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November 30, 2020
Requested Feedback

In addition to the general solicitation for input on the information presented and discussed at the November 17, 2020 stakeholder workshop for Phase 3 of the Aliso OII, the Project Team specifically requests feedback and on the fourteen items listed below. The bold font denotes items of highest significance and priority. The Commission's procedures already include an opportunity for workshop participants to submit written comments, which become part of the record of the proceeding. Stakeholders can include discussion of these topics in the body of the comments they file, or they can add text to this sheet and attach it to their submission. Commenters should feel free to include as many or as few of the questions in their comments as they choose. There is no requirement or expectation that every commenter answer every question.

First thank you for all the work you have done on this complex issue. You have clearly worked hard on the analysis and did what you could within the parameters of what you thought best and your interpretation of what CPUC desired.

Item 3. *"Is our selection of 2027 and 2035 as the years to analyze reasonable? If not, is there a preferred option?"*

Answer: The preferred option is to use 2027 exclusively. In 2010, the California Energy Commission Chair Robert Weisenmiller wrote a letter to the CPUC advising the shutdown of Aliso Canyon Gas Storage Facility within 10 years, which would be 2027. In his letter, he stated, *"With the State's climate target in mind, Governor Brown has asked me to plan for the permanent closure of the Aliso Canyon natural gas storage facility, and I urge the California Public Utilities Commission (CPUC) to do the same."* To achieve this goal, Chair Weisenmiller planned to *"phase out the use of the Aliso Canyon natural gas storage facility within 10 years as part of a joint study ordered by 2016 state law Senate Bill 380."*

The year 2027 should also be used exclusively because the energy markets, energy economics, and energy technological breakthroughs are happening so fast that trying to model for 15 years into the future, which is 2035, with any degree of accuracy is nearly impossible.

Technology in solar panels and battery storage, induction electric ranges, solar water heaters and heat pumps for heating homes are currently available on the open market and will shortly make natural gas obsolete both in terms of cost and safety. To give you an example of how quickly the energy market in Los Angeles can change, in 2016 we bought and installed solar panels in our Porter Ranch house, and home batteries were allowed but uncommon because LADWP mandated they *only* be used in a grid failure. Just two years later, home battery systems were allowed and residences were able to draw on the battery

systems at night and only after the stored electricity was exhausted would they draw from the LADWP electric grid. The installation of a storage battery (along with the already installed solar panels) immediately puts the amount of electricity needed from the electric grid for all such equipped houses at near zero. Second, 39 cities in California have already banned the use of natural gas in any new construction, with 50 more planning on doing so. A recent Forbes magazine article states, “Rocky Mountain Institute’s study, *The Economics of Electrifying Buildings*, found that in many scenarios, building electrification is more cost-effective than using fossil fuels over an appliance’s lifetime.” The entire state of California is moving away from natural gas; see [CA Gas System in Transition.pdf \(gridworks.org\)](#). The trend is clear and to ignore it makes your assumptions already obsolete.

Also, see [Tipping Points: When to Bet on New Technologies | Bain & Company](#) on how to analyze the probability of new energy technologies. I would think you could work such probabilities into your models; perhaps you already have. This article discusses:

- Consumers and industries are adopting innovations at a much faster pace than years ago.
- Four forecasting tools used in combination are more effective than any one alone at predicting the tipping point for new technologies.

Even using the year 2027, your analysis must be updated yearly. That is the reality of today’s dynamic energy market. Doing otherwise is like listening to a weather forecast for one day and planning that this forecast will be applicable for the next 365 days.

Item 5. *“Are the key uncertainties described in the materials associated with the workshop reasonable?”*

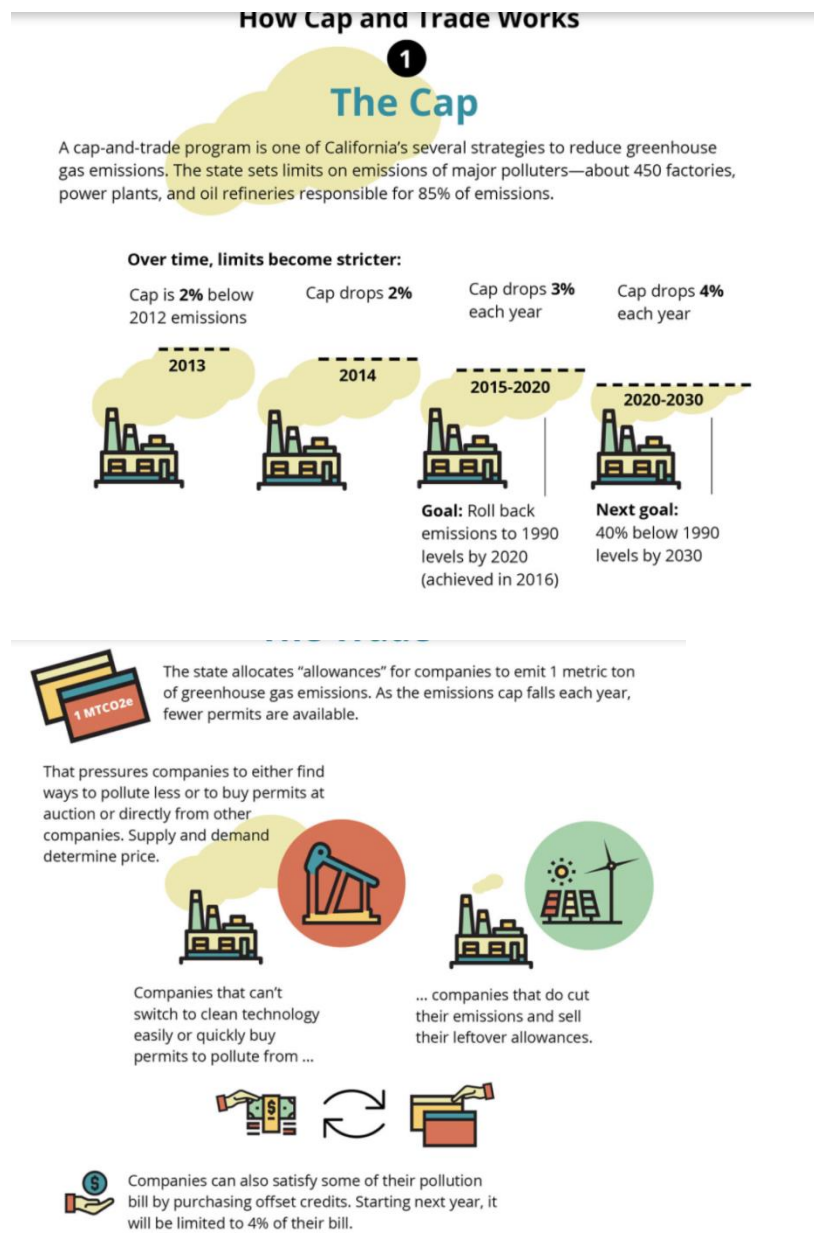
Answer: An uncertainty you have missed is the cost to keep natural gas infrastructure working safely, dealing with the leaks from multiple decades old infrastructure, including its pipelines. This is true for all storage facilities: Aliso, Honor Rancho, Play de Rey, and Goleta and for all infrastructures bringing the gas through pipes and to the cities and the businesses and residences across southern California. And with that crumbling infrastructure is a risk of another gas well blowout such as that which occurred in October 2015 in Porter Ranch.

While the gas wells in Porter Ranch were tested as demanded by the state legislature and by DOGGR, no such testing for safety or leaks has been done at any of the other gas storage sites which are as old as the Aliso Canyon Gas Storage Facility. The conservative assumption should be there will be at least one other gas well blowout at these other facilities, and that will lead to an increased cost of natural gas, especially if CPUC is

considering increasing the storage volume in ANY of these sites to compensate in the short term for Aliso being shut down.

Item 10: “How should we value reductions in carbon emissions in Workstream 2?”

Currently functioning and reauthorized through 2030, California has a Cap & Trade Program whereby entities that create carbon buy credits on an auction to keep producing. The cap drops 4% each year between the years of 2020 and 2030 as shown in the charts below, thus making carbon more expensive. Sempra Energy, the parent company of SoCalGas participates in these auctions, so this is a type price on carbon. See [Greenhouse Gas Cap-and-Trade Program](#) and [Summary Results Report \(ca.gov\)](#).

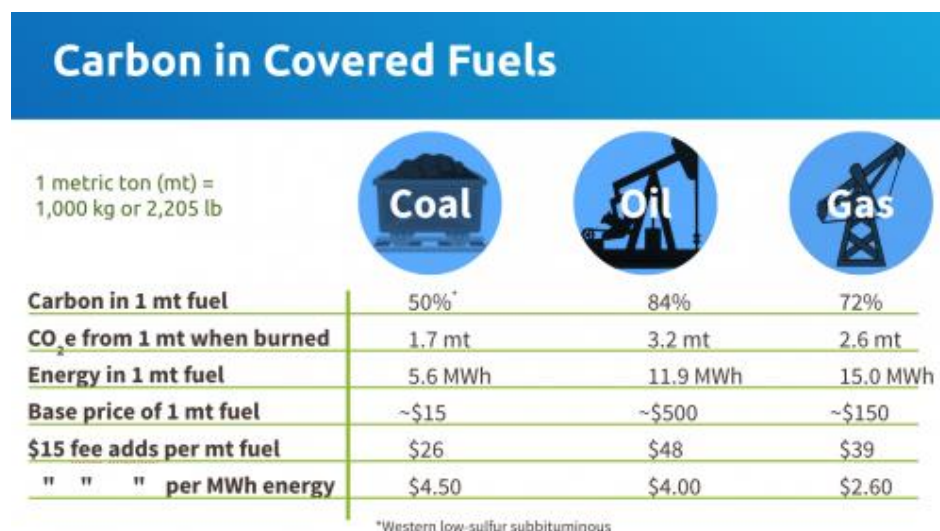


In addition, there has obviously been a change in the administration with the election of Joe Biden as President. The coming administration sees the urgency in dealing with climate change, so the changes to policy can be expected to occur swiftly. This also makes the passage of legislation with a price on carbon likely, especially since Janet Yellen (See [Treasury Pick Yellen Likes Carbon Taxes and More Pandemic Relief, But Not The TCJA | Tax Policy Center](#)) has been appointed the Treasury Chief and she along with 3,589 US Economists, 4 former Chairs of the Federal Reserve, 28 Nobel Laureate Economists, and 15 Former Chairs of the Council of Economic Advisors are on record with written statements supporting a carbon fee and dividend plan. See [Economists' Statement | Climate Leadership Council \(clcouncil.org\)](#)

The price on carbon, in order to be effective worldwide to move us away successfully from fossil fuels, is \$40 per ton of carbon. See [The Case for a Goldilocks Carbon Tax \(forbes.com\)](#)

An alternative would be to use Citizens' Climate Lobby research and analysis, which assumes a price on carbon assessed at \$15 per metric ton of carbon in year one, which would probably be 2022, with increases of an additional \$10 per metric tons every year after that. See [How the Carbon Fee Is Assessed and Collected - CCL Community \(citizensclimate.org\)](#)

The carbon fee could be assumed to be assessed on CO₂equivalents, as follows:



A September 16, 2020 Wall Street Journal article states, “In a sign of how much corporate attitudes have changed, the **Business Roundtable**, one of the country’s most prominent business groups, is throwing its support behind broad-based measures to slash greenhouse gas (GHG) emissions. In a [statement of principles](#) released Wednesday, the Business Roundtable said it “supports a goal of reducing net U.S. GHG emissions by at least 80% from 2005 levels by 2050.” To achieve that, **it endorses putting a price on carbon**. It didn’t say whether that should be through a carbon tax or a system of tradable emissions permits.”

Union of Concerned Scientists, in one of their articles, states, “With growing recognition of the urgent need to address climate change, momentum for **adopting carbon pricing programs** is likely to increase in the years ahead both in the U.S. and globally.”

To ignore the inevitability of a carbon tax on methane gas is to speculate that nothing will change, and that is speculating in the wrong direction.

Item 14: *Should another workshop be held between now and the one currently schedule for May 2021? If so, when and to discuss what topics?”*

Yes absolutely. It should be held in April 2021 to discuss any new federal mandates, the resumption of Obama’s Clean Energy Plan, legislation that is pending, new regulations, etc. on the fossil fuel industry and the entire energy industry as a whole. Your studies may need to be overhauled in light of this. CPUC should not ignore this.

See [California Puts Another Nail in Fossil-Fuel's Coffin - Bloomberg](#)

See [California ditched coal. The gas company is worried it's next - Los Angeles Times \(latimes.com\)](#)

It is interesting to note that CPUC is so terrified of a power shortfall; yet, it allows PG&E to cut all power to entire communities periodically for fire prevention.

Item 11. *“Aside from reductions in the cost of delivered energy, what benefits should we capture in the Workstream 2 analysis of the investment options?”*

The costs of the externalities of gas extraction, production and transportation should be added to the price of natural gas. The cost from extraction to end user and health impacts should be associated with the COSTS of natural gas. See [The Hidden Costs of Fossil Fuels | Union of Concerned Scientists \(ucsusa.org\)](#). Inversely, the costs of renewable energy carry no, or very little, externality type costs and this, too should be reflected in analysis.

In addition, SoCalGas should not be allowed to use, as part of their “price of gas” analysis, the leasing income from leasing out portions of their storage facilities for natural gas to outside third parties at Aliso Canyon Storage Facility or any facility. See [Natural Gas Storage | SoCalGas](#) . From this website, it states

“Park and Loan: “Effective July 2008, SoCalGas established the new G-PAL tariff. Opens in a new window.. This tariff offers, when available, interruptible natural gas parking and loaning services to any qualified creditworthy party. Natural gas parking is the temporary storage of natural gas on the SoCalGas system, and natural gas loaning is the temporary lending of natural gas from the SoCalGas system. Rates for this service are negotiated on an individual transaction basis based on current market conditions. The negotiated rate includes the transmission of natural gas between the city gate and the storage fields. Prerequisites for this service are an executed Master Services Contract (MSC) and an MSC Schedule O.”

SoCalGas has said that this income acts to decrease the cost of their gas (for their customers), so perhaps they would also use it to decrease the assumed price of gas in your analysis. I disagree with this approach, should it be done. They could use this to manipulate the “cost” of gas so as to make it look like a more economically feasible choice.

Remember Blockbuster (video rental stores)? Blockbuster was at the top of its game in 2000, but subsequently filed for bankruptcy in 2010 because it was outrun by its competitor Netflix. Allowing SoCalGas to use the leasing income from outside third parties to store natural gas in Aliso Canyon or any of its storage facilities in this modeling and taking that into account and in their “price of gas” would be like if Blockbuster leased half its stores’ square footage to a *profitable* business and pretended its business model of renting out videos was still a good one. Do not mix apples with oranges in SoCalGas’s analysis of their “costs.”