

LIVES^{PER} GALLON

THE TRUE COST OF
OUR OIL ADDICTION

TERRY TAMMINEN

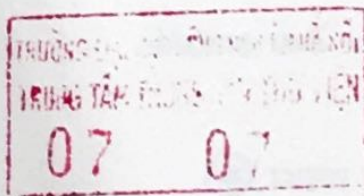
LIVES PER GALLON

THE TRUE COST OF
OUR OIL ADDICTION



GIFT OF THE ASIA FOUNDATION
NOT FOR RE-SALE

Terry Tamminen
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To Art Arndt, Kyle Damitz, and all of the
other parents and children whose breath has
been lost to our petroleum addiction.

CONTENTS

PREFACE	xi
PROLOGUE	i
1. THE BREATH OF OUR FATHERS	9
2. A LOSING PROPOSITION	27
3. DESPERATE ENTERPRISE	53
4. ALL THAT GLITTERS	81
5. WEALTH SEEMS RATHER TO POSSESS THEM	107
6. WORSE POISON TO MEN'S SOULS	131
7. POSTCARDS FROM THE YEAR 2025	155
8. THE QUALITY OF MERCY	187
EPILOGUE: THE SEVENTH GENERATION	205
ACKNOWLEDGMENTS	213
NOTES	215
INDEX	253

PREFACE

The quality of life on Earth, including that of its human inhabitants, may have been irreversibly defined by three obscure events that took place since *Lives Per Gallon: The True Cost of Our Oil Addiction* was first published in late 2006. Seemingly unconnected, and with only moderate significance when considered individually, these three events share the same inescapable DNA: oil.

A meeting of a few, an agonizing plea for help of many, and a shameful confession of one. Together, they paint an ominous picture that regrettably validates many of the conclusions drawn and predictions made when this book was first printed. At the same time, however, there are strong signals that the book's hopeful message was not without cause.

The meeting of a few took place in early December 2007 when three unremarkable institutions assembled in Beijing for what was called "The U.S.–China Energy Security Cooperation Dialogue."¹ The groups were the Atlantic Council of the United States, a shadowy think tank of former government officials and executives primarily from the defense, fossil fuel, and nuclear industries; the Institute for Sino-American International Dialogue, an organization apparently steeped in academia, but staffed by former U.S. Defense Department and Atlantic Council executives; and the U.S./China Energy & Environment Technology Center, a group of researchers

from Tsinghua University (often called "China's MIT") and Tulane University, funded by the U.S. Department of Energy with the expressed purpose being to "develop markets for U.S. clean coal technologies."² Several dozen representatives of these organizations met with current U.S. and Chinese government officials, a handful of renewable energy experts, and one environmental organization representative.

The meeting concluded, among other things, that "without a major refocusing of nearer-term efforts, the goals of dramatically improving the world's energy security and environmental outlook by the middle of the century are not likely to be realized." By itself, that may not seem revelatory, but the remainder of the meeting's conclusions show that the United States and China had no plan to refocus "nearer-term efforts" toward solutions like rapid development of clean, renewable fuels, but instead had essentially agreed to bare-knuckle competition for—and unabated consumption of—oil, coal, and nuclear fuel for the foreseeable future. Somewhat more ominously, the group recommended that the United States significantly increase its Strategic Petroleum Reserve, the oil squirreled away for national emergencies, like war, in underground locations around the United States. At the same time, the meeting participants acknowledged the unstoppable force of "China's growing role in world energy markets."

The Beijing meeting was the petroleum equivalent of the Yalta Conference after World War II that divided the world between Soviet Union and U.S. spheres of influence, launching a four-decade-long cold war. To be sure, no world leaders participated and there were no Yalta-style public agreements in Beijing, but the groundwork may have been laid just as certainly. A few months before the meeting, the Pentagon concluded that the Chinese military buildup of recent years, including \$125 billion in 2006 alone, was largely intended to protect its oil interests around the globe. China now has at least nine hundred missiles, 1.4 million soldiers,

and lasers that could disable U.S. satellites, along with submarines and aircraft carriers to deploy those forces, all aimed largely at protecting Middle Eastern and African sources of China's oil supply.³

What is fanning the flames of this new petroleum-powered cold war? Literally, it is driven by cars. The U.S. appetite for SUVs and wasteful driving is well documented, but a glance in the rearview mirror of commerce shows the Chinese rapidly catching up. China recently became the world's second-largest car market (after the United States) and will likely surpass the United States in total vehicle ownership by 2025. More Chinese are commuting to work over longer distances than previously, just like their counterparts in Los Angeles or Houston, and their cars are getting bigger, too. In 2007, small car sales in China declined by nearly 30 percent, but SUV sales rose nearly 40 percent. "Purchasing power is rising, so it's simple—to drive a higher-end car gives you more face," said Su Hui, general manager of the Asian Games Village Automobile Exchange.⁴

Cars aren't the only drains on every drop of both crude oil and refined petroleum products. In the United States, where refineries work at capacity year-round to keep up with soaring demand, spills, blowouts, and mechanical failures strain the supply chain; indeed, 2007 set a record for refinery failures.⁵ Crude oil pumping has been frequently interrupted by nationalist uprisings in Nigeria and several Latin American countries, and annual Iraqi oil production remains a fraction of its potential long after the U.S. invasion in 2003. Not surprisingly, by early 2008 prices of a barrel of crude and a gallon of gas were breaking records almost every week.

Fewer than ten years ago, oil sold for \$10 per barrel and the *Economist* ran a feature story that warned that this value might not last, that oil might well fall to \$5 a barrel. In any case, the *Economist* asserted, the world faced "the prospect of cheap, plentiful oil for the foreseeable future."⁶ Not many experts make those predictions today when oil and gasoline prices are setting record after upward record.