Providing Regional Economic Impact Analyses

Greene Economics has worked for over 20 years helping clients understand the full impacts to the local or regional economy from specific identified changes to one or more sectors of the economy. This includes

- extensive work assessing the impacts of developing wind and other renewable energy projects
- analyzing the **opening or closing** of identified industrial businesses, and
- **estimating the local and regional impacts of an existing sector** to better understand and market the importance of the sector to the economy and community.

The full impact of economic activity from any sector of the economy includes the industry revenue (direct impact) and a "ripple effect" in the broader economy. This is because the direct impact

increases demand for inputs needed in the industry (indirect impacts), and then also by increasing household spending through increased wages, salaries, and proprietor income (induced impacts). Much of this work involves detailed data collection related to the change in economic inputs of a proposed action. Proposed actions may include development of a new business



or collection of businesses, removal of a specific firm or industry, or the establishment of a completely new industrial sector to the regional economy. The objective of these types of analyses may also be to determine the existing impact a specific industry or collection of industries has/have on the regional economy. Further, regions are developed based on the purpose of the project, usually defined by the client and analyst jointly. Regions may be defined as a county, a state, several counties in one state, or a group of states, depending on the needs of the project. Click on a project of interest or scroll down to provide an overview of some of our project work.

- Evaluating the economic impacts of:
 - o Irrigation supply scenarios
 - <u>Renewable fuels</u>
 - <u>Recycling</u>
 - <u>Renewable energy</u>
 - <u>New development</u>



Project Examples

Klamath Project Update Economic Model, Bureau of Reclamation - Klamath Water Basin, Oregon/California

Greene Economics worked with Susan Burke, PhD and ECO Resources to support the Bureau of Reclamation in updating the Klamath Project Economic Model. Specifically, personnel developed an updated IMPLAN model to estimate the economic impacts to the region (Klamath County in Oregon, and Modoc and Siskiyou counties in California) under various irrigation supply scenarios. The team coordinated with Dr. Burke to utilize the output from the Agricultural Model (KB_HEM) as inputs to an updated IMPLAN model for (the Region) based on reductions in irrigation supply as a percent of historical water deliveries (from 30% through 100%) that impact the various agricultural crops' output and employment. Methodology of the analysis and output of the IMPLAN model for each irrigation supply scenario was provided for client assessment. Greene Economics also provided support through report review and edits, as well as client comment review and response regarding the Environmental Assessment.

Economic Impacts of Renewable Fuels Facility, Next Renewable Fuels Oregon, LLC - Columbia County, Oregon

Greene Economics provided an economic and community impact study for the planned biofuel facility development at Port Westward, in Columbia County, Oregon. This project included collecting project-specific data regarding project construction costs and jobs, construction labor classification and wages, taxes, in-lieu payments, and other initial input data. Project output or demand, employment, and wage data related to ongoing operations of the project were estimated. IMPLAN software in conjunction with Columbia County specific data was used to develop a county-level economic impact model showing the initial economic impacts related to the construction of the Port Westward Biofuel Facility. The team also developed a long-term county-level economic impact model, using the IMPLAN software and data, showing the on-going annual economic impacts of the biofuel facility during its operating years. The results included the number or value of direct, indirect, and induced jobs, labor income, and taxes in the county attributable to construction of the project in the initial years for the short-term impacts and during years when the project is operating for the long-term impacts. Additional community impacts specific to the project were assessed and reported to the client in a separate report.

Recycling Economic Impact Analysis for Salt Lake County, UT

Greene Economics personnel developed an economic impact analysis for the recycling industry in Salt Lake County, Utah. This project included gathering and compiling publicly available data; developing a survey and interviewing industry participants to gather additional data; and used IMPLAN software to analyze the direct, indirect, and induced economic impacts in the study area of Salt Lake County. The team also provided suggested next steps the County could take to make improvements to and expand



the recycling industry. The results of the study are being used by the county to prioritize and evaluate recycling programs and initiatives within the county.

Economic Impact of Renewable Energy, Renewable Northwest – Oregon, Washington, Idaho, Montana

Greene Economics is providing economic impact studios for Oregon, Washington, Idaho, and Montana states and counties of their existing and proposed renewable energy projects. This included developing a phased approach and methodology for completing the analyses in all four states. The state analyses will be completed first, followed by the specific county analyses for those counties with renewable projects within the county boundaries. The renewable projects include wind, solar, biomass, and geothermal. Using IMPLAN modelling and data, and focusing on employment, income, and output, the direct, indirect and induced economic impacts are assessed for each of the project types, as well as the sum of the projects. Simple 2-page State and county summaries will be developed for the client, with the expectation that they likely will be provided to each state's legislature by the client in support of state legislation.

Westside Employment Center Economic Feasibility Study, Port of Moses Lake, Washington

Greene Economics personnel was on a team to determine the economic feasibility for the Westside Employment Center (WEC), an undeveloped area owned by the Port of Moses Lake with distinct amenities that could attract large industrial, agricultural, and manufacturing employers. The team reviewed the existing economic market in and around Moses Lake, proposed a market strategy to attract select industries to the area, and project the economic feasibility and impact of developing shovel-ready sites within the Westside Employment Center. Greene Economics personnel specifically developed the analysis of the existing economic market area and the economic impact analysis of projected development of the Westside Employment Center, using the IMPLAN software.

City of Saskatoon DEED Project Multiple Account Evaluation, Saskatoon, Canada

Greene Economics is part of the team that developed a multi-account evaluation (MAE) for the City of Saskatoon Downtown Event and Entertainment District (DEED). Greene Economics assessed the incremental impacts on the Economic Development Account and the Environmental Account. For the Economic Development Account, Greene Economics developed both a short-term (construction period) and long-term (operational period) regional economic impact analysis using IMPLAN software and data, in addition to the project-specific data provided by the City of Saskatoon and previously completed studies, to assess the incremental regional economic impact of DEED. For this study, the region considered is the Province of Saskatchewan. The results of the analyses include incremental Gross Domestic Project, Employment and Labour Income. Both the baseline economic impact of the existing facilities as well as the possible economic activity under the proposed project were assessed, with the difference being the incremental impact.