CARTERET-CRAVEN ELECTRIC COOPERATIVE
POSITION DESCRIPTION

POSITION:
GIS Data Analyst

REPORTS TO:
Director of Engineering Services

DEPARTMENT:
Engineering

DIRECTS:
None

EFFECTIVE:
05/2025

GRADE:
10

POSITION OBJECTIVE:

To develop analytics, metrics, queries, reports, and dashboards on datasets to provide insights and drive efficiency for cooperative staff and operations. This includes partnership with various cooperative staff in conception, data analysis, data staging, visualization and automation, as well as user support on various data needs.

They will also educate and train staff to use the data as analytical tools, displaying the information in new forms and content for the purpose of analysis and option exploration. This includes working with teams to design and document dashboards, alerts, and reports

MINIMUM JOB SPECIFICATIONS:

The following requirements are subject to possible modification to reasonably accommodate individuals with disabilities. Some requirements may exclude individuals who pose a direct threat or significant risk to the health and safety of themselves or other employees.

Education: Require an associate's degree in mathematics, data science, Geographic Information Systems, information technology or equivalent. GIS and data analytics certificate preferred. Bachelor's degree preferred.

Experience: Prefer a minimum of two years of experience in data analysis or Geographical Informational System (GIS) Mapping with the ability to expand into data analytics. Experience in utility-based data analytics or GIS mapping is preferred. Require ability to learn the Cooperative's service territory and policies and procedures. Require excellent organizational and planning skills to meet frequent deadlines in a timely manner. Require the ability to perform functions with minimum supervision, including the performance of all data analytics functions.

Driver's License and Employment: Require ability to successfully pass the Cooperative's employment entrance examination and drug screen.

WORKING CONDITIONS:

Some field work; primarily general office environment; require the flexibility to work irregular hours. Require the physical ability in stooping, kneeling, crouching, reaching, standing, walking, fingering, grasping, talking, hearing, defined light work. Require visual acuity in machine operation (a) and (c).
Exposure to outside environmental conditions on an infrequent basis.

WORKING RELATIONSHIPS:

Internal: Two-way communication with immediate supervisor to receive direction, instructions; with individuals within the Cooperative for mapping assistance.
External: Demonstrates an awareness that the job exists to provide quality customer service, and at every opportunity to achieve customer and public understanding for support of the Cooperative.

ESSENTIAL DUTIES:

Note: The following are the essential duties of this position and do not include marginal functions that are incidental to the performance of fundamental job duties. The scope and duties of a given position may change or be temporarily altered based on the business needs of Carteret-Craven Electric Cooperative.
This document does not create an employment contract, implied or otherwise, other than an "at will" employment relationship.

1.   Creates visualizations, dashboards, and reports to communicate data insights clearly and effectively.
   a.   Translates complex data findings into accessible visuals and narratives for non-technical audiences.
   b.   Designs dashboards and reports using tools like ArcGIS Online, Power BI, Tableau, or similar platforms.
   c.   Collaborates with internal departments and external affiliates to ensure data accuracy, consistency, and alignment with project goals.
   d.   Becomes an expert in Cooperative data systems in order to retrieve, manipulate, analyze, and interpret large amounts of data.
   e.   Coordinates with all departments to identify specific data needs for new and existing projects as it relates to reporting, dashboards, and visualizations.
   f.   Develops reports and dashboards that will be useful and easily understandable for departments and cooperative staff.
   g.   Assists end users in identifying patterns, trends and opportunities for improvement.
   h.   Recognizes the need for additional data to improve efficiencies for decision making and suggests solutions such as reports or dashboards
   i.   Identifies, defines, and manages user and user roles as it pertains to the reporting system access.
   j.   Documents techniques used to create reports and dashboards and provides report and dashboard instructions for end-users.
2.   Collects, manages, and analyzes spatial and non-spatial datasets to support decision-making and reporting.
   a.   Develops reports and dashboard solutions from IBM Series.
   b.   Performs data cleaning, transformation, and normalization to ensure consistency across systems.
   c.   Conducts spatial and statistical analyses to identify trends, relationships, and anomalies.
3.   Develops, maintains, and updates GIS maps, layers, and associated databases for internal and public use.
   a.   Completes all assigned GIS functions with minimum supervision, within the allotted time frame.

      b.   Creates and edits geospatial layers using GIS software such as ArcGIS.

      c.   Maintains GIS databases, ensuring attributes are accurate, up-to-date, and well-structured

      d.   Publishes and manages web maps and feature services for internal use or public access through platforms like ArcGIS Enterprise or ArcGIS Online.

      e.   Imports and converts data from a variety of formats (e.g., CSV, shapefiles, GeoJSON, CAD, KML, or raster files) for GIS integration.

      f.   Coordinates with IT department and ensures that associated databases tie to billing, engineering software, and GIS viewing software are updated and maintained.

      g.   Trains or supports staff in accessing and interpreting GIS and data resources

4.   Automates routine data processing and spatial analysis tasks using scripting languages and tools.

      a.   Proficient in scripting languages commonly used in GIS and data analysis, including Python and SQL.

      b.   Writes and troubleshoots SQL queries for extracting and managing data from relational databases.

      c.   Writes and maintains scripts using Python (e.g., ArcPy) to streamline GIS workflows and data analysis tasks.

      d.   Creates batch processing tools to update large datasets or map products across multiple layers or files.

5.   Maintains safety standards and awareness. Maintains cyber and physical security safety standards and awareness.

      a.   Establishes and maintains acceptable safety standards.

      b.   Maintains current knowledge of Carteret-Craven EMC's safety regulations and evaluation of personal compliance.

      c.   Communicates with the IT Department on issues affecting the transfer of data, system upgrades, and enhancements to ensure coordinated efforts between departments.

      d.   Ensures all IT-related security policies are strictly followed and plays an active role in maintaining system's security.