On-Demand Printing Provides Maximum "Green"

The Runbeck Sentio System is the only intelligent on-demand, Ballot Printing System on the market. On-demand means optimal efficiency in ballot processing because all storage, sorting and pre-printing of ballots is eliminated. This means users get the smallest carbon footprint, use the least amount of natural resources and provide the friendliest solution to your local environment.

- **Paper savings.** All sheet fed printers have waste when they print. This is because they are required to print test ballots and overages because printing too few is not acceptable. As a result waste occurs with every ballot run. The Sentio reduces and eliminates waste because it only prints a ballot for each and every voter ID – there is no waste and better security because test runs and overages are eliminated. This means there is less paper waste and fewer natural resources lost. Additionally, users kill fewer trees and require less processing at the paper mill.

- **Reduction in ink**. When test runs, overages and pre-printed ballots are eliminated, chemicals, ink and toxic fumes are also eliminated.

- **Transportation costs**. Pre-printing of ballots requires movement of paper and ink. These are heavy materials and heavy duty trucks measure their load by the pound. Every pound eliminated means less fuel and wear and tear on vehicles.

- **Storage**. Paper curls. You can't just store it anywhere. It has to be protected and this means air conditioning and humidity control systems. Print your ballots on-demand and you take delivery of paper supplies when you need it -- not a day before. Eliminate the storage requirements and associated costs to the environment.

- ***Reduction of hazardous substances***

    - Our print supplier, Oki, has adhered to the Restriction of Hazardous Substances (RoHS) directive since July 2006. This means that the six substances subject to the regulation are being eliminated or minimized. The six hazardous chemicals are lead, hexavalent chromium, cadium, mercury and two types of specific bromic fire retardants (PBB, PBDE). Examples of this effort include: a) elimination of hexavalent chromium from zinc-coated steel sheets; b) adoption of screws that are free of hexavalent chromium; c) elimination of lead from printed circuit boards.

    - LED print heads from Oki, like those used in the Sentio, entirely eliminate ozone production and offer fully recyclable and refillable toner cartridges.

Runbeck customers save with on-demand ballot printing

In 2008 Maricopa and Pima Counties in Arizona saved a small forest. In fact, Maricopa County is the 4th most populous county in the United States with over 1.8 million registered voters. Through adoption of the Sentio ballot printing system, within a two year span, these two counties eliminated nearly 2 million unused ballots when compared to the production requirements of the 2006 election.

"Maricopa County has elections where over 45% (825,000+) of the registered voters received early ballots by mail; we also have elections where only 10% to 20% requested early ballots by mail. With this unknown variable put into the election mix, it was very difficult to anticipate the quantity of requests that may be received for early voting by mail.

Since the inception of the Sentio Ballot-on-Demand process, we have eliminated the need for speculation and have replaced it with "absolutes". We are now only printing the number of ballots "absolutely" needed for early voting and we are "absolutely" ecstatic about the cost savings and moreover about the fact that it is in line with the state and county's going green vision" – Reynaldo Valenzuela Jr., Assistant Director of Elections, Maricopa County

Maricopa County	
2006 Primary & General elections	
Early Voting and Duplicate ballots ordered	1,834,000
Early Voting and Duplicate ballots used	617,000
Unused ballots	1,217,000
Unused ballots in 2008	-0-
Pima County	
2006 Primary & General elections	
Early Voting and Duplicate ballots ordered	871,000
Early Voting and Duplicate ballots used	219,000
Unused ballots	652,000
Unused ballots in 2008	-0-
Total Unused ballots saved	1,869,000
Tons of paper saved	55
Dollars saved	$ 485,000
Number of trees saved	1,320[1]

[1] Conservatree.org (http://www.conservatree.org/learn/EnviroIssues/TreeStats.shtml) estimates a savings of 24 trees per ton of paper for when using"freesheet" paper, the most common paper stock used in the Sentio.

Brevard County, Florida also uses the Sentio system to manage absentee and on-demand ballot design and printing. During the historic Presidential election of 2008, Brevard County and many other Florida counties used the Sentio to meet the needs of a demanding public and eliminated printing overages and transportation costs on over 4 million printed ballots. Florida is an environmentally rich coastal state and the voters in these counties enthusiastically embraced the success of Sentio.

The following table lists additional estimates of Runbeck Sentio customer's, estimated volumes printed and tonnage saved within each jurisdiction:

Jurisdiction	Ballot volume	Traditional print lbs	Traditional 3% overage	On-demand lbs saved
Broward	1,972,377	73,964	2,219	2,219
Brevard	886,846	33,257	998	998
Charlotte	255,540	9,583	287	287
Pinellas	1,724,690	64,676	1,940	1,940
Miami-Dade	1,505,741	56,465	1,694	1,694
Palm Beach	718,275	26,935	808	808
TOTAL	7,063,469	264,880	7,946	7,946[2]

During this one election cycle, these six counties saved nearly 4 tons of paper or approximately 84 mature trees.

If these six counties had experiences similar to those in Arizona, then their use of ballots as compared to unused ballots (2.2 ballots printed and unused for every used ballot) then they will eliminate 8.8 million ballots each ballot cycle or 259 tons of paper. This equates to roughly 6,216 trees.

The Sentio printing ballot system is unquestionably green, saving thousands of trees across the country in every election cycle.

[2] 2,000 lbs per ton