

Date: 06/07/2021

Cost Benefit Analysis Folding Guard Arm

Summary

With the ever growing population of the world, the electric grid has to continue to grow in order to meet the need for electricity. When installing new conductors or performing maintenance on overhead powerlines, there are many things that could go wrong. If you are out in the middle of a field where there is no one else in site, then perhaps it's okay for the conductor to touch the ground, but when there is hiway traffic, railroad tracks and other activities down below, then the line crews have to ensure that everything and everyone will be safe.

That is where the LineWise Folding Guard Arm is more beneficial. Some of the common practices in the industry today are for the Line Crew to build a guard structure that mimics a football goal post so that if control of the conductor is lost, then the guard structure will keep the conductors from falling to the ground. Building this goal post might be more cost effective if it only was built for that one use, but to build this structure over and over again is lost revenue for the electric utility and the electric utility contractors.

We have also seen where the line crews will use a telehandler and strap a wooden pole to the forks and use it as a guard structure. The telehandler is not rated as a guard structure and could be catastrophic if tension was lost in the conductor stinging process. Another common practice is using the boom of a bucket truck or the bucket itself with 2x4's or pipe forming a V in the bucket to act as the guard structure. This is also not a good choice as this has been proven to cause damage to the boom of the bucket trucks and have caused accidents in this industry.

| <i>Features</i> | <i>Benefits</i> |
|---|---|
| <ul style="list-style-type: none"> Process improvement | <ul style="list-style-type: none"> No need to blue stake, drill and cover up holes. No poles to erect or take down. No goal post to hang or take down. |
| <ul style="list-style-type: none"> Risk Mitigation | <ul style="list-style-type: none"> Prevents damages to bucket trucks that could cause them to fail. Designed and engineered with load ratings unlike the telehandler with the pole strapped across the forks. Protects people in traffic below the conductors. |
| <ul style="list-style-type: none"> Overall cost reduction | <ul style="list-style-type: none"> Setting up the folding guard arm is much faster than the traditional methods. Set up time is under 15 minutes. Compared to having to set up the goal post, the folding guard arm would pay for itself in the first 8 uses. |
| <ul style="list-style-type: none"> Vertical and horizontal rollers | <ul style="list-style-type: none"> Prevents scaring the conductor |