

SIEMENS

Ingenuity for life

Arc Flash Mitigation Solutions

A proactive approach to preventing arc flash hazards, ensuring a safe workplace environment and protecting your equipment investment

usa.siemens.com/electricalservices

The threats posed by arc flash hazards are serious and costly. Personnel, critical equipment, and business continuity are all at risk when electrical hazards are not addressed properly. Regulatory bodies, including OSHA and the NFPA, have taken notice with more stringent guidelines and stricter enforcement. Taking a proactive approach to mitigating arc flash dangers has become more important than ever.

The smart path to arc flash safety

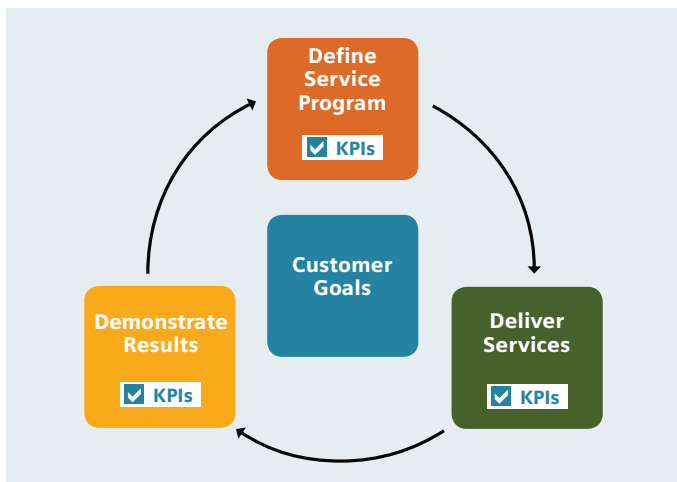
With expert service from Siemens, you can confidently address arc flash hazards in your facility. Through our Arc Flash Mitigation Solutions, we provide a comprehensive five-tier approach to identifying, mitigating, and staying ahead of the potential dangers posed by electrical equipment. Our electrical service professionals go beyond basic analysis and repairs; they also provide the preventive maintenance, monitoring, and training you need to ensure ongoing compliance and improved safety and efficiency.

The benefits of expert guidance and service

A smart, comprehensive approach to arc flash hazards provides complete peace of mind to you and your organization. Our Arc Flash Mitigation Solutions help you meet facility safety and compliance goals and key performance metrics by:

- Protecting your personnel from dangerous and potentially fatal arc flash-related injuries due to improperly maintained equipment or inadequate safety training

- Ensuring compliance with the latest regulations and codes, including NFPA 70E, and avoidance of OSHA penalties and fines
- Maximizing the reliability of your critical electrical systems and avoiding outages and costly downtime for your organization
- Improving the efficiency and lifecycle of electrical equipment and reducing associated energy costs.



Arc Flash Mitigation Solutions help you meet facility safety, compliance goals, and key performance metrics.

Arc Flash Mitigation Solutions – Five-Tier Approach

| 1 Consultation | 2 Analysis | 3 Modernization & Improvements | 4 Preventive Maintenance | 5 Measurement |
|---|---|---|--|--|
| <ul style="list-style-type: none"> Identify desired outcomes and set program goals Define key performance metrics Establish training plan to secure safety and system efficiency | <ul style="list-style-type: none"> Complete and predictive arc flash hazard analysis Conduct resource gap analysis Deliver arc flash program recommendations | <ul style="list-style-type: none"> Setup of arc flash program Provide arc flash mitigation solutions and services Complete modernizations and upgrades Ensure NFPA 70E compliance and training Conduct one-time services | <ul style="list-style-type: none"> Define preventive maintenance program Perform preventive maintenance services | <ul style="list-style-type: none"> Monitor performance execution Deliver reporting on key performance metrics Hold regular quality assurance meetings |

A five-tier approach

Siemens Arc Flash Mitigation Solutions is comprised of a five-tier approach. It is a comprehensive and proactive guide that helps ensure you are maximizing safety and efficiency within your facility, now and in the future. You can be assured that Siemens electrical service experts are addressing arc flash hazards from all aspects.

Consultation: Our electrical service experts work with you to define clear goals for achieving compliance, safety, and efficiency and to establish a training plan that protects your people and systems.

Analysis: Siemens conducts a complete arc flash hazard analysis as well as a gap analysis evaluating your own internal resources. We then provide recommendations for ensuring compliance and maintaining safety and efficiency.

Modernization & Improvements: Our experts establish an arc flash mitigation program and perform needed modernizations, upgrades, and one-time services to make your facility compliant with NFPA 70E.

Preventive Maintenance: A preventive maintenance agreement is tailored to your facility's needs. Our service professionals perform ongoing preventive maintenance to keep safety and efficiency at the highest levels.

Measurement: Siemens provides you regular reporting paired with quality assurance meetings to ensure solutions, training, and services are meeting pre-determined goals.

Think CPR: Contain, Prevent, and Reduce

When working with Siemens, you'll benefit from our mitigation CPR solution designed specifically to contain, prevent, and reduce arc flash hazards.

C = Contain

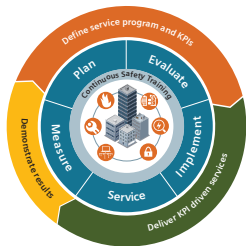
- Implementation of arc resistant switchgear and/or motor control centers (MCCs)

P = Prevent/Protect

- Remote monitoring and/or operation of systems
- High resistance grounding
- Insulated bus
- Siemens gas insulated switchgear (GIS)
- Remote racking devices
- Replacement of over-duty devices
- NFPA 70E Electrical Safety training
- Protective labeling of equipment

R = Reduce

- Dynamic breaker parameter changes to reduce arc fault levels (maintenance switching)
- Professional adjustment of protective device settings
- Adding or replacing circuit protective devices
- Incorporation of a virtual main system
- Differential relaying
- Arc flash light detection relays
- Zone selective interlocking



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Comprehensive
Approach
to Service

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