

**QUANTIFIED BENEFITS OF  
1,000 MW OF NEW GEOTHERMAL POWER  
Estimated Operational Economic Benefit Analysis**

Annual and Project Benefits Times 1.75 Economic Multiplier [1]		
Plant Benefit Category	1st Year Benefit (Cost x 1.75)	20 Year Benefit (Cost x 1.75)
Project Employment [2]	\$37,634,408	\$752,688,167
Est. Energy Royalties	\$13,978,495	\$279,569,892
Est. Property Taxes (Est)	\$31,182,796	\$623,655,914
Gas Fuel Dollar Drain Avoided [3]	\$625,464,000	\$12,509,280,000
Clean Air Benefits [4]	\$133,000,000	\$2,660,000,000
One Time Capital Expenditures [5]	<b>\$1,290,322,583</b>	<b>\$1,290,322,583</b>
<b>TOTAL BENEFITS:</b>	<b>\$2,131,582,281</b>	<b>\$18,115,516,556</b>
<b>Total 20 Year Project Benefits: \$ 18 Billion</b>		

**NOTES**

- [1] Substantial power plant operating costs are NOT included in this analysis including plant parts and turbine maintenance, parts and services.
- [2] Full-time project jobs for 1,000 MW of geothermal estimated at 500 jobs including clerical and admin. The drilling, construction and support jobs are included within One Time Capital Expenditures.
- [3] Consists of dollars lost to the regional economy from gas fuel costs for new power plants. Assumes 20 yr avg gas fuel price of \$6.00/Mcf, 6,800 btu/kWh gas plants and a 1.75 econ mult.
- [4] The Clean Air Benefit consists of dollars saved by avoiding the CO<sub>2</sub>, SO<sub>2</sub> and NO<sub>x</sub> emissions from equivalent amounts of new gas-fired power (see table below). Monetization of the pollutants come from values established by the Oregon Public Utility Commission.
- [5] Project capital costs include local benefits from the power plant costs, steamfield costs and the associated finance charges and management fees. Of the wellfield costs, it is assumed about 20% of well drilling costs will be direct local purchase including surveying, roads, pads, site work, water supply and non-contract drilling labor. It is assumed 80% of Plant, steam gathering pipeline and interconnect power line related costs are assumed split evenly between material and labor, 40% each. Of the material costs, it is assumed 20% is local procurement.

Summary of Gas-Fired Pollution Avoided By 1,000 MW New Geothermal	
Pollutant	Annually
Carbon Dioxide (CO <sub>2</sub> )	8,210,000,000 pounds
Nitrogen Oxides (NO <sub>x</sub> )	1,220,000 pounds
Sulfur Dioxide (SO <sub>2</sub> )	350,000 pounds

<b>Gas Fired Power Plant Estimated Water Usage</b>	<b>1,000 MW:</b> 1,770,000,000 gallons/year <u>or</u> 5,431.9 acre-ft/year
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