

HIGH VOLTAGE SAFETY

ASSESSMENT CHECKLIST

A safety audit for an
electrified workplace.



INTRODUCTION & INSTRUCTIONS

PURPOSE:

This assessment helps you evaluate your workplace's readiness to safely work around high voltage (HV) and electric vehicle (EV) systems. By completing it, you'll identify safety gaps, prioritize improvements, and prepare your team for safer, more efficient EV work.

HOW IT WORKS:

Each question is answered with:

Yes (2 points) | Somewhat (1 point) | No (0 points) | Not Sure (0 points)

Tally your score at the end of each section.

Your total score determines your overall readiness level.

READINESS LEVELS:

Red (0–40 points) – Significant safety risks, immediate action recommended.

Yellow (41–75 points) – Some gaps; training and process improvement needed.

Green (76–100 points) – Ready for HV work with only minor improvements required.



**SECTION 1: GENERAL ELECTRICAL SAFETY READINESS**

YES	SOMEWHAT	NO/UNSURE
2 pts	1 pt	0 pts

1. Do you work on electrical systems of 50V or more?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Is electrical hazard awareness training provided for all employees?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Are Lockout/Tagout (LOTO) procedures documented and enforced?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Is there at least one qualified electrical worker (QEW) on staff?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Are electrical rooms or vaults secured from unqualified personnel?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Is someone trained in CPR, First Aid, and AED on every shift?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Are electrical workstations inspected before each use?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Are all energy storage systems labeled with voltage and hazard info?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Are zones for qualified/unqualified personnel clearly marked?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Are incident energy levels and arc flash boundaries calculated and posted?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Is Lockout/Tagout used for all electrical service work?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Are staff trained to recognize energized parts?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Are shift supervisors trained in HV hazard response?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Are contractors required to follow facility electrical safety policies?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Is there a dedicated electrical safety program leader?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Is annual safety training provided for all team members?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Are records of electrical safety incidents tracked and reviewed?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Are new hires given an electrical safety orientation?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Are qualified workers retrained when procedures change?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Are electrical safety audits performed annually?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section Score: _____ / 40

**SECTION 2: PPE & TOOLING
AUDIT**

YES	SOMEWHAT	NO/UNSURE
2 pts	1 pt	0 pts

1. Do you have properly rated HV gloves (min. Class 0) and leather protectors?.....
2. Are gloves tested and documented at regular intervals?.....
3. Are arc flash suits or FR clothing available and used as required?.....
4. Are insulated tools available and inspected before each use?.....
5. Are multimeters and insulation testers CAT-rated for HV use?.....
6. Is there a designated PPE storage area with proper conditions?.....
7. Are rescue hooks accessible at all HV work locations?.....
8. Are damaged or expired PPE items removed from service promptly?.....
9. Is there a documented PPE inspection process?.....
10. Is PPE training part of onboarding and recurring safety programs?.....

Section Score: _____ / 20



SECTION 3: WORK PRACTICES & DOCUMENTATION

	YES	SOMEWHAT	NO/UNSURE
	2 pts	1 pt	0 pts
1. Are risk assessments and job briefings conducted before HV tasks?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Are vehicle pre-work inspection checklists used consistently?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Is there a process for identifying shock, arc flash, and stored energy hazards?....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Are "Hot Electrical Work Permit" processes in place for live work?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Are emergency response plans (exit paths, AED, fire extinguishers) posted?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Is a second person required for HV battery work or diagnostics?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Are fall, confined space, and environmental hazards addressed in planning?....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Are job-specific procedures documented and accessible?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is there an incident reporting and review process?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Are safety metrics tracked and reviewed by leadership?.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section Score: _____ / 20





SECTION 4: ENVIRONMENT & FACILITY MARKINGS

YES SOMEWHAT NO/UNSURE
2 pts 1 pt 0 pts

1. Are high voltage zones clearly marked and barricaded as needed?.....
2. Is lighting adequate in HV work areas?.....
3. Is ventilation sufficient for battery charging or pack disassembly?.....
4. Are high-traffic or wet areas mitigated for electrical safety?.....
5. Is there a clear and practiced rescue/evacuation path?.....

Section Score: _____ / 10



SECTION 5: ADVANCED EV-SPECIFIC SAFETY PRACTICES

YES SOMEWHAT NO/UNSURE
2 pts 1 pt 0 pts

1. Are NFPA Emergency Response Guides accessible and known by staff?.....
2. Is there a process for handling thermal events or battery fires?.....
3. Are high voltage battery lifting and moving procedures documented?.....
4. Are isolation and discharge procedures understood by technicians?.....
5. Are EV-specific training and certifications maintained for key personnel?.....

Section Score: _____ / 10

FINAL SCORING

Section Scores:

- Section 1: _____ / 40
- Section 2: _____ / 20
- Section 3: _____ / 20
- Section 4: _____ / 10
- Section 5: _____ / 10



TOTAL SCORE

READINESS LEVEL



Red (0–40 points) – Significant safety risks, immediate action recommended.



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WANT TO TAKE YOUR SAFETY READINESS TO THE NEXT LEVEL?



Register now for our fully virtual Level 1 and Level 2 trainings and get your ASE xEV1 & xEV2 certifications.

TO GET STARTED CONTACT:

book a meeting
→



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