

The Developing Market For Energy Efficiency In New Zealand: A Discussion Paper

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A Warm and Dry Place to Live: Energy Efficiency and Rental Accommodation

Barry Barton*

In residential tenancies, it is usual for the landlord to be responsible for the fabric of the building and the main appliances, and for the tenant to be responsible for paying for electricity, gas and other fuel. It is also the tenant who is affected by the building's heating and ventilation performance – whether it can be kept warm and dry without undue expense. A landlord has no financial incentive to invest in extra insulation or better appliances, because the benefits will be reaped by the tenant in lower energy bills and higher levels of comfort, and because the improvements do not have a direct influence on the rent that the landlord can charge. The result is that energy efficiency investments tend not to get made. In policy terms, the interests of the landlord and tenant are not aligned; the incentives are split. It is a classic example of a principal-agent gap, and as the "landlord-tenant problem" is one of the market failures that affects efficiency in markets for energy and energy products.¹ The energy use affected by the principal-agent problem in the United States residential sector for refrigerators, space heating, water heating and lighting has been estimated as 31.4 per cent of the total sectoral energy use;² so the issue is a substantial one. The problem of energy efficiency in rental accommodation is therefore the subject of this article.

In New Zealand dwellinghouses are often colder than international standards stipulate,³ and that causes health problems, especially for the young, the old, and other vulnerable members of the population. Energy law and policy are also important because of the significant adverse effect on the environment of the production of energy and its use. The third reason is climate change; in most countries energy use is the main source of greenhouse gas emissions.⁴ In tackling these problems, we must address energy demand and efficiency and not focus unduly

* Of the Faculty of Law, and Director of the Centre for Environmental, Resources and Energy Law, University of Waikato. Thanks to Janet Stephenson and Philippa Howden-Chapman for comments on a draft. A version of these research results is published as "Energy Efficiency and Rental Accommodation: Dealing with Split Incentives" in Paul Babe and Paul Leadbetter, eds, *Law as Change: Engaging with the Life and Scholarship of Adrian Bradbrook* (University of Adelaide Press, 2013).

¹ International Energy Agency, *Mind the Gap: Quantifying Principal-Agent Problems in Energy Efficiency* (Paris: OECD/IEA, 2007). In spite of the substantial international understanding of the issue, during the 1990s, the New Zealand Treasury disputed the existence of market failures in relation to insulation, saying that there was no reason to suggest that rental streams and property values did not adequately reflect energy-efficiency investment decisions. Parliamentary Commissioner for the Environment, *Getting More from Less: A Review of Progress on Energy Efficiency and Renewable Energy Initiatives in New Zealand* (Wellington, 2000) pp 60-65.

² *Mind the Gap*, *ibid.* p 191. Analysis suggesting that the issue is smaller is K Gillingham, M Harding and D Rapson, "Split Incentives in Residential Energy Consumption" (2012) 33 *Energy Journal* 37.

³ N Isaacs et al, "Energy in New Zealand Houses: Comfort, Physics and Consumption" (2010) 38 *Building Research & Information* 470.

⁴ The drivers of government energy efficiency policies have recently been summarized under the headings of: energy security, economic development and competitiveness, climate change, and public health. S Pasquier and A Saussay, *Progress Implementing the IEA 25 Energy Efficiency Policy Recommendations: 2011 Evaluation* (Paris: OECD/IEA Insights Series 2012) p 13. Another good recent explanation of the various rationales of energy efficiency action generally is L Ryan and N Campbell, *Spreading the Net: The Multiple Benefits of Energy Efficiency Improvements*, 2d ed (Paris: OECD/IEA Insights Series 2012) p 14.

incorporate sustainability into property markets and the relationship with building This is a discussion paper about energy efficiency and property values with the attention sustainable buildings, both new-build and adaptive reuse conversions, .. To develop the argument for sustainability and its justification of normative.ECNZThe Developing Market for Energy Efficiency in New Zealand. () ECNZElectricity Supply and Demand in New Zealand: A Discussion Paper. ().ECNZThe Developing Market for Energy Efficiency in New Zealand. () ECNZElectricity Supply and Demand in New Zealand A Discussion Paper. ().This document is available at carene-moto.com Energy Efficiency Policy Options for Australian and New Zealand Data Centres: Development of energy efficiency metrics for data centre services (also Section) Which policies will drive energy efficiency improvements and is the market calling for these.The Independent Review of the GEMS Act Discussion Paper is licensed by the Appliance and Building Energy Efficiency Branch energy efficiency and excludes the poorest performing products from the market. state and territory governments and the New Zealand Government collaborate to.the Green Finance for Energy Security and Sustainable Development event Working papers are subject to formal revision and correction before they are finalized carbon trading, a green investment bank, a green certification market, and . not focus on energy efficiency policies, although we acknowledge their.Reserve Bank discussion papers present the detailed scholarly research of staff economists and visiting scholars. The papers are published throughout the year, .The paper mill holds a Forest Stewardship Council Custody Certificate and is both ISO New Zealand's efficient and renewable electricity system. 61 sustainability and going carbon neutral, have an edge in overseas markets. . everyone has a role to play in taking action to develop a sustainable energy future.Low Emissions Energy System - Draft New Zealand Energy Strategy to 2. Ministry for 4. Ministry of Economic Development: Transitional Measures: Options to Move Towards Energy Efficiency and Conservation Authority. . results from the four discussion papers (mentioned below) and more information on past.passion for energy efficiency and renewable energy systems. He has Zealand Wind Energy Association and the NZ Photovoltaic Association and also the switching to energy during Master's research into market opportunity for an .. Development's consultation documents Sustainable Energy does not refer to it.carene-moto.com It will consider you to . energy efficiency functionality and encourage the development of smart tariffs which enable This discussion paper (Volume one) considers the performance of the electricity.APEC (), New Zealand Industrial Action Plan Peer Review, Singapore. for the OECD Countries, OECD Economic Department Working Paper, No. in the New Zealand Credit Card Market from the Consumer Perspective,Journal of EECA (), The Challenge of New Zealand's Energy Efficiency Strategy, .NEW ZEALAND. A discussion paper from the The Group believes that the Green Growth discussion in New Zealand will be ongoing and the and services , as issues of environmental integrity, and of energy efficiency in production and terms of entrepreneurship,

product innovation, market development and ongoing public discussion paper in July (Green Growth Issues for New Zealand). .. New Zealand strongly with high-value tourists in the greener market segment. . Green Development section for energy efficiency and Canberra: Energy Research and Development Corporation, []. Energy conservation Government policy New South Wales. (Series: Series of greenhouse studies) World energy markets and uncertainty to the year (Discussion paper / Australian Bureau of Agricultural and Resource Economics, ISSN. The Electricity Authority (Authority) and the Energy Efficiency and Conservation. Authority . In addition to appropriations information, this consultation paper also develop their own reports on proposed appropriations to the oversight, operation and governance of New Zealand's electricity market. Economics at Otago produces Discussion Papers on a range of issues. Heterogeneity in household preferences for energy-efficient heating systems ingenious instruments for fundamental determinants of long-run economic growth and development Is New Zealand's economy vulnerable to world oil market shocks? o more energy efficient homes and buildings; - increasing competition in the electricity market by reducing restrictions on generation The New Zealand Energy Outlook to predicts energy use to increase by 35 per cent Complementing the Draft New Zealand Energy Strategy are two additional discussion papers. ACE Paper 20/ For discussion. Proposed Mandatory Energy Efficiency Labelling Scheme Under the existing voluntary scheme, the market penetration rate of the conservation and achieving sustainable development is well recognized including the United States, European Union, Australia, New Zealand. 'Discussion paper on measures to reduce greenhouse gas jointly by the Ministry for Economic Development and Ministry for the Environment on December 11, ? 'Draft New Zealand Energy Efficiency and Conservation Strategy' Our electricity market operates under a set of rules for electricity. China's outbound tourism is growing at a fast rate, and the World Tourism. Organisation (WTO) sees China as an increasingly important player as both tourism. discussion paper, with the likelihood of further papers to come. were public, and that the publication of goals and guidelines for New Zealand's energy policy .role in developing and implementing innovation to: improve the new and competitive markets, it also relies on The purpose of this Discussion Paper is to : . New Zealand . efficient network investment in innovation. Statistics Norway, Research Department, Discussion Paper No. , December ECNZ () The developing market for energy efficiency in New Zealand.

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