### Plan

#### The United States Federal Government should invest all necessary resources to establish a hydrogen fueling station network in the United States.

### Contention 1: Hydrogen Economy

#### The economy is faltering – No turnaround is in sight

Washington Post 6/28/12 [“Economy growing too slowly to lift US job market; another weak month of hiring expected,” Associated Press, Updated: Thursday, June 28, 6:05 PM, pg. http://www.washingtonpost.com/business/economy/economy-growing-too-slowly-to-lift-us-job-market-another-weak-month-of-hiring-expected/2012/06/28/gJQA2ctO9V\_print.html]

WASHINGTON — The U.S. economy is growing too slowly to pull the

AND

the housing market. plumbers; and others. Pg. Xxv-xxvi

#### We have the technology today to create a “hydrogen economy” –it needs development but will be ready by 2020

Bishop 3/26/12 (Adrian, earthtimes.org. “Hydrogen economy draws closer”. March 26, 2012)

Hydrogen could start to replace fossil fuels and be commercially produced by nuclear power plants

AND

program evaluates the technical and economic issues, taking into account various scenarios.

#### Equipping current fueling stations solves – We build public trust and pave the way for 100% hydrogen fuel

Mazloomi & Gomes 12 – Professors of Electrical Engineering @ Universiti Putra Malaysia [KavehMazloomi&Chandima Gomes “Hydrogen as an energy carrier: Prospects and challenges,” Renewable and Sustainable Energy Reviews 16 (2012) 3024– 3033

2.7.2. Production at sales outlets - Hydrogen can be produced

AND

and stationary engines can be constructed. Pg. 3031-3032 //1ac

#### Consumers need access to hydrogen in order for hydrogen to be accepted publicly

U.S. Department of Energy ’02 (U.S. Department of Energy, “A National Vision of America’s Transition to a Hydrogen Economy—to 2030 and Beyond”, Februrary 2002, http://www.hydrogen.energy.gov/pdfs/vision\_doc.pdf, DOA: 6-25-12)

There is a "chicken-and-egg" issue regarding the development of a hydrogen energy infrastructure. Even when hydrogen utilization devices are ready for broad market applications, if consumers do not have convenient access to hydrogen as they have with gasoline, electricity, or natural gas today, then the public will not accept hydrogen as “America’s clean energy choice.”

#### The alternative fuel market is uniquely stimulating

SSEB ‘06 [The Southern States Energy Board, AMERICAN ENERGY SECURITY BUILDING A BRIDGE TO ENERGY INDEPENDENCE AND TO A SUSTAINABLE ENERGY FUTURE, July 2006

This study demonstrates that embarking on a national mission to achieve liquid transportation fuels independence

AND

carpenters; welders; plumbers; and others. Pg. Xxv-xxvi

#### We need to begin using alternate energies. Our economy will inevitably collapse if we take no action.

Roberts, 2004 (Paul Roberts, 2004, Winner of New York Public Library Helen Bernstein Book Award for Excellence in Journalism, published an in-depth article on peak oil for National Geographic June 2008, “The End of Oil,” pg 331)

Starting now dramatically improves our chances of success, because it means we have more

AND

, and our chances for long-term success will be seriously impaired.

#### Economic collapse causes nuclear war which leads to extinction

Mead ‘09 (Henry , Sr fellow in U.S. Foreign Policy at the Council on Foreign Relations, The New Republic, 2/4/09, http://www.tnr.com/politics/story.html?id=571cbbb9-2887-4d81-8542-92e83915f5f8&p=2) ET

So far, such half-hearted experiments not only have failed to work;

AND

the world economy back on track, we may still have to fight.

### Contention 2: Oil

#### **Peak Oil will come around 2030.**

Hoyland 6/21/2012

OSLO--Norwegian oil giant Statoil ASA (STO) said Thursday it expects global

AND

on new projects will likely reduce returns unless the oil price increases further.

#### Current DOD systems are heavily dependent on oil – this is unsustainable

Parthemore ‘10 [Christine Parthemore, Fellow at the Center for a New American Security, September 2010, “Fueling the Future Force Preparing the Department of Defense for a Post-Petroleum Era,” <http://www.cnas.org/files/documents/publications/CNAS_Fueling%20the%20Future%20Force_NaglParthemore.pdf>, accessed on 7/11/12, Kfo]

The U.S. Department of Defense (DOD) must prepare now to

AND

hedge against prevailing economic, political and environmental trends, conditions and constraints.

#### Reducing Oil Dependency Stimulates the Economy

Williford ‘10 [Sam Williford, 11/9/10, writer for Economic Crisis, “Foreign Oil Dependency Cripples U.S. Economy”’, http://economyincrisis.org/content/foreign-oil-dependency-crippling-us-economy]

Mired in wars to protect our oil supply, faced with high energy costs,

AND

was not being used to buy American goods, but rather America itself.

#### Hydrogen can solve oil dependence

Peter Schwartz and Doug Randall, 2003, Wired, "how hydrogen can save America," <http://www.wired.com/wired/archive/11.04/hydrogen_pr.html>,

Four decades ago, the United States faced a creeping menace to national security.

AND

the Apollo program itself, which spurred the development of early fuel cells.)

#### \*\*There are two impact scenarios based on oil

#### \*\*Scenario 1 is power wars

#### Oil supplies decreasing – a transition to alternative energy is key to avoid great power wars

Klare ‘08 (Michael T Klare, professor of peace and world security studies at Hampshire College, The rise of the new energy world order, <http://www.atimes.com/atimes/Global_Economy/JD17Dj04.html>)

Oil at US$110 a barrel. Gasoline at $3.35 (

AND

based energy system to a system based on climate-friendly energy alternatives.

#### Wars over oil will be numerous and go nuclear

Kagan ‘07 – Senior associate @ Carnegie Endowment for International Peace [Robert Kagan (Senior transatlantic fellow at the German Marshall Fund), “End of Dreams, Return of History,” Policy Review, August & September 2007, pg. http://www.hoover.org/publications/policyreview/8552512.html]

The jostling for status and influence among these ambitious nations and would-be nations

AND

of American influence and global involvement will provide an easier path. // 1nc

#### \*\*Scenario 2 is Hormuz

#### The U.S.’s reliance on the Middle East for oil creates a risk of conflict on the Strait of Hormuz

Cowell 4/11/2012 (Colin. Global Research. AMERICA’S DEPENDENCY ON MIDDLE EAST OIL <http://www.globalresearch.ca/america-s-dependency-on-middle-east-oil/>)

Currently, approximately 35% of the world’s seaborne crude oil extracted from the Earth

AND

to charge for this oil—hence, the nomenclature of “instability”.

#### Strait of Hormuz conflict escalates and destroys the economy

Klare ‘12 [Michael T. Klare is a professor of peace and world security studies at Hampshire College, January 31, 2012, <http://obrag.org/?p=53517>, accessed 7/17/12, Kfo]

Ever since December 27th, war clouds have been gathering over the Strait of Hormuz

AND

undoubtedly remain the ground zero of potential global conflict in the months ahead.

### Contention 3: Solvency

#### Demand for hydrogen cars is increasing now

Peter Valdes-Dapena, 3/19/12, CNN Money, "Hydrogen cars: a zero-emission longshot?," <http://money.cnn.com/2012/03/15/autos/hydrogen-fuel-cell-cars/index.htm>,

Imagine an electric car that can be charged in about the time that it takes

AND

alternative fuel vehicles could help off-set some of the additional costs.

#### Regardless, government support crucial in transition to hydrogen refueling infrastructure.

Ogden and Ruben ‘09 (http://www.rff.org/Publications/WPC/Pages/03\_09\_09\_Outlook\_for\_Hydrogen\_Cars.aspx

Joan Ogden is Professor of Environmental Science and Policy at The University of California. Edward S. Ruben is Alumni Professor of Environmental Engineering and Science in the Engineering and Public Policy Department at Carnegie Mellon University. March 9, 2009. RFF Weekly Policy Commentary. A.G.)

Development of the hydrogen refueling infrastructure is another critical step for hydrogen cars. Current

AND

and 220 million in 2050—some 60 percent of the future fleet.

#### Government leadership key – the market won’t invest in hydrogen on its own

NRC ‘04 (National Research Council, Committee on Alternatives and Strategies for Future Hydrogen Production and Use, National Academy of Engineering ,"The Hydrogen Economy: Opportunities, Costs, Barriers, and R&D Needs, National Academy of Engineering (NAE) Board on Energy and Environmental Systems (BEES), 2004 (119)

In the area of infrastructure and delivery there seem to be significant opportunities for making

AND

new concepts for hydrogen delivery—thus making a systems approach very important.

#### Mass produced cheap and efficient cars coming in 2015 – fueling station is key now

Housley ‘10 (Adam Housley Staff Writer, Fox News, Can the Hydrogen Highway Exist? , June 15, 2010)http://liveshots.blogs.foxnews.com/2010/06/15/can-the-hydrogen-highway-exist/

What makes this pump different is compressed Hydrogen and what could be the future along

AND

” by 2010, but right now the state is far from that.

#### Hydrogen fuel can replace gasoline in cars - that solves oil dependence and warming

Joan Ogden and Edward S. Rubin. "The Outlook for Hydrogen Cars --- Weekly Policy Commentary -- March 9, 2009." The Outlook for Hydrogen Cars --- Weekly Policy Commentary -- March 9, 2009. N.p., 9 Mar. 2009. Web. 25 June 2012. <http://www.rff.org/Publications/WPC/Pages/03\_09\_09\_Outlook\_for\_Hydrogen\_Cars.aspx>.JC

While recent media coverage and political debates on alternative fuels have been dominated by a

AND

use of hydrogen grows, it can be produced more economically at large centralized

#### Hydrogen is the best resource – easy production, zero-emissions, low cost, high storage potential, scalability, and high efficiency

Cooper ‘09 [Chris Cooper, April 27, 2009, Hydrogen Fuel Cells: Research Progress and Near Term Opportunities, <http://www.dtic.mil/dtic/tr/fulltext/u2/a519966.pdf>, accessed on 7/13/12, Kfo]

INTRODUCTION The United States faces some energy challenges that if not resolved will negatively affect

AND

distributed to refueling stations via pipelines or trucks, much like gasoline supplies.

#### Hydrogen is necessary to make other renewables viable – it stores energy from wind and solar so they can be used all day long

Lokey ‘06 (Elizabeth Lokey, Ph.D. Student in Environmental Studies, The University of Colorado, A Critical Review of the Energy Policy Act of 2005 March 23 2006) ScienceDirect

Despite the lack of a coherent goal and roadmap for the entire EPAct of 2005

AND

on demand greatly increases their value and could help supplement growing baseline electrical needs