WASHINGTON - Diebold Election Systems, a target of many electronic voting critics during the 2004 U.S. election, announced Thursday it has completed the design for a printer that would give its e-voting machines a paper trail.

Diebold's printer, submitted for federal government approval several weeks ago, would create a so-called voter-verified paper trail, a function that many e-voting critics have demanded of e-voting machine manufacturers.

A machine with a voter-verified paper trail printer allows voters to review their votes on a printout after using an electronic ballot, and advocates of voter-verified paper trail printers say the functionality allows voters to be confident e-voting machines recorded their votes as intended, and provides a paper train for a recount.

The company's decision comes in large part because of state requirements for paper trail ballots, said David Bear, a Diebold spokesman. Nevada used e-voting machines with paper trail capabilities in the November U.S. election, and California and Ohio have joined Nevada in requiring e-voting machine printers in future elections.

Voter-verified paper trails would virtually eliminate machine error in which votes aren't counted, said Will Doherty, executive director of the Verified Voting Foundation. In the November 2004 election, one county in North Carolina lost more than 4,500 votes when there was a misunderstanding over the capacity of the e-voting machines used there.

The Verified Voting Foundation advocates that the printed ballots are the official record when e-voting machines with voter-verified paper trails are used.

"It's about time," Doherty said of Diebold's decision. "We're very glad some vendors are starting to offer the paper trail option."

The Information Technology Association of America (ITAA), which has defended e-voting machines as accurate and safe, said Diebold's move appears to be focused on the demand for paper trail ballots. "It's a situation where companies are going to provide what their customers want," said Bob Cohen, executive vice president of the ITAA, which counts e-voting machine makers among its members.
ITAA officials have questioned if voter-verified paper trails will provide a significant benefit while adding costs to e-voting machines. While the ITAA maintains that widespread attacks on e-voting machines are unlikely, officials there suggested that programmers smart enough to change ballots inside e-voting machines could also manipulate the printouts.

"Our point all along is that paper-based solutions are one alternative," Cohen said. "It gets to be as much an issue of peace of mind for the voters as anything else."

Diebold has not yet determined a cost for the printers, Bear said, and he wouldn't predict when the new printer would be approved by the federal government.

The AccuView Printer Module will be an optional component to any new or existing Diebold AccuVote TSx touch screen voting station and can also be designed to fit existing AccuVote-TS machines. The AccuView displays printed selections under a transparent surface, enabling the voter to privately view and verify selections against those simultaneously displayed on the e-voting system's summary screen.

Voters will be able to view their selections but will not be able to remove the audit printout from the machine.