IEEE PES T&D Conference and Exposition Collegiate Reception

Killer Reliability Rules

Welcome to the Distribution System!

Concept

Reliability killers such as bad weather, bad procedures, and other problems that disrupt the flow of electricity have infiltrated the power grid. T&D equipment try to isolate the problems and restore the system. Meetings are held daily and suspected non-functioning equipment is taken out of service. Every night, a new disruption occurs, taking down T&D equipment; all pieces of equipment learn about this in the morning. The "undercover" engineer tries to identify the reliability killers before they strike again!

Rules

- 10-13 players per game
- The 13 cards contain 3 face cards, an Ace and 9 numbered cards 2-10. The following are the assignments for the game (for fewer than 13 players, remove the #3 card, then the #4 card, and so on, until the number of cards matches number of players):
 - Ace ~ Engineer
 - King ~ Repair Crew Supervisor
 - Queen ~ Lightning (reliability killer)
 - Jack ~ Heat (reliability killer)
 - 10 ~ Tree (reliability killer)
 - 9 ~ Station circuit breaker
 - 8 ~ Mid-circuit recloser
 - 7 ~ Tap fuse
 - 6 ~ Tap fuse
 - 5 ~ Transformer
 - 4 ~ Transformer
 - 3 ~ Customer service drop
 - 2 ~ Facilitator
- Do not reveal your card until you are taken out of service.
- Out of service equipment is allowed to 'observe' (open their eyes) but not participate in the game. This means they cannot talk to others or tip off any of the other players.

Execution

- The game starts by passing out the 13 cards. The facilitator should immediately identify himself. The rest of the players should not be talking and should not identify their role.
- The storm enters the service territory and all the players put their heads down with their eyes closed. During the height of the storm the silent reliability killers are awakened by the facilitator and unanimously vote to strike a piece of equipment. The facilitator should confirm the reliability killers with a silent thumbs up or thumbs down. The storm goes away and the killers put their heads back down with their eyes closed.
- The engineer is then awoken and attempts to identify the reliability killers. The
 engineer is allowed to make a silent guess of who the reliability killer is. The
 facilitator will give a silent thumbs up for confirmation of a correct guess or a
 thumbs down for an incorrect guess. The engineer then puts her head back down
 and closes her eyes.
- The repair crew supervisor is then awoken to silently select a piece of equipment he wants to save. The facilitator should confirm the repair crew supervisor's choice. The repair crew supervisor then puts his head down and closes his eyes.
- The facilitator then asks the table to awaken. If a piece of equipment failed and the crew failed to repair it, it is taken out of service. The table shall then hypothesize who the killers are. This is the only time the in-service equipment (players) are allowed to talk. No one shall reveal her/his role. After one minute the table should have at least one accusation of who the killer is. It's ok to guess. If another player seconds that accusation, there should be a vote on whether or not that person is a reliability killer. The accuser must explain her reasoning for the accusation; other players may justify the accusation as well. Caution: accusing someone or justifying an accusation may create a perception of being a reliability killer.
- The accused has the right to defend himself and anyone else playing may defend the accused. Caution: if you choose to defend someone you may be linked to being a reliability killer protecting one of your own.
- A vote must take place. The accused can only be eliminated by a majority vote. If the
 accused is voted guilty, the equipment/player is considered out of service and must
 show his card. The out of service equipment may not talk during the rest of the
 game.
- The players place their heads down with eyes closed and another storm enters the service territory.
- If, after the third round, a member of the reliability killers has not been identified, the Tree will have to self identify and be taken out of play.
- The play lasts until all the reliability killers have been removed from the system or all the equipment is out of service.