

第 1 講 「科学技術と社会」

次の英文を読み、設問に答えよ。

Farmers and ranchers in the United States are discovering that they own not only land but also the wind rights that go with that land. A farmer in Iowa who leases a quarter acre of cropland to the *local utility as a site for a *wind turbine can typically earn \$2,000 a year from the electricity produced. In a good year, that
5 same plot can produce \$100 worth of corn. Wind turbines installed across the farm at appropriate intervals can provide a welcome increase to farm income, yielding a year-round cash flow.

Exploiting the wind has become increasingly profitable. The American Wind Energy Association reports that the cost per *kilowatt-hour of wind-generated
10 electricity has fallen from 38 cents in the early 1980s to 3 to 6 cents today depending primarily on wind speed at the site. Already competing with other sources, the cost of wind-generated electricity is expected to continue to decline. ⁽¹⁾These falling costs, due partly to advances in wind turbine design, help explain why wind power is expanding rapidly beyond its cradle in California.

15 At a time when farmers are struggling with low grain prices, some are now finding their last hope in this new “crop,” enabling them to stay on the land. It is like striking oil, except that the wind is never exhausted.

One of the attractions of wind energy is that the turbines scattered across a farm or ranch do not interfere with the use of the land for farming or cattle grazing.
20 ⁽²⁾Farmers can literally eat their cake and have it, too. Another attraction is that much of the income generated stays in the local community, whereas if electricity comes from an oil-fired power plant, the money spent for electricity may end up in the Middle East.

Agricultural land values may soon reflect this new source of income. The wind
25 scientist who identifies the best sites for turbines is playing a role in the emerging new energy economy comparable to that of the petroleum geologist in the old energy economy. ⁽³⁾The mere sight of a scientist installing wind-measuring instruments in a community could raise land prices.