CLAIMS

1. An apparatus for providing energy usage measurements for an electronic device manufacturing system comprising:

a controller that:

determines a set of energy usage measurements for one or more manufacturing system sub-fabs of the electronic device manufacturing system;

calculates an energy savings by determining a difference between the set of energy usage measurements with a baseline set of energy usage measurements;

reports the set of energy usage measurements and calculated energy savings: and

reports at least one of carbon foot print calculated based on total effluent gases and Destruction or Removal Efficiency (DRE), time mapped carbon footprint based on recipe step, carbon footprint report based on real time emissions measured of effluent from each step in a process recipe, or carbon footprint report based on qualified emissions measurement and calculated for effluent from each step in a process recipe as previously measured.

2. The apparatus of claim 1, wherein the energy usage measurements represent an energy consumption of the one or more manufacturing system sub-fabs in a low power configuration.

3. The apparatus of claim 1, wherein the controller is a sub-fab front end controller.

4. The apparatus of claim 1, wherein the energy usage measurements are reported for at least one of an instantaneous time, a time frame, or a lifetime of the one or more manufacturing system sub-fabs.

5. The apparatus of claim 1, further comprising a display for displaying the set of energy usage measurements.

6. The apparatus of claim 1, wherein the controller is further configured to report the set of energy usage measurements to a remote server.

7. The apparatus of claim 6, wherein the remote server provides for emissions tracking and reporting in accordance with a predetermined emissions measurement standard.

8. A system for providing energy usage measurements for an electronic device manufacturing system, comprising

one or more controllers that:

determine a set of energy usage measurements for a plurality of manufacturing system sub-fabs of the electronic device manufacturing system;

calculate an energy savings by determining a difference between the set of energy usage measurements with a baseline set of energy usage measurements;

report the set of energy usage measurements and calculated energy savings to a remote server; and

report at least one of carbon foot print calculated based on total effluent gases and Destruction or Removal Efficiency (DRE), time mapped carbon footprint based on recipe step, carbon footprint report based on real time emissions measured of effluent from each step in a process recipe, or carbon footprint report based on qualified emissions measurement and calculated for effluent from each step in a process recipe as previously measured; and

wherein the remote server aggregates the energy usage measurements from the one or more controllers and provides an aggregated energy usage report.

9. A method for providing energy usage measurements for an electronic device manufacturing system, the method comprising:

determining a set of energy usage measurements for one or more manufacturing system sub-fabs of the electronic device manufacturing system coupled to a controller;

calculating an energy savings by determining a difference between the set of energy usage measurements with a baseline set of energy usage measurements; and

reporting the energy usage measurements and calculated energy savings, and

reporting at least one of carbon foot print calculated based on total effluent gases and Destruction or Removal Efficiency (DRE), time mapped carbon footprint based on recipe step, carbon footprint report based on real time emissions measured of effluent from each step in a process recipe, or carbon footprint report based on qualified emissions measurement and calculated for effluent from each step in a process recipe as previously measured.

10. The method of claim 9, wherein the energy usage measurements represent an energy consumption of the one or more manufacturing system sub-fabs in a low power configuration.

11. The method of claim 9, wherein the energy usage measurements are reported for at least one of an instantaneous time, a time frame, or a lifetime of the manufacturing tool.

12. The method of claim 9, further comprising displaying the set of energy usage measurements.

13. The method of claim 9, wherein the report the set of energy usage measurements is reported to a remote server.

14. The method of claim 9, wherein the reporting step further comprises reporting the set of energy usage measurements in a format consistent with a predetermined emissions

measurement standard.

15. The apparatus of claim 1, wherein the controller is further configured to monitor and display all gas emissions from the electronic device manufacturing system.

16. The method of claim 9, further comprising: monitoring and displaying all gas emissions from the electronic device manufacturing system.