

**Energizing Sustainable Cities**  
**USA Representative for International Sustainable Urban System Design Competition**  
**San Diego-Tijuana Proposal for 100-year Plan, 2003-2103**

**Results of the Competition**

The San Diego-Tijuana proposal won the national sustainability competition sponsored by GTI, and therefore was the United States representative to the International Sustainable Urban System Design Competition, sponsored by the International Gas Union. The preparation of the entry was collaboration between many local public and private entities, including the City of San Diego, San Diego Regional Energy Office (currently CA Center for Sustainable Energy) and urban designers/developers. The International conference was in Tokyo, Japan on June 2003. Canada was awarded the Grand Prize for the competition and their excellent work in Vancouver. Our **second place finish** was definitely a respectable showing.

**Overview**

The U.S. Team design for the San Diego-Tijuana Binational Region is a comprehensive regional approach to sustainability that integrates all urban infrastructure technologies with energy efficient and ecologically sound land use development. This holistic design also provides a roadmap for the social, economic and institutional integration of two major metropolitan communities and many smaller constituent communities that surround the world's busiest international border.

The binational region is currently experiencing a rapid growth in population. Accommodating this growth through current development practices will result in many significant challenges to the long-term sustainability of the region. These include: land scarcity and urban sprawl, habitat and species loss, traffic congestion and air quality degradation, water scarcity and degradation, energy and affordable housing shortages, solid waste disposal problems and economic disparity. To address these challenges, the U.S. team adopted five principal goals to guide its design formulation effort. These included: the sustainable use of energy resources, ecological urban form and function, community-based resources management, land use optimization and social and economic parity.

The operational expression of these goals resulted in a design that controls urban sprawl by limiting growth to existing urbanized areas and selected undeveloped areas. The design also directs development and redevelopment away from environmentally sensitive lands and towards 60-targeted settlements in 4 geographic zones across the 12,400 km<sup>2</sup> binational region. Each zone contains several primary and secondary city centers surrounded by clusters of village centers and neighborhood communities. Supporting each of these communities is an integrated energy, environmental and transportation technology center and a micro-grid controlling the multidirectional flow of energy and water resources among all buildings and uses in the neighborhood.

The design harnesses regionally abundant renewable energy and water resources, emergent technologies and hyper-efficient net-zero energy building construction and management practices. It eliminates air emissions almost entirely by a ubiquitous and efficient mass transit system and an alternative personal mobility technology and network. Similarly, it proposes the reclamation and reuse of all sanitary water effluents and the dramatic reduction of solid waste materials through sustainable manufacturing and reuse practices. Socially and institutionally, the design integrates interdependent economies and governmental initiatives across the binational region to create and sustain a more equitable community and improved quality of life for all.