

# Visual Intelligence from GE Digital

Vegetation Management and Asset Inspection



## Mitigating Threats and strengthening the Grid with AI-based Inspection Programs

Today, global T&D utilities spend millions of dollars per year on vegetation management and asset inspection programs. What if there was a better way to plan and analyse where your utility should focus by optimizing systems and processes in order to reduce outages, increase compliance, improve safety, and reduce the probability of catastrophic events such as wildfires or major regional outages.

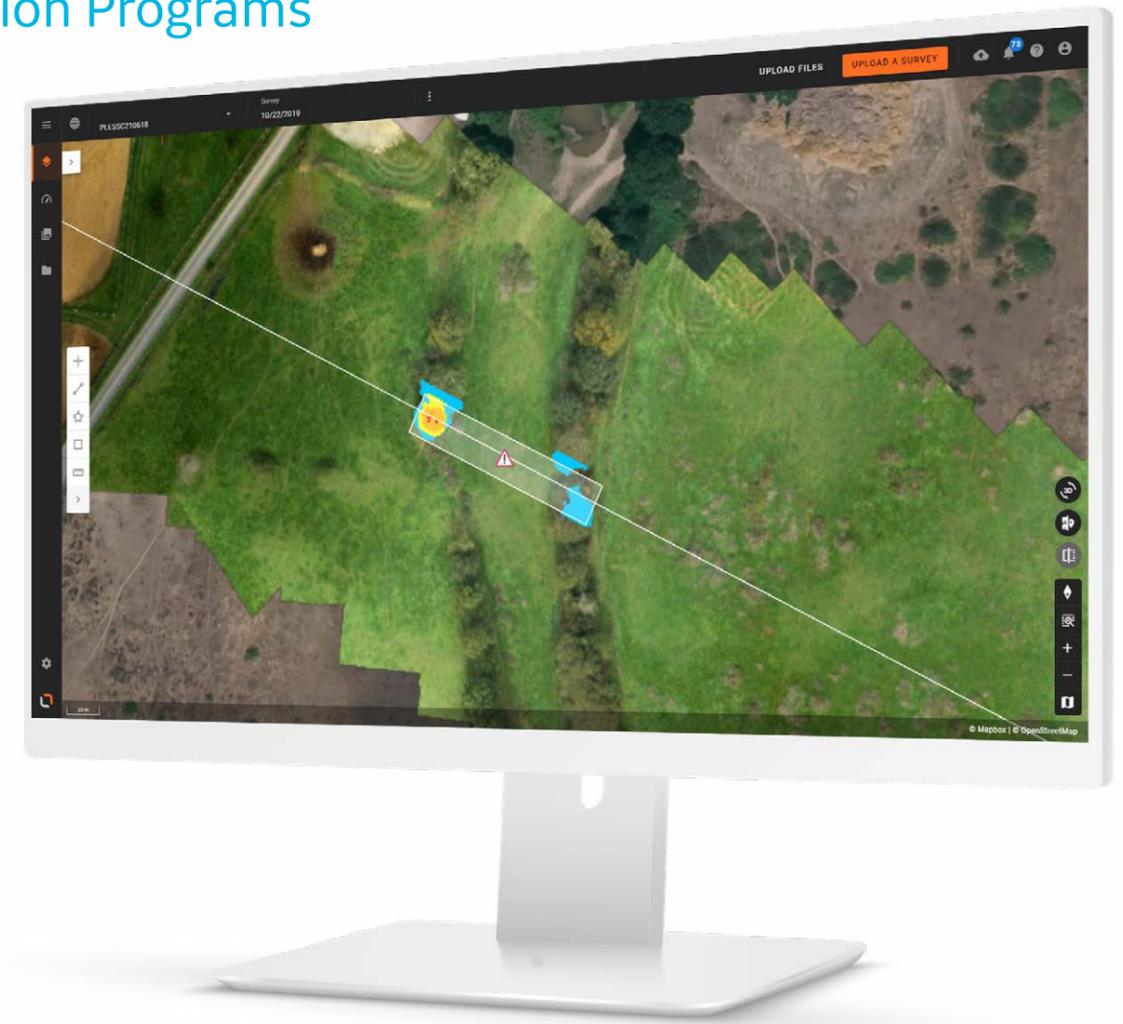
**Vegetation Management** is a serious, and labor intensive challenge. As well as climate change and extreme weather causing significant problems for utilities, vegetation too close to power lines are a significant hazard, and are the leading cause of power failures during high winds and storms. In dry weather conditions, branches touching the lines can catch fire, endangering human life and causing damage to the environment and existing infrastructures.

New remote sensing technology, surveying methods, and AI-driven **Asset Condition Assessment** solutions are available which offer utilities a clear upgrade path from their legacy inspection and risk management programs. GE's Visual Intel-

ligence Platform can identify problems early, avoiding asset damage or failure, ensure public and worker safety, and help extend the lifespan of aging assets.

Driven by Artificial Intelligence, GE's Visual Intelligence Platform optimizes systems and processes and provides a holistic picture of the grid to help reduce the cost and complexity associated with traditional inspection approaches, while improving risk management and productivity.

This approach gives utilities the insight needed to make data-driven decisions and take actions on what they should focus on and prioritize.



**Key Features**

- Capturing and transmitting very large inspection files and processing them on a platform that specializes in 2D and 3D visual rendering
- Applying AI and machine learning to auto-identify high risk encroachment areas
- Mitigating failure threats with automated Asset, Component and Defect Visual Recognition
- Scaling to support infrastructures that can be many thousands of miles or kilometers long
- Integrating with current mission critical T&D software that includes GIS, ADMS and/or EMS

**Expected**  
**27%**  
**Cost Savings**  
**Veg Mgmt. O&M**

- Reduce vegetation-related outages and asset downtime
- Transition out of inefficient trim-cycle based practice
- Improved planning and investment decisions

**Up to**  
**90%**  
**Data Processing**  
**Productivity Gain**

- Productivity gains from push-button AI-driven analysis by combining and normalizing multiple layers of visual information
- Data aggregation and ingestion into existing workflows for actionable insights

**Improved**  
**Major**  
**Risk Mgmt**

- Wildfire Risk
- Safety Risk
- Reliability Risk

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