Nevada Irrigation District

# Staff Report

**TO:** Board of Directors

**FROM:** Chip Close, Director of Water Operations

**DATE:** September 10, 2025

**SUBJECT:** **Addition of Senior Electrical Systems Technician Job Classification**

## *WATER OPERATIONS*

**RECOMMENDATION:**

Review and provide input to proposed addition of Senior Electrical Systems Technician classification and job description

**BACKGROUND**:

The District's Water Division includes an Electrical Technician team responsible for a wide range of tasks, from routine facility maintenance (e.g., lighting replacement at headquarters) to highly technical work such as programming and automation of the District's water treatment plants.

This broad scope of work requires significant technical expertise, making recruitment and retention of qualified staff critical to the success of the Electrical Division.

The Electrical Division is currently structured with three classifications:

- Electrical Systems Technician I
- Electrical Systems Technician II
- Electrical Systems Superintendent

While this structure has served the District well, it provides limited opportunity for cross-training and succession planning. The absence of an intermediate senior-level position creates challenges in both operational coverage and career progression.

The addition of a Senior Electrical Systems Technician classification would:

- Provide advanced technical expertise to support daily operations.
- Ensure a designated backup for the Superintendent during absences.
- Strengthen retention by offering an additional step in the electrical career ladder.

This proposal is to add the classification only. It is not anticipated to be filled until budget authorization is available. The position is expected to be filled through promotion of existing staff and will not result in additional full-time equivalent (FTE) positions.

The District's Human Resources Department has reviewed the job description and provided guidance.

**BUDGETARY IMPACT**:

There is no immediate impact to the Fiscal Year 2025 budget. If adopted, the position is anticipated to be included in the Fiscal Year 2026 budget as a promotional opportunity, with no increase in full-time equivalent (FTE) positions. The estimated incremental cost to staff this position in 2026 is $16,765.

The proposed salary range was developed based on a 12% increase over the Electrical Systems Technician II classification and 8% below the Electrical Systems Superintendent classification. A pay scale comparison was conducted as part of the analysis, which indicates that the District's Electrical Systems career ladder is generally below that of neighboring agencies with comparable classifications, as illustrated in the tables below.

Statistics computed using range Control Point/Max

**Electrical Systems Technician II**

| Agency | Comparable Class Title | Minimum | C.P./Max | Spread |
|---|---|---|---|---|
| City of Roseville | Instrument and Control Technician | $ 9,438 | $ 13,281 | 40.7% |
| Yuba County WA | Electrical Technician | | $ 11,875 | |
| Modesto Irrigation District | Instrument and Control Technician | | $ 10,653 | |
| Sonoma County Water Agency | Electrician/Instrumentation Technician | $ 8,655 | $ 10,493 | 21.2% |
| Turlock Irrigation District | Electronic Technician | | $ 10,365 | |
| Placer County Water Agency | Control Systems Technician II | $ 7,486 | $ 9,554 | 27.6% |
| ***Nevada Irrigation District*** | ***Electrical Systems Technician II*** | ***$ 7,765*** | ***$ 9,438*** | ***21.5%*** |
| El Dorado Irrigation District | Electrical and Instrumentation Tech II | $ 7,084 | $ 8,611 | 21.6% |
| Nevada County | Wastewater Electrical/Mechanical Worker II | $ 5,137 | $ 6,271 | 22.1% |
| City of Grass Valley | No Comparable Class | | | |
| City of Lincoln | No Comparable Class | | | |

| | | | |
|---|---|---|---|
| **Nevada Irrigation District Rank** | **7/9** | | |
| **Coefficient of Variance** | **21%** | | |
| **Number of Observations** | **8** | **Market Value** | **Percent +/-** |
| **Variability** | **High** | | |
| **Labor Market Mean** | | **$ 10,138** | **-7.42%** |
| **Labor Market Median** | | **$ 10,429** | **-10.50%** |
| **25th Percentile** | | **$ 9,318** | **1.27%** |
| **75th Percentile** | | **$ 10,959** | **-16.11%** |
| **Percentile Rank** | | **27** | |

Statistics computed using range Control Point/Max

**Electrical Systems Superintendent**

| Agency | Comparable Class Title | Minimum | C.P./Max | Spread |
|---|---|---|---|---|
| Sonoma County Water Agency | Water Agency Coordinator | $ 11,724 | $ 14,252 | 21.6% |
| Modesto Irrigation District | Water Treatment Plant Maintenance Supervisor | $ 9,651 | $ 12,355 | 28.0% |
| *Nevada Irrigation District* | *Electrical Systems Superintendent* | *$ 9,585* | *$ 11,646* | *21.5%* |
| Turlock Irrigation District | Electronic Supervisor | | $ 11,521 | |
| City of Grass Valley | No Comparable Class | | | |
| City of Lincoln | No Comparable Class | | | |
| City of Roseville | No Comparable Class | | | |
| El Dorado Irrigation District | No Comparable Class | | | |
| Nevada County | No Comparable Class | | | |
| Placer County Water Agency | No Comparable Class | | | |
| Yuba County WA | No Comparable Class | | | |

| | | | |
|---|---|---|---|
| **Nevada Irrigation District Rank** | **3/4** | | |
| **Coefficient of Variance** | **11%** | | |
| **Number of Observations** | **3** | **Market** | **Percent** |
| **Variability** | **Low** | **Value** | **+/-** |
| **Labor Market Mean** | | **$ 12,709** | **-9.13%** |
| **Labor Market Median** | | **$ 12,355** | **-6.09%** |
| **25th Percentile** | | **$ 11,938** | **-2.51%** |
| **75th Percentile** | | **$ 13,303** | **-14.23%** |
| **Percentile Rank** | | **7** | |

## Attachments (1): Proposed Senior Electrical Systems Technician Job Description

# NEVADA IRRIGATION DISTRICT
## Job Description

| | | | |
|---|---|---|---|
| Job Title: | Senior Electrical Systems Technician | Reports To: | Electrical Systems Superintendent |
| FLSA Status: | Non-exempt | Approved by Board of Directors: | xx/xx/xxxx |

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job.*

**Definition**

Under the direction of the Electrical Systems Superintendent, the Senior Electrical Systems Technician is responsible for performing the most complex and specialized duties related to the installation, maintenance, troubleshooting and repair of electrical, electronic, mechanical, electro-mechanical equipment, and networking equipment associated with District facilities. This position requires advanced technical expertise and in-depth knowledge of integrated systems. In this role, employees will provide administrative support to the assigned supervisor and assist in coordinating projects, maintaining records, and supporting departmental operations.

**Distinguishing Characteristics**

This is the advanced journey level in the Electrical Systems Technician series. Employees at this level are distinguished from other classes within the series by the level of responsibility assumed, complexity of duties assigned, and independence of action taken. This class directs electrical systems activities within the assigned area of responsibility and are given significant latitude for discretion and independent judgment in the selection of work methods to achieve established goals.

**Supervision Received and Exercised**

Receives general supervision from the Electrical Systems Superintendent.

**Essential Function Statements**

*Essential and other important responsibilities and duties may include, but are not limited to, the following:*

1. Install, maintain, troubleshoot, repair and calibrate mechanical, instrumentation, electrical, electronic and electro-mechanical equipment and systems associated with the operation of District facilities.
2. Recommend, evaluate, and deploy new technology.
3. Maintain, repair, and adjust pumps and pump control systems including VFD's, soft starts, and pump control valves.
4. Design, install, maintain, repair, calibrate, and troubleshoot telemetry, communication systems, and control systems, including PLC's, relay logic, SCADA systems, and HMI.
5. Create and maintain diagrams, schematics, and diagrams; read and interpret mechanical, electrical and hydraulic drawings.
6. Design and maintain computer and telemetry networks, program and manage virtual private networks, routers, firewalls, network storage and servers.

7. Design and install electrical systems; run conduit, pull and size wire, and components.
8. Design and install, repair, troubleshoot and maintain power generation systems including generators, transfer switches and batteries.
9. Design and install, maintain, repair, and replace mechanical systems, including but not limited to, pumps, gear boxes, and various mechanical equipment related to the operation of the District's water treatment plants and pump stations.
10. Assist with the research and purchase of parts, materials, supplies and equipment necessary for electrical, electronic, electro-mechanical, controls and networking repairs.
11. Program and operate a variety of complex test equipment used in troubleshooting complex equipment.
12. Maintain a variety of records of maintenance and repair activities.
13. Build and maintain positive working relationships with co-workers, other District employees and the public using principles of good customer service.
14. Perform related duties as assigned.

**Qualifications**

Knowledge of:

- Advanced electrical theory and principles.
- Advanced principles and practices of inspecting, troubleshooting, and repairing of electrical, electronic, mechanical, computer networks, telemetry networks, virtual private networks, routers, firewalls, network storage servers and electro-mechanical components and instrumentation.
- Materials, tools and equipment used in the installation, maintenance, and repair of electrical, electronic, mechanical, and electro-mechanical components and instrumentation.
- Practices associated with database management and development.
- Extensive knowledge of building SCADA systems and complex control circuits.
- Advanced practices associated with the use, maintenance and troubleshooting of sophisticated testing equipment.
- Networking design, configuration and troubleshooting.
- Applicable codes, regulations and procedures governing the electrical and electronic industry.
- Pertinent local, State and Federal laws, ordinances, rules and codes.
- Modern office equipment including use of applicable computer applications.
- Principles and practices of effective customer service.

Ability to:

- Install, troubleshoot and repair electrical, mechanical, electronic, computer networks, telemetry networks, virtual private networks, routers, firewalls, network storage servers and electro-mechanical components and instrumentation.
- Design and analyze complex electrical, electronic, electro-mechanical, computer network, telemetry network, virtual private network, router, firewall, network storage server and instrumentation systems.
- Operate and maintain a variety of tools and equipment used in the testing and repair of equipment.

- Apply new technologies to improve system performance and reliability.
- Perform mathematical calculations accurately.
- Develop and implement long term strategies for system upgrades, replacements and increased functionality.
- Plan and execute complex projects, ensure projects are aligned with organizational goals and timelines.
- Produce blueprints, part lists, schematics and diagrams to complete projects.
- Maintain detailed and accurate records of work performed and ensure records are in compliance with District standards.
- Perform mathematical calculations accurately.
  Establish and maintain effective working relationships with those contacted in the course of work.
- Communicate clearly and concisely, both orally and in writing.
- Operate and use modern office equipment including a computer and applicable software.
- Work after hours standby to respond to emergency situations.

Responsibility to:

- Obey safe work practices, procedures, and regulations including wearing protective equipment and safety devices.
- Operate equipment in a careful and safe manner.
- Acknowledge the use of safeguards by other employees.
- Report any removal, displacement, damage, destruction, or tampering of safety devices, safeguards, notices or warnings.
- Report any safety risks or hazards to your supervisor or other management personnel.
- Report to your supervisor or other management personnel any work assignment that you feel would require you to perform the work in an unsafe manner.

## Experience and Education Guidelines

*Any combination of experience and education that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:*

Experience:

Five years of responsible experience, similar to Electrical Systems Technician II with the Nevada Irrigation District.

Education:

Equivalent to completion of the twelfth grade supplemented by course work in electrical theory, electronics, or related field.

License and Certificate:

Possession of a valid California driver's license.

## Working Conditions

Environmental Conditions:

Work is normally performed in a temperature-controlled environment subject to typical plant operation noise. Some duties require field visits in an outdoor environment subject to outdoor conditions including extreme heat and cold and wet, humid conditions, fumes and/or airborne

particles. Duties may be performed near moving mechanical parts and on slippery and uneven surfaces with exposure to toxic or caustic chemicals and risk of electric shock.

Physical Conditions:
Essential functions may require maintaining physical condition necessary to sit while studying or preparing reports; bend, squat, climb, kneel and twist when performing installation/repair of equipment; perform simple and power grasping, pushing, pulling, and fine manipulation; and lift or carry weight of 50 pounds or less.

Vision: See in the normal visual range with or without correction. Specific vision abilities required by this job include close vision and the ability to focus.

Hearing: Hear in the normal audio range with or without correction.

Mental Conditions:
Essential functions may require maintaining mental condition necessary to know and understand maintenance activities and observe safety rules; intermittently analyze problem equipment; identify and locate equipment; interpret work orders; remember equipment location; and explain jobs to others; handle conflict.