

Sgroup Technical Services Group

HCS Technical Services Group provides full service Power System Analysis, studies, testing, evaluations, reports, etc., that incorporates facility site surveys by engineers and technicians, testing and evaluation of electrical power systems and computer modeling. Reports include full system analysis, recommendations, and estimated costs for infrastructure corrections and/or upgrades.

Specific Analysis: The HCS Group leadership provides onsite power system analysis, monitoring, evaluation, infrared analysis, testing, event recording, etc.. The following power system parameters can be evaluated in the HCS Group Engineering analysis:

- Overhead Distribution IR Scans
- Substation and Switchgear IR Scans
- Pad Mounted Distribution Equipment IR Scans
- Interior Distribution Equipment IR Scans
- Power Quality Analysis
- Load Studies and Analysis
- Transient Analysis
- Grounding and Lightning Protection Analysis
- Harmonic Current and Voltage Studies
- Short Circuit and Arc Flash Studies
- Coordination Studies
- Power Factor Correction Studies

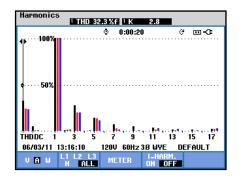
HCS Group owns and operates all the equipment needed (over \$50,000 net worth) and it is calibrated on a regular basis. The following is a partial list of the equipment used to view the issues you may have, before you have to view the results of not finding them in time.

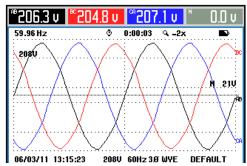
- Dranetz Power Visa Power Quality Meter
- Fluke 434 Power Quality Meter
- Fluke 43B Single Phase Power Quality Meter
- Fluke Ti32 IR Camera w/Wide Angle Lens and Telescoping Lens
- AMEC Grounding Electrode Resistance Clamp-On Meter
- Hubbell True RMS Load Looker Amp Probe w/Hot Stick
- Kerol Portable Weather Station

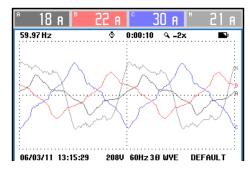


HCS Group Testing Equipment
Power Quality Analysis and Systems Testing

Whether your network or system is critical care or mission critical we know how important it is to you. The professionals at HCS Group can assist you in your energy delivery system planning and engineering needs; to facilitate and enhance system reliability, sustainability and performance.











Leadership – "Our Team's Greatest Asset"

Integrity – "Our Teams Greatest Responsibility"

Service - "Our Team's Greatest Privilege"

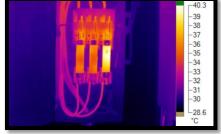
Services:

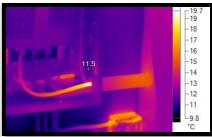
Power Quality Analysis: Complete power quality analysis and reports are provided including harmonic studies, voltage transients, load swings, infrared studies and evaluations, all supported by technical field measurements and engineering analysis. The HCS Group Leadership has performed these services throughout the USA and worldwide.

Infrared Analysis: Complete IR Analysis has the capability of detecting electrical issues that normally would not be discovered in a normal inspection by using FLIR and FLUKE Thermal Imaging Camera technology. This technology can assist in locating impending problems before they cause harm, nuisance tripping or even total system shut downs. Let the HCS Group team assist you in protecting your investment, critical systems and operations.

Infrared Analysis:

- Safety First and arc flash awareness
- Electrical/Mechanical/Building Envelope
- Immediate Onsite Reports and Analysis
- Flexible Scheduling-After Hours/Shutdowns
- Prevents Catastrophic Failures
- Identifies Unsafe and Hazardous Conditions
- Identifies Thermal Envelope Problems
- Roof Leaks





The HCS Group Power System Team members have years of experience in performing power systems studies, analysis and power system engineering for projects worldwide. The HCS Group Technical Services Team can provide full system short circuit analysis, arc-flash studies, coordination studies, load flow, dynamic power system evaluations, and a host of other critical system modeling features.

State of the art and most robust software is utilized in house by our team of professionals at HCS to model, evaluate and predict real system behavior. Proposed designs can be modeled to enhance the engineering process while existing systems can be modeled to evaluate system vulnerability issues, failure points, modifications and/or upgrades.

Specific Projects: The HCS Group engineering and technical team have performed specific power system analysis services at numerous sites and facilities around the globe. Under contracts with the US Army Corps of Engineers, US Air Force and the State Department; HCS has provided these services throughout the USA including Alaska and Hawaii; and over 40 countries in Central America, South America, the Caribbean, East and West Europe, Africa, the Middle East and Asia.

