### Transmission Maintenance

The Tampa Electric transmission system inspection program identifies potential system problems along the entire transmission circuit by analyzing the structural conditions at the groundline, above ground and the conductor spans. The inspection program is a multi-pronged approach. The inspection cycles are one or eight years depending on the goals or requirements of the inspection activity. Formal inspection activities included in the program are groundline inspection, ground patrol, aerial infrared patrol, above ground inspection and substation inspections. The ground patrol, aerial infrared patrol and substation inspections are performed on one-year cycles, the above ground and the groundline inspections are performed on an eight-year cycle. This conforms with the company’s petition that was approved by the Commission which changed the above ground inspection cycle from a six-year to an eight-year cycle in Docket No. 140122-EI, Order No. PSC-14-0684-PAA-EI and confirmed in Order No. PSC-15-0017-CO-EI. Additionally, pre-climb inspections are performed prior to commencing work on any structure.

#### Groundline Inspection

Tampa Electric has implemented a groundline inspection program that complies with the Commission’s order requiring groundline inspection of wooden transmission structures. Groundline inspections are performed on an eight-year cycle. Each year approximately 12.5 percent of all wooden transmission structures are scheduled for inspection. For 2019 through 2021, the company plans to perform approximately 1,750 groundline inspections.

#### Ground Patrol

The ground patrol is a visual inspection for deficiencies including poles, insulators, switches, conductors, static wire and grounding provisions, cross arms, guying, hardware and encroachment. The ground patrol will include identification of vegetation encroachment as well as all circuit deficiencies. All transmission circuits are patrolled by ground at least once each year.

#### Aerial Infrared Patrol

The aerial infrared patrol is planned annually on the entire transmission system. It is performed by helicopter with a contractor specializing in thermographic power line inspections and a company employee serving as navigator and observer. This inspection identifies areas of concern that are not readily identifiable by normal visual methods as well as splices and other connections that are heating abnormally and may result in premature failure of the component. This inspection also identifies obvious system deficiencies such as broken cross arms and visibly damaged poles. Since many of these structures are on limited access ROW, this aerial inspection provides a frequent review of the entire transmission system and helps identify potential reliability issues in a timely manner.

#### 

#### Above Ground Inspection

Above ground inspections are performed on transmission structures on an eight-year cycle; therefore, each year approximately 12.5 percent or one-eighth of transmission structures are inspected. This inspection will be performed by either an internal team member or contractor specializing in above ground power pole inspections and may be performed by climbers, bucket truck, helicopter or Unmanned Aerial Systems (“UAS” or Drones). The above ground inspection is a comprehensive inspection that includes assessment of poles, insulators, switches, conductors, static wire, grounding provisions, cross arms, guying, hardware and encroachment issues. This program provides a detailed review of the above ground condition of the pole and the associated hardware on the structure. Due to advances in technology, the capabilities of UAS has allowed the company to complete the Above Ground Inspections in conjunction with the Ground Patrol utilizing the UAS for an aerial view of the structures identified for the comprehensive inspection.