

This report and draft legislation is being respectfully submitted by the Petroleum Fuels Pollution Tax Working Group, convened by Commissioner Fred Keeley. Individual participants retain their independent views about this proposal, but all participants request that this report and the draft legislation associated with it be considered by COTCE at their September meetings.

Petroleum Fuels Pollution Tax: Rationale and Process

How a Petroleum Fuels Pollution Tax Fits into the COTCE Framework

The proposed Petroleum Fuels Pollution Tax responds directly to each and every one of the Governor's Executive Order goals.

(a) “Establish 21st Century tax structure that fits with state's 21st century economy.”

This proposal directly addresses two features of California's 21st century economy that are not addressed by other proposals before the commission. One, transportation infrastructure is critical as a foundation for prosperity and growth in our 21st century economy and testimony before the commission has documented that our present system does not come close to funding our identified transportation infrastructure needs. Two, the state has a goal of reducing greenhouse gas emissions while maintaining a strong 21st century economy.

(b) “Stabilize state revenues and reduce volatility.”

This proposal will provide relief to the General Fund by allocating revenue to retire existing transportation and transit bonds. Debt retirement for these bonds currently draws down nearly \$500 million in General Fund revenues each year. The funds from this tax source will be dedicated to road maintenance and smart growth activities consistent with Article XIX of the State Constitution and with the greenhouse gas reduction goals set out by SB 375 (Steinberg) and AB 32 (Nunez), providing some relief on the General Fund and reducing the costs to the state of implementing AB 32 and SB 375.

(c) “Promote the long-term economic prosperity of the state and its citizens.”

The petroleum fuels tax avoids the economic distortions of other taxes. It recognizes and promotes California's role as a leader in green development and technology. It reduces pollution and urban sprawl, thus increasing the desirability of California as a place to work and live.

(d) “Improve California's ability to successfully compete with other states and nations for jobs and investments.”

California's transportation and transit infrastructure is badly neglected, thus reducing California's ability to successfully compete with other state and nations for jobs and investment. This proposal would provide urgently needed funds to address the multi-billion dollar back-log of maintenance and construction. Additionally, this proposal would send very important signals to the investment community. First, for the broader investment community, the signal would be sent that California recognizes the failure to invest in transportation and transit infrastructure, and has an aggressive plan to address it. Second, it sends a targeted signal to those who assemble capital for new investment in products and technology, that California is moving on every front (Air Resources Board, California Energy Commission, Governor's Office of Planning and Research), including tax policy, to address the Global Climate Change issue and bring solutions to market.

(e) “Reflect principles of sound tax policy including simplicity, competitiveness, efficiency, predictability, stability and ease of compliance and administration.”

This proposal is simple. It is based on an existing tax, thus making it unnecessary to create new structures within the tax collection and administration. A petroleum fuels tax makes California more desirable to live, work and invest because it does not tax labor or income and because it gives the state a cleaner environment, all of which make the state more competitive. In terms of efficiency, the proposal uses existing law and administration. Furthermore, by correcting a known market failure, this is one tax that actually improves the overall efficiency of the California economy. Given that “predictability” is important to investors, consumers, and to the Governor, this proposal allows predictability in terms of fuel taxes for a decade into the future. “Stability” is a close cousin to “predictability”, and this proposal provides a stable source of revenue for an area of state spending that is in serious need of a sufficient, dedicated funding source. “Ease of compliance and administration” is addressed directly through the use of the existing tax system regarding fuel taxes. The existing system is well understood by the entire chain of administrators, payers, and consumers.

(f) “Ensure that tax structure is fair and equitable.”

This proposal is fair and equitable in the sense that it begins the important process of internalizing the cost of burning carbon-based fuels. Additionally, it provides the Legislature with a method of reducing the regressive nature of the tax by authorizing a refund of some portion of the tax for low and moderate income individuals.

Policy Rationale and Design Considerations

Because the price of gasoline in California does not accurately represent its full social costs, costs associated with smog and global warming pollution from petroleum combustion are borne by society as a whole and not by the producers and users of petroleum fuels. A properly structured pollution tax could help address this market failure by creating the price signals necessary to drive change in this sector. This paper provides some input regarding the best structure for a petroleum fuel pollution tax, from the standpoint of meeting the state’s environmental goals.

Transportation and Environmental Policy in California

California currently depends on petroleum fuels for 96% of its transportation energy needs. This reliance on a single, high-polluting source of fuel presents many serious problems for the state, including poor air quality, climate change, and energy security concerns. The transportation sector accounts for approximately 40% of California’s greenhouse gas emissions and nearly 50% of its petroleum usage.

Recognizing the severity of the threats posed by petroleum dependence and the need to transform the transportation sector, California set a target for petroleum reduction as part of the 2003 Integrated Energy Policy Report: “Increase the use of nonpetroleum fuels to 20 percent on on-road fuel consumption by 2020 and 30 percent by 2030.” The state has also put into place a number of regulations and policies designed to mitigate the negative impacts of petroleum consumption and accelerate the transition to a cleaner transportation sector, including:

- SB 375 (Steinberg): creates GHG targets to drive land use planning
- AB 32 (Nunez): calls for economy-wide GHG reductions of approximately 30% by 2020. The transportation sector currently accounts for approximately 40% of GHG emissions in California
- AB 1493 (Pavley): created GHG vehicle standards (commonly known as the Pavley standards) and became the basis for recently announced federal auto standards
- Low Carbon Fuel Standard (LCFS): calls for a 10% reduction in fuel carbon intensity by 2020
- Zero Emission Vehicle (ZEV): mandates production of advanced, very low-emission vehicles
- Various air quality standards and programs

Pollution Tax is a Necessary and Valuable Complement to Existing Policies

Despite the many targets and programs designed to clean up the transportation sector, reducing the state’s petroleum consumption has proven to be a difficult task, due in large part to the lack of a strong price signal. Policies such as the LCFS and the ZEV program are designed to make sure that alternative vehicles and fuels are available, but the low price of gasoline makes these cleaner technologies less attractive to both consumers and investors. Relatively low gas prices also complicate efforts to vehicle miles traveled. Though cap and trade legislation is expected to “put a price on carbon,” experts have stated that carbon prices will be too low to drive investment and behavior changes in the transportation sector. Complementary policies, including a strong price signal, are essential.

A petroleum fuels pollution tax would complement the state’s existing transportation policies and act as a “backstop,” providing some assurance that those policies will actually deliver the petroleum and emission reductions that they are supposed to. Creating a strong price signal would ensure that people want to buy the cars that manufacturers must produce to meet the ZEV and Pavley standards. It would also serve to level the playing field for alternative fuels, helping the state’s LCFS to deliver real emissions reductions. Finally, it would create a much-needed market signal to drive better land use decisions and reduced vehicle miles traveled, helping the state to meet or exceed the goals set out in the AB 32 Climate Change Scoping Plan and in SB 375.

In order to drive investment and behavior changes, the pollution tax would have to ramp up to a meaningful level by 2020, creating a price well above current levels. While there may be concerns about the costs this would impose on the state’s businesses and consumers, the truth is that these costs are already being paid in the form of negative environmental and health impacts and huge payments to out-of-state providers of petroleum fuels. Furthermore, the current plan is to return some of the revenues to consumers, mitigating concerns about economic drag and regressivity

Tax Levels and Escalators

The most basic and most important consideration in designing a pollution tax is the level of the tax itself. Table 1 at right shows the minimum pollution tax that California would need in order to reduce petroleum consumption by various amounts when compared with consumption under the status quo. Note that a tax of over 30 cents is needed to drive even a five percent reduction in consumption over the long term. Aiming for a reduction of 20%, as called for in the state’s Integrated Energy Policy Report, would require a pollution tax of nearly \$1.25. For the sake of comparison, a \$20 price on carbon emissions would only lead to an 18 cent increase in prices, leading to a long run reduction in consumption of slightly less than 3%.

Table 1: Minimum Pollution Fees Needed at Today’s Prices to Drive Petroleum Reductions

<i>To reduce long term petroleum consumption by...</i>	<i>Would require a pollution tax of approximately...</i>
5%	\$0.31
10%	\$0.62
15%	\$0.92
20%	\$1.23
<i>NOTE: Assumes baseline gas price of \$3.07 and long term elasticity of -0.5</i>	

Given the state’s environmental goals and the problems associated with petroleum consumption, it makes sense to aim for a minimum of a 20% reduction over the long term.

However, it is clear that California should not impose a pollution tax of over \$1 all at once, particularly given the current state of the economy. A more logical approach would be to phase the tax in gradually. Table 2 below lays out options that would create a strong price signal and make a meaningful contribution to the state’s environmental goals. The tax structures presented here would create price signals that are modest in the near term (all options begin with a tax of 18 cents/gallon), and ramp up in later years as the economy recovers and alternative fuels and vehicles are more widely available. For each of the three tax structures, the table shows the per-gallon tax in 2010 dollars. Note that the tax would be adjusted annually for inflation. It also shows the degree to which a tax at that level can be expected to reduce petroleum consumption over the short term (1-2 years) and longer term.

Table 2: Pollution Tax Escalators and Impacts, Starting with 18 cents/gallon in 2010¹

Annual Escalator		Conservative 5 cents / year (2010 dollars)	Moderate 7 cents / year (2010 dollars)	Aggressive 9 cents / year (2010 dollars)
2012	Per gallon tax (2010 dollars)	\$0.28 / gallon	\$0.32 / gallon	\$0.36 / gallon
	Petroleum reduction: short term	0.9%	1.0%	1.2%
	Petroleum reduction: long term	4.5%	5.1%	5.8%
2015	Per gallon tax (2010 dollars)	\$0.43 / gallon	\$0.53 / gallon	\$0.63 / gallon
	Petroleum reduction: short term	1.3%	1.6%	1.9%
	Petroleum reduction: long term	6.7%	8.2%	9.7%
2020	Per gallon tax (2010 dollars)	\$0.68 / gallon	\$0.88 / gallon	\$1.08 / gallon
	Petroleum reduction: short term	2.0%	2.6%	3.2%
	Petroleum reduction: long term	10.1%	12.9%	15.8%

NOTE: Assumes annual inflation rate of 2.5%, short term elasticity of -0.1, and long term elasticity of -0.5. All scenarios start with \$0.18 in 2010 and all assume a 2010 gas price of \$3.07 before the pollution tax. Taxes would be adjusted annually for inflation and increased by \$0.07/gallon.

Experts have suggested that a pollution tax of \$0.60 to \$0.90 per gallon is necessary to drive change in the transportation sector. The three options outlined in Table 2 above would get to that level, roughly, by 2020. From the standpoint of meeting the state’s 2020 petroleum reduction and emission goals, a \$0.09/year escalation factor would be best, though even this would not be sufficiently aggressive to motivate a 20% reduction in petroleum usage by 2020. A more moderate escalation factor of \$0.07/year, provides a reasonable middle ground. Given recent warnings on climate change from the scientific community, it makes sense to move more quickly than a \$0.05 escalator would allow. Lower taxes may still make sense from the standpoint of improving economic efficiency and providing revenue for the state, but price signals and environmental gains would be small.

As noted above, all of the taxes outlined in Table 2 start with a \$0.18 tax in 2010. The taxes would then be adjusted annually for inflation, and increased by the specified annual escalator (\$0.05, \$0.07, or \$0.09 per gallon) every year for 10 years. This gradual ramp up allows consumers time to adjust, allows more alternatives to enter the market, and helps put to rest fears about delaying the economic recovery. Note that we have chosen to structure these increases in terms of annual inflation-adjusted X cent-per-gallon increases in order to make the taxes easily understood, but you could also build in an annual percentage escalator and arrive at similar numbers.

Which Fuels to Tax?

Also important is the question of which fuels to tax. As currently written, this pollution tax would be levied on gasoline and diesel. However, in order to truly make this a tax on petroleum fuels, it may make sense to move one step up the production process and apply the tax to all petroleum fuel inputs. For gasoline,

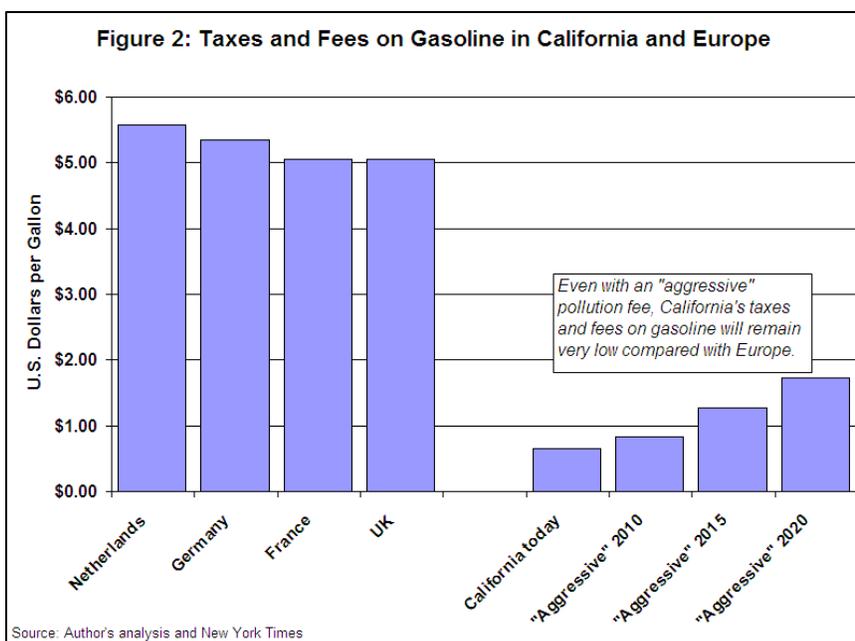
¹ Elasticities and price assumptions come from Severin Borenstein, “The Implications of a Gasoline Price Floor for the California Budget and Greenhouse Gas Emissions.” Center for the Study of Energy Markets WP 182, Dec. 2008.

this would mean taxing California Reformulated Gasoline Blendstock for Oxygenate Blending (CARBOB) and not taxing the ethanol that is blended into gasoline. This would slightly reduce the overall cost per gallon increase at the pump, but would ensure that the tax is being levied on petroleum fuels, and would provide an incentive for higher levels of renewable fuel blends. An open question would be whether or not the state would want to tax the petroleum portion of blended renewable fuels, such as the 15% of E85 that is not ethanol, or the petroleum portion of biodiesel blends. These are details that should be worked out in discussions with stakeholders and the relevant state agencies.

Putting it All in Context: Proposed Taxes are Really Quite Modest

At first glance, the suggested increases may seem dramatic. However, that is only the case if you consider them in the context of current U.S. fuel taxes, which are among the very lowest in the developed world. Even the scenario labeled “aggressive” is actually quite moderate, with tax increases equal to less than one cent per month. The more conservative scenarios have increases equal to less than half a cent per month. The initial 18 cent tax proposed for 2010 would cost the average California resident less than \$7 per month, not taking into account any refund.² This number would grow as the tax escalates, but the growth would be offset at least in part by a refund and by reductions in per capita petroleum consumption due to increases in vehicle efficiency and alternative fuel use.

Compared with other OECD nations, gasoline prices and taxes in the United States are extremely low. Figure 2 at right shows total (including state and federal) gasoline taxes in Europe and California. Even under the aggressive scenario, with a pollution tax that climbs by an inflation-adjusted \$0.09/gallon per year from now until 2020, California prices would still be far below those Europe. The “cheap gas” policy in this country is fueling petroleum dependence, congestion, pollution, and a lack of energy security. Furthermore, the relative lack of domestic demand for efficient vehicles is putting domestic manufacturers of clean technologies at a disadvantage.



Shifting back to domestic prices, it is instructive to look at natural fluctuations in gas prices, which far exceed the changes that would be brought about by this pollution tax, especially in the near term. We have witnessed swings of more than \$2 in just the past two years. This sort of volatility is a clear argument for reducing dependence on petroleum and shows how minor the pollution tax is in the context of overall volatility. Local prices can also vary substantially on a given day. These variations, even among stations sitting on opposite sides of the same corner, are often at least as large as the proposed pollution tax, yet many people pay the higher prices despite the availability of cheaper gas. Gas prices on one day in late August at three San Francisco gas stations lying within less than a mile of each other

² California's annual per capita gasoline consumption was 445 gallons in 2005, according to the U.S. Department of Energy (<http://apps1.eere.energy.gov/states/transportation.cfm/state=CA>) An 18 cent/gallon fee would therefore equal \$80.10 over the course of a year.

along the same road ranged from \$2.95 to \$3.15 per gallon.³ This is quite common across the country, yet the higher priced stations remain in business. It may be argued that those in lower socioeconomic classes tend to seek out the stations with the lowest prices, meaning that the difference of a few cents per gallon is significant, and that the pollution tax will hit this group the hardest. However, the proposed rebate (along with any tax cuts recommended by COTCE) should help address these concerns and offset the increased transportation costs. Furthermore, the only way to protect disadvantaged populations from high prices over the long term is to reduce our petroleum dependence, and strong price signals are necessary for achieving this goal.

Revenues Could be Used to Further Policy Goals

Revenues produced by a pollution tax on petroleum fuels would be subject to Article XIX of the California constitution, restricting their use to “research, planning, construction, improvement, maintenance, and operation of public streets and highways,” or “research, planning, construction, and improvement of exclusive public mass transit guideways.” However, even under the constraints of Article XIX, the revenues could be used to achieve a number of important goals. First, some portion of the revenues could be returned to taxpayers through a universal rebate, mitigating concerns about the regressive nature of this tax and the potential drag it may create on the economy. Given the current state of the economy, this is particularly important in the first year.

Pollution tax revenues could also be used to help pay for Article XIX transportation infrastructure expenses. California’s excise tax on gasoline has remained constant since 1994, at \$0.18/gallon, meaning that the state has actually seen a \$0.08/gallon tax cut in real terms. This has hurt state and local transportation agencies that rely on these funds for vital infrastructure expenditures.

Finally, revenues could also be used to pay down transportation-related debts, easing the burden on the general fund and helping to address the budget deficit. The split between these different uses of pollution tax revenue is a policy decision that will require further discussion.

Proposed Expenditures of Pollution Tax Revenues

The funds in the Transportation Revenue Account would be spent as follows:

- First, for payment of current fiscal year debt service on general obligation bonds issued by the state for transportation purposes. An amount necessary debt service on these bonds would be set aside for this purpose each year. Currently, this is approximately \$500 million. This allows for some General Fund relief, though a portion would effectively be rebated to consumers through the fuel tax rebate account. (See below for details.)
- Next, of the moneys remaining after funds are dedicated to debt service, 20% would be paid to the Strategic Growth Council and eligible entities for the planning and implementation of projects consistent with the policies of Chapter 728 of the Statutes of 2008, providing the planning and projects are consistent with Article XIX of the California Constitution.”
- Thereafter, of the moneys remaining after debt service and allocation of funds to planning and implementation of projects consistent with Chapter 728 of the Statutes of 2008: 50% would be transferred to the State Highway Account to be used for eligible projects in the State Highway Operation and Protection Program and for mass transportation projects consistent with Article XIX of the California Constitution; and 50% would be apportioned to cities and counties for street and highway maintenance, rehabilitation, reconstruction, and storm damage repair, as well as for mass transportation projects consistent with Article XIX of the California Constitution.

³ Author’s observations, verified on CaliforniaGasPrices.com. Note that another station on the same block had a price of \$3.32, though it offered discounts for gas purchased with a car wash. All four gas stations had many customers.

Furthermore, as noted above, the bill would create a Fuel Tax Rebate Subaccount. Each year, an amount equal to 35% (or some other amount, to be determined by the legislature) of the Transportation Revenue Account funds used for general obligation bond debt service would be transferred from the General Fund to the newly created Fuel Tax Rebate Subaccount. The revenues in this subaccount would then be used to make payments under a personal income tax rebate program to be established by the Legislature to offset, in part, the higher fuel taxes imposed by the bill.

Conclusion

California should implement a Petroleum Fuel Pollution Tax starting at \$0.18 per gallon and adjusted annually for inflation with an additional annual increase of 7cents per gallon. A well-designed pollution tax with this structure would have many beneficial implications for California, including:

- Petroleum reduction due to increases in transportation efficiency and reductions in travel
- Improved air quality due to reduced vehicle miles traveled and accelerated fleet turnover
- Improved energy security
- Increased funding for smart growth transportation infrastructure
- Increased investment in clean technologies in California
- Reductions in payments to out-of-state petroleum fuel producers
- Progress toward the GHG reduction goals set out by AB 32 and SB 375

Higher escalators will generally mean greater benefits. The plan to return a significant portion of the revenue directly to the public through a universal refund should address concerns about regressivity and loss of purchasing power.

Special thanks are extended here to Arianna Van Meurs and Jamie Hall for their detailed, careful and good work on this document.

Petroleum Fuel Pollution Tax Working Group Process

Summary

Subsequent to the July 16th COTCE meeting at UCSF, Mr. Gerry Parsky, COTCE Chairman, sent out a memo to fellow commissioners describing the process going forward regarding the tax reform proposals that had been put before the Commission since its inception in January 2009. In his memo and attachment dated July 24th, Chair Parsky recommended that Commissioners participate in efforts that would add structure and detail to the major tax reforms which had been discussed at the Commission. By agreement amongst Commissioners, COTCE's report to the Governor and Legislature would include three parts.

The first set of recommendations will be statutory tax law changes that can be acted on by the state Legislature immediately (several conversations at previous COTCE meetings indicated that the intent is/was to have the specific tax reform in 'bill form'). The proposed pollution tax discussed herewith falls squarely into this first part.

After advising the Chair, Commissioner Keeley organized three working group meetings to discuss the broad set of issues associated with implementing a new pollution tax on carbon-based fuels. Invited to these three meetings were all COTCE Commissioners, a broad cross-section of staffers from the State Board of Equalization, the Assembly and Senate Revenue and Taxation committees, the Legislative Counsel's office, as well as legislative leaders, academics, energy policy and transportation experts, and representatives from the business and environmental communities.⁴

Three meetings were held in Sacramento, of which one (August 12th) was held in one of the Capitol's Senate Hearing Rooms and the other two (August 18th and August 25th) were held at the Board of Equalization. Notice was provided by way of emails to all COTCE Commissioners and other interested parties. Commissioner Keeley relied on an extensive mailing list to spread the word about the meetings. Attendance varied from 15 to 25 at the three meetings.

From a process standpoint, the goal of the meetings was to be transparent and to develop draft legislation that reflected the input of all involved. This consensus-building process resulted in draft legislation that addresses the major goals that Commissioner Keeley set out to achieve, with the support and input of a wide variety of constituents. Most importantly, the process provided the public with the ability to monitor and participate in the decision-making process. While some efficiency was sacrificed for the benefits of greater public participation in this process, the end product, the attached draft legislation, reflects the views of those who were involved.

The following section turns to a discussion of each meeting, agendas for which are attached at the end of this document in Appendix B.

⁴ Working Group List in Appendix A.

The Meetings

August 12th Meeting

The focus of the first meeting was to examine in detail any fatal flaws associated with the variable rate pollution tax with floor. Much of the initial discussion focused on Article XIX restrictions⁵ on how the funds would be spent. Since the main objective of the proposed variable rate pollution tax was to create clear price signals for consumers and investors that encourage a reduction in petroleum consumption, to help launch a strong clean technology industry in California and to support the goals of AB32 and SB375, the initial thinking of the group was to accept the Article XIX restrictions and the flow of the revenues from this tax into the Transportation Revenue Account. However, as many staffers expressed their concerns both about the need for additional General Fund revenues and others voiced concern about funding smart growth initiatives and others expressed their concerns about the regressivity of the tax, the discussion veered towards a focus on the proposed tax revenues.

As the discussion about the revenue stream of the proposed tax progressed, it became apparent that the state's transportation sector was vastly underfunded. DeAnn Baker with California State Association of Counties (CSAC) noted that their organization had just completed a study co-funded by the League of California Cities indicating that the underfunding amounted to \$7 billion per year. As a result, the discussion began to focus on how the proposed pollution tax could create a stable source of revenue for some vastly underfunded areas of local and state government, not to mention some initial funding for new smart growth initiatives, whose goals are consistent with the goals of the pollution tax, while offering some relief to lower income households, upon whom this tax would hit the hardest.

BOE, Assembly and Senate staff raised the issue of how the impact of the proposed Business Net Receipts Tax might complicate the revenue issues associated with a variable rate pollution tax. Prop 42 revenues from sales and use tax on gasoline, unlike the excise tax, are not Article XIX restricted and can be spent on any type of transit expenditure. However, the reduction in rate that a COTCE tax reform may propose in sales and use taxes will decrease Prop 42 revenues, unless some specific action is taken to dedicate some additional portion of either the SUT or BNRT revenues to transportation to make up the difference.

The group spent a significant portion of the time discussing the design of the tax, specifically what index should be used for recalculating the tax? How often? What coefficient of change? In examining these questions with legislative and BOE staff, it became clear that some of the objectives of the variable rate with floor version of the tax would be administratively challenging. Ideally, the tax would be adjusted monthly based on oil futures prices at the end of the month. BOE staff indicated that this would be very difficult and suggested that the most frequent adjustments that they could accomplish would be quarterly adjustments. Furthermore, BOE staff suggested that government and industry would need significant lead time for changes, with decisions about new rates being made three months in advance. Many meeting participants thought this might undermine the program. The academics and energy policy experts offered to look at oil price volatility to see if futures prices three months in advance are accurate enough for these purposes. Shorter time increments, it was observed, may be necessary to make sure the tax is acting as it should – increasing prices when they are low and phasing out when prices increase.

Many other aspects of the design of the proposed variable rate were also discussed, such as the appropriate floor price (oil price trigger level), the manner and how often the floor price should change, who would decide, etc. The actual price floor level is a policy decision with political factors at play. Severin Borenstein, University of California at Berkeley economist, suggested \$3.00, and the Auto

⁵ Article XIX of the State Constitution stipulates that gas excise tax revenues can ONLY be used for research, planning, construction, maintenance, and operation of public streets and highways, or research, planning, construction, and improvement of exclusive public mass transit guideways. *“Revenues from taxes imposed by the State on motor vehicle fuels for use in motor vehicles upon public streets and highways, over and above the costs of collection and any refunds authorized by law.”*

Alliance has suggested \$3.50. Meeting participants agreed that the floor should be adjusted annually for inflation but there was disagreement as to how this should be accomplished.

One of the major issues raised but not resolved at this meeting was what type of fuels to tax. The original idea was just gasoline, but the meeting left this issue in doubt. Jet fuel was definitely considered out, but the inclusion of diesel was left undecided. Joe Bankman, Stanford law professor, noted that excluding diesel would be good because it is a business input and you could minimize the economic impact and opposition from trucking companies and other businesses by excluding it. Professor Borenstein noted that this would cause a shift toward diesel. Encouraging a light duty shift toward diesel is “picking winners” to some degree, but encouraging a shift toward more efficient diesel vehicles might not be a bad thing. Furthermore, diesel is currently taxed at a higher rate in this country (the federal government has a higher excise tax on diesel) so having varying taxes would not be a departure from existing policy.

The long discussion on revenues in the beginning of the meeting followed by a discussion with some of the technical and administrative issue with the variable rate version of the pollution tax caused many in the meeting to question whether a flat tax increase might be preferable. The revenue discussion increased the focus on one aspect of the proposed variable rate tax with floor that hadn't at first seemed to be a large issue, the lack of stability of revenues. Several participants, including Professor Borenstein, the author of the variable pollution tax with floor, began to reconsider whether a fixed rate version of the pollution tax would be preferable because of the stability of the revenue stream. This would provide a definite source of revenues and would allow for offsetting reductions in other taxes, which could help generate support and would make the tax easier to link to other portions of the COTCE package. It would also help deal with the state's budgetary problems, which the more volatile and uncertain variable surcharge might not do. By meeting's end, the consensus was that a type of flat tax would be best at meeting the various objectives of the proposed pollution tax and would also address the administrative and technical issues associated with the variable rate version.

August 18th Meeting

Commissioner Keeley launched this meeting with a restatement of the goals of the proposed pollution tax (i.e. sending the signal to consumers and investors that more efficient and alternative fuel vehicles are a good choice and supporting AB 32 and SB 375 and thereby contributing to environmental goals).

Professor Borenstein provided his overview of variable tax proposal, followed by a critique thereof. The idea of the variable rate tax is to raise revenue and dampen declines in gas prices in a way that sends a signal that gas prices will not go very low. This incentivizes more fuel efficient vehicles. However, this is not the ideal way to address climate issues. The ideal way is to price externalities with a fixed tax. The main problem is extreme volatility. Ten dollar swing in price of a barrel of oil translates to \$6 billion. This issue could be addressed by implementing an oil severance tax which moves up with price of oil, moving opposite this tax. However, in the last meeting, there was recognition that the different restrictions on excise tax revenue and sales tax revenue flowing from gas taxes does not make these two taxes a good pair. Originally, Professor Borenstein said he came up with this idea because he thought it would be politically more feasible, but that he had always felt that a straight tax increase that does not phase out is actually preferable from an economic efficiency standpoint.

Considerable discussion followed Professor Borenstein's presentation and the conclusion was tentatively reached that some sort of flat tax would be preferable to a variable tax for a long list of reasons, economic, political, and administrative. Commissioner Keeley summarized the evolution of the gas tax from a flat tax, to a variable tax and now, seemingly, back to a flat tax. Professor Bankman agreed that a flat rate is better, all else equal, but 18 cents per gallon would have minor behavioral implications. Long run, elasticity is -0.5, so any behavioral changes would be minor. Michael Wara, Stanford Law School professor, commented that starting with a flat tax that grows quickly over time might be preferable to a constant tax or floor. With the variable tax, you would increase the floor. With a flat tax, or hybrid thereof, you could increase the tax. Professor Borenstein agreed that if you take AB32's 2050 goals seriously, \$20 per ton is insufficient, but \$70-100 per ton will yield the necessary changes (we need 60-90 cents per gallon, just for carbon).

Following on the notion that a flat tax needs to be higher to affect consumer and investor behavior, Mark Watts, a legislative advocate, said that 75 cents per gallon would be necessary for Caltrans for maintenance of roadways, roadsides, and modest increase in capital improvements. Also, the League of California Cities and CSAC just completed an assessment looking just at local maintenance needs. Including all rev streams, Prop 1B and American Recovery and Reinvestment Act (ARRA), there is a \$71 billion shortfall over next decade, which would represent a 38 cent tax increase (this is just local, not the freeway system). A Western State Petroleum Association (WSPA) representative indicated that they will oppose oil severance, but may be able to help with support on the gas tax if no severance tax is involved.

Again, the meeting discussion focused on Article XIX issues, with Eric Lange, Legislative Counsel, providing feedback as to what expenditures would comply with Article XIX. Much of this discussion focused on how to fund a rebate to address the regressivity of the proposed pollution tax. Commissioner Keeley averred that a constitutional amendment to Article XIX could not be part of this process and that the group needed to work with Article XIX. Gayle Miller, Principal Consultant Senate Committee on Revenue and Taxation, responded to the idea of crediting back some of the revenues to consumers by saying that according to Prop 13, it's not a tax credit even if it is given back to different people and that it may be possible to use a refund; but Legislative Counsel would need to opine on this. Eric Lange also indicated that Commissioner Keeley's idea of making the findings that Californians pay some amount on average, thus enabling a refund of that same amount (maybe \$150). Transit vouchers were another idea that was considered, but discarded.

The following allocation of expenditures was tentatively agreed upon under a flat tax of \$0.18 per gallon. Assuming such a starting point for a pollution tax, Professor Borenstein estimates that first-year tax revenues would be \$3 billion. If each household received an \$80 rebate, that represents approximately \$1.2 billion which could be split 66% split between Caltrans and locals, 33% eligible for rebates. The idea was discussed of using funds totaling about \$400 million for 1B debt servicing, then taking the General Fund revenues which would free up an equal amount of General Fund revenue for transit rebate.

Commissioner Keeley then requested that Legislative Counsel to draft up the current proposal on the table, specifically to construct a proposal for an 18 cent tax that increases at CPI plus x% (maybe 5% per year). This would yield about \$3 billion in the first year, of which \$2 billion for state and local Article XIX expenditures and \$400 million for debt service payment and \$600 million for rebate. Considerable uncertainty was expressed as to whether a 5% annual increase would be sufficient. Many wondered whether an absolute adjustment of up to \$0.10 per year would be better in order to start off with larger increases that send a strong signal in the short term as opposed to a percentage increase of say 5% which would be smaller in the short-term and larger later.

August 25th Meeting

The Pollution Tax Working Group meeting on August 25th began with the distribution of the agenda and Legislative Counsels' bill draft. Commissioner Keeley asked attendees if working from the bill draft to frame the meeting might be the most expeditious path to meeting the groups' objectives, a suggestion which was received positively.

Legislative Counsel indicated that there is a serious Article XIX problem with rebate/refund plan as discussed in their cover letter and so the group decided to focus on resolving that issue for the next bill draft. The problem was tackled as the group worked through the "finds and declares" (Section 1) of the draft legislation. An extended discussion ensued about refunds and rebates, with some consideration given to using the VLF to fund rebates instead of the PIT. It was agreed that "refund" would be preferred to "rebate" as Article XIX allows for "refunds authorized by law." Legislative Counsel reiterates that refund expenditure would be cleaner if it came from the General Fund as Article XIX is refund limiting in Legislative Counsels' view.

Discussion advanced to observe that tax imposition and refund are severable issues and therein may be a solution. Perhaps the findings should clearly separate the issues of reducing fuel consumption from

regressivity of the tax. The idea emerged to direct more of this new tax revenue to reduction of debt service (instead of refunds) clearly allowed by Article XIX. In this way, the refund could be a separate General Fund expenditure via PIT based on General Fund savings in debt service payments provided by the new fuel tax. Carrie Cornwell, Chief Consultant for Senate Transportation and Housing Committee and expert on Article XIX, noted that there is a 25% limit for debt service expenditures in Article XIX but this would not be a constraint based on current numbers. Also, there should be a "net benefit" to the General Fund for this to work. Professor Bankman estimated that \$400 million in refunds could relieve the lowest three household income deciles of taxpayers.

Using the whiteboard, the group began the process of outlining how the tax revenues would be allocated. The initial thought was that the total of \$3 Billion fuel excise tax revenue (based on 18cents per gallon) would be first allocated to transportation debt service retirement (\$500m), leaving \$2.5 billion, of which the next allocation would be to SB 375 and the Strategic Growth Council (SGC). After an intense discussion, it was agreed that \$100 million would be set aside for SGC and regional blueprint planning for rural counties) and \$400 million would be set aside for MPO/RTP (SB375). The remaining \$2 billion would be equally divided (50% apiece) between locals and State for transportation system maintenance and repair (in keeping with Prop 42 concerns, though it was noted that current split of fuel tax is 65% state & 35% local). John Boesel, CalSTEP (California Secure Transportation Energy Partnership) Partner, and others raised the concern that SB 375/AB 32 make it clear that the current system is not our transportation future.

The group discussion then moved to how best to increase this fuel tax. After intense deliberation, it was agreed that the increase would be CPI plus an additional 7cents per year for 10 years, and estimates the revenue will increase from \$3 billion to \$12 billion by year 10. It was noted that such a revenue increase will require a recalibration for regressivity and increased refunds. As currently discussed, refunds from General Fund will be constrained by debt service reduction.

The final minutes of the meeting were devoted to a discussion of exactly how to allocate the \$500 million for the SGC and MPOs, how to handle allocations for future years (i.e. should the draft language be expressed as percentages, not absolute numbers), and should any of this be subject to a "sunset" provision. The meeting closed with advisory that plenty of drafting would commence and the group should look for emailed items to mark up and feed back.

Some of the outstanding questions left at the end of the meeting were whether the proposed pollution tax would be better structured as a fee; whether the bill should include diesel; whether the tax should be collected farther up the chain; whether there are simpler ways of structuring the percentages for revenue allocation; and how to structure the rebate and determine what portion of the freed-up General Funds it should represent.

Appendix A: Pollution Tax Working Group List

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**Appendix B:
Agendas for the Three Meetings**

Meeting with Commissioner Fred Keeley on Proposed Fuel Tax
August 12, 2009

I. Should the Legislature enact this tax, what can it fund?

- Given Article XIX considerations, how may the Legislature allocate revenues from this proposed tax? If restricted, are there general fund backfill opportunities?
- Can revenues be used to create a stable investment environment for clean transportation?
- What other options exist to fund priorities?

II. Is the Proposed Tax the Right Priority of Objectives for a Pollution Tax on Carbon-Based Fuels?

- Does the tax help accomplish or complement the goals set forth in AB32 and SB375?
- Will the tax reduce greenhouse gas emissions, dependence on oil, and VMT?
- What does the data show regarding increased gas taxes reducing VMT/Greenhouse Gas Emissions? At what price does behavior change? Are behavior changes constant or “sticky?”

III. Tax Policy Questions:

- Who will eventually pay this tax? Upon whom will fall the incidence? Will this tax be regressive or progressive?
- Which economic actors win? Who loses?
- Will the tax create distortions? What are they and is the distortion worth it?
- What are the implementation considerations?

IV. Establishing the Specifics of the Tax

- Who pays the tax? Does levying the tax at the production level make sense?
- Which fuels should be included (i.e. just gasoline or also diesel, jet fuel)?
- What variable should be used? What coefficient of change?
- What is the appropriate floor price (oil price trigger level)? In what manner and how often should the floor price change? Who decides?
- What process would be used to make floor price adjustments?
- Should the floor price vary by region? What factors should cause regional differences? Are different regional floor prices administrable?
- Should the tax be indexed for inflation?
- If revenue is an objective, then what to do when price surpasses floor?
- What do we call this tax?
- Does an oil severance tax complement the goals of this tax?

V. Running the Traps to Identify any Fatal Flaws

- Can we enact this tax without a Constitutional amendment? If so, who would support or oppose an amendment?
- If not, is a Constitutional Amendment necessary to fund priorities? Who would support or oppose an amendment?
- Is any tax on gas subject to special fund or other restrictions?
- Are there additional policy, political, or implementation constraints?

VI. Meeting COTCE's mandate

- Can we ensure that this tax that will meet the requirements of COTCE's 'first bucket, which are "recommendations of statutory tax law changes (revenue related) that can be acted on by the State Legislature immediately and are hopeful endorsed unanimously by the Commissioners?"
- Could a Constitutional Amendment to change Article XIX restrictions be included in COTCE's 'second bucket,' of recommended Constitutional Changes?

VII. Other concerns

Pollution Tax Meeting Agenda
August 18, 2009
10:00 a.m. – Noon
Board of Equalization Headquarters
450 N Street, First Floor Conference Room
Sacramento, California

1. Welcome and Introductions

2. Public Comment (Not Required By Law, But By Commission's Desire for Inclusion)

3. Briefing on Pollution Tax
 - a. Severin Bornstien, University of California at Berkeley
 - b. Joe Bankman, Stanford University

4. Briefing on Article XIX of the State Constitution Regarding Excise Tax
 - a. Senate Revenue and Taxation Committee Staff
 - b. Legislative Counsel

5. Briefing on Proposition 42 Regarding Sales Tax
 - a. Senate Revenue and Taxation Committee Staff
 - b. Board of Equalization Staff

6. Variable Rate Gasoline, Diesel, and Airplane Gasoline Tax Structure
 - a. Rate, Base, Revenue Projections
 - b. Collection

7. Oil Extraction Tax Structure
 - a. Rate, Base, Revenue Projections
 - b. Collection

8. Drafting Instructions to Legislative Counsel

Note: This is not an official meeting of the COTCE, but a working group meeting approved by the Commission Chair.

Pollution Tax Group Working Meeting
August 25, 2009
10:00 a.m. – Noon
Board of Equalization Headquarters
450 N Street, First Floor Conference Room
Sacramento, California

Agenda

I. Description of proposed pollution fee/tax:

A. Fee/Tax Rate:

1. Excise Fee of 18 cents per gallon
2. Adjusted for CPI
3. Plus an upward adjustment factor of 7 cents a year to be levied for 10 years

B. Fee Distribution:

1. \$600 million shall be made available for a rebate program to be administered to either the VLF or VRF.
2. \$500 million shall be made available to the General Fund for transportation related debt service
3. \$100 million shall be made available to the Strategic Growth Council for grants and loans to eligible entities for planning and implementation projects consistent with SB 375
4. Remaining funds of approximately 2.1 billion shall be made available to the state and local governments according to a 50/50 split for the repair and maintenance of existing transportation infrastructure. No funds shall be used for increasing capacity.

II. Outstanding Issues

- A. Shall the final proposal be drafted as a tax or a fee?
- B. Is the rebate program and the SB 375 funds Article 19 compliant?
- C. Will the timing be sufficient for leg counsel to 'turn around' the final proposal in time for next COTCE meeting?
- D. Other