

**Original Questions:**

1. What are the temporary jobs created for this project? What are their qualifications? Will these be new jobs or existing workers (concrete service)? What are the long-term jobs, their qualifications, and have these jobs been promised to people already? **See response below.**
2. How many full time jobs will the Gail Wind Project produce? **Project specific.**
3. For a wind project that has about 100 turbines, how many permanent jobs are typically generated? **See response below.**
4. For a large (100 turbine) wind project how many jobs with the construction phase generate? **See response below.**
5. How many locally-filled jobs will be created for the erection and maintenance of these windmills? **See response to question O1.**
6. Will there be that many local jobs to satisfy the unemployment rate of Benzie/Manistee counties? Long term benefits? Short term ramifications? **See responses to questions O1 and O7.**
7. How many jobs, what percent, are likely to be filled by local workers and what percent are specialize jobs that will likely be from outside the local area? **See response below.**
8. Would a local ordinance with a “hire local first” requirement for erecting, operating, and maintaining a wind farm be legally enforceable? Are there precedents for this? **See response below.**
9. If wind is successful, what is the negative impact on jobs from other energy sources? **See response to question Y4.**
10. I would like to see the economics laid out for the dollar benefits to the county. I have read stories about how wind energy does not increase jobs long term (and the hotel/restaurant surge will only happen during construction, and since it is very capital intensive, perhaps we should question this claim). **Project specific. Needs more clarification.**

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**Questions and Responses:**

*These questions may have been recategorized and reorganized. Some may have been sent to another “theme” area (this will have been explained in red under the “Original Questions” section). In other cases two or more questions will be answered with one response.*

- O1.** What are the temporary jobs created for this project? What are their qualifications? Will these be new jobs or existing workers (concrete service)? What are the long-term jobs, their qualifications, and have these jobs been promised to people already?

**Response:** The U.S. Bureau of Labor Statistics website provides a very detailed description of the types of jobs created by wind energy development, as well as the necessary qualifications, education, and earnings. It categorizes the jobs as Manufacturing (which includes Research and Development and General Manufacturing), Project Development (including Land Acquisition-related occupations, Scientists, Construction Workers, and Project Managers), and finally Operation and Maintenance (such as Service Technicians). More details can be found on their website under “Occupations in Wind Power,” accessible at [http://www.bls.gov/green/wind\\_energy/#occupations](http://www.bls.gov/green/wind_energy/#occupations).

- O3.** For a wind project that has about 100 turbines, how many permanent jobs are typically generated?

**Response:** According to the National Renewable Energy Laboratory’s “Wind Energy Update,” approximately 6-10 permanent jobs are created per 100 megawatts produced. This entire document is available online at [http://www.windpoweringamerica.gov/pdfs/wpa/wpa\\_update.pdf](http://www.windpoweringamerica.gov/pdfs/wpa/wpa_update.pdf).

O4. For a large (100 turbine) wind project how many jobs with the construction phase generate?

**Response:** According to the National Renewable Energy Laboratory's "Wind Energy Update," approximately 100-200 temporary construction jobs are created per 100 megawatts produced. This entire document is available online at [http://www.windpoweringamerica.gov/pdfs/wpa/wpa\\_update.pdf](http://www.windpoweringamerica.gov/pdfs/wpa/wpa_update.pdf).

O7. How many jobs, what percent, are likely to be filled by local workers and what percent are specialize jobs that will likely be from outside the local area?

**Response:** The number of local workers hired for wind development projects depends entirely on how many workers in the area are qualified to do the necessary labor. Typically, developers will try to hire local workers, but when this is not possible they are likely to bring in outside labor. A 2005 NREL study examined the economic impacts from wind development through a series of project case studies located in five states. The study found that small rural communities with few large industries saw greater leakage of revenue into nearby towns that provide those services. These small communities therefore experience less indirect and induced impact of a wind installation than a larger community with the ability to provide a greater number of services. Read more about this in the National Renewable Energy Laboratory's "Analysis: Economic Impacts of Wind Applications in Rural Communities" at [http://www.windpoweringamerica.gov/pdfs/wpa/econ\\_dev\\_casestudies\\_overview.pdf](http://www.windpoweringamerica.gov/pdfs/wpa/econ_dev_casestudies_overview.pdf).

O8. Would a local ordinance with a "hire local first" requirement for erecting, operating, and maintaining a wind farm be legally enforceable? Are there precedents for this?

**Response:** "Hire local first" requirements are outside the permissible objects of zoning, the purpose of which is to regulate land use. Ordinances granting preference to local contractors are typically limited to the purchasing and hiring requirements of a local unit of government for projects that the local unit is undertaking and paying for. The Michigan Clean, Renewable, and Efficient Energy Act does provide an incentive of 1/10 of a renewable energy credit for each megawatt hour of electricity from a renewable energy system built by a Michigan workforce.