Where are the Green Jobs?

Much has been said about the emerging Green Economy and the potential of Green Job opportunities. But what exactly are these opportunities, what is the earning potential for Green jobs in Missouri, and what are the skills, training, or certification needed to attain these jobs.

While a majority of Green Jobs and Green Businesses are currently concentrated in manufacturing and construction, government policies along with consumer demand are driving the growth of Green employment across a wide range of industries. Missouri has identified six sectors in its Green Economy. Workers in these sectors and others with traditional workforce skills may need to acquire additional knowledge and skills about Green practices to become an active participant in the Green Economy.

This guide will focus on potential Green job opportunities in Missouri, highlighting occupations with the most openings and those that are fastest growing over a 2 year period. It also contains information about transitioning from existing occupations into Green Jobs and where job seekers can search for training and job opportunities in the state.
Transitioning to Green Jobs... Most job openings in the Green Economy will not be new occupations, but rather traditional occupations, incorporating a new layer of green skills, knowledge, and credentials. These opportunities will be found across all industries and at all levels of education. The example below illustrates the potential for job seekers with skills in existing occupations to acquire specific training and/or certification and transition to potential green job opportunities.

**Existing Occupations**
- Electricians
- Electrical Engineers
- Mechanical Engineers
- Machinists

**Green Job Opportunity**
- Wind Turbine Technician
- Smart Grid Engineer
- Fuel Cell Engineer
- Wind Turbine Machinist

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**fastest growing**
- The top ten green occupations by fastest growth rate are those with the largest percentage change in terms of new jobs.
- Five of the top ten green occupations by growth rate offer and annual average wage of at least $60,000.

- Regulatory Affairs Specialists 4.4%
- Training and Development Specialists 2.2%
- Food Scientists & Technologists 2.0%
- Environmental Engineers 1.5%
- Agricultural Inspectors 1.4%
- Geoscientists, Except Hydrologists & Geographers 1.2%
- Environmental Engineering Technicians .8%
- Soil & Plant Scientists .7%
- Refuse & Recyclable Material Collectors .6%
- Electrical Power-Line Installers & Repairers .5%

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**most openings**
- The top ten green occupations by total openings combine growth (new jobs) and replacement (jobs created by worker mobility or retirement).
- Seven of the top ten green occupations by total openings typically require on-the-job training or work experience in a related occupation.
As the education/experience required for green jobs increased from Now occupations to Next occupations to Later occupations, so too did earning potential. In fact, more so for green jobs than for all jobs in Missouri. For each education/experience category, green jobs offered a higher average annual wage compared to all jobs in those categories. When comparing the All jobs to Green jobs in Missouri, here’s how they measure up:

| Education/Experience Categories | Total Openings | Average Wages | WorkKeys® Scores
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Now</td>
<td>6,754</td>
<td>$32,076</td>
<td>AM 4 LI 4 RI 4</td>
</tr>
<tr>
<td>Next</td>
<td>5,490</td>
<td>$50,041</td>
<td>AM 5 LI 5 RI 5</td>
</tr>
<tr>
<td>Later</td>
<td>2,211</td>
<td>$70,451</td>
<td>AM 5 LI 5 RI 5</td>
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</tbody>
</table>

**Missouri’s Guide to Good Opportunities in Green Careers — Short Term Outlook**

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Career Grades are assigned by considering an occupation's job growth rate, total openings, and average wages relative to other occupations in the state. WorkKeys® is a national workforce development system that compares a worker's skills with the skills required to successfully perform a specific job. Scores are provided for three different core skill sets: Applied Mathematics (AM), Locating Information (LI), & Reading for Information (RI). ND denotes non-disclosed data due to confidentiality restrictions from the US Bureau of Labor Statistics.
### Certification & Training Programs

<table>
<thead>
<tr>
<th>Certification</th>
<th>Program Description</th>
<th>Target Audience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Area Community College</td>
<td>AAS Degree in renewable energy, with choice of concentrations in agriculture,</td>
<td>Students</td>
</tr>
<tr>
<td><a href="http://www.mineralarea.edu">www.mineralarea.edu</a></td>
<td>manufacturing, solar and wind.</td>
<td></td>
</tr>
<tr>
<td>The University of Central Missouri</td>
<td>Prepares students to work with installation, maintenance, system design, and electrical</td>
<td>Construction/Skilled traders,</td>
</tr>
<tr>
<td><a href="http://www.ucmo.edu/workforce">www.ucmo.edu/workforce</a></td>
<td>connections associated with solar panels. Students will also learn industry knowledge</td>
<td>alternative energy installers.</td>
</tr>
<tr>
<td></td>
<td>important for professionals new to these systems.</td>
<td>Entry level</td>
</tr>
<tr>
<td>Pinnacle Career Institute</td>
<td>Prepares individuals to apply basic engineering and technical skills in support of</td>
<td>Construction/Skilled traders,</td>
</tr>
<tr>
<td><a href="http://www.pcttraining.edu">http://www.pcttraining.edu</a></td>
<td>engineers in developing servo-mechanical and electromechanical systems. Instruction</td>
<td>alternative energy installers.</td>
</tr>
<tr>
<td></td>
<td>in operational testing, system analysis, and maintenance.</td>
<td>Entry level</td>
</tr>
<tr>
<td>East Central College</td>
<td>Prepares individual for BPI Envelope Professional Written and Field Examinations.</td>
<td>Contractors and trades people,</td>
</tr>
<tr>
<td><a href="http://www.theknowledgebase.org/">http://www.theknowledgebase.org/</a></td>
<td>Instructs about weatherization and auditing and how to reduce home energy use.</td>
<td>HVAC installers, related</td>
</tr>
<tr>
<td>econonline/cs.php</td>
<td></td>
<td>alternative energy installers,</td>
</tr>
<tr>
<td>St. Louis University</td>
<td>Cross disciplinary degree in engineering, business, public policy, and social work;</td>
<td>Facility managers</td>
</tr>
<tr>
<td><a href="http://www.slu.edu/x36265.xml">http://www.slu.edu/x36265.xml</a></td>
<td>second year is based on career track of interest and determines focus of degree.</td>
<td></td>
</tr>
<tr>
<td>Crowder College</td>
<td>Provides certification as a Bioethanol Fuel technician. The program provides an</td>
<td>Skilled trade/ Students</td>
</tr>
<tr>
<td><a href="http://www.Crowder.edu">www.Crowder.edu</a></td>
<td>applied foundation in bioethanol production.</td>
<td></td>
</tr>
</tbody>
</table>

### Energy Industry Competency Model

This ladder illustrates the foundational skills and technical competencies typically required for workplace success in the Generation, Transmission, and Distribution sector of the Energy Industry. The skills build up from the bottom of the ladder for the most foundational skills like personal skills, reading and writing. More technical competencies like the environmental regulations and power generation are at the top of the ladder and represent those competencies often attained through training and certification programs.

### Resources

- **Missouri Career Source**: [www.missouricareersource.com](http://www.missouricareersource.com) provides Missouri job seekers a search engine for all types of jobs.
- **Missouri Education and Career Hotlink**: [www.missouricareersource.com/mech](http://www.missouricareersource.com/mech) includes lists of educational institutions offering post-secondary education (2 & 4-year public and private schools, technical/professional schools, and private proprietary schools).
- **Green For All**: [www.greenforall.org/resources/green-collar-jobs-resources](http://www.greenforall.org/resources/green-collar-jobs-resources) connects job seekers looking for green-collar jobs with employers hiring green-collar workers.
- **Green Jobs Network**: [www.greenjobs.net](http://www.greenjobs.net) offers a listing of job boards that feature green job postings.
- **Green Biz**: [http://jobs.greenbiz.com](http://jobs.greenbiz.com) offers a listing of green-collar jobs in solar and renewable energy, clean-tech, green building and sustainable businesses.
- **U.S. Green Building Council Career Center**: [www.careercenter.usgbc.org](http://www.careercenter.usgbc.org) helps connect USGBC members with new employment opportunities.

This workforce solution was funded by a grant awarded by the U.S. Department of Labor’s Employment and Training Administration. The solution was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. This solution is copyrighted by the institution that created it. Internal use by an organization and/or personal use by an individual for non-commercial purposes is permissible. All other uses require the prior authorization of the copyright owner.