GREEN POWER SCHEMES: THE NEED FOR A LEGISLATIVE BASE

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[The gradual substitution of fossil fuels by renewable energy resources for electricity generation is one of the most effective means of reducing atmospheric carbon emissions and resolving the climate change issue. While compulsory measures would be the most effective, considerable interest has been generated in voluntary 'green power' schemes, whereby electricity consumers pay an additional premium on their electricity supplies which is used to purchase electricity from renewable energy suppliers. Such schemes originated in the United States and are now widespread in Australia. This article examines the advantages and disadvantages of such schemes from a consumer perspective and considers various legislative options to overcome the major identified problems. The principal reform proposed is the introduction of legislation that would codify green power schemes. This could be achieved by the addition of a new part to the recently enacted Renewable Energy (Electricity) Act 2000 (Cth).]

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I INTRODUCTION

Renewable energy includes a multitude of different energy resources and technologies.[1] The best-known amongst these include hydro-electricity, solar energy, wind energy, biomass and geothermal energy.[2] Hydro-electricity is produced both from large-scale plants constructed with dams and artificial lakes, and from small-scale 'run-of-the-river' plants. Solar energy is a generic term

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1 For a general description of renewable energy resources, see Wim Turkenburg, 'Renewable Energy Sources' in United Nations Department of Economic and Social Affairs and World Energy Council, *World Energy Assessment: Energy and the Challenge of Sustainability* (2000) 220–73 ('*World Energy Assessment*').

2 Other proven sources of renewable energy include fuel cells, wave energy, tidal energy and ocean thermal energy conversion ('OTEC'). OTEC involves the exploitation of the temperature differential between the warm water at the ocean surface at tropical latitudes and the cold water of the deep ocean: see David Hurwood, 'Ocean Thermal Energy: Potential and Pitfalls' (1981) 10 *Ocean Development and International Law* 13; Kent Keith, 'Laws Affecting the Development of Ocean Thermal Energy Conversion in the United States' (1981) 43 *University of Pittsburgh Law Review* 1; Martin Tsamenyi and Max Herriman, 'Ocean Energy and the Law of the Sea' (1998) 29 *Ocean Development and International Law* 3.