ATELIER TEN

Consultancy in environmental design, lighting design, building services engineering

New York, New Haven, and London offices

Designers and engineers

Collaborative practice
PRACTICE PRINCIPLES

Buildings and landscapes do more, systems do less

Design from first principles

Integrated design

Pragmatic solutions
Positive proof of global warming.
Key Drivers

REGULATORY

• Mandates

  National: Kyoto Treaty (most of world)
  State: RGGI, CA carbon regulations, LEED
  City: Mayors’ Climate Commitment, PlaNYC
Key Drivers

VOLUNTARY

• Corporate social responsibility
• Risk management (future carbon costs)
• Marketing, PR
• Stewardship
• Meeting new standards
American College and University Presidents’ Climate Change Commitment
- 400+ signatories to date
USGBC LEED Rating System

• Mandatory energy savings to reduce Carbon emissions

• Voluntary renewable energy or offsets

Cascadia Living Building Challenge

• Mandatory net zero energy
Fundamental Approach

- Reduce resource demand
- Reuse existing resources
- Supply resources sustainably
- Offset environmental damage
Sustainability

- Active systems
- Passive elements
- Building form and orientation

- Heat recovery systems
- Photovoltaics
- Activated blinds
- Responsive shading
- Deep space natural ventilation
- Orientation form
Sustainability Towards Carbon Neutral

High Efficiency Envelope: Minimise energy consumption
Energy Efficient Systems: Efficient energy production
Solar Thermal: Maximise on-site renewable energy production
On-site Tree Planting: Reduce carbon emissions
Additional PV Wind Power: Add renewables

Conventional Design
Climatic Design
Cogeneration + District Cooling
Photovoltaics + Wind
Carbon Trading
Carbon neutral development
Seasonal Solar Storage

Regulatory Minimum
High Quality Sector
Exemplars
Greystones Housing