



Explanation on Federal Certification of Voting Systems Utilizing Ranked Choice Voting

Voting systems certified by the U.S. Election Assistance Commission (EAC) may include the capability to support Ranked Choice Voting (RCV), but it is not required. If the system does include RCV support, the manufacturer must provide documentation in their implementation statement stating how RCV is supported.

Because RCV voting methods vary, there are no EAC guidelines that outline specific requirements that must be included in a system that supports RCV. RCV variations include differences between how single-choice and multi-choice contests are tabulated, the minimum and maximum number of selections that are allowed per contest, and jurisdiction-specific rules.

What is Ranked Choice Voting (RCV)?

RCV is an election method where voters select candidates by ranking them in the order of preference by assigning their preferred candidate a “1,” their second-choice candidate a “2,” and so on.

The first iteration of the Voluntary Voting System Guidelines (VMSG 1.0) does not include any specific requirements for RCV-capable systems, merely stating that the capability and method(s) must be documented in the Technical Data Package. This is also true for the next iteration (VMSG 1.1).

VMSG 2.0 includes additional requirements. In general, a system that supports RCV contests must:

- Allow the voter to rank their selections in order of preference, and record those selections as a first choice, second choice, and so on.
- When tabulating, the voting system must:
 - Capture how the voter ranked each selection in the contest, and store that selection in the Cast Vote Record (CVR)¹ associated with that ballot style;
 - Aggregate the first-choice totals for each contest; and
 - Process CVRs for each round of tabulation based on the method specified in the implementation statement.
- The voting system must be able to report vote totals for each RCV contest as a whole, as well as for each round of tabulation.

It is important to note that to tabulate RCV results, the recorded votes from all ballots cast in an RCV contest must be available. This is because the outcome of each round of tabulation is dependent upon the vote totals from all ballots cast in that contest. Therefore, a single precinct tabulator cannot tabulate RCV vote results by itself. Voting systems manufacturers may include RCV software as part of their systems. Otherwise, systems may use a third-party software application to determine the winner (or winners) of an RCV contest. In these cases, third-party applications must be included as a part of the voting system configuration to be evaluated and certified with the system.

For more information on voting system certification, visit the EAC website:

<https://www.eac.gov/voting-equipment/voluntary-voting-system-guidelines>.

¹ A Cast Vote Record (CVR) is the permanent record of all votes produced by a single voter as interpreted by the voting system.