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(54) SYSTEMS AND METHODS FOR AUTOMATED CORRECTION OF GIS DATA FOR LOADS AND DISTRIBUTED ENERGY RESOURCES IN SECONDARY DISTRIBUTION NETWORKS

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(57) **ABSTRACT**

A system for accurate secondary network topology geographic information system (GIS) coordinates correction provides a more accurate feeder topology for utilities to estimate and operate distribution systems by assigning the load and distributed energy resources (DER) nodes to their corresponding customer location. To simplify the complexity of the system, only two commonly available inputs are being used as input data: municipal parcel GIS delimitation data, and utility secondary feeder topology database. The system includes a three-stage framework: the first stage reads and processes the raw input data; the second stage works automatically with no human intervention to assign the load and DER nodes to their associated location; the third stage provides the load and DER coordinates and physical address.