

Alaska Railbelt Electrical Grid Authority (REGA) Study Overview

Note to Advisory Group Members: The purpose of this document is to provide the following information regarding the REGA Study:

- Objectives and Scope
- Project Approach
- Schedule
- Deliverables

Objectives and Scope

The stated objectives of the study are to:

- Study the management, operation, access rules, ownership, integrated resource planning, and regulatory structures of the Railbelt electrical grid.
- Analyze and provide recommendations of possible alternative structures to manage and dispatch electric power in the Railbelt electrical grid.
- Provide a final work product for stakeholders and decision makers to consider in planning how to meet the Railbelt's energy needs over the next 30 years.

The following activities are to be completed as part of the project:

- Review existing reports and available grid data, and conduct interviews and discussions with utilities and stakeholders.
- Consider available system modeling, and provide any additional modeling considered necessary to provide a range of options supported by legal, regulatory, and economic analysis.
- Analyze a range of scenarios and develop recommendations on whether and how the Railbelt grid should be reconfigured to provide for a Railbelt Electricity Grid Authority (REGA).
- Assess whether a REGA can be implemented cooperatively by utilities or whether a separate business entity is required. This analysis will consider regulatory constraints, system reliability requirements and the ability of Railbelt utilities to accept and accommodate the REGA under their present business structures.
- Consider the existing power sales agreements between utilities, as well as the underlying fuel supply contracts.
- Consider, in the development of these scenarios, all aspects of grid operation including procurement, ownership, control, management, and operation and maintenance of grid assets over the planning horizon.

- Rank scenarios on the basis of a feasibility analysis, and suggest up to three potential paths for REGA implementation.
- Develop an implementation plan for the most feasible scenarios, including specific implementation actions to be taken by utilities and stakeholders.
- Include an implementation budget and schedule that includes all required utility, stakeholder, and government actions.
- Provide a final report and presentations to explain the report's conclusions, recommendations, scenarios, and implementation plans for feasible alternative scenarios.

The feasibility analysis shall:

- Consider a 30-year planning horizon.
- Include a range of available business structures that could be employed to implement joint dispatch and joint planning.
- Incorporate the range of available generation fuels.
- Be based on a cost-to-benefit approach where present values of costs to ratepayers are assessed for a base case of continuing present operating regimes of the Railbelt Utilities.
- Identify the necessary changes in the market structure of the Railbelt to implement the REGA.
- Consider the current regulatory regime under which utilities operate, including compliance with the Regulatory Commission of Alaska (RCA) statutes, consideration of the optional Federal Energy Regulatory Commission (FERC) rules under Order No. 888, and FERC Order No. 2000.
- Consider incremental changes in both regulatory regime and market structure, and the cost of implementing a REGA expressed in an annual pro forma budget format.
- Consider whether economic dispatch should be through a pooled arrangement or through a separate entity.
- Assess whether utilities should continue to do service area-specific integrated resource planning, or should there be a single, regional Integrated Resource Plan.
- Assess whether all Railbelt Utilities should be required to participate in and be bound by the regional integrated resource planning decisions.
- Analyze the relationship of the REGA to serving utilities.
- Assess whether investment decisions under a REGA should be subject to individual utility Board of Director's approval.

If a REGA is recommended with responsibilities for regional integrated resource planning, the selected consultant shall consider the following issues:

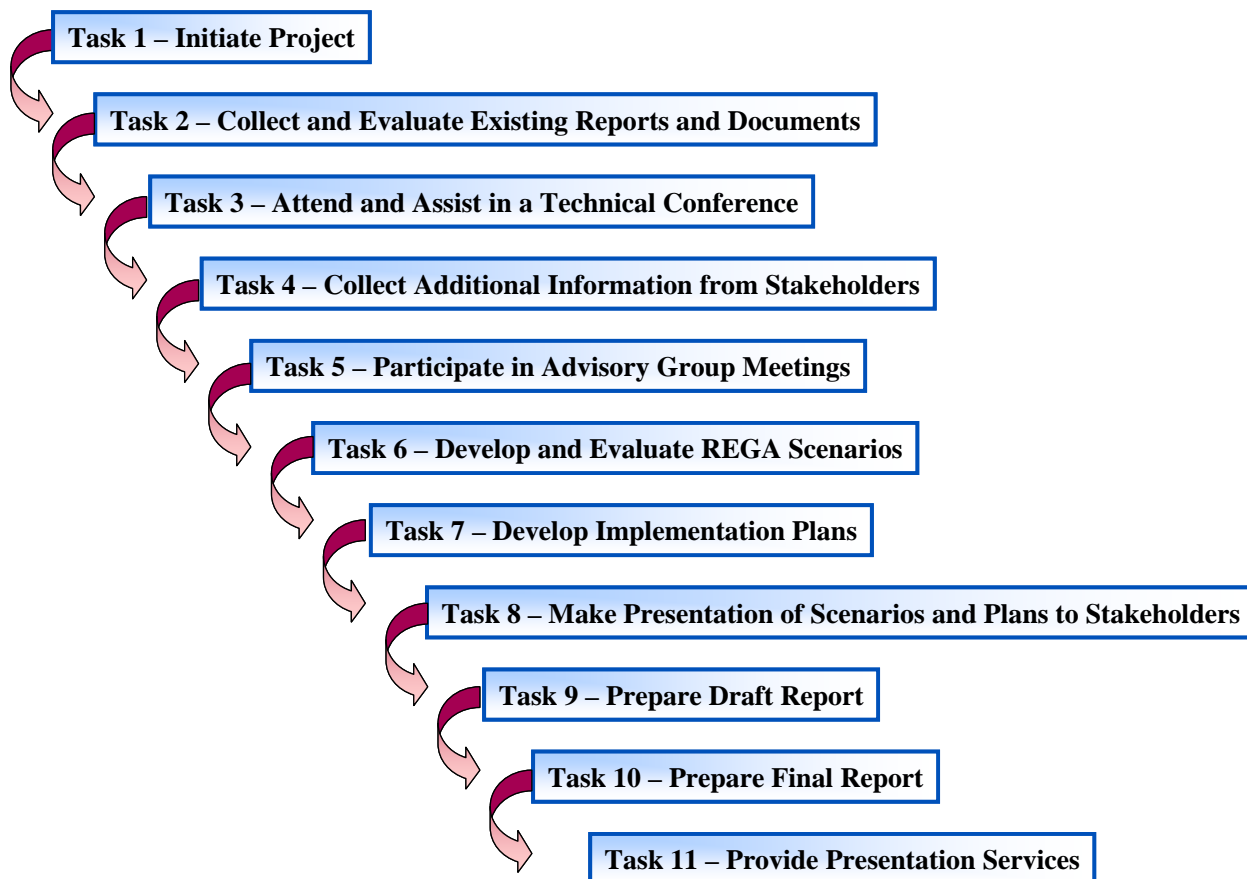
- Whether the entity should be regulated by the RCA.
- What role the RCA should play in the regional planning.
- Whether the regional plan should require RCA approval.

- Any state statutory and regulatory changes necessary for REGA implementation.

Other issues identified in the RFP that the selected consultant shall consider include:

- Should the REGA consider future sources of generation that could be provided by independent power producers (IPPs)? If so, what new system operating rules would be necessary to allow access to these power sources by utilities in need of future generation?
- Should open-access tariffs be required for all transmission lines in the Railbelt to allow IPPs to transmit power to customers?
- What effect does the availability of generation fuels have on the future functional needs of the Railbelt electrical grid?
- Changes in utility management responsibilities for procurement of additional generation under a REGA.

Approach



Task 1 – Initiate Study

This task is critical to ensure a quick and effective start to the project. B&V will engage key AEA management personnel in a general kick-off meeting. During this kick-off meeting and related discussions, we will:

- Confirm project objectives and deliverables.
- Discuss general strategic issues and considerations.
- Identify joint AEA/B&V team members.
- Discuss AEA management and staff involvement.
- Discuss procedures for interacting with stakeholders.
- Finalize project schedule.

Task 2 – Collect and Evaluate Existing Reports and Documents

B&V will develop a data request, and collect and review available resource material regarding Railbelt energy issues. This includes, but is not limited to, data, documents and reports that were listed in Attachment B of the RFP and other documents or data gathered from Black & Veatch's independent research. Based upon this information, we will develop a comprehensive description of the Railbelt grid to include all existing generation facilities and transmission lines, including physical characteristics, ownership and constraints of the Railbelt energy system.

Task 3 – Attend and Assist in a Technical Conference

B&V will work closely with AEA personnel to organize a technical conference in mid-November to bring experts and stakeholders together. The intent of this conference is to publicize the work to be done under this contract, inform stakeholders of the current status and condition of the Railbelt electrical grid, and to develop public awareness of the issues surrounding the Railbelt grid.

Black & Veatch will attend this conference, present our approach to completing the analysis and recommendations, and assist AEA in selecting potential presenters and modifications to the agenda as may be appropriate.

We understand that the proposed conference will be a two-day event in Anchorage, Alaska with up to eight technical sessions. As listed in the RFP, the proposed topics for this technical conference include:

- Session 1. The Railbelt as it now exists: What is there, and who owns and controls it?
- Session 2. Where are the current and future fuel supplies?
- Session 3. How does Alaska currently fund Railbelt energy infrastructure?
- Session 4. What is the status of potential generation projects for the Alaskan Railbelt?
- Session 5. What are the utilities' current plans with respect to mergers and coordinated development?
- Session 6. What are the Railbelt Utilities planning individually, and how do these plans fit together?

- Session 7. What is the current regulatory regime of the Railbelt and are there regulatory limitations to unified or independent operations?
- Session 8. Round Up: Roundtable discussions with facilitator. What actions are necessary to maintain and grow the Railbelt electrical grid?

Task 4 – Collect Additional Information From Stakeholders

In this task, B&V will collect additional information from Railbelt stakeholders regarding their plans and views towards implementation of a REGA. This data collection effort will be driven by a general informational request that will be sent to all stakeholders. B&V will also conduct interviews and use other sources of information, as necessary, to complete this data collection effort.

It is anticipated that much of the additional data can be gathered during the technical conference in Task 3. B&V understands that data will be gathered from and interviews will be conducted with approximately thirty (30) different stakeholder groups or individuals.

Task 5 – Participate in Advisory Group Meetings

Black & Veatch will participate in a minimum of five advisory work group meetings to brief the group on progress and collect data as may be required. Each meeting will be approximately four hours and will include the AEA Project Manager and a minimum of four experts or stakeholders represented at each meeting. Two of these meetings will be in Anchorage, one in Kenai, one in Palmer and one in Fairbanks.

Task 6 – Develop and Evaluate REGA Scenarios

Black & Veatch will develop and recommend up to three feasible REGA scenarios, complete with an assessment of the related costs and benefits, and collective and individual impacts on utility tariffs, for reasonable generation fuel supply configurations.

Our evaluation of these scenarios will include the following:

- Analysis of regulatory requirements and business structures.
- Analysis of possible REGA business structures, benefits and drawbacks to implementing each structure in the Railbelt, level of responsibility for Railbelt operations, and difficulty of implementation.
- Preliminary recommendation for a suitable REGA business structure, level of responsibility, implementation schedule, and preliminary cost/benefit analysis.
- Analysis of why previous REGA-type studies have not resulted in the formation of one effective and equitable REGA organization and make recommendations as to how the public and State can motivate the implementation of a REGA.

Task 7 – Develop Implementation Plans

Black & Veatch will develop an implementation plan for the most feasible REGA scenarios. The implementation plans will include:

- Narrative description of implementation tasks, and list and description of tasks and new agreements.
- Pro forma budget defining implementation costs.
- An implementation schedule organized by work activity.

Task 8 – Make Presentation of Scenarios and Plans to Stakeholders

We will prepare a Preliminary Draft Report in the form and format approved by the AEA for presentation to stakeholders. At a minimum, this Preliminary Draft Report will include our recommendations and conclusions and provide stakeholders an opportunity for review and comment within a reasonable time period. Black & Veatch will incorporate Stakeholder comments into the Preliminary Draft Report.

Task 9 – Prepare Draft Report

Black & Veatch will prepare a Draft Report and provide it to the AEA for review and comments. This Draft Report will include:

- An Executive Summary that summarizes the study methodology, assumptions used, scenarios considered, and scenarios recommended.
- A detailed analysis of up to three feasible scenarios that includes for each:
 - Business structure
 - Markets and market structures
 - Regulatory issues
 - Costs and issues related to transmission lines
 - Costs and issues related to power generation
- A comparative analysis of various scenarios, which will include a matrix and/or Excel spreadsheet that can be used to analyze changes to the variables in the different development scenarios.
- Preliminary implementation plans and schedules for the most feasible REGA scenarios.
- A bibliography.
- Copies of written responses from stakeholders' review of the Draft Report.

Task 10 – Prepare Final Report

Based upon comments received on the Draft Report, Black & Veatch will develop a Final Report which will then be provided to the AEA.

Task 11 – Provide Presentation Services

Black & Veatch will provide a Microsoft PowerPoint presentation summarizing the report findings including summary descriptions of the REGA scenarios that were developed, the recommended most

feasible scenario and implementation plan, as well as basic assumptions, summary conclusions, and recommendations.

Black & Veatch will make presentations, as requested, for public forums, legislative committees, and government agencies including the AEA Board, the Utility Boards, and the Governor's office.

Because the inclusion and scope of these services are not determined at this time, the costs for such services are not included in the project cost estimate provided later in this proposal.

Schedule

Task	2007		2008							
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	
1. Initiate Project	■									
2. Collect and Evaluate Existing Reports and Documents	■	■								
3. Attend and Assist in a Technical Conference		■								
4. Collect Additional Information From Stakeholders		■	■	■						
5. Participate in Advisory Group Meetings				■						
6. Develop and Evaluate REGA Scenarios				■	■	■	■	■		
7. Develop Implementation Plans					■	■	■	■		
8. Make Presentation of Scenarios and Plans to Stakeholders						■	■	■	■	
9. Prepare Draft Report							■	■	■	
10. Prepare Final Report									■	■
11. Provide Presentation Services										■

Deliverables

The following is a list of deliverables that will be developed during the course of this project.

- Monthly progress reports by e-mail, teleconference, or in person.
- Preliminary Draft Report of the REGA scenarios in Microsoft Word and PDF print-ready format (Task 8).
- A Preliminary Draft Report for stakeholder review in hardcopy and PDF print-ready format, that summarizes the analysis of the Railbelt structure, and recommendations on REGA implementation (Task 8).
- A Draft Report for the AEA's review in hardcopy and PDF print-ready format, incorporating stakeholder comments (Task 9).
- A Final Report in hard copy with fifty (50) bound copies and one CD of the report with the final version in Microsoft Word or other agreed upon editable format and an electronic copy in PDF print-ready format (Task 10).
- A copy of an Excel spreadsheet that shows the comparative analysis of various scenarios (Task 9).
- Microsoft PowerPoint presentation services (Task 11) – to be determined.