

## **Summary of Discussion Items During the March 24, 2004 ERC LCA Teleseminar**

This document is an informal summary of the discussion points covered during the presentation and may not be complete. However, they will document the development of discussion themes over time.

### Cost of equipment and its effects:

Semiconductor equipment is very expensive with a new fab costing around 1 billion dollars.

Equipment is replaced approximately once every 10 years.

This equipment time constant may affect environmental impacts very strongly because many environmental parameters are tied to equipment design.

This may not be unique to the semiconductor industry because capital expenditures may be large in them as well.

### Boundary differences in concern may matter:

From an environmental perspective, we want to look at the full life cycle. However, companies are mostly concerned with their gate-to-gate information and may not consider upstream or downstream issues unless there is pressure from a supplier or customer.

In agreement, many people don't appreciate that upstream (environmental) impacts affect input costs to their process. A better description of how these two are related can get industrial members to see the usefulness of applying upstream thinking.

Also, manufacturers often influence or expect supply chains to drive down costs by making a request or having an expectation. Then they wait for the change to occur. This might be done for environmental issues and economic ones in a win-win situation.

### Process models:

Nina has completed some CVD process models for LCI/LCA

We should discuss a repository for models like these that companies can use to get quick and efficient LCA information for their individual processes similar to the models.