"America is addicted to oil"...

... not the only one!
Running on a treadmill

The underlying decline rate is accelerating
Non-OPEC production crude and condensates (excluding extra heavy oil, shale oil, oil sands and natural gas liquids)

How to read this graph: for all fields developed up to year « n », the lines blue, orange and red show the decline (if negative value or the gain if positive value) observed respectively one, two and three years later.

Source: Energy Funds Advisors analysis based on Rystad Energy data.
« The world needs to add the equivalent of 4 Saudi Arabia or 10 North Seas over the next 10 years just to keep supply level »

(Peter Voser, CEO of Shell)
4 new Saudi Arabia ?...

... in just 10 years ?!
Deep Offshore: how deep?
Arctic Mirage?

Russian titanium flag beneath the Arctic (2007)

Exxon CEO with Vladimir Putin (2011)
Blame Canada ?
Tight Oil: trees reaching sky?

US prospect: 1.5 Mb/j by 2025 | US consumption: 19 Mb/j

Typical shale oil well fast decline as of 2nd year of production
Iraq: the crumbly keystone

Kurds up north

A HARSH OIL NATION
(RE)BUILDING...

Shiites down south
World Oil Shopping List

4 Saudi Arabia needed by year 2025 = 45 Mb/d

New Projects
- Oil Sands from Canada 7 Mb/d
- Iraq 5 Mb/d
- US Tight Oil 3 Mb/d
- Deep Offshore (Brazil) 3 Mb/d
- Other 5 Mb/d

possibly added 23 Mb/d

STILL MISSING > 20 Mb/d

a quarter of today's oil production
Old "Elephants" Also Die

What about...

Norway,

Russia,

Iran,

China,

Venezuela,

Mexico, UAE,...
EDF R&D report, 2007:

« When world tensions will become reality, each region on Earth will have to build emergency plans, by using its own resources:

**Northern America** will use its coal and its unconventional oils

**Asia** will use its coal, although there soon won't be enough of it for fast growing energy needs

**Southern America & Africa** will be able to lean on their renewable resources (bio, hydro, solar) and on their fossil fuels

**Former Soviet Union & Middle East** will be in a position of strength, as they will have a sustainable surplus of fossil fuels.

**Europe** on the other hand has neither fossil nor fissile reserves, nor enough space for a massive build up in renewable energy. **It will be in a particularly fragile situation**.