

Addicted to Oil

# ADDICTED TO OIL

America's Relentless Drive  
for Energy Security

Ian Rutledge

I.B. TAURIS

LONDON · NEW YORK

Published in 2005 by I.B.Tauris & Co Ltd  
6 Salem Road, London W2 4BU  
175 Fifth Avenue, New York NY 10010  
www.ibtauris.com

In the United States and Canada distributed by Palgrave Macmillan,  
a division of St. Martin's Press, 175 Fifth Avenue, New York NY 10010

Copyright © Ian Rutledge, 2005

The right of Ian Rutledge to be identified as the author of this work has been  
asserted by him in accordance with the Copyright, Designs and Patents Act 1988.

All rights reserved. Except for brief quotations in a review, this book, or any part  
thereof, may not be reproduced, stored in or introduced into a retrieval system, or  
transmitted, in any form or by any means, electronic, mechanical, photocopying,  
recording or otherwise, without the prior written permission of the publisher.

ISBN 1 85043 674 6  
EAN 978 85043 674 4

A full CIP record for this book is available from the British Library  
A full CIP record for this book is available from the Library of Congress  
Library of Congress catalog card: available

Typeset in Minion by Dexter Haven Associates Ltd, London  
Printed and bound in Great Britain by MPG Books Ltd, Bodmin

# Contents

<i>Acknowledgements</i>	vii
<i>Note on Names and Terminology</i>	ix
<i>Preface</i>	xi
1 Oil and America	1
2 The Die is Cast	13
3 How America Got Control of the Gulf	21
4 Energy Security and the Gulf: From Solution to Problem	37
5 The Axis of Oil	51
6 Energy Security Begins at Home	69
7 Canada, Venezuela and Mexico: A Hemispheric Solution?	80
8 The Caspian and Central Asia: A New Middle East?	102
9 America the Motorised	120
10 The Looming Crisis	133
11 Oil and Islamism	158
12 A War for Oil	178
<i>Notes</i>	203
<i>Bibliography</i>	239
<i>Index</i>	259

# 1 Oil and America

Powerful forces have worked mightily to shame people into believing that consuming energy is bad, and that Americans should therefore feel guilty about consuming so much.

Competitive Enterprise Institute, 2001

Oil is the world's most valuable energy resource. Perhaps sometime in the future we shall be able to find something more environmentally friendly to fuel our machines and to convert into all those useful products which are now part of our everyday life, but for the time being the world wants oil. So desirable is it, that it has come to be thought of as a 'strategic' commodity; one without which no highly industrialised society can survive and whose availability must be guaranteed, if necessary, by military force. Indeed, according to one expert on military and security matters, 'Of all the resources . . . none is more likely to provoke conflict between states in the twenty-first century than oil.'<sup>1</sup>

Yet we rarely trouble to ask ourselves why oil is so crucial to our societies. So let us spend a few moments investigating why oil is so useful and valuable. In doing so we will also help to establish precisely why America, in particular, has become so dependent on this substance. Oil is so prized because it has the best physical characteristics of any energy resource. Energy is 'the capacity to do work'. One cannot actually observe or measure it directly – it is a theoretical entity – but you can study the effect which it has upon matter, for example the process of heating. This 'energy effect' is measured in units called 'joules',<sup>2</sup> though for convenience we normally count in 'megajoules' (millions of joules) or 'gigajoules' (billions of joules). Using this measure of energy we can relate a particular fuel's energy value to three of its other physical characteristics: its weight, its volume, and its natural state (liquid, solid, gas or 'field'). This gives

us three 'energy grades' for each fuel. For example, a kilogram of coal of average quality contains 24 megajoules (MJ) of energy (the 'weight grade'); a cubic metre of coal contains 27,500 MJ (the 'volume grade'); finally, we simply note that in its natural form coal is a solid (the 'state grade').<sup>3</sup>

If we apply this system of grading to all the currently available energy sources, oil is consistently superior to all the others. For example, the weight grade of oil is 43 MJ compared to 25.5 MJ for ethanol (made from grain), 24 MJ for 'average' coal, 18 MJ for wood, 4.4 MJ for oil shale etc.<sup>4</sup> Now consider the volume grade: a cubic metre of oil contains 35,000 MJ, a cubic metre of average coal around 27,500 MJ, ethanol about 20,000 MJ, and a cubic metre of natural gas only 35 MJ. Even where gas is compressed to 20 MPa,<sup>5</sup> a cubic metre of gas still has only 6,000 MJ. With respect to the state grade, we distinguish four states: liquid, gas, solid and 'field'. Oil is in the most convenient and adaptable state: it is liquid. By contrast, renewable energy resources like solar power and wind power, as well as nuclear power from processed uranium ore, are all in the 'field' category: they are all some type of pressure, energy or radioactive field. However, the field state is the lowest state grade because it is difficult to store energy in this form and it cannot be used inside an engine such as an internal combustion engine. All energy sources with field states must be first converted into electricity, at considerable expense, whereas energy sources in the liquid state are easy to handle and use. Although crude oil must first of all be refined into gasoline and other petroleum products, this is a relatively simple industrial process and much cheaper, for example, than converting uranium ore into electricity.

The superiority of oil in the weight, volume and state grades has one particularly important implication. As human beings have advanced from the more primitive to the more advanced stages of technological development, one of the most important indicators of technical progress has been the invention, and the continuous improvement, of Large Independent Mobile Machines (LIMMs).<sup>6</sup> From triremes and chariots, steam-powered ships, early automobiles and biplanes to the supersonic jets, off-highway trucks, sports utility vehicles and high-performance cars of the present day, LIMMs have shaped our lives and moulded our social organisation and culture. Indeed, according to the energy economist, Douglas Reynolds, 'It has often been characteristic of any leading society that they have the biggest and most advanced LIMM.'<sup>7</sup>

This is why oil is such a useful energy source. In a LIMM, the machinery has to carry its own fuel; so the higher this fuel's weight grade the better any LIMM will perform. One up for oil. But, the volume grade of oil is also important because the higher the volume grade the smaller will be the LIMM's fuel tank and the smaller the tank, the more space will be available for other functions, such as

passenger and luggage space or, in the case of military LIMMs, weaponry and ammunition. Consequently, for a society in which LIMMs play a central role no other energy resource is as efficient as oil. It is compact and easy to use, in its natural state it is located in highly concentrated reservoirs, and it can be transformed into a usable energy product rapidly, cheaply and safely.

Many people sincerely wish that we were much less dependent upon oil. They point not only to the link between oil-related carbon dioxide emissions and global warming, but also to the many insanities of the petro-society: traffic congestion, the tens of thousands of fatalities from automobile accidents, non-bio-degradable plastic refuse. Nevertheless, there are few indications, as yet, that the citizens of modern capitalist society – of which America is the archetype – are willing or able to forego their addiction to the ‘conveniences’ which make oil such an essential and strategic commodity.

### **OIL CAPITALISM: THE COMPETITIVE STRUGGLE FOR RESERVES**

Because oil is so useful a substance, those who can achieve control over it will be very rich. We first learnt this lesson from Rockefeller in the 1870s, and then from the ‘Seven Sisters’, the great multinational oil companies which carved up the world oil market between them and maintained their control from the 1920s to the 1960s.<sup>8</sup> Although the historical development of capitalism was based primarily on the growth of manufacturing, we often think of the oil industry, especially ‘Big Oil’ – the major multinational oil companies – as the archetypal form of capitalist enterprise. However, ‘oil capitalism’ (and to a lesser extent, mining capitalism) has two particular characteristics which distinguish it from manufacturing capitalism.

Firstly, the capitalist oil company is confronted by landed property to which it requires access in order to drill for oil. This in turn, means that oil companies must accommodate themselves to a set of customary rules and arrangements concerning the governance of access to this property and the subsoil resources underlying it. Throughout history, in almost every sovereign nation, land and subsoil resources have remained subject to the ‘eminent domain’ rights of the state. These rights are essentially threefold: firstly, the right to tax (or demand some other contribution in kind); secondly, the right to revoke a right to landed property already granted or conceded; and thirdly, the right to ‘police’ i.e. to control or regulate.<sup>9</sup> Of course where the oil- or mineral-endowed country is under colonial or semi-colonial domination by another state or group of states these rights of eminent domain can be overridden; but, even then, the capitalist oil company

from the colonial power will usually have to set aside some part of its gross profit to pay a tax or royalty payment to the colonial authority or collaborating native rulers. In this respect, therefore, oil capitalism is much more akin to agrarian capitalism than to manufacturing.

Secondly, in one important respect, oil companies differ from *both* agrarian and manufacturing capitalist enterprises. This is because the continuous depletion of their natural resource, as they extract and sell the oil, means that they are remorselessly driven by what one might call a 'territorial imperative'. The oil company must be continuously on the move, shifting its operations from region to region, country to country, constantly seeking new reserves of oil to replace those which it is depleting. If it fails to replace these depleted reserves, it won't be long before its share price will decline and its directors and managers will suffer accordingly. This is because it is primarily the company's proven oil reserves which provide the basis for its future cash flow and profits. Capitalist investors base their stock market valuation of the company on the size of these remaining reserves, together with various more or less plausible assumptions about future prices, costs, production plans and a 'discount' rate used to put a 'present value' on the future stream of net cash flow.<sup>10</sup>

Before the 1970s, when the major oil companies still had access to the almost limitless reserves of Middle East oil, adding new proven reserves was just a question of drilling some extra adjacent acreage. After the 1970s, when these huge reserves of oil were removed from their control and nationalised by the 'OPEC revolution', the major oil companies concentrated their search for new oilfields, to replace those they had lost, in what were deemed to be politically 'safe' areas, free from the threat of expropriation and nationalisation. Initially they had some successes: in Alaska and the North Sea, in Western Canada, Indonesia (under the control of a pro-American dictator) and the onshore areas of the USA. But, by the early 1990s, such 'safe' petroleum provinces offered very little prospect of finding the 'giant' oilfields they were seeking; fields with more than 500 million barrels of reserves whose huge economies of scale offer exceptional profitability.

Despairing of finding any new 'giants' in North America, the major US oil companies began to move more of their upstream operations abroad. A study carried out by the US Department of Energy's Energy Information Administration (EIA) in 1995, noted that, 'Since the oil price collapse of late 1985 and early 1986, the US oil and gas industry has changed dramatically. The major oil companies have shifted much of their exploration and development efforts to targets outside the United States.'<sup>11</sup> This process continued throughout the 1990s. In 1991, the group of 20 largest US oil-producing companies designated as 'majors' by the US Department of Energy accounted for 55.7 per cent of total US domestic oil