

#### **National Renewable Energy Laboratory**

**Innovation for Our Energy Future** 

# JEDI II: JOBS AND ECONOMIC DEVELOPMENT IMPACTS FROM COAL, NATURAL GAS, AND WIND POWER

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#### How does JEDI II work?

The user enters data specific to the new coal, gas, or wind plant:

- Year of installation
- Size of the project
- Location
- Cost (\$/kW)

This is just one

screens JEDI II

power plants.

Any other site-specific information







To download this user-friendly free tool, go to www.windpoweringamerica.gov

Please see the paper accompanying this poster in the AWEA conference proceedings for more information and sample results.

The more information the user provides, the more localized the results will be. When specific data are not available, the model uses default values.

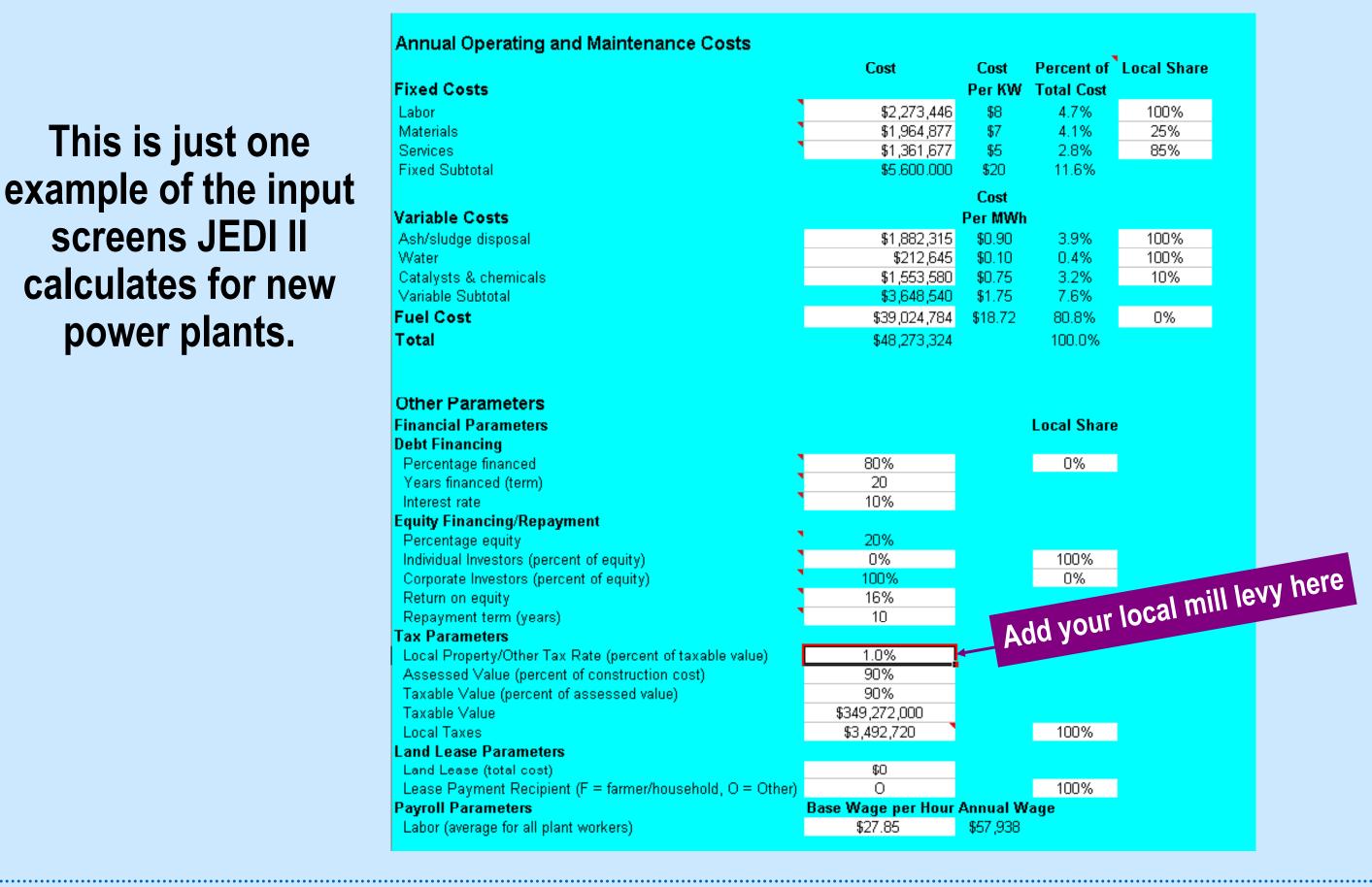
#### **Features**

- JEDI II is for all levels of users no experience with economic modeling or spreadsheets is necessary.
- JEDI II comes with on-line instructions.
- Default data is available if users do not have area-specific information.
- The output from JEDI II provides detailed construction and O&M expenditure information, as well as the portion spent locally.
- The model identifies local spending on debt and equity payments, property taxes and land-lease payments.
- The user may add in county or regional data to make the model more useful for their needs.
- JEDI II calculates direct, indirect, and induced impacts.

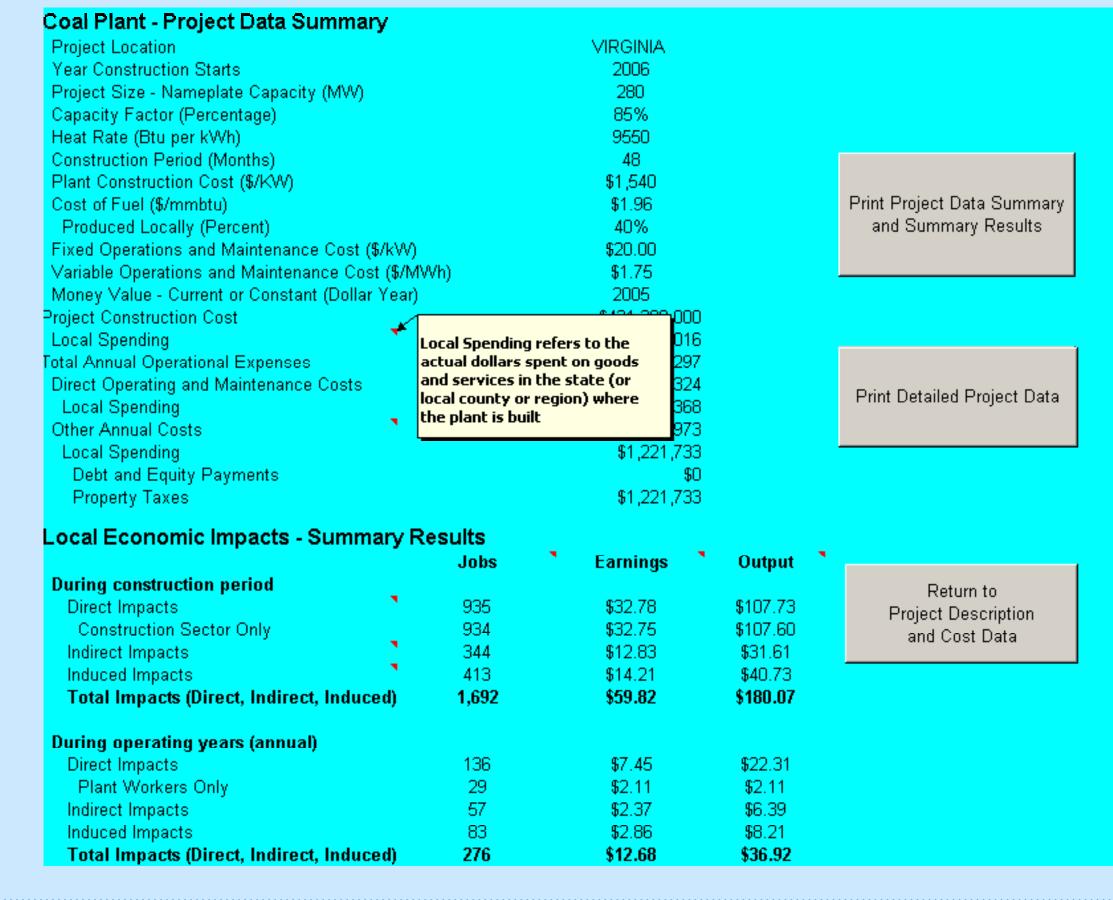
#### **Approach**

- Using economic multipliers, JEDI II measures the potential employment (jobs and earnings) and economic development impacts (output) from new power plants by calculating the dollar flow from construction and annual operations.
- In its default form, JEDI II conducts state-specific analyses. County or regional analyses require additional multipliers.

# Sample Input Screen

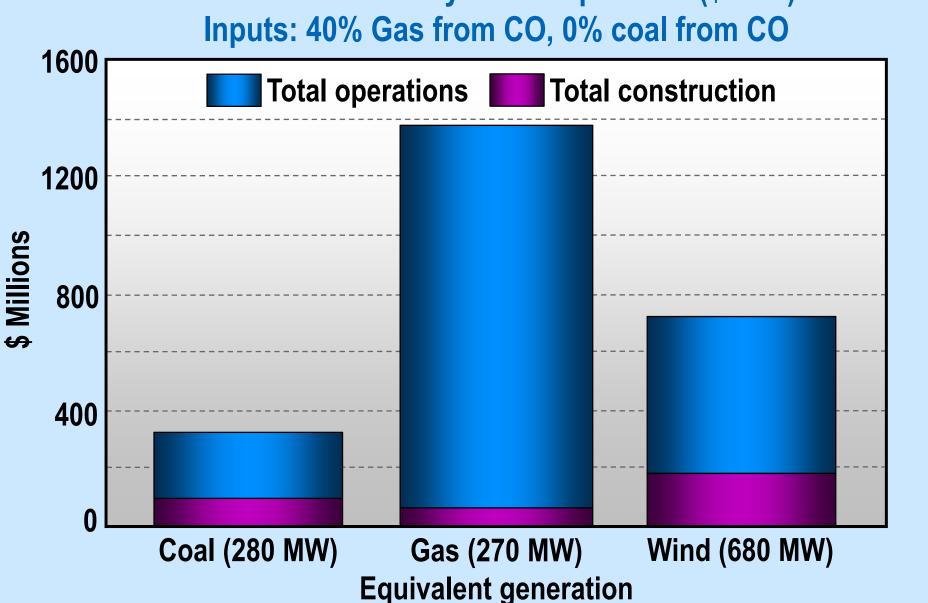


# Sample Output Screen



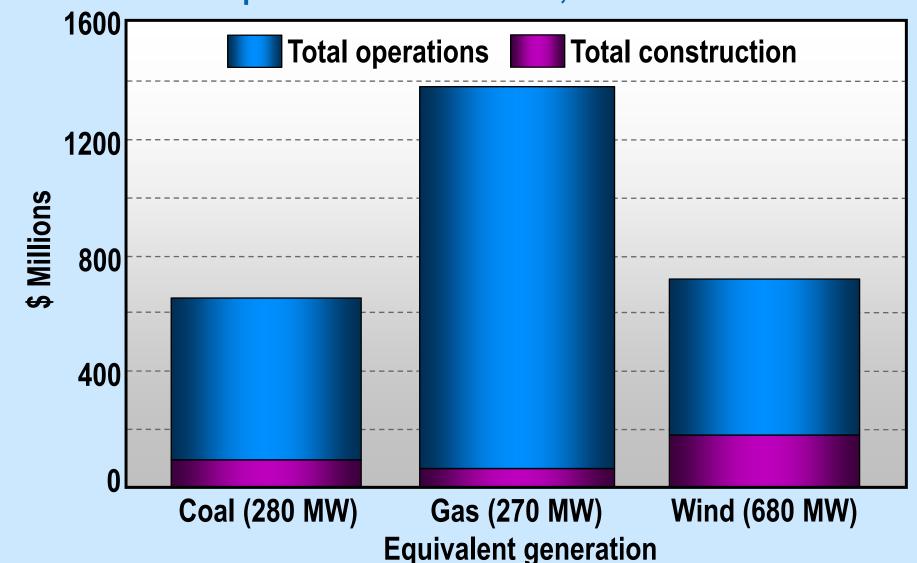
#### Statewide Economic Impacts from New Electricity **Generation in Colorado**

**Construction + 20 years of operation (\$2005)** Inputs: 40% Gas from CO, 0% coal from CO



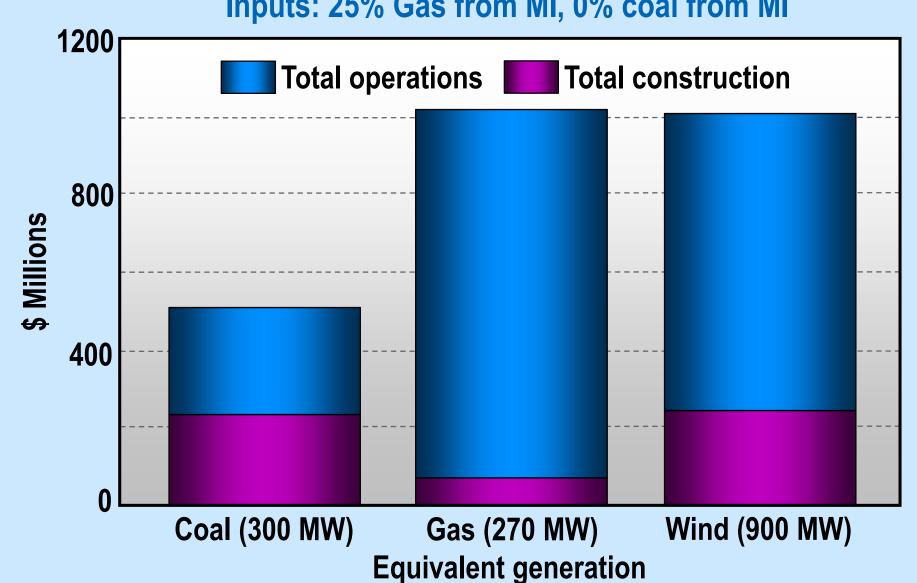
#### **Statewide Economic Impacts from New Electricity Generation in Colorado**

**Construction + 20 years of operation (\$2005)** Inputs: 40% Gas from CO, 40% coal from CO



#### **Statewide Economic Impacts from New Electricity Generation in Michigan**

Construction + 20 years of operation (\$2005) Inputs: 25% Gas from MI, 0% coal from MI



The JEDI model does not factor in costs to consumers. Fluctuations in different technologies (e.g., natural gas prices) may make construction of a new power plant price prohibitive.