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January 11, 2010

Ms. Mary Nichols
Chairperson
Air Resources Board
1001 "I" Street
P.O. Box 2815
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Dear Ms. Nichols:

We appreciate the opportunity to provide comments on the ARB's draft preliminary regulation ("PDR") released on November 24, 2009. We urge you to move forward with caution in making these important programmatic design decisions. Implementation of AB 32 is a critical undertaking, shaping the future of the State and its position on the global environmental and economic stage. We are concerned that California is not leading—it is standing alone. Economic pressures and other priorities have pushed aside climate change proposals in Congress and the other states, including the states comprising membership of the WCI. Unfortunately, the PDR has moved in the wrong direction, in some cases reversing decisions already approved by the Board in the Scoping Plan. We are disappointed that the PDR takes such an unbalanced and subjective approach that will disadvantage California companies and consumers, already struggling with State budget shortfalls and a significant economic downturn.

To correctly implement AB 32, ARB should make substantial changes to the PDR by removing the overly restrictive and subjective policies which will diminish the effectiveness of the market and hinder economic growth. Specifically, Chevron supports the following changes to the PDR:

- 1) Do not include transportation fuels in the cap and trade program and do not reverse the Board decision by accelerating inclusion of transportation fuels in the cap and trade program in 2012. Carbon emissions from fuels should be managed outside a cap and trade approach in order to drive innovative fuel technology and ensure reliable supplies for our customers.
- 2) Increase the quantitative limit on offsets in the PDR and eliminate the unreasonably stringent approval process to enhance the effectiveness of the market. This will make the program as cost effective as possible, as has been demonstrated by several studies (Attachment 1).
- 3) Minimize auction levels far below 10%, especially in the early years of the program, so that facilities that have made substantial business investments in California will not be penalized.

- 4) Choose an objective price collar, over a subjective soft collar, to provide effective cost containment.
- 5) Establish clear mechanisms to link the California program with other robust cap and trade programs, avoiding unnecessary volatility and increased costs of a California-only program.
- 6) Reinstate the baseline developed in the AB 32 Scoping Plan, recognizing the need for future growth by increasing the number of allowances and allowable offsets in the program.

The following sections provide more detail on each of these six recommendations.

1) Transportation Fuels Should not be in the Cap and Trade Program in Either 2012 or 2015

Contrary to the AB 32 Scoping Plan, which proposed including transportation fuels in the cap and trade program in 2015 and in the context of a potential regional market created by the Western Climate Initiative (WCI), the PDR introduces the concept of including of fuel deliverers in the cap and trade program in 2012. Some stakeholders have asserted that this acceleration could lead to a broader (and thus more liquid) carbon market and more lower-cost emission reduction opportunities early in the program. Neither assertion is correct. Including transportation fuels in the cap and trade program at any time is unprecedented and dramatically increases the potential to isolate and disrupt California fuel markets beyond the historical impacts of the state's reformulated gasoline and diesel regulations. It would establish a hard cap on the quantity of gasoline and diesel fuel – both direct contributors to economic activity and growth — that can be supplied to drivers in the state.

- No Additional Low-Cost Emission Reduction Opportunities – Studies show that carbon reductions in the transportation sector using current technology are more expensive relative to other industry sectors since the technology required to meaningfully reduce the carbon footprint of transportation fuels is not yet available.¹ In fact, this was part of ARB's justification for the LCFS. Even with a 2015 implementation, including fuels in a cap-and-trade program in addition to the LCFS will raise the cost of transportation fuels with no guarantee of carbon emissions reductions from the transportation sector. Instead, it will lead to either rationing of fuels or a de facto tax on fuels in the state, with negative impacts on both California consumers and the economy. Including them in 2012 will simply exacerbate this problem.
- Carbon Market Broader, but not More Liquid - Adding transportation fuels into the cap and trade program earlier will not result in a more liquid market because the ability to reduce carbon emissions through widely available fuel technology will be limited than 2015, let alone in 2012-2014. Without the technology necessary to make meaningful emission reductions within the sector, putting fuels in the cap and trade program earlier

¹ Energy Information Administration Report #SR/OIAF/2008-01 (April 2008) Energy Market and Economic Impacts of S. 2191, the Lieberman-Warner Climate Security Act of 2007.

and requiring applicable carbon emission reductions will result in a higher demand for allowances without an increase in supply. Fuel suppliers' demand for allowances will actually tighten the market and reduce the number of allowances available to the stationary source sector. Since transportation sector reductions are more expensive than stationary source reductions, this will raise the cost of compliance for stationary source emitters who purchase allowances.

To achieve GHG reductions in the transportation sector, it is essential that California's GHG regulations address transportation fuels using a separate and unique approach. The Low Carbon Fuel Standard (LCFS) takes such an approach by establishing a life-cycle analysis criteria applied equally across all fuels that drives low-carbon fuel technology to its limit while allowing flexibility to respond to negative impacts on the economy.

2) Unreasonable Regulatory Barriers to Robust Offset Use Increases Program Costs

ARB offsets policy should recognize that access to reductions outside of the cap and trade program is critical to a cost effective and stable carbon market. As we have shared in Attachment 1, and in our previous public testimony, numerous economic analyses of California and other cap and trade programs confirm the cost reduction benefits of accepting verifiable GHG reductions that take place outside of the program. The PDR proposes a burdensome administrative approach that will ultimately restrict approval of high quality offset credits. Assuming that approximately 600 facilities will need approval of offset credits and if that each one purchased all of their offsets from only one credit issuing body, this task alone would require that the ARB Executive Officer approve no fewer than 50 offset credits per month every year for the duration of the program. At best, this approach could result in significant costs and delays, and at worst could discourage the development of offset projects both inside and outside the State.

Instead, ARB should first quickly develop a policy that recognizes and allows the use of UN-generated offsets before developing any regional or California offsets credit criteria or protocol program which will take more time. This policy approach would promote the use of the highest quality offset credits in regulatory use today and provide assurance to capped sectors that sufficient credits would be available for compliance purposes in 2012. It would also help spur additional offset project development. Next, ARB should pursue a one-time evaluation of the criteria or project protocols for creation of offset credits generated in other existing nongovernmental programs such as the Climate Action Reserve, Voluntary Carbon Standard and in other domestic programs around the world, assuring that a ton is a ton across these programs. Ultimately, ARB should then develop a program to facilitate the approval of new projects within and outside of California.

Offset project credit generation will also be impacted by the proposed enforcement provisions, where the PDR proposes to impose liability on the seller and the buyer through a form of joint and several liability. Instead, as is the case with other programs such as the EU ETS, liability should sit with the verifier, except in the case of fraud where it lies with the seller of the offset.

By placing the responsibility for valid offsets with the verifier, there is an incentive for veracity with the most knowledgeable and responsible party where there is the highest probability of success. The verifier is the closest to the details of the offset at the time that it is created, and is responsible for identifying the veracity of the project's methodology and credits generated. By holding liability, the verifier has the primary incentive to ensure that only robust, valid offsets enter the market place. This approach will mitigate the unnecessary legal complexities of ARB's proposed approach —shortening the time required to supply valid credits to the market —while maintaining the credibility of the offsets. It is also more transparent to the public, to investors, and to the regulated community.

3) Auctions Disadvantage Prior Investments in California

Auctions devalue existing business investments in the state by adding an additional cost just to continue operations, placing California at a disadvantage domestically and internationally. The PDR proposal will require potentially \$1.4B to \$3.0 B in additional costs (carbon cost estimated at \$20 to \$40 per ton) from only 600 facilities from a 10% auction. This will drive leakage and job loss. In addition to the serious risk of facility closure for businesses that may not generate this much in profit; this approach threatens ongoing investment in existing operations. The policy also discourages any new investment in California. As it designs the only multi-sector cap and trade program within the U.S., ARB should seek to recognize the investments made by California businesses and to encourage ongoing operations within the state. This will ensure that GHG emission reductions do occur and also that jobs and investment stay in California.

4) A Subjective Price Collar is Not Viable for Cost Containment

Cost containment mechanisms such as price collars as proposed by the PDR are not viable if they are based subjective factors rather than on actual market indices or transparent measures. Allowing any agency to arbitrarily determine the low price runs the risk of creating a price-setting process, thereby eliminating the ability of the market to function correctly. If ARB's goal is to set an artificially high market price by limiting availability of allowances, we believe that such an approach is misguided. Such an approach is risky; particularly should California experience a negative impact on the state's economy which brings into question the overall viability of the program. Should the market collapse from lack of liquidity, ARB will need to intercede in the marketplace, which will have its own set of economic impacts. Instead, ARB should either establish a safety valve or a price collar that is objective, transparent and tied to market indices or relax the offset limitation. Any of these approaches will avoid the risks of direct market intervention in the future. Should ARB choose to relax the offset limitation as a cost containment mechanism, it is critical the ARB recognize that offsets can provide cost effective reductions, but their use as a cost containment mechanism is predicated on the easy access to a broad pool of available offset credits. If such a pool is not available due to a highly limited and onerous offsets program, the effect on the market would not be immediate, and could take up to 3-5 years to generate sufficient offset project credits to meet the increased demand.

5) Linkage with EU and Future Federal Programs is Critical for Market Liquidity and California Business

It is imperative that a California link its market with existing markets and be designed to easily link with a likely federal program. A plan for California's transition to a federal program should be clearly spelled out in the final regulation since a federal program will likely emerge well before the 5 year review of the regulation. Additionally, ARB should also design its program upfront with the recognition that a federal program is inevitable. Costly policies that put California at a competitive disadvantage should be avoided. Linkages to other programs can be facilitated through the acceptance of offset credits used in larger markets such as the EU ETS. Duplicative or likely conflicting requirements such as requiring MOUs, multiple approvals, complicated contracts and limiting linkage to programs with the same offset provisions should be avoided, especially since the criteria as proposed would not allow linkage to any existing programs or with the federal program. The policy creating barriers and limitations on linkage would cause California's cap and trade program to be more costly and less environmentally effective, seriously disadvantaging California business and the economy without decreasing global GHG emissions.

6) Economic Growth Must be Allowed While Pursuing Climate Change Goals

In an effort to avoid concerns that too many allowances would be issued under the Board-approved 2020 "Business as Usual" (BAU) projection in the Scoping Plan, the PDR proposes to use 2012 projected emissions levels for setting the cap. While it is clear that the 2020 BAU projection as currently proposed is not correct because of the economic impacts of the recession, it is also clear that not accounting for any growth in California between 2012 and 2020 would result in an overly restrictive cap where allowances and offsets would be limited to only existing business. A better approach would be to recognize that economic growth is likely during this period, and provide new entrants and significant expansions with the ability to use 100% offsets to comply with the program. This approach establishes a cap that takes into account real economic growth and eliminates the need to predict future growth through modeling where allowances could be over or under estimated.

Thank you again for the opportunity to comment. Chevron, as a California company, looks forward to working closely with ARB staff to ensure the final program that is workable and encourages economic growth while reducing GHG emissions.

Best regards,

Original signed by

Stephen D. Burns

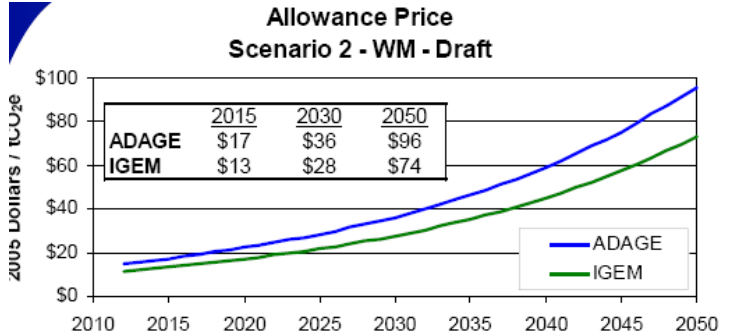
ECONOMIC STUDIES OF OFFSETS

Climate change is a global issue, and the environmental benefits of GHG emissions reductions are independent of location. Offset credits, or the use of verified emissions reductions from activities outside of the cap-and-trade program, can significantly reduce the compliance cost while increasing opportunities to simultaneously reduce GHG emissions. The use of offsets also allows time for technology to advance, and gives needed flexibility to deploy costly and complex projects which can take many years to complete.

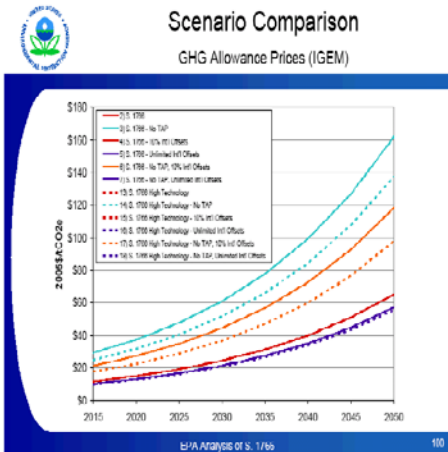
US EPA STUDY: International offsets lower costs by 96%

A recent economic study prepared by the U.S. Environmental Protection Agency ("EPA") demonstrated the effectiveness of offsets in containing costs. In it, EPA analyzed the [discussion draft of the Waxman Markey Bill](#) and concluded that without international offsets, the program would be 96% more expensive. The percentage cost of allowances reductions were found to occur in all years. The allowance costs were estimated to be significantly reduced due to the free availability of offsets as compared to other factors.

<http://www.epa.gov/climatechange/economics/pdfs/WM-Analysis.pdf>



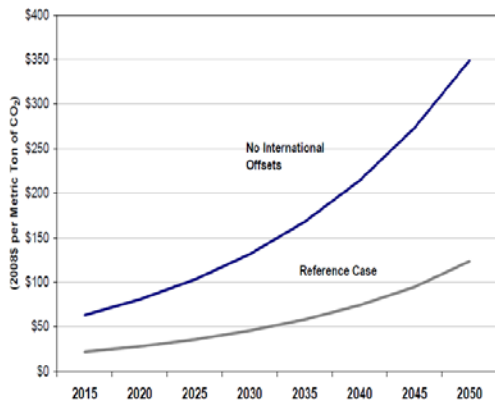
US EPA STUDY: Offsets lower costs by 65% nationally



Its analysis of [HR 2454](#) also concluded that the limited amount of offsets in the bill allowed for a 10% cost savings. Similar results were found when the [EPA analyzed the Low Carbon Economy Act of 2007](#) (S. 1766, a.k.a. the Bingaman-Specter cap-and-trade bill), where EPA concluded that allowing the use of unlimited international credits and offset projects lowers the cost of achieving emissions goals by 65%. EPA concluded that limiting the types of eligible offset projects undermines emissions reductions and makes the cap-and-trade program more expensive. The graph from page 100 of the EPA analysis of S. 1766, illustrates the cost containment benefits of offsets. http://www.epa.gov/climatechange/economics/pdfs/S1766_EP_A_Analysis.pdf.

NATIONAL BLACK CHAMBER OF COMMERCE: Double the cost if international offsets not available

Figure 3.18: Comparison of carbon allowance prices with and without international offsets



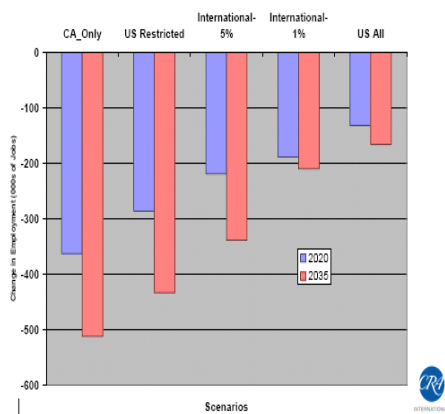
Source: CRA Model Results, 2009

According to a recent analysis published on May 22, 2009 by the [NBCC](http://www.nationalbcc.org), insufficient international offsets will double the cost of compliance, with allowance prices reaching \$350/ton by 2050. The modeling study Impact on the Economy of the American Clean Energy and Security Act of 2009 (H.R.2454) estimated costs of allowances under a cap and trade program with a cap on covered emissions from 2012-2050, allowing banking/borrowing, annually allowing for up to 2 billion in offsets (split between domestic and international offsets). The graph from page 33 of the study shows the significant economic impacts over time from limiting international offsets in cap and trade program design.

http://www.nationalbcc.org/images/stories/documents/CRA_Waxman-Markey_%205-20-09_v8.pdf

CRA REPORT ON AB 32: Up to 80% cost savings for California

Change in Employment ('000s of jobs)



At the ARB's public workshop on April 4, 2008, [CRA](http://www.arb.ca.gov/cc/scopingplan/economics-sp/meetings/040408/chevron_slides_for_arb_workshop_offsets_v4.pdf) provided a briefing to the staff and the public on its analysis of access to offsets and its impact on the cost of the AB 32 program. The analysis shows unequivocally that including offsets lowers the economic costs of complying with AB 32. Depending on availability of offsets, the inclusion of offsets can reduce program costs by up to 80%, minimize economic loss to the economy by up to \$40 billion/year by 2035 (2003\$), prevent job loss of more than 300,000 jobs and cut statewide consumption losses by 50% in 2015 and by as much as 80% in 2020 – all while ensuring that California's program has forced reduction of GHG emissions. http://www.arb.ca.gov/cc/scopingplan/economics-sp/meetings/040408/chevron_slides_for_arb_workshop_offsets_v4.pdf

MARKET ADVISORY COMMITTEE: Offsets can reduce costs of program

The Market Advisory Committee (MAC) was charged with making cap-and-trade program design recommendations to the Air Resources Board. In its final report, the MAC concluded that, "offsets—emission reductions by sources not included in the cap-and-trade program—can help reduce costs of meeting the state's emissions reduction target."

<http://www.energy.ca.gov/2007publications/ARB-1000-2007-007/ARB-1000-2007-007.PDF>

WESTERN CLIMATE INITIATIVE: Offsets lower cost by 60% in a regional cap and trade program

The design recommendations for the WCI Regional Cap and Trade Program issued in Sept 2008 recommended the cap and trade program include use of offsets with a finding that “offsets provide an effective mechanism for limiting compliance costs”. To develop its design recommendations, the WCI partner jurisdictions commissioned an Economic Analysis by ICF International and Systematic Solutions, Inc. The economic study evaluated allowance prices in a range of pricing and with various sector participation and uniformly found that offsets reduced the costs of allowance by 60 % or greater and that “Offsets and allowance banking provide compliance flexibility that reduces allowance prices.” The Western Climate Initiative is a partnership of seven US states and four Canadian provinces formed in 2007 to develop a regional cap and trade program. The table from page 20 of Appendix B of the Design Recommendations for the WCI Regional Cap and Trade Program shows the economic impacts from cap and trade programs with and without offsets.

Table B-12: Cap-and-Trade Cases Greenhouse Gas Emissions and Compliance Summary: Eight WCI Partners

GHG Emissions in 2020 (MMTCO2E)	Reference Case	Broad, Comp Policies No Offsets			Broad, Comp Policies With Offsets			Narrow, Comp Policies With Offsets		
		Value	Diff from Reference	Percent Diff	Value	Diff from Reference	Percent Diff	Value	Diff from Reference	Percent Diff
Residential	63.1	55.0	-8.1	-12.8%	55.2	-7.9	-12.5%	55.9	-7.2	-11.4%
Commercial	31.8	26.2	-5.6	-17.5%	26.4	-5.4	-17.1%	27.0	-4.8	-15.0%
Energy Intensive Industry	191.0	174.5	-16.6	-8.7%	175.0	-16.0	-8.4%	172.6	-18.5	-9.7%
Other Industry	31.0	26.9	-4.2	-13.5%	27.0	-4.0	-12.9%	26.3	-4.8	-15.3%
Passenger Transport	294.0	258.7	-35.2	-12.0%	259.0	-34.9	-11.9%	259.9	-34.1	-11.6%
Freight Transport	91.7	89.9	-1.7	-1.9%	90.4	-1.3	-1.4%	91.7	0.0	0.0%
Power Sector	176.9	114.6	-62.2	-35.2%	131.5	-45.3	-25.6%	104.8	-72.1	-40.7%
Waste & Wastewater	38.4	38.4	0.0	0.0%	38.4	0.0	0.0%	38.4	0.0	0.0%
Agriculture (non-energy)	74.9	74.9	0.0	0.0%	74.9	0.0	0.0%	71.1	-3.7	-5.0%
WCI Sub-Total	992.8	859.2	-133.6	-13.5%	877.9	-114.9	-11.6%	847.8	-145.0	-14.6%
Non-WCI Power Sector	70.0	70.0			70.0			70.0		
Non-WCI Power Sector Reductions										
Offsets		0.0								
Bank Flow										
		-31.1				-31.8				-0.2
Compliance Total		853.1			847.2			854.3		
Percent of 2006 Emissions		85.2%			84.6%			85.3%		
Bank Inventory		72.6			74.4			0.5		
Allowance Price (2007 \$/MT)		\$93			\$24			\$71		

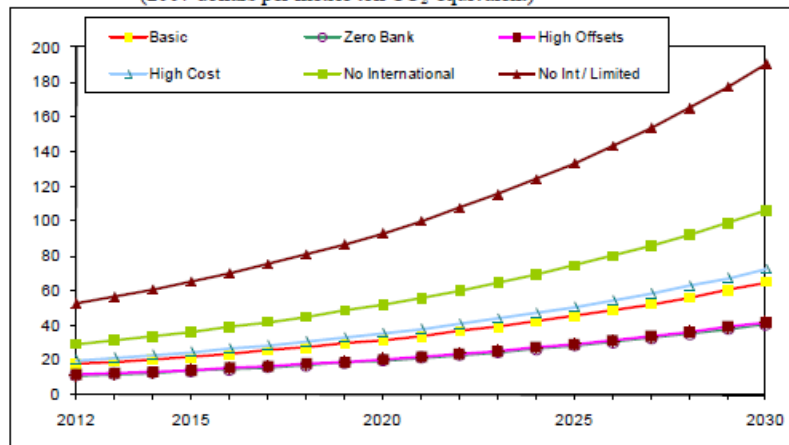
All emissions in millions of metric tons.

EIA ANALYSIS OF WAXMAN-MARKEY (HR 2454)

The Energy Information Agency (EIA) study found GHG allowance prices are sensitive to the cost and availability of emissions offsets and low-and no-carbon generating technologies. Allowance prices are 60% higher in 2020 with no international offset credits and even higher if unproven technologies such as CCS, nuclear power, or other low- or no-emission baseload electricity supply technologies cannot be expanded significantly.

[http://www.eia.doe.gov/oiaf/servicrpt/hr2454/pdf/sroiaf\(2009\)05.pdf](http://www.eia.doe.gov/oiaf/servicrpt/hr2454/pdf/sroiaf(2009)05.pdf)

Figure ES-3. Allowance Prices in Main ACESA Cases, 2012-2030
(2007 dollars per metric ton CO₂-equivalent)



Source: National Energy Modeling System runs, STIMULUS.D041409A, HR2454CAP.D072909A, HR2454NOBNK.D072909A, HR2454HIOFF.D072909A, HR2454HC.D072909A, HR2454NOINT.D072909A, and HR2454NIBIV.D072909A