

ENERGY STAR Imaging Equipment Version 2.0 Final Draft Modifications

Stakeholder Webinar February 22, 2013



Call-in Information



Audio provided via conference call in:

Call in:	+1-877-423-6338 (in the US, Canada)
	+1-571-281-2578 (outside the US, Canada)
Code:	198-920

- Phone lines will remain during the presentation to allow for open discussion
- Please keep phone lines on mute (*6) unless speaking



Agenda



- 1. Introduction
- 2. Digital Front Ends (DFEs)
- 3. TEC Requirements
- 4. Timeline of Next Steps



Introduction



- EPA thanks all stakeholders for participating in the specification revision
- EPA appreciates stakeholders' feedback on the Final Draft
 - Stakeholders raised additional important issues following the publication of the Final Draft



Introduction



- EPA reviewed stakeholder comments and is proposing further modifications to the specification to ensure a successful launch
- Proposed modifications were outlined in a letter provided to stakeholders on February 15
 - Available at <u>www.energystar.gov/</u> <u>RevisedSpecs</u>

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460



OFFICE OF

Pebruary 15, 2013

Dear Imaging Equipment Partner or Other Aterested Stakehoder:

In response to the Final Draft ENERGY STAR Version 20 imaging Equipment specification, EPA received some input on our approach to Digital Front Ends (DFEs) associated with imaging equipment that has prompted us to refine

DFEs: Scop

In the Fina Diraft, EPA proposed excluding products sold with multiple DFEs. In written comments and during the wab discussion, stakeholders noted that many more products than EPA previously understood are sold with both a Type 1 and a Type 2 DFE. Season this additional information, EPA his proposing smoving this exclusion. Any DFE sold with an ENSERGY STAR certified imaging-product would need to meet the appropriate maximum TEG_{CV} requirement for Type 1 or Type 2 DFEs.

Excluded Boops. As proposed would remove subbullet it, as reflected below:

- 22.2 Products that setsfy one or more of the following conditions erenot eligible for ENERGY STAR qualification under this specification:
 - L. Products that are designed to operate directly on three-phase power
- DFEs: Product Family Definition

Duringthe stakeholder discussion and in written comments, EPA received input that testing and qualifying each permutation of a DFE with a base marking angite would be overly burdensome. In general, EPAs product family definition allows for an acceptable variation within a family. EPA is proposing a family approach for DFEs.

Product Family. As proposed would add specific mention of DFEs subpart d), as reflected in bold below:

Reduct Family: A group of product modes that are (1) made by the same manufacturer, (2) subject to the same BUERGY STAR qualification orders, and (3) of a common basic despin. Roduct models within a samily differ from each that recording to one or more characteristics or features that either (1) have no impaction product performance with regard to ENERGY STAR qualification criters, or (2) are specified hards as acceptable exhibitions within a product family. For imaging Equipment, acceptable variations within approduct family include:

- e) Color,
- b) Houseg,
- c) hput proutput paper-handling accessories

Page 1 of 3



Meeting Objectives



 Discuss proposed changes due to stakeholder data and comments

2. Discuss timeline to finalization



Agenda



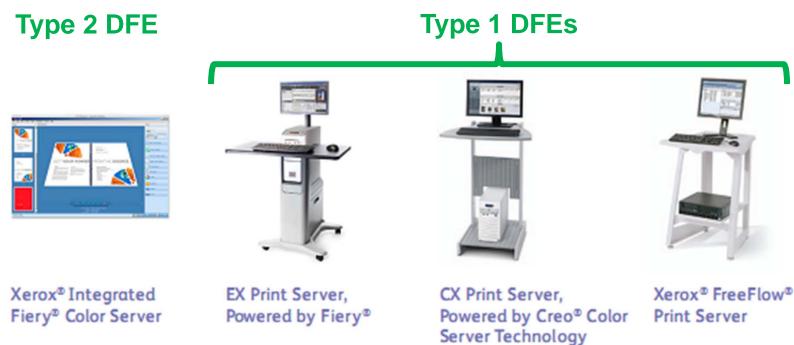
- 1. Introduction
- 2. Digital Front Ends (DFEs)
- 3. TEC Requirements
- 4. Timeline of Next Steps



Removing Exclusion for Multiple DFEs



 Stakeholders commented that many current products are sold with both Type 1 and Type 2 DFEs





Removing Exclusion for Multiple DFEs



- EPA is therefore proposing to remove the exclusion for Multiple DFEs from Section 2.2.2:
 - 2.2.2 Products that satisfy one or more of the following conditions are not eligible for ENERGY STAR qualification under this specification:
 - i. Products that are designed to operate directly on three-phase power.
 - ii. Products sold with multiple DFEs.



Qualifying Models with Multiple Type 1 DFEs



- Stakeholders commented that qualifying each permutation of Type 1 DFE with a base marking engine would be overly burdensome.
- Therefore, EPA is proposing to allow qualification of additional Type 1 DFEs through a product family approach
 - Manufacturers would test a representative model including the highest energy consuming Type 1 DFE
 - Additional Type 1 DFEs and Type 2 DFEs would be acceptable variations within the product family



Representative Model



- Stakeholders commented in favor of testing the "most popular" Imaging Equipment-DFE configuration, but difficult to define
- Instead, EPA proposes testing highest energy using configuration:

Highest energy using Imaging product



Highest energy using Type 1 DFE

- Additional Type 1 DFEs can be included if they consume less energy
 - Do not need to be tested with Imaging product
 - Only DFE-specific data to be reported
 - However, subject to verification in conjunction with Imaging Equipment





An Imaging Equipment product is qualified without a Type 1 DFE Later, it is bundled with a Type 1 DFE

The Imaging Equipment product sold with a Type 1 DFE must be qualified as a separate product family.

- CB tests and certifies Imaging Equipment without Type 1 DFE as one model or family, submitting data via QPX
- 2. CB then tests and certifies Imaging Equipment with Type 1 DFE as a separate model or family, submitting data via QPX
- 3. CB also submits model name/number, ready mode, sleep mode, TEC_{DFE} power data for any other Type 1 DFEs to be sold with the Imaging Equipment product.

These values shall be self-reported by the Imaging Equipment partner and are not subject to CB certification (but are subject to future CB verification).



Imaging Equipment product is qualified as bundled with a Type 1 DFE. Later, it is bundled with a new Type 1 DFE that consumes <u>more</u> power than the representative Type 1 DFE

The original representative model would no longer be representative and this new configuration would have to be re-qualified to redefine the product family. Failure to re-qualify this product family would result in the Imaging Equipment product not being ENERGY STAR qualified when sold with the new Type 1 DFE.

- 1. Imaging Equipment Partner submits new configuration to CB as representative model for certification.
- 2. CB tests and certifies new configuration, submitting data via QPX.
- CB informs EPA that this configuration will replace the previous representative model on the qualified product list (QPL).





One of the Type 1 DFEs sold with a product is discontinued

This process operates the same as the current process for having Imaging Equipment products that are no longer available on the market removed from the qualified product list (QPL).

- 1. Imaging Equipment Partner notifies CB
- CB requests that EPA remove the DFE's data from the QPL





Imaging Equipment product is qualified as bundled with a Type 1 DFE Later, it is bundled with a new Type 1 DFE that consumes <u>less</u> power than the representative Type 1 DFE

Imaging Equipment partner notifies CB and they can add the model and required data to the ENERGY STAR database.

 Stakeholder will provide the following information to their CB: New Type 1 DFE model name/number, ready mode, sleep mode, and TEC_{DFF} power

These values shall be self-reported by the Imaging Equipment partner and are not subject to CB certification (but are subject to future CB verification)

CB submits these data via QPX



Agenda



- 1. Introduction
- 2. Digital Front Ends (DFEs)
- 3. TEC Requirements
- 4. Timeline of Next Steps



A3 Adder Allowance



- Stakeholders commented that the proposed A3 adder of 0.2 kWh/week was insufficient
- Stakeholder data showed zero qualification for Mono Printers at 20–29 ipm:

	Qualification Rate (%) for A3 Mono Non-MFDs			
Print Speed (ipm)	Copiers	Printers	All	
0–9	NA	NA	NA	
10–19	67%	NA	67%	
20–29	14%	→ 0%	6%	
30–39	10%	14%	13%	
40–49	100%	100%	100%	
All	27%	13%	18%	



A3 Adder Allowance



- EPA is therefore proposing to increase the A3 adder allowance to 0.3 kWh/wk
 - Will ensure availability of Mono A3 Printers
 - Will not significantly affect overall qualification rates

	Qualification Rate (%) with 0.3 kWh/wk Allowance				
Print Speed (ipm)		All Color Non-MFD	All Mono MFD	All Color MFD	All TEC
0–9	32%	0%	0%	0%	20%
10–19	20%	46%	41%	39%	37%
20–29	51%	30%	46%	42%	43%
30–39	18%	32%	41%	46%	36%
40–49	16%	26%	38%	56%	35%
All Speeds	38%	38%	42%	48%	42%



Dataset Issues



- Stakeholders also commented that there were continuing issues with the dataset:
 - Not current
 - Contains duplicates/product family qualifications
 - Contains some incorrect data
- EPA pulled data from the February 4, 2013, Qualified Product List (QPL) and re-ran the analysis
 - List should include most current and correct data



Dataset Issues



EPA also removed duplicates/product families:

		Qualification Rate (%) with 0.3 kWh/wk Allowance				
	Print Speed (ipm)	All Mono Non-MFD	All Color Non-MFD	All Mono MFD	All Color MFD	All TEC
٠.	0–9	32%	0%	0%	0%	20%
set .04	10–19	20%	46%	41%	39%	37%
Dataset from 2.02.04	20–29	51%	30%	46%	42%	43%
l Data from 12.02	30–39	18%	32%	41%	46%	36%
Full f	40–49	16%	26%	38%	56%	35%
	All Speeds	38%	38%	42%	48%	42%
	0–9	17%	0%	0%	0%	9%
tes	10–19	33%	44%	36%	41%	38%
cat	20–29	37%	29%	43%	40%	38%
Duplicates Removed	30–39	20%	33%	37%	47%	35%
Du Re	40–49	23%	20%	27%	35%	27 %
	All Speeds	34%	35%	38%	42%	37%



Dataset Issues



- As these analyses revealed minimal differences in the qualification rate, EPA is not making any further changes to the TEC requirements.
- EPA is also not proposing changes to any other requirements.



Agenda



- 1. Introduction
- 2. Digital Front Ends (DFEs)
- 3. TEC Requirements
- 4. Timeline of Next Steps



Qualified Product Data Exchange



- XML-based qualified product exchange (QPX) system for CBs to submit information on products certified as ENERGY STAR via web services
 - Update qualified product listings using real time data
 - In place for Version 1.2—update to reflect changes in Version 2.0
 - More info available here: www.energystar.gov/QPX
- EPA will soon be posting Version 2.0 Imaging draft data requirements for a limited testing period
 - Looking forward to your review and input!



Qualified Product Data Exchange



- For Version 2.0:
 - Every product must be third-party certified using the updated test method
 - Products may be certified to Version 2.0 once the specification is finalized
 - Only products certified to Version 2.0 will be included on the Qualified Products List (QPL) on the effective date



Timeline



Stage	Date
Final Draft Published	December 5, 2012
Final Draft Webinar	December 18, 2012
Comments due	December 28, 2012
Specification Finalized (Can begin certification)	April 1, 2013
Effective Date (All products must be certified to Version 2.0)	January 1, 2014



Written Comments



- Thank you to everyone for your helpful feedback on the Draft 2 specification.
- In addition to making verbal comments during today's call, stakeholders are encouraged to submit written comments to imagingequipment@energystar.gov

Comment Deadline

Friday, March 1, 2013



Contact Information



For questions related to specification development, qualification and other topics please contact

Christopher Kent Matt Malinowski

EPA, ENERGY STAR ICF International

(202) 343-9046 (202) 862-2693

Kent.Christopher@epa.gov Matt.Malinowski@icfi.com

For questions related to Imaging Equipment test method

Bryan Berringer
DOE ENERGY STAR Program

Bryan.Berringer@ee.doe.gov





Thank You!

