

# Revisions to the JEDI Wind Model

December 2008

Wind Powering America recently completed a series of updates to the [JEDI Wind model](#). The updates reflect current survey data, an extensive review of model usability, as well as feedback from users. The updates are now incorporated in a new release, version W1.08.03. In general, the model revisions are of two types. The first type includes those intended to improve actual use of the model and user ability to interpret model results. The second type reflects current wind industry construction, equipment, operating practices, and cost modifications that have occurred since the last update. This ensures the analysis and impacts are consistent with on-the-ground reported impacts.

To facilitate ease of use, we have added more information to the on-screen comments (accessed by pointing to red cell corners), automatic “pop-ups” triggered by user inputs (designed to inform users of inconsistencies in user modifications), as well as additional questions and answers in the FAQ section, among others.

To assist users in better understanding and interpreting modeling results, we have redefined what is included in the direct and indirect impacts (jobs, earnings, and output) that result from wind power projects. For example, direct jobs during the construction and operations phases now constitute only those jobs that are performed on site, at a given wind farm. All other jobs that can be attributed to wind farm construction and operating expenditures are deemed indirect or induced. We believe this adjustment in classification is more intuitive than previous JEDI Wind model releases, and is more consistent with traditional input-output reporting conventions.

In addition, the model now includes state specific tax estimates for most states. These are based on our surveys of existing wind farms and state tax policy on wind power equipment and operations. Default construction and operations period labor costs and payroll parameters (including average wage per hour) now automatically adjust in accordance with state industry job and earnings ratios. Similarly, default project construction and O&M cost factors now reflect economies of scale, accounting for increased construction and operating efficiencies observed as individual projects increase in size.

Overall project costs and the distribution of these costs have also been revised (both for construction and operations), reflecting recent changes in component capital costs, productivity improvements, and changing industry practices. The new cost distribution reflects changes in specific aspects of project development as well as in operations and labor costs. Finally, the model now contains updated construction and O&M labor ratios (number of workers) based on current industry averages, and consistent with the previous model releases the multiplier data is 2006 data from the Minnesota IMPLAN Group. This was the most recent data at the time of the update (Bureau of Economic Analysis data are usually two years behind the current year).

For questions regarding these updates or the JEDI Wind Model generally please contact JEDI Support at the National Renewable Energy Laboratory ([jedisupport@nrel.gov](mailto:jedisupport@nrel.gov)).