

Renewable Energy & Biostorage

Solar electricity

GOAL

Increase worldwide solar electric power capacity by a factor of 700 and displace a corresponding amount of coal-fired power plants.

COSTS

The area required for the solar cells would be approximately the size of New Jersey. Solar cells are cheap to operate, but they require huge up-front costs.

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Wind-generated hydrogen fuel for cars

GOAL

Install 4 millions windmills to produce hydrogen from water and use it to power vehicles.

COSTS

The area required for the windmills would be approximately the size of France. This would require changes to cars, fueling systems, and the development of new networks for distributing hydrogen fuel.

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Biofuels

GOAL

Increase the worldwide production of ethanol for vehicles by a factor of 30.

COSTS

The cropland required would be approximately the size of India. This would have dramatic effects on world food production.

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Forest storage

GOAL

Halt all reduction in forest cover worldwide.

COSTS

The countries where deforestation is taking place would need to be compensated.

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Soil storage

GOAL

All cropland in the world would be managed to reduce carbon production.

COSTS

This would be quite difficult to implement.

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Wind-generated electricity

GOAL

Increase worldwide wind power capacity by a factor of 30 and displace a corresponding amount of coal-fired power plants.

COSTS

The area required for the windmills would be approximately the size of Germany. Wind turbines are cheap to operate, but they require huge up-front costs.