



Action Initiative Information

Cluster:	Renewable Energy Seed Industry Cluster Working group		
Initiative #3:	Conduct Market-driven Renewable Energy Economic Modeling for Southeast Alaska, including Multiple Transmission and Energy Storage Strategies		
Goal:	This initiative will develop credible business cases for profitably harvesting diverse renewable energy (RE) resources in Southeast Alaska (SE AK) and delivering firm energy to markets in Southeast, and perhaps beyond. The RE may be delivered as electricity or via other transmission, storage, and delivery schemes. We need to help private enterprise understand the extant and future markets for all energy – not only for electricity – within and perhaps beyond SE, that might be served at competitive prices from SE AK RE resources.		
Champion:	Bill Leighty	wleighty@earthlink.net	907-586-1426
Team:	Zach Wilkinson	zwilkinson@jedc.org	
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Meeting Summaries

Date:	Attendees:	Outcome:
12/19/12	Bill Leighty Angel Drobnica Bob Deering Brian Holst Zach Wilkinson Nathan Soboleff Merrill Sanford Wendy Zirngible	Bill gave an update on the status of the initiative referencing the recent work that Brad Ewing has been performing and the overall project Brad is working on. Brad is working to develop a comprehensive documentation of the region's complete energy demand profile (all energy types). This data will be broken down by energy type and by community. The expectation is that this will be a useful tool and easily consumable. This project is to be completed prior to the summit and will hopefully be available at

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	Kirk Hardcastle Alec Mesdag Pierre Khalil Bob Loescher Larry Miles Duff Mitchel Dan Parrent Clarence Clark Dave Harris Deveny Plentovich Al Roskam Shaina Kilcoyne Al Brackly Renne Claggett	the summit. This is an effort that originated as a pro bono research/data gathering project by Brad. Due to the cross-cutting value of this information, JEDC contracted Brad to complete the project. Brad Ewing was not present for the meeting.
8/29/12	Bill Leighty Robert Venables Angel Drobnica Bart Watson Milt Barker Bob Deering Mike Goldstein Brian Holst Zach Wilkinson	Bill gave an update on the status of the initiative referencing the document that has been drafted by Gregg Erikson, and the ongoing effort to find funding for the initiative. Bart Watson suggested some potential places to solicit funding and offered to work with Bill on this effort going forward
8/21/12	Bill Leighty Brad Ewing Brian Holst Gregg Erickson Zach Wilkinson	Reviewed draft RFP written by Gregg Erickson and Bill Leighty and discussed possible funding ideas/possibilities with Brian. The group decided that, given the funding restrictions of the group and the primarily volunteer pro bono nature of the group, it might be best to break the effort into smaller pieces that can be accomplished with small amounts of money. Based on that conclusion, it was identified that an informational gap exists for a comprehensive report off energy demand in our region, including all types of energy consumed, broken down by energy type and by community. Brad determined that he had already completed a large portion of this work pro bono and would be interested in completing the task and producing a comprehensive report that would be in a form that could be useful to business, policy makers, and cluster working groups, etc. Brad said he would be able to complete this work for a relatively small some if we could find the funding. Brian offered to hire Brad on contract to complete this project, for delivery prior to our February Innovation Summit in

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		<p>the hopes that a final draft of this could be presented and or distributed at the summit.</p>
8/17/12	<p>Brad Ewing, Bill Leighty Gregg Erickson</p>	<p>Our Aug 17 meeting with Brad, Bill and Gregg was very useful. Brad has assembled much valuable data, while revealing what we still need to gather or process to thoroughly treat Action Initiative 3.</p> <p>Brad is willing to continue supporting this effort with a limited amount of his pro bono time.</p> <p>Gregg has drafted an RFP component for market supply side: "... the response of energy consumption to changes in energy prices".</p> <p>We need to reconsider who will support the RFP, should we complete and release it. Is USFS our "customer"? Will they "buy"? What do they want and need? How best to add value to their objectives in their "Tongass Transition" strategy?</p>
8/8/2012	<p>Brad Ewing Bill Leighty Zach Wilkinson Gregg Erickson,</p>	<p>Gregg and Bill met with Zach Wilkinson regarding AI-3 strategy. Gregg will proceed drafting description of effort he thinks we need on demand side, to explore price elasticity of demand, with substitution.</p> <p>Gregg and Bill would like to meet with Brad on Aug. 17 for a tour of Brad's inventory on the Google drive, which none of us has had success accessing. Then, agree on how each of us should proceed on Action Initiative 3 (AI-3) and prepare for a probable Aug. 21 meeting including Brad, Gregg, Bill, Brian Holst, Brandon Smith, Zach, and perhaps others to discuss the likely cost of the effort we're working to propose, and who's to pay for it: Gregg's estimate \$50-100K.</p> <p>Info from Brad: Future efforts should include (1) performing a detailed QA/QC and refine the model structure to improve usability, documentation, and detail, (2) collaborating with energy data experts to improve the detail and quality of the data, (3) increasing the frequency of data to show seasonal and daily fluctuations (e.g. RE potential, storage capacity, and demand), (4) disaggregating consumption type (e.g. residential, commercial, and government) for all communities, (5) determining a more effective way to obtain data directly from energy providers to reduce time spent requesting</p>

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		and then processing poorly delivered/structured data sets, especially for heating and transportation fuel data not included in the annual or bi-annual AEA data sets, ISER reports, DCRA fuel surveys, etc.; (6) documenting a complete list of sources and the frequency that each source should be updated, (7) expanding on the historical time series as well as projections, (8) highlighting and prioritizing the renewable energy opportunities that have the most sustained value for each community, (9) posting the model and report on a website after the funded portion of the project, (10) using the completed model and report as a template for researchers to follow in other southeast Alaska cluster working groups (e.g. Forest Products and Ocean Products), and an example to show potential funders, and (11) integrating the research from Forest Products CWG AI 6 (biomass to energy), Ocean Products CWG AI 7 (study the conversion of fish byproduct to biogas and fertilizer via anaerobic digestion), and Ocean Products CWG AI 8 (further develop renewable energy production). It is suggested that the RFP obtain funding for 3-6 months full-time equivalent to perform these tasks.
6/18/12	Brad Ewing Bill Leighty Eva Bornstein Zach Wilkinson Gregg Erickson Milt Barker	Discussed the status of the pro bono work Brad Ewing was doing to research and compile energy demand data for the region. Also heard a presentation from Bill Leighty about the initiative and generated interest from Gregg Erickson to discuss writing an RFP that could be used if funding was found to support the effort. Determined to meet again in early August.
3/19/12	Brad Ewing Bill Leighty Adrien Lopez	Discussed further research needs related to Action initiative #3; Distributed Bill Leighty's comments on draft IRP to the rest of the RE CWG members and informed group of final deadline to submit comments.
2/24/12	Bill Leighty Mike Goldstein Brad Ewing Scott Miller Larry Edwards Nancy Waterman Eva Bornstein Linda Snow	The group decided to move forward by dividing up the four components of the project. Brad will prepare a report on components one and two in the following order: 2 - RE resources survey and then 1 - Markets survey. Bill will contribute an evaluation of component 4 - Transmission and storage alternatives survey. Component 3 - Cash flow model will not be meaningful at a generic regional overview level. A better question is under what conditions and at what scale would a specific technology be profitable. For this, a scale up analysis is needed rather than a financial analysis. This was deferred until the report

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		<p>on components 1, 2, and 4 are complete.</p> <p>A meeting of the whole RE Cluster Working Group will be scheduled in May-June to hear a presentation on Brad's report. Date and time TBA.</p>
2/14/12	Brad Ewing Michael Goldstein Eva Bornstein	<p>Held meeting on 2/14 with Brad Ewing & Michael Goldstein (ACRC), and Eva Bornstein and Adrien Lopez (JEDC) to discuss the best way the Alaska Coastal Rainforest Center could fill a niche in relation to research and documentation of the Renewable Energy Cluster; specific discussion focused on Action Initiative #3.</p>
1/27/12	Zach Wilkinson Brian Holst Adrien Lopez Bill Leighty Kirk Hardcastle Duff Mitchell Greg Erickson Milt Barker Scott Miller Steve Colt	<p>Discussed next tasks involved in implementing action initiative during 2012, invited key players in SE Community to weigh in.</p>

Initiative Action Plan Update		
Activity 1:	Collaborate, now, to describe the Action Initiative and compose a credible RFP for the required work; release the RFP	Activity Date:
Activity 2:	Secure funding, select contractor(s), and proceed with 3-6 and 7 below	Activity Date: 11/1/2012
	Phase one of this activity is complete and underway	
Activity 3:	Inventory all energy markets: estimates of total energy used, by type, sector, and price, for the "internal" energy economies of SE	Activity Date:

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	communities, mines, and other demands	
	This is underway, and should be complete by February 2013.	2/11/2013
Activity 4:	Assess and inventory the diverse RE resources, by type, location, and total annual energy production potential	Activity Date:
	This will be phase two. Discussions are underway and appear positive to secure funding for this work.	
Activity 5:	Assuming RE transmission, storage, and utilization as electricity, cash flow modeling for a set of potentially-profitable cases; ranking cases by NPV, IRR, capital investment required, and risk	Activity Date:
	No work complete on this activity to date.	
Activity 6:	Assuming one or more alternatives to electricity for RE transmission, storage, and utilization, cash flow modeling for a set of potentially-profitable cases; ranking cases by NPV, IRR, capital investment required, and risk; describe the alternative(s) considered, technically and economically; consider whether these alternative(s) might facilitate RE export	Activity Date:
	No work complete on this activity to date.	
Activity 7:	Widely disseminate the results of 1-5, above, to private enterprise and other stakeholders, including as conference papers and presentations, to entice and shepherd any cluster industry interest.	Activity Date:
	No work complete on this activity to date.	
Activity 8:		Activity Date:
	No work complete on this activity to date.	

Other Informational Items