total	3	0.175	
102 - Overhead			
Single Phase	14	1.185	$ 4,500.00
Three Phase	13	2.045	$ 14,000.00
Total	27	3.23	

Table 8.3 summarizes the line extensions for new customers over the work plan period:

Table 8.3			
Three Year Summary of Line Extensions 2022-2024			
Type of Consumers	**Number of Consumers**	**Primary Miles**	**Cost Per Consumer**
101 - Underground Total	9	0.525	
102 - Overhead Total	81	9.69	
4 Year Totals	90	10.215	
101 - Underground			
Single Phase	0	0	$ -
Three Phase	9	0.525	$ 14,000.00
Total	9	0.525	$ 14,000.00
102 - Overhead			
Single Phase	42	3.555	$ 4,500.00
Three Phase	39	6.135	$ 14,000.00
Total	81	9.69	$ 18,500.00

Although we are projecting only 90 consumers will require a line extension, we anticipate that 164 services will be added to the system over the next three years corresponding the historical Form 7s. However, this will not be reflected in the “Total Service in Place” due to services being retired almost matching the new services being retired.

Table 9 on the following page compares costs listed in the 2018-2021 Work Plan Amendment to the 2013-2016 Construction Work Plan with available work order costs for the 24-month period ending December 31, 2020, and with the estimated costs for this Three-Year Work Plan.

Table 9 Historical Cost Comparisons - Member Extensions & Distribution Maintenance													
RUS Code	**Item**	**2018-2021 Work Plan Amendment**				**2019-2020 Historical Data**				**2022-2024 Work Plan**			
		Cons.	QTY	Cost/Cons	Extended Cost	Cons.	QTY	Cost/Cons	Extended Cost	Cons.	QTY	Cost/Cons	Extended Cost
	Overhead Line												
	Single Phase					12	2.37 mi.	$ 9,339.52	$ 112,074.29	42	3.56 mi	$ 4,500.00	$ 189,000.00
	Three Phase					11	4.09 mi.	$ 27,811.58	$ 305,927.36	39	6.14 mi	$ 14,000.00	$ 546,000.00
	Underground Line												
100	Single Phase					0	0 mi.	$ -	$ -	0	0.00 mi	$ -	$ -
	Three Phase					2	0.35 mi.	$ 33,255.82	$ 66,511.63	9	0.53 mi	$ 14,000.00	$ 126,000.00
	Total Consumers	351	52.8 mi.	$ 7,718.01	$ 2,709,020.00	25	6.81 mi.		$ 484,513.28	90	10.22 mi.		$ 861,000.00
	Less Contributions												
	Subtotal				**$ 2,709,020.00**				**$ 484,513.28**				**$ 861,000.00**
	Transformers												
	OH Transformers		364	$ 1,070.51	$ 389,664.00		58	$ 1,772.70	$ 102,816.38		90	$ 1,946.67	$ 175,200.00
	UG Transformers		268	$ 911.76	$ 244,352.00		7	$ 10,939.72	$ 76,578.06		12	$ 12,050.00	$ 144,600.00
601	Meters												
	Single Phase Meters												
	Three Phase Meters												
	AMI Meters		264	$ 348.00	$ 91,872.00		240	$ 433.77	$ 104,103.74		360	$ 500.00	$ 180,000.00
602	Increased Service Capacity						0		$ -				
	Sectionalizing Equipment												
	Three Phase Electronic Reclosers		7	$ 28,688.00	$ 200,816.00						1	$ 20,000.00	$ 20,000.00
	Single Phase OCRs				$ 100,000.00		15	$ 2,250.52	$ 33,757.85		23	2500	$ 57,500.00
603	Air Break Switch										1	$ 5,000.00	$ 5,000.00
	Fused Cutouts				$ 160,000.00		85	$ 108.97	$ 9,262.69		128	$ 120.00	$ 15,360.00
	Lightening Arrester Banks						76	$ 46.92	$ 3,566.04		114	$ 50.00	$ 5,700.00
	PT's & CT's												
604	Regulators		3	$ 38,252.00	$ 114,756.00		1	$ 8,000.15	$ 8,000.15		3	$ 8,200.00	$ 24,600.00
605	Capacitors				$ 5,000.00						1	$ 13,000.00	$ 13,000.00
606	Dist. Pole Replacements				$ 2,611,784.00		508	$ 2,063.72	$ 1,048,370.13		762	$ 2,200.00	$ 1,676,400.00
607	Miscellaneous Hardware Replacements												$ 30,000.00
608	Conductor Replacements										10 mi	$ 48,000.00	$ 480,000.00
612	Autotransformers		6	$ 33,660.00	$ 201,960.00								
615	Two Way Radio Communications												$ 750,000.00
	Subtotal				**$ 4,120,204.00**				**$ 1,386,455.04**				**$ 3,577,360.00**
702	Security Lights						49	$ 200.00	$ 9,800.00		74	$ 250.00	$ 18,500.00
710	SCADA system				$ 149,178.00								
	Subtotal				**$ 149,178.00**				**$ 9,800.00**				**$ 18,500.00**
	Total (Excluding System Improvements)				**$ 6,978,402.00**				**$ 1,880,768.32**				**$ 4,456,860.00**

DISTRIBUTION LINE DESIGN CRITERIA

All construction proposed in this work plan is required to meet the following standards of adequacy for voltages, thermal loading, safety, and reliability.

1. The maximum voltage drop on primary distribution lines shall not exceed 8.0 volts on a 120-volt base.
2. Primary conductors shall not be loaded to more than 80% of thermal rating at 28 degrees C ambient; major tie lines shall not be loaded to more than 50% of thermal capacity.
3. Poles and/or cross arms are to be replaced if found to be physically deteriorated by visual inspection or testing.
4. Conductors are to be replaced if found to contain an average of two splices per span in one-mile increments or if conductor is in poor condition or has excessive sag which cannot be corrected by re-sagging.
5. Primary distribution lines shall be rebuilt and/or relocated if they are found to be unsafe or in violation of the National Electric Safety Code (NESC) in effect at the time of original construction.
6. New or replacement primary conductor sizes are to be determined in accordance with the results of the conductor economics study included in Appended A.
7. All new primary construction is to be overhead.
8. All new construction shall be in accordance with the NESC and RUS standard construction specifications using RUS-approved materials.

In addition to the above, the following equipment shall not be loaded by more than the percentage of nameplate rating shown below:

- power transformers 105%
- voltage regulators 100%
- oil circuit reclosers 70%
- line fuses 100%

Distribution transformers may be loaded to 120% of nameplate for not more than two hours during summer peaks or 200% for two hours during winter peaks.

Finally, system improvements are to be considered in specific areas where members have experienced more than two outage-hours per year for each of the past three years, excluding outages caused by major storms, the power supplier, or pre-arranged outages for construction or maintenance operations.

200 - 300. DISTRIBUTION SYSTEM IMPROVEMENTS

To determine the system improvements necessary to adequately meet the requirements of the LSEC system under loading conditions in the year 2024, it was first necessary to model the existing system with the projected non-coincidental peak demand of 35.1 MW applied.

Under projected 2024 loading, voltages less than the minimum acceptable level of 118 Volts are expected to occur on these feeders:

Low Voltage Study Existing System 2024 Loads						
Substation	Circuit	Span	Feet From Source	Miles From Source	2024 Regulated Low Voltage	2024 Non-Regulated Low Voltage
Dighton Low	S1C2	span_167	48574	9.20	110.440	109.938
Manning	S4C1	span_35972	105174	19.92	116.311	111.714
Twin Springs Low	S7C1	span_2005	138500	26.23	113.755	113.755

In most cases, excessive voltage drops occur on long single-phase lines; in many cases the voltage drop results from unbalanced line loading as well as small conductors or extremely long feeders. Distribution line losses resulting from loads at the 35.1 MW level, and before system improvements are made, will be approximately 856 kW.

In designing the distribution system to meet load requirements in the year 2024, major improvements were recommended only if adequate and reliable service could not be achieved with a less costly alternative. Maximum use was made of voltage regulators, provided that the added system losses did not offset the savings afforded by postponing major construction.

The recommended system design is shown on the *"Recommended 2024 System"* circuit diagram. Load-flow analyses for the recommended system show that losses will be reduced by approximately 411,027 kWh; this represents an annual savings of nearly $21,990 based on current wholesale power costs. Losses are discussed in more detail in Section III.

The following is a brief discussion, by substation area, of the recommended system improvements.

Alexander Substation Area

The Alexander Substation has a 115/34.5 kV, 20 MVA transformer and serves 768 customers in the northeast section of the service area. It ties with the Ness Substation to the northwest and the Beeler Substation to the west. This substation is expected to experience an annual growth rate of 1.5% during this study period. This calculates to a load level of 3,093 kVA and a power factor of 95% by the year 2024 and 16% of the 20 MVA forced air capacity for the transformer. There are no recommendations for station capacity changes during the period. This substation feeds two downline substations: Bazine, a 34.5/13.8 kV, 2240 kVA transformer which serves 400 of the 768 consumers and McCracken, a 34.5/13.8 kV, 3750 kVA transformer which serves the remaining 368 consumers.

Bazine – North & East Rurals

This circuit serves 162 consumers in the southern and western section of the substation area and has a projected peak load of 576 kW in 2024. Under these conditions this circuit will have 30, 25 and 30 amps on phases A, B and C at the substation. There are no projected capacity or voltage issues on this feeder and no recommendations for improvements during the study period.

Bazine – East City

This circuit serves 238 consumers west of the substation and has a projected peak load of 1071 kW in 2024. Under these conditions this circuit will have 30, 25 and 30 amps on phases A, B and C at the substation. There are no projected capacity or voltage issues on this feeder and no recommendations for improvements during the study period.

McCracken – Brownell & Rurals

This circuit serves 185 consumers in the northern section of the substation area and has a projected peak load of 860 kW in 2024. Under these conditions this circuit will have 25, 25 and 22 amps on phases A, B and C at the substation. There are no projected capacity or voltage issues on this feeder and no recommendations for improvements during the study period.

McCracken – Alex & Rurals

This circuit serves 44 consumers west of the substation and has a projected peak load of 167 kW in 2024. Under these conditions this circuit will have 25, 25 and 22 amps on phases A, B and C at the substation. There are no projected capacity or voltage issues on this feeder and no recommendations for improvements during the study period.

McCracken – City

This circuit serves 139 consumers west of the substation and has a projected peak load of 375 kW in 2024. Under these conditions this circuit will have 25, 25 and 22 amps on phases A, B and C at the substation. There are no projected capacity or voltage issues on this feeder and no recommendations for improvements during the study period.

Beeler Substation Area

The Beeler Substation serves the eastern section of the service area and has a 115/24.9 kV, 28 MVA transformer; it is expected to experience an annual growth rate of 0.5% during this study period. This substation connects to the Alexander and Ness substations to the northeast, Dighton High to the west, and Twin Springs High to the southwest. This results in a load level of 6,923 kVA by the year 2024 and 25% of the 28 MVA forced air capacity for the station.

Circuit S3C1

This circuit serves 24 consumers in the western sections of the substation area and has a projected peak load of 101 kW in 2024. Under these conditions circuit will have 2, 3 and 2 amps on phases A, B and C and a power factor of 86% at the substation. There are voltage or capacity issues during the study period and not recommendations for improvement.

Circuit S3C2

This circuit serves 433 consumers in the south of the substation and has a projected peak load of 2956 kW in 2024. Under these conditions circuit will have 74, 64 and 68 amps on phases A, B and C and a power factor of 86% at the substation. There are no projected voltage or capacity problems and no recommendations for improvements during the study period.

Circuit S3C3

This circuit serves 591 consumers in the south of the substation and has a projected peak load of 2310 kW in 2024. Under these conditions circuit will have 49, 49 and 59 amps on phases A, B and C and a power factor of 86% at the substation. A new auto-transformer station to be built near the town of Utica will add reliability in the area. LSEC already has the transformers in stock and will be building the station as project 300-05. The circuit will be opened in two places. The circuit will be opened at span_30691 and connect back through the Utica auto-transformer station. The circuit will also be opened at span_15561 and connect that portion back through Ransom.

Project 300-05: Utica auto-transformer station

Circuit S3C4

This circuit serves 375 consumers in the northern and south western sections of the substation area and has a projected peak load of 1318 kW in 2024. Under these conditions circuit will have 39, 24 and 30 amps on phases A, B and C and a power factor of 86% at the substation.

Dighton High Substation Area

The Dighton High Substation has a 115/24.9 kV, 28 MVA transformer and is expected to experience an annual growth rate of 1% during this study period. This results in a load level of 7,334 kVA by the year 2024 and 26% of the 28 MVA forced air capacity for the station. There are no recommended capacity changes during the study period.

Circuit S2C1

This circuit serves 269 consumers in the north and east sections of the substation area as well as serving a smaller substation called South City that serves 393 additional consumers. Project 501 calls

for upgrading parts of this substation to better serve the consumers. The circuit has a projected peak load of 2,735 kW in 2024. Under these conditions circuit will have 67, 58 and 69 amps on phases A, B and C and a power factor of 88% at the substation. There are no projected voltage or capacity issues and no recommendations for improvement during the study period.

Project 500-07: Upgrade South City Substation

Circuit S2C2

This circuit serves 243 consumers in the south section of the substation area and has a projected peak load of 633 kW in 2024. Under these conditions circuit will have 21, 10 and 11 amps on phases A, B and C and a power factor of 87% at the substation. There are no projected voltage or capacity issues and no recommendations for improvement during the study period.

Circuit S2C3

This circuit serves 2 consumers in the west section of the substation area and has a projected peak load of 3,278 kW in 2024. Under these conditions circuit will have 85, 85 and 85 amps on phases A, B and C and a power factor of 85% at the substation. There are no projected voltage or capacity issues and no recommendations for improvement during the study period.

Circuit S2C4

This circuit is currently not serving any consumers and has no load.

Dighton Low Substation Area

The Dighton Low Substation has a 115/13.2 kV, 22.4 MVA transformer and is expected to experience an annual growth rate of 0.5% during this study period. This results in a load level of 5,818 kVA by the year 2024 and 26% of the 22.4 MVA forced air capacity for the station. There are no recommended capacity changes during the study period.

Circuit S1C1

This circuit serves 132 consumers in the south sections of the substation area. The circuit has a projected peak load of 391 kW in 2024. Under these conditions circuit will have 12, 21 and 24 amps on phases A, B and C and a power factor of 88% at the substation. There are no projected voltage or capacity issues and no recommendations for improvement during the study period.

Circuit S1C2

This circuit serves 287 consumers in the east-central section of the substation area. The circuit has a projected peak load of 1,064 kW in 2024. Under these conditions circuit will have 51, 51 and 51

amps on phases A, B and C and a power factor of 87% at the substation. It is recommended that some load from S1C2 be moved to Circuit S1C4 by opening the circuit at span_3653 and closing switch swit_49 to connect back to Circuit S1C4. 150 kVAR capacitor bank C120100 is to be removed and a 300 kVAR bank added to S1C4 for the moved load.

Circuit S1C3

This circuit serves 41 consumers in the north and east sections of the substation area as well as serving two smaller substations: North City, serving an additional 213 consumers and West City serving an additional 203 consumers for a total of 457 consumers in all. Projects 502 and 503 calls for upgrading parts of the West City and North City substations, respectively, to better serve the consumers. The circuit has a projected peak load of 1,828 kW in 2024. Under these conditions circuit will have 91, 96 and 95 amps on phases A, B and C and a power factor of 90% at the substation.

Project 500-08: Upgrade West City Substation
Project 500-09: Upgrade North City Substation

Circuit S1C4

This circuit serves 175 consumers in the north and west sections of the substation area. The circuit has a projected peak load of 1,669 kW in 2024. Under these conditions circuit will have 83, 91 and 78 amps on phases A, B and C and a power factor of 88% at the substation. It is recommended that some load from S1C2, including capacitor C120100, be moved to Circuit S1C4 by opening the circuit at span_3653 and closing switch swit_49 to connect back to Circuit S1C4. To keep the power quality of this circuit at an acceptable level it is being recommended that 150 kVAR capacitor bank C120100 be removed from S1C2 and a 300 kVAR capacitor bank added. There are no projected voltage or capacity issues and no recommendations for improvement during the study period.

Capacitor installation: Install a 300 kVAR capacitor bank

Manning Substation Area

The Manning Substation has a 115/13.2 kV, 10 MVA transformer and is expected to experience an annual growth rate of 1% during this study period. This results in a load level of 7,560 kVA by the year 2024 and 76% of the 10 MVA forced air capacity for the station. There are no recommended capacity changes during the study period.

Circuit S4C1

This circuit serves 192 consumers in the south sections of the substation area. The circuit has a projected peak load of 1,086 kW in 2024. Under these conditions circuit will have 41, 61 and 45 amps on phases A, B and C and a power factor of 95% at the substation. Because of voltage problems on the periphery of the circuit it is being recommended that the circuit be opened at span_1022 and the

disconnected portion of the circuit to be reconnected to the Wheatland Interconnect by closing switch swit_75-B on the circuit. This will also improve the circuit enough that the regulator currently on S4C1, volt_79, will no longer be required and can be returned to stock.

Circuit S4C2

This circuit serves 186 consumers in the west and north sections of the substation area. The circuit has a projected peak load of 1,382 kW in 2024. Under these conditions circuit will have 71, 64 and 67 amps on phases A, B and C and a power factor of 95% at the substation. There are no projected voltage or capacity issues and no recommendations for improvement during the study period.

Circuit S4C3

This circuit serves 126 consumers in the west and north sections of the substation area. The circuit has a projected peak load of 540 kW in 2024. Under these conditions circuit will have 18, 38 and 25 amps on phases A, B and C and a power factor of 95% at the substation. There are no projected voltage or capacity issues and no recommendations for improvement during the study period.

Circuit S4C4

This circuit serves 121 consumers in the east and south sections of the substation area. The circuit has a projected peak load of 822 kW in 2024. Under these conditions circuit will have 40, 37 and 50 amps on phases A, B and C and a power factor of 95% at the substation. There are no projected voltage or capacity issues and no recommendations for improvement during the study period.

Circuit S4C5

This circuit serves 274 consumers in the west and north sections of the substation area. The circuit has a projected peak load of 1,253 kW in 2024. Under these conditions circuit will have 52, 68 and 53 amps on phases A, B and C and a power factor of 95% at the substation. To continue maintenance of the system it is being recommended that the air-break switch on Highway 4 west of Healy be replaced. There are no projected voltage or capacity issues and no recommendations for improvement during the study period.

Circuit S4C6

This circuit serves 5 consumers in the west-central section of the substation area. The circuit has a projected peak load of 1876 kW in 2024. Under these conditions circuit will have 89, 90 and 89 amps on phases A, B and C and a power factor of 95% at the substation. There are no projected voltage or capacity issues and no recommendations for improvement during the study period.

Ness Substation Area

The Ness Substation has a 115/34.5 kV, 20 MVA transformer and serves 1426 customers in the northeast section of the service area. This substation is expected to experience an annual growth rate of 0.5% during this study period. This calculates to a load level of 5,671 kVA and a power factor of 99% by the year 2024 and 28% of the 20 MVA forced air capacity for the station. There are no recommendations for station capacity changes during the period. This substation feeds to two smaller downline substations: Ness City Substation, a 34.5/13.8 kV, 10.5 MVA transformer which serves 1166 of the 1426 consumers and McCracken Substation, a 34.5/13.8 kV, 2800 kVA transformer which serves the remaining 260 consumers.

Ness City – North Commercial

This circuit serves 314 consumers in the northern section of the substation area and has a projected peak load of 972 kW in 2024. Under these conditions this circuit will have 46, 102 and 80 amps on phases A, B and C at the substation.

Ness City – North-West Commercial

This circuit serves 266 consumers in the north-west section of the substation area and has a projected peak load of 1188 kW in 2024. Under these conditions this circuit will have 46, 102 and 80 amps on phases A, B and C at the substation.

Ness City – South Commercial

This circuit serves 466 consumers in the southern section of the substation area and has a projected peak load of 2125 kW in 2024. Under these conditions this circuit will have 46, 102 and 80 amps on phases A, B and C at the substation.

Ness City – South-West Commercial

This circuit serves 120 consumers in the south-west section of the substation area and has a projected peak load of 385 kW in 2024. Under these conditions this circuit will have 46, 102 and 80 amps on phases A, B and C at the substation.

Ransom – Ransom City

This circuit serves 244 consumers in the northern section of the substation area and has a projected peak load of 890 kW in 2024. Under these conditions this circuit will have 18, 13 and 19 amps on phases A, B and C at the substation.

Ransom – Snodgrass Rural

This circuit serves 16 consumers in the northern section of the substation area and has a projected peak load of 22 kW in 2024. Under these conditions this circuit will have 18, 13 and 19 amps on phases A, B and C at the substation.

Ransom – Utica & Rurals

This circuit is currently not serving any consumers and has no load.

Twin Spring High Substation Area

The Twin Springs High Substation has a 115/24.9 kV, 11.3 MVA transformer and is expected to experience an annual growth rate of 1% during this study period. This results in a load level of 541 kVA by the year 2024 and 5% of the 11.3 MVA forced air capacity for the station. There are no recommended capacity changes during the study period.

Circuit S8C1

This circuit serves 162 consumers, the entire substation area. The circuit has a projected peak load of 525 kW in 2024. Under these conditions circuit will have 17, 8 and 12 amps on phases A, B and C and a power factor of 89% at the substation. There are no projected voltage or capacity issues and no recommendations for improvement during the study period.

Circuit S8C2

This circuit is currently not serving any consumers and has no load.

Twin Spring Low Substation Area

The Twin Springs Low Substation has a 115/13.2 kV, 11.3 MVA transformer and is expected to experience an annual growth rate of 1% during this study period. This results in a load level of 613 kVA by the year 2024 and 5% of the 11.3 MVA forced air capacity for the station. There are no recommended capacity changes during the study period.

Circuit S7C1

This circuit serves 111 consumers, the entire substation area. The circuit has a projected peak load of 527 kW in 2024. Under these conditions circuit will have 15, 27, and 34 amps on A, B, and C, however load balancing is recommended to save power losses and results in 19, 27 and 31 amps on phases A, B and C and a power factor of 88% at the substation. In addition to load balancing, this

circuit had voltage drop problems that required the use of regulators to bring the voltage to the correct levels. The recommendations are shown below:

Twin Springs Low Load Balance

Circuit	Element	From	To	kW Savings
S7C1	20-31-11-S1301	C	A	1.71

Regulator installation: Install three 100A regulators at span_1499

Circuit S7C2

This circuit is currently not serving any consumers and has no load.

Wheatland Interconnect Metering Point

The Wheatland Interconnect Metering Point is expected to experience an annual growth rate of 1.5% during this study period. This results in a load level of 315 kW by the year 2024. It is being recommended in this study that a three-phase electronic recloser be installed at the metering point for the Wheatland Interconnect. In addition to this, because of voltage problems on the periphery of Circuit S4C1, it is being recommended that the circuit be opened at span_1022 and the disconnected portion of the circuit to be reconnected to the Wheatland Interconnect by closing switch swit_75-B on the circuit.

400-500. DISTRIBUTION SUBSTATIONS

The LSEC distribution system is supplied power from eight substations owned and operated by LSEC and one metering point. Four of these substations serve seven additional substations we will refer to as “Downline Substations” for a total of fifteen substations.

Transformer capacity at each of the upline substation delivery points and 2020 historical demands are shown in Table 10. The existing system with the 2024 peak loading is shown in Table 10-A and the expected system peak loading after the recommended system improvements are completed is shown in Table 10-B. The upline substations operate at three different voltages; two substations operate at 34.5 kV; three substations operate at 24.9 kV; and three substations operate at 13.2 kV; all substations are supplied from 115 kV transmission lines owned and operated by Sunflower Electric Power Corporation.

Four of the downline substations operate at 34.5/13.8 kV, two operate at 13.2/4.16 kV, and one at 24.9/4.16 kV. Transformer capacity at each of the downline substation delivery points and 2020 historical demands are shown in Table 10.5. The existing system with the 2024 peak loading is shown in Table 10.5-A and the expected system peak loading after the recommended system improvements are completed is shown in Table 10.5-B.

Projected loads at all eight of the substations are expected to be well within the FOA ratings of their respective transformers.

Substation Recommendations Summary				
Substation	**Capacity (kVA)**	**2024 Peak (kVA)**	**Capacity**	**Recommendations**
Alexander 115	20000	3,255	16%	None
Beeler	28000	6,923	25%	None
Dighton Hi	28000	7,334	26%	None
Dighton Lo	22400	5,818	26%	None
Manning	10000	7,560	76%	Monitor Peak Loads
Ness 115	20000	5,671	28%	None
Twin Springs Hi	11300	541	5%	None
Twin Springs Lo	11300	613	5%	None

Table 10									
Existing Distribution Substations - 2020 Peak Load									
Substation Info			Voltage Bus (kV)		Sub Capacity (kVA)	2020 Historical Peak			
Substation	Sub #	No. of Circuits	High Side	Low Side		kW	kVA	PF	Percent Capacity
Alexander 115	A115	2	115	34.5	20000	2,871	3,022	95%	15.1%
Beeler	3	4	115	24.9	28000	6,653	8,020	99%	28.6%
Dighton Hi	2	6	115	24.9	28000	6,357	6,978	91%	24.9%
Dighton Lo	1	8	115	13.2	22400	4,135	4,575	90%	20.4%
Manning	4	6	115	13.2	10000	6,921	7,193	96%	71.9%
Ness 115	N115	2	115	34.5	20000	5,501	5,531	99%	27.7%
Twin Springs Hi	8	2	115	24.9	11300	504	515	98%	4.6%
Twin Springs Lo	7	2	115	13.2	11300	527	583	90%	5.2%
	Totals:	32			151000	33,469	36,418	95%	24.1%

Table 10 - A									
Existing Distribution Substations - 2024 Peak Load									
Substation Info			Voltage Bus (kV)		Sub Capacity (kVA)	2024 Projected Peak			
Substation	Sub #	No. of Circuits	High Side	Low Side		kW	kVA	PF	Percent Capacity
Alexander 115	A115	2	115	34.5	20000	3,093	3,255	95%	16.3%
Beeler	3	4	115	24.9	28000	6,821	6,923	99%	24.7%
Dighton Hi	2	6	115	24.9	28000	6,681	7,334	91%	26.2%
Dighton Lo	1	8	115	13.2	22400	4,239	5,818	90%	26.0%
Manning	4	6	115	13.2	10000	7,274	7,560	96%	75.6%
Ness 115	N115	2	115	34.5	20000	5,640	5,671	99%	28.4%
Twin Springs Hi	8	2	115	24.9	11300	530	541	98%	4.8%
Twin Springs Lo	7	2	115	13.2	11300	554	613	90%	5.4%
	Totals:	32			151000	34,832	37,716	95%	25.0%

Table 10 - B									
Recommended Distribution Substations - 2024 Peak Load									
Substation Info			Voltage Bus (kV)		Sub Capacity (kVA)	2024 Projected Peak			
Substation	Sub #	No. of Circuits	High Side	Low Side		kW	kVA	PF	Percent Capacity
Alexander 115	A115	2	115	34.5	20000	3,093	3,255	95%	16.3%
Beeler	3	4	115	24.9	28000	6,821	6,923	99%	24.7%
Dighton Hi	2	6	115	24.9	28000	6,681	7,334	91%	26.2%
Dighton Lo	1	8	115	13.2	22400	4,239	5,818	90%	26.0%
Manning	4	6	115	13.2	10000	7,274	7,560	96%	75.6%
Ness 115	N115	2	115	34.5	20000	5,640	5,671	99%	28.4%
Twin Springs Hi	8	2	115	24.9	11300	530	541	98%	4.8%
Twin Springs Lo	7	2	115	13.2	11300	554	613	90%	5.4%
	Totals:	32			151000	34,832	37,716	95%	25.0%

Table 10.5										
Downline Distribution Substations - Existing 2020 Peak Load										
Substation Info				Voltage Bus (kV)		Sub Capacity (kVA)	2020 Historical Peak			
Upline Substation	Substation	Sub #	No. of Circuits	High Side	Low Side		kW	kVA	PF	Percent Capacity
Alexander 115	Bazine	314	2	34.5	13.8	2240	1554	1636	95%	73%
Alexander 115	McCracken	321	3	34.5	13.8	3750	1327	1397	95%	37%
Dighton High	South City	D2	2	24.9	4.16	1500	1261	1386	91%	92%
Dighton Low	North City	D1	2	13.2	4.16	1500	756	840	90%	56%
Dighton Low	West City	D3	2	13.2	4.16	1500	946	1051	90%	70%
Ness 115	Ness City	127	4	34.5	13.8	10500	4142	4184	99%	40%
Ness 115	Ransom	319	3	34.5	13.8	2800	812	820	99%	29%

Table 10.5 - A										
Downline Distribution Substations - Existing 2024 Peak Load										
Substation Info				Voltage Bus (kV)		Sub Capacity (kVA)	2024 Projected Peak			
Upline Substation	Substation	Sub #	No. of Circuits	High Side	Low Side		kW	kVA	PF	Percent Capacity
Alexander 115	Bazine	314	2	34.5	13.8	2240	1649	1736	95%	78%
Alexander 115	McCracken	321	3	34.5	13.8	3750	1408	1483	95%	40%
Dighton High	South City	D2	2	24.9	4.16	1500	1312	1442	91%	96%
Dighton Low	North City	D1	2	13.2	4.16	1500	771	857	90%	57%
Dighton Low	West City	D3	2	13.2	4.16	1500	965	1072	90%	71%
Ness 115	Ness City	127	4	34.5	13.8	10500	4225	4268	99%	41%
Ness 115	Ransom	319	3	34.5	13.8	2800	828	837	99%	30%

Table 10.5 - B										
Downline Distribution Substations - Recommended 2024 Peak Load										
Substation Info				Voltage Bus (kV)		Sub Capacity (kVA)	2024 Projected Peak			
Upline Substation	Substation	Sub #	No. of Circuits	High Side	Low Side		kW	kVA	PF	Percent Capacity
Alexander 115	Bazine	314	2	34.5	13.8	2240	1649	1736	95%	78%
Alexander 115	McCracken	321	3	34.5	13.8	3750	1408	1483	95%	40%
Dighton High	South City	D2	2	24.9	4.16	1500	1312	1442	91%	96%
Dighton Low	North City	D1	2	13.2	4.16	1500	771	857	90%	57%
Dighton Low	West City	D3	2	13.2	4.16	1500	965	1072	90%	71%
Ness 115	Ness City	127	4	34.5	13.8	10500	4225	4268	99%	41%
Ness 115	Ransom	319	3	34.5	13.8	2800	828	837	99%	30%

600. MISCELLANEOUS DISTRIBUTION EQUIPMENT

601. Distribution Transformers and Meters

During the 2019-2020 period, the following were installed:

Table 11.1
Historical Installations of Transformers & Meters 2019-2020

Type of Transformers	Quantity	Average Unit Cost	Total Cost
Overhead			
25kVA & Below	50	$ 1,671.91	$ 83,595.26
37.5kVA to 167kVA	7	$ 2,103.58	$ 14,725.04
167kVA & Above	1	$ 4,496.08	$ 4,496.08
Total	58		$ 102,816.38
Underground Single ϕ			
37.5kVA to100kVA	2	$ 6,079.15	$ 12,158.30
Underground Three ϕ			
300kVA to 750kVA	5	$ 12,883.95	$ 64,419.76
Total	7		$ 76,578.06
Meters			
Single ϕ	240	$ 433.77	$ 104,103.74
Three ϕ	0	$ -	$ -
Total	240		$ 104,103.74

It is estimated that the following transformers and meters will be purchased in the 2022-2024 period for new service connects and increased capacity. See Table 11.2 and 11.3 below.

Table 11.2			
Cost Estimates For Transformers & Meters			
2022			
Type of Transformers	**Quantity**	**Average Unit Cost**	**Total Cost**
Overhead			
25kVA & Below	25	$ 1,800.00	$ 45,000.00
37.5kVA to 167kVA	4	$ 2,200.00	$ 8,800.00
167kVA & Above	1	$ 4,600.00	$ 4,600.00
Total	30		$ 58,400.00
Underground Single ϕ			
37.5kVA to100kVA	1	$ 6,200.00	$ 6,200.00
Underground Three ϕ			
300kVA to 750kVA	3	$ 14,000.00	$ 42,000.00
Total	4		$ 48,200.00
Meters			
Single ϕ	120	$ 500.00	$ 60,000.00
Three ϕ	0	$ -	$ -
Total	120		$ 60,000.00
2023			
Type of Transformers	**Quantity**	**Average Unit Cost**	**Total Cost**
Overhead			
25kVA & Below	25	$ 1,800.00	$ 45,000.00
37.5kVA to 167kVA	4	$ 2,200.00	$ 8,800.00
167kVA & Above	1	$ 4,600.00	$ 4,600.00
Total	30	$ 1,946.67	$ 58,400.00
Underground Single ϕ			
37.5kVA to100kVA	1	$ 6,200.00	$ 6,200.00
Underground Three ϕ			
300kVA to 750kVA	3	$ 14,000.00	$ 42,000.00
Total	4	$ 12,050.00	$ 48,200.00
Meters			
Single ϕ	120	$ 500.00	$ 60,000.00
Three ϕ	0	$ -	$ -
Total	120	$ 500.00	$ 60,000.00
2024			
Type of Transformers	**Quantity**	**Average Unit Cost**	**Total Cost**
Overhead			
25kVA & Below	25	$ 1,800.00	$ 45,000.00
37.5kVA to 167kVA	4	$ 2,200.00	$ 8,800.00
167kVA & Above	1	$ 4,600.00	$ 4,600.00
Total	30	$ -	$ 58,400.00
Underground Single ϕ			
37.5kVA to100kVA	1	$ 6,200.00	$ 6,200.00
Underground Three ϕ			
300kVA to 750kVA	3	$ 14,000.00	$ 42,000.00
Total	4	$ -	$ 48,200.00
Meters			
Single ϕ	120	$ 500.00	$ 60,000.00
Three ϕ	0	$ -	$ -
Total	120	$ -	$ 60,000.00

Table 11.3			
Three Year Summary of Transformers & Meters 2022-2024			
Type of Transformers	**Quantity**	**Average Unit Cost**	**Total Cost**
Overhead			
25kVA & Below	75	$ 1,800.00	$ 135,000.00
37.5kVA to 167kVA	12	$ 2,200.00	$ 26,400.00
167kVA & Above	3	$ 4,600.00	$ 13,800.00
Total	90	$ 1,946.67	$ 175,200.00
Underground Single ϕ			
37.5kVA to100kVA	3	$ 6,200.00	$ 18,600.00
Underground Three ϕ			
300kVA to 750kVA	9	$ 14,000.00	$ 126,000.00
Total	12	$ 12,050.00	$ 144,600.00
Meters			
Single ϕ	360	$ 500.00	$ 180,000.00
Three ϕ	0	$ -	$ -
Total	360	$ 500.00	$ 180,000.00

603. Sectionalizing Equipment

The overall quality of service and reliability of the distribution system will be greatly enhanced with a continuous review of a sectionalizing needs in conjunction with this construction work plan, and an ongoing maintenance/replacement program. Coordination of over-current protection devices should be evaluated near specific projects.

Table 12.1 shows the historical installation of sectionalizing equipment for the years 2019 and 2020. Table 12.2 lists the estimated sectionalizing equipment required over the next three years under normal operations.

Table 12.1

Historical Installations of Sectionalizing Equipment 2019-2020

Item	Quantity	Unit Cost	Total Cost
Oil Circuit Reclosers	15	$ 2,250.52	$ 33,757.85
Fused Cutouts	85	$ 108.97	$ 9,262.69
Lightening Arrester Banks	76	$ 46.92	$ 3,566.04
Total	176		$ 46,586.58

Table 12.2

Cost Estimates For Sectionalizing Equipment 2022-2024

Item	Quantity	Unit Cost	Total Cost
Oil Circuit Reclosers	23	$ 2,500.00	$ 57,500.00
Electronic Reclosers	1	$20,000.00	$ 20,000.00
Air Break Switches	1	$ 5,000.00	$ 5,000.00
Fused Cutouts	128	$ 120.00	$ 15,360.00
Lightening Arrester Banks	114	$ 50.00	$ 5,700.00
Total	267		$ 103,560.00

604. Regulators

Table 13 lists the existing and proposed locations of voltage regulators based on the results of the voltage drop study. This work plan calls for one voltage regulator to be removed from the Manning Substation area and three regulators to be added in the Twin Springs Low Substation area. Attempts were made to avoid cascaded regulators when possible; they are needed to maintain required voltage levels during peak loading conditions. These regulators help power quality for far-reaching consumers.

3 Regulators @ $8,200 $24,600

Table 13

Existing and Recommended Voltage Regulators

Substation	Downline Sub	Circuit	Name	Existing	Recommended
Alexander 115	Bazine	N&E Rurals	G314100	100 A	100 A
			G345100	100 A	100 A
			G314010	100 A	100 A
	McCracken	Brownell & Rurals	G321010	100 A	100 A
		Alex & Rurals	G321100	150 A	150 A
		City	volt_75	100 A	100 A
Beeler		S3C2	G320100	231 A	231 A
			G320200	100 A	100 A
			G320300	200 A	200 A
		S3C3	G319200	100 A	100 A
			G330100	200 A	200 A
			G300010	578 A	578 A
		S3C4	G340200	150 A	150 A
			G340100	50 A	50 A
Dighton Hi		S2C1	G210100	100 A	100 A
			G210200	100 A	100 A
Dighton Lo		S1C2	G120100	219 A	219 A
		S1C3	G130100	219 A	219 A
		S1C4	G140100	219 A	219 A
Manning		S4C1	G410100	100 A	100 A
			volt_79	50 A	remove
		S4C2	G420100	100 A	100 A
		S4C5	G450100	219 A	219 A
			G450200	100 A	100 A
Ness 115	Ransom	Ransom City	G319010	219 A	219 A
Twin Springs Low		S7C1	REG45116	none	100A

605. Shunt Capacitors

Table 14 lists the existing installations and the recommended based on VAR requirements shown in the voltage drop study. The projected system wide power factor using the recommended model with 2024 loads was calculated using the Milsoft Windmil engineering analysis software to be 95.1% During the 2022-2024 Construction Work Plan period, one additional capacitor bank is required due to the increased load for a feed lot.

1 Capacitor Bank @ $13,000/bank $13,000

Table 14
Existing and Recommended System Capacitors

Substation	Tx Station	Circuit	Name	Existing kVAr	Recommended kVAr
Beeler		S3C2	C320100	(3)200	(3)200
			C320300	(1)50	(1)50
		S3C3	C340200	(3)100	(3)100
			C319200	(3)100	(3)100
			C319210	(3)100	(3)100
Dighton Hi		S2C1	C210100	(3)100	(3)100
Dighton Lo		S1C2	C120100	(3)50	(3)100
			C120400	(3)50	(3)50
Manning		S4C1	C410100	(3)150	(3)150
			C410200	(3)50	(3)50
			C410300	(1)50	(1)50
		S4C2	C420100	(3)150	(3)150
		S4C5	C450100	(3)100	(3)100
			C450200	(3)50	(3)50
			C450300	(3)50	(3)50
		S4C6	C460100	(3)200	(3)200
Ness 115	Nes City	NW Commercial	C127100	(3)100	(3)100
		South Commercial	C127310	(3)200	(3)200
	Ransom	Ransom City	C319100	(3)100	(3)100

606. Pole Replacements

Table 15.1 shows the utility pole replacements for the 2019-2020 period:

Table 15.1			
Historical Installations of Utility Poles 2019-2020			
Item	**Quantity**	**Unit Cost**	**Total Cost**
Utility Poles	508	$ 2,063.72	$ 1,048,370.13

It is estimated that 762 poles (includes anchors, crossarms and guys) will be replaced in each of the next three years, as shown in Table 15.2.

Table 15.2			
Cost Estimation of Utility Poles 2022-2024			
Item	**Quantity**	**Unit Cost**	**Total Cost**
Utility Poles	762	$ 2,200.00	$ 1,676,400.00

607. Miscellaneous Replacements

It is estimated that $30,000 be spent on miscellaneous replacements, including anchors, guys and grounds

608. Conductor Replacement

In addition to any site-specific conductor replacement included in Distribution System Improvements, the management has requested that ample funding be allocated for replacing ten (10.0) miles of copperweld conductor with #2 ACSR during this work plan period. This overhead to overhead conductor replacement will be in the same right-of-way and no special circumstances are present per 7CFR 1970.52. This work will increase system reliability and improve voltage levels.

10 miles of copperweld conductor @$48,000/mile $480,000

612. Step Up/ Step Down Transformers

During the course of this workplan it is being recommended that a auto-transformer station be built near Utica on the Beeler circuit S3C3, however, the auto-transformers are already in stock with LSEC and the only cost needed will be to build the transformer station as provided for in Project 300-05 at a cost of $15,000.

Table 16 lists the existing and proposed Step Up/Step Down transformers for voltage conversion

Table 16						
System Auto Transformers						
Substation	Circuit	Name	Rated kVA	Rated LG Output	Esixting	Recommended
Beeler	S3C3	T330843	1500	7620	1	1
Beeler	S3C3	T211674	500	7620	1	1
Beeler	S3C3	XFMR45108	1500	7620	0	3
Dighton High	S2C1	tran_7996	1500	7620	3	3

615. Communication – Two Way Radio Communication System

Towers and Radios for the radio communication system are expected to be purchased and installed during the Work Plan period. The proposed cost including installation is $750,000.

4 Towers	@ $150,000	$600,000
Associated Equipment Costs		$150,000

700. OTHER DISTRIBUTION ITEMS

702. Security Lights

During 2019 and 2020, LSEC installed 49 security lights at a cost of $9,800. In the 2022-2024 period, it is expected that LSEC will install 74 security lights in the Work Plan period.

74 Lights	@ $250	$18,500

1100. TRANSMISSION EQUIPMENT

1104. Pole & Associated Hardware Replacement

To keep their transmission lines reliable and in good condition, it is necessary for LSEC to invest in replacements of aging poles and crossarms. Over the course of this workplan it is projected that LSEC will need to replace the following:

162 Pole Replacements	@ $4,000 each	$648,000

1300. HEADQUARTERS

The cooperative is planning on investing $280,500 to update and improve the headquarters. There are two projects that the cooperative has identified: improving the North Yard, which includes dirt work, rock and concrete; and internal construction for the server room.

1300-01 Server Room	$100,000
1300-02 North Yard	$180,500

SECTION III
SYSTEM LOSSES

SECTION III - SYSTEM LOSSES

System losses comprise the following elements: distribution line (I^2R) losses, transformer losses, and losses due to such miscellaneous items as metering errors, losses in meter loops and services, and trees in overhead lines. Total system losses for LSEC in 2020 amounted to 5,773,836 kWh or 3.52% of total purchased energy. This was a sharp decrease over the previous years and may be attributed to the billing errors for the City of Dighton during 2020. System losses for the year 2024 (Recommended System) are expected to be 10,079,474 kWh, or 6.53% of purchased energy. These losses are expected to consist of the following:

Distribution Line Loss	1,801,798 kWh	1.17%
Transformers	3,731,548 kWh	2.42%
Other	4,546,128 kWh	2.42%
	10,079,474 kWh	6.53%

Detailed calculations for losses are shown on Page III-3.

Distribution line losses are generally only two to three percent of total system losses. Anticipated 2024 losses for the LSEC distribution system are under that range, primarily because of lighter loads, increased wire size and very minimum about of 8A or 6A copper conductors.

Transformer losses represent the major cause of system losses simply because of the number of units connected to the distribution lines. It is difficult to calculate the exact transformer losses for a system because of the lack of test data for distribution transformers and the lack of individual consumer daily load curves.

Other losses include errors in metering and losses due to faulty arresters or insulators, contact with trees, loose connectors, etc. These losses are often difficult to identify and correct. Replacement of older meters and a continuing meter testing program will help reduce unidentified losses.

DISTRIBUTION LINE LOSSES

These losses are directly related to load (I^2) and conductor impedance (R). Items affecting line losses include operating voltage level and conductor sizes. A system operating at 24.9/14.4 kV, for example, will have only 25% of the losses that the same system would have if operated at 12.47/7.2 kV.

The Milsoft WindMil engineering analysis software used for this work plan calculated line losses, voltage regulator losses, and step-down transformer bank losses. These loss calculations were used to determine the line losses with and without system improvements, as shown on Page III-3. The recommended system improvements included in this work plan will result in an annual loss savings of $21,990 based on current Sunflower rates.

TRANSFORMER LOSSES

Transformer losses represent the major cause of system losses simply because of the total number of units connected to the system. Transformer losses consist of two components: no-load, or core loss, and load or “copper” losses. No-load losses represent the energy required just to keep the transformer energized and are independent of load. These are present if the transformer is connected to the line. Load losses are directly proportional to the amount of current flowing through the transformer and will vary as the square of the current; these are the I^2R losses of the transformer windings.

It is difficult to calculate the exact transformer losses for a system because, as a rule, transformer loss data is not known and daily load curves for individual consumers are not available. It is often difficult even to determine the actual total kVA connected to the system. Transformer losses have been estimated, however, by making the assumptions shown on Page III-3. It is recommended that LSEC evaluate transformer losses when new units are purchased. An evaluation program should include the total life-cycle cost of owning the transformer, including the original purchase price. This practice should help reduce transformer losses and the impact they have on LSEC’s total system losses. As loss evaluation becomes a larger part of transformer purchasing, the system losses attributable to transformers will decrease.

SECTION III - LOSSES CALCULATIONS

DISTRIBUTION LOSSES:

	LINE LOSSES kW	LOSS FACTOR	LINE LOSSES kWh	SALES (kWh)	PURCHASES (kWh)	%LOSSES
HISTORICAL SALES EX SYS WITH CWP LOAD	856	29.51%	2,212,825	158,238,434	164,012,270	3.65%
CWP LOAD W/IMPROVEMENTS	697	29.51%	1,801,798	154,356,000	164,435,474	6.53%
LOSS SAVINGS			411,027	18.57% DECREASE		
COST OF LOSS SAVINGS: CLE:	$0.0535 /KWH		$21,990			

TRANSFORMER LOSSES:

Avg Transformer Size:	15	kVa
No. Transformers/Consumer	1.200	
Total No. of Consumers:	5,795	
Installed Transformer Capacity:	104,310	
Peak KW	33,469	
Peak KW / Transf. Capacity:	32.09%	
No Load Loss: (# Transf * 58 Watts * 8760 Hours) (58 Watts changes with transformer size)	3,533,188	KWH/yr
Load Loss (ratio * Avg Size/Sys Voltage)^2 * 83 Ohms	11.03	watts peak
System Voltage	13.20	kV
Annual Load Loss (Load Loss * 8.760 * Loss Factor)	28.52	kWh/Transformer
Total Annual Load Loss: Annual Load Loss * No of Transformers	198,360	KWH/Year
Total Transf Losses	3,731,548	KWH/Year

TOTAL SYSTEM LOSSES:

		% OF SALES	
2020	5,773,836	3.65%	
2024	10,079,474	6.53%	
COMPOSED OF:			
DISTRIBUTION:	1,801,798	1.17%	17.88%
TRANSFORMER:	3,731,548	2.42%	37.02%
OTHER:	4,546,128	2.95%	45.10%
	10,079,474	6.53%	100.00%

APPENDICES

APPENDIX A

ECONOMIC CONDUCTOR ANALYSES

ECONOMIC CONDUCTOR ANALYSIS

Economic Design of Distribution Lines

In designing a distribution line, there are three major considerations: voltage drop, service reliability, and conductor power losses. The most economical conductor size as determined by an evaluation of power losses and fixed charges of the investment is the minimum size that should be used. Often the improvement in service reliability, greater operating flexibility or reduced voltage drop necessitates a larger wire size than the economic minimum size.

Any new or reconductored circuit should provide sufficient capacity for 20 years and possibly longer. Reconductoring a line in less than 20 years after it was built is often an indication of poor planning and premature obsolescence. The long-range system is designed to provide a guide in the selection of conductor sizes for main distribution circuit lines. Any new line construction or reconductoring should be coordinated with this plan to ensure that the line will not be economically overloading for the loading levels projected in this study. The procedures outlined in RUS Bulletin 60-9 will be followed in this economic conductor analysis unless otherwise indicated. The kWh losses per mile of line per year are calculated as being equal to:

$$\frac{(\text{Peak kW})^2(\text{Resistance per Phase per Mile})(\text{Loss Factor})(8760)}{(\text{kV})^2(\text{Power Factor})^2(\text{Number of Phases})(1000)}$$

where the Loss Factor is (from an empirical formula) equal to 0.84 (Load Factor)^2 + 0.16 (Load Factor).

The values for resistance of various conductor sizes are listed at the end of this section.

To determine the load at which it is economical to use the next larger conductor, the carrying charges and cost of losses of the two types of construction are set equal and the equation is solved for the kW load. The total annual carrying charges and cost of energy losses equals:

$$(\text{Annual Carrying Charge})(\text{Cost of Line}) + (\text{Cost of Loss Energy})(\text{Annual Energy Loss})$$

which equals:

$$(CC)(CL)+\frac{(CLE)(kW)^2(R)(LoF)(8760)}{(kV)^2(P.F.)^2(P)(1000)}$$

where:

kV = the line to neutral voltage

P.F. = the power factor

P = the number of phases. Note: P = 0.833 for single-phase lines To account for 45.0 percent current flow in the neutral.

CC = sum of the interest rate of loan funds, operations and maintenance expense, Depreciation, and taxes expressed in decimal form.

CLE = $\text{Energy Charge}+\frac{12\,(\text{Demand Charge})(\text{Demand Adj. Factor})}{8{,}760\,(\text{Load Factor})}$

= $L+\frac{12MN}{8{,}760(LF)}$

The demand adjustment factor (N) for one year is the weighted average of (1) for those months which the peak exceeds the ratcheted minimum, it is the sum of the square of the monthly peaks divided by the square of the peak month plus (2) the per unit ratchet times the number of months the ratchet is paid all divided by twelve.

Setting the annual costs of line, with phase resistance R_1 and P_1 phases equal to the annual costs of Line$_2$ with phase resistance R_2 and P_2 phases:

$$(CC)(CL_1)+\frac{(CLE)(kW)^2(R_1)(LoF)(8760)}{(kV)^2(P.F.)^2(P_1)(1000)}=(CC)(CL_2)+\frac{(CLE)(kW)^2(R_2)(LoF)(8760)}{(kV)^2(P.F.)^2(P_2)(1000)}$$

Solving for kW,

$$kW=(kV)(P.F.)\sqrt{\frac{(CC)(CL_1-CL_2)}{(CLE)(LoF)(8.76)\left(\frac{R_2}{P_2}-\frac{R_1}{P_1}\right)}}$$

Note: This equation is only true when Line $_1$ and Line$_2$ operate at the same voltage level.

As an example, let us calculate the load level above which three phase, 4/0 ACSR is more economic than three phase, 1/0 ACSR.

$$kW = (7.2)(0.95)\sqrt{\frac{(0.113)(26,000 - 21,000)}{(0.053)(0.2\ 24)(8.76)\left(\frac{1.12}{3} - \frac{0.592}{3}\right)}} = 1,202$$

This calculation, however, assumes static conditions; that is, no escalation of wholesale power costs and no-load growth.

ALLOWING FOR LOAD GROWTH AND INCREASED WHOLESALE POWER COSTS

In the economic comparison of plans involving different conductor sizes and/or number of phases, consideration should be given to the rate of escalation of purchased power costs. Since losses for any given plan are escalating at some assumed rate and are also being time-valued at a different interest rate, an effective discount rate must be derived to account for this difference. The formula used to derive the effective discount rate in percentage form is:

$$i_{effective} = i_e = \left[\frac{\left(1 + \frac{\%\ Interest}{100}\right)}{\left(1 + \frac{\%\ Escalation}{100}\right)} - 1\right] \times 100\%$$

Since losses are not constant but are escalating at a rate proportional to the square of the growth rate, the above formula should be modified to also reflect load growth:

$$i_e = \left[\frac{\left(1 + \frac{\%\ Interest}{100}\right)}{\left(1 + \frac{\%\ Escalation}{100}\right)\left(1 + \frac{\%\ Growth\ Rate}{100}\right)^2} - 1\right] \times 100\%$$

The present worth of loss cost savings are:

$$\text{PW Loss Cost} = \left[\frac{(1+i_e)^n - 1}{(1+i_e)^n (i_e)}\right] \times \left[\frac{1+i_e}{1+i}\right] \times \begin{bmatrix}\text{Initial Annual} \\ \text{Loss Cost}\end{bmatrix}$$

The levelized annual loss cost savings would be the product of the capital recovery factor using the nominal interest rate and the present worth of the loss costs:

Levelized Annual Loss Cost Savings =

$$\left[\frac{(1+i_e)^n - 1}{(1+i_e)^n (i_e)}\right] \times \left[\frac{1+i_e}{1+i}\right] \times \left[\frac{i(1+i)^n}{(1+i)^n - 1}\right] \times \begin{bmatrix}\text{Initial Annual} \\ \text{Loss Cost}\end{bmatrix}$$

When this levelized annual loss cost savings equals the carrying charges on the construction costs associated with the system improvements, an economic break-even point is reached.

As an example, assume a 6.8 percent interest rate and a 5.0 percent inflation in wholesale power costs, and a 30-year life to correspond to the term of RUS loan funds. Three growth rates are assumed:

(1) No growth.

(2) 2.0 percent growth.

(3) 4.0 percent growth.

The Levelized Annual Loss Cost Savings (LALCS) for these varying growth rates are:

(1) No growth:

$$\text{LALCS} = \left[\frac{\left(\frac{1.068}{1.05}\right)^{30} - 1}{\left(\frac{1.068}{1.05}\right)^{30}\left(\frac{1.068}{1.05} - 1\right)}\right] \times \left[\frac{\frac{1.068}{1.05}}{1.068}\right] \times \left[\frac{(0.068)(1.068)^{30}}{(1.068)^{30} - 1}\right] \times \begin{bmatrix}\text{Initial Annual} \\ \text{Loss Cost}\end{bmatrix}$$

= 1.75 x initial annual loss cost.

(2) 2.0 percent growth:

$$LALCS=\left[\frac{\left(\frac{1.068}{(1.05)(1.02)^2}\right)^{30}-1}{\left(\frac{1.068}{(1.05)(1.02)^2}\right)^{30}\left(\frac{1.068}{(1.05)(1.02)^2}-1\right)}\right]\times\left[\frac{\frac{1.068}{(1.05)(1.02)^2}}{1.068}\right]\times\left[\frac{(0.068)(1.068)^{30}}{(1.068)^{30}-1}\right]\times\left[\begin{matrix}\text{Initial Annual}\\ \text{Loss Cost}\end{matrix}\right]$$

= 3.14 x initial annual loss cost.

(3) 4.0 percent growth.

$$LALCS=\left[\frac{\left(\frac{1.068}{(1.05)(1.04)^2}\right)^{30}-1}{\left(\frac{1.068}{(1.05)(1.04)^2}\right)^{30}\left(\frac{1.068}{(1.05)(1.04)^2}-1\right)}\right]\times\left[\frac{\frac{1.068}{(1.05)(1.04)^2}}{1.068}\right]\times\left[\frac{(0.068)(1.068)^{30}}{(1.068)^{30}-1}\right]\times\left[\begin{matrix}\text{Initial Annual}\\ \text{Loss Cost}\end{matrix}\right]$$

= 6.20 x initial annual loss cost.

The initial annual cost of losses will, therefore, be increased by these respective factors to obtain the economic loading limits for new or rebuilt lines. A word of caution: care must be taken in using large load growth factors for long periods of time because the tendency is to relieve existing lines with the installation of new substations and circuit lines.

ECONOMIC LOADING RANGES FOR NEW LINES

Utilizing the above formulae, economic loading ranges were developed for various types and sizes of lines for three load growth scenarios; these are summarized in Table A-1. It is the responsibility of management to select the economic and load growth criteria, which best fit conditions at the time new facilities are to be constructed. New computations will be required if interest rates or power costs are different than those assumed in this study.

Conductor sizes for new overhead lines should be selected so that the initial load does not exceed 15.0 percent of the conductor's thermal limit. As an example, if the initial loading on a proposed line exceeds 1,400 kW, consideration should be given to 14.4/24.9 kV facilities or an additional circuit. An exception to the initial loading limits as specified in Table A-1 would be for

lines which have a short useful life such as lines to serve temporary loads.

REPLACEMENT LINES

Line conversions involving a change in conductor size or increasing the number of phase conductors may be necessary to improve voltage, to provide multi-phase service, to establish a tie line or to reduce losses. If line loss reduction is the sole reason for increasing the number of phases or the conductor size, then the annual savings in line losses should equal or exceed the fixed charges of the cost of conversion. Since the operation and maintenance costs seldom increase and often decrease when a line is rebuilt, the additional carrying charges will not include operation and maintenance.

A maximum economic loading limit of electric lines can be calculated if the cost of losses and the annual fixed cost of the additional investment for the larger capacity line can be determined. The maximum economic limit is the peak load at which the resulting annual savings in losses equals the additional carrying charges for the reconductored or rebuilt line:

(Additional Carrying Charge) (Cost of Rebuilt Line) =

$$\frac{(\text{Cost of Loss Energy})\left(\frac{R_1}{P_1}-\frac{R_2}{P_2}\right)(\text{Loss Factor})(87\,60)(\text{Peak kW}^2)}{(\text{kV})^2(\text{Power Factor})^2(1000)}$$

Where:

R_1	=	resistance per mile of existing line
R_2	=	resistance per mile of proposed line
P_1	=	number of phases of existing line
P_2	=	number of phases of proposed line
kV	=	line to ground voltage in kV

Solving the above equation for peak kW gives the formula for the maximum normal economic loading limit.

$$\text{Peak kW} = \sqrt{\frac{(\text{Annual CC})(\text{Cost of Rebuilt Line})(\text{kV})^2(\text{P.F.})^2(1000)}{(\text{Cost of Loss Energy})\left(\frac{R_1}{P_1} - \frac{R_2}{P_2}\right)(\text{Loss Factor})(87\,60)}}$$

Assuming the cost of replacing an existing line is 20.0 percent greater than the cost of a new line and the operations and maintenance cost will decrease with an upgraded line, the economic loading limit for various types and sizes of existing lines were calculated from the above formula.

Lane-Scott Electric Cooperative
KS0042

2020 ANNUAL FIXED COSTS

TOTAL PLANT IN SERVICE: (PG2, LINE 1)	58,108,127
DISTRIBUTION O&M	2,406,876
TAXES (PG1, L 13+14)	0
DEPRECIATION (PG1, L12)	1,650,032

INTEREST CALCULATIONS:

% RUS	0.00%	@	1.93%
%CFC	100.00%	@	2.43%

INTEREST	2.43%		
O&M	4.14%		
DEPRECIATION	2.84%	ESCALATION	4.00%
TAXES	0.00%	GROWTH	2.00%
TOTAL	9.41%		

SYSTEM, DEMAND and ENERGY INFORMATION

CKT LIFE	35	YRS	
L-N KV	7.6	KV	7.6/13.2 KV

NCP DEMANDS:

JAN	31,443
FEB	24,242
MAR	22,901
APR	22,269
MAY	24,124
JUN	29,473
JUL	31,977
AUG	30,446
SEP	25,714
OCT	24,137
NOV	22,493
DEC	22,671

PEAK KW = 31,977
PEAK KVAR = 33,708

POWER FACTOR AT PEAK DEMAND (PF)
= 94.86%

ANNUAL kWh = 164,012,270

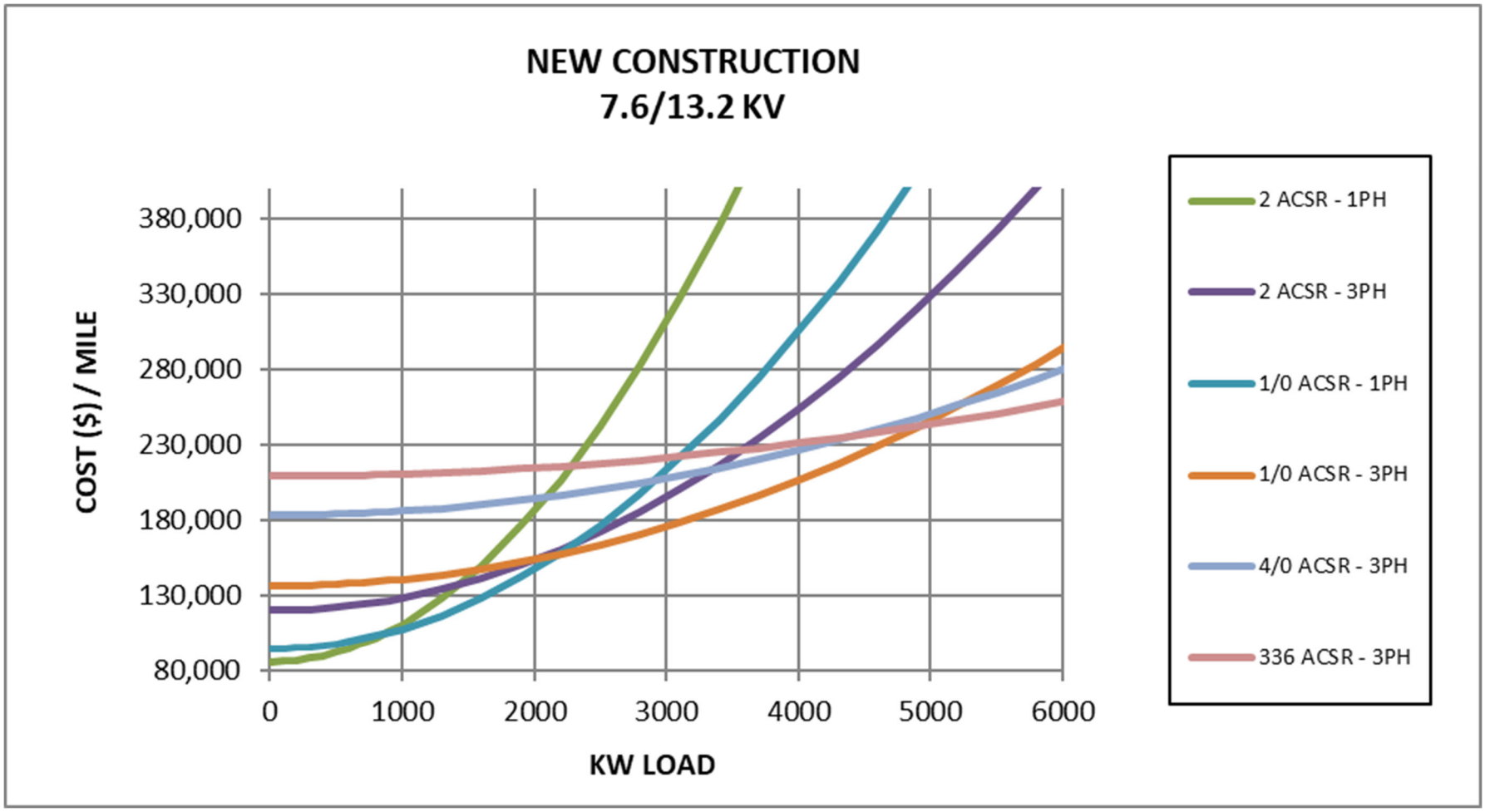
ANNUAL LOAD FACTOR (LF) = 58.55%
ANNUAL kWh USAGE / (PEAK kW * 8760)

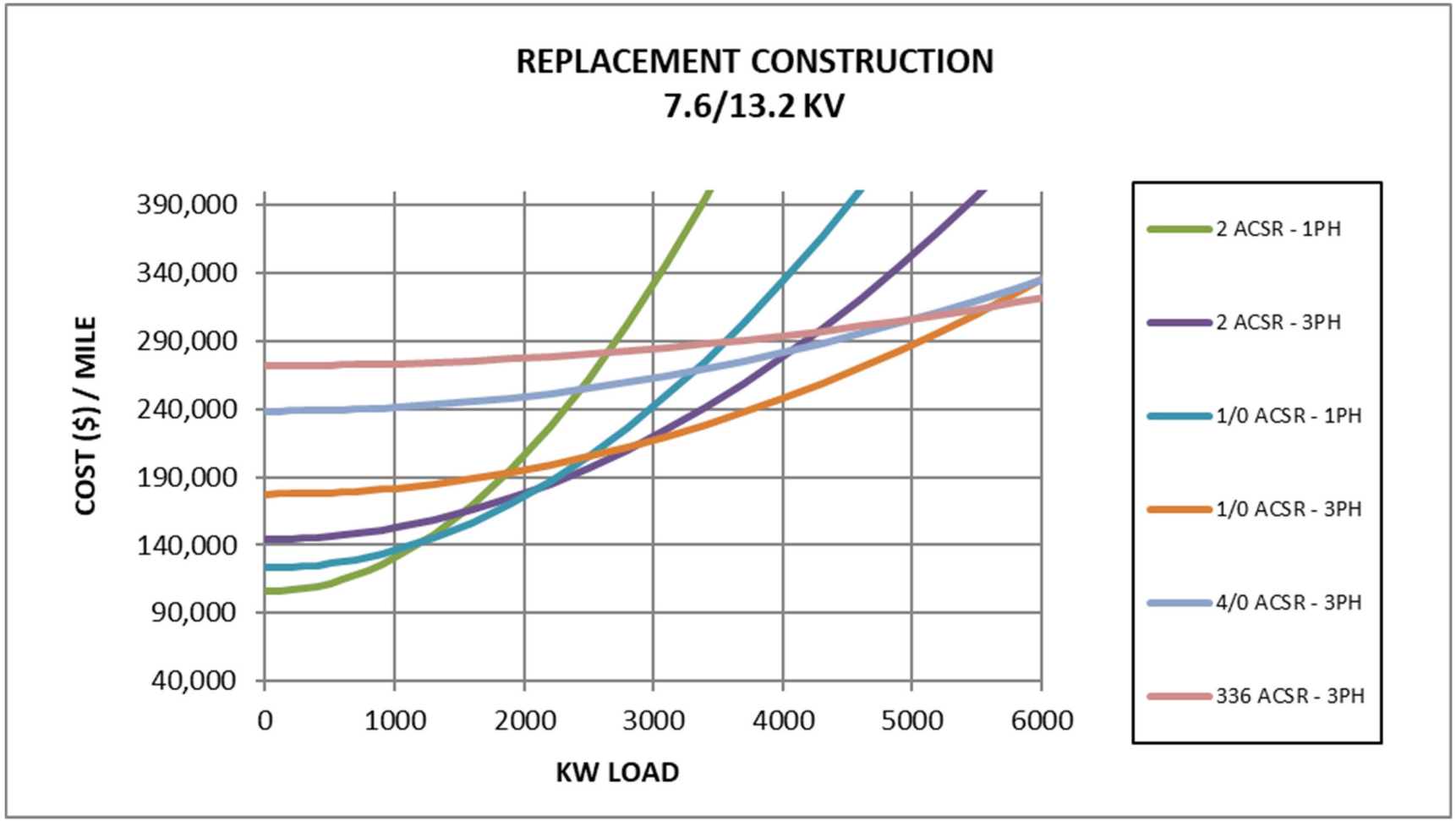
COST ALLOCATIONS

DEMAND CHARGE (M)	/kW/MONTH	=	$8.72
ENERGY CHARGE+FUEL CHARGE(L)	/kWh	=	0.02804
DEMAND ADJUSTMENT FACTOR (N)		=	0.813
LOSS FACTOR		=	.84 (LF)^2 + .16 (LF)
		=	0.3817
COST OF LOSS ENERGY (CLE)		=	L + (12 * M * N) / (8760 * LOSS FACTOR)
	$/kwh	=	0.0535
	$/kw	=	178.78

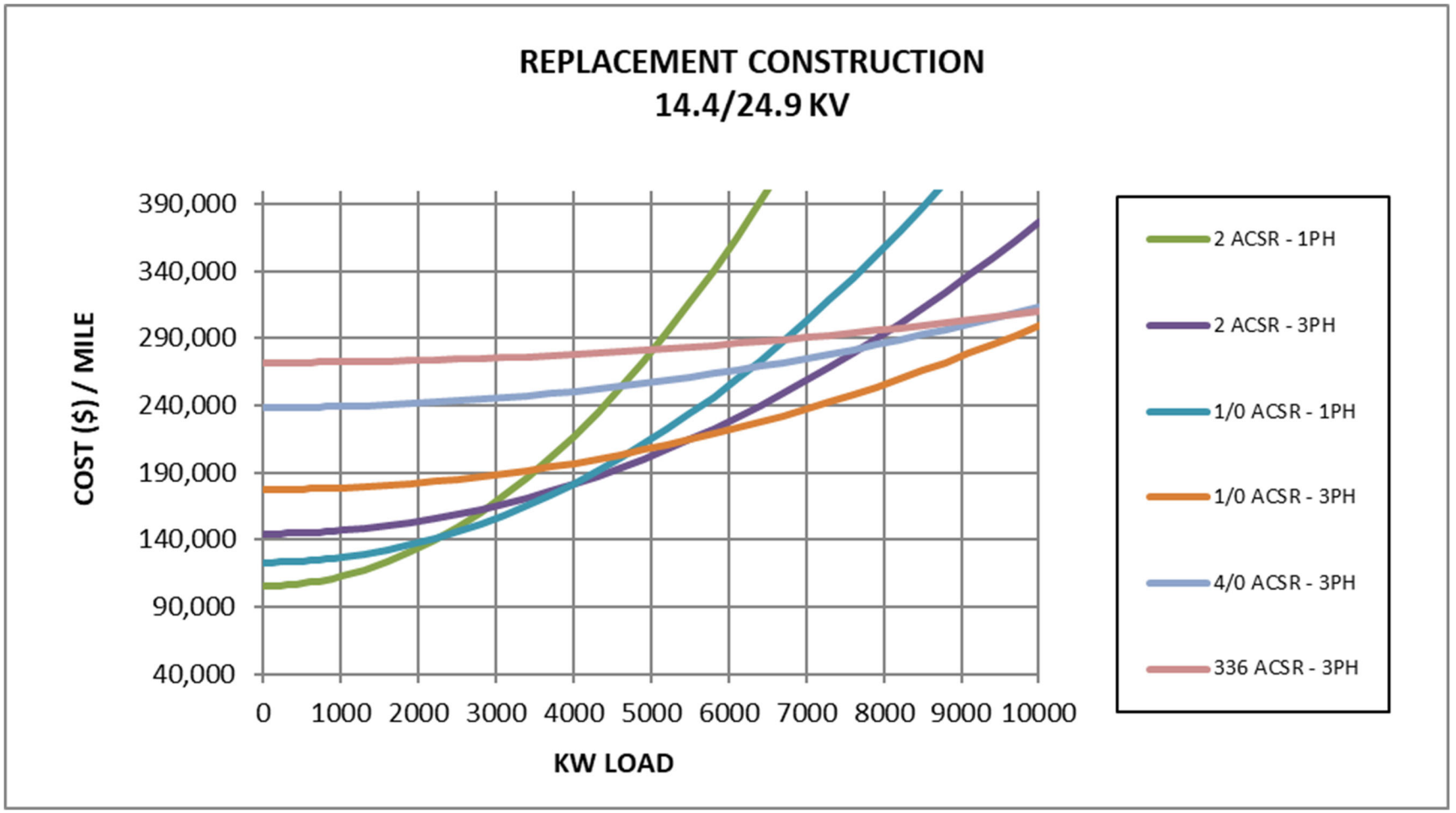
Lane-Scott Electric Cooperative
KS0042
ECONOMIC CONDUCTOR EVALUATION

SIZE	NUMBER OF PHASES	25o C R1/MI	THERMAL AMPS	CAPACITY (KW)	14.4/24.9 KV COST/MILE	REPLACE LC/MI
2 ACSR	1	1.69	180	1,368	38,997	48,000
2 ACSR	3	1.69	180	4,104	54,575	65,597
1/0 ACSR	1	0.888	230	1,748	43,000	55,900
1/0 ACSR	3	0.888	230	5,244	62,000	80,600
4/0 ACSR	3	0.544	340	7,752	83,318	108,313
336 ACSR	3	0.278	530	22,667	95,000	123,500


NEW CONSTRUCTION
7.6/13.2 KV
COST ($) / MILE
380,000
330,000
280,000
230,000
180,000
130,000
80,000
0
1000
2000
3000
4000
5000
6000
KW LOAD
2 ACSR - 1PH
2 ACSR - 3PH
1/0 ACSR - 1PH
1/0 ACSR - 3PH
4/0 ACSR - 3PH
336 ACSR - 3PH


REPLACEMENT CONSTRUCTION
7.6/13.2 KV
COST ($) / MILE
390,000
340,000
290,000
240,000
190,000
140,000
90,000
40,000
0
1000
2000
3000
4000
5000
6000
KW LOAD
2 ACSR - 1PH
2 ACSR - 3PH
1/0 ACSR - 1PH
1/0 ACSR - 3PH
4/0 ACSR - 3PH
336 ACSR - 3PH


NEW CONSTRUCTION
14.4/24.9 KV
COST ($) / MILE
380,000
330,000
280,000
230,000
180,000
130,000
80,000
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
KW LOAD
2 ACSR - 1PH
2 ACSR - 3PH
1/0 ACSR - 1PH
1/0 ACSR - 3PH
4/0 ACSR - 3PH
336 ACSR - 3PH


REPLACEMENT CONSTRUCTION
14.4/24.9 KV
COST ($) / MILE
390,000
340,000
290,000
240,000
190,000
140,000
90,000
40,000
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
10000
KW LOAD
2 ACSR - 1PH
2 ACSR - 3PH
1/0 ACSR - 1PH
1/0 ACSR - 3PH
4/0 ACSR - 3PH
336 ACSR - 3PH

APPENDIX B
HISTORIC COST DATA

HISTORICAL CONSTRUCTION COST SUMMARY

For Period: For Period Jan. 2019 to Dec. 2020

A. New Construction for Member Service Extensions

Insert the number of consumers, number of miles of line, and total cost including R/W clearing. Do not include costs for transformers, meters and security lights that are listed separately.
Do include secondary and services. If these facilities are underground but served from overhead primary, the costs should be included with the overhead.

Underground Line	Consumers	Miles of Line	Cost
Single Phase Line	0	0	0
Three Phase Line	2	0.35	66511.63

Overhead Line	Consumers	Miles of Line	Cost
Single Phase Line	12	2.37	112074.3
Three Phase Line	11	4.09	305927.4

Sub-Total A

B. Service Wires to Increase Capacity

B. Service Wires to Increase Capacity	No		Cost	
Pole Replacements	No	508	Cost	1048370
All other			Cost	

Sub-Total B

C. Special Equipment Capitalized on purchase

1) Transformers(All)		Size	No.	Cost	
Overhead:		25 & less	50	83595.26	
		37.5-100	7	14725.04	
		167 & up	1	4496.08	
			_____	$_____	
			_____	$_____	
Underground:	1 ph	25 & less	_____	$_____	
		37.5-100	2	12158.3	
		167 & up	_____	$_____	
	3 ph	75 & less	_____	$_____	
		112.5 - 225	_____	$_____	
		300 - 750	5	64419.76	
		1000 & up	_____	$_____	
			_____	$_____	
2)Meters					
1 ph			240	104103.7	
3 ph			_____	$_____	
3)Voltage Regulators					
50 AMP			_____	$_____	
75 AMP			_____	$_____	
100 AMP			1	8000.15	8200
4)Sectionalizing Equipment					
1 ph OCR			15	33757.85	
3 ph OCR			_____	$_____	
1 ph Electonic Recloser			_____	$_____	
3 ph Electonic Recloser			_____	$_____	
Fused Cutouts			85	9262.69	
Lightning Arrestors			76	3566.04	
5)Capacitors					
600KVAC Switched			_____	$_____	
300KVAC Switched			_____	$_____	
300KVAC Fixed			_____	$_____	
6)Autotransformers					
			_____	$_____	
			_____	$_____	
7)Other Distribution Equipment			_____	$_____	

D. Security Lights 49 9800

Estimating Costs
Distribution Projects

	($/per mile)
Overhead Distribution - New	
3 Ph-477 ACSR	N/A
3 Ph-4/0 ACSR or (3/0)	$83,318
3 Ph-1/0 ACSR	N/A
1 Ph-1/0 ACSR	N/A
3 Ph-#2 ACSR	$54,575
1 Ph-#2 ACSR	$38,997
1 Ph-#4 ACSR	N/A
Overhead Distribution - Rebuild	
3 Ph-477 ACSR	N/A
3 Ph-4/0 ACSR or (3/0)	$71,506
3 Ph-1/0 ACSR	N/A
1 Ph-1/0 ACSR	N/A
3 Ph-#2 ACSR	$65,597
1 Ph-#2 ACSR	$48,000
1 Ph-#4 ACSR	N/A
Underground Distribution - New	
3 Ph-1000 UG	N/A
3 Ph-750 UG	N/A
3 Ph-4/0 UG	N/A
3 Ph-1/0 UG #2 UG	$423,704
1 Ph-1/0 UG	N/A
1 Ph-#2 UG	N/A
Underground Distribution - Replace	
3 Ph-1000 UG	N/A
3 Ph-750 UG	N/A
3 Ph-4/0 UG	N/A
3 Ph-1/0 UG	N/A
1 Ph-1/0 UG	N/A
1 Ph-#2 UG	$286,931

CWP City of Dighton Substations

South Sub

Items	Number	each	total	Notes
CT's	2	925	1850	Steel frame
PT's	2	850	1700	Blue = quoted price
Meter and base	1	1000	1000	
conduit and wiring	1	2000	2000	
OCR's	2	18250	36500	
DA radios	2	1200	2400	
inside switches	6	500	3000	
outside switches/fuse	6	1500	9000	
control transformer	1	2000	2000	
construction labor	96	85	8160	4 men 3 days
switching/testing labor	16	85	1360	2 men 1 day
Total			**$68,970.00**	

West Sub

Items	Number	each	total	Notes
CT's	2	925	1850	Has control trans.
PT's	2	850	1700	
Meter and base	1	1000	1000	
conduit and wiring	1	2000	2000	
OCR's	2	18250	36500	
DA radios	2	1200	2400	
inside switches	6	500	3000	
outside switches/fuse	6	1500	9000	
timbers	20	250	5000	
Air Brake Swith	1	3000	3000	
construction labor	96	85	8160	4 men 3 days
switching/testing labor	16	85	1360	2 men 1 day
Total			**$74,970.00**	

North Sub

Items	Number	each	total	Notes
CT's	2	925	1850	
PT's	2	850	1700	
Meter and base	1	1000	1000	
conduit and wiring	1	2000	2000	
OCR's	2	18250	36500	
DA radios	2	1200	2400	
inside switches	6	500	3000	
outside switches/fuse	6	1500	9000	
control transformer			0	
construction labor	96	85	8160	4 men 3 days
switching/testing labor	16	85	1360	2 men 1 day
Total			**$66,970.00**	

APPENDIX C

SMART GRID

Lane-Scott Electric Cooperative 2022-2024 CWP

Identification of Smart Grid Facilities

Smart Grid Facilities in the CWP			
740C Code	**Description**	**Category**	**Total**
601	Meters	E	$104,103.74
603	Electronic Reclosers	C	$ 20,000.00
604	Voltage Regulators	C	$ 24,600.00
605	Capacitors & Controls	C	$ 13,000.00
615	Communication Towers & Radios	E	$750,000.00
		Total	**$911,703.74**

VOLTAGE DROP AND LINE LOSS STUDIES

EXISTING SYSTEM, EXISTING LOAD

EXISTING SYSTEM, 2024 LOAD

RECOMMENDED 2024 SYSTEM
(Sample Pages Following)
(Full Reports Included on Flash Drive)

Unbalanced Voltage Drop Report
Source: Manning

Database: Q:\E&E\520-POWER_PROVIDERS\LANE-SCOTT\PROJECTS\KS00042030 - CWP\MILSOFT\RECOMMENDED SYSTEM 2024.WM\
Title:
Case:

Units Displayed In Volts
-Base Voltage:120.0-

Element Name	Parent Name	Cnf	Type/ Conductor	Pri kV	Base Volt	Element Drop	Accum Drop	Thru Amps	% Cap	Thru KW	KVAR	% PF	kW Loss	% Loss	mi From Src	Length (mi)	Element KW	Element KVAR	Cons On	Cons Thru
Manning		A		7.20Y	120.0	6.00	6.00	320.86	0	2233	594	97	0.00	0.0			0	0	0	197
		B		7.20Y	120.0	6.00	6.00	371.74	0	2575	729	96					0	0	0	337
		C		7.20Y	120.0	6.00	6.00	341.70	0	2370	660	96					0	0	0	265
G400020	Manning	A	438 AMP	7.55Y	125.9	-5.90	0.10	134.36	31	907	336	94	percent Boost= 4.69 Tap=15.0							28
		B		7.55Y	125.9	-5.90	0.10	132.96	30	899	330	94	percent Boost= 4.69 Tap=15.0							33
		C		7.55Y	125.9	-5.90	0.10	145.61	33	979	374	93	percent Boost= 4.69 Tap=15.0							40
---------- Feeder No. 6 (S4C6 in Sub) Beginning with Device B460000 ----------																				
B460000	G400020	A		7.55Y	125.9	0.00	0.10	89.40	0	649	187	96	0.00	0.0			0	0	0	1
		B		7.55Y	125.9	0.00	0.10	90.24	0	654	191	96					0	0	0	2
		C		7.55Y	125.9	0.00	0.10	89.34	0	649	187	96					0	0	0	1
span_5452	B460000	A	500 AL 15K	7.55Y	125.9	0.02	0.12	89.40	19	649	187	96	0.31	0.0	0.053	0.053	0	0	0	1
		B		7.55Y	125.9	0.02	0.12	90.24	19	654	191	96					0	0	0	2
		C		7.55Y	125.9	0.02	0.12	89.34	19	649	187	96					0	0	0	1
span_11426	span_5452	A	336 ACSR	7.52Y	125.4	0.49	0.62	89.41	17	649	187	96	4.99	0.3	0.797	0.744	0	0	0	1
		B		7.52Y	125.4	0.50	0.63	90.25	17	654	191	96					0	0	0	2
		C		7.52Y	125.4	0.49	0.61	89.36	17	648	187	96					0	0	0	1
span 12400	span 11426	A	336 ACSR	7.51Y	125.2	0.16	0.77	89.42	17	647	184	96	1.59	0.1	1.034	0.236	0	0	0	1
		B		7.51Y	125.2	0.16	0.79	90.26	17	653	188	96					0	0	0	2
		C		7.51Y	125.2	0.16	0.77	89.37	17	647	184	96					0	0	0	1
span 12401	span 12400	A	336 ACSR	7.51Y	125.2	0.03	0.80	89.43	17	647	182	96	0.31	0.0	1.079	0.046	0	0	0	1
		B		7.51Y	125.2	0.03	0.82	90.27	17	652	187	96					0	0	0	2
		C		7.51Y	125.2	0.03	0.80	89.37	17	646	182	96					0	0	0	1
span 11801	span 12401	A	336 ACSR	7.50Y	125.0	0.21	1.02	89.43	17	647	182	96	2.18	0.1	1.404	0.325	0	0	0	1
		B		7.50Y	125.0	0.22	1.04	90.27	17	652	186	96					0	0	0	2
		C		7.50Y	125.0	0.21	1.01	89.37	17	646	182	96					0	0	0	1
span 9381	span 11801	A	336 ACSR	7.50Y	125.0	0.03	1.05	89.43	17	646	181	96	0.31	0.0	1.450	0.047	0	0	0	1
		B		7.50Y	124.9	0.03	1.07	90.27	17	651	185	96					0	0	0	2
		C		7.50Y	125.0	0.03	1.04	89.38	17	645	181	96					0	0	0	1
span_10006	span_9381	A	336 ACSR	7.50Y	124.9	0.03	1.08	89.43	17	646	180	96	0.32	0.0	1.498	0.047	0	0	0	1
		B		7.49Y	124.9	0.03	1.10	90.27	17	651	185	96					0	0	0	2
		C		7.50Y	124.9	0.03	1.07	89.38	17	645	180	96					0	0	0	1
span_10246	span_10006	A	336 ACSR	7.49Y	124.9	0.06	1.14	89.43	17	646	180	96	0.63	0.0	1.592	0.094	0	0	0	1
		B		7.49Y	124.8	0.06	1.16	90.27	17	651	184	96					0	0	0	2
		C		7.49Y	124.9	0.06	1.13	89.38	17	645	180	96					0	0	0	1
span_11706	span_10246	A	336 ACSR	7.47Y	124.6	0.31	1.45	89.43	17	645	180	96	3.14	0.2	2.059	0.467	0	0	0	1
		B		7.47Y	124.5	0.31	1.48	90.27	17	651	184	96					0	0	0	2
		C		7.47Y	124.6	0.31	1.44	89.38	17	645	180	96					0	0	0	1
span 11707	span 11706	A	336 ACSR	7.47Y	124.5	0.03	1.48	89.44	17	644	178	96	0.32	0.0	2.106	0.047	0	0	0	1
		B		7.47Y	124.5	0.03	1.51	90.28	17	650	182	96					0	0	0	2
		C		7.47Y	124.5	0.03	1.47	89.39	17	644	178	96					0	0	0	1
span 10189	span 11707	A	336 ACSR	7.45Y	124.2	0.28	1.76	89.44	17	644	177	96	2.89	0.1	2.537	0.431	0	0	0	1
		B		7.45Y	124.2	0.29	1.79	90.28	17	650	181	96					0	0	0	2
		C		7.46Y	124.3	0.28	1.75	89.39	17	644	177	96					0	0	0	1
span 12588	span 10189	A	336 ACSR	7.44Y	124.0	0.19	1.95	89.45	17	643	175	96	1.94	0.1	2.826	0.289	0	0	0	1
		B		7.44Y	124.0	0.19	1.99	90.29	17	649	179	96					0	0	0	2
		C		7.44Y	124.1	0.19	1.94	89.39	17	643	175	96					0	0	0	1
span_10729	span_12588	A	336 ACSR	7.43Y	123.9	0.16	2.11	89.45	17	643	174	97	1.64	0.1	3.071	0.245	0	0	0	1
		B		7.43Y	123.8	0.16	2.15	90.29	17	648	178	96					0	0	0	2
		C		7.43Y	123.9	0.16	2.10	89.40	17	642	174	97					0	0	0	1
span_1865	span_10729	A	336 ACSR	7.43Y	123.9	0.03	2.14	89.46	17	642	173	97	0.32	0.0	3.119	0.048	0	0	0	1
		B		7.43Y	123.8	0.03	2.18	90.29	17	647	177	96					0	0	0	2
		C		7.43Y	123.9	0.03	2.13	89.40	17	642	173	97					0	0	0	1
swit_206-A	span_1865	A	Closed	7.43Y	123.9	0.00	2.14	89.46	0	642	172	97	0.00	0.0	3.119	0.000	0	0	0	1
		B		7.43Y	123.8	0.00	2.18	90.30	0	647	176	96					0	0	0	2
		C		7.43Y	123.9	0.00	2.13	89.40	0	642	172	97					0	0	0	1
swit 206-B	swit 206-A	A	Closed	7.43Y	123.9	0.00	2.14	89.46	0	642	172	97	0.00	0.0	3.119	0.000	0	0	0	1
		B		7.43Y	123.8	0.00	2.18	90.30	0	647	176	96					0	0	0	2
		C		7.43Y	123.9	0.00	2.13	89.40	0	642	172	97					0	0	0	1
span 8282	swit 206-B	A	336 ACSR	7.41Y	123.4	0.43	2.57	89.46	17	642	172	97	4.42	0.2	3.777	0.658	0	0	0	1
		B		7.40Y	123.4	0.44	2.62	90.30	17	647	176	96					0	0	0	2
		C		7.41Y	123.4	0.42	2.55	89.40	17	642	172	97					0	0	0	1

Unbalanced Voltage Drop Report
Source: Manning

Database: Q:\E&E\520-POWER_PROVIDERS\LANE-SCOTT\PROJECTS\KS00042030 - CWP\MILSOFT\RECOMMENDED SYSTEM 2024.WM\
Title:
Case:

Units Displayed In Volts
-Base Voltage:120.0-

	Element Name	Parent Name	Cnf	Type/ Conductor	Pri kV	Base Volt	Element Drop	Accum Drop	Thru Amps	% Cap	Thru KW	KVAR	% PF	kW Loss	% Loss	mi From Src	Element Length (mi)	Element KW	Element KVAR	Cons On	Cons Thru	
	span 9975	span 8282	A	336 ACSR	7.37Y	122.9	0.52	3.09	89.46	17	641	169	97	5.42	0.3	4.584	0.807	0	0	0	1	
			B		7.37Y	122.9	0.53	3.15	90.30	17	646	173	97					0	0	0	2	
			C		7.38Y	122.9	0.52	3.07	89.41	17	640	169	97					0	0	0	1	
	span 6265	span 9975	A	336 ACSR	7.37Y	122.9	0.03	3.12	89.47	17	639	165	97	0.32	0.0	4.631	0.047	0	0	0	1	
			B		7.37Y	122.8	0.03	3.18	90.31	17	644	169	97					0	0	0	2	
			C		7.37Y	122.9	0.03	3.10	89.42	17	638	165	97					0	0	0	1	
	span 9146	span 6265	A	336 ACSR	7.37Y	122.8	0.12	3.25	89.48	17	639	165	97	1.29	0.1	4.823	0.192	0	0	0	1	
			B		7.36Y	122.7	0.13	3.31	90.32	17	644	169	97					0	0	0	2	
			C		7.37Y	122.8	0.12	3.22	89.42	17	638	165	97					0	0	0	1	
	span_10375	span_9146	A	336 ACSR	7.36Y	122.6	0.13	3.38	89.48	17	638	164	97	1.40	0.1	5.031	0.208	0	0	0	1	
			B		7.35Y	122.6	0.14	3.44	90.32	17	643	168	97					0	0	0	2	
			C		7.36Y	122.6	0.13	3.35	89.42	17	638	164	97					0	0	0	1	
P	span_1867	span_10375	A	336 ACSR	7.36Y	122.6	0.00	3.38	-0.00	0	0	0	100	0.00	0.0	5.046	0.015	0	0	0	0	P
			B		7.35Y	122.6	0.00	3.44	-0.00	0	0	0	0					0	0	0	0	
			C		7.36Y	122.6	0.00	3.35	-0.00	0	0	0	0					0	0	0	0	
P	span_1873	span_10375	A	336 ACSR	7.36Y	122.6	0.00	3.38	-0.00	0	0	0	100	0.00	0.0	5.050	0.019	0	0	0	0	P
			B		7.35Y	122.6	0.00	3.44	-0.00	0	0	0	0					0	0	0	0	
			C		7.36Y	122.6	0.00	3.35	-0.00	0	0	0	0					0	0	0	0	
	span 1874	span 10375	A	336 ACSR	7.36Y	122.6	0.01	3.40	89.48	17	638	163	97	0.15	0.0	5.053	0.022	0	0	0	1	
			B		7.35Y	122.5	0.01	3.46	90.32	17	643	167	97					0	0	0	2	
			C		7.36Y	122.6	0.01	3.37	89.43	17	637	163	97					0	0	0	1	
P	span 1875	span 1874	A	336 ACSR	7.36Y	122.6	0.00	3.40	-0.00	0	0	0	100	0.00	0.0	5.075	0.022	0	0	0	0	P
			B		7.35Y	122.5	0.00	3.46	-0.00	0	0	0	0					0	0	0	0	
			C		7.36Y	122.6	0.00	3.37	-0.00	0	0	0	0					0	0	0	0	
	span 12304	span 1874	A	336 ACSR	7.29Y	121.5	1.07	4.46	89.48	17	638	163	97	11.24	0.6	6.725	1.672	0	0	0	1	
			B		7.29Y	121.5	1.09	4.54	90.32	17	643	167	97					0	0	0	2	
			C		7.29Y	121.6	1.06	4.42	89.43	17	637	163	97					0	0	0	1	
	span_12305	span_12304	A	336 ACSR	7.28Y	121.3	0.21	4.67	89.50	17	634	155	97	2.19	0.1	7.051	0.326	0	0	0	1	
			B		7.27Y	121.2	0.21	4.75	90.34	17	639	158	97					0	0	0	2	
			C		7.28Y	121.4	0.20	4.63	89.45	17	634	155	97					0	0	0	1	
	span_11777	span_12305	A	336 ACSR	7.24Y	120.7	0.64	5.31	89.51	17	633	154	97	6.85	0.4	8.070	1.019	0	0	0	1	
			B		7.24Y	120.6	0.65	5.41	90.35	17	638	157	97					0	0	0	2	
			C		7.24Y	120.7	0.63	5.26	89.45	17	633	154	97					0	0	0	1	
	span_9208	span_11777	A	336 ACSR	7.20Y	120.1	0.62	5.93	89.52	17	631	149	97	6.64	0.4	9.058	0.988	0	0	0	1	
			B		7.20Y	120.0	0.63	6.04	90.36	17	636	152	97					0	0	0	2	
			C		7.21Y	120.1	0.61	5.87	89.46	17	631	149	97					0	0	0	1	
	span 9209	span 9208	A	336 ACSR	7.20Y	120.0	0.03	5.96	89.53	17	629	144	97	0.31	0.0	9.104	0.046	0	0	0	1	
			B		7.20Y	119.9	0.03	6.06	90.37	17	634	147	97					0	0	0	2	
			C		7.21Y	120.1	0.03	5.90	89.47	17	629	144	97					0	0	0	1	
	swit 207-A	span 9209	A	Closed	7.20Y	120.0	0.00	5.96	89.53	0	629	144	97	0.00	0.0	9.104	0.000	0	0	0	1	
			B		7.20Y	119.9	0.00	6.06	90.37	0	634	147	97					0	0	0	2	
			C		7.21Y	120.1	0.00	5.90	89.47	0	629	144	97					0	0	0	1	
	swit 207-B	swit 207-A	A	Closed	7.20Y	120.0	0.00	5.96	89.53	0	629	144	97	0.00	0.0	9.104	0.000	0	0	0	1	
			B		7.20Y	119.9	0.00	6.06	90.37	0	634	147	97					0	0	0	2	
			C		7.21Y	120.1	0.00	5.90	89.47	0	629	144	97					0	0	0	1	
	span 10022	swit 207-B	A	336 ACSR	7.19Y	119.8	0.28	6.24	89.53	17	629	144	97	3.04	0.2	9.555	0.452	0	0	0	1	
			B		7.18Y	119.7	0.29	6.35	90.37	17	634	147	97					0	0	0	2	
			C		7.19Y	119.8	0.28	6.18	89.47	17	629	144	97					0	0	0	1	
	span_38920	span_10022	A	336 ACSR	7.17Y	119.6	0.20	6.43	89.53	17	628	142	98	2.16	0.1	9.877	0.321	0	0	0	1	
			B		7.17Y	119.4	0.20	6.55	90.37	17	633	144	97					0	0	0	2	
			C		7.18Y	119.6	0.20	6.38	89.48	17	628	141	98					0	0	0	1	
	C460100	span_38920	A	Cap (600)	7.17Y	119.6	0.00	6.43	-24.71	0	0	-177	0	0.00	0.0	9.877	0.000	0	0	0	0	
P			B		7.17Y	119.4	0.00	6.55	-24.69	0	0	-177	0					0	0	0	0	P
P			C		7.18Y	119.6	0.00	6.38	-24.72	0	0	-177	0					0	0	0	0	P
	span_38927	span_38920	A	336 ACSR	7.16Y	119.4	0.16	6.59	97.94	18	627	317	89	1.45	0.1	10.057	0.180	0	0	0	1	
			B		7.16Y	119.3	0.16	6.71	98.80	19	632	320	89					0	0	0	2	
			C		7.17Y	119.5	0.16	6.53	97.89	18	627	317	89					0	0	0	1	
	span 8279	span 38927	A	336 ACSR	7.14Y	119.0	0.39	6.98	97.94	18	626	316	89	3.55	0.2	10.498	0.441	0	0	0	1	
			B		7.13Y	118.9	0.39	7.11	98.80	19	631	319	89					0	0	0	2	
			C		7.14Y	119.1	0.39	6.92	97.89	18	626	316	89					0	0	0	1	
	span 12750	span 8279	A	336 ACSR	7.14Y	119.0	0.04	7.02	97.95	18	625	314	89	0.37	0.0	10.545	0.046	0	0	0	1	
			B		7.13Y	118.9	0.04	7.15	98.81	19	630	316	89					0	0	0	2	
			C		7.14Y	119.0	0.04	6.96	97.90	18	625	314	89					0	0	0	1	

KEY-> L = Low Voltage H = High Voltage C = Capacity Over Limit (%capacity or load amps) G = Generator Out of kvar Limits P = Power Factor Low

Unbalanced Voltage Drop Report
Source: Manning

Database: Q:\E&E\520-POWER_PROVIDERS\LANE-SCOTT\PROJECTS\KS00042030 - CWP\MILSOFT\RECOMMENDED SYSTEM 2024.WM\
Title:
Case:

Units Displayed In Volts
-Base Voltage:120.0-

Element Name	Parent Name	Cnf	Type/ Conductor	Pri kV	Base Volt	Element Drop	Accum Drop	Thru Amps	% Cap	Thru KW	KVAR	% PF	kW Loss	% Loss	mi From Src	Length (mi)	Element KW	Element KVAR	Cons On	Cons Thru
span 12751	span 12750	A	336 ACSR	7.12Y	118.7	0.24	7.27	97.95	18	625	313	89	2.21	0.1	10.819	0.275	0	0	0	1
		B		7.12Y	118.6	0.24	7.39	98.81	19	630	316	89					0	0	0	2
		C		7.13Y	118.8	0.24	7.20	97.90	18	625	313	89					0	0	0	1
span 26261	span 12751	A	ACSR 4/0	7.12Y	118.7	0.00	7.27	2.48	1	15	9	86	0.00	0.0	10.861	0.042	0	0	0	0
		B		7.12Y	118.6	0.00	7.39	3.24	1	20	12	86					0	0	0	1
		C		7.13Y	118.8	0.00	7.20	2.48	1	15	9	85					0	0	0	0
span 26262	span 26261	A	ACSR 4/0	7.12Y	118.7	0.00	7.27	2.48	1	15	9	86	0.00	0.0	10.902	0.041	0	0	0	0
		B		7.12Y	118.6	0.00	7.40	3.24	1	20	12	86					0	0	0	1
		C		7.13Y	118.8	0.00	7.20	2.48	1	15	9	85					0	0	0	0
span_26263	span_26262	A	ACSR 4/0	7.12Y	118.7	0.00	7.27	2.49	1	15	9	86	0.00	0.0	10.943	0.041	0	0	0	0
		B		7.12Y	118.6	0.00	7.40	3.24	1	20	12	86					0	0	0	1
		C		7.13Y	118.8	0.00	7.21	2.48	1	15	9	85					0	0	0	0
span_26264	span_26263	A	ACSR 4/0	7.12Y	118.7	0.00	7.27	2.49	1	15	9	86	0.00	0.0	10.984	0.041	0	0	0	0
		B		7.12Y	118.6	0.00	7.40	3.24	1	20	12	86					0	0	0	1
		C		7.13Y	118.8	0.00	7.21	2.49	1	15	9	85					0	0	0	0
span_37934	span_26264	A	ACSR 4/0	7.12Y	118.7	0.00	7.27	2.49	1	15	9	86	0.00	0.0	10.998	0.014	0	0	0	0
		B		7.12Y	118.6	0.00	7.40	2.49	1	15	9	85					0	0	0	0
		C		7.13Y	118.8	0.00	7.21	2.49	1	15	9	85					0	0	0	0
fake g 1039	span 37934	A	Node	7.12Y	118.7	0.00	7.27	0.00	0	0	0	100	0.00	0.0	10.998	0.000	0	0	0	0
		B		7.12Y	118.6	0.00	7.40	0.00	0	0	0	100					0	0	0	0
		C		7.13Y	118.8	0.00	7.21	0.00	0	0	0	100					0	0	0	0
17-32-06-S1304	fake g 1039	A	Consumer	7.12Y	118.7	0.00	7.27	0.00	0	0	0	100	0.00	0.0	10.998	0.000	0	0	0	0
		B		7.12Y	118.6	0.00	7.40	0.00	0	0	0	100					0	0	0	0
		C		7.13Y	118.8	0.00	7.21	0.00	0	0	0	100					0	0	0	0
span 37935	span 37934	A	ACSR 4/0	7.12Y	118.7	0.00	7.27	2.49	1	15	9	86	0.00	0.0	11.019	0.020	0	0	0	0
		B		7.12Y	118.6	0.00	7.40	2.49	1	15	9	85					0	0	0	0
		C		7.13Y	118.8	0.00	7.21	2.49	1	15	9	85					0	0	0	0
span_26282	span_37935	A	ACSR 4/0	7.12Y	118.7	0.00	7.27	2.49	1	15	9	86	0.00	0.0	11.053	0.034	0	0	0	0
		B		7.12Y	118.6	0.00	7.40	2.49	1	15	9	85					0	0	0	0
		C		7.13Y	118.8	0.00	7.21	2.49	1	15	9	85					0	0	0	0
span_26283	span_26282	A	ACSR 4/0	7.12Y	118.7	0.00	7.27	2.49	1	15	9	86	0.00	0.0	11.088	0.034	0	0	0	0
		B		7.12Y	118.6	0.00	7.40	2.49	1	15	9	85					0	0	0	0
		C		7.13Y	118.8	0.00	7.21	2.49	1	15	9	85					0	0	0	0
span_26265	span_26283	A	#2 AL 15KV	7.12Y	118.7	0.00	7.27	2.49	1	15	9	86	0.00	0.0	11.090	0.002	0	0	0	0
		B		7.12Y	118.6	0.00	7.40	2.49	1	15	9	85					0	0	0	0
		C		7.13Y	118.8	0.00	7.21	2.49	1	15	9	85					0	0	0	0
17-32-06-S1303	span 26265	A	Consumer	7.12Y	118.7	0.00	7.27	2.49	0	15	9	86	0.00	0.0	11.090	0.000	15	9	0	0
		B		7.12Y	118.6	0.00	7.40	2.49	0	15	9	85					15	9	0	0
		C		7.13Y	118.8	0.00	7.21	2.49	0	15	9	85					15	9	0	0
span_26284	span_26264	B	ACSR #2	7.12Y	118.6	0.00	7.40	0.76	0	5	2	93	0.00	0.0	11.028	0.044	0	0	0	1
17-32-06-S111	span_26284	B	Consumer	7.12Y	118.6	0.00	7.40	0.76	0	5	2	93	0.00	0.0	11.028	0.000	5	2	1	1
span 9896	span 12751	A	336 ACSR	7.12Y	118.7	0.07	7.34	95.48	18	609	302	90	0.64	0.0	10.904	0.084	0	0	0	0
		B		7.11Y	118.5	0.07	7.47	95.59	18	609	302	90					0	0	0	0
		C		7.12Y	118.7	0.07	7.27	95.43	18	609	302	90					0	0	0	0
span 9897	span 9896	A	336 ACSR	7.12Y	118.6	0.07	7.41	95.49	18	609	302	90	0.64	0.0	10.988	0.084	0	0	0	0
		B		7.11Y	118.5	0.07	7.54	95.59	18	609	302	90					0	0	0	0
		C		7.12Y	118.7	0.07	7.35	95.44	18	609	302	90					0	0	0	0
span_749	span_9897	A	336 ACSR	7.11Y	118.6	0.03	7.44	95.49	18	609	302	90	0.30	0.0	11.027	0.040	0	0	0	0
		B		7.11Y	118.4	0.03	7.57	95.59	18	609	302	90					0	0	0	0
		C		7.12Y	118.6	0.03	7.38	95.44	18	609	302	90					0	0	0	0
span_6434	span_749	A	ACSR #2	7.11Y	118.6	0.00	7.45	7.96	4	48	30	85	0.00	0.0	11.044	0.016	0	0	0	0
		B		7.11Y	118.4	0.00	7.57	7.97	4	48	30	85					0	0	0	0
		C		7.12Y	118.6	0.00	7.38	7.95	4	48	30	85					0	0	0	0
span_6435	span_6434	A	ACSR #2	7.11Y	118.6	0.00	7.45	7.96	4	48	30	85	0.00	0.0	11.046	0.002	0	0	0	0
		B		7.11Y	118.4	0.00	7.58	7.97	4	48	30	85					0	0	0	0
		C		7.12Y	118.6	0.00	7.38	7.95	4	48	30	85					0	0	0	0
fake g 1040	span 6435	A	Node	7.11Y	118.6	0.00	7.45	7.96	0	48	30	85	0.00	0.0	11.046	0.000	0	0	0	0
		B		7.11Y	118.4	0.00	7.58	7.97	0	48	30	85					0	0	0	0
		C		7.12Y	118.6	0.00	7.38	7.95	0	48	30	85					0	0	0	0
17-32-06-S131	fake g 1040	A	Consumer	7.11Y	118.6	0.00	7.45	7.96	0	48	30	85	0.00	0.0	11.046	0.000	48	30	0	0
		B		7.11Y	118.4	0.00	7.58	7.97	0	48	30	85					48	30	0	0
		C		7.12Y	118.6	0.00	7.38	7.95	0	48	30	85					48	30	0	0

KEY-> L = Low Voltage H = High Voltage C = Capacity Over Limit (%capacity or load amps) G = Generator Out of kvar Limits P = Power Factor Low

Unbalanced Voltage Drop Report
Source: Manning

Database: Q:\E&E\520-POWER_PROVIDERS\LANE-SCOTT\PROJECTS\KS00042030 - CWP\MILSOFT\RECOMMENDED SYSTEM 2024.WM\
Title:
Case:

Units Displayed In Volts
-Base Voltage:120.0-

																mi	Element					
Element Name	Parent Name	Cnf	Type/ Conductor	Pri kV	Base Volt	Element Drop	Accum Drop	Thru Amps	% Cap	Thru KW	KVAR	% PF	kW Loss	% Loss	From Src	Length (mi)	KW	KVAR	Cons On	Cons Thru	
serv 3235	span 749	A	Consumer	7.11Y	118.6	0.00	7.44	87.57	0	561	272	90	0.00	0.0	11.027	0.000	561	272	0	0	
		B		7.11Y	118.4	0.00	7.57	87.67	0	561	272	90					561	272	0	0	
		C		7.12Y	118.6	0.00	7.38	87.52	0	561	272	90					561	272	0	0	
P span 253	span 9897	A	336 ACSR	7.12Y	118.6	0.00	7.41	-0.00	0	0	0	100	0.00	0.0	11.016	0.028	0	0	0	0	P
		B		7.11Y	118.5	0.00	7.54	-0.00	0	0	0	0					0	0	0	0	
		C		7.12Y	118.7	0.00	7.35	-0.00	0	0	0	0					0	0	0	0	
P span 1744	span 10729	A	336 ACSR	7.43Y	123.9	0.00	2.11	-0.00	0	0	0	100	0.00	0.0	3.117	0.046	0	0	0	0	P
		B		7.43Y	123.8	0.00	2.15	-0.00	0	0	0	0					0	0	0	0	
		C		7.43Y	123.9	0.00	2.10	-0.00	0	0	0	0					0	0	0	0	
P span_2016	span_10729	A	336 ACSR	7.43Y	123.9	0.00	2.11	-0.00	0	0	0	100	0.00	0.0	3.117	0.046	0	0	0	0	P
		B		7.43Y	123.8	0.00	2.15	-0.00	0	0	0	0					0	0	0	0	
		C		7.43Y	123.9	0.00	2.10	-0.00	0	0	0	0					0	0	0	0	
---------- Feeder No. 4 (S4C4 in Sub) Beginning with Device B440000 ----------																					
B440000	G400020	A		7.55Y	125.9	0.00	0.10	39.48	0	258	149	87	0.00	0.0	0.000	0.000	0	0	0	28	
		B		7.55Y	125.9	0.00	0.10	37.19	0	244	139	87					0	0	0	31	
		C		7.55Y	125.9	0.00	0.10	50.33	0	331	188	87					0	0	0	39	
span 21334	B440000	A	500 AL 15K	7.55Y	125.9	0.01	0.10	39.48	8	258	149	87	0.04	0.0	0.027	0.027	0	0	0	28	
		B		7.55Y	125.9	0.00	0.10	37.19	8	244	139	87					0	0	0	31	
		C		7.55Y	125.9	0.01	0.11	50.33	11	331	188	87					0	0	0	39	
F440010	span 21334	A		7.55Y	125.9	0.00	0.10	39.49	0	258	150	86	0.00	0.0	0.027	0.000	0	0	0	28	
		B		7.55Y	125.9	0.00	0.10	37.20	0	244	139	87					0	0	0	31	
		C		7.55Y	125.9	0.00	0.11	50.35	0	331	188	87					0	0	0	39	
span 13924	F440010	A	336 ACSR	7.55Y	125.9	0.00	0.10	-0.00	0	0	0	100	0.00	0.0	0.039	0.012	0	0	0	0	
P		B		7.55Y	125.9	0.00	0.10	-0.00	0	0	0	0					0	0	0	0	P
P		C		7.55Y	125.9	0.00	0.11	-0.00	0	0	0	0					0	0	0	0	P
span 37206	F440010	A	336 ACSR	7.55Y	125.9	0.01	0.11	39.49	7	258	150	86	0.04	0.0	0.055	0.028	0	0	0	28	
		B		7.55Y	125.9	0.01	0.11	37.20	7	244	139	87					0	0	0	31	
		C		7.55Y	125.9	0.02	0.12	50.35	9	331	188	87					0	0	0	39	
span_37209	span_37206	A	336 ACSR	7.55Y	125.9	0.01	0.13	39.49	7	258	150	86	0.07	0.0	0.097	0.043	0	0	0	28	
		B		7.55Y	125.9	0.02	0.13	37.21	7	244	139	87					0	0	0	31	
		C		7.55Y	125.9	0.02	0.14	50.35	9	331	188	87					0	0	0	39	
span_37210	span_37209	A	336 ACSR	7.55Y	125.9	0.01	0.14	39.49	7	258	150	86	0.07	0.0	0.140	0.043	0	0	0	28	
		B		7.55Y	125.9	0.01	0.14	37.21	7	244	139	87					0	0	0	31	
		C		7.55Y	125.8	0.02	0.17	50.35	9	331	188	87					0	0	0	39	
span_37204	span_37210	A	336 ACSR	7.55Y	125.8	0.01	0.15	39.49	7	258	150	86	0.07	0.0	0.183	0.043	0	0	0	28	
		B		7.55Y	125.8	0.02	0.16	37.21	7	244	139	87					0	0	0	31	
		C		7.55Y	125.8	0.02	0.19	50.35	9	331	188	87					0	0	0	39	
span 37203	span 37204	A	336 ACSR	7.55Y	125.8	0.01	0.16	39.50	7	258	149	87	0.07	0.0	0.226	0.043	0	0	0	28	
		B		7.55Y	125.8	0.02	0.17	37.21	7	244	139	87					0	0	0	31	
		C		7.55Y	125.8	0.02	0.21	50.35	9	331	187	87					0	0	0	39	
span 37202	span 37203	A	336 ACSR	7.55Y	125.8	0.01	0.18	39.50	7	258	149	87	0.07	0.0	0.269	0.043	0	0	0	28	
		B		7.55Y	125.8	0.02	0.19	37.21	7	244	139	87					0	0	0	31	
		C		7.55Y	125.8	0.02	0.24	50.35	10	331	187	87					0	0	0	39	
span 37195	span 37202	A	336 ACSR	7.55Y	125.8	0.01	0.19	39.50	7	258	149	87	0.07	0.0	0.312	0.043	0	0	0	28	
		B		7.55Y	125.8	0.02	0.20	37.21	7	244	139	87					0	0	0	31	
		C		7.54Y	125.7	0.02	0.26	50.35	10	331	187	87					0	0	0	39	
span_37194	span_37195	A	336 ACSR	7.55Y	125.8	0.01	0.20	39.50	7	258	149	87	0.07	0.0	0.355	0.043	0	0	0	28	
		B		7.55Y	125.8	0.02	0.22	37.21	7	244	139	87					0	0	0	31	
		C		7.54Y	125.7	0.02	0.28	50.35	10	331	187	87					0	0	0	39	
span_37193	span_37194	A	336 ACSR	7.55Y	125.8	0.01	0.22	39.50	7	258	149	87	0.07	0.0	0.398	0.043	0	0	0	28	
		B		7.55Y	125.8	0.02	0.23	37.21	7	244	139	87					0	0	0	31	
		C		7.54Y	125.7	0.02	0.31	50.35	10	330	187	87					0	0	0	39	
span_37191	span_37193	A	336 ACSR	7.55Y	125.8	0.01	0.23	39.50	7	258	149	87	0.08	0.0	0.447	0.049	0	0	0	28	
		B		7.54Y	125.7	0.02	0.25	37.21	7	244	139	87					0	0	0	31	
		C		7.54Y	125.7	0.03	0.33	50.35	10	330	187	87					0	0	0	39	
span 37190	span 37191	A	336 ACSR	7.55Y	125.8	0.01	0.24	39.50	7	258	149	87	0.06	0.0	0.484	0.037	0	0	0	28	
		B		7.54Y	125.7	0.01	0.26	37.22	7	244	139	87					0	0	0	31	
		C		7.54Y	125.6	0.02	0.35	50.36	10	330	187	87					0	0	0	39	
span 37189	span 37190	A	336 ACSR	7.54Y	125.7	0.01	0.26	39.50	7	258	149	87	0.06	0.0	0.526	0.042	0	0	0	28	
		B		7.54Y	125.7	0.01	0.28	37.22	7	244	139	87					0	0	0	31	
		C		7.54Y	125.6	0.02	0.37	50.36	10	330	187	87					0	0	0	39	

Unbalanced Voltage Drop Report
Source: Manning

Database: Q:\E&E\520-POWER_PROVIDERS\LANE-SCOTT\PROJECTS\KS00042030 - CWP\MILSOFT\RECOMMENDED SYSTEM 2024.WM\
Title:
Case:

Units Displayed In Volts
-Base Voltage:120.0-

Element Name	Parent Name	Cnf	Type/ Conductor	Pri kV	Base Volt	Element Drop	Accum Drop	Thru Amps	% Cap	Thru KW	KVAR	% PF	kW Loss	% Loss	mi From Src	Element Length (mi)	Element KW	Element KVAR	Cons On	Cons Thru
span 37187	span 37189	A	336 ACSR	7.54Y	125.7	0.01	0.27	39.50	7	258	149	87	0.07	0.0	0.569	0.042	0	0	0	28
		B		7.54Y	125.7	0.01	0.29	37.22	7	244	139	87					0	0	0	31
		C		7.54Y	125.6	0.02	0.40	50.36	10	330	187	87					0	0	0	39
span 37188	span 37187	A	336 ACSR	7.54Y	125.7	0.01	0.28	39.51	7	258	149	87	0.07	0.0	0.612	0.044	0	0	0	28
		B		7.54Y	125.7	0.02	0.31	37.22	7	244	139	87					0	0	0	31
		C		7.53Y	125.6	0.02	0.42	50.36	10	330	187	87					0	0	0	39
span 37183	span 37188	A	336 ACSR	7.54Y	125.7	0.01	0.29	39.51	7	258	149	87	0.07	0.0	0.655	0.043	0	0	0	28
		B		7.54Y	125.7	0.02	0.32	37.22	7	244	139	87					0	0	0	31
		C		7.53Y	125.6	0.02	0.44	50.36	10	330	187	87					0	0	0	39
span_37181	span_37183	A	336 ACSR	7.54Y	125.7	0.01	0.31	39.51	7	258	149	87	0.07	0.0	0.698	0.043	0	0	0	28
		B		7.54Y	125.7	0.02	0.34	37.22	7	244	139	87					0	0	0	31
		C		7.53Y	125.5	0.02	0.47	50.36	10	330	187	87					0	0	0	39
span_37179	span_37181	A	336 ACSR	7.54Y	125.7	0.01	0.32	39.51	7	258	149	87	0.07	0.0	0.741	0.043	0	0	0	28
		B		7.54Y	125.6	0.02	0.35	37.22	7	244	139	87					0	0	0	31
		C		7.53Y	125.5	0.02	0.49	50.36	10	330	187	87					0	0	0	39
span_37177	span_37179	A	336 ACSR	7.54Y	125.7	0.01	0.33	39.51	7	258	149	87	0.07	0.0	0.783	0.043	0	0	0	28
		B		7.54Y	125.6	0.01	0.37	37.22	7	244	139	87					0	0	0	31
		C		7.53Y	125.5	0.02	0.51	50.36	10	330	187	87					0	0	0	39
span 37176	span 37177	A	336 ACSR	7.54Y	125.7	0.01	0.35	39.51	7	258	149	87	0.07	0.0	0.827	0.043	0	0	0	28
		B		7.54Y	125.6	0.02	0.38	37.22	7	244	139	87					0	0	0	31
		C		7.53Y	125.5	0.02	0.54	50.36	10	330	187	87					0	0	0	39
span 37173	span 37176	A	336 ACSR	7.54Y	125.6	0.01	0.36	39.51	7	258	149	87	0.07	0.0	0.869	0.043	0	0	0	28
		B		7.54Y	125.6	0.02	0.40	37.23	7	244	139	87					0	0	0	31
		C		7.53Y	125.4	0.02	0.56	50.37	10	330	187	87					0	0	0	39
span 37171	span 37173	A	336 ACSR	7.54Y	125.6	0.01	0.37	39.51	7	258	149	87	0.07	0.0	0.912	0.043	0	0	0	28
		B		7.54Y	125.6	0.02	0.41	37.23	7	244	138	87					0	0	0	31
		C		7.53Y	125.4	0.02	0.58	50.37	10	330	186	87					0	0	0	39
span_37169	span_37171	A	336 ACSR	7.54Y	125.6	0.01	0.39	39.51	7	258	149	87	0.07	0.0	0.955	0.043	0	0	0	28
		B		7.53Y	125.6	0.02	0.43	37.23	7	244	138	87					0	0	0	31
		C		7.52Y	125.4	0.02	0.61	50.37	10	330	186	87					0	0	0	39
span_37167	span_37169	A	336 ACSR	7.54Y	125.6	0.01	0.40	39.52	7	258	149	87	0.07	0.0	0.997	0.042	0	0	0	28
		B		7.53Y	125.6	0.01	0.44	37.23	7	244	138	87					0	0	0	31
		C		7.52Y	125.4	0.02	0.63	50.37	10	330	186	87					0	0	0	39
span_37163	span_37167	A	336 ACSR	7.54Y	125.6	0.01	0.41	39.52	7	258	149	87	0.07	0.0	1.041	0.043	0	0	0	28
		B		7.53Y	125.5	0.02	0.46	37.23	7	244	138	87					0	0	0	31
		C		7.52Y	125.3	0.02	0.65	50.37	10	330	186	87					0	0	0	39
span 37164	span 37163	A	336 ACSR	7.53Y	125.6	0.01	0.43	39.52	7	258	149	87	0.07	0.0	1.086	0.045	0	0	0	28
		B		7.53Y	125.5	0.02	0.47	37.23	7	244	138	87					0	0	0	31
		C		7.52Y	125.3	0.02	0.68	50.37	10	330	186	87					0	0	0	39
span 37161	span 37164	A	336 ACSR	7.53Y	125.6	0.01	0.44	39.52	7	258	149	87	0.06	0.0	1.126	0.041	0	0	0	28
		B		7.53Y	125.5	0.01	0.49	37.23	7	244	138	87					0	0	0	31
		C		7.52Y	125.3	0.02	0.70	50.37	10	330	186	87					0	0	0	39
span 37159	span 37161	A	336 ACSR	7.53Y	125.5	0.01	0.45	39.52	7	258	149	87	0.07	0.0	1.169	0.043	0	0	0	28
		B		7.53Y	125.5	0.02	0.50	37.23	7	244	138	87					0	0	0	31
		C		7.52Y	125.3	0.02	0.72	50.37	10	330	186	87					0	0	0	39
span 37157	span 37159	A	336 ACSR	7.53Y	125.5	0.01	0.46	39.52	7	258	149	87	0.07	0.0	1.212	0.043	0	0	0	28
		B		7.53Y	125.5	0.02	0.52	37.23	7	244	138	87					0	0	0	31
		C		7.52Y	125.3	0.02	0.74	50.37	10	330	186	87					0	0	0	39
span_37155	span_37157	A	336 ACSR	7.53Y	125.5	0.01	0.48	39.52	7	258	149	87	0.07	0.0	1.255	0.043	0	0	0	28
		B		7.53Y	125.5	0.01	0.53	37.23	7	244	138	87					0	0	0	31
		C		7.51Y	125.2	0.02	0.77	50.38	10	330	186	87					0	0	0	39
span_37153	span_37155	A	336 ACSR	7.53Y	125.5	0.01	0.49	39.52	7	258	149	87	0.07	0.0	1.297	0.043	0	0	0	28
		B		7.53Y	125.5	0.02	0.55	37.24	7	244	138	87					0	0	0	31
		C		7.51Y	125.2	0.02	0.79	50.38	10	330	186	87					0	0	0	39
span_37151	span_37153	A	336 ACSR	7.53Y	125.5	0.01	0.50	39.52	7	258	149	87	0.07	0.0	1.341	0.043	0	0	0	28
		B		7.53Y	125.4	0.02	0.56	37.24	7	244	138	87					0	0	0	31
		C		7.51Y	125.2	0.02	0.81	50.38	10	330	186	87					0	0	0	39
span 37149	span 37151	A	336 ACSR	7.53Y	125.5	0.01	0.52	39.53	7	258	149	87	0.07	0.0	1.383	0.042	0	0	0	28
		B		7.53Y	125.4	0.01	0.58	37.24	7	244	138	87					0	0	0	31
		C		7.51Y	125.2	0.02	0.84	50.38	10	330	186	87					0	0	0	39
span 37147	span 37149	A	336 ACSR	7.53Y	125.5	0.01	0.53	39.53	7	258	149	87	0.07	0.0	1.426	0.043	0	0	0	28
		B		7.52Y	125.4	0.02	0.59	37.24	7	244	138	87					0	0	0	31
		C		7.51Y	125.1	0.02	0.86	50.38	10	330	186	87					0	0	0	39

Unbalanced Voltage Drop Report
Source: Manning

Database: Q:\E&E\520-POWER_PROVIDERS\LANE-SCOTT\PROJECTS\KS00042030 - CWP\MILSOFT\RECOMMENDED SYSTEM 2024.WM\
Title:
Case:

Units Displayed In Volts
-Base Voltage:120.0-

Element Name	Parent Name	Cnf	Type/ Conductor	Pri kV	Base Volt	Element Drop	Accum Drop	Thru Amps	% Cap	Thru KW	KVAR	% PF	kW Loss	% Loss	mi From Src	Element Length (mi)	Element KW	Element KVAR	Cons On	Cons Thru
span 37145	span 37147	A	336 ACSR	7.53Y	125.5	0.01	0.54	39.53	7	258	149	87	0.07	0.0	1.469	0.043	0	0	0	28
		B		7.52Y	125.4	0.02	0.61	37.24	7	244	138	87					0	0	0	31
		C		7.51Y	125.1	0.02	0.88	50.38	10	330	186	87					0	0	0	39
span 37143	span 37145	A	336 ACSR	7.53Y	125.4	0.01	0.55	39.53	7	258	149	87	0.07	0.0	1.511	0.043	0	0	0	28
		B		7.52Y	125.4	0.02	0.62	37.24	7	244	138	87					0	0	0	31
		C		7.51Y	125.1	0.02	0.90	50.38	10	330	186	87					0	0	0	39
span 37141	span 37143	A	336 ACSR	7.53Y	125.4	0.01	0.57	39.53	7	258	149	87	0.07	0.0	1.554	0.043	0	0	0	28
		B		7.52Y	125.4	0.02	0.64	37.24	7	244	138	87					0	0	0	31
		C		7.50Y	125.1	0.02	0.93	50.38	10	330	186	87					0	0	0	39
span_37139	span_37141	A	336 ACSR	7.53Y	125.4	0.01	0.58	39.53	7	258	149	87	0.07	0.0	1.597	0.043	0	0	0	28
		B		7.52Y	125.3	0.02	0.65	37.24	7	244	138	87					0	0	0	31
		C		7.50Y	125.0	0.02	0.95	50.38	10	329	185	87					0	0	0	39
span_37137	span_37139	A	336 ACSR	7.52Y	125.4	0.01	0.59	39.53	7	258	149	87	0.07	0.0	1.639	0.043	0	0	0	28
		B		7.52Y	125.3	0.02	0.67	37.24	7	244	138	87					0	0	0	31
		C		7.50Y	125.0	0.02	0.97	50.39	10	329	185	87					0	0	0	39
span_37135	span_37137	A	336 ACSR	7.52Y	125.4	0.01	0.61	39.53	7	258	149	87	0.06	0.0	1.681	0.041	0	0	0	28
		B		7.52Y	125.3	0.01	0.68	37.25	7	244	138	87					0	0	0	31
		C		7.50Y	125.0	0.02	1.00	50.39	10	329	185	87					0	0	0	39
span 37133	span 37135	A	336 ACSR	7.52Y	125.4	0.01	0.62	39.53	7	258	149	87	0.07	0.0	1.725	0.045	0	0	0	28
		B		7.52Y	125.3	0.02	0.70	37.25	7	244	138	87					0	0	0	31
		C		7.50Y	125.0	0.02	1.02	50.39	10	329	185	87					0	0	0	39
span 37132	span 37133	A	336 ACSR	7.52Y	125.4	0.01	0.63	39.54	7	258	149	87	0.07	0.0	1.770	0.044	0	0	0	28
		B		7.52Y	125.3	0.02	0.72	37.25	7	244	138	87					0	0	0	31
		C		7.50Y	125.0	0.02	1.04	50.39	10	329	185	87					0	0	0	39
swit 80-A	span 37132	A	Closed	7.52Y	125.4	0.00	0.63	39.54	0	258	149	87	0.00	0.0	1.770	0.000	0	0	0	28
		B		7.52Y	125.3	0.00	0.72	37.25	0	244	138	87					0	0	0	31
		C		7.50Y	125.0	0.00	1.04	50.39	0	329	185	87					0	0	0	39
swit_80-B	swit_80-A	A	Closed	7.52Y	125.4	0.00	0.63	39.54	0	258	149	87	0.00	0.0	1.770	0.000	0	0	0	28
		B		7.52Y	125.3	0.00	0.72	37.25	0	244	138	87					0	0	0	31
		C		7.50Y	125.0	0.00	1.04	50.39	0	329	185	87					0	0	0	39
span_37130	swit_80-B	A	336 ACSR	7.52Y	125.4	0.01	0.65	39.54	7	258	149	87	0.06	0.0	1.810	0.040	0	0	0	28
		B		7.52Y	125.3	0.01	0.73	37.25	7	244	138	87					0	0	0	31
		C		7.50Y	124.9	0.02	1.06	50.39	10	329	185	87					0	0	0	39
span_37131	span_37130	A	336 ACSR	7.52Y	125.3	0.01	0.66	39.54	7	258	148	87	0.07	0.0	1.854	0.044	0	0	0	28
		B		7.52Y	125.3	0.02	0.75	37.25	7	244	138	87					0	0	0	31
		C		7.49Y	124.9	0.02	1.09	50.39	10	329	185	87					0	0	0	39
span 37128	span 37131	A	336 ACSR	7.52Y	125.3	0.01	0.67	39.54	7	258	148	87	0.04	0.0	1.880	0.026	0	0	0	28
		B		7.51Y	125.2	0.01	0.75	37.25	7	243	138	87					0	0	0	31
		C		7.49Y	124.9	0.01	1.10	50.39	10	329	185	87					0	0	0	39
span 37129	span 37128	A	336 ACSR	7.52Y	125.3	0.01	0.68	39.54	7	258	148	87	0.06	0.0	1.922	0.042	0	0	0	28
		B		7.51Y	125.2	0.01	0.77	37.25	7	243	138	87					0	0	0	31
		C		7.49Y	124.9	0.02	1.12	50.39	10	329	185	87					0	0	0	39
span 12651	span 37129	A	336 ACSR	7.52Y	125.3	0.01	0.69	38.76	7	252	146	87	0.03	0.0	1.943	0.021	0	0	0	25
		B		7.51Y	125.2	0.01	0.78	37.25	7	243	138	87					0	0	0	31
		C		7.49Y	124.9	0.01	1.14	50.39	10	329	185	87					0	0	0	39
span 26125	span 12651	A	336 ACSR	7.52Y	125.3	0.01	0.69	21.68	4	141	82	86	0.01	0.0	1.981	0.039	0	0	0	11
		B		7.51Y	125.2	0.01	0.78	21.22	4	139	79	87					0	0	0	18
		C		7.49Y	124.9	0.01	1.14	18.74	4	121	71	86					0	0	0	6
span_26124	span_26125	A	336 ACSR	7.52Y	125.3	0.01	0.70	21.68	4	141	82	86	0.01	0.0	2.006	0.025	0	0	0	11
		B		7.51Y	125.2	0.00	0.79	21.22	4	139	79	87					0	0	0	18
		C		7.49Y	124.9	0.00	1.15	18.74	4	121	71	86					0	0	0	6
span_26126	span_26124	A	336 ACSR	7.52Y	125.3	0.00	0.70	11.94	2	79	43	88	0.00	0.0	2.018	0.012	0	0	0	11
		B		7.51Y	125.2	0.00	0.79	11.47	2	76	40	88					0	0	0	17
		C		7.49Y	124.9	0.00	1.15	8.95	2	59	33	87					0	0	0	5
17-31-26-SM9	span_26126	A	Consumer	7.52Y	125.3	0.00	0.70	0.44	0	3	1	95	0.00	0.0	2.018	0.000	3	1	1	1
span 9512	span 26126	A	336 ACSR	7.52Y	125.3	0.00	0.71	11.50	2	76	42	88	0.00	0.0	2.055	0.037	0	0	0	10
		B		7.51Y	125.2	0.00	0.79	11.47	2	76	40	88					0	0	0	17
		C		7.49Y	124.9	0.00	1.15	8.95	2	59	33	87					0	0	0	5
span 9513	span 9512	A	336 ACSR	7.52Y	125.3	0.00	0.71	11.50	2	76	42	88	0.00	0.0	2.090	0.035	0	0	0	10
		B		7.51Y	125.2	0.00	0.80	11.47	2	76	40	88					0	0	0	17
		C		7.49Y	124.8	0.00	1.15	8.95	2	59	33	87					0	0	0	5

KEY-> L = Low Voltage H = High Voltage C = Capacity Over Limit (%capacity or load amps) G = Generator Out of kvar Limits P = Power Factor Low

LANE-SCOTT ELECTRIC COOPERATIVE, INC.
POLICY

Dated: _____ **Policy No.:** 524
Supersedes Date: July 12, 2010, February 25, 2002
May 22, 1995

SUBJECT: Drug and Alcohol-Free Workplace

ALCOHOL AND DRUG-FREE WORKPLACE STATEMENT:

Lane-Scott Electric Cooperative, Inc. is committed to providing a safe work environment and to fostering the well-being and health of its employees. This commitment is jeopardized when any ***Lane-Scott Electric Cooperative, Inc.*** employee misuses prescription or over-the-counter drugs, uses drugs not prescribed by a physician or marijuana any time or alcohol on the job, comes to work with these substances present in his/her body, or possesses, distributes, or sells drugs or alcohol in the workplace. The safety and health of employees, protection of the environment, quality of our products, and financial performance of our Company can be directly affected by the use of drugs not prescribed by a physician or marijuana and misuse of alcohol.

Lane-Scott Electric Cooperative, Inc. believes that it is very important to provide a safe workplace for all of its employees. In so doing, the Company is taking steps to address the problem of substance use that negatively affects every workplace, including ours. The intent of this policy is to offer a helping hand to those who need it, while sending a clear message that alcohol abuse and use of drugs not prescribed by a physician or marijuana are incompatible with employment at ***Lane-Scott Electric Cooperative, Inc.*** This policy applies to all employees of ***Lane-Scott Electric Cooperative, Inc.,*** including management. We cannot condone and will not tolerate behaviors on the part of employees that relate to prohibited substance use, such as:

- The use of drugs not prescribed, for you, by a physician or marijuana.
- The misuse of alcohol.
- The misuse of prescription or over-the-counter medications.
- The sale, purchase, transfer, manufacture, use or possession of any drugs not prescribed, for you, by a physician or marijuana.
- Arrival or return to work after having used any drug or alcohol or being under the influence of any drug (legal or illegal) or alcohol to the extent that job performance is affected.

Other consequences that apply to all employees who violate this policy are clearly spelled out within this document. **PLEASE READ THIS POLICY CAREFULLY.**

This policy that describes the ***Drug-Free Workplace Program***. This policy covers the five key parts of the Company's ***Drug-Free Workplace Program***. The five parts consist of:

1. A written policy that clearly spells out the program and how everyone benefits.
2. Annual substance awareness education for all employees.
3. Training for supervisors regarding their responsibilities.
4. Drug and alcohol testing- the most effective way to change harmful substance use behaviors.
5. Employee assistance.

Employees will have the opportunity to receive information about substance use as a workplace problem, signs and symptoms, dangers of use, and how and where to get help for themselves and their families. A staff member will be appointed the Drug-Free Workplace Program Administrator (herein referred to as the Program Administrator).

The Program Administrator will be responsible for coordinating drug and alcohol testing, identifying resources that employees can turn to for help for themselves and/or their families, and arranging for qualified people to help with employee awareness education and with supervisor training.

Compliance with the Alcohol and Drug Free Workplace Policy is a condition of employment with the Company. Failure to cooperate fully, sign any required documents, submit to any inspection or test, or follow any prescribed course of substance or alcohol abuse treatment will result in termination of employment.

WARNING: ANY POSITIVE RESULT OR ANY REFUSAL TO TEST MAY AFFECT YOUR ELIGIBILITY FOR COMPENSATION AND BENEFITS UNDER THE WORKERS' COMPENSATION LAWS OF THIS STATE.

Nothing in this policy or in any oral representation by any Company representative related to any aspect of this policy is intended to alter the existing relationship between the Company and any employee and is not intended to create an express or implied contract of employment, or any promise of job security upon which an employee can rely.

Unless otherwise specified, all employment relations with the Company remain "at will."

This program is designed to protect employee's rights and to protect all who come in contact with this workplace from the behaviors of substance users. Some of the protections built into the program are:

1. Employee records such as testing results and referrals for help will be kept confidential. Information will be on a need-to-know basis. Any violation of confidentiality rights is subject to disciplinary action up to and including termination of employment.

2. We are committed to employees who come forward with a substance problem to get help. Each situation will be reviewed individually. Employee assistance

information is available for employees and their families, including a list of resources available through the Program Administrator and distributed to all employees.

3. Employees will receive substance awareness education from a qualified person to help identify problems and learn where to turn to for help. This will be done annually.

4. Illegal drugs found on Company property may be turned over to law enforcement authorities.

5. The company will administer the Alcohol and Drug-Free Workplace program within Federal and State regulations.

ADMINISTRATION OF ALCOHOL AND DRUG-FREE WORKPLACE PROGRAM

Supervisors and employees should contact the Program Administrator for guidance or assistance with the Alcohol and Drug-Free Workplace Program.

Testing Procedure:

Testing will be done through a qualified collection provider and through a federally certified laboratory that uses the highest level of care in ensuring that results are accurate. When properly conducted, this process is considered scientifically accurate in detecting that the substances that the Company is concerned about are present in the employee's "system" in sufficient quantity to lead to behaviors that may endanger the person or other employees.

The certified lab will work closely with our local collection provider to ensure fairness and accuracy. ***Lane-Scott Electric Cooperative, Inc.*** has retained the services of a Medical Review Officer (MRO), who is a qualified, trained physician responsible for checking whether there is a valid medical reason for the presence of a substance in the employee's system.

The MRO is experienced in dealing with substance use. When a positive test result is received, the MRO will contact the employee and, with the employee's permission, any appropriate health care provider to determine whether there is a valid reason for the presence of the drug in the individual's system.

The testing program consists of an initial screening test whenever a test is determined to be appropriate. If the initial results are positive, then a second test is used. Cut-off levels for each drug and for alcohol are established based on federal guidelines. There are many other protections for employees that are built in.

An employee's violation of this policy will not be reported to law enforcement unless required by a regulatory body or by criminal statute, such as related to drug trafficking. However, in protection of the workforce, law enforcement may be requested to come onto Company property in conjunction with a referral for criminal prosecution. The MRO shall comply with all reporting requirements to the FMCSA Drug and Alcohol

Clearinghouse.

Employee Awareness and Training:

Employees will be given awareness training for the Alcohol and Drug-Free Workplace Policy. Every current employee will be required to attend a session in which this program is discussed. There will be an opportunity to ask questions. This written policy will be shared, and everyone will be expected to sign an acknowledgement of receipt. We will have a qualified person explain why and how substance use is a workplace problem, the effects, signs/symptoms of use, effects of commonly used drugs in the workplace, and how to get help. We will also cover how an employee can get a referral for employee assistance, the importance of determining how much of a substance problem the employee has, and what type of help is needed. There will be educational awareness annually for all employees. New employees will hear about the program during orientation and will receive substance education as soon as possible thereafter.

Employee Assistance Program:

The Company believes in offering useful information to assist employees with a substance problem. We are supportive of employees taking action on their own behalf to address a substance problem. The Company will make information regarding local substance abuse resources available to any employee in need of assistance. Please contact your supervisor or program coordinator for such information.

Be forewarned, however, that any employee found to be in violation of this policy will be terminated.

The implementation of discipline or of sanctions shall be at the sole discretion of the Company.

Employee testing:

Lane-Scott Electric Cooperative, Inc. has adopted testing practices to identify employees who use drugs not prescribed, for them, by a physician or marijuana, misuses prescription or over-the-counter medications or misuses alcohol either on or off the job. It shall be a condition of employment for all employees to submit to drug and alcohol testing under the circumstances in the following section. When a situation develops that requires or may require drug or alcohol testing for Reasonable Suspicion or an On-the-Job Incident, two supervisors (if there are two supervisors available) will approach the subject employee. The employee should be removed from the job and brought to a private area for the discussion.

Drug and Alcohol Testing:

Testing is intended to detect use, deter usage and allow appropriate corrective and/or disciplinary action. In addition to alcohol, the drugs that we are testing for are:

1. Amphetamines (speed, uppers)

2. Cocaine (including Crack)
3. Marijuana (legal or illegal)
4. Opiates (Codeine, Heroin, Morphine)
5. Phencyclidine (PCP, “angel dust”)

An employee attempting to adulterate a specimen or otherwise manipulate the testing process **will be terminated**, as will an employee who refuses to produce/provide a specimen or otherwise cooperate in the testing process.

Prescription medicine and over-the-counter drugs:

The Company does not prohibit employees from using prescription or over-the-counter drugs when used as prescribed, except marijuana, provided:

1. The prescription drugs are prescribed to the employees for medical reasons by a licensed medical practitioner, with dosage and frequency of use prescribed on the label or accompanying documentation, and

2. The employee’s use of the prescription or over-the-counter drugs does not affect the employee’s job performance or conduct; threaten the safety, productivity, public image or property of the Company or its employees; or result in criminal behavior.

No employee is to perform any function or duty on behalf of the Company if the drugs being taken under this provision adversely affect his or her ability to perform any such function or duty safely.

All safety sensitive employees must report, **in writing**, to the ***HR Director*** the use of prescribed or over-the-counter medication that contains a warning the same or similar to the following: “May impair mental and/or physical performance.” The Company may restrict the employee’s work assignments while he/she continues to use such medication.

Employees must keep all medication in its original container which identifies the drug.

Safety sensitive is any job or function identified by the Company, which by the nature of the work activity, could be dangerous and/or unsafe to the employee, co-workers, customers or the general public due to any momentary lapse in attention or judgment.

CIRCUMSTANCES FOR ALCOHOL AND DRUG TESTING:

WHEN TESTING WILL OCCUR

A. Post-offer/Pre-employment

As a condition of employment, all candidates being considered for employment with the Company must satisfactorily complete a post-offer/pre-employment drug screen prior to reporting to duty. Any offer of employment is contingent upon, among other things, satisfactory completion of this screening, and the determination by the Company that the applicant is capable of performing the responsibilities of the position that has been

offered.

B. Reasonable Suspicion Testing

Reasonable suspicion testing will occur when Company management and/or supervision have reason to suspect that an employee may be in violation of this policy. The suspicion must be documented in writing within 24 hours of the event or prior to the release of the test findings. Reasonable suspicion testing may be based upon, among other things:

1. Observed behavior, such as direct observation of drug/alcohol use or possession and/or the physical symptoms of drug and/or alcohol use;

2. A pattern of abnormal conduct or erratic behavior;

3. Arrest or conviction for a drug-related offense, or the identification of an employee as the focus of a criminal investigation into illegal drug possession, use, or trafficking. The employee is responsible for notification to the Company, within five (5) working days, of any drug-related conviction;

4. Information provided either by a reliable and/or credible sources or independently corroborated, regarding an employee's substance use; or

5. Newly discovered evidence that the employee has tampered with a previous drug or alcohol test.

Reasonable suspicion testing does not require certainty, but mere "hunches" are not sufficient to justify testing. To prevent this, all supervisors will be trained in the recognition of drug and alcohol-related signs and symptoms. Testing may be for drugs or alcohol or both.

C. Post-Accident Testing

Post-accident testing will be conducted whenever an accident occurs as defined below. For the purposes of this policy, an accident is considered an unplanned, unexpected or unintended event that occurs on Company property, during the conduct of the Company's business, during working hours, or which involves Company-supplied equipment, motor vehicles or motor vehicles that are used in conducting Company business, or is within the scope of employment, and which results in any of the following:

1. a fatality;
2. bodily injury requiring medical attention beyond first aid and administered within 32 hours of the incident;
3. vehicular and/or equipment damage in apparent excess of $750.00, or non-vehicular property damage in apparent excess of $500.00.

~~1. A fatality of anyone involved in the accident;~~

~~2. Bodily injury to the employee and/or another person that requires off-site medical attention away from the Company's place of employment; and the driver is issued a citation.~~

~~3~~4. Per the guidelines outlined in Part 49 of the Code of Federal Regulations (CFR) and Part 382, Controlled Substances and Alcohol Use and Testing, of the Federal Motor Carrier Safety Regulation (FMCSR).

When such an accident results in one of the situations above, any employee who may have contributed to the accident will be tested for drug and/or alcohol use ***provided*** the company has reasonable cause to believe that the employees involved may have violated this policy by using a prohibited substance. "Reasonable cause" includes a pattern of behavior or circumstances that involves an accident which includes an error in reason, timing or judgment.

Timing: Drug and/or alcohol testing after an accident

Urine specimen collection (for a drug test) or breath/saliva (for an alcohol test) is to occur immediately after a need has been determined. At no time shall a drug specimen be collected after 32 hours from the time of an employment-related incident. Breath or saliva alcohol testing will be performed within two (2) hours of the incident whenever possible, but within eight (8) hours, or it won't be performed. However, the reason for the delay will be documented. If the employee responsible for an employment-related accident is injured, it is a condition of employment that the employee herein expressly grants to the Company, its officers and management, the right to request that attending medical personnel obtain appropriate specimens (breath, blood and/or urine) for the purpose of conducting alcohol and/or drug testing. Further, all employees herein expressly grant to the Company, its officers and management, access to any and all other medical information that may be relevant in conducting a complete and thorough investigation of the employment-related accident, to include, but not be limited to, a full medical report from the examining physician(s) or other health care providers.

D. Random Drug and Alcohol Testing

Random testing will include all company employees and is conducted on an unannounced basis. An independent, non-Company testing organization will utilize objective computer software that ensures a truly random selection process in which all employees in the testing pool have an equal statistical likelihood of being selected for testing.

Random selection shall be at the minimum annual rate of 25% for those subject to testing; however, the company may elect to test at a higher rate.

When the next random draw is conducted, all employees are again included in the pool with an equal chance of selection, regardless of whether an employee was previously selected.

Employees required to have a valid CDL license for their position will be tested in compliance with the guidelines outlined in Part 49 CFR and Part 382 FMCSR (See Appendix 3)**. Under federal guidelines, the random selection shall be at the minimum annual rate of 25%; however the company may elect to test at a higher rate.**~~**Employees required to have a valid CDL license for their position will be tested in compliance with the guidelines outlined in Part 49 CFR and Part 382 FMCSR** (See Appendix 3).~~

The Company will provide employee identification numbers to be used in the random selection drawing. The contractor will, in turn, furnish the Company with a list of individuals to be tested at the beginning of each selection period. It shall be the responsibility of the Company to notify each employee who was selected with the date, time and location for that random test. Once the employee is notified of the selection to submit to random testing, it shall be the responsibility of the employee to appear for testing immediately and to provide a urine specimen for drug testing and or submit to breath-alcohol testing.

An employee's failure to timely comply with the request for a specimen for random testing will be considered a refusal to submit to testing and may result in termination of employment.

EMPLOYEE CONSENT

All ***Lane-Scott Electric Cooperative, Inc.*** employees and applicants will be required to complete and sign the appropriate consent form before the actual testing takes place. The employee consent form applies to blood or breath specimens for alcohol and a urine specimen for drugs. Failure to comply with a drug or alcohol testing request will be considered a refusal, and will be regarded as insubordination and subject to discipline up to and including termination.

SUBSTANCES TO BE TESTED FOR AND THE METHODS OF TESTING

Urine testing for drugs (other than alcohol):

"*Systems presence testing*" is the procedure that is used to identify the presence of the following controlled substances that may be present: (A negative initial screening test is considered a negative test.) For each of the tested drugs amphetamines, cocaine, marijuana, opiates and PCP, there is an initial test used to screen the urine specimen. If the initial screen is positive [at or higher than a cut-off level in accordance with federal Department of Health & Human Services (DHHS)], a second or confirmatory test is done. This is a different test and is considered scientifically accurate. Detection thresholds (or cut-off levels) are standards that have been established by the DHHS for each of the above drugs after years of research. These levels will be used to interpret all drug screens/tests, whether for a pre-employment examination, reasonable suspicion test, post-accident test, random or follow up test.

The Company also expressly reserves the right to add or delete substances on the list above, especially if mandated by changes in existing Federal, State or local regulations or legislation.

Alcohol testing:

A testing contractor that uses only federally qualified equipment and personnel will conduct breath alcohol and/or saliva testing. Breath alcohol concentrations exceeding 0.04 will be considered a verified positive result. In the event of an accident where an employee has a "whole blood" alcohol drawn at a medical treatment facility, a result equal to or greater than 0.04 shall be considered to be a verified positive result. An

Evidentiary Breath Test (EBT) is used to confirm any initial positive test result. Any employee testing at or above 0.04 will be removed from any safety-sensitive position and will be subject to the discipline specified below (See CONSEQUENCES).

SPECIMEN COLLECTION PROCEDURE

Trained collection personnel, who meet quality assurance and chain-of-custody requirements for urine collection and breath alcohol testing, shall conduct testing. Confidentiality is required from all service providers. Any individual subject to testing under this policy shall be permitted to provide urine specimens in private, but subject to strict scrutiny by collection personnel so as to avoid any adulteration or substitution of the specimen to be provided.

Breath alcohol testing will likewise be done in an area that affords the individual privacy. In all cases, there will only be one individual tested at a time. Failure to appear for testing when scheduled shall be considered refusal to participate in testing, and will result in termination. (For an applicant, failure to appear will result in withdrawal of any offer of employment).

All aspects of the testing procedure will be carried out in a confidential and private manner. After receiving notification to report for drug testing, the employee or applicant will go to the collection site and will:

1. Provide a photo ID;
2. Assist in completing a Drug Testing Chain of Custody and Control form;
3. Provide a urine specimen in privacy;
4. Be expected to observe the entire collection, processing and chain of custody procedure of the specimen;
5. Read, sign and date the chain of custody statement certifying the specimen is that individual's and it has not been changed or altered at the time of collection;
6. Note the temperature reading on the collection bottle and verify the temperature reading was correctly recorded on the form.

REVIEW OF TEST RESULTS

To ensure fairness the Company has hired a licensed physician to review positive drug test results. This physician is referred to as the Medical Review Officer or MRO. The MRO is a medical doctor or doctor of osteopathic medicine with a specialized knowledge of substance abuse disorders. The role of the MRO is to review in confidence with the donor any possible legitimate medical explanation for the result. Federal Guidelines on this procedure will be followed. In the absence of any medical justification for the presence of drugs in the body, that result will be verified as positive and the Company will be notified.

EMPLOYEES' RIGHTS RELATED TO AN INITIAL POSITIVE TEST RESULT

An employee who tests positive under this policy will be given an opportunity to explain, in confidence, the findings to the MRO prior to the issuance of a positive test result to the

Company. Upon receipt of a confirmed positive finding, the MRO will attempt to contact the employee by telephone. If contact is made by the MRO, the employee will be informed of the positive finding and given an opportunity to rebut or explain the findings. The MRO can request information on recent medical history and on medications taken within the last thirty days by the employee. If the MRO finds support in the explanation offered by the employee, the employee may be asked to provide documentary evidence to support the employee's position (for example, the names of treating physicians, pharmacies where prescriptions have been filled, etc.). A failure on the part of the employee to provide such documentary evidence will result in the issuance of a positive report by the MRO with no attendant medical explanation.

If the employee fails to contact the MRO as instructed, the employee will be considered to have waived the right to do so and/or to have failed to cooperate in the test process. The MRO will issue an appropriate (positive/confirmed adulteration, etc.) report to the Company.

REPORTING OF RESULTS

All test results (positive, negative, adulterated) will be reported directly to the MRO by the laboratory prior to the results being issued to the Company. Each substance tested for will be listed along with the results of the testing. The Company willreceive a summary report, and this report will indicate that the employee passed or failed the test. All of these procedures are intended to be consistent with the most current guidelines for Medical Review Officers, published by the federal DHHS.

STORAGE OF TEST RESULTS AND RIGHT TO REVIEW TEST RESULTS

All records of drug/alcohol testing will be stored separately and apart from the employee's general personnel documents. Access is limited to designated Company officials on a "*need to know*" basis. The information contained in these files shall be utilized only to properly administer this policy and provided to certifying agencies for review as required by Law. Those designated Company officials that shall have access to these records are charged with the responsibility of maintaining the confidentiality of these records. Any breach of confidentiality with regard to these records may be an offense resulting in termination of employment. Any employees tested under this policy have the right to review and/or receive a copy of their respective test results. An employee may request from the Drug-Free Workplace Program Administrator, in writing, with a duly notarized Employee Request for Release of Drug Tests Results form, that a copy of the test be provided. The Company will use its best efforts to promptly comply with this request and will issue to the employee a copy of the results personally or by U.S. Certified Mail, Return Receipt Requested.

CONSEQUENCES

Any violation of this policy ~~could~~ SHALL result in discipline as

follows: ALCOHOL USE:

First positive result **at 0.04 or above:** ***Termination***

DRUG USE:

Any reported, confirmed positive result for the presence of any prohibited controlled substance will, **THE FIRST TIME**, result in **termination of employment**.

Refusal: Any refusal to submit to testing, failure to cooperate with the test process or any attempt to adulterate a sample may result in termination of employment and may affect eligibility for compensation and benefits under the state's workers' compensation laws.

TERMINATION NOTICES

In those cases where testing results in the termination of employment, all termination notices will list "misconduct" as the reason. Termination shall be deemed "for cause."

APPENDIX 1

Definitions:

The following definitions shall apply to the interpretation and enforcement of this policy. Where any conflict occurs between this policy and state law, state law shall govern.

Glossary of Acronyms

ADA Americans with Disabilities Act
AOD Alcohol and Other Drugs
BAC Blood Alcohol Content
CADCA Community Anti-Drug Coalition of America
CAP College of American Pathologists
CCDCIII Certified Chemical Dependency Counselor
CEAP Certified Employee Assistance Professional
DHHS U.S. Department of Health and Human Services
DOT U.S. Department of Transportation
EAP Employee Assistance Program
FMCSA Federal Motor Carrier Safety Administration
5-Panel A drug test covering five drugs (required by D0T/FMCSA)
GC Gas Chromatography (part of confirmatory drug test)
MCO Managed Care Organization
MRO Medical Review Officer
MS Mass Spectrometry (part of confirmatory drug test)
NCADI National Clearinghouse of Alcohol and Drug Information
NHTSA National Highway Traffic Safety Administration
NIDA National Institute on Drug Abuse (now SAMHSA)
OTC Over-The-Counter medications
SAMHSA Substance Abuse and Mental Health Services Administration
SAP Substance Abuse Professional
9-Panel A drug test covering nine drugs
TPA Third Party Administrator

APPENDIX 2

Drug and Alcohol Testing Terminology

Accident - An incident or injury which occurs on Company property, on Company business, or during working hours, or which involves Company-supplied motor vehicles/equipment or motor vehicle/equipment being used for Company purposes and which results in any of the following:

1. a fatality;
2. bodily injury requiring medical attention beyond first aid and administered within 32 hours of the incident;
3. vehicular and/or equipment damage in apparent excess of $750.00, or non-vehicular property damage in apparent excess of $500.00.

NOTE: A post-accident drug and/or alcohol test should be administered as soon as possible after necessary medical attention is administered; preferably within 4 hours for alcohol and 24 hours for drug.

Air blanks - A quality assurance test administered on an EBT to ensure that the machine is testing accurately.

Alcohol concentration - The amount of alcohol in an individual's breath, measured in grams per 210 liters of breath.

Alcohol test – A test used to detect the content level of alcohol in the blood (BAC). This may be performed by using federally authorized testing equipment such as breath or saliva test with an evidentiary breath testing device (EBT) applied for confirmation, or this level can be determined through a blood test.

Breath alcohol technician (BAT) - The only technician who can conduct a breath alcohol test for the Bureau's DFWP Program. To be classified a BAT, an individual is required to complete training and proficiency requirements outlined by the federal government.

Chain of custody - The protocol followed when submitting specimens for drug testing. It assures that there is no opportunity for contamination or switching of samples. Elements include signed and witnessed forms, sealed and initialed containers, and couriers requiring a receipt.

Collection site - A place where individuals provide specimens of their urine to be analyzed for the presence of drugs, or breath, saliva or (on rare occasion) blood to be analyzed for the presence of alcohol. This site may or may not be owned and/or operated by the laboratory that actually analyzes the specimen.

Collection site person - Only those individuals qualified in accordance with federal guidelines (49 CFR Part 40) shall be permitted to administer a drug test collection under this policy unless otherwise specified.

Company property or premises – including buildings, offices, warehouses, plants, facilities, land, equipment, vehicles which are owned/leased/used for Company business and parking lots owned/utilized by the Company or any customers or supplier of the Company. It also includes any other site at which the Company business is transacted whether on or away from the Company's property.

Confirmatory test - When testing for drugs, this is the second analytical procedure to confirm the presence of a specific drug/metabolite in a urine specimen. This procedure uses a more sophisticated technique (e.g., GC/MS, EBT) to ensure reliability and accuracy. With breath testing for alcohol, the confirmatory test is conducted on an EBT which has the capability to print out the results, date and time, a sequential test number, and the name and serial number of the testing device.

Cut-off level - A pre-determined amount of drug metabolite, measured in nanograms (ng) per milliliter (ml) of urine, which constitutes whether a tested specimen is negative or positive. For example, a test would be declared positive if the amount of drug/metabolite were equal to or above the cut-off level. Employers typically choose levels that have been adopted and tested by a recognized authority such as the Department of Health and Human Services (DHHS) or, for drugs other than the "DOT 5," are recommended by their DHHS-certified laboratory.

DHHS (also referred to as NIDA or SAMHSA) -certified laboratory - A drug testing facility, which is certified and closely monitored by the DHHS. To obtain and maintain certification, a laboratory must undergo extensive performance testing and on-site inspections.

Drug metabolite - The specific substance produced when the body breaks down a given drug as it passes through the body and is excreted in the urine.

Drug test - Both a screening test and a confirmation must be used to established a positive test result. The tests will analyze the following drugs in the body in quantities which are at or greater than the specified "cut-off" levels:

Drugs	**EMIT Screen (ng/ml)**	**GC/MS Confirmation (ng/ml)**
Amphetamines	1,000	500
Cannabinoids (THC)	50	15
Cocaine/Crack	300	150
Opiates	2,000	2,000
Phencyclidine (PCP)	25	25

Evidentiary breath testing devices (EBT) - Instruments used to measure the amount of alcohol in an individual's system. In DOT/FMCSA-mandated alcohol testing, these instruments are approved by the federal government and operated by trained and certified technicians. The DFWP Program is modeled on the federal programs in terms of procedures.

Enzyme multiplied immunoassay technique (EMIT) - A preliminary screening test performed on a urine specimen to identify the presence of a drug/metabolite in an individual's system. If this test is positive, while accurate, a second and more sophisticated analysis is conducted to confirm which drug/metabolites are present and in what quantity.

Gas Chromatography/Mass Spectrometry (GC/MS) - A state-of-the-art test used to confirm the presence and amount of an identified drug/metabolite in a urine specimen.

Laboratory - Facility where a urine specimen is analyzed for the presence of drugs/metabolites. The specimen is typically not collected at this facility, but rather at a designated collection site that then ensures timely transport of the specimen to the laboratory.

Medical Review Officer (MRO) - A licensed physician responsible for receiving laboratory results and determining if there is a medical explanation for the presence of drugs/metabolites in the donor's urine. This physician must be qualified in accordance with federal guidelines (49 CFR Part 40) and have knowledge of substance use disorders and appropriate medical training to interpret and evaluate an individual's confirmed positive test result, together with his/her medical history and any other relevant medical information.

On the job – during working hours, while performing work duties, while acting within the scope of employment, and/or while on, in or using Company premises or property. Subject to the alcohol exception this also includes breaks, meal periods, and time between split shifts regardless of whether the employee is actually on Company premises.

Prohibited or illegal drugs – chemical substances which:

a. are not legally obtainable
b. are legally obtainable but have been obtained or are used illegally; or
c. are legally obtained and used as prescribed, but prohibited; or
d. are not for the purpose for which they are prescribed or manufactured; and
e. may include, but not limited to the following:

    Marijuana, cocaine, opiates (morphine, heroin, codeine), alcohol used for minors, amphetamines, benzodiazepines, barbiturates, and phencyclidine (PCP).

Reasonable suspicion – A belief that illegal drug and/or alcohol involvement and/or use is influencing employee's behavior, appearance, job performance, or fitness for duty, and/or that employee is under the influence of or is possessing, selling, purchasing, receiving, manufacturing or distributing illegal drugs or alcohol while on the job or while on Company premises.

a. Observed behavior, such as direct observation of drug/alcohol use or Possession and/or the physical symptoms of drug and/or alcohol use;
b. A pattern of abnormal conduct or erratic behavior;
c. Arrest or conviction for a drug-related offense, or the identification of an employee as the focus of a criminal investigation into illegal drug

possession, use, or trafficking.
The employee is responsible for notification to the Company, within five (5) working days, of any drug-related conviction;

d. Information provided either by reliable and credible sources or independently corroborated regarding an employee's substance use; or
e. Newly discovered evidence that the employee has tampered with a previous drug or alcohol test.

Reasonable suspicion testing does not require certainty, but mere "hunches" are not sufficient to justify testing. To prevent this, all supervisors will be trained in the recognition of drug and alcohol-related signs and symptoms. Testing may be for drugs or alcohol or both.

Re-test - A second-opinion analysis of a urine specimen originally deemed positive for drugs/metabolites. This test is usually requested by the donor and performed at a laboratory meeting the same standards as the lab conducting the first analysis.

Safety sensitive – Any job or function, identified by the Company, which by the nature of the work activity, could be dangerous and/or unsafe to the employee, co-workers, customers or the general public due to any momentary lapse in attention or judgment.

Screening Test Technician (STT) - A technician who is qualified under federal guidelines (49 CFR Part 40 as may be amended) to use the saliva testing mechanism to screen for alcohol.

Substance Abuse Professional (SAP) - A professional who is qualified under federal guidelines (49 CFR Part 40) to perform alcohol/drug assessments. Such qualified professionals include licensed physicians, licensed/certified psychologists, social workers, employee assistance professionals and certified addiction counselors with knowledge of and clinical experience in the diagnosis and treatment of alcohol/drug-related disorders.

APPENDIX 3

Drug and Alcohol Testing Procedures For Commercial Drivers

The following provisions shall be applied to any employee that is required to hold a commercial drivers license (CDL) to perform assigned tasks. Where appropriate, those employees holding a CDL may also be tested under the general company testing provisions, such as in post injury situations where there is no DOT-reportable accident but there is an injury requiring medical attention away from the site of the injury, provided it has been determined that reasonable suspicion of prohibited substance use exists.

Management Guide for:
Commercial Driver Drug and Alcohol Testing Provisions:

Applies to: Any employee required to hold a commercial drivers license to perform assigned tasks and/or who operates any vehicle in excess of 26,001 pounds gross vehicular weight.

Definitions: See the general company policy. If there is a conflict between the general company policy and this ADDENDIX this APPENDIX shall apply. The following definitions shall govern any interpretation involving a commercial driver:

"Actual knowledge" applies only to federally regulated workers and means actual knowledge by an employer that a has used alcohol or controlled substances based on the employer's direct observation of the employee, information provided by the driver's previous employer(s), a traffic citation for driving a CMV while under the influence of alcohol or controlled substances or an employee's admission of alcohol or controlled substance use, except as provided elsewhere in this policy. Direct observation as used in this definition means observation of alcohol or controlled substance use and does not include observation of employee behavior or physical characteristics sufficient to warrant reasonable suspicion testing under this policy.

***"Adulterated specimen"* means a specimen that contains a substance that is not expected to be present in human urine, or contains a substance expected to be present but is at a concentration so high that it is not consistent with human urine.**

"Air blank" means, in evidential breath testing devices (EBTs) using gas chromatography technology, a reading of the device's internal standard. In all other EBTs, a reading of ambient air containing no alcohol.

"Alcohol" means the intoxicating agent in beverage alcohol, ethyl alcohol, or other low molecular weight alcohols including methyl and isopropyl alcohol.

"Alcohol concentration" *(or content) means the alcohol in a volume of breath expressed in terms of grams of alcohol per 210 liters of breath as indicated by an evidential breath test under this policy.*

"Alcohol confirmation test" *means a subsequent test using an EBT, following a screening test with a result of 0.02 or greater that provides quantitative data about the alcohol concentration.*

"Alcohol screening device (ASD)" *means a breath or saliva device, other than an EBT, that is approved by the National Highway Traffic Safety Administration (NHTSA) and placed on a conforming products list (CPL) for such devices.*

"Alcohol screening test" *means an analytic procedure to determine whether an employee may have a prohibited concentration of alcohol in a breath or saliva specimen.*

"Alcohol testing site" *means a place selected by the employer where employees present themselves for the purpose of providing breath or saliva for an alcohol test.*

"Alcohol use" *means the drinking or swallowing of any beverage, liquid mixture or preparation (including any medication), containing alcohol.*

"Blind specimen or blind performance test specimen" *means a specimen submitted to a laboratory for quality control testing purposes, with a fictitious identifier, so that the laboratory cannot distinguish it from an employee specimen.*

"Breath Alcohol Technician (BAT)" *means a person who instructs and assists employees in the alcohol testing process and operates an evidential breath testing device.*

"Cancelled test" *means a drug or alcohol test that has a problem identified that cannot be or has not been corrected, or which this policy otherwise requires to be cancelled. A cancelled test is neither a positive nor a negative test.*

"Chain of custody" *means the procedure used to document the handling of the urine specimen from the time the employee gives the specimen to the collector until the specimen is destroyed. This procedure uses the Federal Drug Testing Custody and Control Form (CCF).*

"Collection container" *means a container into which the employee urinates to provide the specimen for a drug test. Collection site. A place selected by the employer where employees present themselves for the purpose of providing a urine specimen for a drug test.*

"Collector" *A person who instructs and assists employees at a collection site, who receives and makes an initial inspection of the specimen provided by those employees, and who initiates and completes the CCF.*

"Commerce" *means: (1) Any trade, traffic or transportation within the jurisdiction of the United States between a place in a State and a place outside of such State,*

including a place outside of the United States; and (2) Trade, traffic, and transportation in the United States which affects any trade, traffic, and transportation described in paragraph (1) of this definition.

"Commercial motor vehicle" means a motor vehicle or combination of motor vehicles used in commerce to transport passengers or property if the vehicle-- (1) Has a gross combination weight rating of 11,794 or more kilograms (26,001 or more pounds) inclusive of a towed unit with a gross vehicle weight rating of more than 4,536 kilograms (10,000 pounds); or (2) Has a gross vehicle weight rating of 11,794 or more kilograms (26,001 or more pounds); or (3) Is designed to transport 16 or more passengers, including the driver; or (4) Is of any size and is used in the transportation of materials found to be hazardous for the purposes of the Hazardous Materials Transportation Act (49 U.S.C. 5103(b)) and which require the motor vehicle to be placarded under the Hazardous Materials Regulations (49 CFR part 172, subpart F).

"Confirmation (or confirmatory) drug test" means a second analytical procedure performed on a urine specimen to identify and quantify the presence of a specific drug or drug metabolite.

"Confirmation (or confirmatory) validity test" means a second test performed on a urine specimen to further support a validity test result.

"Confirmed drug test" means a confirmation test result received by an MRO from a laboratory.

"Consortium/Third party administrator (C/TPA)" means a service agent that provides or coordinates one or more drug and/or alcohol testing services to DOT-regulated employers. C/TPAs typically provide or coordinate the provision of a number of such services and perform administrative tasks concerning the operation of the employers' drug and alcohol testing programs. This term includes, but is not limited to, groups of employers who join together to administer, as a single entity, the DOT drug and alcohol testing programs of its members (e.g., having a combined random testing pool). C/TPAs are not "employers" for purposes of this policy.

"Controlled substances" mean those substances to be tested including the following: (a) Marijuana metabolites. (b) Cocaine metabolites. (c) Amphetamines. (d) Opiate metabolites. (e) Phencyclidine (PCP).

"Designated employer representative (DER)" shall be the **Technical Operations Manager (or his/her designee)** ***who shall receive communications and test results from service agents and who is authorized to take immediate actions to remove employees from safety-sensitive duties and to make required decisions in the testing and evaluation processes.***

"Dilute specimen" means a specimen with creatinine and specific gravity values that are lower than expected for human urine.

"Disabling damage" means damage which precludes departure of a motor vehicle from the scene of the accident in its usual manner in daylight after simple repairs.

(1) Inclusions. Damage to motor vehicles that could have been driven, but would have been further damaged if so driven. (2) Exclusions. (i) Damage which can be remedied temporarily at the scene of the accident without special tools or parts. (ii) Tire disablement without other damage even if no spare tire is available. (iii) Headlight or taillight damage. (iv) Damage to turn signals, horn, or windshield wipers which make them inoperative.

***"DOT Agency"** means an agency (or ``operating administration'') of the United States Department of Transportation administering regulations requiring alcohol and/or drug testing (14 CFR parts 61, 63, 65, 121, and 135; 49 CFR parts 199, 219, 382, and 655), in accordance with 49 CFR part 40*

***"Driver"** means any person who operates a commercial motor vehicle. This includes, but is not limited to: Full time, regularly employed drivers; casual, intermittent or occasional drivers; leased drivers and independent owner-operator contractors.*

***"Drugs"** mean the substances for which tests are required under this policy and include marijuana, cocaine, amphetamines, phencyclidine (PCP), and opiates.*

***"Evidential Breath Testing Device"** (EBT). A device approved by NHTSA for the evidential testing of breath at the .02 and .04 alcohol concentrations, placed on NHTSA's Conforming Products List (CPL) for ``Evidential Breath Measurement Devices'' and identified on the CPL as conforming with the model specifications available from NHTSA's Traffic Safety Program.*

***"HHS"** means the Department of Health and Human Services or any designee of the Secretary, Department of Health and Human Services.*

***"Initial drug test"** means the test used to differentiate a negative specimen from one that requires further testing for drugs or drug metabolites.*

***"Initial validity test"** means the first test used to determine if a specimen is adulterated, diluted, or substituted.*

***"Invalid drug test"** means the result of a drug test for a urine specimen that contains an unidentified adulterant or an unidentified interfering substance, has abnormal physical characteristics, or has an endogenous substance at an abnormal concentration that prevents the laboratory from completing or obtaining a valid drug test result.*

***"Laboratory"** means any U.S. laboratory certified by HHS under the National Laboratory Certification Program as meeting the minimum standards of Subpart C of the HHS Mandatory Guidelines for Federal Workplace Drug Testing Programs*

***"Licensed medical practitioner"** means a person who is licensed, certified, and/or registered, in accordance with applicable Federal, State, local, or foreign laws and regulations, to prescribe controlled substances and other drugs.*

***"Medical Review Officer (MRO)"** means a person who is a licensed physician and who is responsible for receiving and reviewing laboratory results generated by an*

employer's drug testing program and evaluating medical explanations for certain drug test results.

"Performing (a safety-sensitive function) means" *a driver of any vehicle or operator of any equipment and applies to any employee considered to be performing a safety-sensitive function during any period in which he or she is actually performing, ready to perform, or immediately available to perform any safety-sensitive functions.*

"Positive rate" *applies only to federally regulated workers and means the number of positive results for random controlled substances tests conducted under this policy plus the number of refusals of random controlled substances tests required by this policy, divided by the total of random controlled substances tests conducted under this policy plus the number of refusals of random tests required by this policy.*

"Primary specimen" *in drug testing, means the urine specimen bottle that is opened and tested by a first laboratory to determine whether the employee has a drug or drug metabolite in his or her system; and for the purpose of validity testing. The primary specimen is distinguished from the split specimen, defined in this section.*

"Refuse to submit" *(to an alcohol or controlled substances test) means that an employee:*

(1) Fails(ed) to appear for any test (except a pre-employment test) within a reasonable time, as determined by the employer, consistent with applicable DOT agency regulations, after being directed to do so by the employer. This includes the failure of an employee (including an owner-operator) to appear for a test when called by a C/TPA;
(2) Fails(ed) to remain at the testing site until the testing process is complete. Provided, that an employee who leaves the testing site before the testing process commences a pre- employment test is not deemed to have refused to test;
(3) Fails(ed) to provide a urine specimen for any drug test required by this policy or DOT agency regulations. Provided, that an employee who does not provide a urine specimen because he or she has left the testing site before the testing process commences for a pre-employment test is not deemed to have refused to test;
(4) In the case of a directly observed or monitored collection in a drug test, fails to permit the observation or monitoring of the employee's provision of a specimen;
(5) Fails(ed) to provide a sufficient amount of urine when directed, and it has been determined, through a required medical evaluation, that there was no adequate medical explanation for the failure;
(6) Fails(ed) or declines to take a second test the employer or collector has directed the employee to take;
(7) Fails(ed) to undergo a medical examination or evaluation, as directed by the MRO as part of the verification process, or as directed by the DER. In the case of a pre- employment drug test, the employee is deemed to have refused to test on this basis only if the pre-employment test is conducted following a contingent offer of employment;
(8) Fails(ed) to cooperate with any part of the testing process (e.g., refuse to

empty pockets when so directed by the collector, behave in a confrontational way that disrupts the collection process, or failing to complete all documents); or
(9) Is reported by the MRO as having a verified adulterated or substituted test result.

***"Safety/Environmentally-sensitive function" ("S/ES")** means all time from the time an employee begins to work or is required to be in readiness to work until the time he/she is relieved from work and all responsibility for performing work. S/ES functions shall include:*
(1) All time at an employer plant, terminal, facility, or other property, or on any public property, unless the employee has been relieved from duty by the employer;
(2) All time inspecting equipment as required by company procedure or federal rule or otherwise inspecting, servicing, or conditioning any commercial motor vehicle at any time;
(3) All time spent at the controls of any vehicle/equipment in operation;
(4) All time, other than driving time, in or upon any commercial motor vehicle except time spent resting in a sleeper berth;
(5) All time loading or unloading a vehicle, supervising, or assisting in the loading or unloading, attending a vehicle being loaded or unloaded, remaining in readiness to operate the vehicle, or in giving or receiving receipts for shipments loaded or unloaded; and
(6) All time repairing, obtaining assistance, or remaining in attendance upon a disabled vehicle.

***"Screening Test" (or initial test)** means: (1) In drug testing, a test to eliminate "negative"' urine specimens from further analysis or to identify a specimen that requires additional testing for the presence of drugs. (2) In alcohol testing, an analytical procedure to determine whether an employee may have a prohibited concentration of alcohol in a breath or saliva specimen.*

***"Screening Test Technician" (STT).** A person who instructs and assists employees in the alcohol testing process and operates an ASD.*

***"Secretary"** means the Secretary of Transportation or the Secretary's designee.*

***"Service agent"** means any person or entity, other than an employee of the employer, who provides services specified under this. This includes, but is not limited to, collectors, BATs and STTs, laboratories, MROs, substance abuse professionals, and C/ TPAs. To act as service agents, persons and organizations must meet the qualifications set forth in applicable law. Service agents are not employers for purposes of this policy.*

***"Shipping container"** means a container that is used for transporting and protecting urine specimen bottles and associated documents from the collection site to the laboratory.*

***"Specimen bottle"** means the bottle that, after being sealed and labeled according to the procedures in this policy, is used to hold the urine specimen during transportation to the laboratory.*

"Split specimen" in drug testing, means a part of the urine specimen that is sent to a first laboratory and retained unopened, and which is transported to a second laboratory in the event that the employee requests that it be tested following a verified positive test of the primary specimen or a verified adulterated or substituted test result.

"Stand-down" means the practice of temporarily removing an employee from the performance of safety-sensitive functions based only on a report from a laboratory to the MRO of a confirmed positive test for a drug or drug metabolite, an adulterated test, or a substituted test, before the MRO has completed verification of the test result.

"Substance Abuse Professional (SAP)" A person who evaluates employees who have violated this policy and makes recommendations concerning education, treatment, follow-up testing, and aftercare.

"Substituted specimen" A specimen with creatinine and specific gravity values that are so diminished that they are not consistent with human urine. Verified test. A drug test result or validity testing result from an HHS-certified laboratory that has undergone review and final determination by the MRO.

"Violation rate" applies only to federally regulated workers and means the number of drivers found during random tests given under this policy to have an alcohol concentration of 0.04 or greater, plus the number of drivers who refuse a random test required by this policy, divided by the total reported number of drivers in the industry given random alcohol tests under this policy plus the total reported number of drivers in the industry who refuse a random test required by this policy

Test Events:

Pre-employment tests: No individual shall be allowed to serve in a safety-sensitive capacity until a verified negative test result. Before any individual performs any safety-sensitive duties the first time after being hired by the Company you must obtain that individual's written consent to contact any commercial employer where that individual worked during the previous two (2) years to obtain the following information:

(1) Alcohol tests with a result of 0.04 or higher alcohol concentration;
(2) Verified positive drug tests;
(3) Refusals to be tested (including verified adulterated or substituted drug test results);
(4) Other violations of DOT agency drug and alcohol testing regulations; and
(5) With respect to any employee who violated a DOT drug and alcohol regulation, documentation of the employee's successful completion of DOT return-to-duty requirements (including follow-up tests). If the previous employer does not have information about the return-do-duty process (e.g., an employer who did not hire an employee who tested positive on a pre-employment test), you must seek to obtain this information from the employee.

If feasible, we must obtain and review this information before the employee first performs safety-sensitive functions. If this is not feasible, we must obtain and review the information as soon as possible. However, we must not permit the employee to perform safety-sensitive functions ***after 30 days*** from the date on which the employee first

performed safety-sensitive functions, unless we have obtained or made and documented a good faith effort to obtain this information.

If we obtain information that the employee has violated a DOT agency drug and alcohol regulation, we must not use the employee to perform safety-sensitive functions unless we also obtain information that the employee has subsequently complied with the return-to-duty requirements of this policy.

We must provide to each of the employers from whom you request information under paragraph (b) of this section written consent for the release of the information cited in paragraph (a) of this section.

The release of information under this section must be in any written form (e.g., fax, e-mail, and letter) that ensures confidentiality. As the previous employer, we must maintain a written record of the information released, including the date, the party to whom it was released, and a summary of the information provided.

When information is requested from us we must, after reviewing the employee's specific, written consent, immediately release the requested information to the employer making the inquiry.

As the employer requesting the information required under this section, we must maintain a written, confidential record of the information you obtain or of the good faith efforts you made to obtain the information. We must retain this information for three (3) years from the date of the employee's first performance of safety-sensitive duties for us.

As the employer, we must also ask the employee whether he or she has tested positive, or refused to test, on any pre-employment drug or alcohol test administered by an employer to which the employee applied for, but did not obtain, safety-sensitive transportation work covered by DOT agency drug and alcohol testing rules during the past two years. If the employee admits that he or she had a positive test or a refusal to test, we must not use the employee to perform safety-sensitive functions for us, until and unless the employee documents successful completion of the return-to-duty.

Post-accident tests: Any employee performing safety-sensitive commercial driver tasks who is involved in the following incidents shall undergo drug and alcohol testing:

(a) As soon as practicable following an accident involving a commercial motor vehicle operating on a public road in commerce, tests for the use of alcohol and drugs shall be required for:

(1) Any driver who was performing safety-sensitive functions with respect to the vehicle, if the accident involved the loss of human life; or

(2) Any driver who receives a citation within 8 hours of the occurrence under State or local law for a moving traffic violation arising from the accident, if the accident involved:

(i) Bodily injury to any person who, as a result of the injury, immediately receives medical treatment away from the scene of the accident; or

(ii) (ii) One or more motor vehicles incurring disabling damage as a result of the accident, requiring the motor vehicle to be transported away from the scene by a tow truck or other motor vehicle.

All required post-accident alcohol tests should be performed within two (2) hours following the accident and in all cases must be performed within eight (8) hours. If the test cannot be performed within 2 hours a note shall be maintained explaining why it could not be conducted. If the test cannot be performed within 8 hours there shall be no further attempt to conduct the test and a note shall be maintained in the driver's file.

If a test required by this section is not administered within 32 hours following the accident, the employer shall cease attempts to administer a controlled substances test, and prepare and maintain on file a record stating the reasons the test was not promptly administered. Records shall be submitted to any government agency upon request. A driver who is subject to post-accident testing shall remain readily available for such testing or may be deemed by the employer to have refused to submit to testing. Nothing in this section shall be construed to require the delay of necessary medical attention for injured people following an accident or to prohibit a driver from leaving the scene of an accident for the period necessary to obtain assistance in responding to the accident, or to obtain necessary emergency medical care. The Company shall provide drivers with necessary post-accident information, procedures and instructions, prior to the driver operating a commercial motor vehicle, so that drivers will be able to comply with the requirements of this section.

Confidentiality of records:

In accordance with general company policy, all records related to drug and alcohol testing shall be maintained in a confidential manner and only disclosed with the written consent of the driver or in accordance with law.

ATTESTED_____

Secretary

Drug and Alcohol Free Workplace Policy Acknowledgement

By my signature below, I acknowledge that I have received a copy of and understand the ***Lane-Scott Electric Cooperative, Inc.*** Alcohol and Drug Free Workplace Policy. I have been given the opportunity to ask questions about all aspects of this policy and I agree to adhere to the policy requirements:

My signature below acknowledges my agreement to abide by the provisions of this policy and I recognize that any violation could lead to termination of my employment.

_____ _____

Printed Name Date

_____

Signature

10. a. Kansas Hazard Mitigation Plan Resolution

Last month I presented the proposed Kansas Hazard Mitigation Plans for Regions A, B, C, and D along with the following table. I was in discussion with Cathy Hernandez (Southwest Region Emergency Management Coordinator) explaining why Lane-Scott could not accept their proposed resolution and commit to spending the dollars identified within the plans.

Kansas Homeland Security Region A, B, C, and D Hazard Mitigation Plans

Region	*LSEC County*	*Table*	*narrative*	*estimated Cost*	*years*	*Cost per year*
A	Gove	6.6	Enhance and upgrade electric transmission and distribution lines.	2,900,000	5	580,000
	Logan	6.7	*Lane-Scott was not identified as operating within Logan County*	-	0	-
B	Ness	6.6	Enhance and upgrade electric transmission and distribution lines.	3,000,000	5	600,000
	Rush	6.10	Enhance and upgrade electric transmission and distribution lines.	3,000,000	5	600,000
C	Scott	6.9	Enhance and upgrade all power lines within the County to better withstand all hazard events	8,000,000	10	800,000
D	Finney	6.5	Enhance and upgrade all power lines within the County to better withstand all hazard events	20,000,000	10	2,000,000
	Hodgeman	6.9	Enhance and upgrade all power lines within the county.	8,000,000	10	800,000
	Lane	6.10	Enhance and upgrade all power lines within the county.	8,000,000	10	800,000

Total Hazard Mitigation Plan Cost: $ 52,900,000 *per year:* $ 6,180,000

LSEC Total Utility Plant in Service (April 2021): $ 58,473,508

On June 10, 2021, I received an e-mail from Cathy which copied an e-mail that Kansas State Hazard Mitigation Officer Jeanne Bunting sent to Victory Electric.

It states, *"**Resolution of adoption is what you sign adopting the regional mitigation plan. You are not beholden to do any of the actions in the plan, however, if money becomes available through HMGP, BRIC, etc., you have to have adopted the plan through a resolution. Prior to now FEMA has not really monitored these resolutions of adoption, but now in order for the state to close out the grant we have to have all adoptions in. If we don't then the money we received from FEMA will have to be paid back. The state put in for the grant and would be the entity that has to pay the money back, which is troublesome. It used to be that the counties paid the local share of their own plans, but 8 years ago the state***

***took it on in order to ensure coverage. Long story short, it does not hurt you to adopt the plan – you don't have to do anything except a resolution of adoption. It only hurts you to not adopt should you decide to go for a grant**."*

Cathy's' e-mail also stated, *"I also exported the Finney County Mitigation Action Items for Lane Scott from the Kansas Region D Hazard Mitigation Plan, which is in pdf form, into a word document so that you can make the changes you want for Lane-Scott. Once*

completed you can include it with the resolution. If you have the same action time for each county then just specify it in the email, or elsewhere in the word document so that it is placed in the appropriate county's mitigation action list, if the mitigation action item is the same for all counties then specify that it applies to all counties."

This is the current Finney County Mitigation Action Item:

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Current Status
Lane-Scott Electrical COOP-1	Enhance and upgrade all power lines within the County to better withstand all hazard events.	Utility / Infrastructure Failure	Director	High	1,2	$20,000,000	Local, State, Federal	Ten years	Not started, lack of funding

I propose amending it as follows:

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Current Status
Lane-Scott Electric COOP-1	Enhance and upgrade all identified, defective power lines within the County to better withstand hazard events.	Utility / Infrastructure Failure	CEO / General Manager	High	1,2	As needed	Private, Local, State, and Federal	As needed	In progress

This would accompany the Resolution.

LSEC Resolution 2021 0712 Recognizing the Kansas Homeland Security Region A, B, C, and D Hazard Mitigation Plans is also attached. This Resolution and table attachment has been reviewed by Cathy Hernandez and they have stated that it will meet their needs.

Therefore, Staff askes the Board of Trustees to approve LSEC Resolution 2021 0712 Recognizing the Kansas Homeland Security Region A, B, C, and D Hazard Mitigation Plans.

Richard McLeon

From: Hernandez, Catherine J NFG NG KSARNG (USA) <catherine.j.hernandez9.nfg@mail.mil>
Sent: Thursday, June 10, 2021 4:49 PM
To: Richard McLeon
Subject: Additional information for Regional Hazard Mitigation Plans (UNCLASSIFIED)
Attachments: 2021 0610 Finney County Mitigation Action Items for Lane Scott.doc

Follow Up Flag: Follow up
Flag Status: Flagged

CLASSIFICATION: UNCLASSIFIED

Richard,

The paragraph below is copied from email that Kansas State Hazard Mitigation Officer Jeanne Bunting sent to Victory Electric. It has the information you needed regarding not being required to complete the Mitigation Action Item listed for Lane-Scott Electric. I also exported the Finney County Mitigation Action Items for Lane Scott from the Kansas Region D Hazard Mitigation Plan, which is in pdf form, into a word document so that you can make the changes you want for Lane-Scott. Once completed you can include it with the resolution. If you have the same action time for each county then just specify it in the email, or elsewhere in the word document so that it is placed in the appropriate county's mitigation action list, if the mitigation action item is the same for all counties then specify that it applies to all counties.

Resolution of adoption is what you sign adopting the regional mitigation plan. You are not beholden to do any of the actions in the plan, however, if money becomes available through HMGP, BRIC, etc., you have to have adopted the plan through a resolution. Prior to now FEMA has not really monitored these resolutions of adoption, but now in order for the state to close out the grant we have to have all adoptions in. If we don't then the money we received from FEMA will have to be paid back. The state put in for the grant and would be the entity that has to pay the money back, which is troublesome. It used to be that the counties paid the local share of their own plans, but 8 years ago the state took it on in order to ensure coverage. Long story short, it does not hurt you to adopt the plan – you don't have to do anything except a resolution of adoption. It only hurts you to not adopt should you decide to go for a grant.

Let me know if you need anything else. Once the resolution is adopted by Lane-Scott, would you cc me if you will be emailing the resolution the individual counties in your service area? Or, you could send me the document so that I can forward it to Jeanne Bunting in Topeka? I can also send to the county emergency managers and my KDEM regional emergency management coordinators for dissemination to the counties in their regions?

Cathy Hernandez
Southwest Region Emergency Management Coordinator
Kansas Division of Emergency Management
2120 1st Avenue
Dodge City KS 67801
785-646-2513 (Office)
620-255-4785 (Cell)
785-291-3333 (KDEM 24 hour Emergency Number)
catherine.j.hernandez9.nfg@mail.mil

2800 SW Topeka Blvd.
Topeka, KS 66611-1287

Kansas
Adjutant General's Department
Kansas Division of Emergency Management

phone: 785-646-0001
fax: 785-646-0004
www.kansastag.gov

Major General David A. Weishaar
The Adjutant General and Director of
Emergency Management & Homeland Security

Laura Kelly, Governor

Date: June 17, 2021

To: Interested Parties

Subject: Resolution of Adoption of the Regional Hazard Mitigation Plans

It has come to our attention that some jurisdictions are hesitant to adopt the Regional Hazard Mitigation Plan because they are concerned that they will incur costs associated with their actions. I want to stress that this is not the case. If jurisdictions have actions in the plan they do not have to do them, ever, and no cost will be charged to them. Should a jurisdiction decide to go in for a grant than they will have the responsibility of coming up with the local cost share of 25%. But, putting in for a grant is always optional! What is not optional is if a jurisdiction does not adopt the plan then they are not eligible for any mitigation grant. When the planning grant closes all jurisdictions have to have adopted. If this does not happen, we are in talks with FEMA about amending our scope of work so that any jurisdiction that does not adopt will be eliminated from the plan and eliminated from any funding opportunities through HMGP, BRIC, and FMA until the next plan update. The plan updates are on a five year cycle.

It is my hope that any jurisdiction that is hesitant about submitting a resolution of adoption for their respective plan reconsiders. Again, if a jurisdiction decides not to apply for a grant there is no harm done and no costs are associated. However, if they decide to apply for a grant and they do not have a signed resolution of adoption then they are ineligible for any funding opportunities until the next plan update.

Sincerely
Jeanne L. Bunting
State Hazard Mitigation Officer (SHMO)
Kansas Division of Emergency Management
Jeanne.l.bunting.nfg@mail.mil

LANE-SCOTT ELECTRIC COOPERATIVE, INC.
DIGHTON, KANSAS

RESOLUTION 2021 0712

Recognizing the Kansas Homeland Security Region A, B, C, and D Hazard Mitigation Plans

Whereas, The Lane-Scott Electric Cooperative, Inc. (LSEC or "the Cooperative") recognizes the threat that natural hazards pose to people and property within our community; and

Whereas, undertaking hazard mitigation actions will reduce the potential for harm to people and property from future hazard occurrences; and

Whereas, the U.S. Congress passed the Disaster Mitigation Act of 2000 ("Disaster Mitigation Act") emphasizing the need for pre-disaster mitigation of potential hazards;

Whereas, the Disaster Mitigation Act made available hazard mitigation grants to state and local governments; and

Whereas, an adopted Hazard Mitigation Plan is required as a condition of future funding for mitigation projects under multiple Federal Emergency Management Agency (FEMA) pre- and post-disaster mitigation grant programs; and

Whereas, the Kansas Division of Emergency Management and FEMA Region VII officials have reviewed the Kansas Homeland Security Region A, B, C, and D Hazard Mitigation Plans, and approved them contingent upon this official adoption of the participating governing body: and

Whereas, the Lane-Scott Electric Cooperative owns, maintains, and operates over two thousand miles of energized line in all or parts of Logan, Gove, Scott, Lane, Ness, Rush, Finney, and Hodgeman counties as authorized by the Kansas Corporation Commission, and

Whereas, LSEC desires to comply with the requirements of the Disaster Mitigation Act and to augment its emergency planning efforts with the Kansas Homeland Security Region A, B, C, and D Hazard Mitigation Plans; and

Whereas, The Cooperative has amended all County Mitigation Action tables pertinent to LSEC as attached to this Resolution; and

Now, therefore, be it resolved, that the Lane-Scott Electric Cooperative, Inc. recognizes the Kansas Homeland Security Region A, B, C, and D Hazard Mitigation Plans as amended by this resolution; and

Be it further resolved, the Lane-Scott Electric Cooperative, Inc. will submit this Adoption Resolution to the Kansas Division of Emergency Management and FEMA Region VII officials to enable the plan's final approval.

CERTIFICATION OF THE SECRETARY

I, Paul Seib, Jr., certify that I am Secretary of the Lane-Scott Electric Cooperative, Inc. Board of Trustees. I further certify that the above is a true excerpt from the Board of Trustees meeting held on the 12th day of July 2021, at which a quorum was present.

_____

Paul Seib, Jr., Secretary

(Seal)

Action Identification	Description	Hazard Addressed	Responsible Party	Overall Priority	Goal(s) Addressed	Estimated Cost	Potential Funding Source	Proposed Completion Timeframe	Current Status
Lane-Scott Electric COOP-1	Enhance and upgrade all power lines within the County to better withstand all hazard events.	Utility / Infrastructure Failure	CEO / General Manager	High	1,2	As needed	Private and Federal	As needed	continuous

10. b. Board Policy 113 Capital Credits

The Board of Trustees identified Capital Credit discounting as part of the February 2019 Strategic Plan. This was part of the Primary Strategic Goal to develop a financial plan. The Draft Policy attempts to address that goal. In reviewing the policy, Kathy and I have identified other areas for the Boards consideration as amendments to the policy.

The following areas are for consideration and discussion. If agreeable, we seek Board approval. If amendments need to be made, we will bring it back in August. These items are in Section G. Special Capital Credits Retirements.

1. *The Cooperative may specially retire some or all capital credits allocated, or offset allocations, to a patron or former patron:*
   a. *upon the death of an individual patron or former individual patron, subject to board approval; or*
   b. *upon a former patron failing to pay an amount owed to the Cooperative when the ~~Board, in its sole judgment, determines the~~ indebtedness owed to the Cooperative by a patron is determined uncollectible.*

   This amendment addresses the management practice of determining when a debt is uncollectible by the Cooperative. Currently, the cooperatives staff (not the Board) determines when the debt is uncollectible by the Cooperative and whether it should be sent to collection. Also, this would allow the Cooperative to apply bad debt against the capital credit allocations immediately rather than waiting for the actual retirement.

4. *Requests for payment of capital credits to estates of deceased patrons will be paid twice yearly, in ~~April and October~~ June and December, upon approval by the Board of Trustees.*

   This amendment addresses a timing administrative problem. An allocation cannot be made for any year until after the Board approves the Audit, typically in May. If we get a request for an Estate retirement before April, we turn them out as quickly as possible. Then issue a second check in October for recently allocated year. Another issue with the April date is that it is during the Financial Audit when workload is already increased. Moving the dates to June and December maintains the six-month spread and gets us past the Audit and first quarter allocations.

5. *Discounting. Separate from the normal retirement of capital credits, a deceased patron's capital credit account may be liquidated on a discounted basis. The discount percentage is set at 5.0% per year, on a thirty-year scale. Capital Credits aged over thirty (30) years will be paid at 100% while those under 1 year old will be paid at 20%.*

Estate Capital Credits Retirement

age - yrs	amount paid	age - yrs	amount paid	age - yrs	amount paid
over 31	100%				
30	95%	20	57%	10	34%
29	90%	19	54%	9	32%
28	86%	18	51%	8	31%
27	81%	17	49%	7	29%
26	77%	16	46%	6	28%
25	74%	15	44%	5	26%
24	70%	14	42%	4	25%
23	66%	13	40%	3	24%
22	63%	12	38%	2	23%
21	60%	11	36%	1	21%
				under 1	20%

This amendment specifically creates a way to discount Capital Credit estate payments for allocations under thirty years old. Starting before 31 years, each year is discounted 5% up to year 1. Allocations over 31 years old are paid at 100%, those under 1 year are paid at 20%. For example:

allocation			retirement	
year	amount	age	%	amount due
1988	$ 100.00	33	100%	$ 100.00
1993	100.00	28	86%	86.00
1994	100.00	27	81%	81.00
1995	100.00	26	77%	77.00
1997	100.00	24	70%	70.00
1998	100.00	23	66%	66.00
1999	100.00	22	63%	63.00
2000	100.00	21	60%	60.00
2001	100.00	20	57%	57.00
2002	100.00	19	54%	54.00
2004	100.00	17	49%	49.00
2005	100.00	16	46%	46.00
2006	100.00	15	44%	44.00
2007	100.00	14	42%	42.00
2008	100.00	13	40%	40.00
2009	100.00	12	38%	38.00
2016	100.00	5	26%	26.00
2017	100.00	4	25%	25.00
2018	100.00	3	24%	24.00
2019	100.00	2	21%	21.00
	$ 2,000.00			$ 1,069.00
				53.5%

If agreeable, Staff seeks Board approval of the amended Board Policy 113 Capital Credits. If further amendments need to be made, we will make the adjustments bring it back in August for Board consideration.

DRAFT v3

LANE-SCOTT ELECTRIC COOPERATIVE, INC. POLICY

Dated: August 9, 2021 **Policy No.:** 113

SUBJECT: Capital Credits

I. OBJECTIVE:

The objective of this Capital Credits Policy ("Policy") is to state the general policy of Lane-Scott Electric Cooperative, Inc., ("Cooperative") for allocating and retiring capital credits.

II. POLICY:

The Cooperative shall allocate and retire capital credits in a manner that:

A. is consistent with state and federal law;
B. is consistent with operating on a cooperative basis under federal tax law;
C. is fair and reasonable to the Cooperative's patrons and former patrons;
D. provides the Cooperative with sufficient equity and capital to operate effectively and efficiently; and
E. protects the Cooperative's financial condition. Subject to law, the Cooperative's Articles of Incorporation, and the Cooperative's Bylaws, the allocation and retirement of capital credits are at the sole discretion of the Cooperative's Board of Trustees ("Board").

III. PROCEDURE:

A. Board Approval. The Cooperative shall allocate and retire capital credits according to the manner, method, timing, and amount approved by the Board.

B. Operating Margin Allocations. As required by the Cooperative's bylaws, for electric energy sales provided by the Cooperative on a cooperative basis during a fiscal year, the Cooperative shall allocate on a patronage basis to each patron during the fiscal year, the Cooperative's operating margins from providing the electric energy sales during the fiscal year. Capital credits allocated and credited to the Cooperative by its affiliated G&T cooperative in connection with the furnishing of electric energy to the Cooperative will be separately allocated on a patronage basis.

C. Operating Margin Loss Allocations. For electric energy sales provided by the Cooperative on a cooperative basis, the Cooperative shall offset operating losses with the Cooperative's operating earnings from providing the electric energy sales during the next succeeding future fiscal year(s).

D. Non-Operating Allocations. As approved by the Board, the Cooperative may use, retain, or equitably allocate the Cooperative's Non-Operating earnings.

E. Non-Operating Loss Allocations. The Cooperative shall offset non- operating losses with the Cooperative's non-operating earnings during any fiscal year.

F. General Capital Credits Retirements. The Cooperative will generally retire capital credits with the goals of:

1. maintaining an adequate equity level as determined by the Board;
2. retiring some capital credits each year, provided the financial condition will not be impaired thereby with the goal of working toward and maintaining an equity level of 40%;
3. retiring capital credits on a first-in, first-out full payment method of rotation;
4. retiring capital credits on a regular rotation;
5. communicating and promoting the cooperative principles;
6. fostering loyalty and support among patrons and former patrons; and
7. maximizing public relations and political goodwill. Notwithstanding the foregoing, affiliated G&T cooperative capital credit allocations will not be retired and paid in whole or in part until retired and paid by the G&T cooperative.

G. Special Capital Credits Retirements.
   1. The Cooperative may specially retire some or all capital credits allocated to a patron or former patron:
      a. upon the death of an individual patron or former individual patron, subject to board approval; or
      b. upon a former patron failing to pay an amount owed to the Cooperative when the ~~Board, in its sole judgment, determines the~~ indebtedness owed to the Cooperative by a patron is determined uncollectible.
   2. The Cooperative may not specially retire capital credits allocated to a patron or former patron:
      a. during or after the dissolution, liquidation, or cessation of existence of an entity patron or former entity patron. No capital credits held in the name of a trust may be approved for the payment to a trustee, unless the trust was revocable by the member-grantor at death, or the trust was includable in the member-grantor's estate for federal estate tax purposes.;
      b. during or after the reorganization, merger, or consolidation of an entity patron or former entity patron;
      c. upon a patron or former patron reaching a certain age; or
      d. upon a patron becoming a former patron. No payment shall be made to any person until the time to admit a will to probate and the time to file creditor's claims has expired.
   3. Payment shall be made directly to those entitled thereto under a decree of descent or under an affidavit of heirship, an example of which is attached.
   4. Requests for payment of capital credits to estates of deceased patrons will be paid twice yearly, in ~~April and October~~ June and December, upon approval by the Board of Trustees.
   5. Discounting. Separate from the normal retirement of capital credits, a deceased patron's capital credit account may be liquidated on a discounted basis. The discount percentage is set at 5.0% per year, on a thirty-year scale. Capital Credits aged over thirty (30) years will be paid at 100% while those under 1 year old will be paid at 20%.

Estate Capital Credits Retirement

age - yrs	amount paid	age - yrs	amount paid	age - yrs	amount paid
over 31	100%				
30	95%	20	57%	10	34%
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24	70%	14	42%	4	25%
23	66%	13	40%	3	24%
22	63%	12	38%	2	23%
21	60%	11	36%	1	21%
				under 1	20%

H. Recoupment, Offset, Setoff. After retiring, and before paying, capital credits allocated to a patron or former patron, the Cooperative shall recoup, offset, or setoff any amount owed to the Cooperative by the patron or former patron, including any interest or late payment fees, by reducing the amount of retired capital credits paid to the patron or former patron by the amount owed to the Cooperative, regardless of a statute of limitation or other time limitation.

IV. LIMITATIONS

Forfeiture of Capital Credits. The Cooperative shall not require or enter into contracts through which a patron or former patron forfeits the right to the allocation or retirement of capital credits as a condition of receiving or having received electric service.

V. Responsibility

The General Manager shall ensure that this policy is implemented.

ATTESTED _____

Secretary

Seal

Previous Revisions: August 13, 2018, January 8, 2018, July 28, 1997, February 24, 1997, May 24, 1993, August 1966, July 1966, and January 1962.

AFFIDAVIT OF DEATH AND HEIRSHIP

STATE OF KANSAS, COUNTY OF _____, SS:

I,_____, of lawful age, being first duly sworn, upon my oath depose and say:

1. During the lifetime of_____, I was related to him/her as a_____, andI am one of the heirs-at-law the following named persons, to-wit:
2. That said decedent died in the city of_____, on the_____day of_____, leaving as his/her sole and only heirs-at-law the following named persons, to-wit:

   If percent of distribution are not specified, capital credits will be paid equally to each heir listed.

   A. Spouse: Name _____
   Address_____
   Percent of distribution _____

   B. Living Children: Name _____
   Address_____
   Percent of distribution _____
   Name_____
   Address_____
   Percent of distribution _____

   If additional space is needed, attach a separate sheet listing name, address & percent of distribution

   C. Others: Name_____
   Address_____
   Percent of distribution _____

3. The decedent had no spouse or children or adopted children, or issue of deceased children, natural or adopted, or other heirs, who survived him, other than the above-named persons.

4. That more than six (6) months has expired after the decedent's death, and no administration of the estate has been commenced and that none is anticipated.

5. That decedent did not have a Will.

6. That all debts of decedent have been paid in full; that no taxes are due the United States or the State of Kansasby reason of the death of the decedent.

7. That during his lifetime, the decedent was a member of Lane-Scott Electric Cooperative, Inc., and this affidavit is submitted in support of application for payment of capital credits and refunds which might be due the deceased member by reason of his membership in said Cooperative.

DATE: _____ Affiant (Name)_____
Mailing Address_____
City, State & Zip_____

SUBSCRIBED AND SWORN to before me this_____day of_____, 20_____.

_____

Notary Seal Notary Public

From: Joseph Gasper <gasperlaw@ymail.com>
Sent: Wednesday, July 7, 2021 10:02 AM
To: Richard McLeon <richard.mcleon@lanescott.coop>
Subject: Re: Board Policy 113 Capital Credits

RIchard-

I have looked over the draft changes and the questions you have.

1. The change to the months the retirements will be paid is perfectly fine. I am unaware of any legal requirement that these be paid in any certain month and June and December are just as good as April and October.

2. On the change to G 1 b, I think this change is okay as well. The cooperative is applying the capital credits to an unpaid debt owed to the cooperative. I don't know how you handle the accounting for a debt that was written off and approved by the board but that question would be more appropriate to the auditor, if necessary. Would adding language such as "after attempts at collection have been exhausted" to show that the cooperative has a duty to attempt to collect in other manners be appropriate?

That language is a double edge sword in that it requires the coop to make attempts at collection but it also provides cover if a member were to object.

One potential issue could arise if you have a large debt. On these small amounts of money, the decision being on the staff is near trivial but if there were to be a large amount, I am not sure it should fall on staff to make that decision on their own. There is nothing in the change that prevents the board from being involved in the decision, but there is no requirement.

An option that you could also look at not changing the language and having any unpaid debts listed on the approval for the board. The board could approve the capital credits being applied to the debt as well as approving the payment of the estates all at the same time. I don't know if this is practical for staff or not, but it is an idea to keep the board aware of these unpaid debts.

3. Discounting capital credits.

The language in the proposal looks good to me but a few comments.

a. Is a flat5% rate appropriate? Is it more appropriate to have a policy that follows the current time value of money? This would obviously be more complicated but may be a more accurate reflection of the proper discount amount.

b. Unequal treatment of members. With the change, all estates going forward will be treated differently than the previous estates. From a legal standpoint, this is acceptable since all of the

new estates will be treated the same after the change, but there could be complaints from the new estates.

c. Does a change to discounting these capital credits limit your options for certain accounting options? This is really a question for Randy but I seem to remember there being a question as to whether or not the capital credits are discounted for one of the issues the coop had recently. I believe it may have been with the winter storm Uri and how how the unpaid bills were accounted for.

I will be out of the office but you can always reach me on my cell if you want to discuss any of the issues.

Joe

Joseph D. Gasper, #21763 GASPER LAW OFFICE 419 Main St., PO Box 251 Stockton, KS 67669 785-415-2052 IMPORTANT: DO NOT read, copy or disseminate this communication unless you are the intended addressee. This e-mail communication contains confidential and/or personal information intended only for the addressee. If you have received this communication in error, please call us (collect) immediately at (785) 415-2052 and ask to speak to the sender of this communication. Also, please e-mail the sender and notify the sender immediately that you have received the communication in error. Thank you. The Kansas Disciplinary Counsel requires lawyers to notify recipients of e-mail that: (1) e-mail communication is not a secure method of communication; (2) e-mail sent between you and this law firm may be copied and held by various computers as it is transmitted; (3) persons not participating in our communication may intercept the communications by improperly accessing a computer that this e-mail passes through. This communication is sent via email given your prior consent to the same. If you do not wish to receive communications via email please contact this office immediately.

On Tuesday, June 15, 2021, 1:02:54 PM CDT, Joseph Gasper <gasperlaw@ymail.com> wrote:

Richard-

I will take a look at it and get back with you.

Joe

Joseph D. Gasper, #21763 GASPER LAW OFFICE 419 Main St., PO Box 251 Stockton, KS 67669 785-415-2052 IMPORTANT: DO NOT read, copy or disseminate this communication unless you are the intended addressee. This e-mail communication contains confidential and/or personal information intended only for the addressee. If you have received this communication in error, please call us (collect) immediately at (785) 415-2052 and ask to speak to the sender of this communication. Also, please e-mail the sender and notify the sender immediately that you have received the communication in error. Thank you. The Kansas Disciplinary Counsel requires lawyers to notify recipients of e-mail that: (1) e-mail communication is not a secure method of communication; (2) e-mail sent between you and this law firm may be copied and held by various computers as it is transmitted; (3) persons not participating in our communication may intercept the communications by improperly accessing a computer that this e-mail passes through. This communication is sent via email given your prior consent to the same. If you do not wish to receive communications via email please contact this office immediately.

On Tuesday, June 15, 2021, 10:37:55 AM CDT, Richard McLeon <richard.mcleon@lanescott.coop> wrote:

Joe,

The attached DRAFT policy is a proposed revision to Board Policy 113. Capital Credits. This revision allows:

1. Payment of Capital Credits in June and December from April and October. This is because April is a really busy month in the back office due to the Audit and December is a nice month to pay cash back. And,
2. A new provision for discounted capital credits to estates.

I would also like a clarification from you on G. 1. b.: "… upon a former patron failing to pay an amount owed to the Cooperative when the Board, in its sole judgment, determines the indebtedness owed to the Cooperative by a patron is uncollectible."

Currently, Staff decides when a debt is uncollectible, not the Board AND capital credits are applied only upon the class retirement by the Board, not when the account is determined to be uncollectible. What do you think about me amending it to read something like:

"… upon a former patron failing to pay an amount owed to the Cooperative when the ~~Board, in its sole judgment, determines the~~ indebtedness owed to the Cooperative by a patron is determined uncollectible."

This would allow Management to determine when the account is uncollectible (current practice) and allow us to retire (apply) the capital credits immediately to existing debt.

I would like to run a draft to the Board in July. Thoughts?

Richard

Richard A. McLeon, IV MBA
General Manager
Lane-Scott Electric Cooperative
A Touchstone Energy® Cooperative
Dighton, Kansas, USA
(620) 295-0236 *mobile*
(620) 397-5327 *office*
richard.mcleon@lanescott.coop

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10. c. 2021 KEC Summer Meeting and NRECA Delegates

The 2021 Kansas Electric Cooperatives Summer Meeting will be held July 31-August 2 at the Marriott Hotel (10800 Metcalf Avenue) in Overland Park, KS 66210. The meeting schedule is:

Saturday, July 31, 2021

9 a.m. – 4 p.m. – 2630.1 Strategic Planning with Scott Luecal
9 a.m. – 4 p.m. – 943.1 Conversation Skills Outside the Boardroom with Mike Marsch

Sunday, Aug. 1, 2021

9 a.m. – 4 p.m. – 953.1 Improving Board Decision-Making Quality with Mary McLaury
9 a.m. – 4 p.m. – 974.1 Rate Making Strategies and Policy Decisions for Electric Cooperative Boards with Scott Luecal

Monday, Aug. 2, 2021

KEC Summer Meeting
8 a.m. – 3 p.m. – Plans are being finalized for the Summer Meeting program. KEC will send the agenda at a later date.

Kansas NRECA Director Election
The Kansas NRECA Director Election will be held Monday, August 2, 2021, immediately following adjournment of Summer Meeting. NRECA will mail each member system manager a Certification of Voting Delegate and Alternate Voting Delegate form at least 40 days before the date of this NRECA Membership Meeting. **Return the completed form to Carol Dorr at the KEC office by Monday, July 26.**

KEC Board of Trustees Meeting
Immediately following adjournment of the NRECA Membership Meeting.

KEC Spouses Program
9 a.m. – 11:30 p.m. – Music Bingo
1:30 – 2:30 p.m. – Fellowship

Meeting registration deadline is July 14th. The Hotel reservation deadline passed on July 9th. If you wish to attend this meeting, please notify Diana tomorrow. Currently, Mr. Jennison and Richard McLeon are registered.

LSEC needs to designate a Voting Delegate and an Alternate Voting Delegate for the Kansas NRECA Director Election.

Notice of NRECA Director Election

Election Date Correction

To: NRECA Voting Members Located in the State of **Kansas**
From: Jim Matheson, NRECA Chief Executive Officer
Date: June 11, 2021

As a NRECA voting member located in the state, ***and regardless of whether you are a member of a NRECA statewide member***, you may vote for the NRECA Director. You may vote, however, only for the NRECA Director representing this state. The NRECA Director elected will serve the term which begins with the adjournment of the 2022 annual meeting of the NRECA Board of Directors ("Board") and ends with the adjournment of the 2024 annual meeting of the Board.

NRECA notifies you that the NRECA Director representing your state for this term will be elected at the following date, time, and place, and under the following procedure:

Date: August 2, 2021
Time: 11:00 a.m.
Place: Kansas Statewide Summer Meeting
Marriott Overland Park, 10800 Metcalf, Overland Park, KS 66210
Procedure: In nominating and electing the NRECA Director:

- Each NRECA voting member located in the state may select a voting delegate and alternate voting delegate, each voting delegate has one vote only, no voting delegate may vote for more than one NRECA voting member, and ***each voting delegate must complete the enclosed Certification of Voting Delegate for NRECA Director Election and submit it at the election on August 2nd;***
- Voting by proxy is prohibited, voting by mail, electronic mail, or other remote communications is prohibited, and the presence of voting delegates representing at least 20 percent of the NRECA voting members located in the state is a quorum;
- The incumbent NRECA Director presides over the election, but, if the incumbent is a candidate and comments regarding the election, then an individual designated by the incumbent, and approved by the NRECA voting members present, presides over the election;
- Any voting member director, officer, employee, or member may nominate himself or herself, or another candidate, from the floor only and no second is required;
- Voting is by secret ballot unless only one candidate is nominated, in which case the candidate may be declared elected by acclamation; and
- The NRECA Director must be elected by a plurality of votes cast (largest number of votes cast), and, if there is a tie vote, then voting is repeated and the nominee receiving the lowest number of votes is not removed from the next ballot.

A NRECA Director candidate must be located in the state, and must be a member, director, officer, or employee of a NRECA voting member in good standing located in the state.[1] To become and remain a NRECA Director, an individual must comply with the *NRECA Board of Directors Conflict of Interest Policy* ("*Policy*") and annually complete and sign a *Conflict of Interest Certification and Disclosure Form* ("*Form*"). The *Policy*, *Form*, and the *NRECA Director Job Description* are available upon request.

For a copy of these documents, or for ***administrative*** questions about the NRECA Director Election process, please contact Bernita Faulkner, Liaison to the NRECA Board of Directors, at 703-907-5541 or bernita.faulkner@nreca.coop. For ***legal*** questions about the election process, please contact Jessica Healy, NRECA Office of General Counsel, at 703-907-5846 or jessica.healy@nreca.coop.

[1] If the individual is a director or officer of an NRECA voting member, the individual shall be considered to be "located" in the same jurisdiction as the voting member for which the individual is a director or officer. NRECA Bylaw Article III. Section 1. D. (2) a.

Certification of Voting Delegate for NRECA Director Election

Please complete this form and bring it to the election. Do not forward a copy to NRECA.

Pursuant to the NRECA Bylaws, the undersigned director who is president or chair, and the director who is secretary, of the following NRECA voting member certify that the voting member has selected the following voting delegate and alternate voting delegate for, and that the delegates are authorized to cast the voting member's vote in, the election of the NRECA Director from **Kansas**:

NRECA Voting Member

System Name: Lane-Scott Electric Cooperative, Inc
System Mailing Address: P.O. Box 758
Dighton, KS 67839
System E-Mail Address: richard.mcleon@lanescott.coop
System Phone Number: (620) 397-5997

Voting Delegate

Voting Delegate Name: _____
Voting Delegate Title: _____
Voting Delegate E-Mail Address: _____
Voting Delegate Phone Number: _____

Alternate Voting Delegate

Alternate Delegate Name: _____
Alternate Delegate Title: _____
Alternate Delegate E-Mail Address: _____
Alternate Delegate Phone Number: _____

Certified By

Director who is President or Chair of the NRECA Voting Member

Signature: _____
Printed Name: Richard Jenison
Date: July 12, 2021

Director who is Secretary of the NRECA Voting Member

Signature: _____
Printed Name: Paul Seib, Jr.
Date: July 12, 2021

SAFETY PROGRAM

*SAFETY PROJECTS **COMPLETED** AS OF JUNE 2021*

1. Reviewed Hazard Mitigation resolution of adoption information and the program plan affects to our company.
2. Employee training record retention and set up paper and digital filing process.
3. Chris Terhune 10-hour General Industry training.
4. Researched OSHA Sharp program and requirements. Created a statement of affirmation, gathered three years of reporting data, and company programs.
5. Lane-Scott Electric safety manual amendments. New safety manual will be discussed at the June 30th safety meeting with employees and new books will be given to each employee.
6. Ann Jennings's member safety awareness publishes to either KCL newsletter, social media, and/or the Lane Scott Electric website concerning:
    - Heads-up for Farm Safety/Overhead Lines
    - Electric Shock Drowning
    - Lightening Safety
    - No Game Worth Getting Stuck For.
    - Summer Storm Electrical Safety
    - We're Ready for Storm Season. Are You?
    - What to Look for After a Storm
    - Hidden Electrical Dangers
    - Stay Clear
    - Overhead Line Clearance/Harvest
7. Diana Kuhlman submitted reports:
    - KEC Loss Control, Safety and Compliance System Monthly Statistical Report.
    - Compliance One drug and alcohol monthly roster report.
    - Employee files for safety training certificates.
    - CDL medical certification renewal.
8. KEC June safety meeting topics: Safety summary, Maintenance, Care and Testing of Personal Protective Equipment, and Administrative: Cooperative Security. June safety minutes are included in the board packet.

*SAFETY PROJECTS **IN PROGRESS** AS OF JUNE 2021*

1. Employee training paper and digital record retention.
2. RESAP/Self-Assessment/Annual Supervisor Inspection improvements **in progress**:
    - Truck #173 – upper boom chipped (Working with Brady at Altec to fix.)
    - Retail Warehouse – main office walkways need cleared and truck bay needs walkways marked.
    - Truck #110 – 2 traffic signs needed.
    - Ness Truck Bay – broken windowpane south end near highway is broken and needs replaced.

3. RESAP/Self-Assessment/Annual Supervisor Inspection improvements in **work plan**:
    - Bazine Substation – center switch beside regulators needs changed out.
    - Dighton City West Substation – needs switch bypass on north side of substation.
    - Ness City Substation – arrestors blown and need replaced.
    - Ransom Substation – arrestors blown, and needs replaced.
4. Emergency Action Plan (EAP) binder.
5. Safety manual employee copies and amendment updates.
6. OSHA Sharp program application.
7. Radio communication plan met with several radio distributors on quotes, ideas, and pricing.

LANE-SCOTT ELECTRIC COOPERATIVE, INC.
SAFETY MEETING
June 30, 2021

Chris Terhune called the meeting to order at 8:35am.
Minutes were read: Kevin Bradstreet made a motion to approve the May 19th minutes and Kalo Mann seconded. Minutes were read and approved as printed.

Present: Richard McLeon, Nate Burns, Kasey Jenkinson, Ben Mann, Chad Rupp, Chris Terhune, Myron Seib, Kevin Bradstreet, Leighton, Ayers Dellon Shelton, Blake McVicker, Scott Briand, Kalo Mann, Michael Pollock, Carrie Borell, Rebecca Campbell, Ann Marie Jennings, and Diana Kuhlman
Absent: Dal Hawkinson, Mark McCulloch, and Kathy Lewis

Truck report of inspections:

105	Dellon McVicker	OK
110	Blake McVicker	OK
112	Leighton Ayers	OK
117	Chris Terhune	Roadrunner Windshield replacing today.
123	Mark McCulloch	OK
132	Kevin Bradstreet	OK
135	Nate Burns	OK
136	Dellon Shelton	OK
143	Michael Pollock	OK
144	Kalo Mann	OK
145	Chris Terhune	OK
150	Kasey Jenkinson	Roadrunner Windshield repairing today.
173	Chad Rupp	OK
174	Kevin Bradstreet	OK
191	Michael Pollock	OK
193	Myron Seib	OK
200	Ben Mann	OK
304	Black McVicker	OK
305	Myron Seib	OK

Trailer and Equipment report of inspections:

502	Myron Seib	OK
507	Myron Seib	OK
515	Myron Seib	OK
504	Chris Terhune	OK
505	Chris Terhune	OK
508	Chris Terhune	OK
509	Chris Terhune	OK
513	Chris Terhune	OK
516	Chris Terhune	OK
700	Chris Terhune	OK
701	Chris Terhune	OK
702	Chris Terhune	OK
512	Scott Briand	OK
514	Scott Briand	OK

Warehouse, building, and pole yard inspections:

Ness City Warehouse	Myron Seib	OK
Ness Pole Yard & Transformer Dock	Myron Seib	OK
Warehouse	Scott Briand	OK
Pole Yard & Transformer Dock	Scott Briand	OK
Office	Diana Kuhlman	OK

Personal Tools: All Passed
Gloves Monthly Test Results: All Passed

Substation and Regulator Report: Ben Mann reported nothing new to report. Leighton Ayers reported regulators were changed out in Scott City 2-phase and City circuit.

PCB Report: None to report
Line Clearance: Bazine, Lane County land field, Scott Park, Lane, Ness, Nita Austin place, and Solidi tree trimming is working Ness City northwest section.
Accident and Near Misses: Kasey Jenkinson reported phase broke. Myron Seib reported broken guide wire in Manning. Ben Mann reported guide wire farmed up. Chard Rupp reported a vehicle passing the digger bucket truck in a no passing zone.

Old Business:

- Nate Burns reported the transformer and pad has been ordered for the HS padmount project. Lane County Feeders project is in progress. Scott Park project contract final and supplies will be ordered.

New Business:

- Chris Terhune discussed poison ivy awareness in Scott Park area. Reminder to make sure sleeves are exchanged for testing and RESAP is in July. Discussed placing a sign near lines where the culvert on main is being worked on. Roadrunner Windshield Repair is here today to replace truck 117 windshield and fix a pit in truck 150. Lane-Scott safety manual has been finalized and will be reviewed at the December in house safety meeting. Employees will continue using the KEC recommended safety manual until the Lane Scott safety manual has been reviewed with all employees in December.
- Scott Briand and Chris Terhune received their PCB training certificates.
- Richard McLeon discussed office relocation, construction and maintenance coding, managing outages after hour procedure changes, and operation department review. Incident investigation team was discussed. Incident investigation team would consist of Richard McLeon as the incident commander, a foreman, and another employee as assigned. Accident investigation kits are located in the lineman room, operation room, and Ness City Outpost. Chris Terhune will inspect kits to see if cameras or any other items need updated. Whistle blower policy and new drug and alcohol policy objective is to support employees to have access to resources to gain health, mind, and emotional support. To provide rehab, counseling, or assistance in whatever means to assist employees to be healthy. Work plan project will be presented at the July 12th board meeting. Cost of service study is being done and line extension policies and rates are being reviewed. VPP OSHA program accreditation in progress and GL# 925.7 will be used for anything done for this program. Training program, training purpose, and training reporting process was discussed. Training confirmations will be given to Chris Terhune to put in the employees training file. High Line training quality comparison to other training resources were discussed. OSHA 10-hour general industry training program which has a six-month time frame for completion will be taken by all journeymen. Chris Terhune has completed the course and Richard McLeon is currently doing the training. Digital radio and tower project was discussed. Chris Terhune reported that Mobile Radio from Great Bend will be doing our radios and in process of getting the digital numbers of Sunflower and local cooperatives so communication can be done across cooperative networks when needed in storm restoration or mutual aid situations. Management was notified that Kasey Jenkinson, Leighton Ayers, Myron Seib, and Blake McVicker received praise of performing excellent job efficiency.
  Richard McLeon updated employees on the Federated injuries and contact reporting results. Top four reasons for injuries and contacts:
  1. Improper use of gloves and sleeves.
  2. Improper insulating materials.
  3. Improper clearance procedures.
  4. Faulty test line and personal grounds.
- Myron Seib discussed incident concerning a secondary voltage issue that damaged Lane Scott line.

- Carrie Borell reported on server room relocation and networking build. Generator issues were discussed and APC UPS battery backup replacements to be installed. Richard McLeon reported bids for the generator replacement was in progress. Color printer replacement and office staff can be of assistance. Employee contact list reviewed for updates. Lane Scott policy and procedure company book updates located in Ness, Retail, Lineman, and Work rooms. Richard McLeon will email updates as well once approved at the board meetings. Ben Mann discussed digital option. Carrie Borell reported they are in digital format stored on the company drive which is not accessible from an iPad. A company share point drive for documents has been tested and it did not work accurately for iPads causing forms to be distorted when used on iPads and some issues on form fills saving back once edited properly. In progress of purchasing a single license for a company One Drive software to test compatibility across the network and keep employee devices One Drives separated and prevent document storage document programming distortion between Windows and iOS devices.
- Ann Marie Jennings discussed annual meeting, retail July filter sales, and employee participation of Lane-Scott related pictures that could be used for publishing.
- Rebecca Campbell discussed the process to find meter numbers on outages in AppSuite. Meter position 2 is classified as a heat pump and all other meters will be a position 1.
- Bruce McAntee with KEC trained on Maintenance, Care & Testing of Personal Protective Equipment, Administrative Cooperative Safety, discussed the safety summary. Discussed safety first, distraction, reminders, job briefing and risk assessment, and incident investigation. Discussed a helicopter incident and the lack of incident investigation and the affects.

Meeting adjourned.

_____ _____

Chris Terhune
Safety Coordinator

Carrie Borell
Safety Secretary

Kansas Electric Cooperatives, Inc. - Bucket Truck Rescue Training Record

Company	Location	Date	Time	Instructor
Lane-Scott	**Dighton**	**May 19, 2021**	**AM**	**Bruce L. McAntee**

Legend: (Y) Yes (N) No (+) Satisfactory (-) Unsatisfactory

(HB) Handline & Bucket (HW) Handline & Winch (RB) Rescue Blocks (MT) Manual Bucket Tilt (HT) Hydraulic Bucket Tilt (O) Other (specify)

Employee Name	Method of Rescue (see legend)	Received Instructional Lecture	Operated Boom Controls Properly	Positioned the Bucket Properly	Attached to Victim Properly	Operated Rescue Blocks or Handline Properly	Controlled Victim's Descent	Handled Victim Properly	Overall Performance	Time (optional) Min : Sec	Comments
Ben Mann	HT	+	+	+	+	+	+	+	+	:	
Dal Hawkinson	HT	+	+	+	+	+	+	+	+	:	
Chad Rupp	HT	+	+	+	+	+	+	+	+	:	
Kevin Bradstreet	HT	+	+	+	+	+	+	+	+	:	
Dellon Shelton	HT	+	+	+	+	+	+	+	+	:	
Blake McVicker	HT	+	+	+	+	+	+	+	+	:	
Chris Terhune	HT	+	+	+	+	+	+	+	+	:	
Myron Seib	HT	+	+	+	+	+	+	+	+	:	

Kansas Electric Cooperatives, Inc. - Pole Top Rescue Training Record

Company	Location	Date	Time	Instructor
Lane-Scott	**Dighton**	**May 19, 2021**	**AM**	**Bruce L. McAntee**

Legend: (Y) Yes (N) No (+) Satisfactory (-) Unsatisfactory
(SM) Screwdriver Method (CM) Crossarm Method

Employee Name	Method of Rescue (see legend)	Received Instructional Lecture	Properly Secured Belt and Hooks	Climbed Belted Near Victim	Used Approved Rigging Method	Attached to Victim Properly	Removed Sufficient Rope Slack	Cut Strap in a Safe Manner	Controlled Victim's Descent	Overall Performance	Time (optional) Min : Sec	Comments
Kasey Jenkinson	CM	Y	+	+	+	+	+	+	+	+	:	
Leighton Ayers	CM	Y	+	+	+	+	+	+	+	+	:	
Dal Hawkinson	CM	Y	+	+	+	+	+	+	+	+	:	
Chad Rupp	CM	Y	+	+	+	+	+	+	+	+	:	
Ben Mann	CM	Y	+	+	+	+	+	+	+	+	:	
Kevin Bradstreet	CM	Y	+	+	+	+	+	+	+	+	:	
Chris Terhune	CM	Y	+	+	+	+	+	+	+	+	:	
Blake McVicker	CM	Y	+	+	+	+	+	+	+	+	:	
Dellon Shelton	CM	Y	+	+	+	+	+	+	+	+	:	

SAFETY SUMMARY
JUNE 2021 | VOL. 67 – NO. 6

KEC KANSAS ELECTRIC COOPERATIVES, INC.
A Touchstone Energy® Cooperative

INSIDE

SAFETY SUMMARY

Safety Summary is published monthly by the Loss Control, Safety & Compliance Department at Kansas Electric Cooperatives, Inc., Topeka, Kansas.

EDITOR: Larry Detwiler,
Director, Loss Control, Safety & Compliance

LOSS CONTROL, SAFETY & COMPLIANCE COMMITTEE

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KEC STAFF LIAISONS
Larry Detwiler
Lee Tafanelli

Three Values for Safety Success

Keep Safety Simple: Three Work Values for Safety Success -Safety-Quality-Production

During this time of getting back to work there must be a careful balance effort to be financially successful while being safe. It is easy to say, "Safety First" on the job site, but operationally putting safety first is more difficult to achieve than we realize. The challenge is to manage what seems like competing values: safety, quality, and production. Years of observing workplace safety across the US and around the world have shown me that humans are motivated by doing more. When we do more for the company and the company prospers, bonuses are handed out an raises are given; there's a general attitude of pride and accomplishment and everyone is happy. Somehow, this equation gets messed up when the balance between safety, production, and quality gets out of whack.

For example, several years ago a client produced a product that was in high demand and they owned more than 85% of the market. The leader I was working with said, "This business is like printing money because of the high margins." These margins led the company to give supervisors an incentive to produce more but not to keep "Safety First." Other industry clients have been in similar situations with overhauls and maintenance turn-arounds. Sometimes leaders, including supervisors and foremen, unwittingly send the signal that safety is secondary to production or quality.

We all listen with our values. In other words, we all have values and those are the filters through which we hear information. We translate to prove we are correct. During a safety briefing supervisors and crew leaders talk about working safe and keeping "Safety First." Once the briefing is complete workers notice the words... "All right, we've got a lot to do, let's get back to work!" [translation] "Get the job done, even if you have to take short cuts." If workers have a value or belief that leaders are only interested in profits, this is how they will translate the message. To help keep "Safety First" in your workplace I want to suggest a better set of values. Let's take a look at a set of primary values: safety, quality, and production.


Carl Potter, CSP, CMC

Safety-Quality-Production Defined

If you will, follow me on the supposition that safety, quality, and production are values required in an organization where zero injuries is a target. Consider the definition of these values from Webster's Dictionary:

- Safety: the condition of being safe from undergoing or causing hurt, injury, or loss
- Quality: degree of excellence
- Production: total output especially of a commodity or an industry

Each of these has a common thread

We listen with our values, and translate to prove we are correct. – CARL POTTER

Continued on page 4 ▶

Accident Summary *March 2021*

	No Lost Time	Lost Time	Days Lost	Employees Full-time	Employees Part -time	Hours Worked	Vehicles Used	Miles Driven	Vehicle Accidents
4 Rivers	0	0	0	43	0	6,758	30	39,071	0
Ark Valley	0	0	0	15	0	3,199	15	13,000	0
Bluestem	1	0	0	30	0	5,667	29	25,615	0
Brown-Atchison	0	0	0	11	0	1,862	9	6,319	0
Butler	**NO REPORT**								
Caney Valley	0	0	0	17	0	3,169	16	9,751	0
CMS	0	0	0	33	0	5,463	22	25,062	0
DSO	0	0	0	29	0	5,361	32	25,416	0
Doniphan	0	0	0	7	0	1,473	5	2,405	0
Flint Hills	0	0	0	20	0	3,587	18	12,313	1
FreeState	0	0	0	79	2	13,678	41	46,572	0
Heartland	0	0	0	43	0	8,121	30	45,990	0
KEC	0	0	0	13	0	2,305	7	8,305	0
KEPCo	0	0	0	23	0	3,682	10	15,730	0
Lane-Scott	0	0	0	23	1	3,942	21	16,146	0
Nemaha-Marshall	0	0	0	14	1	2,658	11	11,656	0
Ninnescah	1	0	0	17	0	3,281	12	15,590	0
Pioneer	0	0	0	70	3	13,454	49	62,054	0
Prairie Land	**NO REPORT**								
Rolling Hills	2	0	0	41	0	6,912	40	54,110	0
Sedgwick County	0	0	0	19	0	3,475	16	9,887	0
Southern Pioneer	**NO REPORT**								
Sumner-Cowley	**NO REPORT**								
Twin Valley	0	0	0	13	1	2,186	12	8,249	0
Victory	0	0	0	71	0	13,326	40	41,502	0
Western	0	0	0	57	0	9,943	39	31,739	0
Wheatland	0	0	0	137	1	NA	104	NA	1
Total	**4**	**0**	**0**	**825**	**9**	**123,502**	**608**	**526,482**	**2**

Accident Previously Reported +Reflects Cumulative Lost Time

Accident Reports *March 2021*

March 2021
ROLLING HILLS, BELOIT
(2) No accident forms submitted.
Lost time: No

March 2021
FLINT HILLS, COUNCIL GROVE
Vehicle accident: No accident form submitted.
Lost time: No

March 2021
BLUESTEM, WAMEGO
No accident form submitted.
Lost time: No

March 9, 2021
WHEATLAND, CALDWELL
Vehicle accident: cooperative employee was trying to maneuver the cooperative's aerial device around the cooperative's digger-derrick and a freshly backfilled trench. Employee was looking in the utility vehicle's side mirror and then noticed their vehicle contacting the rear corner of other utility vehicle causing a deep scratch on passenger-side side bins.
Lost time: No

March 24, 2021
NINNESCAH, PRATT
Apprentice Lineman
Injury: Contusion to left big toe.
Cause: Cooperative employee was removing mud from their boots, left foot struck side of the boot wash.
Lost time: No

Federated Near-Miss Reporting

Dear Safety Professional:

As you are aware, Federated launched a Near-Miss reporting program in December of 2015, encouraging employees to report any and all near-miss incidents experienced at the system or through interaction with the general public. Some of you have asked if we have received any reported incidents and the answer is yes, we have. For expediency, I am sending the reported incidents to you so you have an opportunity to discuss these incidents, with your employees as soon as possible. I will provide more information as it becomes available, and in the near future, you will have access to this information by accessing our website. Thank you.

R. COREY PARR
VP Safety & Loss Prevention

UPCOMING EVENTS

2021 WORKSHOPS

KEC Hot Line Schools
September 8-10
(Pratt)
September 14-16
(Manhattan)

Kansas Line Supervisors
Fall Conference
September 22-24
(Wichita)

Safety Coordinators
Roundtable
October 20
Location (TBA)

Transformer Workshop
November 16-17
(Topeka)

Metering Workshop
November 18-19
(Topeka)

Speak Up!/Listen Up!
December 7 & 8 (Ulysses)
December 9 & 10 (Topeka)

Three Values for Safety Success *Continued from page 1*

– people. Safety obviously is about people (employees, customers, and owners) going home to their families every day without injury. Quality has a strong link to people. When quality is a value, employees can be proud of what they produce, owners (whether stockholders, private owners, or employee owners) benefit from profits and sustainability in the marketplace which leads to ongoing employment and satisfied customers. Quality also affects the safety of individuals. If an inferior product or service is put in the hands of customers, injuries and death can result. (Remember Firestone tires?). Production is a direct link to people – those who produce, those who buy, and those who own the company. If production is slow or non-existent, no one benefits. When production is at its best, the output is optimal. Jobs are maintained, customers' demands are met, and owners profit. When people– employees or customers – are injured, production can grind to a halt because of lost human resources, lawsuits, or re-work.

Keeping people in mind and values in the right priority can benefit everyone.

When we say safety is a priority, we are correct. Priority means that if I change the situation, the chain-of-priority changes. If we take the three work values and group them together to form our work priorities, we will be less confused when other values begin to creep into the work plan. Safety-Quality-Production can be thought of as one word to describe our work priority.

When speaking to a group I often have them repeat after me: Safety-Quality-Production several times. When all the players are in the room, we discuss the importance of placing these work values in order of importance. If we produce but the quality of the product or job is inferior, then we are bound to lose customer trust or must redo the job. If we produce a product at the cost of an injury, then we have failed to be successful overall. For these reasons, we must adopt a work priority that will lead us to the desired success.

Take the time this month to talk among your peers about these three work values and how they can form your work priority. Ask each person to share a time when they "heard" production first during a job briefing from a leader. Was that what the leader said? If yes, was that what the leader meant? If you are a leader, how can you guard against mistranslation? How can you learn about others' values so you will begin to understand the filters through which they 'hear' information? And, consider your own values as filters and ask yourself how they affect your willingness to truly listen. Creating a safe workplace depends around our ability to listen with the right values and translate the safety message so that nobody gets hurt.

Also...

While we are moving forward at this time of rebuilding businesses and getting back to work, let's Keep Safety Simple by applying four key principals for creating a workplace where it is difficult to get hurt.

1. Keep your attitude positive towards the goal of nobody gets hurt. This will help you focus on the procedures that reduce the risk of injury because it mitigates recognized hazards.
2. Keep your eyes open and observe your surroundings so that when a hazard creeps up you are willing to take action.
3. Last of all, wear your PPE (Personal Protective Equipment) because it is the last line of defense. If you are able to mitigate the hazard(s) on a worksite to a point where PPE is not required, then you have won the large part of the battle and made it easier to insure that nobody gets hurt.

If you are looking for a safety message that will rally your employees as they go back to work let me know. I am set up to speak from my studio "live" through Microsoft Teams. It would be my honor to visit with you about scheduling presentations so that we strive to continue developing a sustainable and positive safety culture in your workplace.

Why are Job Briefings and Risk Assessments Important?

BY PAM TOMPKINS, CUSP, CSP, AND MATT EDMONDS, CUSP, CIT, CHST

Both are intended to be used as part of the planning process to accomplish a job safely and successfully.

When you hear the term "job briefing," what comes to mind? Perhaps a meeting, a form to fill out or maybe even a complete waste of time? How we perceive job briefings has a huge impact on how we complete them. Per OSHA, job briefings are required to be completed before each job; however, for us to perform them effectively, it is critical that we understand the intent behind that requirement.

Pam Tompkins

Matt Edmonds

What Needs to be Covered?

A job briefing is intended to be used as part of the planning process to accomplish a job both safely and successfully. OSHA 29 CFR 1910.269(c)(2) requires that the following topics be covered, at minimum, during a briefing: hazards associated with the job, work procedures involved, special precautions, energy-source controls and personal protective equipment requirements. All of these elements are essential to safely plan for the work that is to take place. By design, job briefings encourage us to slow down and think about the job we are about to perform. When we take time to think, we begin to identify desired outcomes as well as elements that can contribute to undesired outcomes.

Unidentified hazards are one of the greatest contributors to undesired outcomes. Hazards are required to be covered in a job briefing, but a challenge that most of us face when it comes to hazards is actually identifying them. It's easy to miss something we aren't looking for, and we can't assume that all jobs have the same hazards. So, what hazards should we be looking for and discussing during a job briefing? The simple answer is those that have the highest levels of risk. However, we don't always assign risk to hazards, which is another challenge when it comes to successfully completing a job briefing.

Every task we complete has a level of risk associated with it. For instance, walking down a flight of stairs has risk, but most of us who can do so walk up and down stairs every day without thinking about the risk involved. So, what is risk? It is a combination of several factors but has two primary components: likelihood and severity. Likelihood essentially means the probability that a hazard will shift from a potential source of harm to an actual source of harm. Severity is the part of risk that often gets overlooked, especially when job briefings are performed. That's most likely because, as humans, we become comfortable around hazards that haven't had any negative impact on us. This is especially true when performing tasks that we have completed many times before; our minds perceive little to no risk because we believe there is a low likelihood of negative consequences. We can forget how high the severity could potentially be because we have never experienced it before.

Number and Extent of Briefings

In addition to the topics that must be covered, OSHA also has requirements regarding how often job briefings are to be conducted; those can be found at 1910.269(c)(3) and (c)(4). Briefings are required before each job, and additional briefings must be held if significant changes, which might affect the safety of the employees, occur during the course of work. Again, planning is the intent behind these requirements. When the scope of a job changes, it's a reasonable assumption that other items — especially hazards — could change along with it.

Working Alone

Should an employee who is working alone be required to complete a job briefing? OSHA 1910.269(c)(5) states that an "employee working alone need not conduct a job briefing. However, the employer shall ensure that the tasks to be performed are planned as if a briefing were required." The

Continued on page 6

Why are Job Briefings and Risk Assessments Important?

Continued from page 5

word "however" carries a lot of weight in this context; employees working alone must plan their jobs no differently than workers on multi-employee job sites. Job planning for a lone worker could be accomplished through a pre-job briefing with the supervisor before the job starts.

Documentation

Most organizations require some type of documentation of job briefings although there is no mention of such a requirement in the OSHA standard. Documenting each briefing offers benefits to both the employer and the employee; among other things, when a briefing is documented, it provides the employee with a checklist for the safe planning of the work to be performed. Keep in mind, though, that simply writing something on a job briefing doesn't necessarily mean that it happened. Far too often, paperwork is filled out and workers sign their names without discussing or planning the work they are about to start. The content of the briefing is — and should be considered — far more important than the paperwork associated with the briefing.

Summary

When work is not thoroughly planned ahead of time, the possibility of human error greatly increases. An effective job briefing enables crews to stay connected on the job site through an understanding of the job, its hazards, the necessary controls and worker responsibilities.

PAM TOMPKINS, CUSP, CSP, is president and CEO of SET Solutions LLC. She is a 40-year veteran of the electric utility industry, a founding member of the Utility Safety & Ops Leadership Network and presently serves on the USOLN executive board. Tompkins worked in the utility industry for over 20 years and has provided electric power safety consulting for the last 20 years. An OSHA-authorized instructor, she has supported utilities, contractors and other organizations operating electric power systems in designing and maintaining safety improvement methods and strategies for organizational excellence.

MATT EDMONDS, CUSP, CIT, CHST, is vice president of SET Solutions LLC. A published author with over 15 years of safety management experience, he also is an OSHA-authorized instructor for general industry and construction standards. Edmonds provides specialty safety management services for electric power organizations throughout the U.S. He has been instrumental in the development of training courses designed for electric power organizations, including OSHA 10- and 30-hour courses and SET Solutions' popular OSHA Electric Power Standards Simplified series.

About OSHA Electric Power Standards — Simplified: Topics in this series are derived from SET Solutions' popular OSHA electric power course offered through the Incident Prevention Institute (https://ip-institute.com). The course is designed to help learners identify standard requirements and to offer practical ways to apply the standards.

Special thanks to Incident Prevention for allowing KEC to reprint the article.

KEC
KANSAS ELECTRIC COOPERATIVES, INC.
A Touchstone Energy® Cooperative

STOP AND FOCUS EVERYDAY

S.A.F.E. TALK

*This document is not designed, written or intended for public consumption.

TOPIC - 15:

Heat Illness

Incident Summary:

Heat is a leading cause of weather-related illnesses in the United States, resulting in fatalities and heat-related illnesses each year. In 2019, Federated members experienced 20 cases of heat illness. According to OSHA, most heat-related outdoor fatalities, 50% to 70%, occur in the first few days of working in warm or hot environments because the body needs to build up a tolerance to the heat gradually over time. The process of building tolerance is called heat acclimatization.

Discussion Points:

1. **WHAT IS HEAT ILLNESS?**
   - Heat-related illnesses, like heat exhaustion or heat stroke, happen when the body is not able to properly cool itself. While the body normally cools itself by sweating, during extreme heat, this might not be enough. In these cases, a person's body temperature rises faster than it can cool itself down. This can cause damage to the brain and other vital organs.
2. **WHAT ARE SOME FACTORS THAT MAY INCREASE A PERSON'S RISK OF DEVELOPING A HEAT-RELATED ILLNESS?**
   - High levels of humidity
   - Fever
   - Prescription drug use
   - Mental illness
   - Sunburn
   - Obesity
   - Dehydration
   - Heart disease
   - Poor circulation
   - Alcohol use
3. **WHO IS MOST AT RISK?**
   - Older adults, the very young, and people with mental illness and chronic diseases are at the highest risk. However, even young and healthy people can be affected if they participate in strenuous physical activities during hot weather.
   - Heat illness can affect people of all ages.
4. **HEAT ILLNESSES HAVE THREE STAGES: HEAT CRAMPS, HEAT EXHAUSTION, AND HEATSTROKE.** Below is a list of the symptoms and treatments for each. Everyone should become familiar with the heat symptoms and treatments. When any of these symptoms is present, promptly provide first aid. Do not try to diagnose which illness is occurring. Diagnosis is often difficult because symptoms of multiple heat-related illnesses can occur together. Time is of the essence. These conditions can worsen quickly and result in fatalities.

WHEN IN DOUBT, COOL THE WORKER AND CALL 911.

OSHA and NIOSH have created a Heat Safety Tool. This app is available on apple and android devices. This app will give you the heat index and show you the risk factor for a heat-related illness. It also has the first aid procedures for the different types of heat illness. The app is titled "OSHA NIOSH Heat Safety Tool."

Symptoms and First Aid for Heat Illness

- Heat Cramps: Heat cramps usually affect workers who sweat a lot during strenuous activity. This sweating depletes the body's salt and moisture levels. Low salt levels in muscles causes painful cramps. Heat cramps may also be a symptom of heat exhaustion.
- Symptoms: Muscle cramps, pain, or spasms in the abdomen, arms, or legs.

First Aid:

- Heat Exhaustion - Heat exhaustion is the body's response to an excessive loss of water and salt, usually through excessive sweating. Workers most prone to heat exhaustion are those that are elderly, have high blood pressure, and those working in a hot environment.

Continued on page 8

STOP AND FOCUS EVERYDAY

S.A.F.E. TALK

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TOPIC - 15:

Heat Illness

- **SYMPTOMS:** Headache, Nausea, Dizziness, Weakness, Irritability, Thirst, Heavy sweating, Elevated body temperature, Decreased urine output

First Aid:

- Drink water and have a snack and/or carbohydrate-electrolyte replacement liquid (e.g., sports drinks) every 15 to 20 minutes.
- Avoid salt tablets.
- Get medical help if the worker has heart problems, is on a low sodium diet, or if cramps do not subside within 1 hour.
- **HEAT EXHAUSTION** - Heat exhaustion is the body's response to an excessive loss of water and salt, usually through excessive sweating. Workers most prone to heat exhaustion are those that are elderly, have high blood pressure, and those working in a hot environment.

SYMPTOMS: Headache, Nausea, Dizziness, Weakness, Irritability, Thirst, Heavy sweating, Elevated body temperature, Decreased urine output

First Aid:

- Take worker to a clinic or emergency room for medical evaluation and treatment.
- If medical care is unavailable, call 911.
- Someone should stay with worker until help arrives.
- Remove worker from hot area and give liquids to drink.
- Remove unnecessary clothing, including shoes and socks.
- Cool the worker with cold compresses or have the worker wash head, face, and neck with cold water. Encourage frequent sips of cool water.
- **HEAT STROKE** - Heat stroke is the most serious heat-related illness. It occurs when the body becomes unable to control its temperature: the body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. When heat stroke occurs, the body temperature can rise to 106°F or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not given.

SYMPTOMS: Confusion, Altered Mental Status, Slurred Speech, Loss of Consciousness (Coma) Hot, Dry Skin or Profuse Sweating, Seizures, Very High Body Temperature, Fatal if Treatment is Delayed

First Aid:

- Take the following steps to treat a worker with heat stroke:
- Call 911 for emergency medical care.
- Stay with worker until emergency medical services arrive.
- Move the worker to a shaded, cool area and remove outer clothing.
- Cool the worker quickly with cold water or ice bath if possible; wet the skin, place cold wet clothes on skin, or soak clothing with cool water.
- Circulate the air around the worker to speed cooling.
- Place cold wet clothes or ice on head, neck, armpits, and groin; or soak the clothing with cool water.

Recommendations:

- Hot cars can be deadly. Never leave children or pets in your vehicle. The inside temperature of the car can quickly reach 120 degrees.
- Slow down, stay indoors and avoid strenuous exercise during the hottest part of the day.

WATER. REST. SHADE.

The work can't get done without them.

STOP AND FOCUS EVERYDAY

S.A.F.E. TALK

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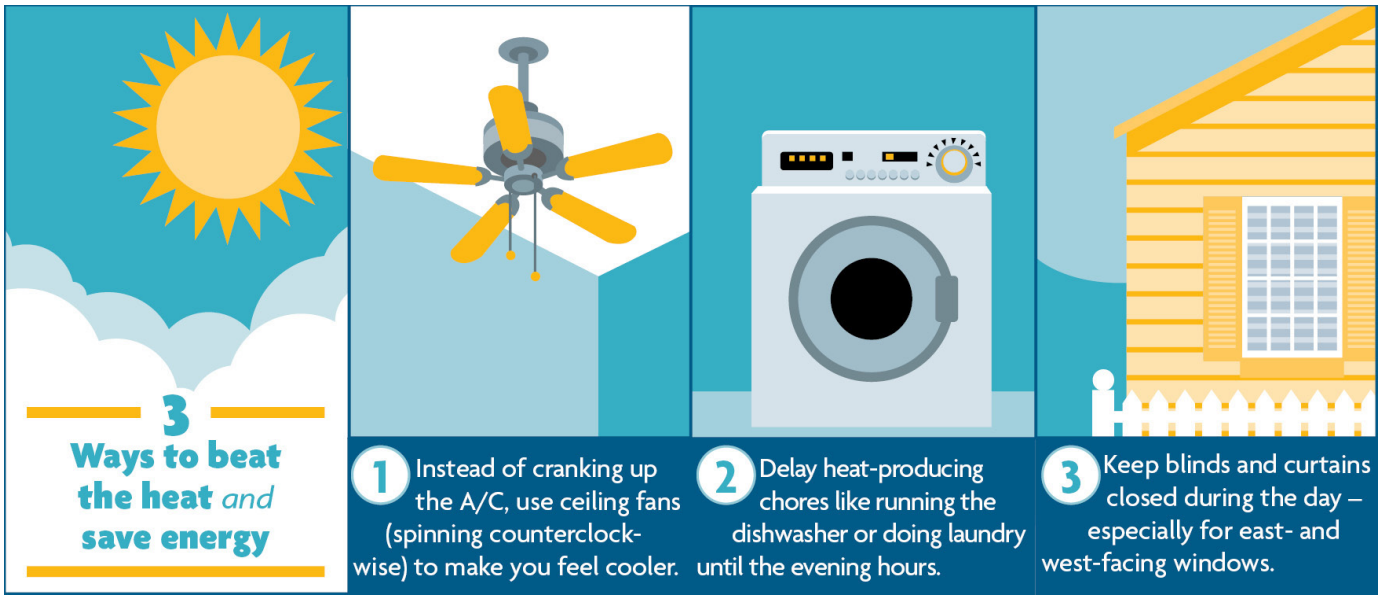
TOPIC - 15:

Heat Illness

- Postpone outdoor games and activities.
- Use a buddy system when working in excessive heat. Take frequent breaks if working outdoors.
- Stay hydrated by drinking plenty of fluids. Avoid drinks with caffeine or alcohol.
- Check on family, friends and neighbors who do not have air conditioning, who spend much of their time alone or who are more likely to be affected by the heat.
- Community cooling centers are available in many urban and metropolitan areas. Check with your local county office to locate centers near you.
- If someone doesn't have air conditioning, they should seek relief from the heat during the warmest part of the day at a community cooling location or shopping mall.
- Avoid extreme temperature changes.
- Wear loose-fitting, lightweight, light-colored clothing. Avoid dark colors because they absorb the sun's rays. Check on animals frequently to ensure that they are not suffering from the heat. Make sure they have plenty of cool water.

Sources: American Red Cross, Center for Disease Control and Occupational Safety and Health Administration

For internal cooperative use only!



CYBERSECURITY - IT DEPARTMENT

*CYBERSECURITY/IT PROJECTS **COMPLETED** AS OF JUNE 2021*

1. Manage Engine software 2MFA issues resolved.
2. Microsoft Patch Tuesday webinar: Awareness of recent patches and vulnerabilities.
3. Employee security permissions updated.
4. Veritas server backup email notification error resolved.
5. Axio Ransomware cybersecurity webinar.
6. Tri-State cybersecurity summit webinar.
7. Server critical update install error issue resolved.
8. Mobile VPN company data drive access options and possible remote desktop options.
9. Server room and networking breaker amp size increased and separated out on its own breaker. APC UPS battery backup plug in upgraded to larger amperage size.
10. Cyber Detect Intrusion Detection Response software reporting training.
11. Ann Jennings's member safety awareness publishes to either KCL newsletter, social media, and/or the Lane Scott Electric website concerning:
    - Utility Scam Alert
12. ASP iVue server monthly patching and updates.
13. Office 365 threat management daily review and risk mitigation.
14. Desktop Central security management daily review and risk mitigation.
15. AppSuite version 1.78.0 upgrade.
16. Payment Gateway version 1.24 patch 14 upgrade.
17. US Payment KIOSK monthly server patching.
18. Operations and domain server backups and alert warning daily review.
19. AppSuite MapView TPK imagery and data file monthly update.
20. Applications and windows updates and patching.

*CYBERSECURITY/IT PROJECTS **IN PROGRESS** AS OF JUNE 2021*

1. Operations SCADA cybersecurity processes.
2. Server room and security system networking project.
3. Vulnerability management project.

IT/COMPLIANCE DEPARTMENT

*IT/COMPLIANCE PROJECTS **COMPLETED** AS OFJUNE 2021*

1. SmartHub SMS text messaging notifications programming and migration. Previously we used a shared short code number to deliver messages through a multi-channel messenger solution. Notification methods was transitioned form the short code process to individual cooperatives using a unique toll-free number to send out text messages.
2. NISC SmartHub messenger custom prompt settings and tested process. SmartHub logins prompt a pop-up box that will notify members of events, activities, etc.
3. Copied Lane Scott Electric company handbooks for updated policies and procedures for employees to use as referral or use for making copies if employees prefer their individual handbooks to be updated. All updated policies will be replaced in the company handbook, and we will no longer be making copies for each employee's handbook.
4. First State Bank security audit.
5. Verifone payment machine syncing resolved from generator issues.
6. S&T Telephone new dialing server programming and procedures.
7. NISC Utility Service Overview webinar.
8. MDMS project implementation webinar.
9. Researched pole GPS location coordinates file type upload requirements, and data field requirements for mapping transition compatibility.
10. Printer local user reset, and print management settings previewed.
11. KIOSK barcode calibration resolved.
12. Servers and switch relocation. IT and Server room relocation.
13. TriState IT mentor biweekly 1st webinar topics: Asset tracking, system imaging, hard drive disposal, IT and Cyber compliance, and mobile device management. 2nd webinar topics: Cybersecurity team on cybersecurity stages, software tools, and resources. 3rd webinar topics: IT project management, employee project ticketing process, and time management, and resources.
14. NISC webinar on building network and device mapping.
15. Generator and APC UPS battery backup issues.
16. Server room relocation and racks built.
17. Troubleshooting employee and trustee software and device issues.

*IT/COMPLIANCE PROJECTS **IN PROGRESS** AS OF JUNE 2021*

1. MDMS project implementation.
2. S&T phone server area code amendments and testing.
3. Server room and networking project.
4. Mapping printer issues and maintenance scheduled.

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 15 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.

UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL UTILITIES SERVICE

FINANCIAL AND OPERATING REPORT
ELECTRIC DISTRIBUTION

INSTRUCTIONS - See help in the online application.

BORROWER DESIGNATION: KS0042

PERIOD ENDED: May 2021

BORROWER NAME: The Lane-Scott Electric Cooperative, Inc.

This information is analyzed and used to determine the submitter's financial situation and feasibility for loans and guarantees. You are required by contract and applicable regulations to provide the information. The information provided is subject to the Freedom of Information Act (5 U.S.C. 552)

CERTIFICATION

We recognize that statements contained herein concern a matter within the jurisdiction of an agency of the United States and the making of a false, fictitious or fraudulent statement may render the maker subject to prosecution under Title 18, United States Code Section 1001.

We hereby certify that the entries in this report are in accordance with the accounts and other records of the system and reflect the status of the system to the best of our knowledge and belief.

ALL INSURANCE REQUIRED BY PART 1788 OF 7 CFR CHAPTER XVII, RUS, WAS IN FORCE DURING THE REPORTING PERIOD AND RENEWALS HAVE BEEN OBTAINED FOR ALL POLICIES DURING THE PERIOD COVERED BY THIS REPORT PURSUANT TO PART 1718 OF 7 CFR CHAPTER XVII

(check one of the following)

[X] All of the obligations under the RUS loan documents have been fulfilled in all material respects.

[ ] There has been a default in the fulfillment of the obligations under the RUS loan documents. Said default(s) is/are specifically described in Part D of this report.

Richard McLeon

6/24/2021
DATE

PART A. STATEMENT OF OPERATIONS

ITEM	YEAR-TO-DATE			THIS MONTH
	LAST YEAR (*a*)	THIS YEAR (*b*)	BUDGET (*c*)	(*d*)
1. Operating Revenue and Patronage Capital	6,721,962	6,940,042	7,105,617	1,440,755
2. Power Production Expense				
3. Cost of Purchased Power	3,506,082	4,326,978	4,292,109	917,353
4. Transmission Expense	912	974	29,054	111
5. Regional Market Expense				
6. Distribution Expense - Operation	620,668	524,056	395,832	104,617
7. Distribution Expense - Maintenance	324,332	568,258	291,665	132,563
8. Customer Accounts Expense	83,149	93,025	75,170	22,997
9. Customer Service and Informational Expense	12,394	31,852	15,602	5,606
10. Sales Expense	22,680	30,390	19,823	4,731
11. Administrative and General Expense	560,112	682,664	495,796	115,852
12. Total Operation & Maintenance Expense (*2 thru 11*)	5,130,329	6,258,197	5,615,051	1,303,830
13. Depreciation and Amortization Expense	676,105	764,668	720,776	153,413
14. Tax Expense - Property & Gross Receipts				
15. Tax Expense - Other				
16. Interest on Long-Term Debt	551,747	550,781	516,007	109,009
17. Interest Charged to Construction - Credit				
18. Interest Expense - Other	835	63	1,047	12
19. Other Deductions	5,634	4,196	5,250	1,058
20. Total Cost of Electric Service (*12 thru 19*)	6,364,650	7,577,905	6,858,131	1,567,322
21. Patronage Capital & Operating Margins (*1 minus 20*)	357,312	(637,863)	247,486	(126,567)
22. Non Operating Margins - Interest	74,496	56,098	108,790	2,955
23. Allowance for Funds Used During Construction				
24. Income (Loss) from Equity Investments				
25. Non Operating Margins - Other	(27,846)	(90,462)	11,458	(38,129)
26. Generation and Transmission Capital Credits				
27. Other Capital Credits and Patronage Dividends	18,198	21,597	20,000	
28. Extraordinary Items				
29. Patronage Capital or Margins (*21 thru 28*)	422,160	(650,630)	387,734	(161,741)

UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL UTILITIES SERVICE

FINANCIAL AND OPERATING REPORT
ELECTRIC DISTRIBUTION

INSTRUCTIONS - See help in the online application.

BORROWER DESIGNATION
KS0042

PERIOD ENDED
May 2021

PART B. DATA ON TRANSMISSION AND DISTRIBUTION PLANT

ITEM	YEAR-TO-DATE LAST YEAR (*a*)	YEAR-TO-DATE THIS YEAR (*b*)	ITEM	YEAR-TO-DATE LAST YEAR (*a*)	YEAR-TO-DATE THIS YEAR (*b*)
1. New Services Connected	23	14	5. Miles Transmission		
2. Services Retired	24	16	6. Miles Distribution – Overhead	2,036.59	2,035.37
3. Total Services in Place	6,036	6,040	7. Miles Distribution - Underground	7.53	7.66
4. Idle Services (*Exclude Seasonals*)	243	238	**8. Total Miles Energized** ***(5 + 6 + 7)***	2,044.12	2,043.03

PART C. BALANCE SHEET

ASSETS AND OTHER DEBITS		LIABILITIES AND OTHER CREDITS	
1. Total Utility Plant in Service	58,274,351	30. Memberships	0
2. Construction Work in Progress	173,054	31. Patronage Capital	21,708,073
3. Total Utility Plant ***(1 + 2)***	58,447,405	32. Operating Margins - Prior Years	0
4. Accum. Provision for Depreciation and Amort.	18,524,680	33. Operating Margins - Current Year	(637,863)
5. Net Utility Plant ***(3 - 4)***	39,922,725	34. Non-Operating Margins	528,533
6. Non-Utility Property (Net)	0	35. Other Margins and Equities	132,862
7. Investments in Subsidiary Companies	219,889	**36. Total Margins & Equities** ***(30 thru 35)***	21,731,605
8. Invest. in Assoc. Org. - Patronage Capital	10,935,796	37. Long-Term Debt - RUS (Net)	0
9. Invest. in Assoc. Org. - Other - General Funds	445,461	38. Long-Term Debt - FFB - RUS Guaranteed	33,688,179
10. Invest. in Assoc. Org. - Other - Nongeneral Funds	221,958	39. Long-Term Debt - Other - RUS Guaranteed	0
11. Investments in Economic Development Projects	0	40. Long-Term Debt Other (Net)	7,936,427
12. Other Investments	5,501	41. Long-Term Debt - RUS - Econ. Devel. (Net)	0
13. Special Funds	0	42. Payments – Unapplied	4,251,558
14. Total Other Property & Investments ***(6 thru 13)***	11,828,605	**43. Total Long-Term Debt** ***(37 thru 41 - 42)***	37,373,048
15. Cash - General Funds	53,434	44. Obligations Under Capital Leases - Noncurrent	0
16. Cash - Construction Funds - Trustee	100	45. Accumulated Operating Provisions and Asset Retirement Obligations	0
17. Special Deposits	25	**46. Total Other Noncurrent Liabilities** ***(44 + 45)***	0
18. Temporary Investments	6,653,571	47. Notes Payable	0
19. Notes Receivable (Net)	0	48. Accounts Payable	944,458
20. Accounts Receivable - Sales of Energy (Net)	1,460,963	49. Consumers Deposits	107,865
21. Accounts Receivable - Other (Net)	138,108		
22. Renewable Energy Credits	0	50. Current Maturities Long-Term Debt	2,257,842
23. Materials and Supplies - Electric & Other	379,441	51. Current Maturities Long-Term Debt - Economic Development	0
24. Prepayments	71,646	52. Current Maturities Capital Leases	0
25. Other Current and Accrued Assets	150,249	53. Other Current and Accrued Liabilities	1,232,688
26. Total Current and Accrued Assets ***(15 thru 25)***	8,907,537	**54. Total Current & Accrued Liabilities** ***(47 thru 53)***	4,542,853
27. Regulatory Assets	0	55. Regulatory Liabilities	0
28. Other Deferred Debits	2,988,639	56. Other Deferred Credits	0
29. Total Assets and Other Debits ***(5+14+26 thru 28)***	63,647,506	**57. Total Liabilities and Other Credits** ***(36 + 43 + 46 + 54 thru 56)***	63,647,506

LANE-SCOTT ELECTRIC ENERGY SALES STATISTICS FOR MAY 2021

CLASS OF SERVICE	NO. RECEIVING SERVICE		kWh SOLD		AMOUNT BILLED		Y.T.D AVERAGE		SALE PRICE PER kWh
	Y.T.D. AVG.	THIS MONTH	THIS MONTH	Y.T.D.	THIS MONTH	Y.T.D.	kWh USED	AMOUNT	Y.T.D.
Residential Sales	2,229	2,230	1,435,470	8,566,414	$219,599	$1,117,490	769	$100.28	13.05
Residential Sales-Seasonal	50	51	6,749	37,977	$2,095	$9,973			
Irrigation Sales	331	330	476,023	1,244,261	$46,083	$109,555			
Small Commercial	1,851	1,852	4,015,718	19,729,878	$512,644	$2,247,990	2,132	$242.87	11.39
Large Commercial	177	177	2,653,143	13,420,156	$359,090	$1,631,797	15,130	$1,839.68	12.16
Public Street Lighting	13	13	35,946	179,730	$5,042	$23,482			
Public Building Sales	49	49	20,320	145,960	$3,493	$20,527			
Non-Domestic	1,056	1,059	145,491	807,306	$32,996	$163,441			
City of Dighton	1	1	630,464	3,340,535	$44,152	$390,316	668,107	$78,063.20	11.68
Idle Services on rate 90	38	37		0		$0			
Large Industrial	3	3	3,402,310	14,249,860	$323,389	$1,325,809	949,991	$88,387.27	9.30
Irrigation Horsepower Charges	0	0		0		$267,015			
Total Energy Sales	5,798	5,802	12,821,634	61,722,077	$1,548,583	$7,307,395			11.84
Other Electric Revenue					($107,828)	($367,353)			
Total					$1,440,755	$6,940,042			

SUBSTATION DATA

Substation	(NCP)KW	kWh Purchased	Cost Per kWh	kWh Sold	Line Loss	Load Factor-P	Load Factor-S
Beeler-Sub 3	6,536	4,145,810		3,331,017	19.65%	85.26%	68.50%
Dighton-Sub 1 - 7200	1,623	959,100		877,572	8.50%	79.43%	72.68%
Dighton-Sub 2 - 14400	4,358	2,567,216		2,515,775	2.00%	79.18%	77.59%
Manning-Sub 4	4,966	2,887,118		2,688,836	6.87%	78.14%	72.78%
LS Seaboard-Sub 5	167	78,556		98,266	-25.09%	63.23%	79.09%
Twin Springs Lo 7.6-Sub 7	248	88,519		82,630	6.65%	47.97%	44.78%
Twin Springs Hi 14.1-Sub 8	236	104,329		92,392	11.44%	59.42%	52.62%
City of Dighton	1,377	536,856	6.9300	536,856	0.00%	52.40%	52.40%
City of Dighton - WAPA	154	93,608	3.0500	93,608	0.00%	81.70%	81.70%
Alexander 115	1,354	718,566		647,647	9.87%	71.33%	64.29%
Ness City 115	3,471	1,432,513		1,857,035	-29.63%	55.47%	71.91%
Total	24,490	13,612,191	5.4200	12,821,634	5.81%	74.71%	70.37%

RUS/CFC LOAN FUND TRANSACTIONS

Gross Obligation to RUS	$	54,111,889
Pymts Applied Against Principal	$	19,574,564
Net Obligation to RUS	$	34,537,325
CFC Line of Credit	$	-
CoBank Line of Credit	$	-
CFC Note #9004-RUS refinance	$	5,693,113
CFC Note #9006-RS Prepymt	$	376,914
CoBank Note-Feb 21 Winter Event	$	2,656,008
PPP Loan	$	619,088.00

MISC.

General Fund Balance	$53,164
MMDA Investments	$599,781
Cash Available at Month End	$652,945
CFC Investments - CP & SN	$6,053,790
CFC CTC's	$221,958

OTHER STATISTICS

	Y.T.D	M.T.D.
Miles Energized	2043.03	
Density	2.84	
kWh Purchased	65,713,506	13,612,191
kWh Sold (Inc. Office Use)	61,755,386	12,826,905
Percent of Line Loss	6.02%	5.77%
Idle Services	238	
Oper. Revenue Per kWh Sold	11.24	11.23
Expense Per kWh Sold	12.27	12.22
Income Per Mile		705.21
Expense Per Mile		767.16

ACCOUNT AGING

	Current	30-89 Days	90 Plus
Irrigation Accounts Receivable	$5,982		
Electric Accounts Receivable	$1,400,709	$13,141	$3,813
Retail Accounts Receivable	$36,030	$1,030	$3,754

Member Service Board Report 7.12.21

1. Annual Meeting: July 20th, meal open to the public at 6:30, employees, trustees, and fair board will eat before. (Agenda Attached)
    a. New this year: An Annual Program will be handed out at the annual meeting (1 per membership) and includes detailed information regarding Proposed Bylaw Revisions and a tear-out ballot for the election and amendments. (Program Attached)

2. Lane-Scott participated in the Kick-off to Summer Event at the park on June 19th. We helped with a game raffled two season pool passes to the pool of the winner's choice in our service territory. Winners were Christopher Riffle and David See.

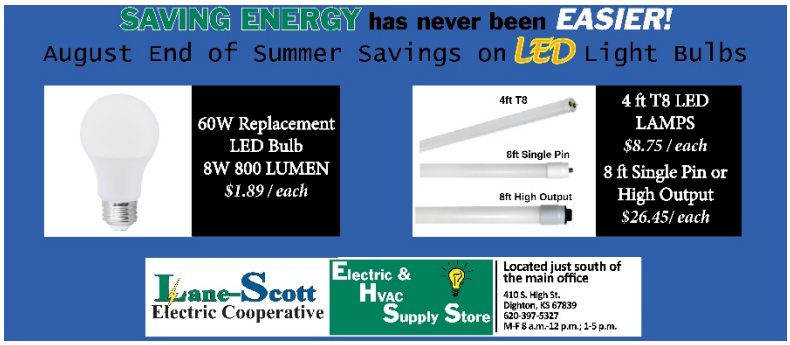
3. Sharing Success Program: We received applications from 14 organizations who serve our service territory. A committee of three employees was formed to select the 4 recipients for this year. Letters were mailed to all recipients, and we should be receiving the Co-Bank funds for the 4 winners within the month. Winners will receive $1000 grants ($500 LSEC/$500 CoBank Match), and are as follows:

    a. Frank Stull American Legion Auxiliary, Ness City: The grant will be used to help install a handicap ramp at the VFW meeting room. The meeting room is used for community civic and private events.
    b. Lane County Lions Club: Grant funds are to be used to support their signature program "Feeding Our Community." They currently provide 45 meals a week to the youth and homebound of Lane County.
    c. Ness County Fire District #1: The fire department will be using the funds to purchase firefighting equipment such as firefighter's bunker gear, SCBA gear (oxygen bottles), foam, gel and other fire retardants.
    d. Western Kansas Child Advocacy Center, Scott City (provides service to 34 counties in western Kansas including all of our coverage area except Hodgeman Co.). The advocacy center is part of the first response when a report of child abuse. They provide a safe, child & teen friendly atmosphere for the interview following the abuse, and continues to provide advocacy, mentorship, and therapy to help in the healing process from the trauma of abuse. The grant will be used to purchase educational and prevention resources such as handouts on bullying, unhealthy relationships, body safety, domestic violence, and child sexual and physical abuse.

4. Co-ops Vote: Lane-Scott will be hosting a Co-ops Vote Event on August 24th, at 11:30am at the Ness City Bank Building. KEC is responsible for the program and content. Lane-Scott will host and provide a light lunch. KEC is inviting legislators, and Lane-Scott provided contact information of local county commissioners, city council, and relevant Lane-Scott Key Accounts. Trustees should be receiving invitations from KEC as well.

5. Lane-Scott Ness City Building sign & Retail Department sign were installed by Commercial Sign of Colby.

6. I've been working with Scott on promoting products/discounts at the Retail Store. July, we are advertising 20% of any air filter. August, we are working with American Electric for discounted LED 60W light bulbs, and 4ft & 8ft T8s.



7. I've created a Retail Store logo to help give the store more of its own identity. It is included in all promos and will be printed in the weekly Business Directory of the Dighton Herald and Gove County Advocate.

8. Generac Advertising: We are taking baby-steps with the Generac advertising per Richard's direction. I am working with Generac's Marketing on Demand to link the Generac front page flexible website to our website. There will be a page on our website that links to a Generac custom page updated by Generac.

9. Normal monthly KCL, social media posts, website updates, new member e-mail series, newsletter e-blast, meetings, webinars.

10. Line Clearance Ads were heavily advertised this month including in local newspapers.

11. We can now create custom web banners & ads on the Smarthub portal.

2021-Line 25 - Non-Operating Margins

		January	February	March	April	May	June	July	August	September	October	November	December	TOTAL	
Rev.-Electrician & Mat.	**415.1**	$21,979.30	$33,725.96	$36,603.65	$62,555.37	$30,506.42								$185,370.70	**415.1**
Exp.-Electrician & Mat.	**416.1/.11**	$37,455.59	$33,719.44	$58,676.34	$53,497.52	$46,608.94								$229,957.83	**416.1**
		($15,476.29)	$6.52	($22,072.69)	$9,057.85	($16,102.52)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	($44,587.13)	
Rev.-Appliance Repair	**415.2**	$18,124.45	$16,600.50	$10,552.30	$20,556.46	$15,359.94								$81,193.65	**415.2**
Exp.-Appliance Repair	**416.2/.21**	$21,949.19	$25,502.80	$21,943.61	$24,239.04	$20,640.74								$114,275.38	**416.2**
		($3,824.74)	($8,902.30)	($11,391.31)	($3,682.58)	($5,280.80)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	($33,081.73)	
Rev.-Member Damages	**415.3**	$3,088.75	$0.00	$1,386.50	$444.50	$0.00								$4,919.75	**415.3**
Exp.-Member Damages	**416.3**	$893.06	$0.00	$605.60	$0.00	$605.11								$2,103.77	**416.3**
		$2,195.69	$0.00	$780.90	$444.50	($605.11)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$2,815.98	
Finance Charges	**415.5**	$117.64	$87.85	$133.25	$142.52	$84.02								$565.28	**415.5**
MARGIN-Retail		($16,987.70)	($8,807.93)	($32,549.85)	$5,962.29	($21,904.41)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	($74,287.60)	
Misc. Income	**421.0**	$0.00	$0.00	$0.00	$0.00	$0.00								$0.00	**421.0**
Gain on Disposal	**421.1**	$0.00	$0.00	$50.00	$0.00	$4,000.00								$4,050.00	**421.1**
Loss on Disposal	**421.2**	$0.00	$0.00	$0.00	$0.00	($20,224.00)								($20,224.00)	**421.2**
NET NON-OP MARGIN		($16,987.70)	($8,807.93)	($32,499.85)	$5,962.29	($38,128.41)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	($90,461.60)	

	Current Month				YTD Total			
	Billed Hours	Unbilled Hours	Hourly Rate	Total Unbilled Rev	Billed Hours	Unbilled Hours	Hourly Rate	Total Unbilled Rev
Kalo	131.5	41.5	$ 85.00	$ 3,527.50	653	260	$ 85.00	$ 22,100.00
Michael	131.5	39.5	$ 85.00	$ 3,357.50	697.25	213.75	$ 85.00	$ 18,168.75
Mark	121	52	$ 85.00	$ 4,420.00	681	237.5	$ 85.00	$ 20,187.50
Eli	17	0	$ 35.00	$ -	17	0	$ 35.00	$ -
	401	133		$ 11,305.00	2048.25	711.25		$ 60,456.25
		75.09%				74.23%		

Operations report for June 2021.

- ## Maintenance

  Changed out poles for clearance West of Ness City.
  Replaced bad cross arms on 34.5 East of Ness City
  Changed out bad breakers at Veronica Garcia's in Scott Co.
  Replaces broken anchors in Ness Co and in Bazine.
  Measured clearances for Stan Fullmer's house move.
  Changed out bad meters system wide.

- ## Construction

  Finished line build to Jason Allen's bin site.
  Built temporary shoo fly to Lane County Feeders.
  Made new connects for Eric Weeks shed, Vance Shay's irrigation, Ben Crammer water well and Pyramid Ranch water well.

- ## Storms

  Worked storm outages. Changed out bad transformers in Ness Co. Changed out bad regulator on South Dighton City circuit. Changed out 2 bad OCR's on Deihls 3 phase.

- ## Inspections

  Monthly sub checks, and mowed around Dighton and Twin Springs subs.
  Maintenance log inspections.
  Started Formal line patrol out of Dighton and Manning subs.

- ## Other

  Tree trimmers continue to work in Ness City.
  Assisted Marcellus house moving with moving a new house to Stan Fullmer's.

OUTAGE STATISTICS May 2021

CATEGORY	OCCURRENCES			TOTAL OUTAGE HRS.			# of Meters
	14.4 KVA	7.6 KVA	Total	14.4 KVA	7.6 KVA	Total	
PHASE FLOATER		2	2		118	2	69
BIRDS & ANIMALS			0			1	
TREES			0			0	
LIGHTNING\RAIN\WIND	2	2	4	255	163	418	807
ICE & WIND			0			0	
SNOW & WIND			0			0	
OCR OR FUSE FAILURE			0			3	
TRANSFORMER FAILURE			0			0	
BROKEN JUMPER			0			0	
PEOPLE CAUSED	2		2	82.5		83	72
BROKEN POLE			0			0	
POWER SUPPLY			0			0	
SCHEDULED			0			0	
MAJOR EVENT			0			0	
UNKNOWN			0			0	
TOTALS	4	4	8	337.5	281	619	948

ANNUAL CONSUMER OUTAGE HOURS

TOTALS	2013	2014	2015	2016	2017	2018
	22,012	27,418	13,498	19,195	39,638	16,319
	2019	**2020**	**2021**			
	25,081	14,179	13,788			

LANE-SCOTT ELECTRIC

RESALE OPEN BALANCE (60-90 days)

as of 07/09/2021

NAME	CURRENT AMOUNT DUE	ACTION TAKEN	LAST PAYMENT	
Aaron Torbert	$ 94.99			
Black Dog Restaurant	$ 706.04	Calling for pmt	$ -	
Araceli Navarro-Perez	$ 64.84	Payment	$ 50.00	8-Jun
Barry Johnston	$ 53.06			
Marcellus House Moving	$ 2,977.53	Sent Collect ltr		
V&J Electric	$ -	Paid	$ 786.28	8-Jun
.	$ 3,896.46		$ 836.28	

LANE-SCOTT ELECTRIC COOPERATIVE, INC.

Transformer Losses 1995-2020

Voltage	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
14.4	83	52	56	34	44	40	35	19	16	16	19	22	68	20	36	27	587
7.6	36	14	39	14	21	11	16	23	16	15	13	22	80	35	18	18	391
Totals	**119**	**66**	**95**	**48**	**65**	**51**	**51**	**42**	**32**	**31**	**32**	**44**	**148**	**55**	**54**	**45**	**978**

Voltage	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021						Total
14.4	35	23	32	55	44	43	61	32	38	33	10						406
7.6	17	15	20	30	19	33	34	37	25	29	10						269
Totals	**52**	**38**	**52**	**85**	**63**	**76**	**95**	**69**	**63**	**62**	**20**	**0**	**0**	**0**	**0**	**0**	**675**
														Grand Total			**1653**

2021	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		Totals			
14.4	1	0	1	1	2	5								10			
7.6	1	0	1	1	2	5								10			
Totals	**2**	**0**	**2**	**2**	**4**	**10**	**0**	**0**	**0**	**0**	**0**	**0**		**20**			

June Warehouse Report

Total Inventory Dollars on Hand for May:

Line Material--$230,226 Inventory Turns—0.420

Resale Material--$149,010 Inventory Turns—0.633

(Increase in $ amount for line material came from Jason Allen/Beef Belt line build)

Generac Update:

We have four generators waiting to be shipped and one in stock to be installed. Lead time continues to increase, with the 22/24kw generators now at 38 weeks out. We completed two estimates in June and are waiting to see if we get a win on either. The service plan, once complete, will add another avenue for margins. This will be presented in the new quotes given and we plan to reach out to those who have already purchased from us and offer this as well.

Border States:

Again, there is not much new information on Border States this month.

American Electric:

American Electric has given us very aggressive pricing on select items that we plan to offer through the retail building. We are going to run monthly specials in hopes of creating some excitement and increase foot traffic/sales.

Electrician Update:

The electricians have completed several smaller jobs this month and multiple calls continue to be added each week to their list. Along with the smaller jobs, we are still waiting for our larger jobs, Lane County Feeders and D&A Farms to complete construction. We received 12,000' of duct for LCF which will be a roughly $25,000 sell once installed.

HVAC Update:

As the weather heated up Mark became swamped with A/C calls. It was not unusual to get 5-7 calls per day. We sold and installed a new furnace and A/C unit for Lane County. There was also a new coil sold and installed in Ransom along with two new water heaters this month. Season checks continue to be completed as time allows.