

February 2, 2016

**Summary of Economic and Environmental Impacts of HB 4037 (2016)**  
**based on a 150 MW build out:**

**Construction Costs:**

Total construction costs 2016 - 2017: \$330 million<sup>1</sup>  
Total federal tax credits paid toward construction costs: \$100 million  
Total Expected Project Revenue over 30 Years: \$1.3 - \$1.5 billion<sup>2</sup>  
Estimated income taxes on project revenue over 30 years: \$80 million<sup>3</sup>

**Property Taxes:**

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

- \$1.05 million/year
- \$31.5 million over the project life
- This is based on recently passed legislation allowing \$7,000 per megawatt per year.

**Total Jobs:**

According to the National Renewable Energy Laboratory's Economic Impact Model:<sup>4</sup>

**Construction Jobs:**

The program (if built out to 150 MW) would create a total of 385 full time (FTE) jobs during construction. That breaks down to 170 direct construction jobs, 125 supply chain jobs, and 90 induced impact jobs.

Ongoing Operations and Maintenance Jobs: 12

**Electric Production:**

Total electric production is estimated at 255,000 megawatt hours per year. Electricity production from projects under this program will offset the equivalent electricity use of 25,000 Oregon households.

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<sup>1</sup> This number is based on an estimated project cost of \$2.20/watt<sub>AC</sub>

<sup>2</sup> Based on current market rates for long-term electricity contracts in Oregon (wholesale)

<sup>3</sup> \$1.4 billion project revenue - \$.4 billion project costs = \$1 billion taxable income x 8% income tax rate

<sup>4</sup> National Renewable Energy Laboratory Jobs and Economic Development Impact Models accessible at:  
<http://www.nrel.gov/analysis/jedi/>

**CO<sub>2</sub> Displacement:**

If the power displaced by the solar farms is from coal, the program would displace 263,925 tons of CO<sub>2</sub> per year;<sup>5</sup> this is the equivalent of 94,434 tons of coal.<sup>6</sup> Stated otherwise, 943 rail cars of coal not burned per year.

**Total Benefits to the State, per Dollar of Cost:**

The estimated cost of the program at 150 MW built out is estimated at \$5.7 million.

For each \$1 of state funds invested in these solar renewable energy projects, the state secures the following advantages over the project life:

- \$14.80 in on-site labor payroll
- \$5.49 in property taxes
- \$14.00 in income taxes
- \$17.43 in federal tax credits
- \$57.52 in construction costs
- \$6.10 in ongoing O&M labor

263,925 tons of avoided CO<sub>2</sub> (based on coal); 8 million tons of CO<sub>2</sub> over the project life

94,434 tons of avoided coal by wire (based on coal); 2.8 million tons of coal over the project life

**Cost of Carbon:**

If the solar energy replaces portfolio generation (mix of coal, gas, hydro, and other):

\$5.7 million reduces 5 million tons of CO<sub>2</sub> over 30 years, or \$1.14 per ton.

Respectfully submitted,

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<sup>5</sup> <http://www.eia.gov/tools/faqs/faq.cfm?id=74&t=11>

<sup>6</sup> <http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results>