Table of contents

Foreword

Martin Houston
Tellurian Inc.

In June 2017, I wrote the foreword to the third edition of this book and at the time, I could never have predicted how the liquefied natural gas (LNG) business would unfold in the intervening seven years – not so much the gas chain elements themselves as the context in which they operate. Of the chapters in this book, seven address issues relating to decarbonisation and the energy transition. In 2017, the urgency and alignment around global warming and a call to action were nascent; today, they are not.

LNG's role in the global energy mix has never been more essential. In just over 60 years, it has grown from a niche energy trade to an industry. By some estimates, demand for LNG may double by 2050 and there is good reason for this: natural gas is a crucial primary source of dense energy and by simply substituting coal for gas in the power generation mix, we will make huge inroads along our planet's low carbon journey.

The breadth of topics in this book speaks to the complexity of the LNG business and, in keeping with my comments in 2017, the industry is no less irrational. It is not a global one, but a highly sophisticated international network; despite standardised documentation, contracts are still negotiated over many months and are still open to significant dispute and interpretation; price formation is still bilateral, cyclical and geographically influenced; and indexation anxiety remains just that.

Over the period, we have seen two generational events that have, on the one hand (COVID-19), eviscerated demand and collapsed prices; and on the other (Russia's invasion of Ukraine), driven prices to previously unseen highs. To add to this extreme short cycle price volatility, we have also seen an increase in government intervention – most notably in Australia and the United States, but with different catalysts: one seeking to artificially regulate consumer pricing and the other politically pandering to a vocal minority. The United States has consequently ignored its pre-eminent role as an energy supplier to its allies. This meddling is likely to increase in the future as governments refuse to embrace carbon pricing as the only real route to transparent and fair end-user prices by allowing markets to operate optimally and efficiently and, at the same time, to materially reduce carbon emissions.

On the supply side, the inexorable growth of Qatar, the United States and Australia as today's LNG behemoths has continued, although each is now moving at a different speed. We have also seen the sunset of some supply projects and the introduction of new geographies – the industry continues to evolve. Demand – particularly in Asia, China and India – is growing; while in Europe, urgent supply diversification from Russian pipeline gas has allowed LNG to make transformational market inroads as European countries seek to diversify their gas supply. In Europe, many years of tortured planning were reduced to weeks as necessity catalysed action.

Technology has continued to improve the industry's efficiency and more floating liquefaction units are now operational and many more floating regasification vessels have been deployed. Smaller-scale plants have democratised LNG by increasing its consumer reach. The industry has a key – and growing – role in providing increased global energy accessibility and energy security.

In short, much has changed since 2017 but much has not. Our industry, at its roots, is a conservative one which celebrates both an exemplary safety record and well-established traditions. It has been modernised and has diversified with a procession of new entrants across the full length of the chain, employing many more people, involving many more suppliers and creating new sources of value along the way.

We have seen supply chain costs (and bottlenecks) increase in tandem with global trends; and while costs have risen, liquefaction project delivery has been mixed. Some have shown exemplary project execution, but there have been major failures in others. Cooperation, risk management and clear-eyed cost forecasts are surely the precursors to a healthier and more predictable construction cycle.

Our industry is simultaneously celebrated and vilified. The lower carbon, fungible and dense energy attributes of LNG joust with irrational calls to irradicate all hydrocarbons – the latter as a misguided proxy for a sensible and coordinated effort to lower global emissions. Let's hope our energies do not continue to be dissipated in fights with activists and ill-informed politicians, but directed at aligning the role the LNG industry can and needs to play in the transition to a low carbon future.

I commend this new book to you. The authors of the chapters herein are some of the best minds in the industry and they have provided deep insights into the many aspects of the world of LNG. What they have written matters, because our industry matters. It is vital for continued human progression.