THE CENTER FOR
CLIMATE STRATEGIES

Proposal for Training & Technical Support Services

To: Jennifer Winter, Sustainability Coordinator, University of South Florida St. Petersburg

From: Stephen Roe, Center for Climate Strategies, Inc.

Re: Proposal for Training & Technical Support on Greenhouse Gas Baseline and Climate Action Plan Development

Date: October 13, 2014 (revised cost estimate October 29, 2014)

In this proposal, the Center for Climate Strategies (CCS) outlines an approach, schedule and budget to assist the University of South Florida St. Petersburg (USFSP) in development of a greenhouse gas (GHG) inventory and forecast (baseline) and Climate Action Plan (CAP) in association with the American College & University Presidents' Climate Commitment (ACUPCC). Specifically, this proposal outlines training and technical support tasks to develop a GHG baseline for submission to the ACUPCC by schedule indicated below.

This proposal updates CCS' August 29, 2014 proposal that covered just the support for GHG baseline development. In addition to covering CAP development (scope of work from USFSP attached), our cost proposal has been updated to reflect a higher level of initially expected technical support due to the tight timelines for delivery of both the baseline and CAP. If USFSP is successful in obtaining a 4-month extension from ACUPCC and could then offer greater levels of in-kind support from USFSP staff and students, then CCS is open to adjusting the attached cost proposal accordingly.

CCS Overview

As the nation's premiere catalyst for subnational climate action planning and analysis, CCS combines expertise in facilitation, technical analysis, policy design, implementation, and financing through public-private partnerships and advanced collaborative systems. CCS' USA Program empowers state and local governments, private and public enterprises, and other stakeholders to implement climate action without waiting for the federal government. CCS forms public-private partnerships with subnational leaders to implement comprehensive, multi-objective, planning and policy development processes that build consensus among government and stakeholders. CCS works closely with allies to bring state and local leaders forward and maintain continued project support. CCS's International Program uses this same approach to help countries find win-win approaches with citizens at the state, provincial, and local levels.

CCS History

Since 2004, CCS has worked with over 40 US states and territories, the Border States of Mexico, Chinese provinces, dozens of government officials, and over 2,000 stakeholders through high level, high visibility projects to address complex issues and opportunities related to climate

change. CCS is headquartered in Washington, DC with field experts across the US. CCS' lead for this project will be Mr. Stephen Roe, who works out of his home office in Celebration, FL.

CCS Team members have extensive qualifications in environmental science, public policy, economics, management, business, law, education, communications, and finance. Analysts have extensive experience in GHG inventory development and verification at the facility-, municipal-, regional-, state-, and national levels. This experience covers all GHG sources, as well as carbon sinks. Resumes of key staff selected for this project are provided along with this proposal.

Approach

The approach is broken down into the 3 tasks detailed below. The next section provides a schedule for the project.

- ***Task 1: Initial Training Workshop & Project Scoping***. CCS' Technical Program Manager will meet with USFSP staff to review GHG accounting procedures, coverage of sources, and relevant inventory protocols. USFSP staff will be asked to present available information on campus operations and likely GHG sources, as well as their thoughts on the goals and uses for the GHG baseline. For example, will the information only be used to meet the expectations of the ACUPCC program, or are there other uses for the data within the broader campus sustainability program? We envision this as a half-day workshop in which half of the time will be devoted to CCS presentation of relevant background material on GHG inventory and forecast development and the other half devoted to scoping out the coverage and uses of the data, management system, and roles/responsibilities of USFSP and CCS staff. CCS will need to gain an understanding of what staffing will be provided by USFSP to the project, their background, and their availability.

  The scoping issues to be addressed include:

  1. *Coverage of gases*: we would expect the seven covered by the International Panel on Climate Change (IPCC)[1], but other climate forcing pollutants, such as black carbon, will be introduced.
  2. *Coverage of sources*: we would expect stationary and mobile fuel combustion sources, indirect emissions from electricity consumption, use of refrigerants, fertilizer application, and indirect emissions from solid waste management. Mobile sources should include both campus fleet vehicles and staff and student commuting. There are additional direct and indirect sources that could also be considered, such as water consumption, wastewater generation, and employee business travel. We will also address the merits of including an accounting of the upstream emissions associated with fuels and materials use.
     The coverage and accounting of sources should receive detailed consideration by Team members. CCS will help USFSP understand the potential ramifications of these selections. As an example, in the main USF campus accounting of solid waste management, the waste is combusted for energy recovery. This management approach led the developers to conclude that a net GHG benefit

[1] Carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), sulfur hexafluoride (SF_6), perfluorocarbons (PFCs), and nitrogen trifluoride (NF_3).

was derived from generating and combusting this waste. This could lead to perverse conclusions that generating solid waste actually has overall GHG benefits; whereas a complete accounting of emissions (including upstream GHG emissions inherent within the waste materials) would correct these conclusions.

3. *Years of coverage*: some inventory efforts will focus on a recent year that may serve as a "base year" for the subsequent action plan. Others attempt to construct a history to cover a number of years that would indicate trends in energy and emissions and associated intensities (e.g. emissions/unit activity; which for universities, activity could refer to full-time student equivalents). For this initial effort by USFSP, we suggest a focus on a recent historical year for which a full calendar year of data is available (e.g. 2013). Where possible, we also suggest including historical data from the previous five years in order to assess trends. The forecast period should be based on available plans for future USFSP operations and expansion. CCS recommends a minimum of 20 years; however, we have noted some universities that are using 2050 as a future targeting year for reaching major goals (e.g. carbon neutrality).
4. *Data management system*: there are options here that need to be informed by the sources of inventory data and existing systems used by USFSP. That said, there are many advantages to using a linked spreadsheet based system for managing data and developing the inventory. These include ease of use by the likely variety of USFSP staff and students that could be involved in its development and continued use, flexibility in handling the variety of data types inherent in GHG inventories, transparency for internal and external reviewers, and flexibility for updating (both input data and inventory methods). CCS has existing MS Excel-based tools that would serve as useful starting points for this project.
5. *Project schedule*: we have provided a suggested schedule in the next section; but this will be updated following the workshop.
6. *Roles and responsibilities*: the Team will need to establish clear roles and responsibilities for each staff member. CCS' understanding is that this project will be conducted as a "learning by doing" exercise. In this approach, USFSP Team members will receive training, tools, methods development, and ongoing guidance from CCS, but will do the work on data gathering/entry, evaluation of results (with CCS oversight), and documentation.

In addition to scoping all of the relevant baseline issues, the initial workshop will also explore the likely contributions from significant source sectors (e.g. building energy consumption, campus commuting, waste management) based on work done by other colleges/universities (including specifics, like boundary conditions, on how these emissions were quantified). Implications for the CAP will be addressed, including possible mitigation actions specific to each source, and the availability of USFSP data to assess different mitigation options (e.g. previous assessments of campus building energy consumption, renewable generation, etc.). As part of this initial scoping meeting, CCS would also like to have USFSP staff provide a detailed tour of campus facilities and the relevant data management systems (e.g. covering energy consumption and purchases).

The results of the discussions and selections by the Team for baseline coverage and data needs for CAP development will be documented in a Technical Memorandum jointly developed by CCS and USFSP. The text in the memorandum will also serve as input to the baseline report developed under Task 3. At the conclusion of this task, USFSP team members will have received sufficient guidance from CCS to assist in the data gathering for use in Task 2.

- ***Task 2. GHG Inventory & Forecast (Baseline) Development***. Using spreadsheet-based tools and guidance from CCS, USFSP team members will develop an inventory and forecast based on the results of the project scoping task above. We suggest having in-person meetings to provide additional training, guidance and review, on at least a bi-monthly-basis. In-between, CCS suggests weekly meetings on progress and questions using webinars. We also recommend using a web-based file sharing system, such as the Central Desktop system that CCS uses and can provide to this project, or a similar system in use by USFSP.

  CCS will work with USFSP staff to develop an outline for the GHG Baseline Report that will be structured to clearly communicate the overall results to technical and non-technical audiences, while including sufficient detail to inform next steps in action planning. The inventory tools used in Task 2 will include summary tables and charts useful for inclusion in the final report. The report will be drafted by both CCS and USFSP staff/students with the required back-stopping by CCS to assure that the report is completed and delivered on time.

- ***Task 3. Climate Action Plan.*** CCS will cover the additional scope of work to develop a Climate Action Plan based on the results of Task 2 and information gathered on mitigation opportunities for USFSP during Task 1 and subsequent research and survey work conducted by CCS under this task. Through the ongoing meetings and webinars, CCS will communicate relevant mitigation options for each source sector (e.g. building energy consumption, transportation, waste management, etc.), including the potential for emissions reduction. CCS and USFSP staff/students will then prioritize a set of options for inclusion in the initial CAP and for more detailed assessment of GHG reductions toward the overall carbon neutrality goal.

  In order to meet a January 2015 deadline for this task, CCS will need to take the lead in conducting the survey work to gather information required to assess the GHG mitigation potential of each prioritized action to be analyzed (Much of this will be done through direct meetings and teleconferences with USFSP Facilities, purchasing, and other relevant staff). However, we do intend to involve the relevant USFSP staff/students to assist in data gathering and analysis.

  CCS will address all of the CAP requirements cited by USFSP in the attached SOW. The CAP report itself will be structured to communicate results to both non-technical readers (within an Executive Summary) and technical readers (more detailed chapters and appendices). Using the USF Tampa CAP for comparison, we note the following issues for improvement in this project:

- ***Baseline communication:*** there is no description of the BAU forecast for the campus; it appears as though GHG reductions are simply being measured off of a 2007 inventory, rather than a complete forecast of emissions out to 2050 (or beyond);
- ***Impact of mitigation actions:*** details are lacking about the amount of emissions reduction that can be attributed to specific actions during specific years of the planning period; rather it seems that rough estimates were made at a fairly high level of the amount of emissions reduction that could be attributed to a given action at some future year (e.g. 2050), and then the reductions just applied in a linear fashion toward that reduction. No details (calculations) were shown to indicate how the future reductions were being achieved. CCS will work with USFSP to bring a greater level of detail and transparency to how the GHG reductions are quantified and communicated.

Schedule

Table 1 below provides a suggested schedule for the project. This can be updated following the Scoping Workshop under Task 1. As mentioned above, CCS recommends that USFSP apply for the four month extension from ACUPCC. The extra time is warranted to assure the level of comprehensiveness and quality desired by USFSP for both the baseline and CAP. The dates indicate the expected elapsed time from the date that CCS signs the contract or receives a purchase order (PO) from USFSP. CCS will provide a contract signature or a review and acceptance of a PO within one week of receipt from USFSP.

Project Schedule

Task	Deliverable/Milestone	Responsibility	Dates (from contract signing)
1	• Training and Project Scoping Workshop • Memo Documenting Baseline Coverage & CAP Data Availability	• CCS & USFSP • CCS & USFSP	• 1 week • 3 weeks
2	• MS Excel Workbook for Baseline Development • Bi-Monthly In-Person Meetings • Weekly Webinars • Populated Inventory Data Spreadsheets • Populated Forecast Data Spreadsheets • Quality Assurance Review of Completed Baseline Workbook • Detailed Outline of Baseline Report • Complete Baseline Report	• CCS • CCS & USFSP • CCS & USFSP • CCS & USFSP • CCS & USFSP • CCS • CCS & USFSP • CCS & USFSP	• 4 weeks • Bi-Monthly: TBD • Weekly: TBD • 10 weeks • 12 weeks • 13 weeks • 13 weeks • 14 weeks
3	• Prioritized List of Mitigation Actions • Assessment of GHG Reductions Toward Carbon Neutrality Target • Complete Climate Action Plan	• CCS & USFSP • CCS & USFSP • CCS & USFSP	• 15 weeks • 19 weeks • 20 weeks

Proposed Staff & Qualifications

CCS is a non-profit organization founded in 2004 focused on assisting national and subnational governments, and other private and public clients address climate change and adapt to its

effects. Mr. Stephen Roe, the Technical Program Manager of CCS will act as the primary point of contact for this project. He works from his home office in Celebration, FL. His experience includes 25 years of experience in the development of facility-level, municipal, state/provincial and national inventories of GHGs and air pollutants. He also develops inventory tools and provides training to government and private clients in GHG inventory and forecast development, policy development, and economic analysis. Current work is ongoing for the States of MN, Baja California and Coahuila, Mexico; Puerto Rico; and municipalities and provinces in China. While with TranSystems/Pechan, he managed that firm's climate change services group including inventory development, GHG management and verification services. He led verification efforts there for over 25 clients, including members of the California Climate Action Registry/The Climate Registry, the Climate Action Reserve, and facilities subject to the California Mandatory Reporting Rule. This included reporting by the City of Sacramento, the University of California, Los Angeles, several power plants, water/wastewater facilities, landfills, and commercial businesses. Mr. Roe and other CCS staff also recently complete work as a subcontractor team on a GHG inventory for the Southern Jersey Transportation Planning Organization (4 southern counties of NJ). This project followed the completion of a GHG inventory and forecast for the Northern Jersey Transportation Planning Organization (6 northern counties of NJ), which he managed. Mr. Roe led CCS' efforts on a recent project in the Philippines to verify GHG inventories prepared by six municipalities, which will serve as input to local climate action planning in that country. He also led a third-party validation/verification for the Province of Ontario's Climate Change Secretariat for two years that covered their forecasted GHG emissions and estimated reductions for 14 climate action plan policies.

CCS' President, Tom Peterson, will act as the senior internal reviewer and contract manager for the project. Mr. Scott Williamson, Ms. Holly Lindquist and Ms. Loretta Bauer will all provide technical support. Mr. Williamson will focus on training and technical support for transportation sources; Ms. Bauer will focus on solid waste management practices; and Ms. Lindquist will focus on stationary energy consumption and carbon sequestration. Resumes for each of these staff are provided along with this proposal. Details on any of the projects mentioned in this proposal are available on request. With the addition of the CAP to the project scope and the compressed schedule, CCS also plans to add support from two of its experts in building energy use and energy efficiency: Dr. Hal Nelson and Dr. David Von Hippel. Much more information can be found on CCS' website at: http://www.climatestrategies.us/what-we-do-2.

Project Budget

The project budget is shown in the following table. As mentioned at the outset of the proposal, CCS' understanding is that the project will be structured as a "learning by doing" exercise. CCS will supply training, tools, guidance, and other needed technical support; while USFSP staff will perform the needed data gathering, data entry, and provide the technical contributions to the final GHG baseline report. The initial project scoping effort under Task 1 will be a key milestone to formalize the overall coverage and structure of the GHG baseline and to gain a clear understanding of the roles and responsibilities of each team member. CCS updated the original budget that covered only the Baseline scope to cover the CAP and has also assumed a greater level of technical support needed to USFSP due to a compressed schedule.

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Training & Technical Support to USFSP on GHG Baseline & CAP Development

29-Oct-14

Labor Category	Staff Name	Loaded Hourly Rate	Task 1 Training Workshop, Scoping, Campus Survey		Task 2 GHG Baseline Development & Report		Task 3 Climate Action Plan		Task 0 Project Management		Total	
			Hrs	Dollars	Hrs	Dollars	Hrs	Dollars	Hrs	Dollars	Hrs	Dollars
Sr. Reviewer/Project Mgr.	Tom Peterson	$ 173.50	-	$ -	2	$ 347.00	8	$ 1,388.00	4	$ 694.00	14	$ 2,429.00
Project Technical Manager	Steve Roe	$ 105.37	24	$ 2,528.88	38	$ 4,004.06	40	$ 4,214.80	-	$ -	102	$ 10,747.74
Jr. Technical Support	Loretta Bauer	$ 30.48	-	$ -	40	$ 1,219.20	48	$ 1,463.04	8	$ 243.84	96	$ 2,926.08
Sr. Technical Support	Scott Williamson	$ 52.30	-		20	$ 1,046.00	32	$ 1,673.60	-	$ -	52	$ 2,719.60
Intern	Yi Xi	$ 18.26	-		80	$ 1,460.80	80	$ 1,460.80	-	$ -	160	$ 2,921.60
Technical Support	Holly Lindquist	$ 49.68	-	$ -	48	$ 2,384.64	50	$ 2,484.00	-	$ -	98	$ 4,868.64
Subtotal Labor			**24**	**$ 2,528.88**	**228**	**$10,461.70**	**258**	**$ 12,684.24**	**12**	**$ 937.84**	**522**	**$ 26,612.66**
Other Direct Costs												
Subcontractors:												
Policy Consultants, LLC	Hal Nelson	$ 115.00	-	$ -	-	$ -	8	$ 920.00	-	$ -	8	$ 920.00
DVH Consulting	David Von Hippel	$ 115.00	-	$ -	-	$ -	10	$ 1,150.00	-	$ -	10	$ 1,150.00
Subtotal Subcontractors			**-**	**$ -**	**-**	**$ -**	**18**	**$ 2,070.00**	**-**	**$ -**	**18**	**$ 2,070.00**
Other ODCs										$ -		$ -
Travel				$ 100.57		$ 301.71		$ 201.14		$ -		$ 603.42
Subtotal ODCs				**$ 100.57**		**$ 301.71**		**$ 2,271.14**		**$ -**		**$ 2,673.42**
G&A on ODCs	27.0%			$ 27.13		$ 81.40		$ 612.75		$ -		$ 721.29
GRAND TOTAL			**24**	**$ 2,656.58**	**228**	**$10,844.81**	**276**	**$ 15,568.13**	**12**	**$ 937.84**	**540**	**$ 30,007.37**

Notes: Travel costs include in-person meetings.

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