Sustainable Commerce: Legal Overview and Case Studies

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Sustainable Commerce: Legal Overview and Case Studies

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Presentation Overview

- Basic scientific review
- Definition of sustainable commerce and suggestion of historically analogous industries
- Review of federal involvement in environmental issues
- Legal bases for involvement of state and local governments in sustainable commerce
- Overview of case studies and developments
- Conclusions and your questions
Overarching Observations

- GCC is a global market reality, and smart companies know that even if governments don’t

- State, local and private initiatives will not solve GCC, but they are certainly not irrelevant

- Lawyers must compete in markets of ideas and professions and bring unique talents to generate solutions to GCC
GCC: The Basic Science

\[1.6 \pm 1.0 \text{ billion} + 5.5 \pm 0.5 \text{ billion} - 3.3 \pm 0.2 \text{ billion} - 2.0 \pm 0.8 \text{ billion} = \text{Approximately 2 billion}\]
The Science (2)

Two Scientific Camps:
Camp #1: (Gore Camp)
- Earth is warming at a rate of up to 1-2 °F each decade
- AND rate of warming is increasing

Camp #2: (Lloyds of London, AIG Insurance Camp)
- Earth’s annual AVERAGE temp isn’t increasing all that much
- BUT annual range of temperatures increasing which means greater, unpredictable variations in global temperature
  - more variation in global storms;
  - colder max temps in winter, higher max temps in summer
How Is This Bad?

#1: Total Urban Mortality
- Kalkstein predicts up to 3% net mortality increase in 15 US cities by 2050 – 2100

#2: Health Consequences from Greater Urban Air Pollutant Exposures Due to Climate Change:
- high pollutant levels (ozone); greater incidence of asthma, especially in inner city children; greater frequency of respiratory cancer

#3: Vector Borne Diseases Will Be on the Rise

#4: Greater Impact on “Preferentially-Sensitive Populations” (i.e., children < 6 years; obese; persons with chronic respiratory/coronary disease; persons with other chronic diseases (AIDS, diabetes); socially-isolated individuals (mentally ill/impaired, elderly); chronically-unemployed/chronically-homeless
Environmental Justice Concerns

“Where U.S. Energy Policy is concerned, African Americans are proverbial canaries in the mineshaft. We are on the frontline of the likely social, environmental, and economic upheaval resulting from climate change. As a consequence, energy policy and climate change are issues of fundamental importance to the African American community.”

What is “sustainable commerce”? 

- Sustainable commerce consists of products and practices that minimize environmental impacts and optimize commercial value while realizing both public and private environmental benchmarks.

- Examples:
  - Low-carbon industrial technology base (less CO₂ emissions)
  - Non-fossil fuel/alternative energy (solar, wind, hydroelectric)
  - Renewable carbon fuels (biofuels)
  - Reduction/recapture of natural resources used in manufacturing, packaging, transportation (new milk jugs)
  - LEED® certification

- Government can foster through:
  - Market participation (Ringgold/Catoosa example)
  - Market encouragement and development (incubators, procurement)
  - Market rules that foster and reward private investment (patents, disclosure)
  - Regulation
<table>
<thead>
<tr>
<th>Element/Aspect</th>
<th>Traditional</th>
<th>GCC/SD Driven</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction/Civil Engineering</td>
<td>Waste site management, remediation</td>
<td>Renovation/redesign of existing industrial facilities</td>
</tr>
<tr>
<td>Process/Chemical/Mechanical Engineering</td>
<td>Waste stream generation, management, control, disposal; recycling services</td>
<td>Design/operation of low carbon technology equivalents for existing industrial manufacturing/process equipment</td>
</tr>
<tr>
<td>Mechanical/Design/Manufacturing Engineering</td>
<td>air/water handling systems; packaging and production design</td>
<td>Life-cycle analysis for product design/development/production</td>
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<tr>
<td>Engineering Management/Consulting Services</td>
<td>Process design, permitting, regulatory activities</td>
<td>Management of carbon offset/raw material programs; smart growth planning/implementation</td>
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</tbody>
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Source: 35 B.C. Envtl. Aff. L. Rev. 397, 399
Prior Success Stories: Semiconductors and Biotech

Children Harvesting Prunes in San Jose, CA, Circa 1930

Bill Hewlett and Dave Packard’s Garage

Sustainable Commerce Overview
Green Venture Capital

Chart: Green VC, using data from Thomson Financial and the National Venture Capital Association
Global Initiatives of Sustainable Commerce

- **#1:** Sustainable Commerce Investments: International Venture Capital and Intellectual Property Initiatives

Global Initiatives of Sustainable Commerce

- #3: Green Building Certification: Leadership in Energy and Environmental Design (LEED®)


- #5: Extended Product Responsibility and Life Cycle Analysis of Products
Federal Involvement in Environmental Regulation

- Series of command and control regulations in 1970-1985 timeframe (e.g. CAA, CWA, CERCLA, RCRA)

- Adoption of incentive-based regulation
  - Trading program for phasing out lead additives to gasoline
  - Acid rain trading program in 1990 CAA Amendments

- Waxman-Markey?
Can States/Local Gov’t Engage in Sustainable Commerce?

- Generally, states have police power to address matters affecting public health, safety, environment
- Commerce Clause can limit that participation through
  - Express preemption by federal government
  - Dormant Commerce Clause
- With some creativity, states can still accomplish many goals—usually faster than federal government
What Are Possible Forms of State/Local Involvement?

- Regulation, including:
  - Product bans (e.g. foam containers)
  - Zoning and land use

- Fiscal policy, including:
  - Tax credits
  - Subsidies (products, technology parks)
  - Operation of facilities (e.g. landfills)

- Market participant
Why Sustainable Commerce by State/Local Gov’t

- **Foundation #1**: Transition to a low-emissions economy creates new economic opportunities across a wide range of American industries and services, geographical areas, and sectors of the workforce.

- **Foundation #2**: Financial markets are creating security instruments providing new capital sources for industry as well as state and local governments.

- **Foundation #3**: Sustainable commerce provides opportunities for permanent reductions in government and business costs through energy and natural resource savings, operational efficiencies, and process/product innovation.
Why Sustainable Commerce by State/Local Gov’t

- **Foundation #4:** Sustainable commerce initiatives provide regulatory tools to enhance energy security and environmental protection within local/state governments and business/industry.

- **Foundation #5:** Sustainable commerce initiatives provide local/state governments along with business/industry with resources to address legacy waste management problems.
Why State/Local Involvement Advantageous Overall

- Chance to experiment with different tools and take advantage of local strengths (e.g., resources, infrastructure, preexisting relationships with extra-national communities)
- Harness power of competition between firms and between localities, creating pressure for faster achievement of goals
- Budgetary realities may make more fiscally creative
Will Sustainable Commerce Work in Small Town America?
The Ringgold Case Study: Background Facts

1. GaEPD: must manage landfill CH$_4$; EPA puts in nonattainment area
2. Olney Meadows
   - Investigated landfill options
   - Ga/DC Landfill Workshops
   - Got on the Web
   - Contracted CCX Consultants/Verifiers
   - Now investigating EU ETS
CCX - Chicago Climate Exchange

- Greenhouse Gas
- Emission Reductions

Carbon Credit Program
- Eligibility Assessment
- Protocol Development
- Monitoring
- Reporting
- Verification
- Registration

- Achieved via qualifying GHG emission reduction projects

Carbon Credits
(certified, tradable, $$)

- Chicago Climate Exchange protocols

Sell on CCX through an aggregator

Sustainable Commerce Overview
The Ringgold Case Study: Lessons Learned (1)

Four Success Factors to Ringgold’s Carbon Credit Sales:

#1: Centralized administrative responsibility assigned for sustainable commerce initiatives.

#2: Vesting program responsibility with a senior county administrator.
The Ringgold Case Study: Lessons Learned (2)

#3: Educate stakeholders in preparation for program decisions.

#4: Embrace regulatory requirements as opportunities to improve an organization’s products and services by accessing new resources.
Case Study 2: Murray Industries, Lawrenceburg, TN

B&Q: UK-based home improvement retailer/EU importer

- Since 1990: insists all suppliers:
  - itemize cradle-to-grave public health/environmental impacts derived from their products
  - craft corporate policies and action plans to address these impacts
  - submit to internal/external/3rd party monitoring against B&Q’s standards
  - address public health/environmental issues associated with the life-cycles of the products they supply to B&Q

- B&Q Standards: “Sustainable Environment Principles” for all approved vendors/suppliers
  - yearly (increasing) targets for renewable energy
  - remove listed toxic substances from all inputs
  - yearly (increasing) targets for % by weight recycle components/parts
Background of Murray Industries

Murray, Lawrenceburg, TN:
- >1 million sq foot plant, 50% local workforce
- Major local employer Beginning in 1953.
- If not a B&Q supplier, lose approximately 20% of annual sales and access to EU markets

Murray Created Integrated Quality/Public Health/Environmental/Regulatory Management System
- connected product design, procurement, environmental management depts
- ranked system to prioritize candidate paints, parts, inputs which met detailed public health and environmental metrics
- scheduled twice - yearly third-party review of all facility operations to meet B&Q operations metrics
- required environmental dept sign-off for all pre-production product designs
- ongoing program identifying options for recyclable parts into design
An Iterative System for Environmental Management

Continual Improvement

Management Review
ACT

Checking and Corrective Action
CHECK
Internal, External, 3rd Party

Corporate Policies
- Public Health
- Environmental
- Regulatory

Planning –
PLAN
Govt working with Industry

Implementation and Operation
DO
By Government AND Industry
A Private/Public Partnership

- Ports of Los Angeles/Long Beach
  - Combined responsible for 40% of all goods imported to US
  - Major contributor to air quality problems in area through ships, movement within terminal area, drayage (ship to transit facility or railhead off-site)
Old Means of Handling

- Regulate Drayage to require
  - Truck ID
  - No pre-1989 truck

- This held to be preempted by federal law in *American Trucking Ass’n v. City of Los Angeles*, 559 F.3d 1046 (9th Cir. 2009)
A Different Way of Handling

- Los Angeles/Balqon partnership to develop heavy-duty truck
  - 2 years
  - ~60 mi/charge
  - $400K investment by LA
- No diesel means saving 35,605.6 tons of tailpipe emissions
- Balqon manufactures and pays royalties to
Overall Conclusions

- Major federal legislation or regulation years off; state/local steps can happen now

- Incremental steps lay groundwork for harnessing power of market and promoting increased buy-in by regulated community

- Environmental advocates can add these ideas to their arsenal of arguments to induce change