



## Bioenergy Project Development

Bioenergy is produced by the release of chemical energy stored in biomass available in waste products such as agricultural residue, wood waste, and municipal waste. Biomass is used for heating purposes and electricity production.

**EMS** can develop projects in solid and gaseous conversion of biomass to energy and provide feasibility assessment, project design, management, monitoring and evaluation.

## Geothermal Energy Project Development

Geothermal energy refers to energy generated by harnessing heat from the interior of the earth to generate electricity and heat. Geothermal energy yields warmth and power that does not pollute the environment.

**EMS** experts evaluate data from the geological, geophysical, and geochemical investigations to assess the potential of power generation and alternative economic applications. EMS develops geothermal projects, provides feasibility assessment, project design, management, monitoring and evaluation.

Looking to become a renewable energy consumer? We can help you design and implement efficient renewable energy solutions that match your energy needs.

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# Nature's

## Answer to Your Needs

There has never been a more pertinent time to choose renewable energy

With the imminent energy crises and the onset of climate change, the desire to secure a sustainable future has driven organizations and individuals everywhere to look into alternative energy sources.

Renewable energy has become a viable alternative to conventional energy and a sought-after resource. The movement of water and wind, the heat and light of the sun, the heat inside the earth, and the chemical energy in biomass are all green sources that can satisfy our ever growing appetite for energy.

# Reap

## The Benefits

- With renewable energy, you can enjoy numerous benefits:
- Free energy after the initial cost has been recovered
- Secure, abundant and inexhaustible energy supply
- Clean energy with no carbon dioxide emissions
- Public relations value and promotion of corporate social responsibility



# EMS

## Renewable Energy Solutions

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EMS array of renewable energy services and its extensive analysis, design and project management expertise successfully bring a project to fruition. Our experts provide you with independent advice to assess the feasibility of a potential renewable energy project and advise you on the development and implementation of renewable energy solutions.

### EMS renewable energy services include:

- Development of renewable energy projects (wind, solar, bioenergy, and geothermal)
- Consultation during the construction of renewable energy projects
- Environmental and social impact studies of renewable energy projects
- Technical feasibility studies and due diligence of renewable energy projects at a national level
- Development of renewable energy strategies, policies and regulations

EMS is proud of its excellent project management record, realizing successful project implementation on time and on budget.

### Wind Energy Project Development

EMS partners with world leaders to provide multidisciplinary consultancy for the harnessing of wind energy to achieve cost-efficient and environment friendly power production. EMS Wind Energy Project Development encompasses:

- Site selection
- Wind resource assessment
- Feasibility studies and environmental impact assessment (EIA)
- Wind farm design and power system integration
- Supervisory Control and Data Acquisition (SCADA) and monitoring systems
- Project management and implementation supervision

Studies show that 12% of the world's electricity can be supplied by wind power in 2020 if political and policy changes are pursued.

# EMS

## Renewable Energy Solutions

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### Solar Energy Project Development

EMS helps organizations design and implement successful solar thermal and solar photovoltaic systems – both on and off the grid. EMS can design and implement efficient solar systems to match your needs, whether it is to utilize solar systems to provide your new building with heating, cooling and electric energy; or to convert your existing electric, fuel or gas heating systems to solar heating technology; or to convert your existing electric cooling systems to solar cooling technology.

EMS experts assist you in realizing the proper:

- Pre-feasibility and feasibility analysis
- System design
- Project management
- System monitoring
- System evaluation

EMS studies show that solar heating systems are more financially rewarding if the proper system is selected. Savings range from 20% to 25%, and payback periods range from 1 to 4 years. The payback period can even be shortened if solar systems are considered at the initial construction phase of the project.

The amount of energy from the sun that falls on Earth's surface is enormous. All the energy stored in Earth's reserves of coal, oil, and natural gas is matched by the energy from just 10 days of sunshine.