

Internship or Master's Project Opportunities
Tompkins County Energy Road Map Project Assistants
Academic Year - Beginning Fall Semester 2012

The Tompkins County Planning Department is seeking two highly motivated students to investigate, compile and analyze data to create a more detailed understanding of renewable energy resources in the County. One intern will focus on quantifying the potential for geothermal deployment in the County and another intern will focus on quantifying the potential for biomass utilization.

Each intern is expected to commence work in the fall of 2012 and work through the academic year. Interns will meet with/present to stakeholders at several points during the development of the report so as to incorporate local "expert" input into the work. Each internship comes with a \$1,000 stipend to allow students to present their findings at academic conferences or further the student's own research pursuits. Each student is required to engage a professor willing to supervise his or her work.

The two positions will perform work necessary to advance the Tompkins Energy Road Map, one of the ten new local measures identified in the Tompkins County 2020 Energy Strategy as critical for the community to undertake to achieve its greenhouse gas emissions reductions goals of an 80% reduction by 2050. An Energy Road Map will create an integrated approach to assessing the energy demand and supply for all sectors in the County today and in the future under the development framework and the objectives established in the County Comprehensive Plan. For more information on the County's energy and greenhouse gas emissions activities, and the output of last year's Energy Road Map Interns, please see the Tompkins County Planning Department's website at <http://www.tompkins-co.org/planning/>

Specific work objectives of the internships are to conduct the research and analysis necessary to produce highly-readable reports that include:

- Introduction to the geothermal or biomass resource and how it could be used to produce energy
- Details of what the geothermal or biomass resource looks like in Tompkins County, portrayed geographically, if possible
- Opportunities and challenges facing deployment of geothermal or biomass in the County
- Quantification of resource energy production potential in Tompkins County, broken down by residential, commercial and industrial sectors, if possible
- Total annual energy production potential of the geothermal or biomass resource in the County.

Eligible candidates for these two positions are anticipated to be pursuing Masters or PhD degrees in engineering, city and regional planning, environmental science, natural resource conservation, business administration or other pertinent fields, with a focus on energy systems.

It is envisioned that the two documents resulting from this work would help form the backbone for the next step in the preparation of the Energy Road Map – the development and analysis of scenarios for the future energy demand and supply structures which fulfill the goals for an efficient energy future. Once those scenarios are available, the County Planning Department intends to facilitate community discussions to select a preferred energy demand and supply scenario to guide energy-related decisions in the future, as well as identify specific actions the community would need to take to make the preferred scenario a reality.

Employer Information

Tompkins County Planning Department
121 East Court Street
Ithaca, NY 14850

Employer Contact Information

Katherine Borgella, Principal Planner, 607-274-5560, kborgella@tompkins-co.org

Job Posting Information

Location:	Ithaca/Tompkins County
Worksite:	Prefer student to work remotely, however space may be available at Planning Dept
Term of Work:	Academic year 2012-2013
Start Date:	September, 2012
End Date:	May, 2013
Special Requirements:	Students are required to have a supervising professor
Work Schedule:	It is anticipated that the students will work 5-10 hours per week
Pay:	The positions are not paid, but there is a \$1,000 stipend
No. of Positions Available:	2
Posting Activation Date:	August 8, 2012
Posting Expiration Date:	December 31, 2012
Career Fields:	Urban/Regional Planning; Engineering; Environment and Conservation; Business
Job Title:	Energy Road Map Project Assistant

Job Descriptions:

The Geothermal Energy Position will investigate, compile and analyze data to create a more detailed understanding of geothermal energy resources in the County. Specific work objectives of the position are to conduct the research and analysis necessary to produce a highly-readable report that includes:

- Introduction to the geothermal resource and how it could be used to produce energy
- Details of what the geothermal resource looks like in Tompkins County, portrayed geographically, if possible
- Opportunities and challenges facing deployment of geothermal in the County
- Quantified geothermal energy production potential in Tompkins County, broken down by residential, commercial and industrial sectors, if possible
- Total annual energy production potential of the geothermal resource in the County.

The Biomass Energy Position will investigate, compile and analyze data to create a more detailed understanding of biomass energy resources in the County. Specific work objectives of the position are to conduct the research and analysis necessary to produce a highly-readable report that includes:

- Introduction to the biomass resource and how it could be used to produce energy, primarily thermal energy in the residential and commercial sectors, as well as utilization in firing or co-firing district energy systems
- Details of what the biomass resource looks like in Tompkins County, portrayed geographically, if possible
- Opportunities and challenges facing deployment of biomass in the County
- Quantified biomass energy production potential in Tompkins County, broken down by residential, commercial and industrial sectors, if possible
- Total annual energy production potential of the biomass resource in the County.