## Seven Environmental Performance Measures

Environmental improvements start with an Engineering team's product design. Boeing teams across the enterprise are considering seven environmental performance measures when making design choices:

| | |
|---|---|
| **Global emissions** | Emissions related to climate change concerns like $CO_2$. Fuel efficiency. |
| **Energy** | Efficient management and use. Conservation, renewable. Fuel efficiency. |
| **Water** | Efficient management and use. Conservation, quality. |
| **Hazardous materials** | Chemicals with potential risks. Toxics, volatile organic compounds, ozone depleters. |
| **Sustainable materials** | Optimize resource productivity. Reduce, reuse, recycle, renewable. |
| **Community noise** | Noise related to operations. Ground, air. |
| **Local emissions** | Emissions related to community air quality. NOx, SOx, particulates. |



### Get Involved

- Design for both improved product performance and less environmental impact.
- Use the seven Environmental Performance Measures.
- Become an Environmental Subject Matter Expert in your program or function.
- Share your ideas and best practices.
- Join the growing Community of Practice.

**For information** and tools to help you design Boeing products with the environment in mind:

- Design for Environment website
- Design for Environment inSite page
- The Boeing Company Environment Report

### OR contact

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# Better by design

**Engineering solutions that improve *both* product *and* environmental performance**

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Design for Environment:

# What can you do?

## For each Design Phase

| Concept Development | Joint Definition | Detail Definition | In-production Improvements | Fleet Improvements |
|---|---|---|---|---|

## consider Environmental Performance Measures

### Design In



**Energy**
Efficient management and use, focus on conservation and renewable.



**Sustainable materials**
Optimized resource productivity, focus on reduce, reuse, recycle and renewable.



**Water**
Efficient management and use, focus on conservation and quality.

### Design Out



**Global emissions**
Emissions related to climate change concerns like $CO_2$.



**Hazardous materials**
Chemicals with potential risks such as toxics, volatile organic compounds and ozone depleters.



**Community noise**
Noise related to operations, on the ground and in the air.



**Local emissions**
Emissions related to community air quality such as NOx, SOx and particulates.

## throughout the Product Life Cycle.




## Design for the Environment

is a business imperative *and* our commitment to future generations

- Boeing's customers (commercial and defense) are increasingly demanding that our products and services help lower their environmental impact.
- Boeing's stakeholders expect us to focus our innovation and expertise on environmental challenges.
- Increasing regulations and resource scarcity add cost and risk to our business.
- Decisions made in the design phase are a key factor in the environmental performance of our products in use.
- Design engineering has the most influence for the lowest cost when creating environmentally progressive solutions.

