



ESW
BIOFUELS

Newsletter
Spring 2017



Engineers for a Sustainable World



Develop Promote Innovate Cooperate

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ESW Biofuels

New Members & Election Results

This semester has been a great one for ESW Biofuels. The team has gained 2 new family members. Gabby and Rahul will be working with us as members of the Research and Development team. Moreover, we won Most Outstanding Chapter at the National ESW Conference at University of Texas Austin! The team as a whole is honored and we hope to keep up the good work.

On that note, to get ready for the next school year, the team elected new leaders: Congratulations to Team Lead Jared Hibshman, Research and Development Sub-team Lead Michael Xiao, Business and Outreach Sub-team Lead Joanna Davis, and the Bio-energy Implementation Sub-team lead Connie Li. We are all excited for what the new year and new leadership will bring. Now, lets dive into more detail on what the specific teams did this semester.





Research & Development

Algal Scrubber

The Research and Development team finished up the collaboration with the Business team and went straight to Algae. The main goal was to develop a carbon emission scrubber, which would have algae grow on rooftops with the carbon dioxide and sunlight as sources of energy. They are currently in the stage of growing the algae in controlled conditions.

Heat Pumps

While pursuing the algae project on one hand, they have also started to look into heat pumps and ways to utilize them at the Ithaca Area Waste Water Treatment Facility. Some of the members made a trip to the Treatment Facility to check the feasibility of the project.





Bioenergy Implementation

Bio-CNG Feasibility Study

The Bioenergy Implementation team finished their Bio-CNG report which talks about the feasibility of compressed natural gas as the main source of fuel for TCAT buses. The results were unfortunately negative, but now that they know, they moved on to collaborating with the research and development team on the heat pump project.

Geothermal Energy at Cornell

Moreover, they looked into the feasibility of a geothermal heating system for the Cornell Campus that is may be a possibility in the years to come.





Business & Outreach

Sciencenter Presentations & FOG Collection Station

The Business and Outreach Team continued the collaboration with the Research and Development Team on the renewable energy demonstrations. The collaboration was a success, and the team was able to use them at the Sciencenter, where they presented about Climate change. The presentation included not only the Biofuels team, but also the Piezoelectricity team of ESW HPEG. They had a great response from the audience, and a wonderful experience as a whole, collaborating with the Research and Piezoelectricity Team. The Business Team look forward to more collaboration projects that will bring the team closer together.

And not to forget, the business team followed up with the Tompkins County Recycling and Materials Management and found out that the FOG station they put up has been closed for the winter. They sent in recommendations to solve the issue, and are waiting to see what would happen with it next winter.

