



Edison Challenge 2009

PROJECT SUMMARY

Santa Monica High School / "Team Marine" (Santa Monica)

Team Marine assembled lesson plans for eight different scenarios -- based on age and size of group -- that focus on the core topic of sustainability through cleaner alternative energies and mindful consumption, as well as education about human impacts on the marine environment (i.e. global climate change, marine debris, storm drain transport and runoff, etc). Each lesson consists of two or more of the following elements: an interactive lecture, one of two PowerPoint presentations, a video that educates students about the dangers of plastic bags and other single-use plastics, an inspirational video encouraging students to take action in their lives, a recycling relay game, an environmental trivia competition, a "green" bingo game, a take-home follow-up activity on alternative energies, a handout listing ten ways to save energy in one's home as well as instructions for building a solar oven, and/or little "souvenirs" (organic candy or reusable bags).

After attending numerous conferences, workshops and lectures to educate themselves, Team Marine taught community members about marine debris, storm drain transport and runoff, sustainable products and practices, renewable energies, and global climate change. Their eco-projects included beach clean ups, a school-wide plastic bottle cap drive, constructing a REthink Art Display on the Third Street Promenade made out of the collected 34,727 bottle caps, organizing two student marches against single-use plastic products, testifying at City Hall to express their support of the ban on plastic bags from all retail stores in Santa Monica, building a solar-powered boat for the Solar Cup, joining Jane Goodall's *Roots and Shoots* Program to share their ideas and network, partnering with the Surfrider Foundation in their *Teach and Test* ocean water quality monitoring program, advocating for the preservation of the Ballona Wetlands, restructuring the Web site to facilitate updates by future members of Team Marine, presenting at several gatherings (including a Generation Earth Water Pollution Prevention Workshop), and teaching at several different schools.

For their research proposal, Team Marine recommended that the City of Santa Monica reduce its carbon emissions by 35,737 (City of Santa Monica Green House Gas Emissions, 2007) tons by adopting energy-efficient practices and behaviors citywide. The team also recommended that the City expand renewable energy production and use in the residential and commercial districts and transportation services. The team's research showed that by weighing in the effectiveness, cost, and feasibility of each potential solution, Santa Monica could reach the goal of switching to 100 percent renewable resources by 2030. The proposed research will include an investigation of the most viable methods to incorporate sustainability into all facets of societal energy use, from human behavioral changes to infrastructure modifications in residential and commercial districts.

PHOTO CAPTION:

Pictured left to right in the photo are:



Front row: Renee Klein, Santa Monica High School assistant team advisor; Pedro Pizarro, executive vice president of Power Operations, Southern California Edison (SCE); Santa Monica High School students Brenda Luis, Shirin Bhagwagar, Amanda Dworkin, and Ariel Yakura; Lynn Whitley, USC Wrigley Institute for Environmental Studies.

Back row: Vanessa Knutson USC Wrigley Institute for Environmental Studies; Benjamin Kay, Santa Monica High School team advisor; Santa Monica High School students Megan Kilroy and Zack Gold; television personality and keynote speaker Bill Nye, “The Science Guy”; and Henry Martinez, SCE director, Grid Operations and the Santa Monica High School team’s science mentor.