



# Charting the Path Forward:

## Accounting for Renewables & the Environment

November 4, 2004

Convened by:  
NAFTA Commission for Environmental Cooperation  
US Environmental Protection Agency  
World Resources Institute

## Today's agenda: discussion question

**“What is the emissions impact when a renewable energy project generates electricity?”**

# Aspirations for the day

- Examine calculation methodologies currently being used or proposed
- Talk with users and electricity sector experts
- Discuss trade-offs of different approaches
- “Ground-truth” approaches together
- Lay out next steps
  - for methodology development
  - for outreach/education

# Interconnected and complex issues

- **Protocol for calculating avoided emissions**
- **Links to environmental regulations/emissions market design**
- **Disaggregation of environmental attributes**
- **Additionality**
- **RECs treatment in mandatory & voluntary markets**
- **REC tracking systems**

# Methodologies differ along three dimensions

<b>Dimension</b>	<b>Common options</b>
<b>Geographic scale</b>	<ul style="list-style-type: none"><li>• <b>State</b></li><li>• <b>Power pool</b></li><li>• <b>Nation</b></li></ul>
<b>Type of emissions rate</b>	<ul style="list-style-type: none"><li>• <b>System average</b></li><li>• <b>Operating margin</b></li><li>• <b>Build margin</b></li></ul>
<b>Temporal scale</b>	<ul style="list-style-type: none"><li>• <b>Annual vs. hourly vs. seasonal</b></li><li>• <b>Retrospective vs. forward-looking (future modeling)</b></li></ul>

# Suggested assessment parameters

- **“Accuracy”**
- **Practicality**
- **Transparency**
- **Replicability**
- **Conservativeness**

