THE HIDDEN CLIMATE IMPACT OF ELECTRONICS:

F-GHGs

Many popular electronics contain liquid crystal display (LCD) panels. Every time these are made, potent fluorinated greenhouse gases, or F-GHGs, are emitted into the atmosphere.

GREENHOUSE GASES:
- trap heat in the atmosphere and cause it to warm
- change the Earth’s climate and harm ecosystems
- result in dangerous effects to human health and the environment

CARBON DIOXIDE (CO₂) IS THE MOST COMMON GREENHOUSE GAS, BUT THE F-GHGS USED TO PRODUCE LCD PANELS ARE THOUSANDS OF TIMES MORE POTENT THAN CO₂.

Key F-GHGs used in LCD panel manufacturing:

- SF₆ = 23,000 TIMES MORE HEAT-TRAPPING THAN CO₂
- NF₃
- PFCs
- HFCs

Here’s the lowdown:

- Greenhouse gases:
- SF₆ = 23,000 TIMES MORE HEAT-TRAPPING THAN CO₂
- NF₃
- PFCs
- HFCs
F-GHGs are released during the manufacturing process that produces flat panel displays - one of the first steps in assembling final products like:

- Televisions
- Monitors and laptop screens
- Tablets

**LCD panels**

F-GHG EMISSIONS ARE EXPECTED TO GROW

based on projected growth in consumer demand of LCD flat panel displays.

Currently emissions are expected to grow by

- **Over 2 MtCO₂e* in 2015** – to the emissions from approximately **280,000** homes’ electricity use.

- **Over 7 MtCO₂e* in 2020** – to the emissions from approximately **1,000,000** homes’ electricity use.

*Million metric tons of carbon dioxide equivalent

While some suppliers are working to reduce their F-GHG emissions, more needs to be done.

**BRANDS, RETAILERS AND LARGE PURCHASERS HAVE THE POWER TO INFLUENCE REDUCTIONS IN F-GHG EMISSIONS**

by ensuring their products are made with flat panels from suppliers who are curbing emissions.

See [www.epa.gov/climateleadership SUPPLYCHAIN/SECTOR.html](http://www.epa.gov/climateleadership SUPPLYCHAIN/SECTOR.html) to learn more.