

Energy Systems Test Area (ESTA) Electrical Power System Test Operations Test Request Worksheet

This worksheet will facilitate the development of a cost and schedule estimate for utilizing the ESTA Electrical Power System Test Facility. Please complete this form and submit to the ESTA Branch Chief, jsc-cal-ep6-esta@nasa.gov

Test Requester Information

Test Article Expert:	Contact Information (Phone, E-mail, Address):
----------------------	---

Test Objectives

Purpose of Test:	
Proposed Test Start Date:	Critical Test Start Date:

Test Article

Test Article Description:	
Physical Dimensions (L/W/H):	Weight:

Batteries

Model Number:	Capacity:	Nominal Voltage:
Mass (entire assembly):	Watt Hours (entire assembly):	Number of Cells Delivered:
Volume (individual cells):		
Cell Configuration:		
Description of any smart circuitry:		
Chemistry (Alkaline, Ni-Cad, Ni-MH, Li-ion, Other):		
Charge Schedule (current, voltage, time)		
Discharge Schedule (current, voltage, time):		
Battery Safety Limits:		

Operational Requirements

Functional Checks (Describe any functional checks to be performed prior to, during, or after testing):	
Test Article Limitations (High/low cutoff temperature, ramp rate not to exceed):	
Continuous Operations (24 hr):	Authorized Shutdown Points:

Battery Performance Test Requirements

Describe the test requirements for each environment to be simulated.

Cell Chemistry:

Long-Term Storage Testing:

Endurance Cycling:

Operate-to-Failure:

Test Article Interface

Test Article Interface Design (Facility or Requester designed, drawings attached, instructions):

Test Fixture (facility stock, facility fabricated, or requester provided):

Power Supply (Describe power supply to test article; include voltage, current, and connections):

List materials and instruments supplied by Requester (connectors supplied):

Designs/Drawings

We can accept files through a File Transfer Protocol (FTP) site, by e-mail, or via standard mail.

1. E-mail drawings to jsc-cal-ep6-esta@nasa.gov.
2. The Test Director will send an invitation to the NASA FTP site to upload and send files.
3. Mail drawings to National Aeronautics and Space Administration, Attention Martin McClean, Mail Code EP6, Lyndon B. Johnson Space Center, Houston, TX 77058

Instrumentation

Instrumentation (type of instrumentation, number; attach diagram of planned sensor locations):

Instrumentation Provided by Test Requester:

Data Acquisition and Recording

Number of Channels:	Video Recording (Yes/No):
Sampling Rates:	Photographic Film (Yes/No):
Real-Time Data Processing (Yes/No):	High Speed/Low Speed (Video):
Data File (ASCII/Excel):	Plots (Yes/No):

Other Information

List any other information pertinent to the test:

Test Article Hazard Checklist

A hazard analysis statement is required for any of the following applicable attributes of any of your provided hardware (e.g., test article, support equipment).

Hazard	Y	N	Comments
Mechanical	<input type="checkbox"/>	<input type="checkbox"/>	
Handling (> 40 lb or > 4 ft in any dimension)	<input type="checkbox"/>	<input type="checkbox"/>	
Instability	<input type="checkbox"/>	<input type="checkbox"/>	
Sharp Edges	<input type="checkbox"/>	<input type="checkbox"/>	
Pinch Points	<input type="checkbox"/>	<input type="checkbox"/>	
Exposed Mechanisms (e.g., rotating, reciprocating)	<input type="checkbox"/>	<input type="checkbox"/>	
Pressure Systems	<input type="checkbox"/>	<input type="checkbox"/>	
Stored Energy (e.g., springs, weights, flywheels)	<input type="checkbox"/>	<input type="checkbox"/>	
Ejected Parts, Projectiles	<input type="checkbox"/>	<input type="checkbox"/>	
Electrical	<input type="checkbox"/>	<input type="checkbox"/>	
Voltage (> 50 volts)	<input type="checkbox"/>	<input type="checkbox"/>	
Batteries	<input type="checkbox"/>	<input type="checkbox"/>	
Generation/Storage (e.g., coils, magnets, capacitors)	<input type="checkbox"/>	<input type="checkbox"/>	
Electrostatic Sensitive Devices	<input type="checkbox"/>	<input type="checkbox"/>	
Thermal	<input type="checkbox"/>	<input type="checkbox"/>	
Hot Surfaces (> 113 °F, 45 °C)	<input type="checkbox"/>	<input type="checkbox"/>	
Heaters	<input type="checkbox"/>	<input type="checkbox"/>	
Cold Surfaces (< 39 °F, 4 °C)	<input type="checkbox"/>	<input type="checkbox"/>	
Cooling Devices	<input type="checkbox"/>	<input type="checkbox"/>	

Hazard	Y	N	Comments
Radiation	<input type="checkbox"/>	<input type="checkbox"/>	
Ionizing	<input type="checkbox"/>	<input type="checkbox"/>	
Non-Ionizing	<input type="checkbox"/>	<input type="checkbox"/>	
Laser	<input type="checkbox"/>	<input type="checkbox"/>	
Microwave	<input type="checkbox"/>	<input type="checkbox"/>	
Infrared (IR)	<input type="checkbox"/>	<input type="checkbox"/>	
Ultraviolet (UV)	<input type="checkbox"/>	<input type="checkbox"/>	
Radio Frequency (RF)	<input type="checkbox"/>	<input type="checkbox"/>	
Visible Light, High Intensity	<input type="checkbox"/>	<input type="checkbox"/>	
Material	<input type="checkbox"/>	<input type="checkbox"/>	
Uncontained Brittle Materials	<input type="checkbox"/>	<input type="checkbox"/>	
Test Environment Incompatibility	<input type="checkbox"/>	<input type="checkbox"/>	
Contained Fluids	<input type="checkbox"/>	<input type="checkbox"/>	
Toxic, Corrosive, Flammable Fluids	<input type="checkbox"/>	<input type="checkbox"/>	
Biohazards	<input type="checkbox"/>	<input type="checkbox"/>	
Miscellaneous	<input type="checkbox"/>	<input type="checkbox"/>	
Noise Level (> 85 dBA)	<input type="checkbox"/>	<input type="checkbox"/>	
Ultrasonic	<input type="checkbox"/>	<input type="checkbox"/>	
Pyrotechnics/Explosives	<input type="checkbox"/>	<input type="checkbox"/>	