



IBM Corporate Environmental Affairs

PERSPECTIVES ON DEVELOPING A GREENHOUSE GAS EMISSIONS GOAL

KEY CONSIDERATIONS IN DEVELOPING A GHG GOAL

- **SCOPE OF THE GOAL**
- **IMPACTS OF BUSINESS OBJECTIVES**
- **IMPACTS OF REGULATIONS**
- **COMMITMENT FROM INTERNAL ORGANIZATIONS**
- **RISKS AND REWARDS OF SETTING A GOAL**

SCOPE OF THE GHG EMISSIONS GOAL

- Direct GHG Emissions
 - Fuel Usage
 - Electrical Energy Generation
 - Process Emissions

- Indirect GHG Emissions Which You Control
 - Electrical Usage
 - Fleet Vehicles: Cars, Boats, Trains, and Planes
 - Business Travel
 - Employee Commute

- Use of Renewable Energy

- Future Considerations:
 - Supply Chain Emissions: Direct and Indirect
 - Product Goals

THE IMPACT OF BUSINESS PLANS

- Business Plans: Growth, Transformation, New Business
 - Growth of Existing Businesses
 - Plans for New Businesses
 - Acquisition
 - Divestitures
 - Outsourcing and Supplier Management Strategies
- Energy Efficiency & Conservation Commitments
 - Internal Goals and Objectives
 - Ability of the Business to Deliver on the Commitments
 - Capital Constraints
 - Changing Business Climate
- Staffing and Real Estate Plans
 - Work at Home Impacts
 - Evolving Energy Efficiency of Real Estate Portfolio

REGULATORY REQUIREMENTS

- Regulatory Requirements Which Impact GHG Emissions
 - Country Level GHG Cap Commitments
 - Kyoto
 - RGGI
 - Renewable Portfolio Standards
 - Voluntary Commitments
 - Semiconductor Perflourinated Carbon Emission Reduction Goal

- Impact of These Requirements on GHG Emissions
 - Emissions Reductions
 - Behavior Changes

RISK AND MANAGEMENT FACTORS

- Estimated Costs of Meeting the Objective
 - Business Growth
 - Benefit: Free Up GHG Credits for New Growth?
 - Cost: Purchase of Offsets or Renewable Energy to Meet Objectives
 - Ability to Make Conservation or Process Objectives
 - Knowledge of Program Across Business Team
 - Responsibility for Funding
- Inventory Integrity
 - Central Data Management Capability
 - Integration with Energy Management Team
 - 3rd Party Audits: BVQI, CCX, Others
- Public Relations & Stakeholder Interest: Shareholders, Employees, NGOs, Regulators

DEVELOPING BUSINESS CONSENSUS

- Nature of Your Business Organization
 - Strong Central Control
 - Business Group or Location Autonomy
- Communications
 - Importance of the Issue to the Business
 - Boundary of the Goal: Reason Chosen
 - Adequate Data to Detail Reasons for the Chosen Goal
 - Clear Delineation of Costs and Benefits
- Achieving Consensus Around the Goal
 - Executive Support
 - Extent of Sign-off Required
- Driving to Closure

SUMMARY

- Clear Understanding of GHG Inventory is Critical
 - Set Goal Boundaries
 - Assess Path for Achievement
 - Clear Path
 - Objective with Risk
 - Detail Potential Cost
 - Develop Management Awareness of GHG Impact of Operations
- Clear Understanding of the Importance to the Business
 - Existing or Developing Regulatory Regimes
 - Impact of Cost of Carbon on Business Plans
 - Stakeholder Interest or Competitor Activity
 - Analysis of Costs and Benefits Associated with the Goal
- Clear Communications Required to Achieve Consensus
 - Management Understanding and Support
 - Understanding by All Affected Business Groups