

losses mean that significantly more renewable electricity generation will have to be built to produce the same amount of energy, materially increasing energy costs and delaying decarbonisation of the energy system. Renewable hydrogen suffers from substantial energy losses across the value chain, with 30-35 per cent of the energy used to produce it through electrolysis lost, 13-25 per cent lost when converting it to other carriers, and 40-50 per cent of energy lost when using it in fuel cells.² There are further losses in the process of hydrogen transmission as well as efficiency losses in any generation involving hydrogen fuelled gas generation. The profound inefficiencies of utilising renewable energy to produce hydrogen to then be deployed in electricity generation will inevitably lead to sizeable and unnecessary costs for consumers.

The schemes in other jurisdictions that are presented as relevant examples are not comparable with what is being proposed here. Those schemes sought to accelerate the narrowing of a cost gap, which was already occurring, for otherwise superior and less carbon-intensive methods of generating electricity. A Renewable Hydrogen Target for electricity generation, however, introduces the intentional subsidy by consumers of a particular generation process that can never be as cost-effective or efficient as directly utilising the renewable electricity it is competing with.

WACOSS acknowledges that electricity prices for residential consumers are set by the WA Government and that it has a current policy of capping increases in those prices to no more than CPI. We note, however, that this government previously had a stated intention of moving to cost-reflective tariffs.³ We cannot, therefore, assume that any material increase in costs will not at some stage be passed on to consumers by this or future governments. It must also be recognised that subsidies provided to Synergy by the WA Government, are a cost ultimately borne by the Western Australian public, whether through taxes or lack of public investment elsewhere.

As such, decisions that result in greater inefficiencies and costs in energy generation, even where government policies shield household bills, will still have an impact on consumers. The potential costs of a Renewable Hydrogen Target must, therefore, be carefully considered.

A Poor Outcome for Climate Action

Even where it is produced utilising renewable electricity generation for all energy input requirements, hydrog



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Yours sincerely,

Louise Giolitto

