Corps of Engineers Talking Points

Intent:

Create a way for the U.S. Army Corps of Engineers to fulfill its mission of providing design, engineering, and construction of military projects and civilian waterway and wetland projects without the use of imported oil.

Objective:

By TBA add "economic work accomplished per unit of oil consumed" as a performance measure so imported oil use can be driven to zero by 2022.

Duty, choose the "harder right than the easier wrong":

Ending imported oil is a requirement of duty:

- Eight Presidents declared imported oil a threat to national security, threats to the Constitution.
- Yet in the same period of time government central planners have dictated infrastructure that increased imported oil from 20% to 65%, creating oil's Potato Famine potential. A monolithic dependence on a source of energy 65% outside our control. Actions which expand the need for imported oil aid and abet an enemy.
- Order of battle causes 40% of US service fatalities by requiring 22 gallons of oil products per day per soldier in Iraq and Afghanistan. In addition to lives, as noted in the attached from BG Steve Anderson, fuel can cost up to $100 per gallon.
- Oil supply shock or much higher prices is highly likely by August.
- Wild guess, Mexico will destabilize within 18 months because of higher food prices. Oil flows to the US will likely decrease by at least 1 mb/d.

Recommended Tasks for Creating an Innovative Environment:

- Issue a policy of embracing self-reliance to change from oil to ingenuity. The US was founded and built with self-reliance, not oil.
- Allow local units to innovate local solutions.
- Measure a 15% per year reduction in oil use in officer efficiency reports.
- One day each week, stop all but emergency oil-powered vehicle movements on military bases to precipitate the problems of dealing with supply shock. Solutions will be found. Increase non-oil days by a day each week for 5 years.

Expected Outcome:

Actions to defeat the enemy, imported oil, will create demand for alternatives. Technology exists today to accomplish what Thomas Edison grasped as practical in 1910:

> *"Sunshine is spread out thin and so is electricity. Perhaps they are the same, Sunshine is a form of energy, and the winds and the tides are manifestations of energy."*
>
> *"Do we use them? Oh, no! We burn up wood and coal, as renters burn up the front fence for fuel. We live like squatters, not as if we owned the property.*
>
> *"There must surely come a time when heat and power will be stored in unlimited quantities in every community, all gathered by natural forces. Electricity ought to be as cheap as oxygen...."*

Requiring local commands to act as best they can to defend the Constitution will create a plethora of solutions for civil and military projects. Attached are sheets on technologies that can cut energy requirements 90% and power an industrial society within a solar budget. In a free market, even better ideas will incrementally develop as competitors strive to attract customers.

- JPods, urban commuter range transport of people and cargo in payloads less than 500 kg.
- Rescue-Rail/Levee-Rescue, emergency and temporary deployments of ultra-light railroads.
- Distributed Grid, storage and distribution of power in chemistry. Using the distributed nature of the transportation infrastructure to harvest distributed natural energy sources. Forage energy.
- BG (Retired) Steve Anderson's presentation on the cost of oil in forward deployments.
- Imported Oil is an Enemy of the Constitution.
- Letter from New Jersey legislator on interest in Corps' efforts.

Bill James 612.414.4211 www.jpods.com 3/28/11

Creating an Innovative Environment

Foundation:

Life requires energy, less energy, less life. More efficiency, more life.

Problem:

Socialized infrastructure has created oil's Potato Famine potential, a monolithic dependence on a source of energy 65% outside our control.

Mobilizing to fight World War I governments monopolized/socialized communication, power and transportation infrastructure. The great innovations of Ford, Edison, Bell and the Wright Brothers were integrated into government central planning.

The unintended consequences were:

1. A century with the gas mileage of a Model-T.
2. Less affordable energy, lower quality of life, foreclosures and endless wars to protect access to oil.
3. Collapse of the banking system, housing industry and unemployment spiral as families deal with loss of disposable income from rising gasoline prices. Families lost about $2,000 a year of disposable income between 2002 (gas at $1.45) and 2006 (gas at $2.92).
4. Loss of thousands of miles of railroads that average over 400 ton-miles per gallon because central planning removed efficiency as a market force.
5. A century of rotary telephones. The fundamental technologies for the Internet and cell nets existed but could not commercialize under government central planning. Commercialization after 1984 resulted with customers, not policy makers were allowed to choose alternative networks.
6. Oil's Potato Famine Potential.
7. Infrastructure caused civilization killers of Peak Oil and Climate Change.

Solution:

Self-reliance, change the lifeblood of our economy from oil to ingenuity.

Concept:

Declare free markets in power and transport infrastructure. De-socialize all costs and subsidies so customers, not central planners, choose the best values that meet their wants and needs.

Analog networks of rotary phones last for most of a century when central planners selected what people needed. Millions of jobs, vast innovations, better service at lower costs resulted after communications infrastructure was returned to a free market in 1984, when customers were allowed to choose between options.

Communications success can be repeated in power and transport infrastructure. Fundamental technologies exist to power urban transport within a solar energy budget but cannot commercialize under government central planning.

- CSX Railroad commercials note "our trains move a ton of freight 423 miles on one gallon of fuel." Yet government planned highway and mass transit networks move a person at 18-41 mpg; 97 times less efficiency.
- The Personal Rapid Transit (PRT) network in Morgantown, WV has delivered 110 million oil-free, injury-free passenger miles since being built as a solution to the 1973 Oil Embargo. In that same period the government centrally planned highway network has killed 1.3 million Americans.
- JPods networks are a modern version of PRT. The primary patent is for a physical version of the Internet. People and cargo move at about 160 vehicle-miles per gallon, without the gallon. Solar collectors mounted over the rails gather 5,000 to 30,000 vehicle-miles of power per mile of rail per day. The distributed nature of the transport network can be used to harvest natural power sources to accomplish what Thomas Edison noted as practical in 1910:

  "Sunshine is spread out thin and so is electricity. Perhaps they are the same, Sunshine is a form of energy, and the winds and the tides are manifestations of energy."

> *"Do we use them? Oh, no! We burn up wood and coal, as renters burn up the front fence for fuel. We live like squatters, not as if we owned the property.*
>
> *"There must surely come a time when heat and power will be stored in unlimited quantities in every community, all gathered by natural forces. Electricity ought to be as cheap as oxygen...."*

- Solar and wind systems have Net Energy of better than 20:1 (Useful energy relative to energy required to get the energy). Oil extraction has dropped below 10:1. Ethanol has Net Energy of 1.2:1. Between 1860 to 1900 railroads were the catalyst for changing the energy system from biofuels (hay and wood) to fossil fuels with an internal demand and lower cost to transport. In a free market today, JPods and PRT will be the catalyst for shifting energy systems from fossil fuels to solar. Cutting transport costs from 56 cents to 4 cents per vehicle mile and use of the transport network to harvest natural energy sources creates the catalyst.

Benefits of Competition:

Competition between networks is necessary:

- Next time you put $40 of gas in your car, consider that a freight train could have carried you the same distance for $1.12 cents.
- JPods could have chauffeured you in a city for $5.23, within a solar budget, build by American workers, saving families a car payment per month.

More efficiency, more life.

Objective:
By 2020, live well and within a solar budget.

Problem:
Moving a ton to move a person.
We use 1,000 watt-hours per passenger mile (trains, 890; planes, 950; cars 1033; buses, 1245) (32 mpg).

Solution:
Move only the person. The 85% energy saving pays for a transport paradigm shift and GHG reductions.

Execution:
Physics: It costs less to move less.

Concept: Computer controlled, ultra-light JPods rail networks move people and cargo on-demand; a Physical-Internet; a circulatory system for an economic community.

Market Niche: On-demand mobility for highly repetitive, commuter-range transport of cargo and people.

Safety: 2,000 times safer than cars.

Emissions: Zero.

Congestion: Zero.

Jobs: 6 peak, 2 million sustainable jobs.

Service: On-demand mobility regardless of age, ability or wealth.

Disposable Income: Cut working family transport costs by half, from $10,300 a year; increasing disposable income by $5,000 per year will stabilize housing and jobs in other sectors.

Energy Requirement: 130 watt-hours per passenger mile (260 mpg).

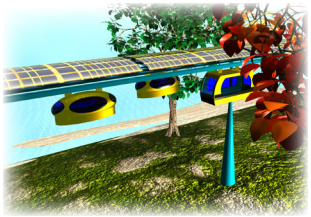
Power: Solar collectors gather 8,000 vehicle-miles of power per mile of rail per day. Distributed transportation grid harvests distributed natural power.

Funding: Construction privately financed. Payback of 1-8 years from 85% energy savings and congestion relief.

Action:
Contact JPods today. Together, by 2020, we can displace 70% of repetitive urban oil-powered transport with solar-powered, on-demand mobility.

Problem:

Solution:



Objective: By 2020, like most organisms on Earth, we can live well and within a solar budget.

We tend to think of electricity as high-density power and sunshine as low-density power. Edison did not. He resolved electricity's low-density nature and thought we should do the same with sunshine.

Thomas Edison, 1910:
"Sunshine is spread out thin and so is electricity. Perhaps they are the same, Sunshine is a form of energy, and the winds and the tides are manifestations of energy.

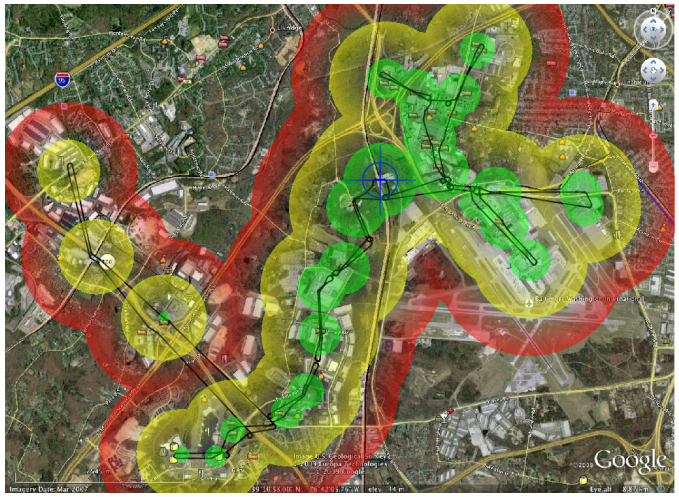
Do we use them? Oh, no! We burn up wood and coal, as renters burn up the front fence for fuel. We live like squatters, not as if we owned the property.

There must surely come a time when heat and power will be stored in unlimited quantities in every community, all gathered by natural forces. Electricity ought to be as cheap as oxygen...."

JPods
It Costs Less to Move Less!

By 2011, JPods Network to take 30% of cars off Fort Meade streets, cut GHG's by 35% and create 400 jobs.

BWI



Fort Meade

Counting ticketing, travel and walking time, from the Blue cross hair, Green areas are within 10 minutes, Yellow within 20 minutes and Red within 30 minutes. Bike and walking areas under JPods rails improve safety and access.

As with the railroads of the 1860's, transportation is the catalyst for changing energy systems.
Like most organisms, we can live well and within a solar budget

JPods LLC
www.JPods.com
Bill James
(408) 754-6259
bill.james@jpods.com

Objective:
By 2025 live within a solar budget.

Problem:
Solar energy collection systems (sun, wind, tides) destablized the centralized "single-machine" design of the electrical grid. IEEE limits inputs to 15% because they behave like leaves or web servers.

Solution:
Self-reliance is local.
Mimic nature, make and distribute synthetic natural gas in chemical distribution networks. Nature stores and distributes energy via chemistry (food, wood, oil, coal, natural gas).

Create Warm Blooded Buildings™ by generating electricity at the point-of-use; waste heat accomplishes economic work; water, space.

Execution:
Self-reliance is local: Focus on small systems with less than 8 year paybacks.

Market Niche: Self-reliant clean energy systems of 1-250 kw. Economic lifeboats, durable against oil prices.

Funding: Construction privately financed.

Emissions: Zero.

Power Sources: Solar and wind have Net Energy of greater than 20:1 (Useful energy relative to energy spent to get energy).

Off-peak electricity, fossil natural gas and agricultural wastes are options.

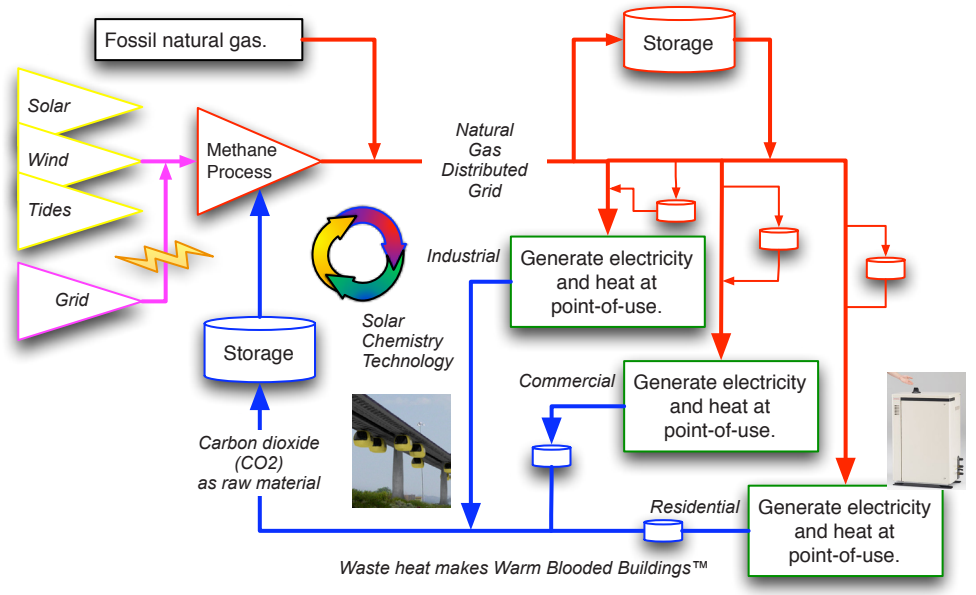
Jobs: Re-tooling power generation will create manufacturing and construction jobs. Re-tooling communication created millions of jobs.

Exporting system to developing nations creates US jobs.

Transportation: Applied to JPods networks, urban transportation operates within a solar budget.

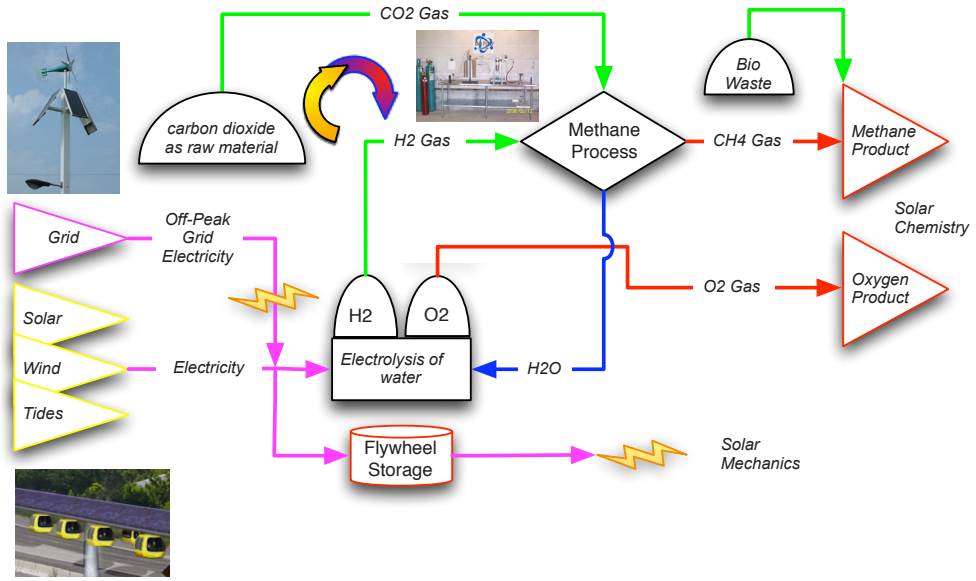
Action:
Contact us to build your economic lifeboat today. Self-reliance is local.

Distributed Grid, the Internet for energy.



Patent Pending

Energy Server™: Solar to Methane Process



Wisdom of Thomas Edison:

"Some day some fellow will invent a way of concentrating and storing up sunshine to use instead of this old, absurd Prometheus scheme of fire. I'll do the trick myself if some one else doesn't get at it.

Sunshine is spread out thin and so is electricity. Perhaps they are the same.

When we learn how to store electricity, we will cease being apes ourselves; until then we are tailless orangutans. You see, we should utilize natural forces and thus get all of our power. Sunshine is a form of energy, and the winds and the tides are manifestations of energy.

Do we use them? Oh, no! We burn up wood and coal, as renters burn up the front fence for fuel. We live like squatters, not as if we owned the property.

There must surely come a time when heat and power will be stored in unlimited quantities in every community, all gathered by natural forces. Electricity ought to be as cheap as oxygen..."

*(**Little Journeys to the Homes of the Great**, 1910)*

"I'd put my money on the sun and solar energy. What a source of power! I hope we don't have to wait 'til oil and coal run out before we tackle that."

(Conversation with Henry Ford and Harvey Firestone, March 1931)

www.DistributedGrid.com

Bill James
612.414.4211
bill.james@DistributedGrid.com

www.Rescue-Rail.com

Objective:
Rescue and recover from disasters using 1/10th the energy while deploying Rescue-Rail at 16 km (10 miles) per day per crew.

Problem:
Existing infrastructure (roads, electrical grids, oil refineries, etc...) are often damaged in significant disasters. Survival, cleanup and recovery are hindered by lack of resources at the very moment they are most critically needed.

Solution:
Deploy Mulberry Harbors (ship to shore) and Rescue-Rail over broken heavy infrastructure to re-establish medical, food, water,

Execution:
Physics: It costs less to move less.

Concept: Computer controlled, ultra-light JPods rail networks move people and cargo on-demand; a Physical-Internet; a circulatory system for an economic community.

Tailor JPods networks into Mulberry Harbors so sea-borne resources can be networked to land based needs.

Tailor ground interface so JPods networks can be deployed over broken heavy infrastructure.

Power: Solar collectors gather 8,000-30,000 vehicle-miles of power per mile of rail per day. Distributed transportation network harvests distributed natural power.

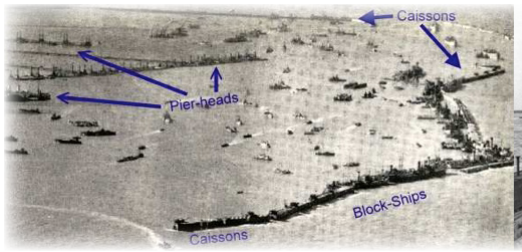
Costs: Cost are approximately $20 million per mile.

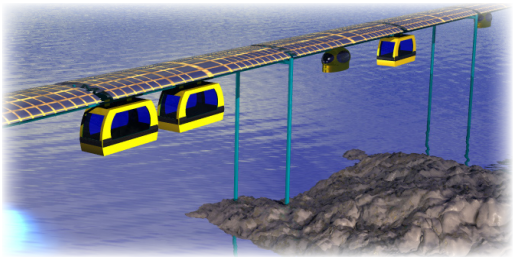
Action:
Contact JPods today.

Bill James, 612.414.4211
bill.james@jpods.com
www.jpods.com

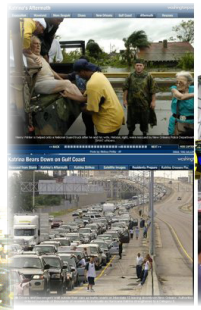
Solution: Deploy temporary JPods networks to provide cleanup, disaster relief, food, water and medical support.

Mulberry Harbors: Use JPods networks to link ship-borne resources to land based needs.

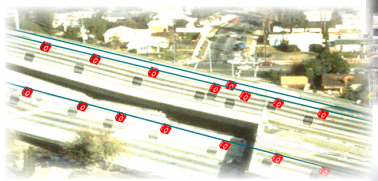




Rescue-Rail: JPods networks tailored to be deployed over broken heavy infrastructure and to mitigate congestion and energy use in times of emergency.



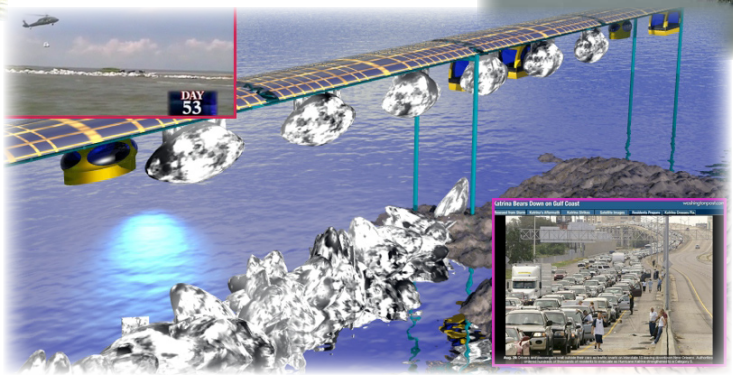
Failed bridges are quickly spanned with networks that deliver food, water, medical assistence and natural gas pipelines.



Levee-Rescue: Paid for by normal commercial transport (lower right), solar powered JPods networks are tailored to constantly build and actively defend levees.

When they breach (center) JPods networks can deliver 1,200 pound sandbags at the rate of 50 ton per minute to seal the breach.

JPods do not cap a levee as do roads, so levees can continuously be expanded in heigth and width.



Unlike the bucket brigade efforts of helicopters, JPods are a firehose for civil engineers.

JPods are an evaculation lifeline.

Consideration 2:

Fuel for DOD Very Expensive

Location	Fully Burdened Fuel Cost (per gallon)
US	$3
Iraq	$13.80
Afghan Major Hubs	$25-45
Afghan Outposts	$100-400

Hidden Costs:

When evaluating cost, must consider the FULLY BURDENED FUEL COST (FBFC) – include the overhead in fuel cost analysis

US cumulative fuel-related deaths now well over 1000; fuel trucks increasingly targeted.

Steven M. Anderson, Senior Vice President
BG (Ret) US Army sanderson@gorelvant.com

Imported Oil, an Enemy:

Since 1973 Eight Presidents have declared imported oil a threat to national security, an enemy of the Constitution.

Aiding and Abetting an Enemy:

With a primary objective of consistency, government central planners deployed infrastructure that:

- Caused the loss of thousands of miles of railroads.
- Increased demand for imported oil from 20% to 65%.
- Undermined national self-reliance.
- Created oil's Potato Famine potential, monolithic dependence energy 65% outside our control.
- Forced trade deficits and debt.
- Increased food prices.
- Destabilized governments and/or oil suppliers by stressful food prices.

Solution:

End government central planning. Return transport and power infrastructures to free markets as communications was in 1984. Allow customers, not policy makers to choose the networks that provide best value.

Embrace self-reliance. In 1950 the US imported no oil. If we apply understandings applied to communications since 1984, millions of jobs, vast innovation and better service at lower costs will result. We can return to importing no oil.

Act immediately. It normally requires 20-70 years to transition infrastructure. More and more American families cannot afford both their commute and mortgage. Foreclosures already collapsed the banking system. World Crude Oil Production peaked at 74 million barrels per day in 2005. Net Energy is dropping below 10:1. Affordable oil is in our past. We have 0-12 years to re-tool.

Action:

Contact JPods today.

Bill James, 612.414.4211
bill.james@jpods.com
www.jpods.com

Joint Forces Command's warning to all US. Military commands.

A timetable for Peak Oil's threat to the Constitution has been published by a credible government agency and the man charged with winning two wars.

Age of Oil Growth:

For 60 years central planning forged a strong correlation between economic and oil supply growth (Blue and Green lines).

Disposable Energy, disposable incomes' ability to buy oil is crashing.

Life requires energy, less affordable energy, less life.

Two centuries of oil:

At the slow and steady pace of oil field geology the cost, rate and Net Energy of oil to power the economy shifted from growth to decline.

In the next 20 years net oil energy to power economies will drop 95%.

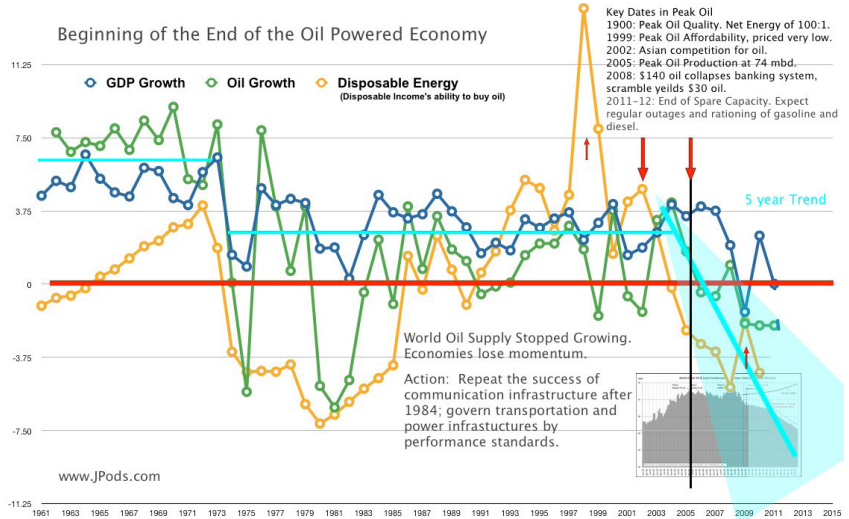
If we tool for it, economies will do fine

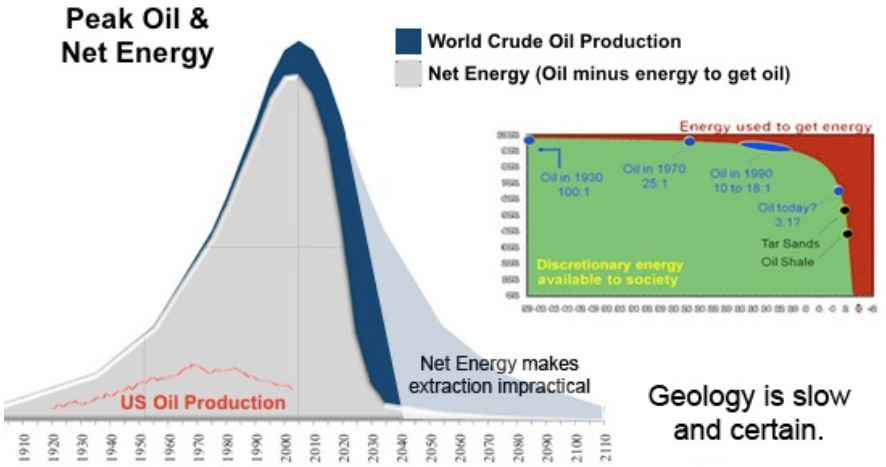
Joint Operating Environment, 2010:

"By 2012, surplus oil production capacity could entirely disappear, and as early as 2015, the shortfall in output could reach nearly 10 million barrels per day."

"A severe energy crunch is inevitable without a massive expansion of production and refining capacity. While it is difficult to predict precisely what economic, political, and strategic effects such a shortfall might produce, it surely would reduce the prospects for growth in both the developing and developed worlds. Such an economic slowdown would exacerbate other unresolved tensions, push fragile and failing states further down the path toward collapse, and perhaps have serious economic impact on both China and India. At best, it would lead to periods of harsh economic adjustment. To what extent conservation measures, investments in alternative energy production, and efforts to expand petroleum production from tar sands and shale would mitigate such a period of adjustment is difficult to predict. One should not forget that the Great Depression spawned a number of totalitarian regimes that sought economic prosperity for their nations by ruthless conquest."

Forward by General James N Mattis





Geology is slow and certain.

NEW JERSEY GENERAL ASSEMBLY

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E-Mail: aswvandervalk@njleg.org

CONSUMER AFFAIRS COMMITTEE
HOUSING AND LOCAL GOVERNMENT COMMITTEE

March 28, 2011

Dear MG Grisoli and Mr. Stockton
US Army Corps of Engineers, Headquarters
441 G. Street, NW
Washington, DC 20314

Re: April 4, 2011 Meeting with JPods, Inc.

Dear Major General Grisoli and Mr. Stockton:

It is my understanding that you will be meeting on April 4, 2011 with JPods to discuss how Personal Rapid Transit (PRT) networks might serve the mission of Corps of Engineers and the State of New Jersey.

In 2007, the New Jersey Legislature conducted a study of PRT which was prepared by Booz, Allen, Hamilton. That study is available and affirms the Congressional Office of Technology Assessment study PB-244854 which outlines how Personal Rapid Transit (PRT) might make our cities independent of imported oil. JPods networks claim 160 mpg efficiency and plan to integrate solar energy collection which could potentially help our State meet its State's Energy Master Plan goals.

New Jersey is a welcoming legislative and leadership environment for Corps projects that might involve PRT technologies. We recognize that imported oil presents economic and security risks, that environmental issues must be considered, and that rising fuel costs threaten the economic stability of our State and make it even more difficult for the Corps' to accomplish its mission. Reducing energy needs and our dependence on imported oil will benefit both the Corps and the State under normal circumstances, and especially in times of emergeny.

As illustrated in recent disasters along our Gulf Coast, in Japan, Chile, Haiti, etc, there is a repetitive need for preparation in the general welfare and common defense. New Jersey faces risks from hurricanes, floods and other issues where our duties to citizens overlap. I, therefore, respectfully request that the Corps of Engineers consider innovative solutions such as PRT in its planning decisions.

Very truly yours,

Charlotte Vandervalk

CV/bfs

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COMMONWEALTH OF MASSACHUSETTS

MASSACHUSETTS SENATE

STATE HOUSE, BOSTON 02133-1053

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COMMITTEES:
TRANSPORTATION
HOUSING
LABOR AND WORKFORCE DEVELOPMENT
PUBLIC HEALTH
POST AUDIT AND OVERSIGHT
COMMUNITY DEVELOPMENT AND SMALL BUSINESS

April 8, 2011

Major General Grisoli
United State Army Corps of Engineers, Headquarters
441 G Street, NW
Washington, DC 20314

Dear Major General Grisoli:

I am writing on behalf of William James of JPods, Corp. to enthusiastically support the use of Personal Rapid Transit (PRT) technology by the Army Corps of Engineers. JPods' PRT technology can greatly benefit the Corps as they pursue projects both in Massachusetts and across the country by providing highly efficient and environmentally friendly infrastructure and transport. By adopting PRT and other highly efficient alternative sources of power and transit, I believe the Army Corps of Engineers can be free of its dependence on foreign oil for civilian projects within five years. Furthermore, I believe the Commonwealth of Massachusetts can be an important partner in achieving this goal.

At the beginning of 2011, Massachusetts set a goal of reducing our greenhouse gas emissions 25% by the year 2020, a benchmark even more ambitious than President Obama's national proposal. The Massachusetts Department of Transportation (MassDOT) will play a key role in this effort by providing a supportive leadership environment for innovation in transportation and infrastructure. This is an ideal environment for the Corps to pursue PRT related projects and a solid foundation for a positive and mutually beneficial relationship between the Corps and the Commonwealth.

As fuel prices continue to rise and the political futures of our oil providers across the globe remain in doubt, the importance of ending our nation's dependence on foreign oil and investing in sustainable, economical alternative fuels could not be greater. I strongly urge the Army Corps of Engineers to adopt PRT technology for use in future projects and to vigorously pursue the goal of ending its dependence on imported oil for civilian projects within five years.

Sincerely,

Bob Hedlund

Sen. Robert L. Hedlund
Plymouth and Norfolk District