

## INTRODUCTION

- **EPA Comment**
  - Meeting purpose is to outline issues with certification and verification
- **Industry Comment**
  - The challenge with workstations and servers is that they are highly configured products with data requirements, including Active
  - They are customized by the manufacturer making it very difficult for any third-party test environment to conduct the work
  - Selecting "common" models off commercial shelves is not possible for servers since they are customized to meet customers demands
  - The challenge with verification lies with configuration selection
  - In last year's meeting in Austin, TX, we determined the need to come up with another scheme for such products, specifically:
    - Configurations, documentation, active workloads, selection
    - Outline issues for verification procurement
    - For considerations associated with certification process, we will be talking mostly about V1.1 of the Servers specification, going from easier to harder issues
  - The Servers V1.1 specification will be the focus example

## CERTIFICATION

- **Industry Comment**
  - PSUs
    - The certification documentation for these is simpler
    - As opposed to clients, PSU sizes are very different (max load)
    - Many manufacturers select PSUs based on manageability and redundancy characteristics
    - Sizing "must support the extensions" in the chassis (e.g. upgrades)
    - Need to make sure information is easily accessible/available
    - Some larger PSUs may not yet be tested through 80plus/CSCI. We will need to "project" what performance will be
    - Need CBs to understand that they don't need to spend time discussing the testing of PSUs; focus on system
  - Categories
    - A lot of categories and families are proprietary and extensive
    - A lot of work needed with the ENERGY STAR team on the family subject
    - Certification process may require a lot of training for CB technicians and engineers to test the units
  - Idle Power
    - For inactive testing, witness testing seems necessary due to learning curve/proprietary nature of these product areas
    - Witness testing will likely be used for most, if not all, products
  - Active Power
    - Configurations should not be validated as the focus of the CB should be on verifying power consumption
    - Many benchmarks are sensitive to configuration
    - Manufacturers are showcasing a configuration within a family to showcase representative performance result (not necessarily max or min)
    - What is tested is often customized to the desired market for sale
    - Accuracy of benchmark results is often vetted by a 3rd party benchmarking organization
  - Summary

- Need to establish if witness testing is the best option as requirements for all orgs can be laid out from there.
- **EPA Comment**
  - Agree that witness testing is probably the only way forward
  - Significantly more guidance needed on how to conduct witness testing
  - EPA will develop a list of factors for consideration
- **EPA Comment**
  - The process is a challenge due to issues like training one's own verifier
  - However, we have not seen specific problems so far
  - For witness testing, EPA can prepare a document with guidelines
- **Industry Comment**
  - We are covering certification but we need to also address verification
- **Industry Comment**
  - Industry is working through its first set of qualifications with a CB and we are not finding it unworkable
  - If EPA develops guidance, please consult with manufacturers who are already doing this to make sure the new guidance aligns with process that is already in place. In addition, please ask if there are truly problems to fix
- **EPA Comment**
  - EPA does not intend to reinvent the wheel midstream
- **Industry Comment**
  - Just wanted to reiterate that we don't want to fix a problem with certification that isn't there
  - A bigger issue is verification
- **Industry Comment**
  - Next step is to codify witness testing procedures
- **CB Comment**
  - How would this EPA guidance be communicated?
- **EPA Comment**
  - It will probably be a directive which will be released for stakeholder comment [review after the meeting concluded that instructions are appropriately presented in existing EPA documentation and a separate directive is not required.]
- **CB Comment**
  - If there was a push to fix on only witness testing, would be concerning to small manufacturers who contract out all testing
  - In addition, it is important that the manufacturers are comfortable and confident with the third party laboratory they choose to work with
- **EPA Comment**
  - EPA is not pushing everything to witness testing but is just clarifying what happens when there is witness testing

## VERIFICATION

- **Industry Comment**
  - We need more clarification on the verification process for each product category and how it will work with on-site testing
- **Industry Comment**
  - It will be difficult to give CBs a heads up on products coming off the line since this is continuous
  - EPA could provide an algorithm for selecting products for testing
  - Since products can be purchased only by special order, CBs would need to select the product to be tested and communicate with the manufacturer about when the product will come off the line
- **EPA Comment**
  - CBs will essentially run their own verification independent of EPA

- **Industry Comment**
  - The vendor must be involved in the selection process in some fashion
- **EPA Comment**
  - The vendor could provide something like a two week window after which the product to be tested will come off the line?
- **Industry Comment**
  - This window period will vary but a window would increase the likelihood that the model would come up
- **Industry Comment**
  - That selection will not be as random as with other ENERGY STAR product areas
  - There will have to be some negotiation based on what is available. A timeframe can be determined to test to avoid production line
- **Industry Comment**
  - Is the option to provide a window, have CB testers on-site, and witness a truly random product?
- **CB Comment**
  - We don't see a problem as this seems to fit the existing verification process
- **EPA Comment**
  - This seems to meet EPA's needs
- **CB Comment**
  - If the units come off the line at a plant in China, where would they be tested?
- **Industry Comment**
  - That might be necessary
- **CB Comment**
  - We would like to keep testing as local as possible so in that case we would test at a location closest to the manufacturing facility
- **Industry Comment**
  - Another issue arises with re-selling a tested or verified configuration because it cannot be sold as new
- **Industry Comment**
  - Another issue with verification is the low market penetration for workstations. CBs should make sure they select an ENERGY STAR qualified configuration as it might take a long time to wait for one to appear off the line
- **Industry Comment**
  - For workstations, it would be best to have CBs go through the standard ordering procedure and the manufacturer will send the unit over
- **EPA Comment**
  - Verification will likely focus on a single configuration within the family since the odds of a specific configuration coming off the line are low

#### ACTION ITEMS

- EPA to coordinate after the call and produce a draft of process guidelines to release for comment, focusing especially on the verification side, if required.