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## Plan text: The United States federal government should substantially increase loan guarantees for small modular thermal reactors.

# Contention One is Proliferation

## Nuclear power is increasing globally – demand ensures it’ll be large reactors

**Banks et al, Foreign Policy Energy Security Initiative nonresident fellow, 12-16**

(John P. “Nuclear Power in Developing Countries? Let's Talk about It.” 12-16. <http://www.brookings.edu/research/opinions/2012/12/16-nuclear-energy-banks-massy>. Accessed: 1/1/2013. ADC)

While the developed world gets cold feet on nuclear … of others are seriously considering nuclear power, but commitments are pending.

## This will result in breakout proliferation-asymmetries undermine deterrence and ensure nuclear war-safeguards are key.

(Fast/breakout, checks US influence, miscalc risk (small difference/opaqueness)

**Sokolski, Nonproliferation Policy Education Center Executive Director, 09**

(Henry, June 1, 2009, “Avoiding a Nuclear Crowd”, http://www.hoover.org/publications/policy-review/article/5534, 10/3/12, atl)

Finally, several new nuclear weapons … of this, however, is inevitable.

## US construction is key to solve-SMR’s would out compete other models and a strong domestic industry ensures maintenance of the global gold standard.

**Miller, Bipartisan Policy Co-Chair for the Nuclear Initiative, 12**

(Dr. Warren F. “Pete” e-, Former DOE Assistant Secretary for Nuclear Energy, Senator Pete Domenici, July 2012, “Challenges and Opportunities Facing Nuclear Energy in the United States”, http://bipartisanpolicy.org/sites/default/files/Leadership%20in%20Nuclear%20Energy%20Markets.pdf, 8/14/12, atl)

Several other countries, by contrast, have … development, and deployment (RD&D) programs.

## The plan causes other suppliers to model US practices-ensures no proliferation.

**Sokolski, Nonproliferation Policy Education Center Executive Director, 11**

(Henry, “The Post-Fukushima Arms Race?”, Foreign Policy, July, 29, 2011,http://www.foreignpolicy.com/articles/2011/07/29/the\_post\_fukushima\_arms\_race?print=yesandhidecomments=yesandpage=full, 10/9/12, atl)

A Japanese decision to resist temptation and … has reluctantly in the past.

## Other countries follow the US lead-ensures they’ll pick SMR’s and implement safety measures

**Lieberman, American Physical Society senior government relations specialist, 11**

(Jodi, November 15, 2011 “Nonproliferation, Congress, and Nuclear Trade: Plus ça change, plus c’est la même chose” http://csis.org/files/publication/111116\_nonproliferation\_congress\_and\_nucleartrade.pdf)

U.S. Nonproliferation Influence While 123 … summit will be held in South Korea in 2012.

## Proliferation causes nuclear war-crisis escalation, aggression, saving face, delegation and launch on warning guarantee it.

Kroenig, Georgetown University Government assistant professor, 12

(Matthew, Assistant Professor of Government at Georgetown University and Stanton Nuclear Security Fellow at Council on Foreign Relations, “The History of Proliferation Optimism: Does It Have A Future?,” 5-26-12, http://www.npolicy.org/article.php?aid=1182andrtid=2, accessed 10-2-12, mtf)

The proliferation optimist position… less-resolved opponents to back down.

## Status quo nuclear power will be based off Chinese designs-guarantees accidents and meltdowns

**Tu, Carnegie Energy and Climate Program senior associate, 12**

(Kevin Jianjun. “China’s Nuclear Crossroads.” 3-11. <http://carnegieendowment.org/2012/03/11/china-s-nuclear-crossroads>. Accessed: 9/30/2012. ADC)

It’s first important to acknowledge that … energy-thirsty China can’t afford to make.

## Nuclear accidents wreck biodiversity

Mousseau, USC biology professor, 2011

(TA, “Conservation consequences of Chernobyl and other nuclear accidents”, Biological Conservation Volume 144, Issue 12, December 2011, Pages 2787–2798, Science Direct, ldg)

The explosion at the Chernobyl nuclear power … in species when they are rare.

**Extinction**

**Daily et al, Professor, Department of Biological Sciences Stanford, 7**

(11-19, Gretchen, Senior Fellow, Woods Institute for the Environment Director, Center for Conservation Biology Director, Interdisciplinary Program in Environment and Resources Chair, The Natural Capital Project, “ECOSYSTEM SERVICES: Benefits Supplied to Human Societies by Natural Ecosystems,” <http://www.sierraforestlegacy.org/Resources/Conservation/FireForestEcology/ForestEconomics/Economics-Daily97.pdf>) atw

In addition to the production of goods, **…**beings trying to colonize the moon.

# Contention Two is Warming

**Newest and most rigorous studies conclude warming is anthropogenic – no alt causes**

**Muller, University of California-Berkeley physics professor, 12**

(Richard A., former MacArthur Foundation fellow, "The Conversion of a Climate-Change Skeptic," 7-28-12, http://www.nytimes.com/2012/07/30/opinion/the-conversion-of-a-climate-change-skeptic.html?pagewanted=all, accessed 8-10-12, mtf)

Call me a converted skeptic. Three years … about what can and should be done.

**Failure to solve warming causes extinction – geological history proves**

**Bushnell, NASA Langley Research Center chief scientist, 10**

(Dennis M. has a MS in mechanical engineering, won the Lawrence A. Sperry Award, AIAA Fluid and Plasma Dynamics Award, the AIAA Dryden Lectureship, and is the recipient of many NASA Medals for outstanding Scientific Achievement and Leadership, "Conquering Climate Change," The Futurist 44. 3, May/Jun 2010, ProQuest, accessed 10-3-12, mtf)

Unless we act, the next century could see … sound, they're actually conservative.

**Ocean acidification destroys marine biodiversity and leads to extinction**

**Romm, MIT Physics PhD, 10**

(Joe, Climate Progress editor, Senior Fellow at the American Progress, Acting Assistant Secretary of Energy for Energy Efficiency and Renewable Energy during the Clinton Administration, PhD in Physics from the Massachusetts Institute of Technology, "Nature Geoscience study: Oceans are acidifying 10 times faster today than 55 million years ago when a mass extinction of marine species occurred," 2-18-10, http://thinkprogress.org/climate/2010/02/18/205525/ocean-acidification-study-mass-extinction-of-marine-life-nature-geoscience/?mobile=nc#more-19529, accessed 10-3-12, mtf)

Marine life face some of the worst impacts. We … **carbon dioxide emissions is now**.

**Sea level rise causes extinction – even small rises matter**

**Sato, Daily Galaxy contributing editor, 8**

Rebecca, Contributing Editor at DailyGalaxy.com, former Head Writer at Freedom FastTrack “Can Changes in Sea Level Cause Periods of Mass Extinction?—A Galaxy Exclusive,” 6-19-08, http://www.dailygalaxy.com/my\_weblog/2008/06/changes-in-sea.html, accessed 10-3-12, mtf)

For years scientists have been trying to … induce. We, as a society, are not.”

**Other nations will model US investment – it’s a bellwether of nuclear tech**

**Adamantiades et al., ICG Aeolian Energy, 9**

(A. Adamantiades, ICG Properties is a real estate development firm; and I. Kessides, The World Bank, "Nuclear power for sustainable development: Current status and future prospects," Energy Policy Volume 37, Issue 12, December 2009, Science Direct, accessed 8-5-12, mtf)

This paper describes the current status and … **other parts of the world**.

**Large-scale nuclear power transition solves warming – assumes resource and time restraints**

**Knapp et al., University of Zagreb professor, 10**

(Vladimir Knapp, Dubravko Pevec, and Mario Matijević, Faculty of Electrical Engineering and Computing, Department of Applied Physics, University of Zagreb in Croatia, "The potential of fission nuclear power in resolving global climate change under the constraints of nuclear fuel resources and once-through fuel cycles," Energy Policy Volume 38, Issue 11, November 2010, Science Direct, accessed 8-22-12, mtf)

In this study, we have investigated the …strategies and for public acceptance of nuclear energy.

**Global commercialization key to check developing countries’ emissions**

**Kessides and Kuznetsov, World Bank chief economist, 12**

(Ioannis N., Development Research Group and The World Bank; and Vladimir, Consultant at The World Bank, "Small Modular Reactors for Enhancing Energy Security in Developing Countries," Sustainability 2012, 4.8, http://www.mdpi.com/2071-1050/4/8/1806/htm, accessed 9-29-12, mtf)

Increasing concerns related to energy … resistance, and reduced financial risk.

**Only the aff solves – alternative sources are of insufficient scope**

**Loudermilk, Institute for National Strategic Studies research associate, 11**

(Micah J., Research Associate for the Energy & Environmental Security Policy program with the Institute for National Strategic Studies at National Defense University, contracted through ASE Inc., "Small Nuclear Reactors and US Energy Security: Concepts, Capabilities, and Costs," IAGS Journal of Energy Security, May 2011 Issue, 5-31-11, http://www.ensec.org/index.php?option=com\_content&view=article&id=314:small-nuclear-reactors-and-us-energy-security-concepts-capabilities-and-costs&catid=116:content0411&Itemid=375, accessed 9-29-12, mtf)

Nuclear vs. Alternatives: a realistic picture …expansion of the nation’s nuclear energy portfolio.

**No risk of link turns – complete nuclear power chain significantly reduces CO2 emissions**

**Adamantiades et al., ICG Aeolian Energy, 9**

(A. Adamantiades, ICG Properties is a real estate development firm; and I. Kessides, The World Bank, "Nuclear power for sustainable development: Current status and future prospects," Energy Policy Volume 37, Issue 12, December 2009, Science Direct, accessed 8-5-12, mtf)

2.3. Global climate change In 1990 a major … the environmental effects of fossil fuel pollutants.

# Contention Three is Solvency

## Capitalization is key to nuclear commercialization-only the federal government can leverage the funds necessary

Bennett, Vice President for Public Affairs, Third Way, 10

(Matt, Josh Freed is Director of the Third Way Clean Energy initiative, Jeremy Ershow is a Policy Advisor at Third Way, “Breaking the Nuclear Financing Barrier,” February 10, http://content.thirdway.org/publications/265/Third\_Way\_Idea\_Brief\_-\_Breaking\_the\_Nuclear\_Financing\_Barrier.pdf, accessed 9-30-12, ara)

High financing costs stand in the … budget request to triple the loan volume.

## SMR’s can be commercialized quickly and are safe-studies prove they have multiple advantages

Kessides and Kuznetsov, World Bank chief economist, 12

(Ioannis N., Development Research Group and The World Bank; and Vladimir, Consultant at The World Bank, "Small Modular Reactors for Enhancing Energy Security in Developing Countries," Sustainability 2012, 4.8, http://www.mdpi.com/2071-1050/4/8/1806/htm, accessed 9-29-12, mtf)

SMRs offer a number of advantages that … characterized by significant economies of scale [19].

## NRC will streamline SMR’s

Sullivan, et al., partner, Hogan Lovells’ LLP, 10

(Mary Anne, partner in Hogan Lovells' energy practice in Washington, D.C., Daniel F. Stenger is a partner in Hogan Lovells' energy practice, Amy C. Roma is a senior associate in Hogan Lovells' energy practice, “Are Small Reactors the Next Big Thing in Nuclear?” 12-21-10, <http://www.elp.com/index/display/article-display/3288852302/articles/electric-light-power/volume-88/issue-6/sections/are-small-reactors-the-next-big-thing-in-nuclear.html>, accessed 9-20-12, ara)

The biggest challenge to getting SMRs … initiative through industry working groups.

## SMR’s compete with gas-better risk premium and no volatility

**Rosner, Distinguished Service Professor, Departments of Astronomy and Astrophysics, and Physics – Chicago University, 11**

(Robert e-, Senior Fellow, Computation Institute; Director, Energy Policy Institute; Enrico Fermi Institute; Harris School of Public Policy, Stephen Goldberg, Special Assistant to the Director Argonne National Laboratory, “Small Modular Reactors – Key To Future Nuclear Power Generation In The U.S.”, Energy Policy Institute at Chicago The Harris School of Public Policy Studies, 6/2/12, atl)

In both the 2004 Chicago Study and the current … for nuclear power plants.

## We have the workforce and infrastructure

**Spencer et al, Thomas A. Roe Institute for Economic Policy Studies research fellow, 11**

(Jack. “A Big Future for Small Nuclear Reactors?” Heritage Foundation. 2-02. <http://www.heritage.org/research/reports/2011/02/a-big-future-for-small-nuclear-reactors>. Accessed: 9/7/2012. ADC)

Domestic Production. Although the nuclear i… capabilities—all in the United States.

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# T – Multiple Incentives

## 2. Counter-interp – loan guarantees are plural forms of financial incentives with the explicit intent of increasing energy production

Webb, University of Ottawa Law Lecturer, 93

(Kernaghan, Consumer Affairs Bureau of Canada, "Thumbs, Fingers, and Pushing on String: Legal Accountability in the Use of Federal Financial Incentives," Alberta Law Review, Vol. 31, Issue 3 (31 Alta. L. Rev. 501, 1993), p. 505-506, Hein Online, accessed 8-1-12, mtf)

In this paper, "financial incentives" … assistance, but they are not incentives.

# Prolif

## Short flight times, ongoing disputes, no experience and history isn’t a guide.

**Cimbala, Penn St. Political science professor, 08**

(Stephen J, “Anticipatory Attacks: Nuclear Crisis Stability in Future Asia,” Comparative Strategy, Volume 27, Issue 2 March 2008, pages 113-132, 7/31/11, atl)

The spread of nuclear weapons in … avoidance of war outside of Europe.

## Prolif makes preemption likely – state uncertainty

**Knopf, Naval Postgraduate School National Security Affairs professor, 2002**

(Jeffrey, “Recasting the proliferation optimism-pessimism debate”, Security Studies, 12.1, ebsco, ldg)

The second implication of pressures to seek … that could survive and strike second.

## Risk of nuclear accidents is high

**Below, Royal Air Force wing commander, 2008**

(Tim, “Options for Us Nuclear Disarmament: Exemplary Leadership or Extraordinary Lunacy?”, June, online pdf, ldg)

Despite his relative optimism that proliferation … **as the greatest short term threat.**

## Risk of prolif in Asia is high

**Kassenova,** Carnegie Endowment Nuclear Policy Program Associate, 12

(Togzhan, Stanton Nuclear Security Fellow, expert on nonproliferation issues regarding weapons of mass destruction with a focus on Asian regions, “A Regional Approach to WMD Nonproliferation in the Asia-Pacific”, Carnegie Endowment Policy Outlook, August 2012, 9/3/12, atl)

The threats posed by the … contribute to meeting these other objectives.

## US industry key to solve Asian prolif

**Ferguson, Federation of American Scientists President, 10**

(Charles, May 4, 2010, “Controlling Asia's Nuclear Power Tigers”, http://www.forbes.com/2010/05/04/asia-nuclear-power-markets-economy-national-security\_2.html, 9/3/12, atl)

Asia's nuclear power tigers are becoming …proliferation-prone methods are not permitted.

## Process of proliferation increases odds of conventional war.

**Sobek, Virginia Military Institute Assistant Professor of International Studies and Political Science, 12**

(David Sobek, “Conventional Wisdom? The Effect of Nuclear Proliferation on Armed Conflict”, 1945–2001, International Studies Quarterly (2012), 1–14, 10/26/12, atl)

The effect of nuclear proliferation on conventional …that lead to at least one fatality.

# Warming

## It’s not too late

**Nuccitelli, UC Davis physics MA, 8-31-12**

(Dana, “Realistically What Might the Future Climate Look Like?”, <http://www.skepticalscience.com/realistically-what-might-future-climate-look-like.html>, DOA: 11-3-12, ldg)

We're not yet committed to … emissions as soon and as much as possible.

# Cap K

## Plan won’t be co-opted by capital – elites don’t control policymaking.

**Ralph, Leeds international politics professor, 2000**

(Jason, American democracy promotion: impulses, strategies and impacts, pg 197, ldg)

American policy undoubtedly advocates a …result of a continuous political process.

## Global movements are insufficient to challenge capitalism

**Mayer, Professor of Sociology University of Colorado, 2006**

(Tom, “Review of Michael D. Yates, Naming the System”, Cultural Logic, <http://clogic.eserver.org/2006/mayer.html>, ldg)

16. The disintegration of state socialist …a global anti-capitalist offensive.

## There is no alternative to capitalism or a clear transition

**Kliman, Pace economics professor, 2004**

(Andrew, “Alternatives to Capitalism: What Happens After the Revolution?” <http://akliman.squarespace.com/writings/>, DOA: 11-3-12, ldg)

Have we faced the harsh reality … path into the future rather than another.”

## Capitalism key to artificial intelligence

**Kurzweil, Co-Founder, Chancellor & Trustee, Singularity University, 2001**

(Ray, “The Law of Accelerating Returns”, 3-7, <http://research.lifeboat.com/law.htm>, ldg)

There is a vital economic imperative to …economic competition to stop this progression.

## AI solves every impact and averts multiple scenarios for extinction

**Howe, The Singularity Institute, 2002**

(Mitchell, “What are the Odds?”, <http://www.acceleratingfuture.com/articles/whataretheodds.htm>, ldg)

Between now and 2029, scientists …averted or remedied with surprising ease.

# Debt Ceiling Ptix

## Clash over debt ceiling now—neither are budging

**Goldfarb, Washington Post, 1/3**

(Zachary, January 3, 2013, “Lawmakers clash over federal debt ceiling”, http://www.washingtonpost.com/business/fiscal-cliff/lawmakers-clash-over-federal-debt-ceiling/2013/01/02/cc01e16c-5523-11e2-bf3e-76c0a789346f\_story.html, 1/3/13, atl)

Only hours after Congress adopted a bill to … not to negotiate over the debt ceiling.

## Hagel and Brennan nominations drain capital

**Stirewalt, Fox News writer, 1-7-13**

(Chris, “Obama Antagonizes with Hagel Pick”, <http://www.foxnews.com/politics/2013/01/07/obama-antagonizes-with-hagel-pick/#ixzz2HIw1d0GW>, DOA: 1-7-13, ldg)

With Republicans still resentful …Islamist raid on the U.S. consulate in Benghazi, Libya.

## Nuclear power is massively popular- politicians get on board

Whitman, CASEnergy Co-Chair, 12

(Christine Todd, Former EPA Administrator and New Jersey Governor, "Nuclear Power Garners Bipartisan Support," 8-13-12, http://energy.nationaljournal.com/2012/08/finding-the-sweet-spot-biparti.php#2237728, accessed 9-30-12, mtf)

The energy policy that I’ve seen garner consistent … both sides of the aisle can support.

## Debt ceiling threat is overrated—alternative threats, XO solves, and improving markets

**Brodie, Fast Money Web Producer, 1/2**

(Lee, January 2, 2013, CNBC, “Cramer: Don’t Fret Over Debt Ceiling”, http://www.cnbc.com/id/100349915, 1/3/13, atl)

"I feel like I'm surrounded by …you're blinded by the bickering.

# REM DA

## Japan Supply solves

ProEdge Wire, 9-19-12

(“The Sino-Japanese Dispute over the Senkaku Islands Highlights the Beginning of the end of China’s Rare Earths Monopoly”, Accessed 9-22-12, <http://proedgewire.com/rare-earth-intel/the-sino-japanese-dispute-over-the-senkaku-islands-highlights-the-beginning-of-the-end-of-chinas-rare-earths-monopoly/>) NJR

As for Japan itself, a new underwater … be akin to shooting itself in the foot this time.

## More Supply soon

Cho, Staffer at The Earth Institute, 9-20-12

(Renee, at Columbia University, “Rare earth metals: Will we have enough?”, Accessed 9-22-12, <http://phys.org/news/2012-09-rare-earth-metals.html>) NJR

The U.S., South Africa, Canada… operating at full capacity this year.

## China won’t restrict supply for geopolitical reasons and it won’t hurt the military if they do

**Levin, New America Foundation fellow, 2010**

(Steve, “Is China's rare earth power play really such a big deal?”, 10-21, <http://oilandglory.foreignpolicy.com/posts/2010/10/21/is_chinas_rare_earth_power_play_really_such_a_big_deal>, DOA: 10-2-12, ldg)

The supply of so-called strategic … critically needed to make such devices work.

## US can’t project power now- it’s leaking cash

**Parent et al., Miamia political science professor, 2011**

(Joseph, “The Wisdom of Retrenchment”, Foreign Affairs, Nov/Dec, ebsco, ldg)

The trend of the last decade is …the United States is leaking cash.

# \*\*\*\*1AR\*\*\*\*

# Prolif

**Multiple technical and political pressures will ensure use it or lose it mindset.**

**Horowitz, University of Pennsylvania Political Science Associate Professor, 9**

(Michael, PhD from Harvard, “The Spread of Nuclear Weapons and International Conflict: Does Experience Matter?” Journal of Conflict Resolution, 53:2, April 2009, Pages 7-10, da 9-6-12, http://belfercenter.ksg.harvard.edu/files/uploads/Horowitz\_The\_Spread\_of\_Nuclear\_Weapons.pdf, mee)

Learning as states gain experience with nuclear … and the preferences of the adopter.