



# **ENERGY STAR**

## **Data Center Storage**

### **Version 1.0 Certified Body (CB) Training**

RJ Meyers  
John Clinger

# Certification Timeline



Today:  
Training Webinar

September 2013:  
EPA announces  
recognized CBs

CBs submit  
applications to  
EPA

CBs certify products and  
submit data via QPX

Early August 2013:  
*Specification and test  
method published*

Early November 2013  
*EPA posts QPL for all  
products in Version  
1.0 scope*



# Application Process



- After the specification and test method are finalized, EPA will begin accepting applications for recognition
- Please send a signed application and evidence that you have contacted your accreditation body requesting a scope expansion for the Data Center Storage program to [certification@energystar.gov](mailto:certification@energystar.gov):
- A successful QPX test submission using the Data Center Storage web service will also be a pre-requisite for recognition.
- Submission deadline for those CBs that want to be among the first batch recognized will be September 15. EPA will continue to accept applications at any time, but cannot guarantee prompt recognition for those that apply after September 15.

**Submission Deadline**

**September 15, 2013**

# Note on Verification Testing





- There will be no verification testing for products certified for ENERGY STAR Storage.
  - Difficult to do for this product type
  - V1.0 on publishing results, securing basic efficiency measures (e.g. PSUs), not focused on cut-off performance lines
- We may conduct intermittent “paper verification”
  - Checking PSU test results/certifications, replacement drive spec sheets, etc.
  - No testing of actual hardware, systems

# Scope Evaluation



- How to determine if a product is in scope:

Product Attribute	 In Scope	 Out of Scope
Power Type	AC single phase, AC three phase	DC
Taxonomy	<ul style="list-style-type: none"><li>Online 2, 3, 4</li></ul>	<ul style="list-style-type: none"><li>Online 1, 5, 6</li><li>Near-online</li><li>Removable Media Library</li><li>Virtual Media Library</li><li>Adjunct Storage Products</li><li>Interconnect Elements</li></ul>
Controller with Advanced Data Recovery Capability?	Yes	No
Block I/O capable?	Yes	No

# Reporting Requirements



A successful QPX test submission using the Data Center Storage web service will be a pre-requisite for CB recognition.

CBs shall report the following data to EPA which includes both tested and verified data and manufacturer provided information:

- General characteristics
- Electrical characteristics
- Active and idle power consumption and performance values for all tested configurations
- Available and enabled power savings features
- Thermal characteristics and air inlet temperature measurements
- List of qualified configurations, including SKUs or configuration IDs

***Fields are specified in the data reporting template (QPX). This template will be released for CB and stakeholder review in the July timeframe prior to being finalized.***

# Using the QPX



- Single configurations shall have data from one configuration provided in the QPX
- Each product family shall have data for at least one storage device for each workload type certified in the product family:

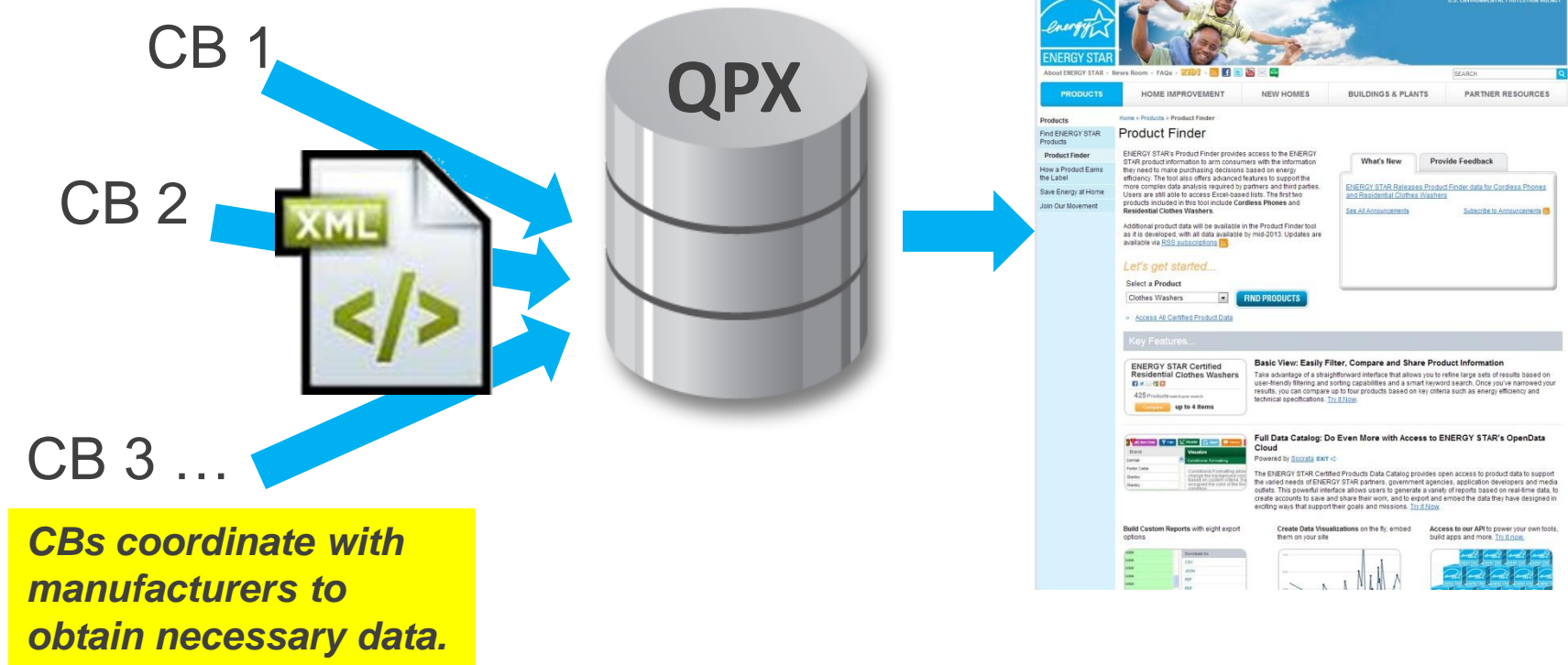
Transaction Optimization	Streaming Optimization	Capacity Optimization
-----------------------------	---------------------------	--------------------------

- For product families with multiple configurations, all required testing configurations are reported in the same data submission

# ENERGY STAR Data Submission



- Qualified Product Exchange (QPX) EPA-recognized certification bodies submit data
- System characteristics and power/performance data information displayed on ENERGY STAR website





# Remaining Version 1.0 Timeline



- June 20: Final Draft specification and test method released
- June 24 – 26:
  - SNIA Emerald test training for CBs, labs.
  - ENERGY STAR specification training for CBs, labs
- July 9: Final Draft stakeholder webinar
- July 15: Final Draft written comments due
- Late July:
  - Draft QPX form released for stakeholder review
  - Comments due +3 weeks later
- Early August:
  - Final Storage Program Requirements released
- Late August:
  - QPX system finalized
  - CB can start submitting applications
  - Submit test QPX data
- September 15: Deadline for first batch of CB applications
- October 1: EPA announces recognized CBs
- Early November: Version 1.0 Storage is effective
  - Note this is a three month delay until effective date
  - Due to unique complexity of this product category

# References and resources



## Questions?

Please send any technical questions to:  
[storage@energystar.gov](mailto:storage@energystar.gov)

Please send any certification questions to:  
[certification@energystar.gov](mailto:certification@energystar.gov)

# Thank You!

---



RJ Meyers  
EPA, ENERGY STAR  
(202) 343-9923  
[Meyers.Robert@epa.gov](mailto:Meyers.Robert@epa.gov)

John Clinger  
ICF International  
(215) 967-9407  
[John.Clinger@icfi.com](mailto:John.Clinger@icfi.com)