

2021 – Transformer Changeout

Drop Dead Time: 30 Minutes

Event Summary:

Replace a bad transformer. This will be done on a 4kV structure. The linemen will climb the pole, disconnect the already determined bad transformer, lower it to the ground, reinstall the new transformer, reconnect all connections, reenergize the transformer and check the secondary voltage. (The pole gin will already be installed)

Event Specifications:

1. Teams will be given 5 minutes set up time for questions and rubber gloves must be checked.
2. Time will start at judge's signal.
3. The transformer has already been determined to be bad and the cut-out will be open with the barrel hanging in the cut-out.
4. This is a team event requiring 2 climbers to perform the work on the pole.
5. The first climber must carry the hand line up the pole and secure it to the pole with a choker. All tools and material will be sent up and down in a bag. The pole gin will already be installed.
6. The cut-out barrel (door) must be sent to the ground before work begins to change out the transformer and the fuse replaced in the barrel before sending it back up the pole.
7. Proper care must be taken to insulate from the potential of a secondary back-feed through the service.
8. The linemen need to avoid laying on, supporting themselves on, or allowing the lift line supporting the transformer to rub on the neutral. Incidental contact will not be a deduction.
9. A rated manufactured 2 to 3 block & tackle must be used to lower and raise the transformer. The block & tackle can be of any brand or style the team chooses as long as it meets the guidelines and is not altered in any way.
10. The same transformer that is lowered to the ground will be used as the new transformer. The transformer will be lowered to ground and the sling used to support it removed from the hangers then the sling can be put back on the transformer and raised back up the pole for re-installation.
11. The new transformer connections must be made up exactly as the old transformer was wired (the case ground lug, all 3 secondary connections to the transformer, the primary bushing on the transformer, all conductors/grounds that are unhooked, and the stinger that goes from the bottom of the cut-out to the primary bushing on the transformer).
12. Once all connections are made the barrel can be re-installed in the cut-out. The barrel can be closed by either lineman with a hotstick as long as both are saftied off below the transformer brackets.

13. Voltage must be checked at the transformer fronts, and time will stop when the proper voltage is called out.
14. After time stops the barrel must be opened and left hanging in the cutout. The team must return the event to how it was when they arrived.
15. Judging will start when participants enter the event and continue until they exit the event. You are required and responsible to sign your score sheet. Once the score sheet has been signed and the team leaves the event the score is final and ineligible for appeal.
16. All general rules apply.