Congrats Paul. You have been assigned these documents at a time when their content has become subject to great scrutiny. Enjoy!

Although that will create challenges, it is not something you cannot help us work through. Thanks for taking it on!

On the UFLS:

- 1. Does this document now fully address the requirements imposed on us by both PJM and by SERC? I believe yes, but want to confirm.
- 2. Are we considering moving UFLS away from OCRs and onto circuit switchers or other higher-voltage devices? Who would be responsible for moving this transition forward if we do?
- 3. I have no suggested changes and am otherwise ready to approve the document.

### On the MLS:

- 1. I have the following question/concern with steps 1 & 2 in the table under section C:
  - a. Step 1 lists, "Market Operations Center (MOC) implements applicable load management programs," as an EKPC Response
  - b. Step 2 lists, "MOC implements applicable load management programs as requested by PJM," as an EKPC Response
  - c. My interpretation is that, during step 1, our response is to implement load management programs. If this is correct, what does it mean to implement load management programs as requested by PJM during step 2?
- 2. There is a statement in Step 2 of this same table that states that the MOC will notify management at this point. I think we should add something in later steps where the ECC will notify management as well so that PD management can prepare for the potential MLS implementation. Maybe in step 3?
- 3. Given that several steps involve actions by the MOC, I would like to see us add Power Supply to the list of signatories in future revisions (not this time).
- 4. Step 7 states that an EKPC Response is, "Member Generation Dispatchers" take steps with generators. Does the term "Member" refer to EKPC as a member of PJM? Or the EKPC Member Systems? I recognize this may be a direct copy from the PJM requirement, but I don't think is must be and maybe we should change it to avoid confusion.
- 5. I have a similar concern with the steps starting with "Member Curtailment Service Providers."

As you know, we are working on another revision for later this year. That revision needs to be completed in time for me to communicate it with our owner-members BEFORE winter. Can we target a document revision effective date of November 1?

In that next revision, I would like to address the following:

- 1. As noted above, concurrence with Power Supply that they have responsibility as spelled out in this document
- 2. A better form of communication that works better than email for circumstances that get us closer to load-shed
- 3. Affirmation that the 10 steps in section C are current with PJM process and that the EKPC response to each of these is clearly spelled out and agreed to by the acting parties
  - a. Add in the requirement to up-staff the ECC at some point .. probably Manual Load Dump Warning .. but recognize that we will probably up-staff in other situations that are not explicitly spelled out in this document
- 4. In step 9, should we add a statement that EKPC will notify members with voltage reduction plans that they should implement them?
- 5. Add % of load in the RPO to the table in section D2 and probably not call their proportion a "requirement."
- 6. Re-write of section D3 to be more explicit and step-by-step so the operator can more consistently implement the "rotating" of load as necessary
- Consider whether we should require cold-load pickup settings to be enabled in OCRs and whether we should try to pick up the substation without individual OCRs being opened first. If we can do this, it speeds the process and gets us closer to a predictable 30-minutes.

### As I said, congratulations!

I am near-ready to sign the document subject to any changes pointed out above. I will be glad to discuss any of my questions or comments further and look forward to getting this signed and across the (first .. April) finish line. Then we can start the next race that should finish sometime in October.

#### Denver

From: Paul Ripp
Sent: Monday, April 10, 2023 10:45 AM
To: Denver Yor
Cc: Scott Sells
Subject: 2023 MLS and UFLS Documents

Good morning Denver,

Attached are redlined MLS and UFLS procedure documents for 2023. These documents have been reviewed and edited by all concurring signatories and now just requires your review and approval. If possible, please review and provide any edits by Monday 4/24 and then I will get signatures via DocuSign.

The main changes to look for in both documents, which are detailed in the revision table of both documents:

Manual Load Shed:

- Added Section II, D, 3c Member-Owner Load Restoration
  - The purpose of this section is to add explicit language clarifying the Member-Owners role in restoring load as part of the Rotating Power Outage plan. This is to mitigate the effects of cold load pickup at the distribution feeder level.
- Updated Section II, C Capacity Emergency steps in reference to PJM Manual 13
  - PJM moved these steps from Attachment E to Section 2.3 Capacity Shortages and made some small changes.
- Made updates to the Rotating Power Outage steps
  - These were to implement circuit switchers which were available and also change the Member-Owner load shed percentages based on the new winter peak data
- Made updates to the load shed tiers to accurately reflect current system configurations
  - This was mostly moving loads from Tier 4 to Tier 2 which now have operable circuit switchers/breakers and thus do not require a bus outage to shed

Underfrequency Load Shed:

- Updated language to match most recent applicable PJM, NERC, and SERC standards
   I reviewed latest PJM Manual 07, NERC PRC-006-5, and SERC PRC-006-SERC-02
- Updated all UFLS capability tables with the actual/estimated values at the time of 6/21/2022 Summer Coincident Peak
  - Received updated feeder load data from the coops and coordinated and reviewed thoroughly to ensure accuracy
- Made various updates for distribution feeders that were removed or added to the program
  - There were quite a few, I have coordinated with Protection and Reliability to get these all updated in the field. The document reflects how the plan will be after all changes have been implemented

Please let me know if you have any questions or need any clarification.

Thank you, Paul Rippy Engineer I, System Operations East Kentucky Power Cooperative | Winchester, KY



# **Paul Rippy**

From:	Scott Sells
Sent:	Friday, December 1, 2023 9:05 AM
То:	Denver York
Cc:	Steve Anderson; Paul Rippy
Subject:	FW: MLS Doc Draft
Attachments:	Manual Load Shed Plan Rev 7_Redline.docx

As Spelled out in revisions table, the following changes have been made for this draft of the document:

- Added Aaron Rogers, Manager MOC as a signatory of the document as the MOC has responsibilities specified in Section II
- Added various explicit clarifications to Section II, C to reflect pertinent information from most recent PJM Manual 13: Emergency Operations
- Added Section II, D, 3a Rotating Power Outage Preparations; which details the steps EKPC will take when Load Shed is a possibility.
- Made updates to the Tier 1 Rotating Power Outage plan from feedback of Member-Owners; removing South Floyd, Bromley, Jeffersonville, ad Magnolia while adding Hunt, Rineyville, and Carson to the plan.
- Moved Argentum, Tyner, and Zachariah loads from Tier 4 to Tier 2 which no longer required a bus outage to remove from service.
- Reviewed and Updated switching steps for all tiers based on most recent system upgrades and configuration
- Updated Tier Loading Tables with actual 2023 summer values based on 7/27/2023 Summer Coincident Peaks.
- Added several new and most recent Member-Owner personnel contact information to Appendix E to receive notifications via new BluePoint Alarm system. The alarm system will notify all contacts at multiple points with RPO related information via email, phone, and text
- Rewrote Section II, D, 3c Manual Load Dump Directive to reflect more accurately how EKPC logistically
  implements the RPO including the most recent EMS RPO display, new RPO Load Shed Tracking tool, and the use
  of the new BluePoint Alarm System
- Added Section II, D, 3e RPO Plan Termination to display BluePoint notification Member Owners will receive at completion of the RPO
- Changed language in Table 4 for Member Owner RPO MW Requirement to now be RPO MW Target. Further, explicitly stated beneath Appendix A that the RPO steps would be reordered to be more equitable amongst Member Owners for future implementation should the RPO only be partially implemented.

This draft is still pending the following items:

- MLS/UFLS overlap data table
- Updated Load Shed Tracking Tool Screenshot (Currently old screenshot as placeholder in document)

# **Scott Sells**