

Client name Robert Ray
Form Montana Licensing Reform Task Force
Matter Robert Ray - Rules
Sent April 29, 2026 at 10:24 AM
Due
Submitted April 29, 2026 at 10:24 AM

Robert Ray

Date of birth

Company Gear Montana

Home email r_ray@live.com

Home address 135 Good Country Rd
kalispell, MT 59901

Mobile phone 14062019301

Montana Licensing Reform Task Force

This Task Force was created pursuant to Executive Order 1-2026 on January 29, 2026.

Purpose of the Licensing Reform Task Force

The Task Force shall provide the Governor with recommendations and strategies for the State of Montana to reform the professional occupational licensing system for the purposes of:

- identifying and removing burdens and barriers faced by licensees that are not necessary to protect the public; and
- improving access to and availability of professional services for citizens across Montana, including rural communities.

In developing recommendations and strategies, the Task Force shall seek input from Montana citizens, legislators, Montana associations whose members are licensed occupational professionals, professional licensing boards, relevant state agencies, advisory groups and researchers focused on occupational licensing, and other appropriate stakeholders as determined by the Task Force.

Public Record

Please note that all information received through this form is public record.

Which committee would you like to receive your comment?

Construction Subcommittee
Barriers Subcommittee

We want to hear from you!

We would like to receive any comments you would like the Task Force, or one of its subcommittees, to review. In addition, we are specifically looking for feedback for:

1. Specific topics a committee or the task force should consider, and
2. Specific people or organizations you think the task force should hear from.

Do you have a general comment or a specific person or topic for the Task Force to hear from?

Specific person or topic

What are your comments?

POSITION PAPER

Reforming Montana's Electrical Licensing Examination:

Expanding the Approved Reference List to Match Field Practice and Peer States

Submitted by GEAR Montana | Glacier Electrical Apprentice Resources

Robert Ray, Owner/Lead Instructor | State-Approved Electrical Apprenticeship School

Adjunct Instructor, Flathead Valley Community College

Kalispell, Montana | April 2026

Submitted in response to Executive Order No. 1-2026 (Licensing Reform Advisory Council)

Executive Summary

GEAR Montana is a state-approved electrical apprenticeship school operating in the Flathead Valley. We train journeyman and master electrician candidates who sit for Montana's licensing examination, and we work directly with the materials, format, and candidate experience that examination produces. From that instructional vantage point, we have one specific, targeted concern to bring to the Licensing Reform Advisory Council.

Montana's electrical licensing examination is open book. The Board publishes the approved reference list, and the current list includes the 2020 National Electrical Code, Montana Building Codes Amendments, and the Printreading textbook by David L. Hittinger. That foundation is appropriate. Our argument is that the approved reference list is too narrow — it excludes widely-used, commercially published field reference tools that Idaho, Oregon, and other neighboring states explicitly permit on their licensing examinations.

Specifically, Montana does not permit Ugly's Electrical Reference, Tom Henry's Keyword Index to the NEC, or the Ferm's Fast Finder Index — three publications that Idaho includes on its official approved reference list by name, and that Oregon includes as required course and exam materials for its inspector and journeyman pathways. These tools do not contain exam answers. They are navigational and quick-reference aids that help practitioners use the NEC efficiently — the same tools working electricians carry on every job site in Montana.

Our recommendation is targeted and administratively straightforward: expand Montana's approved reference list to include these field-standard publications, establish criteria for future additions, and pursue reference-list alignment with neighboring states as a foundation for improved reciprocity. This does not lower the bar for electrical licensure. It aligns Montana with the standard already in place across its borders.

Who We Are and Why We Are Qualified to Comment

GEAR Montana — Glacier Electrical Apprentice Resources — is a Montana state-approved electrical apprenticeship school based in Kalispell. We operate a hybrid instructional model using Mike Holt Enterprises curriculum, recognized nationally as the gold standard in NEC education. Our students are working electricians pursuing journeyman and master-level licensure in Montana.

Our lead instructor holds a Montana Master Electrician license with 25 years of field experience, including service as electrical foreman at McMurdo Station, Antarctica, and as a maintenance electrician and project manager at Microsoft. He also serves as an adjunct instructor at Flathead Valley Community College and as General Manager of CMB Electric, a licensed electrical contracting firm serving the Flathead Valley.

We have a direct, daily stake in the quality and fairness of Montana's licensing examination. We prepare candidates for the exam, we observe which reference tools they reach for in the field, and we see how the gap between the approved list and actual field practice affects candidate preparation. That operational experience is the basis for the recommendations in this paper.

The Issue: Montana's Approved Reference List Is Narrower Than Peer States

Montana's electrical licensing examination is open book. The current approved reference list includes:

- National Electrical Code, 2020 Edition (tabs and indexes permitted)*
- Montana Building Codes Amendments*
- Printreading by David L. Hittinger, based on the 2020 NEC*
- A silent, non-programmable calculator*

This list gives candidates the primary code document and one supplementary textbook. What it does not include are the navigational and quick-reference tools that electricians use alongside the NEC in daily field practice — tools that Idaho and Oregon explicitly permit by name on their licensing examinations. That gap is the subject of this paper.

1. The Missing Tools: What Practitioners Actually Use

Any working journeyman or master electrician can tell you that navigating the NEC efficiently does not happen by reading 1,000-plus pages linearly. It happens with index tools, cross-reference guides, and condensed quick-reference publications developed specifically to make code lookup faster, more accurate, and more reliable under field conditions. The most widely

used of these include:

- **Ugly's:** *Ugly's Electrical Reference (Jones & Bartlett Learning)*

The industry-standard pocket reference carried on job sites nationwide. Covers conductor ampacity, conduit fill, motor calculations, box fill, common code tables, and basic formulas in a format optimized for quick field lookup. Permitted by name on Idaho's official journeyman and master exam reference list and included as a required course and exam material by Oregon's Building Codes Division for its inspector licensing pathway.

- **Tom Henry Index:** *Tom Henry's Keyword Index to the NEC (Tom Henry's School of Trades)*

A commercially published, NEC-specific keyword index that cross-references terms, topics, and article numbers in the NEC. It contains no code text — it is purely a navigational tool for a book the candidate is already permitted to bring. Permitted by name on Idaho's official exam reference list and included as a required exam material by Oregon's Building Codes Division. Excluding it is analogous to allowing a dictionary but prohibiting a table of contents.

- **Ferm's Fast Finder:** *Ferm's Fast Finder Index (IAEI — International Association of Electrical Inspectors)*

An IAEI-published keyword and cross-reference index to the NEC, similar in purpose to the Tom Henry Index. Also permitted by name on Idaho's official exam reference list for journeyman, limited installer, and master exams. Published by a nationally recognized professional association directly involved in electrical code development and inspection.

2. What Peer States Allow — Primary Source Verification

The following is drawn directly from official state licensing agency publications, not secondary sources:

Idaho (DOPL Electrical Exam Information Bulletin, March 2024): Idaho's official approved reference list for the Journeyman, Limited Installer, and Master exams explicitly includes:

- 2017 National Electrical Code, NFPA (handbooks not allowed)
- Ferm's Fast Finder Index, IAEI
- Ugly's Electrical Reference, George V. Hart
- Tom Henry's Key Word Index — 2017 Code

Idaho also offers a parallel NASCLA exam pathway administered through PSI, giving candidates two examination routes. Idaho has a formal reciprocity relationship with Montana for journeyman licenses.

Oregon (Oregon Building Codes Division, official course and exam pages): Oregon's BCD lists the following as required course materials that candidates may also use during the state licensing examination:

- National Electrical Code Handbook, hardcover — current edition
- Oregon Amendments to the NEC
- Ugly's Electrical References
- Tom Henry's Key Word Index
- Cite-it-write-it checklist
- Oregon Administrative Rules (OAR) and Oregon Revised Statutes (ORS)

Oregon is a credential/endorsement state for Montana journeyman licenses, meaning licensed Oregon journeymen may apply for Montana licensure by endorsement without re-examination.

Washington State: Washington permits any commercially published, bound reference material on its electrical licensing examination without restriction to a pre-approved list. GEAR Montana is not advocating for Washington's unrestricted approach — a defined approved list is reasonable and administratively manageable. We cite Washington only to illustrate the range of practice across western states.

NASCLA-aligned states: The National Association of State Contractors Licensing Agencies administers journeyman and master electrician exams accepted by a growing number of states. Idaho Electrical Board meeting minutes from January 2025 note that for most NASCLA-participating states, the permitted reference set is typically limited to three publications: the NEC, Ugly's, and a keyword index — the same three materials Montana currently restricts to one.

3. What the Restriction Actually Tests

When a candidate cannot use Ugly's or a keyword index, the exam shifts — at least in part — from testing code competency to testing familiarity with the physical layout of a specific NEC copy. A candidate who has tabbed and annotated one NEC edition over years of field use has a structural advantage over an equally qualified candidate who recently purchased a new copy or trained under a different NEC cycle. That advantage has nothing to do with electrical knowledge or public safety.

The Tom Henry and Ferm's indexes are a particularly clear case. Neither contains code text. Both are pure navigational aids for a book the candidate is already permitted to bring. Excluding them imposes a time penalty on candidates who have not internalized the NEC's internal structure, without testing any safety-relevant knowledge. That is a barrier without a corresponding protection.

4. Montana's Current Reciprocity Landscape

Understanding the reciprocity argument requires a clear picture of where Montana currently stands. Per the Montana State Electrical Board's official journeyman application:

Reciprocal States (journeyman only — Board retrieves verification):

Alaska, Arkansas, Colorado, Minnesota, North Dakota, Nebraska, New Hampshire, New Mexico, Oklahoma, South Dakota, Texas, Utah, Wyoming — and Idaho (noted separately as a direct state-to-state reciprocal agreement).

Credential/Endorsement States (candidate must obtain own verification):

Alabama, Connecticut, Hawaii, Idaho, Massachusetts, Maine, Michigan, Oregon, Rhode Island, Virginia, Vermont, District of Columbia, West Virginia, and Washington.

Master Electrician Reciprocity: None. All master candidates must pass the Montana Master Electrician exam regardless of out-of-state licensure.

Both Idaho and Oregon — the two states for which we have verified primary-source exam reference data — already have a pathway to Montana licensure for journeymen. Reference list alignment with these states reinforces the equivalency of standards that those pathways depend on, and supports the case for elevating Oregon from endorsement to full reciprocity status.

Montana vs. Peer States: Approved Exam Reference Comparison

Reference / Tool Montana (Current) Idaho (DOPL, Mar 2024) Oregon (BCD Official Pages)

NEC — current adopted edition Yes (2020 NEC; tabs/indexes allowed) Yes (2017 NEC; handbooks not allowed) Yes (current NEC Handbook, hardcover)

State code amendments Yes (MT Building Codes Amendments) Not separately listed on state exam Yes (Oregon Amendments to NEC + OAR/ORS)

Ugly's Electrical Reference No Yes — listed by name Yes — listed by name

Tom Henry's Keyword Index No Yes — listed by name Yes — listed by name

Ferm's Fast Finder Index (IAEI) No Yes — listed by name Not separately listed

Supplementary textbook Yes (Printreading, Hittinger) No additional textbook Additional OAR/ORS statutory references

Reciprocity with Montana (JW) N/A Direct state-to-state reciprocal Credential/endorsement pathway

Sources: Montana — DLI PSI Exam Info Sheet (updated 3/27/2025). Idaho — DOPL Electrical Exam Information Bulletin (updated March 25, 2024). Oregon — Oregon Building Codes Division official inspector training and licensing pages (current as of April 2026). Idaho and Oregon data are drawn from primary state agency publications.

Response to EO 1-2026 Evaluation Criteria

Executive Order 1-2026 directs the Task Force to evaluate occupational licensing using specific criteria. We address each criterion as it applies to the specific question of Montana's approved reference list for electrical licensing examinations:

• YES. Does unregulated practice create a direct hazard to public health, safety, or welfare?

Electrical work is among the most consequential licensed trades. Arc flash, electrocution, and electrical fire represent serious and documented public safety risks. Licensure is entirely justified, and we support it fully. The question is not whether to license — it is whether the specific reference materials permitted on the exam serve that safety purpose or simply create friction.

• YES. Is there a public benefit provided by licensure?

Licensed electricians who demonstrate code knowledge and field competency protect lives and property. The benefit is real. Our argument is that allowing Ugly's and a keyword index does not reduce that protection — it tests the same competency with the same tools a licensed electrician uses in the field every day.

• INDIRECTLY, YES. Does licensure significantly increase the cost of service to the public?

When the examination reference restrictions create unnecessary attrition among qualified candidates, the supply of licensed electricians is artificially constrained. Reduced supply drives up labor costs for consumers. A modest expansion of permitted references that increases pass rates among genuinely competent candidates would improve supply without reducing safety standards.

• YES — THIS IS THE CORE ISSUE. Do unnecessary barriers to entry exist?

The exclusion of Ugly's Electrical Reference and keyword index tools from the approved list does not protect the public from incompetent electricians. It disadvantages candidates who are unfamiliar with a specific copy of the NEC's physical layout — a trait that is unrelated to electrical competency. A candidate who can use a keyword index to locate the correct NEC article and apply it correctly is demonstrating exactly the skill that protects the public.

• YES. Do existing licensing requirements contribute to rural workforce shortages or access constraints?

The Flathead Valley and broader rural Montana have experienced persistent electrical labor shortages that delay residential construction, commercial builds, and infrastructure projects. Any correctable barrier that reduces the pass rate among qualified candidates contributes to that shortage. Reference list expansion is a low-cost, low-risk lever for improvement.

• YES — AND REFERENCE ALIGNMENT HELPS. Could reciprocity or endorsement pathways expand access to qualified professionals?

Both Idaho and Oregon — the two states for which we have verified primary-source exam reference data — already have journeyman pathways into Montana licensure. Idaho is a direct reciprocal state; Oregon is a credential/endorsement state. Reference list alignment with these states reinforces the equivalency of standards that those pathways depend on, and strengthens the case for future reciprocity expansion. Montana's current list of 13 formal reciprocal states and 14 endorsement states represents real infrastructure. Alignment on reference materials helps protect and expand that infrastructure.

Recommendations

Recommendation 1: Expand the Approved Reference List to Match Peer State Standards

The Montana State Electrical Board should amend the approved reference list for all electrical licensing examinations to include the following commercially published materials, each of which is permitted by name on Idaho's official exam reference list and/or Oregon's official licensing exam pathway:

- *Ugly's Electrical Reference* (current edition) — Jones & Bartlett Learning. Industry-standard field pocket reference covering ampacity, conduit fill, motor calculations, box fill, and common code tables. Permitted by Idaho and Oregon.
- *Tom Henry's Keyword Index to the NEC* (current edition, aligned to adopted NEC cycle) — Tom Henry's School of Trades. A pure keyword navigational index to the NEC containing no code text. Permitted by Idaho and Oregon.
- *Ferm's Fast Finder Index* (current edition) — IAEI (International Association of Electrical Inspectors). A keyword and cross-reference index to the NEC published by the professional association of electrical inspectors. Permitted by Idaho.

None of these publications contain exam answers or pre-computed solutions. They are navigational and quick-reference tools that help candidates efficiently apply the NEC — the same tools they use in field practice. Montana's existing *Printreading* textbook would remain on the approved list alongside these additions.

Criteria for future additions to the approved list should be formalized as: (1) the material is commercially published and publicly available; (2) the material does not contain pre-computed exam answers or question-specific study guides; and (3) the material is in common use by licensed electricians in field practice. This framework gives the Board a clear standard without requiring legislative action on each individual update.

Recommendation 2: Conduct a Formal Review of the Approved Reference List on Each NEC Cycle

Montana currently adopts each new NEC edition through administrative rulemaking. The Board should establish a parallel process to formally review and update the approved exam reference list whenever a new NEC cycle is adopted. This review should:

- Solicit input from state-approved apprenticeship schools, including GEAR Montana
- Survey what reference materials are approved in neighboring and NASCLA-aligned states
- Evaluate whether any currently excluded commercial publications meet the criteria above
- Publish proposed changes through the normal ARM notice-and-comment process

This procedural change costs nothing and ensures the reference list remains current, fair, and aligned with field practice without requiring legislative action on each update.

Recommendation 3: Pursue Reciprocity Expansion with Neighboring States

Montana currently has formal journeyman reciprocity agreements with 13 states and endorsement pathways with 14 additional jurisdictions. Notably absent from the full reciprocal list are Idaho's neighboring partner states Oregon and Washington — both of which have existing workforce mobility with Montana's construction labor pool.

The Legislature should consider authorizing the Electrical Board to evaluate and enter reciprocity agreements without requiring separate legislative action for each state, provided the reciprocal state's licensing examination standards are substantially equivalent to Montana's. Aligning the approved reference list with Idaho and Oregon — as recommended above — directly supports the case for equivalency and could facilitate Oregon's elevation from endorsement to full reciprocity status.

Montana also has no master electrician reciprocity with any state. While this reflects a deliberate policy judgment about the higher stakes of master-level licensure, the Board should evaluate whether a supplemental Montana-specific module covering state amendments and local code requirements could enable master reciprocity with states using equivalent examination standards — further expanding the pool of qualified licensees available to serve rural Montana communities.

Conclusion

GEAR Montana trains the electricians who keep Montana's homes safe, its businesses running, and its infrastructure operational. Montana's licensing examination is well-structured — open book, with a published reference list, administered through an established PSI testing network. Our concern is narrow and specific: the approved reference list does not yet include the field-standard navigational tools that Idaho and Oregon explicitly permit, and that working electricians use every day.

Ugly's Electrical Reference, *Tom Henry's Keyword Index*, and *Ferm's Fast Finder Index* are not shortcuts. They are the tools of the trade — in the truck, on the jobsite, and in the inspector's kit. Idaho lists all three by name. Oregon lists two of them as required exam materials. Montana lists none of them. That gap is correctable at the Board level, without legislation, and without reducing the rigor of the examination.

The workforce math is straightforward. Montana needs more licensed electricians, particularly in rural communities. Aligning the approved reference list with neighboring states supports both candidate success and reciprocity infrastructure — two levers directly responsive to the workforce access goals of Executive Order No. 1-2026. This is a low-cost, evidence-based change with a clear precedent in adjacent states.

GEAR Montana respectfully requests the opportunity to present this position in person to the Licensing Reform Advisory Council, and stands ready to provide additional data, curriculum documentation, or testimony in support of these recommendations.

Respectfully submitted,

*Robert Ray, Master Electrician
Owner / Lead Instructor, GEAR Montana (Glacier Electrical Apprentice Resources)
Adjunct Instructor, Flathead Valley Community College
General Manager, CMB Electric
Kalispell, Montana*

gearmt.com | April 2026
