Master Thesis: Method for assessing GHG impact of climate measures taken by municipalities

Do you want to take part in developing a sustainable future in collaboration with experienced researchers in a professional and friendly environment? We at CIT Renergy are looking for ambitious and driven students who are interested in sustainable development and efficient use of energy and resources.

Background

Municipalities have an important role for contributing to fulfilment of national climate targets and combatting climate change. They affect their own activities, but also influence the people living in the municipality. Municipalities' activities span over wide areas, and there is a need to understand the activities' global impact in terms of CO_2 abatement. This thesis work aims at testing and comparing methodologies and data sources, including life cycle analysis data, for evaluating different types of climate mitigation measures (in relation to a specific case study) and to develop a tool that can be used to facilitate such evaluations.

Scope

The master thesis will be further developed together with the students and the Chalmers research department. In preliminary terms it will include:

- Understanding of the principles for evaluation of the global effects from climate measures, according to existing evaluation frameworks such as the GHG protocol,
- Developing the scope of the study,
- Testing and comparing methodologies for evaluation of climate measures on a set of specific measures taken in a municipality (case study), based on existing evaluation frameworks and previous analyses,
- Development of a tool that can be used to further facilitate high-quality evaluation of the impact of climate measures taken by municipalities.
- Interpretation of the results, including identification of uncertainties and methodological challenges
- Presenting the findings to internal and possibly external audiences

Your contribution

We are looking for two students with a good understanding of environmental systems analyses and a strong interest in environmental sustainability. The thesis is primarily suitable for students in the MSc programmes *Sustainable Energy Systems* or *Industrial Ecology* Since the work will require contacts with Swedish municipalities, good knowledge of Swedish is an advantage.

Want to contribute to a sustainable future? Apply here!

The thesis work will be supervised by CIT Renergy, together with researchers at Environmental Systems Analysis, Chalmers (Maria Ljunggren). To apply for the thesis work please send us your CV and a short introduction letter (100-200 words) to ingrid.nystrom@chalmersindustriteknik.se. If you have any further questions, don't hesitate to reach out to us!

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Org.nr 556329-1342