

Cap and Trade – Economics and the Environment

Brian Rude

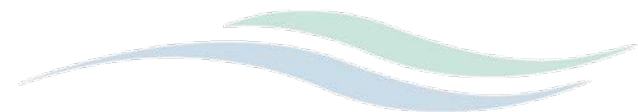
Vice President,
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A Touchstone Energy® Cooperative 

Climate Change Concerns Likely to be Addressed

- Preponderance of evidence indicates possible threat from manmade activities
- Results of 2008 election set the stage
- Many international businesses see economic opportunity
- All businesses need some certainty in planning



Possible Courses of Action

- State and/or regional legislative actions or compacts
- Lawsuits against individual companies under existing law
- Environmental Protection Agency (EPA) rule making under Clean Air Act
- Congressional action



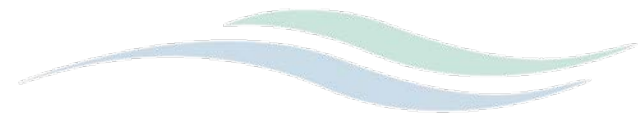
Dairyland Power Cooperative Prefers Congressional Action

- Opportunity to work with our elected officials to craft best legislation possible
- More transparent than bureaucratic rules
- Makes sense to have a single national policy vs. state or regional
- Provides certainty for consumers and business
- Accountability of elected officials



Two Major Approaches

- Carbon Tax
- Cap and Trade



**Carbon tax is simple to administer,
fair to all sources, transparent**

**But Congress will not pass because
of one issue: the word TAX**



**Cap and Trade
is likely to be
the policy of choice**



Climate Change Legislation

“Cap & Trade”...What is it?

Cap: A national limit or “cap” on greenhouse gas emissions

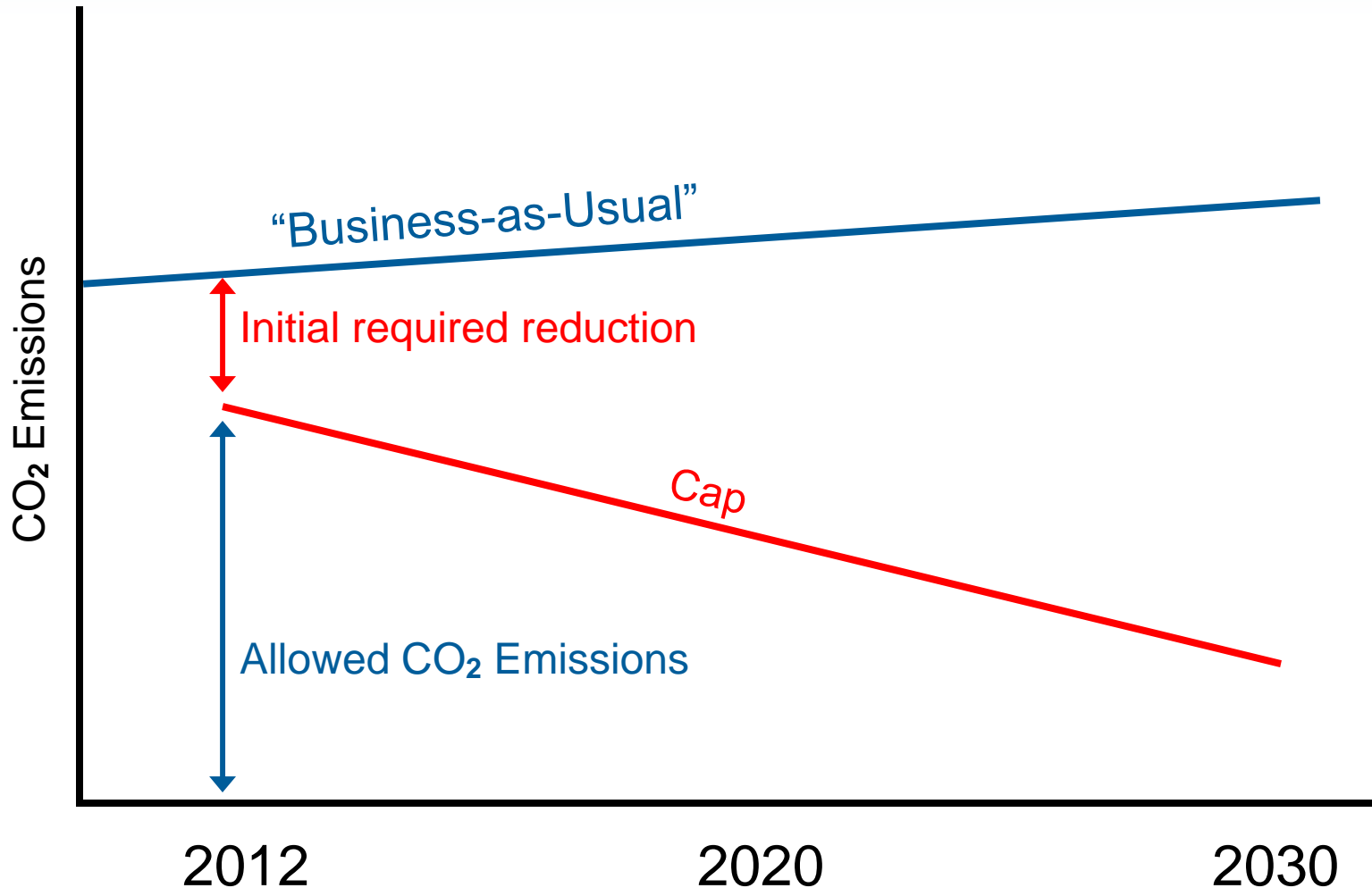
- Cap starts in a given year and lowers over time.
 - i.e. The cap could start in 2012 and lower until 2050.

Trade: Any emissions above the cap must be eliminated or purchased on a new commodity market

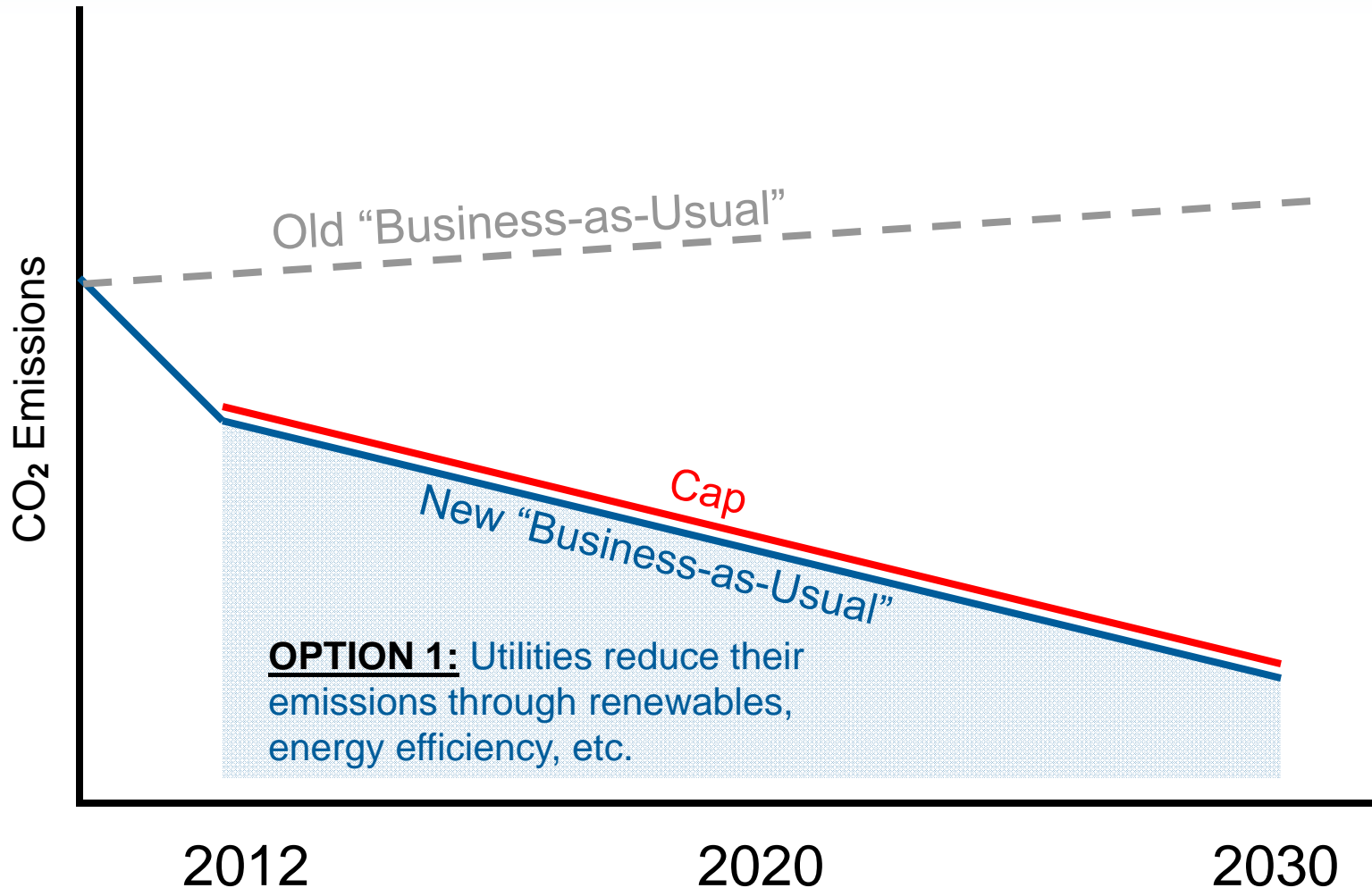
- Emissions are traded by purchasing or selling “allowances”
- The market sets the price of “allowances”



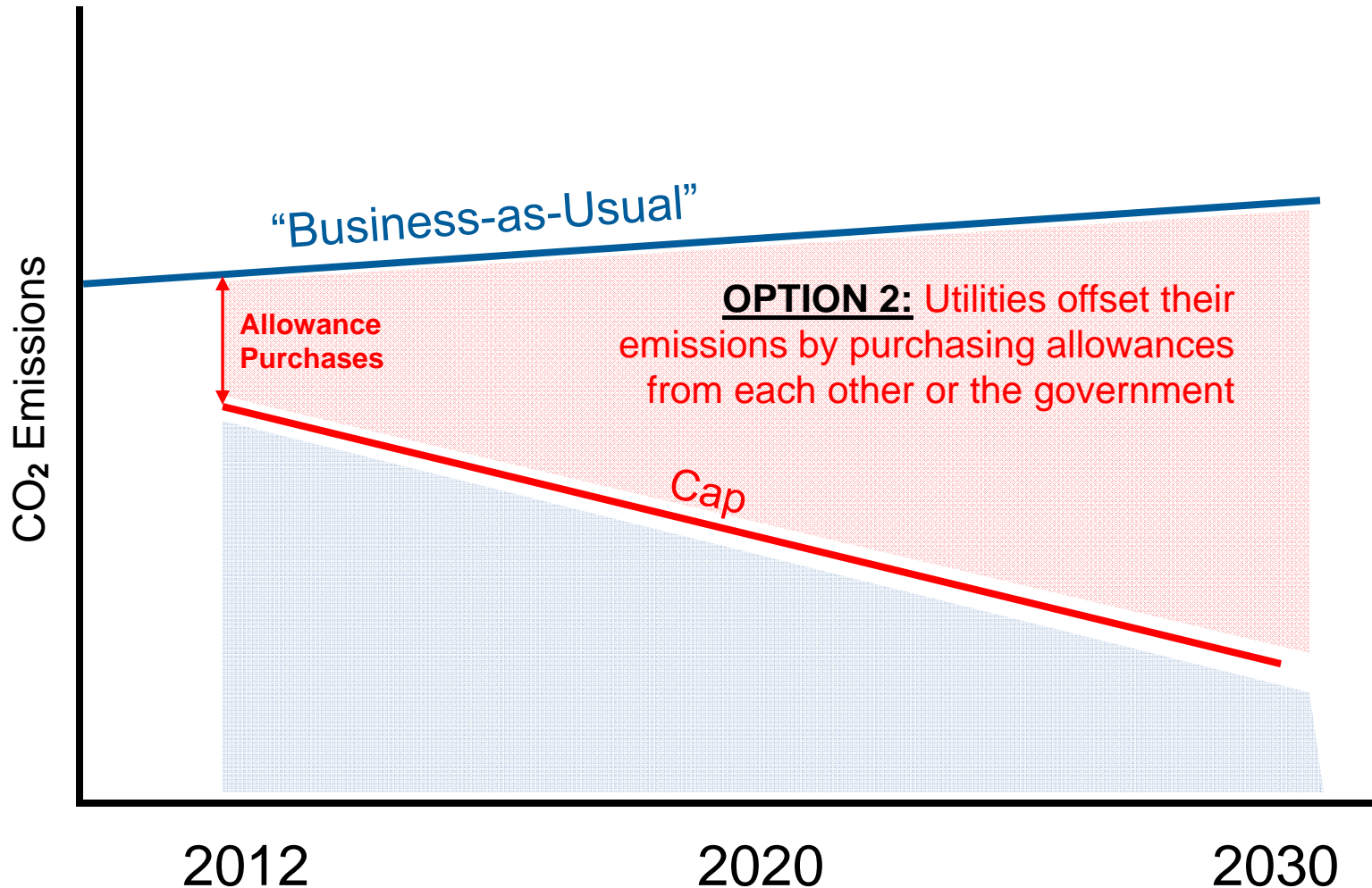
What is Cap & Trade?



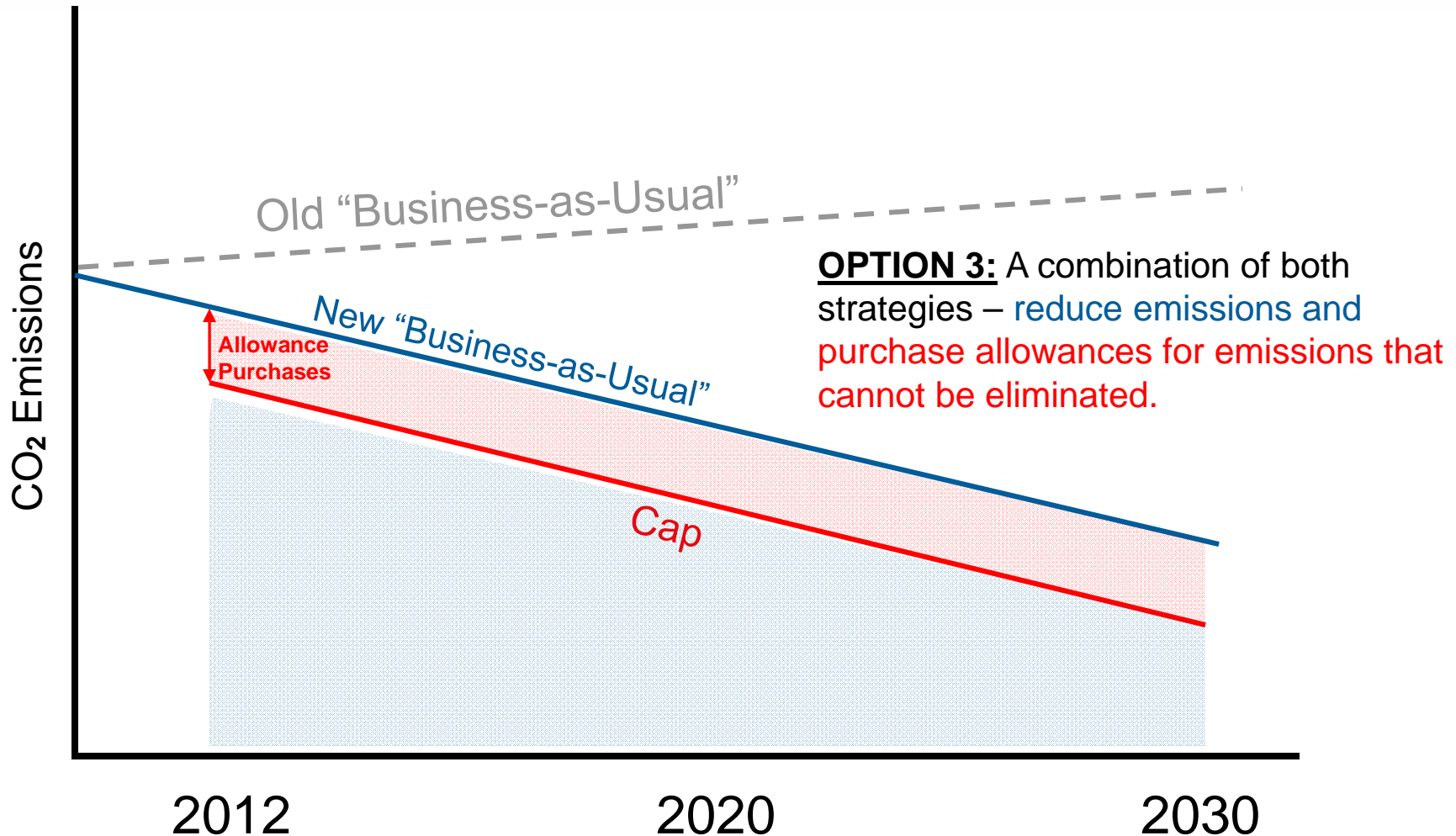
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What is Cap & Trade?

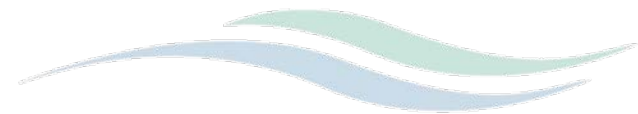


What is Cap & Trade?



Cap & Trade Today

The Waxman-Markey Legislation



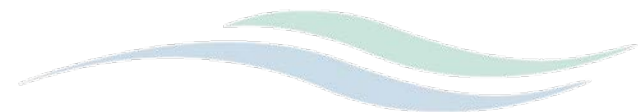
Cap & Trade Today

- Congressmen Henry Waxman (D-CA) and Ed Markey (D-MA) have created H.R. 2454 “The American Clean Energy and Security Act”
 - Known as the Waxman-Markey bill
- Bill passed the U.S. House of Representatives June 2009
- Senate version under development by Sen. John Kerry (D-MA) and Sen. Barbara Boxer (D-CA). Mark-up starts today!



Issues of Concern with Waxman-Markey Approach

- Free allocation of credits shortchanges Wisconsin
- Timetable of reductions is aggressive
- Lack of “safety valve” to protect consumers given uncertainty
- Not enough options for alternatives
 - R&D funding
 - New nuclear
 - Carbon capture and storage

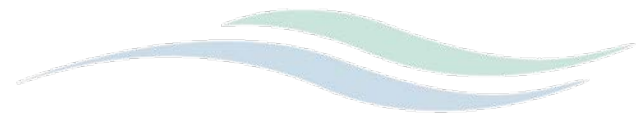


Allocation of Credits

On average, in 2012 Wisconsin utilities get **70%** of credits needed to operate while states like Massachusetts and California get **100%** of credits.

“I’m not signing onto any bill that rips off Wisconsin. There is a real possibility that this bill will be unfair to Wisconsin and Wisconsin ratepayers.”

- Senator Russ Feingold -



Formula for Waxman-Markey is based **50%** on historic emissions, **50%** on energy sold. **Five percent** of allowances are skimmed off the top for “merchant” plants.

“Energy sold” benefits renewables, nuclear and hydro facilities. Wisconsin is 70% coal-based.



Timetable of Reductions is Aggressive

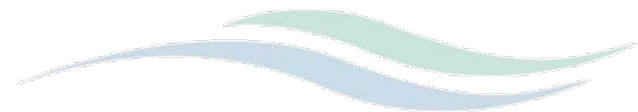
Waxman-Markey requires reductions in 2012 using 2005 as a baseline. Caps are 17% below by 2020.

We do not believe there is enough time for development of regulations and implementation, and no commercially viable, affordable alternatives in that time frame—meaning many of us will be competing for purchasing limited credits.



Lack of Safety Valve to Protect Consumers

No one knows what the price of credits will be. Ranges from \$8 a ton to \$90 a ton. Huge difference in rates can result. We support a cap of \$12 a ton in the first year of the program with inflationary increase of 5% each year thereafter.



Impact on Members

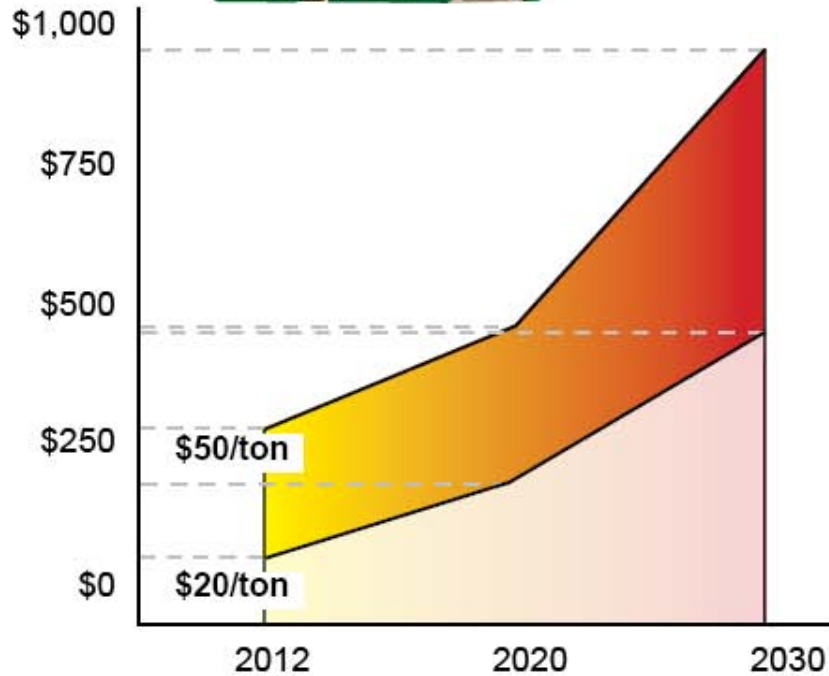
These graphs show the estimated yearly increase in electricity costs for Dairyland members due to Waxman-Markey climate change legislation. The costs could vary substantially based on volatile market conditions, with greater increases possible than the estimates below.



Residential

Home energy use estimated at 1,000 kWh/month.

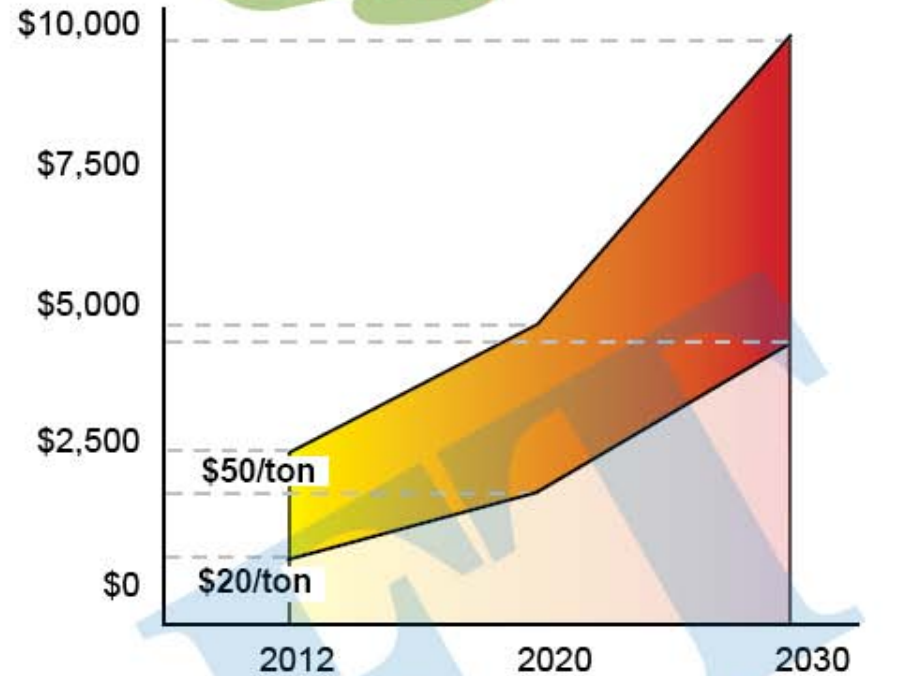
Annual
Cost
Increase



Farm

Farm use estimated at 10,000 kWh/month (150 cow dairy).

Annual
Cost
Increase



Impact on Dairyland Members



Residential

Home energy use estimated at 1,000 kWh/month.

If the trading price is \$20/ton, you will pay **\$3,900** from 2012-2030.

If the trading price is \$50/ton, you will pay **\$9,800** from 2012-2030.



Farm

Farm use estimated at 10,000 kWh/month (150 cow dairy).

If the trading price is \$20/ton, you will pay **\$37,000** from 2012-2030.

If the trading price is \$50/ton, you will pay **\$93,000** from 2012-2030.

Volatility in these prices is one of our GREATEST concerns!



A further point on cost – carbon credits are subject to auction on Wall Street. New York Senator Kirsten Gillibrand wrote in a WSJ opinion piece that the market for credits could be \$3 trillion by 2020. “Transaction fees for exchanges and clearing...could top half a billion dollars” which she says represents a financial opportunity for New York/Wall Street.

We pay!

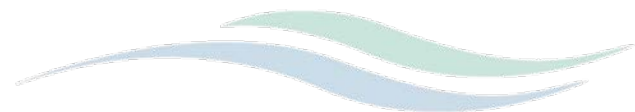


Not Enough Emphasis On Alternatives

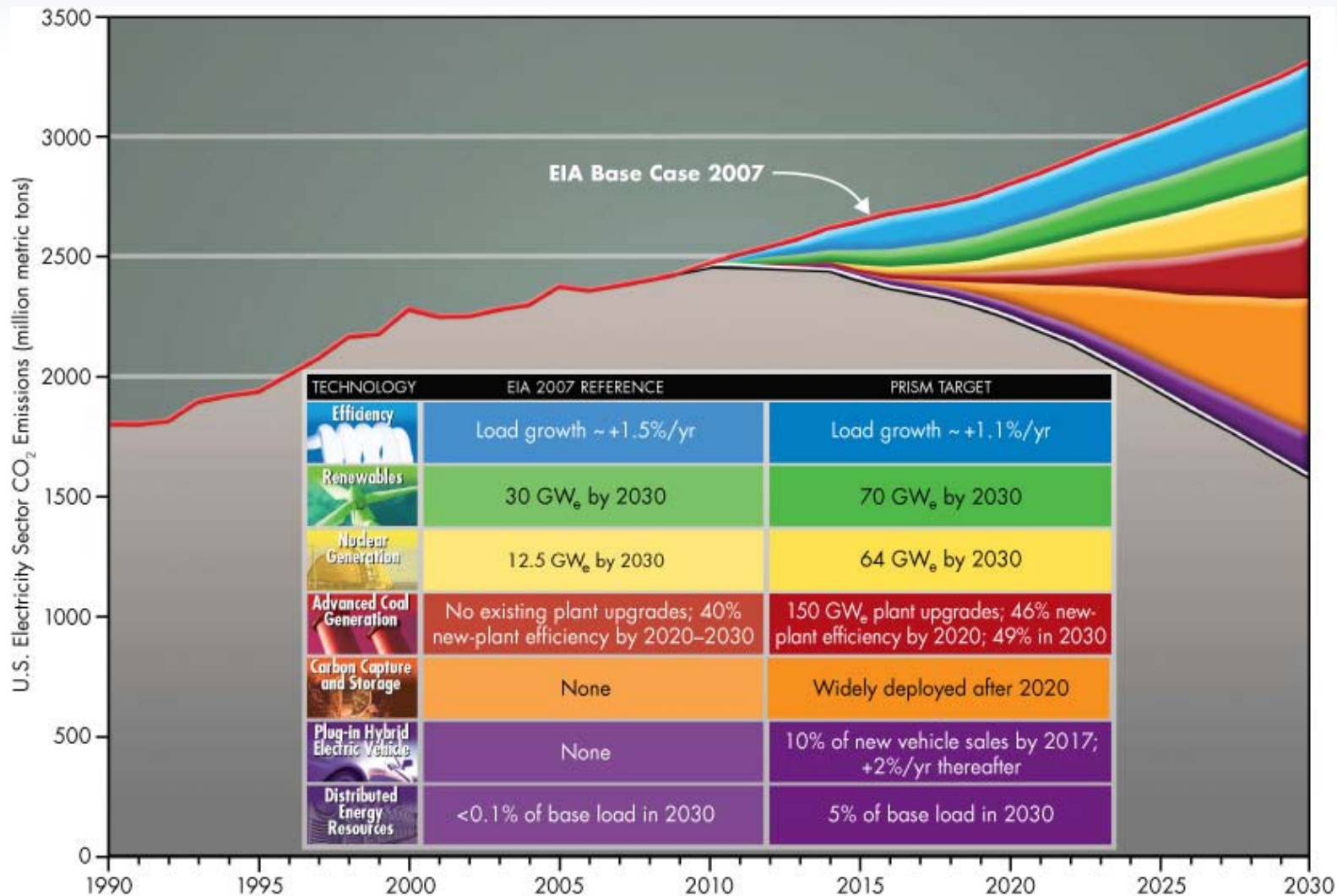
We need a “Marshall Plan” type of program to develop a technological response to allow us to continue to burn coal.

We need new nuclear.

We need R&D on improving renewables and storage of intermittent renewables like wind and solar.



EPRI Prism: The Full Portfolio of Emission Reductions



A final Note of Concern...

Copenhagen



Shall the U.S. lead, or shall we develop an international agreement that all nations will help address the problem?

Without such agreement – implementation of Cap and Trade in America will enhance loss of jobs without appreciable benefit to the environment.



Summary

Given the potential threats and the alternative mechanisms of addressing carbon, Congress should pass a bill.

We need:

- Allocation formula that is fair to the Midwest
- Timetables that are realistic and achievable
- Price cap to protect consumers and economy
- Massive effort to develop realistic technological alternatives