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Representative Jessica Vega Pederson
Chair, House Committee on Energy and Environment
900 Court St. NE, H-285
Salem, Oregon 97301

RE: House Bill 2632

Summary of Economic and Environmental Impacts of HB2632 based on a 500 MW build out:

Construction Costs:

Total construction costs over 7 years: $1.2 billion[1]
Total federal tax credits paid toward construction costs: $330 million
Total Expected Revenue over 30 Years: $2.2 - $2.5 billion[2]

Property Taxes:

Total estimated property taxes paid over the 30-year expected life of the projects:

- $3,500,000/year (average)
- $105,000,000 over the project life
- This is based on an assumed average assessed value of $600,000 per megawatt.

Total Jobs:

According to the National Renewable Energy Laboratory's Economic Impact Model:[3]

Construction Jobs:

The program (if built out to 500 MW) would create a total of 720 full time (FTE) jobs per year for 7 years. That breaks down to 310 direct construction jobs, 235 supply chain jobs, and 175 induced impact jobs.

Ongoing Operations and Maintenance Jobs:

Ramp up to 39 total FTE ongoing jobs by year 7:

25 jobs (FTE) at the various solar farms
6 jobs (FTE) with the supply chain
8 jobs (FTE) from induced impacts

Estimated O&M labor costs over 30 years: $125 million

[1] This number is based on an estimated project cost of $2.40/watt$_{AC}$
[2] Based on current market rates for long-term electricity contracts in Oregon (wholesale)
[3] National Renewable Energy Laboratory Jobs and Economic Development Impact Models accessible at: http://www.nrel.gov/analysis/jedi/

Electric Production:

Total electric production is estimated at 750,000 megawatt hours per year. Electricity production from projects under this program will offset the electricity use of 65,000 Oregon households.

CO_2 Displacement:

If the power displaced by the solar farms is from coal, the program would displace 750,000 tons of CO_2 per year; this is the equivalent of 275,000 tons of coal.[4] Stated otherwise, 2,800 rail cars of coal not burned per year.

Total Benefits to the State, per Dollar of Cost:

The estimated cost of the program at 500 MW built out over 6 years is estimated at $83 million over program life (11 years).

For each $1 of state funds invested in solar renewable energy credits, the state secures the following advantages:

- $1.25 - $2.50 in saved environmental costs[5]
- $1.25 in property taxes
- $4.00 in federal tax credits
- $14.50 in construction costs
- $4.00 in project labor
- $1.50 in ongoing O&M labor
- During the years of state support, $12,000 per FTE job

750,000 tons of avoided CO2 (based on coal); 22.5 million tons over the project life

275,000 tons of avoided coal by wire (based on coal); 8.25 million tons of coal over the project life; or

375,000 tons of avoided CO2 (based on natural gas); 12 million tons over the project life

Respectfully submitted,

David W. Brown
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[4] http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results
[5] Federal: http://www.whitehouse.gov/sites/default/files/omb/assets/inforeg/technical-update-social-cost-of-carbon-for-regulator-impact-analysis.pdf, see Appendix A; Minnesota: Minnesota Value of Solar: Methodology; Minnesota Department of Commerce, Division of Energy Resources, April 1, 2014