

Home (/) / A-Z Publications (/content/publications) / Annual Review of Resource Economics (/content/journals/resource) / Volume 1, 2009 (/content/journals/resource/1/1) / Article

ANNUAL REVIEW OF RESOURCE ECONOMICS (/content/journals/resource). Volume 1, 2009

(/content/journals/resource/1/1).

Energy Efficiency Economics and Policy

Kenneth Gillingham (/search?value1=Kenneth+Gillingham&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true)¹, Richard G. Newell (/search?value1=Richard+G.+Newell&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true)^{2,3,4}, and Karen Palmer (/search?value1=Karen+Palmer&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true)³
➕ View Affiliations

Vol. 1:597-620 (Volume publication date July 2009)
First published as a Review in Advance on June 26, 2009

© Annual Reviews

Energy efficiency and conservation are considered key means for reducing greenhouse gas emissions and achieving other energy policy goals, but associated market behavior and policy responses have engendered debates in the economic literature. We review economic concepts underlying consumer decision making in energy efficiency and conservation and examine related empirical literature. In particular, we provide an economic perspective on the range of market barriers, market failures, and behavioral failures that have been cited in the energy efficiency context. We assess the extent to which these conditions provide a motivation for policy intervention in energy-using product markets, including an examination of the evidence on policy effectiveness and cost. Although theory and empirical evidence suggests there is potential for welfare-enhancing energy efficiency policies, many open questions remain, particularly relating to the extent of some key market and behavioral failures.

Keyword(s): appliance standards (/search?value1=%22appliance+standards%22&option1=pub_keyword), behavioral failures (/search?value1=%22behavioral+failures%22&option1=pub_keyword), market failures (/search?value1=%22market+failures%22&option1=pub_keyword).

Article Type: Review Article

Most Read This Month

Meat Consumption and Sustainability (/content/journals/10.1146/annurev-resource-111820-032340)

Martin C. Parlasca and Matin Qaim
pp. 17–41 (25)

Climate Change and the Financial System (/content/journals/10.1146/annurev-resource-110119-031134)

Irene Monasterolo
pp. 299–320 (22)

The Economic Impacts of Walmart Supercenters (/content/journals/10.1146/annurev-resource-111820-032827)

Richard Volpe and Michael A. Boland
pp. 43–62 (20)

Agroecology for a Sustainable Agriculture and Food System: From Local Solutions to Large-Scale Adoption (</content/journals/10.1146/annurev-resource-102422-090105>)

Frank Ewert, Roland Baatz and Robert Finger
pp. 351–381 (31)

A Review of the Financial Sector Impacts of Risks Associated with Climate Change (</content/journals/10.1146/annurev-resource-101822-105702>)

Fujin Zhou, Thijs Endendijk and W.J. Wouter Botzen
pp. 233–256 (24)

Most Cited

 (</rss/content/journals/resource/mostcitedarticles?fmt=rss>)

Energy Efficiency Economics and Policy (</content/journals/10.1146/annurev.resource.102308.124234>)

[Kenneth Gillingham \(/search?value1=Kenneth+Gillingham&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true\)](/search?value1=Kenneth+Gillingham&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true), [Richard G. Newell \(/search?value1=Richard+G.+Newell&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true\)](/search?value1=Richard+G.+Newell&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true), and [Karen Palmer \(/search?value1=Karen+Palmer&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true\)](/search?value1=Karen+Palmer&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true).
Vol. 1 (2009), pp. 597–620

Climate Econometrics (</content/journals/10.1146/annurev-resource-100815-095343>)

[Solomon Hsiang \(/search?value1=Solomon+Hsiang&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true\)](/search?value1=Solomon+Hsiang&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true).
Vol. 8 (2016), pp. 43–75

Organic Agriculture, Food Security, and the Environment (</content/journals/10.1146/annurev-resource-100517-023252>)

[Eva-Marie Meemken \(/search?value1=Eva-Marie+Meemken&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true\)](/search?value1=Eva-Marie+Meemken&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true), and [Matin Qaim \(/search?value1=Matin+Qaim&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true\)](/search?value1=Matin+Qaim&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true).
Vol. 10 (2018), pp. 39–63

Regression Discontinuity in Time: Considerations for Empirical Applications (</content/journals/10.1146/annurev-resource-121517-033306>)

[Catherine Hausman \(/search?value1=Catherine+Hausman&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true\)](/search?value1=Catherine+Hausman&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true), and [David S. Rapson \(/search?value1=David+S.+Rapson&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true\)](/search?value1=David+S.+Rapson&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true).
Vol. 10 (2018), pp. 533–552

Precision Farming at the Nexus of Agricultural Production and the Environment (</content/journals/10.1146/annurev-resource-100518-093929>)

[Robert Finger \(/search?value1=Robert+Finger&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true\)](/search?value1=Robert+Finger&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true), [Scott M. Swinton \(/search?value1=Scott+M.+Swinton&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true\)](/search?value1=Scott+M.+Swinton&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true), [Nadja El Benni \(/search?value1=Nadja+El+Benni&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true\)](/search?value1=Nadja+El+Benni&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true), and [Achim Walter \(/search?value1=Achim+Walter&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true\)](/search?value1=Achim+Walter&option1=author&noRedirect=true&sortField=prism_publicationDate&sortDescending=true).
Vol. 11 (2019), pp. 313–335

[+ More](#)

About Annual Reviews:

- [What We Do \(/about/what-we-do\)](#)
- [Press and News \(/about/press-center\)](#)
- [Careers \(/page/about/careers-at-annual-reviews\)](#)
- [Contact Us \(/page/about/contact-us\)](#)
- [FAQ \(/page/about/faq\)](#)
- [Help \(/help/main\)](#)

Discover Content:

- [Journals A-Z \(/content/publications\)](#)
- [Impact Factor Rankings \(/about/impact-factors\)](#)
- [Publication Dates \(/journal/pubdates\)](#)
- [Online Events \(/page/events\)](#)
- [Article Collections \(/page/collectionarchive\)](#)
- [Knowable Magazine \(https://knowablemagazine.org/\)](#)
- [Against the Grain \(https://www.charleston-hub.com/about/about-against-the-grain/\)](#)

Libraries and Institutions:

- [Subscribe to Open \(S2O\) \(/S2O\)](#)
- [Librarian Resource Center \(/page/librarians/librarian-resource-page\)](#)
- [Institutional Administration Dashboard \(https://www.annualreviews.org/admin\)](#)
- [Institutional Pricing \(/page/subscriptions/instchoice\)](#)
- [Against the Grain \(https://www.charleston-hub.com/about/about-against-the-grain/\)](#)

Author Resources:

- [Article Preparation and Submission \(/page/authors/general-information\)](#)
- [Editorial Principles and Policies \(/page/authors/editorial-policies\)](#)
- [Contact Us \(/page/authors/contact-us\)](#)
- [Copyright and Permissions \(/page/about/copyright-and-permissions\)](#)
- [Article Proposals \(/page/authors/author-instructions/unsolicited-authors\)](#)

in