



**Boston Scenarios Project**  
**Advisory Committee Meeting**

February 28, 2007

Tellus Institute  
Boston, MA

**Summary Report**

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# Boston Scenarios Project – 2/28/07 Advisory Committee Meeting Report

## BACKGROUND

Since 2005 Tellus Institute has been engaged in the Boston Scenarios Project, a three-year effort to create alternative long-range scenarios for the future of the Boston region, including one based on the values of sustainability, pluralism, justice, and global responsibility. Sponsored by the U.S. Environmental Protection Agency, the ultimate objectives of the project are: to support sustainable regional planning by providing tools and methods that promote preventative planning in an integrated social-economic-environmental systems framework. Short-term goals are to:

- develop scenarios using the latest science that considers the social, environmental and economic elements of sustainability; and
- inform citizens and policy-makers concerning sustainability and alternative pathways for the region; and
- promote networking of existing planning efforts taking place at different scales in the region.

The project is consistent with Tellus Institute's overall efforts to raise awareness about and help motivate positive change toward – a “great transition” – to a sustainable future.

In the first year of the project Tellus created three crude scenarios – narrative and quantitative – for the Boston region through the year 2050: Business as Usual, Policy Reform, and Deep Change. The **Business as Usual scenario** presents a future where the dominant values, corporate power and consumerism persist. With little change in production and consumption patterns, the result is continued increases in greenhouse gas emissions and the “ecological footprint” of the region, as well as deepening inequality.

The **Policy Reform scenario** assumes political will is mobilized to introduce a range of government-led policies and technological change to moderate ecological destruction and social inequality. Under Policy Reform, resources are used more efficiently, CO2 emissions decrease somewhat, and sprawl is mitigated to a degree, but basic lifestyles of the region's residents do not change.

The **Deep Change scenario** envisions the emergence of an active civil society movement that stresses education and political engagement towards transformation of values and lifestyles. In Deep Change there is a shift in focus away from economic growth and material consumption as the key driver, and towards enhancing quality of life. This results in growing awareness of global connectedness and responsibility, leading to strong societal commitment to greatly reduce CO2 emissions and our ecological footprint to stabilize the climate, reduce use of nonrenewable resources, and restore ecosystems.

Tellus presented the initial long-range scenarios for the Boston region in an early meeting of the Project Advisory Committee in 2005. The Committee confirmed that using scenarios to explore alternative futures was very useful and strongly endorsed the Deep

Change scenario as one to further elaborate and disseminate. During 2006 the Tellus project team worked on refining the Deep Change scenario through the following efforts:

- consulted with working groups for several major sectors concerning data, trends, and indicators (Food/Agriculture, Health, Transportation and Land Use, Water);
- established a project website ([www.bostonscenarios.org](http://www.bostonscenarios.org)) and listserv to obtain input and feedback;
- obtained more detailed data for the region; and
- analyzed the implications of the Deep Change scenario for various sub-regions (Inner Core, Regional Centers, Mature Suburbs, Developing Suburbs).

Also, over the past two years Tellus has been deeply involved in many aspects of the MetroFuture regional planning process ([www.metrofuture.org](http://www.metrofuture.org)), an ongoing parallel effort coordinated by the Metropolitan Area Planning Council to plan for the long-term future of 165 communities in the region. Tellus staff have served on MetroFuture's Technical Advisory Group, the Inter-Issue Task Force, and the Scenario 4 Working Group, and have attended community workshops and major regional forums with the aim of encouraging adoption of a "preferred scenario" that recognizes the importance of sustainability and equity.

## **ADVISORY COMMITTEE MEETING**

On February 28, 2007 we reconvened the Project Advisory Committee to obtain their input on how best to bring our insights and findings from the elaborated and refined Deep Change scenario to a larger audience and to impact relevant policy. This report summarizes key points discussed at this meeting and the outcome of the Committee's brainstorming exercises regarding how the framework and findings from the Deep Change scenario may be used to help shape specific near-term and longer-term policy and outreach opportunities.

In addition to the meeting summary that follows, attached are the following documents associated with the meeting:

- Agenda (Attachment 1)
- Advisory Group Participants (Attachment 2)
- Deep Change Scenario Sectoral Overview (Attachment 3)
- Deep Change Narratives and Sample Outputs (Attachment 4)
- Working Group Suggestions: Policy and Citizen Engagement Opportunities (Attachment 5)

## **SUMMARY OF DISCUSSIONS**

The agenda for the workshop was structured in three major parts: (1) presentation and discussion of the revised scenarios, with particular focus on Deep Change; (2) Working Group Breakouts to identify and discuss opportunities for policy change and citizens'

engagement; and (3) a discussion of the synergies and priorities among policy and citizen engagement opportunities.

## **1) Revised Deep Change Scenario**

After introductions of meeting participants, Tellus staff presented a brief overview of the scope of the project, both in terms of major tasks, as well as descriptions of the four sub-regions analyzed in the scenarios. The disaggregation of metropolitan Boston into sub-regions was an important aspect of refining the scenarios, and provides a more detailed picture of how different parts of the region and their residents change in the various scenarios. The presentation also updated the Advisory Committee on stakeholder consultations efforts in developing the refined scenarios and the project team's efforts to participate in and coordinate with the MetroFuture project, a parallel long-term scenario planning effort facilitated by the Metropolitan Area Planning Council (MAPC). Staff from MAPC elaborated on MetroFuture's progress.

The project team then reviewed the role and structure of scenarios, and presented descriptions and key assumptions for the three alternative regional scenarios: Business as Usual, Policy Reform, and Deep Change. In line with earlier feedback from the Advisory Committee and project participants through working group meetings and an electronic dialogue, key outputs from the Deep Change scenario were presented in some detail, and compared with Business as Usual. Such outputs included economic indicators (GDP per capita, poverty,), land use and housing changes (open space acreage, single versus multi-family housing units), energy and climate (CO2 emissions and the source of reductions by sector), transportation (travel mode shifts and total vehicle miles traveled), water use (per capita residential use, total demand), and food and agriculture (land area requirements for food, average daily per capita calorie intake).

Following the presentation, the Committee first broke into small groups of three to discuss what daily life would be like for our grandchildren in 2050 under the Deep Change scenario. To facilitate the discussion, the project team distributed handouts that summarized Deep Change in images and brief narratives for each major sector (see Attachment 4). Participants then reconvened as one group to discuss questions about how Deep Change was defined and modeled, and what resonated with participants from the Deep Change scenario and what differed in the way they imagined Deep Change.

This discussion was quite animated and helped provide the Committee members with a feel for Deep Change and its implications for the quality of life, the economy and the environment over the coming decades.

Key points in the discussion included:

- concern that the CO2 targets in the Deep Change scenario (75-80% reduction by 2050) do not occur quickly enough and may not be deep enough to avoid disastrous climate change;
- an acknowledgement that in describing the Deep Change scenario we highlight the importance of equity as a motivating factor in its development, even though in many ways it was considered qualitatively and not modeled;

- concern whether the certain aspects of the Deep Change scenario (e.g., shifts in the economy) are feasible on a regional scale, or whether they only make sense in the context of broader global change along similar lines;
- a suggestion that the narratives describing the Deep Change scenario capture the real social change required (e.g., value shifts and lifestyle changes) and don't overly emphasize the technological and policy innovations that are so central to the Policy Reform scenario;
- caution about our emphasis on a shorter work week and slower GDP growth in Deep Change (relative to Business as Usual), and a suggestion to frame these issues in terms of improving employment levels, the overall workforce and achieving a better work/family life balance.. Participants supported this suggestion by pointing out that we want to slow *certain components* of the GDP (e.g., increases in GDP from environmental degradation, a speculative economy), and that growth in GDP is not inherently counterproductive to a Deep Change society.

## 2) Working Group Breakouts: Opportunities for Policy and Citizen Engagement

In the second part of the meeting, two Working Groups were formed to discuss the near-term (<5 years) and long-term policy and citizen engagement opportunities that could help move the Boston region toward a Deep Change future. One group focused on the Transportation, Energy, and Water sectors (infrastructure), while the second group considered the Land Use and the Socio-Economy sectors. The groups were facilitated by Tellus staff and were charged with brainstorming the policy and citizen engagement ideas, and then sharing a small number of near and long-term opportunities that they considered high priority. Following are the selected opportunities highlighted by the Working Groups. A full list of the ideas identified is included in Attachment 5.

### ***Transportation, Energy, and Water***

#### Policy Options - Short Term

- Peak usage pricing and carbon tax for transport, energy, and water (could be revenue neutral and involve tax shifting).
- Review building, planning and zoning codes to remove disincentives for dense, mixed-use, green development and promote efficient technologies/products.

#### Policy Options - Long Term

- Incentivize development of high-quality, affordable, and energy efficient urban centers by addressing schools, public safety, and access to open space.
- Shift incentives and public investments to mass transit and alternative transportation.

#### Citizen Engagement - Short Term

- Curriculum development focused on energy and water use/efficiency.

- Provide feedback mechanisms on the impact of personal/household consumption patterns.
- Communicate an attractive long-term vision of a sustainable future.

#### Citizen Engagement - Long Term

- Implement public campaign to change mindset and values.
- Build an inclusionary society between citizens and government and across jurisdictional boundaries.

### ***Land Use and Socio-Economy***

#### Policy Options - Short Term

- Universal health care with a focus on wellness and disease prevention.
- Develop intermediate institutions that link research and development (e.g., at MA universities) with local manufacturers.

#### Policy Options - Long Term

- Incentives for land use policies and municipal decision making that promote density and smart growth.
- Regional governance and planning for some issues such as land use.

#### Citizen Engagement - Short Term

- Create a zoning reform working group to coordinate efforts to improve zoning regulations and practices.
- Reach out to local groups working on a range of issues – green building, local agriculture (the Food Project), and smart growth (MA Smart Growth Alliance) – to promote a more integrated understanding and collaboration.

#### Citizen Engagement - Long Term

- Mobilize broad-based constituencies to support actions aimed at Deep Change.
- Develop education programs, including after-school programs, to increase awareness about the possibility of and pathway to an alternative future.

### **3) Discussion of Synergies across Sectors in Policy and Citizen Engagement**

After brief reports from the two Working Groups to the full Committee, participants were prompted to identify those policy and citizen engagement opportunities where there are links and synergies across the various sectors (land use, energy and climate, transportation, food/agriculture, water).

One important cross-cutting theme mentioned was education and awareness-raising at various levels, from youth through adults. Such education is both formal (school-based) as well as informal. Examples mentioned include a modular text book on sustainable urban ecology, developing a university-level course on integrated sustainability, after school projects for children, and others. There was broad agreement that *how* the issues

surrounding the need for Deep Change are framed, and the language used (e.g., “appropriately sized” homes rather than “smaller” ones), is critical in effectively engaging the broader public. Participants felt that the message needs to stress the positive aspects and opportunities presented by Deep Change, rather than decreased material consumption. Committee members recognized that the Deep Change scenario provides a very broad framework with an integrated approach in which changes in one aspect have impacts throughout the system. It was also suggested that naming this broad reframing is important, perhaps as the “New American Dream.”

A second area identified was government commitment to sustainable practices in its own operations, such as siting of state (or local government) facilities consistent with smart growth principles, constructing and/or renovating public buildings that are high performance and are LEED certifiable, producing and using renewable energy to the extent possible, minimizing the use of water in state facilities, implementing integrated pest management practices throughout public buildings, procuring materials and foods locally/regionally to the greatest extent possible, etc. A particular issue raised is the disconnect between state decisions on capital expenditures and operating budgets. Without linking these two functions and decision-making processes, the state will continue to lack appropriate incentives to invest up-front in order to achieve greater savings, from buildings or vehicle fleets for example, over their operating lives.

A final theme where an integrated cross-sectoral approach makes sense is in our tax and incentive system. Participants suggested revenue-neutral tax shifting to send the right economic signals (such as a carbon tax, increased parking fees in city and town centers, increased subsidies for public transit, favorable tax treatment for investments in renewable energy systems and green buildings, etc.), as well as expedited permitting and other regulatory incentives for green projects.

For virtually all of these issues, Committee members recognized the importance of partnering with existing organizations working on these issues to pursue policy and citizen engagement opportunities.

## **NEXT STEPS**

The project team concluded the meeting with a brief overview of the next steps in the project. In addition to preparing and disseminating this summary report of the meeting, Tellus will use the input from the Advisory Committee in developing its policy and citizen engagement agenda for the final year of the project. The project team committed to following up with several participants on the specific policy and engagement opportunities they identified, and to continue to communicate with the Advisory Committee members through the project listserv and website.



## ATTACHMENT 5

**Boston Scenarios Project  
Advisory Group Meeting**  
Wednesday, February 28, 2007

### **WORKING GROUP SUGGESTIONS: POLICY AND CITIZEN ENGAGEMENT OPPORTUNITIES**

#### **Policy Brainstorm: Transportation, Energy and Water**

##### **Transportation**

- Plan for higher costs of cars
- Reduce subsidies: Eliminate tax breaks for tolls, parking
- Free-transit in inner core
- Congestion pricing
- Increase gas tax in exchange for other tax reductions
  - Revenue neutral
  - Direct to transportation related expenses
- Road pricing to finance mass transit
- Expand alternative transportation modes
- Bicycle and pedestrian safety
- Bicycle gift at age 16
- Car labels to include fuel costs and carbon impacts
- Improved bike paths
- Education
  - Driver education on bikes and pedestrians
  - Drivers license at age 21/18?
  - Education on buses about benefits of public transportation
  - Ride-sharing as community benefit
  - Walk to school program
  - Curriculum

##### **Energy and Climate**

- Variable and real-time pricing for electricity
- Carbon tax
- Wind power installations along highway rights of way
- Change distributed generation policies to encourage on-site generation
- Foster zoning changes/building codes at local level
- Enhance state building code for energy efficiency
- State project review (MEPA and other) to include CO2 emissions

- Increased funding for energy efficiency
- Public sector institutions—lead by example
- Competition among like-institutions (e.g., colleges, schools)
- Pilot Carbon credit card
- Develop school curriculum on energy and climate

### **Water**

- Change water pricing to reflect full costs and implement peak pricing
- Recognize varying water quality needs: e.g., drinking, sanitary, greywater, irrigation
- Plumbing codes—facilitate composting toilets and greywater use
- Incentives for new developments to minimize water use
- Education
  - Provide feedback to users on water use compared to others and past use
  - Lawns: reduce size; water efficient landscaping (xeriscaping) with native species; change mindset
  - Develop school curriculum on water resources and efficiency

### **Policy Matrix—Energy, Transportation and Water**

#### **Short-term**

- Peak usage charges and carbon tax for transport, energy and water (including tax shifting)
- Review building, planning and zoning codes
  - Remove disincentives
  - Promote efficient technologies, products

#### **Long-term**

- Incentivize high quality, affordable and energy efficient urban centers
  - Schools, public safety, open space, access to outdoors
- Shift incentives to mass and alternative transportation

### **Citizen Engagement Matrix—Energy Transportation and Water**

#### **Short-term**

- Curriculum development around energy, water
- Feedback loop on personal/household impacts
- Communicate long-term vision

#### **Long-term**

- Change mindset, values through public campaign
- Inclusionary society between citizens and government and across town lines

## **Policy Matrix—Land Use and Socio-Economy**

### **Short-term**

- Universal health care (focus on preventative care)
- Initiate Health Impact Assessments to monitor community-level health conditions
- Allow local-options taxes to raise revenues (for health services or other needs)
- Complimentary currencies
- Job training for under-served communities
- Intermediate institution to link R&D activities with local manufacturers
- Community Benefit Agreements
- Reform of land use planning structures
- More strategic planning involving communities

### **Long-term**

- Incentives for smart growth land use policies and municipal decision-making
- Regional planning for some issues

## **Citizen Engagement Matrix—Land Use and Socio-Economy**

### **Short-term**

- Educate neighborhood organizations about the Leadership in Energy and Environmental Design – Neighborhood Development (LEED-ND) pilot program (e.g., Jamaica Plain Neighborhood Development Corporation and other CDCs)
- Other organizations to target for education and outreach include:
  - Interfaith organizations
  - Global Community Initiatives
  - Cambridge College
  - Sustainable Step NE
  - The Food Project
  - MA Smart Growth Alliance
  - Action for Regional Equity
  - Community Labor United
- Education (e.g., after-school programs)
- Establish a zoning reform working group

### **Long-term**

- Mobilize grass-roots organizations to support action items consistent with Deep Change scenario
- Education on alternative long-term scenarios including Deep Change