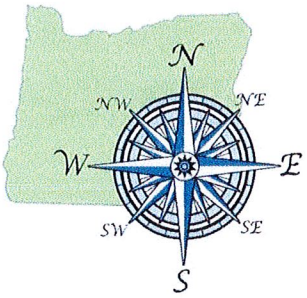
Oregon Planning Solutions
Land Use Planning / Renewable Energy / Governmental Affairs



March 1, 2019

Joint Committee on Carbon Reduction
Oregon State Capitol
900 Court Street NE
Salem, Oregon 97301

RE: Case Study Example in Support of the HB 2020

Chairs Dembow and Power, Vice Chairs Bentz and Brock Smith, and members of the Committee. My name is Doug White, I am a land use consultant with 4 decades in public and private land use, including 27 years at DLCD. In the last 5 years, I've been working with applicants, local governments and the communities in the planning and siting of utility scale solar projects around the state.

I'm here to share with the Committee a local "clean-energy-jobs" case example. This is by way of a land use application-of course. It is just one of many ways showing how a renewable energy solar project will generate socio economic benefits that can benefit and enhance a local and regional community.

Please, feel free to read it later at your conveyance.

In this case, there are 624 construction jobs, where approximately 291 will be employed as on-site construction jobs, and the balance employed off-site and part-time (e.g., engineers, component design, delivery, fiscal and service- related jobs). 6.5 operational and maintenance jobs will be created. Employ work force is largely from community and outlining Central Oregon.

As prescribed by PILOT or "Payment in Lieu of Taxes" program (inserted at ORS 307.175), this project will add $140,000.00 in tax revenue per year for Crook County, without significantly adding to the county's tax burden.

Solar in this case has also found opportunities to participate in local STEAM "Science, Technology, Engineering, Art and Mathematic" subjects with local school.

I'm available for questions, and thank you for the opportunity to present my view on the importance of renewable energy, an Oregon cap and price on large emitters, and to reinvest the proceeds towards clean energy jobs.

Attachment A: Case Example from Crook County

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Attachment A: Case Example from Crook County

On March 7, 2018, Crook County approved a 20MW Photovoltaic Solar Power Generation Facility, located west of the Prineville City Airport (Crook County 217-18-0000027-PLNG/Ochoco Solar, LLC). The tables and narrative, attached, are findings adopted by a local government showing how a proposed 20Mw solar power facility would generate socioeconomic benefits that will enhance Crook County and the City of Prineville. These findings also point out ways to provide maximum potential benefit to this community.

The following socioeconomic impact assessment was prepared in response to County Code standard below.

From Crook County Code 18.161.010(2)(b):

"(x) A socioeconomic impact assessment of the photovoltaic energy system, evaluating such factors as, but not limited to, the project's effects upon the social, economic, public service, cultural, visual, and recreational aspects of affected communities and/or individuals. These effects can be viewed as either positive or negative. The purpose of this information is to provide decision makers with information in order to maximize potential benefits and to mitigate outcomes that are viewed as problematic. The applicant may submit information provided by the Economic Development of Central Oregon or similar entity to meet this requirement.

Applicant's Response:

Socioeconomic Impact Assessment, Ochoco Solar, LLC, Effects Upon Listed Aspects

Aspects	Positive	Negative	Evaluation – Summary
Social	General acceptance of solar facilities by community and policy makers; project doesn't disrupt community or neighborhood; complements new high-tech industries coming to the community. The farming community, and arable and irrigated farmland will not be impacted by project.	Potential concerns from residences only if in view of project.	The applicant will work closely with residences located in the immediate area of the project to help minimize significant visual issues that exist. **Positive Effect.**
Jobs & Economic Investments	No public dollars are being spent on project or infrastructure. 624 construction jobs, where approximately 291employed as on-site construction jobs, and the balance employed off-site and part-time, e.g., engineers, component design, delivery, fiscal and service-related jobs, and 6.5 operational and maintenance jobs created. Employ work force largely from community and outlining area.	A potential influx of new residents.	The applicant will hire locally to the extent possible to support the local economy. See also narrative below. **Positive Effect**
Environmental	Project will not result in any water, air or land pollution. Project contributes to the county's renewable energy goals. Solar farming is one of the easiest ways to bring clean energy to the greatest number of people in any given community. Demand for electricity has increased in recent years, and our society is currently dependent upon conventional sources of power such as coal, gas, and nuclear energy. Conventional sources of electricity are expensive, and are finite resources that cause significant environmental disruption and are a public safety risk to maintain or extract. Solar	Unattended, weed and dust control could be an issue.	Appropriate measures for weed and dust control can be placed on construction and the facility to mitigate any adverse environmental impacts.

	energy is a clean, cheap unlimited resource with little environmental impact. Project is outside sensitive wildlife areas and not on high-value or arable farmland soils.	Potential exists for construction to disturb sensitive birds during nesting period and to entrap big game animals.	Buffers will be established as necessary to avoid disturbing nesting birds. Construction site will be totally enclosed when construction is not commencing, and construction site will be monitored for animals entering site. **Significant Benefit**
Public Services & Transportation	Except for emergency response, no new public facilities or services (sewer, water, roads) will be required by the project. It is anticipated the roadways will safely accommodate construction traffic. In coordination with Crook County Fire & Rescue and Sheriff Office, the applicant has developed an approved Emergency Management Plan.	New address created for emergency vehicles to service.	The applicant is working with Crook County Fire & Rescue to help assure facility will not impact the ability of local fire department to provide fire protection. **No significant effect on public services**
Cultural	The applicant is reviewing information and working with tribal governments regarding whether there are any cultural or historic resources present.	It is always a potential for an inadvertent discovery to occur during construction.	If inadvertent discovery occurs, the applicant will follow statutory procedures. **No significant negative effect**
Visual	No significant scenic views or vistas inventoried and no significant impact to view resulting from project area. Project area is already dominated by tall BPA overhead transmission lines and towers.	Social values differ when one views a solar farm.	Local decision makers weigh these subjective values and based on substantial evidence presented in the record impose conditions so as to mitigate any potential impact. **No Negative Effect**
Recreational	There are no public trails or easements located on the subject property. The scenic recreational view of the property along SW Houston Lake Road is not more or only equivalent to other scenic, unique vista or view that isn't already provided in the general area of the county.	None determined	**No Negative Effect**
Technical	The proposed project is technically possible and will help to address a specific policy objective. Project does not create more problems than it solves. Community has technical experts to provide necessary maintenance.	None determined	**Positive Effect**
Administrative	Crook County has the capabilities necessary to review and make proper and timely decision on proposal.	None determined	**No Negative Effect**
Legal	Under state law, Crook county has the legal basis and authority to review and make decision on project for consistency with state and county requirements. The county code includes specific provisions in place to properly implement the action.	The potential exists for legal challenge.	State and county land use procedures includes a process an aggrieved party may follow to seek resolution of concerns raised after notice is issued. **Positive Effect**

A. Jobs & Economic Investment

The solar industry is one of the fastest growing and most robust emerging industries nationwide. The solar industry was the largest employer in Electrical Power Generation in the US in 2016, with 374,000 jobs.[1] Specifically, the construction sector of the solar industry grew twenty-five (25) percent in 2016. An increased demand for labor is an important example of how solar energy has contributed to local economies across the country.

Based on estimates by the National Renewable Energy Laboratory's Jobs and Economic Development Impact (JEDI) model, the construction and installation period of Ochoco Solar will result in the following direct socioeconomic benefits to the community:

Local Jobs During Construction (FTE)	45
Total Jobs During Construction (FTE)	291
Local Maintenance Jobs	3
Local Spending During Construction[2]	$20,369,230
Local Annual Spending	$266,800
Total Annual Spending	$4,633,200
Construction Wages	$2,923,831
Total Projected Build Cost	$36,250,000
Solar Array Output (MW/kWh)	20/49300000
Array Output is Equivalent to Power an Average Home's Power (per year)	4058

Ochoco Solar, LLC (Applicant) proposes to begin construction by May 2018, and complete construction by November 2018. During construction the facility will employ an average of approximately 291 people in construction jobs. An estimate maximum of 624 people may be employed during peak construction, but not all will be on-site at the same time or at all. This work force of about 624 will be hired in phases or temporarily (e.g., graders, fence crew, pile drivers, racking installation crew, panel installers, etc.) for all on-site road and solar array foundation construction, substation and electrical transmission construction, solar module installation, and array connecting and commissioning over the construction period.[3]

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[1] 1 US Department of Energy, January 2017. 2017 US Energy and Employment Report. <https://www.energy.gov/sites/prod/files/2017/01/f34/2017%20US%20Energy%20and%20Jobs%20Report_0.pdf> Accessed on February 2, 2017.

[2] This direct spending to the local economy that is expected to incur during construction and installation of Ochoco Solar includes expenditures on parts and labor, goods and services, fuel and lodging, dining and other consumer resources.

[3] The estimated traffic over the life of construction varies depending on the phase of construction. This could range from only two vehicles and a truck when mobilizing, three or four vehicles for commissioning, to construction having 30 cars and 20 trucks for component delivery and panel/electrical installation.

Because the facility will be located outside the City of Prineville Urban Growth Boundary and only representing a fraction of the population, the facility and related jobs will not affect the employment base of the community.

B. Tax Contribution

The project will also generate additional tax revenue for the Crook County. Taxes on the infrastructure and the land of Ochoco Solar, LLC will provide Crook County a valuable funding source for public improvements, educational investment, economic development, and other initiatives for upwards of the next thirty-five (35) years.

Construction and operation provide employment opportunities, an income source to the property owner, and increased tax revenue to Crook county. Oregon Law provides the opportunity for the Solar Project and Crook County to enter into a Payment in Lieu of Taxes (PILOT or PILT) agreement in which the project will be assessed at the rate of $7,000 per megawatt nameplate capacity of the solar project for each property tax year for up to 20 years. As prescribed by Law, the Ochoco Solar, LLC, solar farm will add $140,000.00 in tax revenue per year for Crook County (Inserted at ORS 307.175) without significantly adding to the county's tax burden.

C. Other Environmental Benefit

Ochoco Solar will produce enough clean energy to offset a little about over 101,000 tons of carbon dioxide annually, which is equivalent to taking 19,672 cars off the road per year.[4] The projected social cost of carbon dioxide in 2020 averages $42 per metric ton, according to the Environmental Protection Agency.[5] In consideration of this conversion factor, Solar's environmental benefit is approximately worth $1.26 million per year to the Oregon economy.

D. STEAM Education

***Cypress Creek [solar developer]* values significantly the opportunity to engage with and educate young students about renewable energy technology. While education does not provide direct capital investment into a community, we believe that there should be an economic value placed on encouraging youth interest in STEAM education. We provide solar education modules to local schools along with hosted tours of our solar facilities, when requested. We have hosted workshops at K-12 schools to simulate the differences between renewable and conventional energy sources and to encourage interest in Science, Technology, Engineering, Arts, and Mathematic (STEAM) subjects. Ochoco Solar is sited in an ideal location to provide these educational benefits. Prineville schools and some of the Crook County schools are located nearby the proposed location of Ochoco Solar and could benefit greatly from educational visits to the site. Cypress Creek welcomes any opportunity to partner with K-12 schools and could provide hosted tours, workshops, trainings, and classes to all grade levels from town and surrounding communities."**

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[4] US Environmental Protection Agency, February 2017. Emissions & Generation Resource Integrated Database (eGRID). < https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid> Accessed on July 7, 2017.

[5] Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866 (May 2013, Revised August 2016).