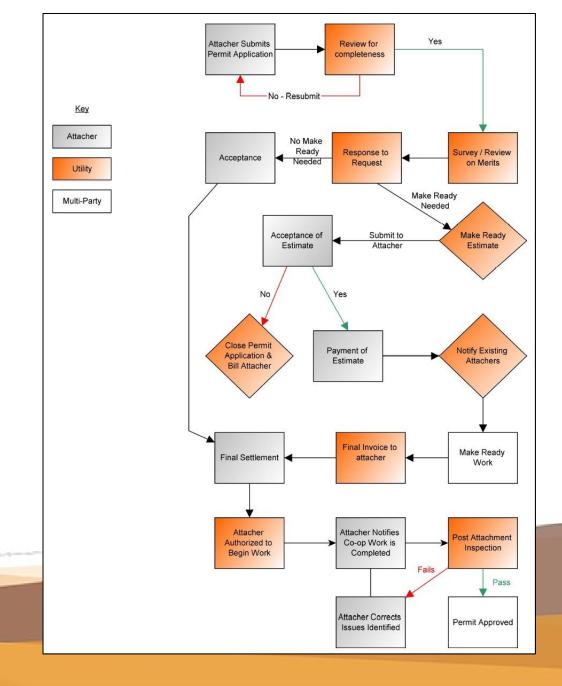
## Kentucky Permitting Process

McLean Engineering
Kentucky Public Service Commission
22 March 2024



#### Permit Process

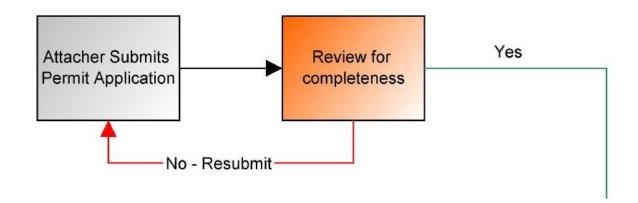
Set by Kentucky Public Service Commission regulations and individual cooperative tariffs.





#### Permits In

- Submitted through designated electronic means
- Necessary information included?

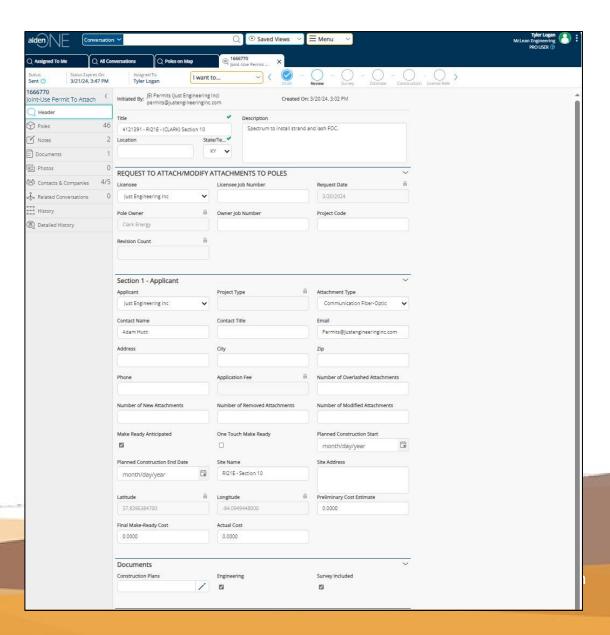




#### Appendix A (from tariff)

			PGG 10111G		
			PSC KY NO	6	
			Original	SHEET NO. 84.36	
	lectric Cooperative	, Inc.	CANCELLING PS	C KY NO	
	(NAME OF UTILITY)			SHEET NO	
		SCHEDULE PA – PO	LE ATTACHMENTS		
Electronic ve	rsion supplied t	to Licensee by Coop	O ATTACH (Template erative	)	
Licensee Job#		(to be completed by Licensee)			
Cooperative Work Order #		(to be completed by Cooperative)			
SECTION 1 - REQUEST FOR AP Company		NTS ON A POLE (to be completed by Licens Added	see)		
Project	Poles with Attachments	Removed			
Request Date Name	(specify quantity	Modified			
Title Phone	Estimated Construction Dat	Start tes Completion			
Email	Fees Submitted:	Survey \$			
Signature:		Other			
One Touch Make-Ready? (Ye: Make Ready Anticipated? (Ye	s or No)	If yes, please attach section 3 (OTMR adder	ndum)		
	est (Street Address and Coordi	nates (Lat, Long)):	<del>-</del>		
Detailed construction plans, Cable specifications, Includi Pole Loading Analysis Spreadsheet, containing the f	n selected contrctors (if applicable) drawings, and maps consistent wit ing diameter, ruling span, and tensional collowing:	] th Appendix B on			
Appendix A: OTMR Addendum Detailed construction plans, Cable specifications, Includi Pole Loading Analysis Spreadsheet, containing the 6 Poles that we wish to use Point of attachment of attachment of attachment of attachment pole INumber and type of pole including and poles)	s selected contrictors (if applicable) drawings, and maps consistent wit on gid almeter, ruling span, and tensic collowing:  (pole number, Lat, Long) oosed height) on each pole himments to be placed on more type and distance from	th Appendix B  On  Relocations or replacements of poles Bearrangements of fisheres and equipment Additional poles required  Additional poles required			
Appendix A- OTMR Addendum Dealled construction plans, cable specification, includi Pole Loading Analysis Spreadheet, containing the Pole Loading Analysis Spreadheet, containing the Pole to the work to use Pole to the containing the Pole to the containing the Indeed that we wish to use Pole to the containing the pole to the containing the containing the containing the town to the containing the time will adult the include representation representations. The time will adult the timese's proposed service and	as edected controlors (if applicable) disavings, and maps consistent will get alanter, willing span, and tensi collowings: (pate number, Lat, tang) could be possible on each pole through to be paled on horsests to be paleded on h	th Appendix B  Adjusted to the separate of the			
Appendix A OTNAR Addendum Dealled construction plans, Dealled construction plans, Dealled construction, including Profession, Including Profession, Including Profession, Including Profession, Including Profession, Including Included inflammation represent construction. The Universe will dealled the Universe's profession of the Included Included inflammation represent Construction. The Universe will dealled the Universe's profession dealers SECTION 2 - APPROVAL/DEMI.	as decided controlors (if applicable) disvalents, and maps consistent with a global decided and the solid deci	th Appendix B  Adjusted to the separate of the			
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Appoint A. O'Dill Melicedum Debilled construction jains. Debis specifications, beduding Pela teading fealights Debis specifications, beduding Pela teading fealights Debis specifications, beduding Debis specifications, beduding Debis specifications, beduding Debis specifications, beduding fealights Debis specifications, beduding fealights Debis specifications, beduding the debis specifications are accounted in the Exercise will debis debis specifications are accounted in the Exercise will debis debis specifications are accounted in the Exercise will debis debis specifications are accounted to the Exercise will debis debis specifications are accounted to the Exercise will debis debis specifications are accounted to the Exercise will debis debis specifications.  SECTION 2 - APPROVAL/DEMI Response Debis Respo	as elected contrctors (if applicable) of availage, and maps consistent will advantage, and maps consistent will advantage and tensis collowing: [greate number, Lai, Long] sous desight) on each pole homents to be placed on our types and distance from our propered faultities. Any thonges a our propered faultities. Any thonges a our propered greatment, freeter, inplies of own of or extension, freeter, inplies of own.	h the Appendix B on a speak of the Appendix B of th			
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Approved   A O'Dill'A Référendum   A O'Dill'A Réferendum   A O'Dill'A Réfere	Asserted conveters (if applicable) and over the part of the part o	In the Appendix B on a supplemental policy of the Appendix B on a supplemental policy of the Appendix B on a supplemental of finance and equipment necessary and additional policy of the supplemental policy of t	PUBLIC 8, 2022	SERVICE COMMISSION Linda C. Bridwell Executive Director	
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Apportune   A O'Dill' Alferdendum   Apportune   A O'Dill' Alferdendum   Apportune   Appo	salected convictors (if applicable) go diameter, rolling son, and tensis go diameter, rolling son, and tensis allowing: (pole number, Lat, long) (	In the Appendix B on a supplemental policy of the Appendix B on a supplemental policy of the Appendix B on a supplemental of finance and equipment necessary and additional policy of the supplemental policy of t	PUBLIC  8, 2022  L  Ahd	SERVICE COMMISSION Linda C. Bridwell Executive Director	

#### **AldenOne**





Yes

Review for

completeness

Attacher Submits

Permit Application

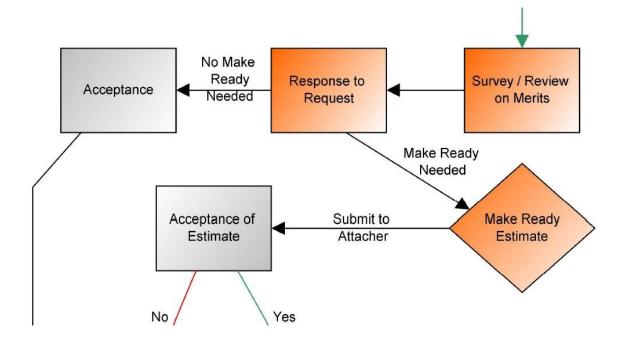
Key

Attacher

No - Resubmit

#### Pole Owner Review

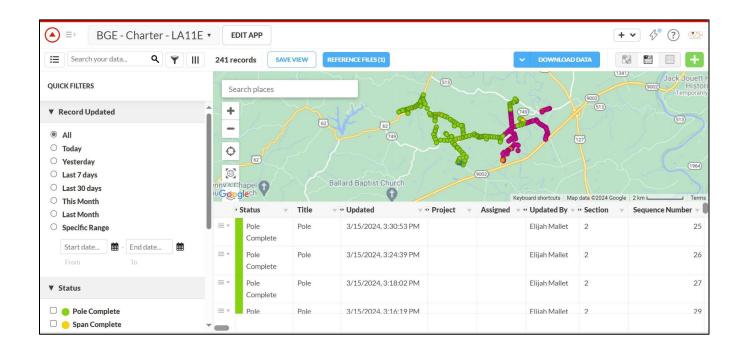
- Field visit every pole
- Review engineering in office
- Make-Ready Determinations
  - Simple solutions
  - Specific solutions
  - Distribution Eng(Staking)
  - Cost Estimate





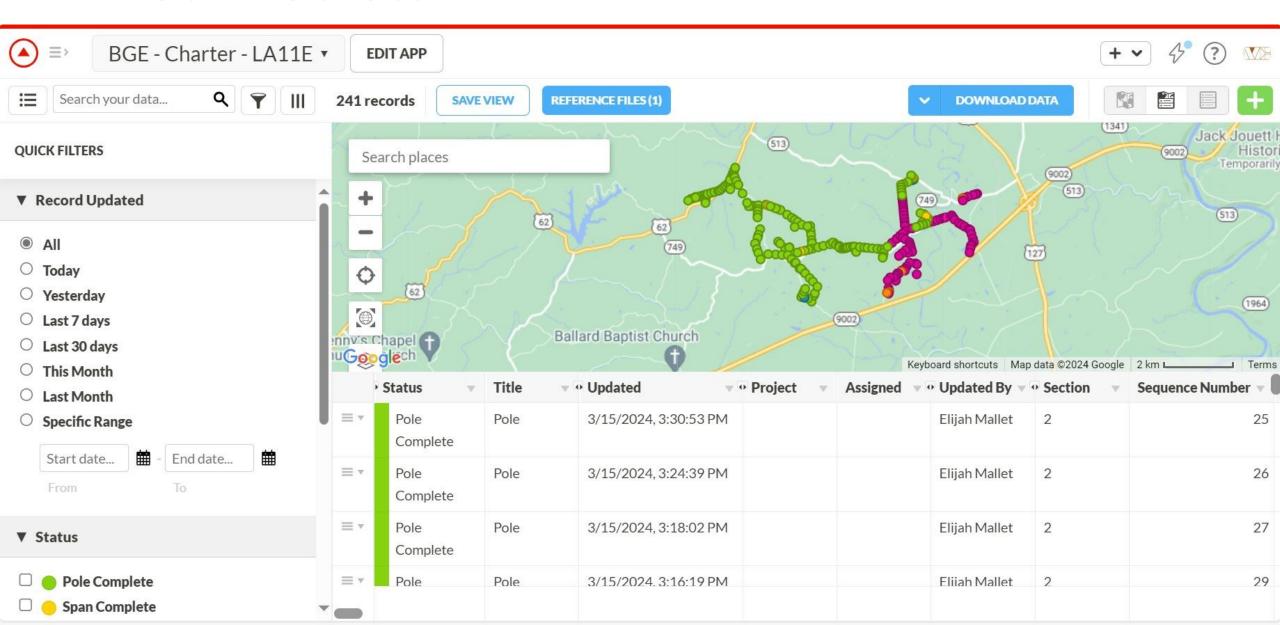
#### Field Review

- Match what was submitted?
- Obvious pre-existing NESC violations?
- Potential for new NESC violations?



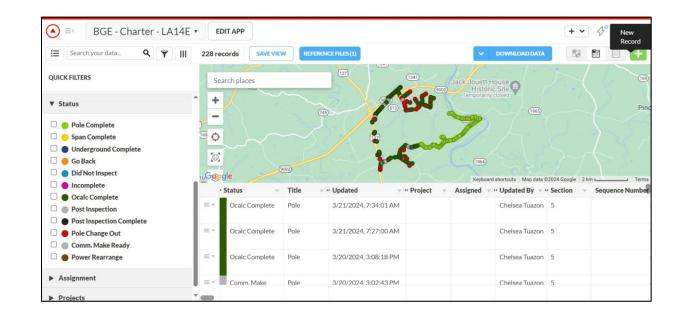


#### Field Review



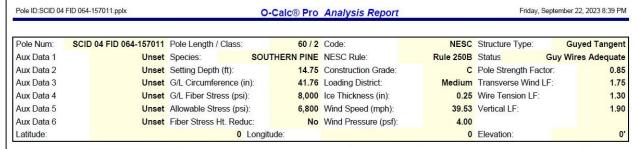
## **Engineering Review**

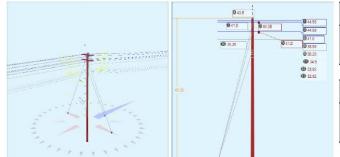
- Is the Pole-Loading Analysis (PLA) correct?
- Is any Make-Ready needed?
  - Clearance/separation
    - At pole or in mid-span
  - Pole overloaded





## **Engineering Review**





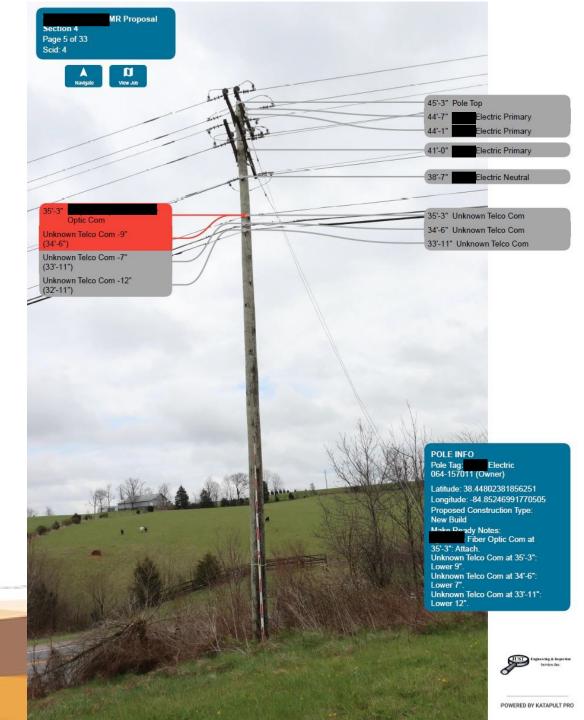
Pole Capacity Utilization (%)		Height (ft)	Wind Angle (deg)	
Maximum	30.2	0.0	294.2	
Groundline	30.2	0.0	294.9	
Vertical	12.7	37.8	188.6	

Pole Moments (ft-lb)		Load Angle (deg)	Wind Angle (deg)
Max Cap Util	36,667	314.1	294.2
Groundline	36,667	314.1	294.9
GL Allowable	130,658		

Guy System Component Summary							Individual Maximum Load With Overload Applied		
Description	Lead Length (ft)	Lead Angle (deg)	Height (ft)	Nominal Capacity (%)	Wind Angle (deg)	Max* Load Capacity (%)	Wind Angle (deg)		
Single Helix Anchor	15.0	8.6		0.0	294.2	7.6	140.0		
EHS 1/4 (Down)			35.3	0.0	294.2	22.9	140.0		
Single Helix Anchor	20.0	270.0		0.0	294.2	45.0	100.0		
EHS 5/16 (Down)			43.5	0.0	294.2	80.3	100.0		
Single Helix Anchor	20.0	90.0		40.2	294.2	46.4	280.0		
EHS 5/16 (Down)			41.0	71.8	294.2	82.8	280.0		
		System Capaci	ty Summary:	Adeq	uate	Adec	<sub>l</sub> uate		

User:grodriguez BMAD OCP:7.00 Includes Load Factor(s) Page 1 of 5 <sup>2</sup> Worst Wind Per Guy Wire <sup>3</sup> Wind At 294.2°





## Make Ready

#### Report delivered to Cooperative

Power Make Ready
 Pole change out 45/3.
 New Comms, Attach, 40" below lowest power
 Transfer existing coms.

Communications Make Ready

Cooperative, Secondary Drip Loop at 25'-6" New Comms POA = 22' 2"

Unknown Telco Com at 23'-0": Lower 22"

				secti *	sequence numbe *		inspection typ *	make ready pa *	power_makeready_neede *	pole loading pa *	pole load percentag *	failure due to new attachmen *	Pole Heig *	Pole Cla *	
5fe163c-6e9c-492b-a66e-cacf2ee486a7	ocalc_complete	38.42862262	-84.87179577	2	4	541293		yes	no	yes	70	no			attacher POA = 34'6" (based on provided photo)
															Neutral at 30'-11"
															attacher POA = 26'6"
90e0312-da54-478d-b1aa-2f2ff443f4c6	comm_make_ready	38.42835479	-84.87212549	2	5	54128342		yes	no	yes	28.9	no			Unknown Telco Com at 26'-6": Lower 12"
															Neutral at 30"-8"
:629a16-65c5-44e0-b1f1-6931608bca5e	ocalc_complete	38.42709747	-84.87365287	2	6	54126110		yes	no	yes	23.8	no			attacher POA = 23" 10"(based on provided photo)
															Transformer at 27'-3"
															attacher POA = 23'11'
7449cc6-7bfc-44a3-a88d-7cdd21f40008	comm_make_ready	38.43116027	-84.87072343	2	7	11054130869		yes	no	yes	90	no			Unknown Telco Com at 25"-0": Lower 25"
															Neutral at 25"-3" Raise 37" (28'4")
9760788-6fdf-415b-bb0e-cc4c897dac72	power_make_ready	38.43145289	-84.87119758	2	8	54130932		yes	yes	yes	74.8	no			attacher POA = 23"6" (based on provided photo)
															Neutral at 28"-0"
															attacher POA 24'8"
															Unknown Telco Com at 25'-4": Lower 20"
9919650-c2c5-482a-8393-03754b70d550	comm make ready	38.43209328	-84.87217949	2	9	54068057		ves	no	ves	87.7	no			Unknown Telco Com at 25"-1": Lower 20"
															Service at 27'-9"
e22cc1a-ae9d-45a7-bdd5-4fdb470094f6	ocalc complete	38.39265746	-84.76663551	9	45	37099723		ves	no	ves		no			attacher POA = 24' 5"
															OEC Secondary drip loop = 25' 9" Install guy.
									l						attacher POA = 22" 5"
															Unknown Coax = 23" Lower 19" : 21" 5" 7/16 guy neede:
															for anchor
															TOT GITCHOL.
															Unclear why tailer pole is suggested. Existing Neutral
f8a7330-6a6b-4cb0-af95-7857b64e1f86		20 42201267	-04 07376636			11054166262		ves	no	ves	51.8				Minor elevation change, attacher POA on pole 11 at 20
1887330-6860-4C00-8193-783706463186	power_make_ready	36.43301367	-84.87338843		- 10	11034100202		yes	no	pes	31.0	110		_	Neutral 23' 5".
															attacher POA = 20' 1"
															Unknown Telco Com at 19'-8": Lower 7" 19' 1"
															Unknown Telco Com at 18'-7": Lower 6" 18' 1"
															Ouknown Telco com at 18 -7 : Lower 6 - 18 1
															Provided MR states PCO. Taller pole not necessary bas
						11054066216									
3f096ca-3f57-4b9f-8ceb-be2d8b1e8b58	comm_make_ready	38.43312608	-84.87378015	2	- 11	11054066216		yes	no	yes	59	no			span pole being added between poles 11 & 12.
											44.1				Install 40' lift/span pole.
34abea6-97f9-43e9-9b71-eb43ac5e958c	midspan_pole	38.43348493	-84.87432439	2	11.1			yes	yes	yes	44.1	no			attacher POA 40" below Neutral.
						l									Transformer at 25'-5"
af202bd-f8b1-42e6-853c-bb8328b8c7e2	ocalc_complete	38.43395025	-84.87502419	2	12	1054064359		yes	no	yes	64.5	no		_	attacher POA = 22" 1"
															Install 40' lift/span pole.
d94bce5-b88c-44e5-8cf6-dc338a839a15	midspan_pole	38.43444577	-84.87578939	2	12.1			yes	yes	yes	40.7	no			attacher attach 40° below Neutral.
															Neutral at 27'-9"
812d885-ae71-4877-bc38-fca66fc50915	ocalc_complete	38.43470662	-84.87616279	2	13	54062592		yes	no	yes	51.1	no			attacher POA = 24' 5"
					1										Install 40' midspan pole.
6b0961a-a319-48bd-87d1-0e609280cb16	midspan_pole	38.43517595	-84.87688278	2	13.1			yes	no	yes	47.5	no			attacher POA 40" below Neutral.
															Neutral at 26'-8"
b2c47cb-e4e5-4124-88f2-286e46023553	ocalc_complete	38.4356006	-84.87753071	2	14	54060699		yes	no	yes	73.8	no			attacher POA 23" 4"
															Install 40' midspan pole.



## Staking & Make Ready Estimate

- MR solution to specific engineering work order
- Inventory, labor, equipment, and overhead costs
- Make Ready Estimate to requesting attacher





Yes

Review for

completeness

Attacher Submits

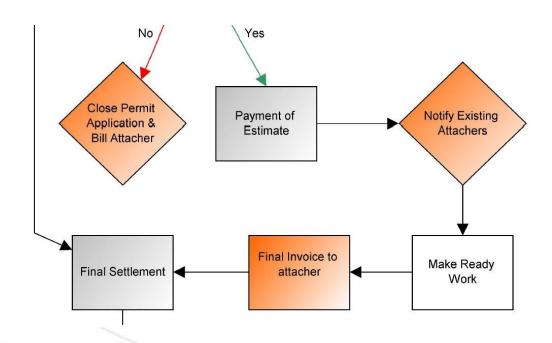
Permit Application

Key

Attacher

No - Resubmit

## Make-Ready Payment and Construction

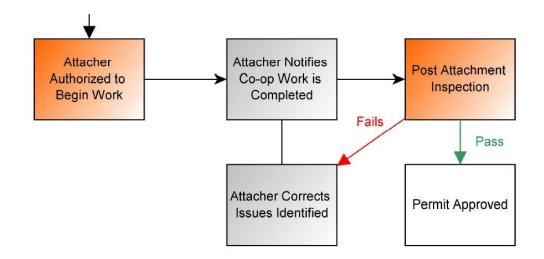


- Requesting attacher decision
  - Accept estimate
  - Revise request
  - Cancel request
- Pays estimate
- Pole Owner begins construction process



## Ready to Attach

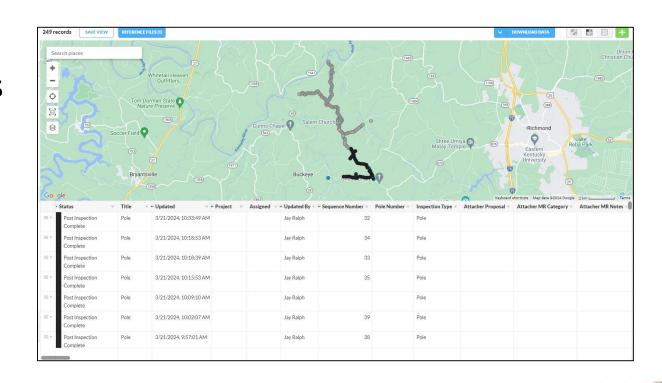
- Cooperative notifies Attacher construction is complete
- Attacher completes new attachments
  - Notifies when complete





## Post Inspection

- Field visit to verify
  - Completed according to plans
  - No code violations
  - No damage occurred due to work
- Results sent to all parties
- Attacher corrects deficiencies





## Post Inspection Report

fulcrum id	ass	attachment grounded stub pole	transfer neeeded	obvious code violations	obvious code violations other	cv comments	Comments
a803511d-8623-4232-82ff-4996f976d72f		yes no	no				
c4715fa1-8647-4669-8569-5652847e86c2	1	yes no	no				
d508f26f-575d-4186-b2e3-0b874e3c2022		yes no	no				
6984c124-7213-460b-8bce-65bdf4be0cd7		yes no	no				
4d734370-c03a-41cd-9390-679c7c16517d		yes no	no				
b72da072-a0d5-4033-85f8-bb8a906a31d4	4	yes no	no				
b0f6b7cc-432b-4e5f-a835-77495d3957de		yes no	no				
5aa9db33-0214-4b86-8cba-2b06cdbbdff8	3	yes no	no		Down guy anchor not 5ft inside power down guy anchor		
8390b703-b74a-4df5-8140-25869dfd4692		yes no	no				
342a457d-ba49-411e-981e-2aba1692aed	d	yes no	no				
d086318d-2e2c-4ad9-a1d0-a41b01475f41		yes no	no		Down guy anchor not 5ft inside power anchor		
18dc9f07-d626-40a8-8db1-944ddff87759		yes no	no				
a0dc79b3-6bae-42e0-95eb-18bc66ff172b		yes no	no				
bf26c02d-31ca-447c-8f69-ead1371d3fde		yes yes	no				
89d9126e-bc19-4e42-b78e-d5410148fa5c		yes no	no		Down guy not 5ft inside power down guy anchor		
13e9392f-3d7e-49a8-b773-1d00af450ec3		yes no	no	Clearance at Pole		Clearance to power secondary riser	
195428d1-eb0a-4e91-a338-75c2b1ecf195		yes no	no				2
fdaf7663-970c-4898-b069-f85d19445cc8		yes no	no				
19de60ea-aa0d-4a80-b577-e5e8e51c765d	d y	yes no	no				2 2
1a051927-75e7-4795-9270-40cebb3657da	1	yes no	no				
24928970-b86f-4a87-a935-232a77f89964		yes no	no				
62ea973b-d6d1-4a03-a9ea-c5279fd07df7		yes no	no				
06a8c8bb-65ad-45c2-b833-c3b34f6af793		yes no	no				
441591cf-609b-417d-9e5e-bec34ed8e8d8		yes no	no				
882b02c1-9f03-4865-b001-6491e9637cf5		yes no	no				
2ddbc413-812b-4415-8633-58841912c082		yes no	no				
4d3187f9-0d73-4c08-8e95-205ac4d95e82		yes no	no				
d6bc9526-6106-4f6c-89b9-c4a92db631ad	1 2	yes no	no				
f9ee13e0-f126-4e98-81a2-0ceaf01c39ce		yes no	no				
1b2dd4dc-cb21-4bec-ae56-cba938b0360	a y	yes no	no		Down guy anchor not 5ft inside power down guy anchor		
6c2864f8-f78b-4884-8f9d-6592d84c49cd		yes no	no				
6c5052b3-02fa-438d-8899-06c735de8774	_	no no	no				
1fa3d87c-887b-4d40-b13e-93aa67248b02		yes no	no				
1f97bde8-36b1-42ff-86b0-4ac0bba4eaa8	$\rightarrow$	no no	no				
0635a39c-0b80-48c4-b31d-787437460024		yes no	no		Down guy not 5ft inside power down guy anchor		
0ebb69ca-67a6-477d-9dea-03f52a43a47e		yes no	no				
2be1801d-7c86-4fe5-948a-5dd43cae5431	1	yes no	no		Down anchor not 5ft inside power down guy anchor		



## Long-Lived Permits - Reconciliation

Delayed or Reprioritize Paymen Ready to Not									
	d	t Delays	Attach	Submitted	Total				
Fleming									
Mason	2651	531	464	-	3646				
Blue Grass	33	245	2	264	544				
Inter County	646	522	280	-	1448				



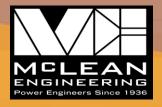
## Owen Electric Cooperative

Pending Permits by Age	0-3 Mos	4-6 Mos	7-9 Mos	10-12 Mos	1+ Year	Total
Total	495	1159	0	0	0	1654
Survey Revision(rework)	130	815	0	0	0	945



# Revisions required for every pole permit application

- o Failure to meet construction standards required by tariff
- Missing pole loading analysis or data to perform pole loading analysis
- Transmission crossings
- Cost of Make-Ready
- Inappropriate Make-Ready requests
- Additional MR found during the survey process
- Additional MR during the attachment process
- Property owner disagreements



## Permitting Issues

- Missing Sections (creates a "hole" in the project, makes it impossible to complete review and build).
  - Examples: CY03E Section 8 Owen Electric; RI24e Section 3 Blue Grass Energy.
- Duplicate submissions under different names. Wastes resources and creates confusion.
  - Examples: FG36E and FG72E submitted to InterCounty; DV31E and DV11E submitted to InterCounty
- Pole-loading errors or submissions missing pole-loading files.
- Unauthorized attachments (failure to submit permit).

