

IF CAP AND TRADE IS THE ANSWER,
SOMEBODY IS ASKING THE WRONG QUESTION:
AN EVALUATION OF CAP AND TRADE
IN THE NORTH DAKOTA CONTEXT

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ABSTRACT

Cap and trade has emerged as one of the most discussed public policy mechanisms for reducing the emission of carbon into the atmosphere. It is a top priority of the Obama Administration and is favored by many in Congress. Cap and trade was a keystone of the controversial “American Clean Energy and Security Act” passed by the U.S. House of Representatives in the summer of 2009. Unfortunately, it is a policy that seems ill-suited to meeting its proposed goal. Mounting evidence suggests it does not accomplish very well, or at least very efficiently, its goal to “protect the environment.” It does not provide the price certainty needed for proper future planning of our nation’s energy resources. It is sufficiently unlike past cap and trade schemes so as to suggest any past success would not be indicative of successful implementation in the carbon context. And while its inherent flaws thwart its stated goals, its implementation would be harmful to the nation’s economy, generally, and disproportionately to North Dakota’s, specifically. Putting aside the scientific debate about anthropogenic global climate change, the international nature of carbon as an emissions source calls for a much different approach to the issue at hand. A more prudent approach to reducing carbon would involve heavy reliance in research and development of new sources of energy, with much less emphasis on “placing a price on carbon.” This would ensure that nations around the world would do what is best for both their own economic self-interest, as well as their own long-term environmental interest.

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I. INTRODUCTION

Among the most discussed items on the federal government’s agenda since the November 2008 elections has been the prospect of a national framework for reducing greenhouse gas (GHG) emissions. The approach for addressing GHG reductions that has emerged with the greatest support within the present Congressional majority and the Obama Administration is known as “cap and trade.” This article seeks to explain the basic construct of cap and trade, with a special emphasis on the factors driving the policy and its policy implications for the State of North Dakota. Given the widespread flaws of cap and trade, generally, and its harmful effect on North Dakota, specifically, it is not surprising the proposal has garnered so little support within the Peace Garden State.¹

II. WHAT IS CAP AND TRADE?

A November 2008 report released by the National Regulatory Research Institute (NRRI) explains cap and trade as working in three steps:

- (1) An overall cap on emissions is defined for a set of entities. In a cap and trade program for GHGs, the cap will most likely be

1. See Margo Thorning & Pinar Cebi, *Cap & Trade and North Dakota’s Economic Future*, N.D. POL’Y COUNCIL, Jan. 13, 2010, available at <http://www.accf.org/publications/129/cap-trade-and-north-dakotas-economic-future> (describing how the proposed cap and trade system would negatively impact North Dakota).

defined in terms of CO₂ equivalents. The set of entities could be as limited as those in the electric generation sector, or as broad as all fossil fuel users plus major emitters of other GHGs like methane.

(2) The right to emit the quantity of emissions defined by the cap is translated into emissions allowances. The unit of allowances in a GHG cap and trade is likely to be one metric ton of CO₂. Depending on choices in program design, the responsible government agency allocates allowances to specified entities at no cost, sells the allowances to the affected entities or to other parties, or does a combination of allocation and sales. All GHGs emitted by the entities in the program must be accompanied by the surrender of an equal amount of allowances.

(3) The allowances can be exchanged among any parties at any price mutually agreeable to buyers and sellers.²

The concept sounds simple enough: the government sets an emissions limit, it allocates an allowance to emit under the limit, and those who receive permits to emit, either through free allocations of the allowances or their auction, can trade them, creating a “market-set” price for the right to emit. Over time, the limit is lowered, making it more expensive to emit GHGs. By driving up the cost of GHG emissions, the hope is that alternative, non-GHG, sources for uses like electricity and transportation will look relatively more attractive.

Yet the cap and trade legislation is anything but simple. Its primary vehicle, H.R. 2454, better known as “Waxman-Markey,” is 1428 pages in length.³ The NRRI report lists numerous factors that can be taken into consideration in designing a cap and trade program, among them:

- stringency of the cap
- breadth of coverage
- point of administration
- which GHGs are covered
- how allowances are allocated or auctioned
- allowable offsets
- whether allowances can be banked
- whether there is a price safety valve mechanism

2. Andrew Keeler, *State Commission Electricity Regulation Under a Federal Greenhouse Gas Cap-and-Trade Policy*, National Regulatory Research Institute, Ohio State University, Nov. 2008, available at <http://nrri.org/pubs/electricity/08-01.pdf>.

3. American Clean Energy and Security Act of 2009 (ACESA), H.R. 2454, 111th Cong. (1st Sess. 2009).

- the compliance mechanisms
- how money to be raised through the program is to be spent by government[.]⁴

Each of these factors has a policy implication and a constituency. And, in Washington, D.C., each of these has multiple lobbyists working to represent various interests that can be harmed or benefitted depending upon how each decision point is approached. Given the fact that the United States, and the entire world, are overwhelmingly dependent on carbon (GHG emitting) resources to fuel the economy, the stakes could not be higher.⁵ The logrolling required to piece together a bill that attempts to meet as many of these demands as possible is precisely how a relatively simple concept is turned into a nearly 1500 page legislative monstrosity.⁶

III. UNDERSTANDING CAP AND TRADE

The key to understanding a good deal of what is driving cap and trade is to understand that the debate has surprisingly little to do with the environment itself or the science of anthropogenic climate change theories. If GHG emissions reductions in the name of saving the environment were solely the aim of legislation, reductions could be achieved through a cap. Granted, the change would be technologically and financially difficult, to say the least. But, if GHG emissions are a problem, the likes of which some purport, then a declining cap is how to reduce them.

Conversely, if the proponents of legislation were merely trying to “put a price on carbon,” as many have suggested should be done, the solution is just as easy. A carbon tax would do that in a much more economically-efficient manner, and without the accompanying bureaucracy to administer a cap and trade program. It is for this reason that one prominent climate change researcher has written, “the pseudonym ‘cap and trade’ must be replaced by ‘tax and trade.’ One is no more a tax than the other; they both raise the price of energy for the consumer.”⁷ Rather, to understand the

4. See Keeler, *supra* note 2, at 6-17 (discussing various factors or elements for consideration in designing a cap and trade program).

5. See *generally* Energy Information Administration (EIA) Website, *available at* www.eia.doe.gov (providing statistical information of energy consumption in the United States and internationally).

6. American Clean Energy and Security Act of 2009 (ACESA), H.R. 2454, 111th Cong. (1st Sess. 2009).

7. See Letter from James E. Hansen, Adjunct Professor, NASA Goddard Institutes for Space Studies at Columbia University, to Dr. Martin Parkinson, Secretary, Australian Department of Climate Change (May 11, 2009) [hereinafter Hansen Letter], *available at* <http://www.columbia.edu/~jeh1/>. Professor Hansen is a particularly vocal opponent of cap and trade. The letter sent to Dr. Parkinson supports a “tax and dividend,” which is essentially a carbon tax, with a return of the

appeal of cap and trade, one must understand the political, economic, and technical environments more than the natural one.

The difficulty of a simple cap is the reality that pivoting from a carbon-based economy to something else is exceedingly difficult. According to the Energy Information Administration, approximately half the electricity produced in the United States comes from coal.⁸ The transportation sector is overwhelmingly powered by fossil fuels.⁹ The agricultural sector is also a large emitter of GHGs.¹⁰ To expect that these pillars of our way of life be fundamentally overhauled in a short period of time would not just be cost prohibitive; it would risk the very reliability of the availability of these services. Yet, theoretically, a cap with reasonable timetables and expectations, and tied to technological advancements, could work in reducing emissions.

The difficulty of a carbon tax is both political and economic. It has garnered limited support in Congress for obvious reasons.¹¹ A carbon tax would place a price on carbon, which some advocate is an externality whose costs should be made explicit. But it is an understatement to suggest that a tax is politically unpopular. A tax is also an economic drag on whatever is taxed. In the case of GHGs, because carbon fuels the bulk of the economy, it is a far-reaching drag on the entire economy. The current economic recession makes it an even more difficult sell than in more ordinary times.

In contrast, cap and trade has become the primary vehicle for GHG reductions because of what it offers those drafting the legislation. While a hard cap would entail hard choices, the complex system of allowances, offsets, and trading under cap and trade creates a series of constituencies the legislation's sponsors can weave into a bill that produces entirely new levers of power within government and industry. Allowances can be auctioned to raise money for government, or they can be given freely, which creates a subsidy for the recipient. It is a subsidy for which the

revenue directly to citizens to lessen the burden of increasing energy bills. Professor Hansen has also written extensively about the perils of cap and trade. *Id.*

8. Energy Information Administration Website, *available at* <http://www.eia.doe.gov/cneaf/electricity/epa/epates.html> [hereinafter EIA Website].

9. *Id.*

10. *Id.*

11. See Jim Efstathiou Jr. and Kim Chipman, *Energy Measures May Go to Jobs Bill After Brown Win (Update1)*, BUSINESS WEEK, Jan. 21, 2010, *available at* <http://www.businessweek.com/news/2010-01-21/energy-measures-may-go-to-jobs-bill-as-brown-win-saps-cap-trade.html> (describing how the current political and economic climate has substantially decreased the likelihood of any significant cap and trade legislation); see also Lisa Leher, *GOP Warns of Harsh Climate on Energy Bill*, POLITICO, Dec. 22, 2009, *available at* <http://www.politico.com/news/stories/1209/30886.html> (describing how it will be difficult for any climate legislation to pass prior to the 2010 mid-term elections).

recipient will become increasingly dependent on government over time. Yet, for every allowance given, the purported environmental benefit decreases. The creation of offsets, a sort of environmental “indulgence,” allows entire offset industries to be created out of thin air. Speculative markets for carbon credit trading, offsets, and derivatives will be an outgrowth.

All the above will spur the need for even more government oversight, for who will “monitor” all these issues but an entirely new class of regulators? It is confusing and bureaucratic. But, building such constituencies is one way to shepherd legislation as sweeping as this, all in the name of “going green.”

Similarly, while cap and trade has a very similar net effect to consumers as a carbon tax would, it is not explicitly a “tax,” so it provides political cover. After all, what is the sense in the IRS collecting a politically unpopular tax when utility companies can do it for you shrouded behind layers of complex regulatory accounting? Put another way, if you are a sitting member of Congress looking to increase the cost of energy, what is a more appealing option: having your constituents angry at *you* for levying a transparent new energy tax, or having people angry at their *utility companies and state regulatory commissions* because they cannot figure out why their electricity bills keep rising each month?

IV. THE CASE AGAINST CAP AND TRADE

A. CAP AND TRADE DOES NOT ACTUALLY DO MUCH TO HELP THE ENVIRONMENT

Some of the most pointed criticisms of cap and trade have come not from skeptics of human-induced climate change, but from the environmental left and those who are the theory’s leading proponents.¹² For example, Professor Hansen has described cap and trade as “[a] [c]ircuitous, [i]neffectual, [i]nefficient [p]ath to a [c]arbon [p]rice.”¹³ Professor Hansen goes on to dismantle the underlying promise of cap and trade—that it will provide certainty GHG emissions will be reduced.¹⁴

Professor Hansen, who has called cap and trade the “Temple of Doom,”¹⁵ said such certain emissions reductions are a myth.¹⁶ Specifically, he stated that “[c]ap and trade is not robust. It has a great number of flaws,

12. See, e.g., Hansen Letter, *supra* note 7, at 4-7.

13. *Id.* at 4.

14. *Id.* at 5-6.

15. James E. Hansen, *Worshipping the Temple of Doom*, May 5, 2009, <http://www.columbia.edu/~jeh1/mailings/2009/20090505TempleOfDoom.pdf>.

16. *Id.*

which I am sure you will agree should not be ignored in our analyses.”¹⁷ According to Professor Hansen, the following is a list of some of the problems of cap and trade:

1. Realistic caps are incomplete and do not control what matters—total emissions.
2. Offsets are usually allowed and often poorly substantiated and verified, creating more uncertainty.
3. As with any law, caps can and will be changed, many times, before 2050.
4. National caps have been and are widely rejected, so the global cap will be far too high.
5. When caps are accepted, they are often set too high—as happened, e.g., with Russia.
6. If a complete set of tight caps were achieved, global permit trading would likely result in a Gresham’s-Law effect—“bad money drives out good.” Some countries will issue too many permits or fail to enforce requirements. These permits, being cheapest, will find their way into the world market and undermine the world cap.
7. Caps are extremely hard to enforce, as demonstrated by the Kyoto Protocol. In some cases, even with highly respected countries such as Canada, the extent of failure to meet commitments was enormous.

The view that we will have a “robust” cap is an illusion based on looking at rules for an ideal cap instead of the politics of real caps.¹⁸

Professor Hansen’s concerns are echoed by others in the environmental movement.¹⁹ The following example describes just one of the ways that the cap and trade plan may fall far short of meaningful emissions reductions.

Under the House climate bill, companies could pay for outside projects that would reduce GHG emissions—a tree-planting project in Brazil, for example—in lieu of making their own cuts. Polluters like having this option because it can often be cheaper to, say, stop deforestation than build a new wind farm. The downside,

17. Hansen Letter, *supra* note 7, at 5.

18. *Id.*

19. Bradford Plumer, *Planet Worth: Goldman Sachs Bets on Global Warming*, THE NEW REPUBLIC, Dec. 30, 2009, at 7, available at <http://www.tnr.com/article/environment-energy/planet-worth>.

though, is that these projects require heavy scrutiny—you have to make sure those newly planted trees aren't chopped down two years later. So the EPA has to tightly limit what offset projects get approved. But, if Wall Street becomes heavily involved in arranging and financing offset deals, it might decide to use its lobbying clout to increase the number of available offsets—which could weaken oversight and let through dubious projects that don't actually bring emissions down.²⁰

This example illustrates how Wall Street's interest in maximizing profit makes the cap and trade system less rigorous. Also, more offsets may equal more fees charged by Wall Street.²¹ Some have speculated that this scenario will create a “subprime carbon” market similar to the subprime mortgage market.²²

In explaining how these types of concerns will manifest themselves in public opinion, *New York Times* columnist Thomas Friedman, an outspoken proponent of reducing carbon emissions, states:

[Americans] are much less likely to support a firm in London trading offsets from an electric bill in Boston with a derivatives firm in New York in order to help fund an aluminum smelter in Beijing, which is what cap-and-trade is all about. People won't support what they can't explain.²³

These are the concerns being raised by those who are the most supportive of government stepping in to reduce GHG emissions. But legitimate criticism of cap and trade does not stop there.

B. CAP AND TRADE PROVIDES LITTLE PRICE CERTAINTY

Some supporters of cap and trade, especially those residing within certain segments of the utility and regulatory community, argue that it has the benefit of putting a price on carbon.²⁴ Given the ambiguity associated with

20. *Id.* at 7-8.

21. *Id.* at 8.

22. *See id.* “In 2008, Credit Suisse bundled together 25 different offset projects that were at various stages of United Nations approval, divvied them up into securities, and sold the pieces off to investors—precisely the sort of deal that was rampant during the housing boom and set the stage for a meltdown once homeowners started defaulting.” *Id.*

23. Thomas Friedman, *Show Us the Ball*, N.Y. TIMES, Apr. 8, 2009, available at <http://www.nytimes.com/2009/04/08/opinion/08friedman.html>.

24. *See* National Association of Regulatory Utility Commissioners [NARUC], *Resolution on Federal Climate Legislation and Cap-and-Trade Design Principles*, at 1, (Nov. 14, 2007) available at <http://www.naruc.org/Resolutions/EL1%20Resolution%20on%20Federal%20Climate%20Legislation%20and%20Cap-and-Trade%20Design%20Principles.pdf>.

Despite a diversity of opinion within NARUC's membership regarding the need for national limitations on the emission of GHGs for the purpose of addressing concerns

how the federal government plans to act in regards to GHG emissions, they argue this price certainty will provide utilities and their regulatory commissions the price guidance to help them make decisions about the prudence of various resource procurement options.

While the desire for better certainty regarding future utility costs is understandable, cap and trade may be the vehicle least suited to bringing price stability. As previously discussed, a carbon tax would add a price-certain to carbon. A cap without trade would also put a price on carbon by making emissions themselves a scarce commodity. As will be summarized in more detail later, all these approaches have an inherent flaw, but cap and trade may be the worst of the lot. It combines the problem of expecting governments around the world to voluntarily raise the cost of producing energy with a speculative trading scheme that is ill suited to a worldwide source such as carbon.

It pays to be wary of claims that carbon allowance trading will bring certainty to the price of carbon. Any review of recent market history, especially emerging markets such as this, will show significant price variability. Consider what has happened in recent years in natural gas markets, where prices have swung between \$2.92 and \$10.82 per thousand cubic feet.²⁵ Within other commodity markets there have been similar price spikes and crashes.

Potentially more concerning is that long-functioning markets have an actual tangible product, a track record, and at least some semblance of transparency. A world-wide carbon credit trading market offers few of these assurances. A number of experts have expressed this view, citing the potential for malfeasance, market speculation, and arbitrage that eventually is charged to electricity ratepayers:

Critics of carbon-trading usually focus on this derivatives market, which could swell to as much as \$2 trillion in the program's early years. "There's considerable worry that this market would have the problems that have been found in other physical commodity markets for the past few years," says Michael Greenberger, a University of Maryland law professor who oversaw the U.S. Commodity Futures Trading Commission's trading division in the

over warming of the Earth's climate, NARUC's members are in general agreement that *the enactment of federal legislation limiting such emissions in would be appropriate in order to remove existing uncertainties that are hampering the making of transmission and generation investment decisions.*

Id. (emphasis added).

25. U.S. ENERGY INFO. ADMIN., U.S. NATURAL GAS WELLHEAD PRICE (2010), available at <http://tonto.eia.doe.gov/dnav/ng/hist/n9190us3m.htm>.

late 1990s. Speculators, for instance, could artificially inflate the price of carbon—which is what some economists think happened in the oil markets last year, when the price of crude shot up from \$60 per barrel in February 2007 to \$147 per barrel in 2008. That, in turn, could cause energy prices to skyrocket and lead to a mass revolt against the whole idea of a carbon cap And many cap-and-trade skeptics fear that the House and Senate will end up letting Wall Street off easy What’s more, says Joseph Mason, an economist at Louisiana State University and a critic of carbon trading, it’s not always possible to legislate fraud and manipulation out of existence. “A million traders can think of many different ways to take advantage of these contracts that you never thought of.”²⁶

The price uncertainty that is created by cap and trade defeats one of its stated goals, for if utilities and regulators observe volatile carbon markets, they have no better basis for assessing resource selection options than they do within the status quo.

Concerns about the speculative nature of the trade portion of cap and trade has led to a small, but perhaps growing, number of federal policy-makers calling for an alternative to cap and trade. Among them are United States Senators Maria Cantwell (D-WA) and Susan Collins (R-ME), who are proposing a “cap-and-dividend” approach that would refund most of the money raised through an emissions allowance to consumers. According to the Associated Press:

Cantwell and Collins largely abandon the broad cap and trade approach that has been the focus in the Senate up until now, and which has been widely attacked by Republicans and some centrist Democrats as too complex, subject to manipulation and tantamount to imposing a huge energy tax and threatening jobs.

While the Cantwell-Collins bill would still limit greenhouse gas emissions, it would also allow limited trading of emissions allowances. The government would auction “carbon shares”—or allowances—to fossil energy producers and importers. Three-fourths of the revenue collected would be returned directly to consumers in the form of monthly checks and the rest would be used to spur clean energy and energy efficiency development and help in the transition to “green” jobs.

26. Plumer, *supra* note 19, at 6.

Allowances could be traded among the energy producers and importers that are subject to the cap, but not other traders or speculators.²⁷

While the Cantwell-Collins approach would appear to mitigate many of the speculation risks, a pure allowance auction and limited trading of allowances would still allow for a degree of uncertainty in establishing a price on carbon due to the inherent uncertainties associated with auctions and trading schemes. Neither is it likely that it would correct some of the economic deficiencies that will be discussed later in this article.

C. CAP AND TRADE IS NOT WELL SUITED TO TACKLING CARBON EMISSIONS

“Wait a minute,” supporters of cap and trade may say. “The scheme worked well for acid rain, an argument disputed by NASA’s Hansen, so it should work with carbon too.” Yet, even this argument fails scrutiny. A recent article details the surprising fact that the economists who invented cap and trade see it as a flawed tool for reducing carbon emissions.²⁸ Retired University of Wyoming Economics Professor Thomas Crocker said, “I’m skeptical that cap-and-trade is the most effective way to go about regulating carbon.”²⁹ His collaborator and fellow economist John Dales, now deceased, echoed similar comments in a 2001 interview saying, “It isn’t a cure all for everything. There are lots of situations that don’t apply.”³⁰

Additionally, many regulators and others involved with the utility industry have identified the problem of drawing comparisons between the experience of the sulfur dioxide (acid rain) cap and trade program of the 1990s and the carbon proposal of today.³¹ When the former program went into effect, there was existing technology to mitigate sulfur dioxide.

27. H. Josef Hebert, *Senators Propose New Approach to Climate Issue*, BOSTON GLOBE, Dec. 11, 2009, available at <http://www.boston.com/news/local/maine/articles/2009/12/11/senatorsproposenewapproachtoclimateissue/>.

28. Jon Hilsenrath, *Cap-and-Trade’s Unlikely Critics: It’s Creators*, WALL ST. J., Aug. 13, 2009, at A7.

29. *See id.* Chief among Crocker’s concerns:

[C]arbon emissions are a global problem with myriad sources. Cap-and-trade, he says, is better suited for discrete, local pollution problems. “It is not clear to me how you would enforce a permit system internationally,” he says. “There are no institutions right now that have that power.”

The other problem, Mr. Crocker says, is that quantifying the economic damage of climate change . . . is fraught with uncertainty Mr. Crocker says cap-and-trade is better suited for problems where the damages are clear—like acid rain in the 1990s—and a hard limit is needed quickly.

Id.

30. *Id.*

31. *Id.*

Therefore, utility companies had an economic choice to make in planning for future resource additions and changes. A utility could choose to install the equipment necessary to “clean-up” the coal, or it could use or purchase allowances within the cap. As allowances were tightened and became more expensive over time, the economic choice became tilted toward installing the environmental compliance technology.

This bears no resemblance to the carbon issue. While trials and smaller-scale projects involving carbon capture and sequestration are promising, no commercially scalable carbon capture technology exists. In such a world, there is no economic choice for a utility to make. The utility either has allowances, granted or purchased, to emit carbon, or it engages in a resource switch. Essentially, the utility chooses to generate its electricity from some other lower carbon-intensive source, regardless of economic cost.

The basic problem with the technical mechanics of cap and trade, as detailed in Parts IV.A through IV.C of this article, are neatly summarized in a quote from Yale Economics Professor William Nordhaus. In a March 2009 speech in Copenhagen, he declared:

[T]he cap-and-trade approach is a poor choice of mechanism. It is untested in the international context; it has been unable to attain anything close to universal participation; it loses precious fiscal revenues; it leads to volatile prices; and it is an invitation to rent-seeking. It is unlikely that the Kyoto model, even if strengthened, can achieve its climate objectives in an efficient and effective manner.”³²

D. THE COST TO CONSUMERS AND THE ECONOMY

The cap and trade concern that has garnered the most attention in the media is the issue of its impact on consumers and the economy. The United States is in the midst of challenging economic times, especially within certain energy intensive sectors like heavy manufacturing. Jobs are the number one issue on many Americans’ minds, and anything that raises consumer costs and is a drag on job creation is sure to be a hot button issue.³³

32. William D. Nordhaus, Sterling Professor of Economics, Yale University, *Economic Issues in a [sic] Designing a Global Agreement on Global Warming*, Keynote Speech at Climate Change: Global Risks, Challenges and Decisions, Copenhagen, Den. (Mar. 10, 2009), at 7, available at <http://nordhaus.econ.yale.edu/documents/Copenhagen052909.pdf>.

33. See, e.g., NBC NEWS/WALL STREET JOURNAL SURVEY, Study # 9500 (Jan. 10-14, 2010), available at <http://online.wsj.com/public/resources/documents/WSJNBCpoll011910.pdf> (indicating the number one issue facing Americans is jobs and the economy).

Supporters of cap and trade have traditionally papered over questions about job loss by shifting the discussion to “green jobs” that will be created by the policy. While there would, no doubt, be some of these jobs created, to suggest that cap and trade will create a *net* increase in jobs defies common sense. Energy costs are a major input cost for business. They are directly related to America’s competitiveness in the global marketplace. To the degree that these costs increase, all the businesses that pay them must divert resources from productive endeavors to less productive ones, such as funding a governmentally mandated energy “tax.”

For supporters of cap and trade to liken this to a job creation program is to believe in the broken window theory of economic development. Government could, if it wanted, pay people to smash windows. This would “create” window jobs. Businesses would need to spend money to replace them, and window manufacturers would need to ramp-up production and hire new workers. But no rational person would suggest this as a jobs program because it is only shifting dollars around; it is not a net increase in productivity. Similarly, government could pay people to dig holes in the middle of nowhere, but again, such programs come at a cost of taking money away from productive uses and diverting it to less productive ones.

Furthermore, proponents of cap and trade have argued that analysis conducted by the Environmental Protection Agency (EPA) and the Congressional Budget Office (CBO) indicate that it would only cost an average American family about a postage stamp a day.³⁴ But independent review of those studies suggests significant flaws in that reasoning. A George C. Marshall Institute report summarized the lowball EPA-CBO cost estimates as such:

Saying the cost of ACESA [American Clean Energy Security Act] is just a single postage stamp a day is an appealing rhetorical flourish. But, even using the most favorable cost estimate, this rhetoric oversimplifies the uncertainties and impacts surrounding the bill. Advocates of Waxman-Markey cap-and-trade would be kind to

34. See, e.g., Juliet Eilperin, *Cap-and-Trade Would Slow Economy, CBO Chief Says*, WASH. POST, Oct. 15, 2009, available at <http://www.washingtonpost.com/wp-dyn/content/article/2009/10/14/AR2009101404054.html>.

Representative Edward J. Markey (D-Mass.), co-author of the House bill with Representative Henry A. Waxman (D-Calif.), said that several independent analyses, including one by the CBO, had found their bill “would only cost about a postage stamp a day, and that’s before you include thousands of dollars in savings from energy-efficiency gains. The harsh reality is that America’s global warming and energy challenges are just too important for us to keep mailing it in by not enacting a comprehensive energy and global warming bill.”

Id.

themselves and their credibility if they mailed the postage stamp back to the post office.³⁵

Common sense also dictates that cap and trade will be a proposition that costs more than a day's pocket change. It pays to remember that the stated purpose of the program is to raise energy costs. To the degree it does not, it cannot accomplish its goal. If prices do not rise enough to force utilities to change the resources they select and consumers to change consumption patterns, the program will fail. The notion that those things can happen for the cost of a postage stamp a day does not pass the smell test.

Rather, a number of rigorous studies support what should be self-evident. Raising energy costs in a global market, especially unilaterally, will result in economic pain and dislocation for American workers and consumers. One such study was commissioned by the American Council for Capital Formation and the National Association of Manufacturers (ACCF-NAM). Its conclusions are a stark reminder of the impact of energy costs.³⁶ The report demonstrates how the United States economy "slows under the Waxman-Markey bill (H.R. 2454), especially in the post-2020 period as the free emission allowances are phased out for both energy producers and energy consumers."³⁷ The report predicted:

In 2030, the inflation adjusted, annual GDP level is reduced by 1.8% (or \$419 billion) under the low cost scenario and by 2.4% (or \$571 billion) under the high cost scenario, compared to the baseline forecast (see Table 1). To put these GDP losses in perspective, in 2008 the Federal government spent \$612 billion on social security payments to retirees. Looked at another way, if GDP levels are reduced by \$571 billion in 2030, Federal and State tax receipts will be approximately \$170 billion lower that year since Federal and State governments take approximately 30 cents out of every dollar of GDP. Thus, government budgets will be harder to meet.

Over the entire 18 year period (2012-2030) covered by ACCF-NAM analysis, cumulative GDP losses are substantial, ranging from \$2.2 trillion dollars under the low cost case to \$3.1 trillion under the high cost case. Again, the hit to Federal and State

35. Rachel Schwartz, *Waxman-Markey Costs More Than a Postage Stamp*, GEORGE C. MARSHALL INSTITUTE POLICY OUTLOOK, Aug. 2009, at 3, available at <http://www.marshall.org/pdf/materials/757.pdf>.

36. See AM. COUNCIL FOR CAPITAL FORMATION & NAT'L ASSOC. OF MANUFACTURERS, ANALYSIS OF THE WAXMAN-MARKEY BILL (2009), http://www.accf.org/media/dynamic/3/media_387.pdf [hereinafter ANALYSIS].

37. *Id.* at 4.

budgets is large, cumulative tax receipts will be reduced by between \$670 billion and \$930 billion compared to the baseline forecast.³⁸

Industrial production is found to take a particularly hard hit under the cap and trade regime. It “begins to decline immediately in 2012, relative to the baseline forecast, under the Waxman-Markey bill. In 2030, U.S. industrial output levels are reduced by between 5.3% and 6.5% under the low and high cost scenarios.”³⁹

There is also a significant projected dampening of the employment outlook. Regarding employment, the ACCF-NAM report found that:

Employment is negatively impacted by Waxman-Markey, even when additional “green” jobs are factored in. Over the 2012-2030 period, total U.S. employment averages between 420,000 and 610,000 fewer jobs each year under the low and high cost scenarios than under the baseline forecast. In 2030, there are between 1,790,000 and 2,440,000 fewer jobs in the overall economy. Manufacturing employment is hard hit: by 2030 there are between 580,000 and 740,000 fewer jobs, or between a 6 and 7% reduction in total manufacturing employment in the U.S compared to the baseline forecast. On average, over the 2012-2030 period, the manufacturing sector absorbs 59 to 66% of the overall job losses caused by the Waxman-Markey bill.⁴⁰

Finally, the report concludes there is a significant negative risk for average American consumers.⁴¹ It finds “that residential electricity prices are 5 to 8% higher by 2020, by 2030 electricity prices are between 31 to 50% higher. Gasoline prices are also higher. By 2030 prices are up to 20 to 26% higher than under the baseline forecast.”⁴²

The net result for household income is a decrease:

[U]nder the Waxman-Markey bill, even after accounting for rebates to consumers mandated in the bill. In 2030, the decline in annual household income ranges from about \$730 in the low cost case to about \$1,248 in the high cost case. However the impacts on individual states, especially in the Midwest, are about twice as high as the national average.⁴³

38. *Id.* at 4-5.

39. *Id.* at 5.

40. *Id.*

41. *Id.*

42. *Id.*

43. *Id.*

E. THE COST TO NORTH DAKOTA

Disparate regional impacts should be particularly concerning for North Dakota policy makers. While the Midwest generally may be particularly hard hit by cap and trade, North Dakota may be the hardest hit of all. In April 2009, the North Dakota Public Service Commission (PSC) convened the Carbon Cap-and-Trade Summit to discuss the consumer impact of various cap and trade proposals working their way through Congress at the time.⁴⁴ As the agency charged with setting utility rates and protecting consumers of essential services provided by state-sanctioned monopolies, the PSC analysis focused specifically on ratepayer impacts in North Dakota—as opposed to general economic impacts or impacts on North Dakota’s sizable electricity production industry, which includes both fossil fuels and renewable resources.⁴⁵

In its summary report of the summit, the PSC issued a number of key findings:

1. North Dakota is one of the most coal dependent states and its consumers will be impacted more than those in nearly any other state.
2. North Dakotans currently pay some of the lowest electricity rates in the nation.
3. Energy bills are regressive in nature and higher energy costs will harm low-income customers the most.
4. Increased energy prices will result in an overall increase in costs of goods and services.
5. Abrupt changes in energy policy could be inefficient and cause undue harm, both from an economic and electric reliability standpoint.
6. Commercial scale carbon capture technology is still in its infancy.⁴⁶

Given North Dakota’s status as one of the top coal dependent states in the nation along with its low electricity costs, the upward price risk for consumers is substantial.

That fact is borne out by the information provided to the PSC by the state’s utility companies. While each potential impact varied, a common

44. N.D. PUB. SERV. COMM’N, CARBON CAP & TRADE SUMMIT EXECUTIVE SUMMARY (Apr. 17, 2009), *available at* <http://www.psc.state.nd.us/hottopics/Exec-Summary-Carbon-Cap-and-Trade-Summit-FinalVersion%20copy.pdf>.

45. *Id.* at 1.

46. *Id.* at 2.

trend and theme emerged from the reports. Montana-Dakota Utilities, an investor-owned utility that provides electricity service to portions of central and western North Dakota, reported that an additional \$20 per ton cost of carbon—\$20 is often viewed as a realistic initial per ton assessment, with costs increasing over time—would result in a 40% increase for residential customers, and a 52% rate increase for industrial customers.⁴⁷ Minnkota Power Cooperative, a member-owned generation and transmission (G&T) cooperative that provides service to distribution utilities throughout eastern North Dakota and northwestern Minnesota, reported their rates would rise 25% for every \$10 per ton cost assessed to carbon.⁴⁸ Basin Electric Power Cooperative, a similar G&T utility that provides service to cooperative distribution utilities throughout several states in the central and western United States, estimates cap-and-trade could cost its consumers \$498 million in 2012, with its North Dakota consumers paying \$99 million of that.⁴⁹ Otter Tail Power Company, an investor-owned utility serving portions of central and eastern North Dakota and northwest Minnesota said each \$10 per ton carbon cost would increase residential rates by 12.5% and industrial rates by 16%.⁵⁰

Perhaps the most telling fact regarding cap and trade's specific impact on North Dakota was a report of the National Rural Electric Cooperative Association, which indicated that North Dakota consumers of its member cooperatives would see the largest rate impacts of any ratepayers in the nation, approximately \$25 for every \$20 per ton cost assessed.⁵¹ The PSC itself calculated that the average annual increase for a 1000 kilowatt hour per month user of electricity would total \$350 at a low-end \$20 per ton carbon "tax." If carbon costs go up to as high as \$60 per ton, not an unrealistic assumption over time, the increase would total \$1051 per year.⁵²

In assessing the information provided at the summit, the PSC concluded with the following recommendations:

Based on the concerns and data presented at the summit, the Commission opposes cap and trade. However, the Commission would offer the following recommendations if Congress does proceed with a cap and trade law:

47. *Id.*

48. *Id.*

49. *Id.* at 3.

50. *Id.*

51. *Id.*

52. *Id.* at 4.

- Revenue generated from any carbon regulation should be targeted for carbon technology research and development, not as an excuse for further government spending. In no instance should cap and trade become a new general government revenue source. Doing so would ensure that North Dakotans would pay a disproportionate share of the cost of federal government spending.
- Any effective solution must be global. All carbon emitting countries like China need to be involved.
- All sources of energy must be included in Cap and Trade. Carbon regulation cannot be targeted only at electricity ratepayers.
- Targets should be achievable and timed with technology advancements, not based on unrealistic or arbitrary Congressional mandates.
- Reduction proposals should have safeguards so the economy and consumers don't suffer.
- There needs to be protections against market manipulations and large price swings. Emission reduction proposals, such as cap and trade, must include an economic safety valve to avoid excessive financial hardships, market manipulation or large price swings.
- Local distribution utilities should receive free allowances for emissions. State regulation ensures that this will not become a "windfall" for utility shareholders. Free allowances help mitigate the potential for skyrocketing electricity rates that are inherent in the President's 100 percent auction model.

The Commission does hasten to note, that even if the recommendations listed above are included in the legislation, it finds the cap and trade concept so inherently flawed and harmful to North Dakota consumers, that it is still a proposal that should be rejected by Congress.⁵³

What should be particularly disconcerting to North Dakotans is the fact that the pain associated with cap and trade is not evenly shared by all Americans. In fact, relative to North Dakota, some states might cynically support it as a means for having its interests subsidized by the heartland of

53. *Id.* at 7-8.

America. While an average North Dakotan might see his or her electricity rates increase hundreds of dollars per year, someone living in a state served primarily by nuclear or hydro power, for example, would see very little increase. Yet most of the cap and trade plans have revenue generated from it either spent on general fund projects or on broad-based dividend returns to Americans generally.

Worse yet, most of the plans currently working their way through Congress call for the allocation of allowances to utilities to be based on both the amount of carbon emitted and the actual energy sales of the utility.⁵⁴ In other words, a portion of the free allocation of allowances to utilities is based not on how much carbon a utility has emitted, but on a utility's retail load.

The problem with this approach is that it means utilities that simply happen to have low carbon resources, such as a large nuclear fleet or those that reside in a large hydro power area, get a huge windfall of allowances which they do not need and can then sell into the cap and trade market at a substantial profit. It is an unearned windfall, and not coincidentally, explains the support given cap and trade by certain large, nuclear-based utility companies.

All of these things equate to a large tax imposed primarily on citizens living in the heartland of the country, which is the part of the nation most dependent on fossil based energy for its electricity. Adding to the inequality of the matter is the fact that federal law actually encouraged these utilities to build plants in the first place. Under the Powerplant and Industrial Fuel Use Act of 1978 (Fuel Use Act), which was repealed in 1987, the federal government strongly discouraged natural gas plants and encouraged those parts of our nation that were coal-rich to build coal plants.⁵⁵

In the 1970s, the utilities that were building nuclear plants and hydro plants, or coal plants for that matter, were not doing so because of fear of global warming, as the 1970s were the time of the Ice Age scare. Rather, they were just following federal energy law and building the power plants that made the most economic sense for their customers at that time. For those in middle America to now have to shoulder not only the bulk of the cost of switching to a lower carbon intensive electricity resource portfolio, but also transfer their wealth to utility companies and consumers in other parts of the nation, seems more than just a little unfair.

If North Dakotans are looking for an acknowledgement of the significant regional disparities in the burden of cap and trade, there has not yet

54. *See, e.g.*, ACESA §§ 782(a), 783(b).

55. Powerplant and Industrial Fuel Use Act, 42 U.S.C. § 8301(b)(2) (2005).

been much sympathy given by those whose states are winners less negatively impacted by the plan. For example, United States Senator Frank Lautenberg (D-NJ), recently described his feelings on the regional disparity issue as follows:

[To] use a cliché around here, that says what goes around comes around

. . . [T]here are very few states that haven't at some time or another been there with their hand out, with their plea for the federal government to please come help us, move our citizens away from flooded areas, et cetera, et cetera

. . . So we are all in this together.⁵⁶

The politics of all this is, perhaps, understandable. But that alone does not make for good public policy. It is little wonder cap and trade has been nearly universally panned by North Dakota's elected officials of both parties.⁵⁷

V. CONCLUSION

Readers might ask, "Well, if cap and trade is unacceptable, what are the options?" It is a fair question. While this author claims no special expertise in the science of global warming, it is fair to make a few observations. Much continues to be written about the nature of anthropogenic global warming theories and the degree of actual human impact. It seems

56. *Clean Energy Jobs and American Power Act: Hearing on S. 1733 Before the S. Comm. on Env't and Pub. Works*, 111th Cong. 93 (2009) (statement of Sen. Frank Lautenberg, Member, S. Comm. on Env't and Pub. Works).

57. See John Hoeven, Governor, Statement of Governor John Hoeven State of North Dakota Before the Committee on Environment and Public Works United States Senate, (July 21, 2009), available at http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=984adb4f-6b71-4e1a-a362-b7e2ae4d49cf. As of the writing of this article, no member of North Dakota's all-Democrat congressional delegation has announced his support for cap and trade. Rep. Earl Pomeroy (D-ND) voted against it in the U.S. House of Representatives on June 26, 2009. *Id.* Sen. Byron Dorgan (D-ND) has provided generally unfavorable reviews of the "trade" portion of cap and trade. *Id.* And as noted in this article, the all-Republican North Dakota Public Service Commission has also gone on-record as opposed to cap and trade. *Id.*

North Dakota's congressional delegation is ready to oppose "cap and trade" energy policies. That's what the three men told participants at the annual meeting of Central Power Electric Cooperative today. Senators Kent Conrad and Byron Dorgan and Congressman Earl Pomeroy appeared via satellite at the meeting this afternoon. They pledged their support for heading off plans now in congress to impose a system of carbon limits and taxes known as cap and trade.

KXNet.com, *Delegation Talks Energy*, <http://www.kxnet.com/custom404.asp?404;http://www.kxnet.com/t/kent-conrad/544557.asp> (last visited July 1, 2010). See also Walter Alarkon, *Fast-track resolution instructions likely to be used to push tax legislation*, THE HILL, Apr. 21, 2010, <http://thehill.com/homenews/senate/93693-fast-track-resolution-instructions-likely-to-be-used-to-push-tax-bill> ("Conrad told reporters he would oppose using the reconciliation instruction to pass a carbon emissions cap-and-trade scheme, as he did last year.").

as though we are still very much in the infancy of understanding global climate models, man's interaction with the climate, and what it all means for the long term prosperity of mankind; to think otherwise borders on an act of hubris.

Furthermore, climate change supporters find themselves on the defensive due to the release of e-mails that show some of the top climate researchers in the world engaged in a long-term pattern of attempting to undermine the scientific process.⁵⁸ Peer reviewing is at the heart of this process, and it is clear that a number of the researchers were systematically "de-peering" scientists and academic journals that took contrary views. This scientific debate, the proving and reproving, is the heart of good science. Rather, there appears to be the deliberate creation of an echo chamber, in which only those scientists predisposed to one line of thought are considered "peers."⁵⁹ Does this alone disprove anthropogenic global warming? No, but it, paired with red flags being raised by well-qualified scientists, should give all serious students of the matter at least some pause for reflection.⁶⁰

Yet, setting aside these arguments over science, it would still seem irresponsible for us to do nothing. While carbon-based resources are much, much cleaner than ever before, they do have an environmental impact, even beyond GHGs, that any conservation-minded person would want kept at an acceptable minimum. In addition, it is foolhardy to suggest that the way we produce energy today is the ultimate manner in which energy will be harnessed for all time. Rather, all of recorded history shows a march towards

58. Kim Zetter, *Hacked E-mails Fuel Climate Change Debate*, CNN (Nov. 26, 2009), <http://edition.cnn.com/2009/TECH/11/23/hacker.climate/index.html>.

59. Patrick Michaels, *How to Manufacture a Climate Consensus*, WALL ST. J., Dec. 18, 2009, available at <http://online.wsj.com/article/SB10001424052748704398304574598230426037244.html>. Michaels makes the compelling argument that the undermining of refereed scientific literature is the great scandal of what has come to be known as "Climategate."

60. *See id.* Space constraints alone would prevent a listing of the names of scientists, pro and con, with regard to the climate change debate. In any event, this article is a critique of one of the policy proposals to reduce GHGs, rather than a debate over the science of global warming. Suffice it to say there are qualified scientists on both sides of the matter and the Climategate scandal itself proves there is still debate occurring within the scientific community. The position of many scientists on the pro-side would be expressed through the work of the International Panel on Climate Change (IPCC). *See* IPCC Home Page, <http://www.ipcc.ch/>. Those with a different viewpoint do not necessarily have an umbrella organization as such, but some examples of scientists questioning the scope and nature of anthropogenic climate change theories are, to name a few: Roy Spencer, PhD, Principle Research Scientist at the University of Alabama-Huntsville; Richard S. Lindzen, Alfred P. Sloan Professor of Atmospheric Science, Massachusetts Institute of Technology; William Gray, Professor Emeritus, Department of Atmospheric Science, Colorado State University; and Ian Plimer, Professor, School of Earth and Environmental Sciences, University of Adelaide, Australia.

more useful, higher-ordered forms of power.⁶¹ Thus, it only makes sense for us to keep looking for newer, better, cleaner, and more cost effective ways to produce power.

If the question truly is how to reduce our dependence on fossil fuels, then research and development is the only answer that will effectively lower carbon usage worldwide. No nation will ever work for long against the economic and quality of life interests of its own citizens—not even in Europe. Carbon will be used until it is not the economic fuel of choice.

Proponents of cap and trade, or any of the various “put a price on carbon” plans, believe this can be “corrected” by artificially raising the price of carbon. This is politically and economically infeasible on a worldwide basis. It is pure folly to suggest that the world will reduce carbon-based energy by hoping that each government will intentionally raise its own cost to produce energy. Access to energy and the cost of energy are the building blocks of every society and every economy. Individuals and governments will not work against their own economic self interests, and to believe otherwise is to believe a fairy tale. No legitimate government in the history of the world has ever worked to keep its citizens poor, malnourished, and without the basic necessities of life that are afforded by the use of energy resources.

Understanding that people work in their own self interest to provide for their own basic needs, like food and shelter, is the key to unlocking the GHG conundrum. Any proposal whose primary thrust is to raise energy costs will inevitably fail. The incentives for countries to cheat or merely avoid the system are too great to overcome, especially in the developing world where issues of poverty are the most pervasive. The bureaucracies needed to administer and monitor cap and trade systems for a worldwide substance like carbon are too leviathan to bear, the risk of fraud and manipulation too great.

Rather, the key is to make alternatives to fossil fuels so attractive that no one would do anything but the alternative. And the important thing to remember is cap and trade is not needed to make this happen. Only through the funding of massive research and development will we find new ways to harness the power needed to advance the human condition. New ways to produce energy need to be developed. These new forms of power must be able to successfully compete against the cost of carbon on a basis wherein carbon’s price is not artificially inflated by governments. Only then will we

61. PETER W. HUBER & MARK P. MILLS, *THE BOTTOMLESS WELL: THE TWILIGHT OF FUEL, THE VIRTUE OF WASTE, AND WHY WE WILL NEVER RUN OUT OF ENERGY* (2005) (describing this transformation). Bill Gates said it “is the only book I’ve ever seen that really explains energy, its history and what it will be like going forward.” *Id.*

have reached a point where no nation, no regulatory commission, no utility, and no developer would want to do anything but utilize the alternative because it would be economic suicide to do otherwise.⁶²

The sooner we recognize that this is the solution, the sooner we can begin a “Manhattan-Style Project” to get there. In the meantime, we should not waste another dime of our money or minute of our time on proposals like cap and trade, which do little to help the environment and are a great cost to consumers, businesses, and America’s global competitiveness. A program that combines environmental futility with a large imposition of costs is not forward-looking and it is not progressive. It is merely self-destructive and should be rejected.

62. See, e.g., Bjørn Lomborg, *Technology Can Fight Global Warming*, WALL ST. J., Aug. 28, 2009, available at <http://online.wsj.com/article/SB10001424052970203706604574376442559564788.html>. The notion that research and development is key, paired with economic realism about the costs and benefits of various approaches to climate change, is an argument forwarded by a number of analysts. *Id.*