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February 8, 2019

Engineer Change Order (ECO) Analysis

Manufacturer: Election Systems & Software (ES&S)

ECO Number: 1018

ECO Description: Alternate UPS – APC Smart-UPS 1500 for DS450 Scanner/Tabulator

Summary Description:

At the request of ES&S, SLI has conducted an assessment of ES&S ECO 1018, including a review of supporting documentation, to determine if this change is De Minimis, and no additional testing is required.

Reference Documents:

- EAC 2005 Voluntary Voting System Guidelines (VVSG) Volume II, Sec. 1 & 4.
- EAC's Voting System Testing and Certification Program Manual V. 2, Sec. 3.4 & 3.5.
- NOC 12-01 COTS Computer Equivalency for de minimis Change.

Documentation used in SLI's Assessment:

- ECO-1018 Signed
- NCEE Conducted Emissions Scan DS450 SN148
- NCEE Radiated Emissions Scan DS450 SN 148
- DS450 APC Smart-UPS 1500 Test Case
- NTS Hardware test reports:
 - ETR-PR092208 Rev 1
 - ITR-PR092208 Rev 1
 - Formal Report PR088088 Rev 2

Engineering Recommendation:

The current UPS, APC Back-UPS Pro 1500 has gone end of life. The APC Smart-UPS 1500 is an alternate UPS being added by ES&S for use with the DS450 scanner and tabulation system.

As required under section 3.4.3 of the EAC's Voting System Testing and Certification Program Manual Version 2.0, ES&S has provided the necessary information to verify the ECO 1018 change is De Minimis.

ECO 1018 with supporting documentation being submitted for approval does not affect the system's reliability, functionality, capability, operation or software. SLI considers the nature of this change to be De Minimis and therefore not to affect the Federal or State certification status. ES&S's internal testing and hardware testing successfully performed during the latest EAC test campaign is appropriate and no additional testing is required.

Please note this ECO has not undergone a review by the EAC. This has only been reviewed by SLI Compliance as a VSTL.

If you have questions regarding this assessment, please contact Darrick Forester.

Sincerely,

A handwritten signature in blue ink, appearing to read "Traci Mapps", with a stylized, cursive script.

Traci Mapps
Director of Operations