

# STATE OF MICHIGAN GREEN JOBS SURVEY



## DEFINITIONS

The **green economy** is comprised of businesses that offer products or services related to renewable energy, increased energy efficiency, clean transportation and fuels, agriculture and natural resource conservation, and pollution prevention or environmental cleanup.

**Green jobs** include primary occupations engaged in the production of green-related products or services, and support jobs created by green-related revenue.

## POTENTIAL CORE GREEN-RELATED ACTIVITIES

- **Producing renewable energy, renewable energy parts and equipment, or supplying related products or services.**
  - Renewable energy is energy generated from sustainable, natural resources that can be naturally regenerated in the short-term, such as:
    - Sunlight (solar)
    - Wind
    - Water (hydro)
    - Geothermal heat
    - Biomass (wood and wood waste, agricultural and energy crops & associated residues, animal waste, municipal solid waste, food products & processing waste)
  - Related businesses include those:
    - Producing renewable energy
    - Firms that make or supply parts or equipment used in energy collection and distribution, such as solar panels or wind turbines
    - Conducting research and development on renewable energy technologies, or providing consulting assistance to renewable energy providers
- **Increasing energy efficiency**
  - Energy efficiency encompasses all changes that result in a reduction of the energy used for a given energy service (i.e., space heating, lighting, etc.) or level of activity. Examples include businesses involved with:
    - Insulation of residential and commercial buildings
    - Retrofitting of homes to reduce energy consumption
    - “Green” building design or implementing LEED standards
    - Downsizing or upgrading of HVAC, lighting and other energy systems in buildings, which reduces energy demand
    - Production of energy efficient household appliances, such as a refrigerator or dryer
    - Providing engineering, consulting or research services on operations, materials, or technologies that improve energy efficiency

- **Clean transportation and fuels**

- Clean transportation refers to the research, development, and production of new technologies for energy storage and alternative fuels, as well as the engineering of improved fuel efficiencies and emissions reductions. Examples of these activities include:
  - Advanced batteries
  - Fuel cells
  - Electric and hybrid vehicles
  - Alternative fuels
  - Public transit
  - Activities related to meeting fuel efficiency standards, and more.

- **Agriculture and natural resource conservation**

- Agriculture and natural resource conservation refers to products or services designed to help conserve, maintain, and improve natural resources and the environment.
- Low carbon agriculture consists of agricultural technologies that produce energy with little or no CO2 emissions, and can also include other conservation practices that help remove CO2 or related emissions from the atmosphere. Examples include:
  - No till conservation tillage
  - Organic farming
  - Community supported agriculture (CSA)
  - Methane capture in animal and/or food waste management
  - Planting trees or grasses
- Natural resource conservation includes businesses involved with:
  - Forest and land management
  - Water conservation
  - Environmental consulting services
  - Environment, conservation, and wildlife organizations

- **Pollution prevention and environmental cleanup**

- Pollution prevention refers to products that are designed to have minimal impacts on human health and the environment, and services that eliminate or reduce the amount and toxicity of potentially harmful substances at their source. Examples include:
  - Controlling industrial and commercial emissions
  - Water treatment
  - Recycling center operation
  - Waste treatment
- Environmental cleanup consists of businesses that provide services or products related to:
  - Environmental remediation
  - Brownfield redevelopment
  - Hazardous waste cleanup
  - Wetlands restoration