Washington State Region National Engineers Week Future City Competition

Sponsorship Request

2009 National Engineers Week Future City Competition™

www.ieee-seattle.org/futurecity

Washington State Competition
Hosted by the Seattle Section of the
Institute of Electrical and Electronics Engineers, Inc.
(IEEE)

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(as of June 9, 2008)

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WASHINGTON STATE COMPETITION

A guiding principle of the National Engineers Week Future City Competition is to involve an ethnically, socially, gender, and economically diverse student population in an unbiased competition. We are just beginning the registration process. We anticipate schools from the Puget Sound, the Tri-Cities and the Yakima Valley participating in the competition.

OVERVIEW

The Future City Competition is a national program sponsored by the engineering community to promote technological literacy and engineering to middle school students. It is in its 17th year of existence. This is the 11th year the Regional Competition has been held in the State of Washington and the 8th year that it has been hosted by the Seattle Section IEEE in Seattle.

The program fosters an interest in math, science, and engineering through hands-on, real world applications. The competition is open to all public, private, home, and parochial schools. The Regional Finals of the Future City Competition will be held in Seattle Washington at the Seattle Center on Saturday, January 24, 2009. The National Finals of the Future City Competition are a featured event during National Engineers Week, with students from across the country competing in Washington, D.C. The winning team from Washington State Regional Competition will advance to the national competition in Washington, D.C.

There must be at least 25 schools registered within a region in order for us to qualify to have the regional winner to advance to the national competition. Our goal is to have 25 schools registered so this can be possible. We will hold a regional competition in Seattle with the participating schools regardless of how many schools finally register.

GOALS

The Future City Competition offers students a fun and innovative way to learn about engineering and cities of the future. Through the program, students will:

- Work as a team under the guidance of a teacher and a practicing engineer;
- Apply their knowledge to real world situations;
- See first-hand how engineers turn ideas into reality;
- Use a popular award-winning computer game, *SimCity 4* to design their future city;
- Build a scale model of a section of their city; and
- Use their communication skills by preparing an abstract, two essays and a verbal presentation relating their experience in the design of their city and some specific engineering features.

MISSION

Students participating in the Future City Competition program will gain and demonstrate:

- Problem solving skills;
- The ability to work in teams;

- Research and presentation skills;
- The application of math and science to practical problems;
- Computer skills; and
- An increased awareness of community related issues.

COMPETITION STRUCTURE

Student teams will design and build a city of the future under the supervision of a Teacher and Engineer-Mentor. The city must display residential, commercial and industrial areas, power plants, roads, power distribution networks, etc. The city must be energy efficient, supplying enough energy for its residents. Other considerations that the students must take into account are pollution levels, traffic density and cost efficiency. The solution will consist of the following:

- A futuristic computerized design using *SimCity 4* provided by Maxis.
- A physical scale model of a section of their city, including one moving part with a self contained power source.
- A 500 to 700-word essay on how engineers respond to a specific problem-based scenario.
- A 300 to 500-word abstract describing the features and services of their City.
- A 5 to 7 minute verbal presentation by the student team members before a team of judges.

ROLE OF THE ENGINEER, TEACHER, AND THE STUDENTS

The competition employs a team-based approach. All members of the team, composed of three students, a teacher-sponsor and engineer-mentor, have a role that is necessary for the successful completion of the project. Guidelines for the team members include:

ROLE OF THE ENGINEER

The engineer serves as a mentor to the students. The engineer is involved in all phases of the competition as an advisor and provides input and technical assistance, integrating real life engineering experiences as the students work on the competition. The students must do all of the actual work, such as the computer design of the city, building the tabletop model, writing the essay and presenting the project during the competition with support from the engineer.

ROLE OF THE TEACHER

The teacher is encouraged to participate in the competition as a facilitator and advisor to the team members. The teacher can also provide student team members with examples or helpful hints as the project progresses. With the assistance of the school, school district and other contacts, the teacher can serve as the media contact person for the team.

ROLE OF THE STUDENT

The 7th and 8th grade students are the actual creators of their future city with the help and advice from their volunteer engineer and teacher. Students are to demonstrate teamwork by allowing all team members to provide input. Where there is disagreement, measures

should be taken by team members to agree on a compromise. It is through cooperation and teamwork that students will create a winning future city entry for the competition.

LOCAL ORGANIZING COMMITTEE

The Washington State Regional Competition is hosted by the Seattle Section of the IEEE. The steering committee consists of volunteers from IEEE and other areas of the engineering community.

Karen Pavletich	Regional Coordinator	Puget Sound Energy
Stephen Allen	Treasurer/Webmaster	Puget Sound Energy
Leann Kostek	Sponsorship Coordinator	Puget Sound Energy
Jens Nedrud	Teacher/School Co-Coordinator	Puget Sound Energy
Katrina Saxby	Teacher/School Co-Coordinator	Seattle City Light
Molly McLean	Competition Day Co-Coordinator	Puget Sound Energy
Chris Reed	Competition Day Co-Coordinator	Puget Sound Energy
Steve Brown	Mentor Coordinator	Puget Sound Energy
Brent Carper	SimCity Resource	Puget Sound Energy
Ponet Neaunsourinh	Scoring Co-Coordinator	Puget Sound Energy
Derek Koo	Scoring Co-Coordinator	Puget Sound Energy
Jennifer Boyer	Publicity Coordinator	Puget Sound Energy
Jeanne Harshbarger	Judging Coordinator	Puget Sound Energy
Lester Leysath	Awards Coordinator	Boeing
Del Johnson	Member at Large	Puget Sound Energy
Franklin Lu	Member at Large	Seattle City Light

REGIONAL COMPETITION BUDGET (2008-2009)

Income	
Contributions	
Corporate	$5600
Engineering Society	3000
Total Income	**$8600**
Expenses	
Mailings	$455
Committee Meetings	190
Teacher/Mentor Workshops	200
Awards/Prizes	
Savings Bonds	750
Medals / Trophies / "give-aways"	1110
Tee-Shirts	800
Volunteer Recognition	575
Travel (Regional Coordinator Meeting, May)	400
Site Rental (incl. tables, drapes, audio system)	1250
Signs, programs, breaks	1160
National Finals (February)	
Packing to ship winning model	250
Regional Coordinator travel	1300
Engineers Week Fair	160
Total Expenses	**$8600**

There are many other expenses associated with the Future City Competition that are not included in the Regional Competition budget. These expenses are paid for by the National Engineers Week Future City budget through sponsorship at a national level. Some of these expenses include:

- Trip to National Finals in Washington D.C. for the 1st place regional team
- A portion of the expenses for the Regional Coordinator to attend annual training workshop
- Teacher & Volunteer Engineer Handbooks
- Judging Manuals
- SimCity 4 Software (donated by Maxis)
- National website (www.futurecity.org)
- CD-ROM tutorials
- Future City letterhead, envelopes and folders

SPONSOR INVOLVEMENT

Engineers from Washington State have made the decision to support this annual Future City Competition. As volunteers, engineers will share skills such as teamwork, problem solving, communication, writing, and applied math and science with students as they solve a real-world problem. A partnership between the engineering societies, the corporate community, and the education communities is essential to achieve our goals.

- If your organization currently has relationships with middle schools, you are invited to introduce the Future City program to those schools. This program is designed to provide additional education and mentoring opportunities, reaching students whom may not be involved with your initiative. Your organization can encourage team formation and education partnerships.
- Promote employee or member involvement in the Future City program from within your organization, using internal communication channels and volunteer recognition initiatives.
- Your organization can provide expertise in media relations, public outreach, finance, competition planning, or a variety of other functions necessary for a high-quality program.
- Our budget was developed to ensure that all interested student teams would have an opportunity to compete and be recognized for their efforts. We are asking your organization to contribute a portion of the budget, either cash or in-kind, to demonstrate support for the Future City program.
- All moneys collected will be used for the Washington State Competition. Administration of funds will be in accordance with IEEE policies and procedures. In the United States, the IEEE is an organization qualified under Internal Revenue Code 501c3 and donors are eligible to make tax-deductible contributions as provided in section 170 of the Internal Revenue Code. The tax ID number for the IEEE is 13-1656633. Checks should be made out to the Washington State Future City Competition.

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FOR ADDITIONAL INFORMATION ABOUT THE WASHINGTON STATE REGIONAL COMPETITION, CONTACT:

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