

Government plans for liquid fuel emergencies (LFE)

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Credible evidence points to:

- a near-term peak in global oil production
- a near-term decline in global export capacity
- a near-term (2011- 2015) oil supply crunch

This evidence also points to the potential for a major liquid fuel emergency (LFE).

“The extent of the economy’s vulnerability depends on:

- the likelihood or probability of a disruption
- the economy’s dependence on oil, and
- the nation’s ability to respond to a disruption.”

- GAO, 1996.

We appear vulnerable on all three counts.

1. LFE literature
2. No plan for major LFE
3. Existing IEA template
4. Localized response
5. JiT supply & hoarding
6. Full price pass-through
7. Manageability
8. Oil Shockwave exercise
9. A few suggestions

Three outstanding studies...

- by Alan Smart (ACIL Tasman) for the Australian government's review of its LFE Act (2004).
- by Kathy Leotta (PB) on transportation strategies (2007).
- by Helen Peck (Defence Academy) on food supply chain vulnerabilities (2006).

and 20 years of GAO analysis:

- “We believe that the primitive state of planning... is totally unacceptable.
- U.S. demand restraint programs are in a shambles....
- The results produced to date, after eight years of efforts, are pitiful.”

- GAO, 1981

LFE plans are for small-scale disruptions only

- “ ... the IEA implicitly or explicitly assumes that severe and extended disruptions... either will not occur or are of such low probability that they need not be prepared for.”

- GAO, 1981

Still the case, 26 years later...

- “The IEA emergency policy focuses on alleviating short-term oil supply disruptions.
- It is not a tool for price management or long-term supply issues...”

- IEA, 2007

The four standard strategies:

Increase supply:

1. Surge production [limited potential]
2. Stock drawdown from emergency reserves (= 90 days net imports)

Decrease demand:

3. Fuel switching [limited potential]
4. Demand restraint measures:
 - Voluntary
 - Mandated (requiring legal action/authorization)

Voluntary measures to reduce demand

- public appeals to conserve
- thermostats
- car-pooling
- tire pressure
- mass transit [limited capacity]
- telecommuting
- 4 day work/school week

Mandatory measures to reduce demand

- lower speed limit (signage costs)
- rationing/fuel purchase restrictions (end of self-service, ban on containers)
- allocation to Essential Users (extremely problematic)

IEA on pre-planning:

- “Pre-planning is essential....
- Countries must be ready to implement those measures on very short notice.
- To do this, they generally must develop detailed plans and make certain investments ahead of time.”

- IEA, 2005

Priming the public:

- “If the public is not well informed about plans ahead of time, and supportive of them, they may be less likely to cooperate....”

- IEA, 2005

If users know, they can plan

“It is well nigh impossible for fuel users to devise a sensible contingency plan without knowing how a supply shortfall would be handled.”

- Alan Smart, ACIL Tasman, 2004

Localized response

- “Planning and response to shortfalls should occur at the *lowest levels* of government that can effectively handle specific problems and actions.”

- Kathy Leotta, 2007

- “The purpose of ... the Civil Contingencies Act [2004] is to establish a new statutory framework for civil protection *at the local level.*”

- UK Cabinet Office, 2009

No local plans in N. America

- It appears that no North American city has a plan to administer a liquid fuel emergency (other than to prioritize its own municipal services).

“Just in time” supply chains

- “The fundamental problem is that *it is the very efficiency* of the nation’s food and drink supply chains, under normal circumstances, *that make them so vulnerable* under abnormal ones.”

- Dr. Helen Peck, Defence Academy, 2006

Panic buying & hoarding

- Public appeals (for restraint) can have opposite effect.
- Self-interest invariably prevails.
- Strong incentives to stock-pile (lower price & certain availability).
- UK-2000: supplies which should last a week can be drained in 24 - 48 hours.

Preventing panic buying

- Need for immediate, pre-authorized intervention at the local level (as in UK Local Resilience Forum model).
- Swift local response requires detailed pre-planning, not a “list of options.”

Full Price Pass-through

Price controls: there is a common expectation that government will keep fuel affordable.

LFE plans say the reverse: governments should not interfere with market pricing (other than to prosecute price-gouging).

Full price pass-through

- “[This country] would rely on... the full pass-through of crude oil prices... as its primary demand restraint measure...
- An unimpeded price pass-through will always be an important factor in reducing demand during a crisis.”

- Confidential report, 2006

Pricing vs physical shortages

- As prices rise, an increasing portion of the population is priced out of the market.
- ‘Their fuel’ is now available to others who can afford it.
- GAO: “physical shortages... are virtually impossible in a market economy.”
- GAO, 1996

Potential for public disorder

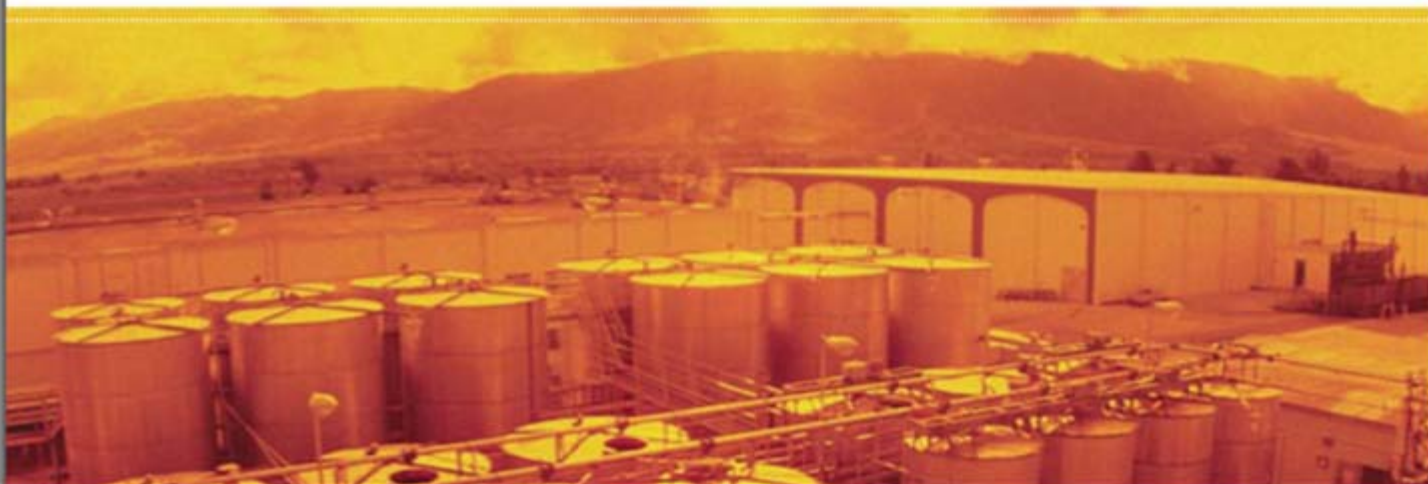
- We don't need physical shortages to have a fuel emergency.
- We will have trouble if fuel is unaffordable (or otherwise unavailable) to a significant portion of the population.
- Those who are denied fuel may not accept this quietly....

Managing the unmanageable

- “It is questionable whether an adequate organizational structure exists which could effectively manage a crisis.”

- GAO, 1981

SIMULATION REPORT AND SUMMARY OF FINDINGS • On June 23, 2005, a group of nine former White House cabinet and senior national security officials convened to participate in a simulated working group of a White House cabinet. Their task: to advise an American president as the nation grapples with an oil crisis over a seven-month period. As they enter the room, they are unaware of the circumstances or nature of the oil crisis.



Oil Shockwave exercise: 2005

- This top-level role-play examined effects of a 4 mbd loss in global oil production.
- Predicted result: a near-tripling of the world oil price.
- Scenario did *not* involve loss of major Middle Eastern facilities (ie. was far from worst-case).

Shockwave conclusions:

“It’s got to be portrayed not as an energy issue... but as a matter of economic security and national security.”

-- Richard Haass

[The attacks in Shockwave were] “relatively *mild compared to what is possible.*”

-- James Woolsey

“The scenarios portrayed were absolutely not alarmist, they’re realistic....

The threat is real and urgent, requiring immediate and sustained attention at the highest levels of government.”

-- Robert Gates

A few suggestions:

- Review LFE legislation, command structure & plan (as in UK, Australia and NZ).
- Raise public awareness & acceptance (about PO, likelihood of LFE, etc).
- Localize the response plan (as in UK).
- Ensure affordable fuel to farmers.
- Invite military scrutiny of LFE plans.