



Environmental Challenge International (ECi) Student Competition

PROTOCOL

General Description

The Air & Waste Management Association's (A&WMA's) Environmental Challenge international (ECi) program is a student team competition to prepare and present an optimal solution to a complex "true-to-life" environmental problem. The problem presented will be of current value, representative of the location of the event, and require multi-disciplinary approaches for success. The Challenge seeks not only technical and scientific analyses, but solutions that are presented in conjunction with the development of appropriate regulatory approaches and resolution of political and community issues.

The goals of the ECi are to:

- Involve students in A&WMA's Annual Conference and Exhibition (ACE)
- Provide experience in solving complex environmental situations in a fun and supportive atmosphere
- Provide students with an opportunity to display their talents
- Be a premier networking event for students to connect with internship and job opportunities

The ECi is designed to promote formation of student teams with the broadest feasible range of environmental disciplines including engineering, planning, policy, economics, and various other sciences. The problem will be relevant to the conference location and current events. Teams must research the problem background, as well as the technical, social, economic, and political aspects of the situation. Teams must stay apprised of ongoing events related to the problem adjusting their solutions appropriately leading up to and during the conference.

Although winning solutions to the proposed problem must have sound engineering and technical bases, the solution does not require a full engineering design presentation. Similarly, all problems pose economic and political issues that must be addressed. Solutions are expected to provide reasonable resolutions applying basic engineering and scientific knowledge to research scenarios and critical questions.

Student teams should start to form following the posting of the problem. Just as corporations and other organizations pull together teams from their staff to most effectively address any given project, so too should each student team begin by identifying and recruiting representatives from appropriate disciplines as needed to address the problem holistically. Schools may wish to consider combining students to make balanced teams and are encouraged to do so.

Student teams must register for the ECi by emailing Pete Catizone (pcatizone@woodardcurran.com). The email should be sent by one team member and have the subject “A&WMA: ACE 2018 – ECi Registration.”

In the body of the email, you should include 1.) your team name, 2.) the academic institution your team represents, and 3.) the name and email of each team member.

Please note: Each team member must also register for ACE attendance in addition to registering for the ECi. Early registration ends (i.e. save money) May 23, 2018.

Register online at www.awma.org/ace2018.

Once teams reach the conference, preparation that includes broad background knowledge of the challenge topic will be the key to a successful competition. Role players in the ECi problem will be identified and available for students to approach with questions and to consult for opinions. The role players are A&WMA conference attendees and professionals in the environmental field. Student teams who may need additional technical support with defending their project should approach conference attendees and exhibitors to identify additional individuals with expertise that is germane to the ECi problem. The conference is a premier networking opportunity and the ECi problem provides an excellent topic for discussion and networking. The role players provide a key interaction for the ECi participants as direct feedback on their solutions, asking questions to prepare the students for the project presentations, and enhancing the student networking experience at ACE. The role players are also critically involved in the project “tweak” – a last minute added complication to the problem - that further tests the students’ knowledge of the challenge topic.

ECi COMPETITION PREPARATION

Eligibility

Student teams may not contain more than 5 members and are generally comprised of 3 to 5 undergraduate students, graduate students, Ph.D. candidates, or recent graduates, or a combination thereof. Multiple schools may wish to consider combining students to create balanced teams and are encouraged to do so.

A student is defined as an individual who is enrolled in an academic institution or a recent graduate of no more than one year and who does not hold a full time job.

Expectations for proposed problem solutions

Solid technical analysis, logic train, process, conceptualizations, and creativity are all critically important to the proposal and presentation composition. Clear and concise presentation of your thoughts in a public forum is paramount to success. Your team will need to make reasonable assumptions as part of the solution. The assumptions must pass the “straight-face” test. This is (almost) the real world! The proposal must identify each team member by name and the role they will have in the presentation (e.g., “Sally Smith” is the lead project engineer and will address waste issues, “Jim Jones” is the city planner; include the disciplines that you think you need).

Written Proposal

Each team must submit, via email to **Pete Catizone (pcatizone@woodardcurran.com)**, a written proposal in advance of ACE 2018 that addresses the problem. **The proposal must be received by 5:00 p.m. EST on May 30, 2018.** The written proposal should provide an outline of the approach that your team is going to take, the issues that you will be discussing, include the names and roles of each team member, and *shall not* exceed 3 pages.

The written proposal will contain a *cover page* with the team name, name of academic institution that the team represents, each team member's name and email address. The cover page is not counted as part of the proposal's 3-page limit. Additionally, references and appendices may be included but make sure these are clearly identified as such. If included, these are not counted in the proposal's 3-page limit and **please keep in mind the judges will only be scoring based on the 3-page proposal.**

The written proposal should be 1.5-spaced, 12 point Times New Roman, with 1" margins.

The Tweak

No matter how much you research and preparation you conduct, unexpected events and changing expectations can and do occur in real life. To this end, you should expect (available on or about **June 20, 2018** on the A&WMA ACE website) some late breaking information that might alter your approach to the solution. The problem and the tweak will require that you find and talk to "experts" and attend technical sessions, during the conference, for answers and important information.

Role Players

During the conference you will be required to speak with role players involved with the problem. These role players will be project proponent(s), regulators, politicians, activists, and other expected or unexpected individuals critical to creating a solution to the problem. Role players will offer insight and clarify any additional questions each team may have in relation to the problem. During the ECi orientation, role players will be introduced and their availability/locations will be made known. Role players will also be judging your interactions with them.

When meeting with role players please use professionalism during all business meetings and technical and plenary sessions and have fun while remembering your environment. While these role players are critical, so are the technical sessions and exhibitors that are related to the problem.

Poster Presentation

Each team must prepare and bring a poster presentation of the proposal to ACE.

ECi POSTER GUIDELINES (based on A&WMA poster guidelines)

The *entire team* must be present for the poster presentation at the A&WMA Annual Conference.

Each ECi team will be assigned one side of a 4-foot-high-by-8-foot-wide poster easel in the Exhibit Hall. The poster number will be assigned at arrival and dictate each team's location. The easel is composed of a soft material that allows easy mounting with pushpins.

Your poster must include title, university represented, and the full team listing. Figures, graphs, and tables should be uncluttered and simple and arranged in the sequence in which you want them to be viewed.

Team members should prepare a brief "elevator speech" to be given during the judging period. Judges will only be at your poster for 2-3 minutes. The poster presentation should summarize important assumptions and conclusions and clearly articulate proposed solutions to the challenge problem. A limited number of copies of the written proposal should be available for distribution to interested individuals. Additionally, creativity is critical; hand-outs and other exhibits may be used to further advertise your poster.

ECi teams are required to attend the Student Welcome Reception/ECi Orientation meeting on Tuesday, June 26, 2018 from 11:30 p.m. to 12:00 p.m., immediately following the Student Welcome Reception. The location of this event will be available within the conference program. The event will review the ECi problem and procedures, introduce role players, and answer general ECi presentation questions.

Poster setup is on Monday, June 25, 2018 beginning at 2:00 p.m. and should be completed by 4:30 p.m., with the area clean and ready for viewing. Tear down of the ECi posters takes place on Wednesday, June 27, 2018 from 4:00p.m.- 6:00p.m.

Judging and interaction with the role players will take place Tuesday June 26, 2018 from 2:30 p.m. to 5:30 p.m. The combined scores from the written proposal, poster, and role player interaction will be tallied and the top scoring teams will progress to the final phase of the competition and Wednesday's Final Presentation. The names of the teams moving forward will be posted in the Poster Session area.

THE FINAL PRESENTATION

Depending on the number of teams entered into the ECi, only a limited number of teams may be chosen for the final presentation.

For the final presentation, teams must demonstrate their understanding of the issues in the written proposal and poster presentations and address the tweak. Sustainable approaches for these and other site issues are of great interest to the project owner(s).

The winning team presentation will be strong in approach, logic, clarity, application, and creativity.

Each of the teams will present their problem solution on Wednesday, June 27, 2018 from 1:00 p.m. - 3:30 p.m. during the technical session program that day. Presentation order will be chosen randomly. A computer and projector will be provided for the presentation. Presentations

are required to be prepared using Microsoft PowerPoint and teams must use the room computer. Please bring your presentation on a data stick / USB thumb drive in order to be transferred to the room's computer. You should plan for **no more than a 15-minute presentation** followed by 5 minutes of questions and answers.

Judging

Dependent on the number of teams entered into the ECi, only a limited number of teams may be chosen for the final presentation. The combined scores from the written proposal, poster, and role player interaction will be tallied and the top scoring teams will progress to the final phase of the competition. The number of teams selected for final presentation will be dependent on the allotted time for presentations (up to 8 teams may advance to the final presentation).

Overall ECi winners will be announced at the Student Awards Ceremony and Reception on Wednesday, June 27, 2018 from 5:00 p.m. to 6:00 p.m.

*ECi Competition Prize denominations are subject to sponsorship level and may change prior the event. ECi Prize amounts will be determined closer to the ACE 2018 conference.

ECi TIMELINE

DATE	TIME	EVENT
May 30, 2018		ECi Proposal Due to Pete Catizone
June 1, 2018		ECi Proposals Sent to Judges
June 20, 2018		ECi Tweak posted on ACE website
June 25-28, 2018		A&WMA Annual Conference & Exhibition Commences
June 25, 2018	2:00 p.m. – 4:30 p.m.	ECi Poster Set-up
June 26, 2018	11:30 a.m. – 12:00 p.m.	Welcome Reception
	12:00 p.m. – 1:00 p.m.	ECi Orientation
	2:30 p.m. – 5:30 p.m.	ECi Poster Presentations
June 26, 2018	2:30 p.m. – 5:30 p.m.	ECi Role Player Interviews
June 27, 2018	1:00 p.m. – 3:30 p.m.	ECi Presentations
	4:00 p.m. – 6:00 p.m.	Poster Tear Down
	5:00 p.m. – 6:00 p.m.	Student Awards Ceremony and Reception

Questions should be directed to: **Pete Catizone (pcatizone@woodardcurran.com)**.