WebPanel 1. The many roles (a) of ecologists in renewable energy development and examples of the work select ecologists (b) are engaged in.

(a) Ecologists play vital roles in the development of renewable energy, including through the:

- Identification and quantification of environmental trade-offs, co-costs, and co-benefits in energy technology implementation;
- Development of decision-support and multiple-criteria modeling tools for energy planning and mitigation;
- Quantification of land and environmental constraints in pathway-, projection-, and optimization-type energy studies;
- Determination of environmental risk and impact assessment of energy development, production, and consumption;
- Achievement of landscape sustainability in energy design, integrating its principles regarding complexity, the nature of applied problems, implementation gaps, and restoration ecology.

(b) Ecologists study the ecology of energy in diverse sectors, including academia, government, and industry.