# 2020 Environmental Goals

### Not all are applicable to ATM. Adjustment or Alternative Target are required.

#### 2020 Environmental Goals

**Greenhouse Gas Emissions.** Reduce direct greenhouse gas emissions by 10% on a per chip1 basis by 2020 from 2010 levels

Water. Reduce water use on a per chip1 basis below 2010 levels by 2020

#### Energy.

Achieve additional energy savings of 1.4 billion kWh from 2012 to 2015, and publish additional energy conservation targets for 2016–2020 in our 2012 report

#### Waste Reduction and Recycling:

- Achieve zero chemical waste to landfill by 2020
- Achieve 90% solid waste recycle rate by 2020
- Reduce chemical waste generation by 10% on a per chip basis1 by 2020 from 2010 levels

**Green Chemistry.** Implement an enhanced green chemistry screening and selection process for 100% of new chemicals and gases by 2020

Green Buildings. Design all new buildings to a minimum LEED\* Silver Certification between 2010 and 2020

## **Product Energy Efficiency.** Increase the energy efficiency of notebook computers and data center products 25x by 2020 from 2010 levels2

- 1 Assuming a typical chip size of approximately 1 cm2 (chips vary in size depending on the specific product).
- 2 Data center energy efficiency is determined by server energy efficiency (as measured by SPECPower\_ssj2008 or equivalent publications and using a 2010 baseline of an E56xx series processor-based server
- platform) as well as technology adoption that raises overall data center work output (such as virtualization technology). Notebook computer energy efficiency is determined by average battery life, battery

capacity, and number of recharge cycles of volume notebook computers in that model year.