

Susitna-Watana Hydroelectric Project Document ARLIS Uniform Cover Page

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1.1. Socioeconomics: Regional Economic Evaluation

1.2. Requestor of proposed study

AEA anticipates resource agencies will request this study.

1.3. Responses to study request criteria (18 CFR 5.9(b))

1.3.1. Describe the goals and objectives of each study proposal and the information to be obtained.

The objectives of the regional economic evaluation are to assess economic conditions and determine possible changes in regional economic conditions resulting from development and operation of the Project.

1.3.2. If applicable, explain the relevant resource management goals of the agencies and/or Alaska Native entities with jurisdiction over the resource to be studied.

~~To be provided by the requesting agency, Alaska Native entity, or other state or local agency. In addition to assessing the effects of the Project on communities and boroughs that are in proximity to the Project and along transportation corridors that may be used by the Project, federal, state, and local decision makers are interested in determining the effects of the Project on the broader region that may be served by the Project. This broader area includes the Fairbanks North Star Borough, the Denali Borough, the Matanuska-Susitna Borough, the Municipality of Anchorage, and the Kenai Peninsula Borough. These boroughs are often referred to collectively as the Railbelt. Some communities in the Copper River Valley, which is in Valdez-Cordova Census Area, may be affected by the project, and this census area and selected communities will also be included in the analysis. In the event that electric transmission lines may be constructed beyond the existing Railbelt boroughs, additional boroughs or census areas would need to be added to address these indirect effects. Golden Valley Electric Association is proposing to construct a 100 MW transmission line from Fairbanks to Livengood, which is the location of a prospective gold mine. Livengood is located in the Yukon-Koyukuk Census Area, in which the City of Nenana and the census designated place of Four Mile Road are located. The latter two communities are located on the Parks Highway north of the Project and were identified in the Pre-Application Document (PAD) as potentially being affected by the Project. The regional economic evaluation will begin with collecting baseline economic data for the larger region that was not presented in the PAD or identified as a data gap in the Socioeconomics, Recreation, Air Quality, and Transportation Data Gap Analysis report. For example, the PAD presents a discussion of land use and real estate for the Matanuska-Susitna Borough, but does not provide similar information for the Denali Borough, or other Railbelt boroughs. This effort will also analyze potential changes resulting from Project construction and operation on income, employment, energy costs, and secondary economic effects such as changes in business opportunities and changes in tourism-related business employment and income. The study will involve coordination with Alaska Department of Commerce, Community and Economic Development staff to develop an economic conditions framework suitable to evaluate and compare alternatives. A benefit-cost analysis is not required by FERC, but may provide further information for decision makers and may be undertaken if appropriate.~~

1.3.3. If the requester is a not resource agency, explain any relevant public interest considerations in regard to the proposed study.

~~Information on the economic effects of the Project will inform the Commission's public interest determination with regard to the Project. The primary benefit to the public of the regional economic evaluation will be an understanding of how development of this new energy source will affect the economics of the Railbelt area. The economic literature suggests that benefits accrue to regional economies from electric utility system improvements (See for example Regional Economic Models, Inc. 2007).~~

~~This report would also provide valuable information for multidisciplinary analysis required under the National Environmental Policy Act (NEPA).~~

1.3.4. Describe existing information concerning the subject of the study proposal, and the need for additional information.

The study will involve review and collection of baseline data and summarizing the existing conditions for income, employment, energy costs, and secondary economic effects such as changes in business opportunities and changes in tourism-related business employment and income. Some of this information is available in the PAD, but where the information is not presently available the study team will rely on a combination of sources including the U.S. Census Bureau, Alaska Department of Labor and Workforce Development, Alaska Department of Commerce, Community, and Economic Development, Alaska Energy Authority, Matanuska-Susitna Borough, Denali Borough, and other public agencies. In addition, a review other relevant published documents and information from public scoping meetings is useful to inform the study inputs and information collection. Finally, some interviews will be needed with businesses located in proximity to the Project to ascertain the potential for changes in business opportunities and changes in employment and income for tourism-related businesses.

1.3.5. Explain any nexus between project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements.

~~Construction and operation of the Project will have a substantial effects on the regional and state economy from capital expenditures, mobilization and delivery of construction materials, employment, and by providing a major new source of generation. Some of these effects, direct or indirect, particularly in relation to project construction and operation, may require mitigation measures. The Project will generate electricity for a significant portion of the state's residents. While the final capital cost, financing, and other information needed to estimate the sales price of this electricity is still uncertain, it is known that the price will be relatively fixed for the life of the Project. In comparison, the cost of electricity generated from fossil fuels is anticipated to continue to rise over time, resulting in savings to consumers from electricity generated by the Project at some point in time. The benefits of these savings to consumers can result in expansion of the regional economy as consumers then have more disposable income to spend on purchases of other goods and services.~~

~~The Project will also provide opportunities for increased sales for regional businesses during both construction and operation. As the project design becomes more developed, specific requirements for the types of construction specialties (e.g., firms with roller-compacted concrete experience) can be identified and compared with current expertise of regional construction~~

~~companies to see which opportunities can be filled by Alaska firms. This evaluation would improve the model estimates of future economic activity, and provide recommendations to increase the percentage of these opportunities captured by Alaska businesses.~~

~~The Project may also affect local tourism-related businesses, in both positive and negative directions. It will be necessary to conduct interviews with these businesses to identify potential changes in employment and income in this industry. To the extent that negative effects may be created by the Project, the study results could offer measures to reduce the effects or mitigate them completely.~~

1.3.6. Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge.

The proposed study methodology includes development of a set of model assumptions about the future, which are often the basis for reasonably foreseeable future actions that are used in the cumulative effects analysis. A set of interviews are conducted with persons knowledgeable about the regional and state economies and various industries in the state and the responses are used to develop a set of assumptions, with and without the Project, for use in a dynamic economic model. It would be appropriate to use a dynamic model developed by Regional Economic Models, Inc. (REMI) which has been calibrated to fit the state's economy (or other similar model). The REMI model can provide projections to 2060 for all of the boroughs within the Railbelt area, including the Matanuska-Susitna Borough and the Denali Borough. This model also enables the study team to evaluate the effect of changes in electricity generation and improved reliability on consumers and the regional and state economy.

Using the REMI model, the study team can compare the effects of the proposed Project on business and residential savings, employment, gross regional (state) product, disposable personal income, and revenues to boroughs within the Railbelt and the state government. Forecasts for the With-Project condition will be compared to the Without-Project condition. Under the Without-Project case, the mix of electrical generation sources will be based on the most recent Railbelt Integrated Resource Plan (RIRP) and an appropriate alternative that does not include a large hydroelectric project. The With-Project condition will be based on the large hydroelectric alternative in the RIRP, adjusted as necessary to fit with the current Project description.

1.3.7. Describe considerations of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.

It is anticipated that completion of the work described above would require about six or seven months of effort in 2013 to provide a draft report for the Regional Economic Evaluation. The process described above should provide sufficient information for the licensing and environmental review of the Project. Based on the results of the 2012 work, there could be some additional analyses or model runs in 2014 to update input parameters that perhaps have changed as a result of changes to the Project plans or other changes as determined by AEA in collaboration with stakeholders.

1.3.8. Literature Cited.

Black and Veatch. 2010. Alaska Railbelt Regional Integrated Resource Plan (RIRP) Study. Final Report. Prepared for the Alaska Energy Authority.

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Regional Economic Models, Inc. 2007. Measuring the Economic Impact of Improved Electricity Distribution in Connecticut. Prepared for Connecticut Light & Power. Published online at <http://www.remi.com/the-remi-model/topic-areas/energy/energy-research>. Accessed April 2012.