

*Science* has a [special issue](#) on the problem of taking clean energy to scale. News stories highlight some of the challenges associated with making this energy transition, Perspectives take an in-depth look at how researchers hope to scale up biofuels development, and a Review discusses a two-stage approach for expanding nuclear power generation.

Compared to other technology sectors, the distinctive feature of renewable energy is this need to ramp up to scale. Software, once created, can be reproduced in an indefinitely large number of copies at almost no cost. GMOs can also be reproduced cheaply and easily — in fact, that’s what some people are scared of. But solar panels, windmills, grid improvements, etc. all cost money to produce. (Not to mention nuclear power plants, if they’re part of our energy plan!) This means that we need not only incentives for innovation but a strategy for dealing with financing issues and regulatory barriers.