

Replicating the United States Coal Seam Gas Success in Queensland, Australia

Davies, Nicholas P., and Dr Robert W. Day, Arrow Energy NL, Brisbane, Australia

US commercial Coal Seam Gas (CSG) production commenced in 1982 and by 2004 totaled 1800 PJ p.a. Queensland production began in 1996 from Permian Bowen Basin coals, reaching 55PJ p.a. (or almost 55% of the State's gas sales) by 2005, with Jurassic Surat Basin production imminent. In its early years, the CSG industry in the US was fostered by substantial tax concessions. Similar, though more modest assistance has flowed from a Queensland Government requirement that 13% of electricity sold in the State be generated by gas rather than coal, as part of a greenhouse gas reduction strategy. As in the US, a projected increase in gas demand and an attendant short-fall in gas supply was an insufficient stimulus of itself to initiate a new industry.

Notwithstanding differences in geology, drilling and completion techniques, pipeline infrastructure, market size and maturity, other interesting similarities are apparent when comparison is made of the first few pioneer years of the CSG industry in the US and Queensland. Cumulative developments in drilling and CSG production during the initial 5 years in each country closely parallel one another. In both countries, fewer than 50 wells were drilled to achieve 20 PJ p.a. of CSG production. Despite a tripling of the number of wells drilled, production remained static before rising rapidly two or three years later. Exponential growth similar to that of the US is anticipated in Queensland. However, the disparity in total CSG resource in each country (800,000 PJ in the US vs 250,000 PJ in QLD) will remain.