



U.S. ELECTION ASSISTANCE COMMISSION

633 3rd Street NW, Suite 200 Washington, DC 20001 | www.eac.gov



Guidance for Pre-Election Testing: Election Night Reporting

U.S. Election Assistance Commission

Introduction

This document is one in a series created by the U.S. Election Assistance Commission's (EAC) Election Supporting Technology Evaluation Program (ESTEP). These documents are designed to guide election officials in administering Federal elections. This document provides guidance for conducting a pre-election test on election night reporting (ENR) systems.

Defining Election Night Reporting (ENR) Systems

Election night reporting systems aggregate and display unofficial election results to the public, usually through an online interface, official websites, or social media platforms. These systems may also provide other information, such as voter turnout and related statistics about the election.

Defining Pre-Election Testing

The purpose of pre-election testing is to verify that the ENR system software is functioning properly and that the system is configured correctly. A pre-election test should be conducted on the ENR system at least once before every election in conjunction with the pre-election testing of the voting system. The steps and plans prepared for your jurisdiction's pre-election test can also be used for acceptance testing on new or updated ENR systems provided by a developer.

Note: For the purposes of this document, pre-election testing is intended to be synonymous with logic & accuracy (L&A) testing, public tests, preventative maintenance testing, or acceptance testing.

Pre-Election Testing Guidance for ENR

The following section outlines general guidance for conducting a pre-election test of air-gapped ENR systems. These steps and plans can be modified for use with network-based ENR systems. **Please note that this guidance is not designed to be exhaustive.** Election officials should develop pre-election test procedures in alignment with jurisdictional election laws or rules, and directives from their chief election officials. In some cases, affiliated ENR system developers may provide additional guidance on system-specific testing recommendations.

Sample Pre-Election Test for Election Night Reporting

[Sample Election Office]

Specifications	Description
Purpose	Pre-election testing is conducted to verify that data is transferred correctly to the ENR and that the system accurately aggregates, displays, and exports data.
Completed by	[Role of the person(s) responsible for this task]
Schedule	A pre-election test should be conducted on the ENR system at least once before every election, concurrently with the pre-election testing of the voting system(s).
Test Materials	<ul style="list-style-type: none"> • Workstation Connected to ENR System • Removable media device(s)
Steps to complete	Suggested Test Procedures
Step 1	Verify Election Configuration <ul style="list-style-type: none"> • Verify the election’s configuration settings in the ENR system, ensuring reporting options are formatted according to jurisdictional requirements. • Ensure the layout and reporting segments are correct. • Ensure the election-specific data is accurate for every contest, candidate, and reporting segment (including spelling and grammar).
Step 2	Upload Initial Test Data <ul style="list-style-type: none"> • Generate a test file of results data and ensure the file is properly configured. • Transfer the test data file into the ENR system.

<p>Step 3</p>	<p>Validate System Accuracy</p> <ul style="list-style-type: none"> • Preview the results posted to the ENR system to verify that they match the expected results (e.g., compare to test scripts or test data from the Election Management System). A team of at least two individuals, preferably bipartisan, should perform this task if possible. • Publish the test results to a live environment (e.g., a test website). • Verify that all election data and information are displayed correctly. • Verify that test results display correctly, including: <ul style="list-style-type: none"> ○ Summary results; ○ Results sorted and/or filtered by jurisdiction, contest, or voting method, down to the lowest level of detailed results available in the system (e.g., precinct, split-precinct). • Verify that the status of the result (official or unofficial) is displayed correctly. • Verify that any interactive elements (maps, graphs, charts) are working properly and displaying results accurately. • Export results report(s) from the ENR system and verify: <ul style="list-style-type: none"> ○ That report(s) are generated in the correct data format(s); and ○ That all information provided in the report(s) is accurate (including spelling and grammar).
<p>Step 4</p>	<p>Upload Test Data Update(s)</p> <ul style="list-style-type: none"> • Generate a new test data file (ensure the file is properly configured). • Transfer the test data file into the ENR system.

Step 5	<p>Validate System Accuracy – Data Update(s)</p> <ul style="list-style-type: none"> • Verify that the results posted to the ENR system match test scripts or the results from the EMS. A team of at least two individuals, preferably bipartisan, should perform this task if possible. • Publish the test data update to a live environment. • Verify that the date and time of the last update are displayed correctly. • Verify that test results display correctly, including: <ul style="list-style-type: none"> ○ Summary results; and ○ Results sorted and/or filtered by jurisdiction, contest, or voting method, down to the lowest level of detailed results available in the system. • Verify that the state of the result (official or unofficial) is displayed correctly. • Verify that any interactive elements are working properly and displaying results accurately. • Export results report(s) from the ENR system and verify all information provided in the report(s) is accurate.
Step 6	<p>Prepare for Election Day</p> <ul style="list-style-type: none"> • Clear or reset all test results in the election night reporting system back to zero. • Test all computers that will be used for ENR data uploads to ensure there are no connectivity or browser issues. • Store all documentation of completed pre-election tests in a designated area per jurisdictional retention rules.

Conclusions

The guidance for pre-election testing above is designed to assist election officials in ensuring that their ENR system functions as expected during an election. Pre-election tests should be conducted before every election to ensure the proper working order of election equipment. Election officials should develop their own pre-election test procedures in alignment with jurisdictional election laws and directives from their chief election officials.

If you have any recommendations for improving these practices, please contact the EAC’s Election Supporting Technology Evaluation Program at estep@eac.gov.

Appendix A: Blank Pre-Election Test Template

[Sample Election Office]

Specifications	Description
Purpose	Verify that the ENR system software is functioning properly and that the system is configured correctly.
Completed by	Elections director, deputy director, and seasonal staff as necessary
Schedule	A pre-election test should be conducted on the ENR system at least once before every election, concurrently with the pre-election testing of the voting system(s).
Supplies	<ul style="list-style-type: none"> • Workstation Connected to ENR System • Removable media device(s) • [Supply 3] • [Supply 4]
Steps to complete	Goals
Step 1	Verify Election Configuration <ul style="list-style-type: none"> • [Important details about this step] • [Another thing to know]
Step 2	Upload Initial Test Data. <ul style="list-style-type: none"> • [Important details about this step] • [Another thing to know]
Step 3	Validate System Accuracy. <ul style="list-style-type: none"> • [Important details about this step] • [Another thing to know]
Step 4	Upload Test Data Update(s) <ul style="list-style-type: none"> • [Important details about this step] • [Another thing to know]
Step 5	Validate System Accuracy – Data Update(s) <ul style="list-style-type: none"> • [Important details about this step] • [Another thing to know]
Step 6	Prepare for Election Day <ul style="list-style-type: none"> • [Important details about this step] • [Another thing to know]

Final check

Did you remember to ...

- [Do this for Step X]
- [Do that for Step Y]
- [Do the other thing for Step Z]

Additional Notes

[Notes]