BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Integrate and Refine Procurement Policies and Consider Long-Term Procurement Plans	R.13-12-010 (Filed December 19, 2013)

COMMENTS OF ALTON ENERGY, INC. ON PRELIMINARY SCOPING MEMO

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TABLE OF CONTENTS

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Alton Energy, Inc.("Alton") respectfully submits these Comments on the Preliminary Scoping Memo included in the *Order Instituting Rulemaking* ("OIR") in this Long-Term Procurement Plan ("LTPP") proceeding.

I. INTRODUCTION.

This cycle of the LTPP must depart from past cycles as it recognizes and incorporates state policy emanating from the California Air Resources Board's ("CARB") green house gas ("GHG") reduction goals into rational and effective procurement policies through 2024 and 2034. It is also crucial that current decisions follow the longer-term trajectory towards the CARB's 2050 emission reduction goal[1] in order to avoid costly regrets. In recent past LTPP cycles, achieving 33% renewables portfolio standard ("RPS") compliance has been a critical consideration, which has been successfully achieved. However, procurement to meet the CARB's 2024 goals on its trajectory to 2050 goals, requires more "RPS like" carbon-free primary energy than even a 51% RPS would produce.[2] By 2034, carbon-free primary energy requirements are dramatically greater. In addition to zero carbon energy generation needs, meaningful procurement of bulk energy storage, specifically pumped hydro, is critically needed to achieve the level of reliable cost-effective firm energy required for 2024 and 2034 to be compliant with the CARB's GHG reduction goals. The scope and nature of energy procurement

[1] CARB Goal to reduce California CO2 emissions by 80% from 1990 levels.

[2] CARB's 2050 trajectory graphic is reproduced below.

decisions needed from this proceeding is very different than in the past. Such can be effectively achieved, if planning study criteria is sufficient with early recognition of the full scale of carbon-free resources required by 2024 and 2034.

The Commission has done well by bringing the California Independent System Operator ("CAISO") and the California Energy Commission ("CEC") into this proceeding more directly. However, direct involvement and coordination with the CARB is missing in a comparable role, and due to the dominance and urgency of their state goals, the CARB should be a major participant in this proceeding. However, the CARB has sufficiently documented its GHG goals publically, such that in this proceeding those goals must and can be converted into procurement related values and quantities suitable for decisions in this proceeding. We provide references in these comments to the substantial analysis we have done of the CARB's GHG goals, as a leading example of the electric sector focused analysis that is required here in this proceeding.

II. CARB GHG GOALS ARE KEY STATE POLICY THAT NEED TO GUIDE ENERGY PLANNING AND PROCUREMENT.

A business-as-usual energy procurement trajectory will fail to meet the CARB's GHG goals before 2024, and that short fall will increase to dramatically fall short thereafter. This is a totally unacceptable outcome that this proceeding must recognize, and adapt to so that the near term energy and environmental needs of the state will be achieved.

Until now, an energy supply resulting from meeting the 20% RPS and then the 33% RPS, along with energy efficiency and demand response goals, set the appropriate targets and trajectories for energy procurement planning. That is no longer the case. It is the CARB's GHG goals defined currently by 2020 and 2050 targets and trajectory that set dominant definition of policy requirements that must be met. This proceeding must adapt to, and focus these dominant state policies and goals in order to define the trajectory of the energy supplies that are needed in near-term procurement. The CARB's goals are already established, are public, and can readily be converted into the normal planning units used in this proceeding.

The GHG issues to consider can and should be narrowly defined for the purposes of this proceeding, and such are consistent with several of this proceeding's goals, including the "GHG Procurement Policy" reference in the OIR where we strongly support the Commission's willingness to focus to *"consider any GHG product procurement policies to facilitate the implementation of California Air Resources Board's cap-and-trade program."*[3] However, the initial planning to date for this proceeding does not adequately recognize the substantial need for this proceeding. It is critical that studies by the CAISO, the CEC, and the Commission's consultants evaluate scenarios that can achieve the upper end of the GHG emissions trajectory.

Alton Energy has studied CARB's Scoping Plan and its Update Draft, and converted those Goals into MWH units, documented that work, and has shared key details of conversion methodology used. Although direct participation from the CARB is encouraged, this proceeding can independently repeat CARB goals conversion analysis to the extent necessary. Conversion can be vetted by this proceeding as the Commission deems necessary in this proceeding so that CPUC vetted the CARB's goals specific to the electric sector can be used appropriately in this proceeding. The focus to do such is narrow, well defined, well within the capability of parties to this proceeding, and essential for this proceeding to arrive at appropriate decisions and outcomes.

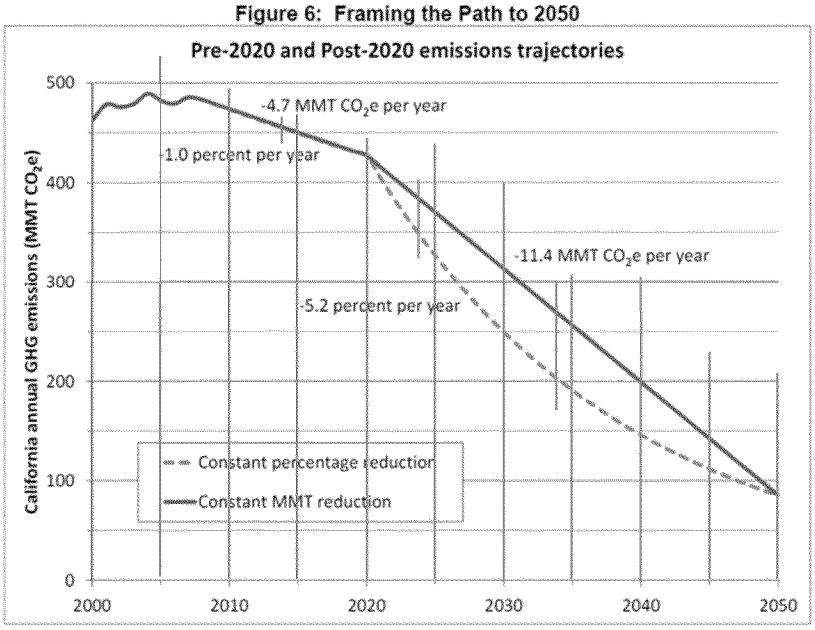
III. CARB GHG GOALS FOR 2024 AND 2034 CAN BE DETERMINED AND INCORPORATED INTO ALL PROCUREMENT IN THIS PROCEEDING.

The CARB Scoping Plan Update Discussion Draft Figure 6[4] lays out the GHG emissions limits in MMT CO2e, which Alton then converted to MWH electrical units. Figure 6 includes the existing, adopted trajectory, as well as the more stringent draft goals. Conversion data demonstrates that gas-fired generation (GFG) must be increasingly limited and restricted in order to achieve the CARB's GHG emissions trajectory goals.

[3] OIR, p. 13.

[4] http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm

Figure 6: Framing the Path to 2050



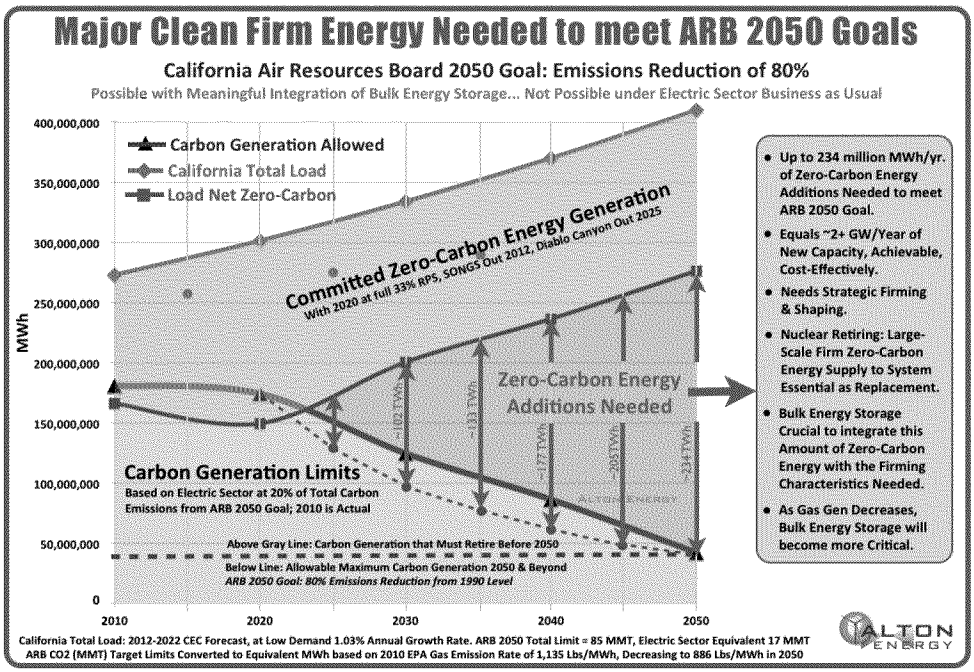
In this proceeding, 2024 and 2034 are directly important, but the Commission should also look out to 2040 and 2050 so that non-complying resources are not procured, leading to unnecessary stranded cost at the expense of California ratepayers. Over-procurement of GFG resources would preclude the procurement of cost effective GHG compliant resources, causing policy failure.

CARB emissions allowances are required to be retired, one for each MMT CO2e of GHG emissions from any energy that is used to supply load in California, irrespective of whether that energy is generated within the state or is generated elsewhere and transmitted into California. Allowances belong to the electric ratepayers, and assigned in trust to each load serving entity ("LSE") as determined by the CARB. LSEs under the jurisdiction of the Commission have a statutory duty to use those allowances prudently. The Commission has a statutory duty to ensure those allowances are used prudently, and to preserve their value to the maximum extent possible for their true owner, the California ratepayer.

IV. MAJOR CHANGES IN THE STATE'S ENERGY MIX ARE REQUIRED TO SUCCESSFULLY MEET 2024 AND 2034 PROCUREMENT NEEDS.

Through analysis specifically focused on the electric sector, Alton Energy comes to the simple conclusion that it is impossible to meet the CARB's trajectories for 2024 and 2034 without substantial and continued integration of large utility-scale carbon-free wind and solar that is firmed and shaped by dispatchable bulk energy storage. Solar rooftops, distributed energy storage, energy efficiency, demand response, distributed generation, and smart inverters are all important, but their impact pales in comparison to the scope and scale of what is required in this proceeding. Most importantly to meet state goals, it is critical to avoid excessive (if not all) procurement of GFG.

Alton Energy has previously submitted the below graphic[5] to demonstrate the massive scale of the zero-carbon energy that is needed through 2050, including 2024, 2034, and 2040.[6]



[5] Alton graphic was developed by utilizing CEC Electric Demand Forecast in IEPR 2012 as noted, and remains consistent with the IEPR 2013 base Mid Forecast. ARB Original Scoping Plan Goals Trajectory was used with the Update Constant Percentage Added. Zero Carbon Energy is Renewable, Nuclear, and Hydro. GFG includes Electric portion of CHP. Three blue dots inside green band are Retail Sales from 2013 IEPR, the basis for determining RPS quantities. RPS Basis Decline raises % need for ARB Goals.

[6] Following this Chart Alton lists approximate ranges of zero-carbon procurement needed to provide a range of sensitivities for analysis needed in the LTPP to guide procurement planning.

In its comments on the LTPP scenarios, NRDC referenced a very critical comprehensive study by LBNL about reaching California's 2050 climate goals, that expresses that a "40% RPS by 2020 and 51% RPS by 2030 produces a scenario that does not even achieve the full 2050 goal."[7] We agree and the LTPP needs to adapt its processes, planning studies, and the work for 2014 to recognize and consider the actual requirement.

For 2024, we believe that the GHG goals require planning for approximately 20 to 40 terawatt hours ("TWH") more zero-carbon generation beyond the 33% RPS; and for 2034 the need is for 90 to 133 TWH more than the 33% RPS will provide. This is not trivial, needs major procurement policy work, and this proceeding is the place to do such analysis and planning.

In order to be consistent with the CARB's trajectory goals, there will be a decreasing availability of flexible GFG generation; progressively in 2024 and far less available in 2034 as the CARB's GHG goals become increasingly more demanding. Beyond 33% renewables, the intermittency of the most cost-effective zero-carbon GHG compliant resources will need to be firmed and shaped increasingly by bulk energy storage. The combination of the intermittent resources plus the needed firming can be very cost-effective, if the LTPP starts the process timely, now, to procure significant bulk energy storage. Delay will reduce the number of cost-effective alternatives and raise costs.

There are limited viable solutions to meet the increasingly stringent CARB 2050 emission goals. Such is possible with meaningful integration of bulk energy storage coupled with clean zero-carbon energy (wind + solar), but it will not be possible under business-as-usual. If gas power continues to be procured as the default, the emissions impact will preclude the possibility of reaching the CARB's 2050 emissions reduction goals and cause substantial stranded cost later down the road as procurement planning awakens and shifts to a zero-carbon focus.

[7] NRDC January 8 2014 LTPP Comments, p. 13, citing Lawrence Berkeley National Laboratory.

V. PROCUREMENT FRAMEWORK FOR LARGE-SCALE BULK ENERGY STORAGE TO FIRM AND SHAPE ZERO-CARBON ENERGY SUPPLY.

Alton has developed a strategy for a rational, reliable, cost-effective energy supply mix, with sources identified. We are willing to work with Commission staff and others, or in a workshop to vet and evaluate such data, along with alternatives by others in this proceeding, so a range of viable plans that meet the CARB' GHG goals cost-effectively can be determined, understood, and established.

Bulk energy storage, and specifically pumped hydro, is the most cost-effective, proven, reliable technology to integrate the magnitude of low cost carbon-free wind and solar energy needed to meet the growing requirement established in the above referenced charts. See the Argonne Study for its pumped hydro technical analysis, introduced at the Commission's recent Pumped Hydro Workshop[8]. California is fortunate to have available several large-scale cost-effective pumped storage projects[9] that are well along in the development process. These are of high importance for meeting the CARB's GHG goals, and procurement is needed near-term to allow for a rational timeframe for construction and availability before 2024.

An advanced bulk energy storage procurement framework needs to be adopted to allow for the procurement of large-scale resources from the Commission's LTPP process[10]. It is important that pumped hydro storage be evaluated on a level playing field in this proceeding so that is can compete fairly with all forms of capacity and generation. When barriers are broken down, pumped hydro storage proves itself to be a very cost-effective solution to solve the large-scale issues facing the evolving electric grid, especially when coupled with large volumes of carbon-free wind and solar energy.

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[8] http://www.cpuc.ca.gov/NR/rdonlyres/86FB9E26-5239-4AD7-8C51-DE70054F06E4/0/Koritarov_CPUC_PSHWorkshop_20140116.pdf.

[9] Alton develops Bison Peak Pumped Storage, 1,000++MW, at major TRTP & Path 26 transmission.

[10] Longer-duration bulk dispatchable technologies that are able to cost-effectively compete directly with gas, such large-scale pumped hydro storage, have been excluded from the ES OIR (above 50 MW), but the Commission has encouraged pumped hydro procurement, particularly in the context of the LTPP.

The Scoping Standard in the OIR[11] Exclusion #11: "Energy Storage, Applications pursuant to D.13-10-040"[12] is not fully clear to some. The Commission should clarify that only the technologies that qualify under D.13-10-040 should be excluded from the scope of this proceeding, and should distinguish that pumped hydro storage above 50 MW is supported for participation and consideration in this proceeding.

VI. OTC RETIREMENT SCHEDULE CAN BE APPROPRIATELY REVISITED AND ADJUSTED IF NECESSARY TO BEST MEET LONG-TERM GOALS.

There is a need to evaluate a high level plan to most effectively meet the CARB's GHG goals. SONGS unanticipated early retirement creates a dual impacts-benefits situation that opens the door to potential State Water Resources Control Board (SWRCB) plan adjustment. SONGS retiring advanced SWRCB cooling compliance in a major way that likely can be used to adjust OTC retirement timing to facilitate a more orderly, ultimately faster, more cost-effective transition to GHG goals compliant zero carbon generation. This is a rational alternative instead over procuring GFG now in fear of short-term needs that could otherwise be met by a slightly delayed retirement of some OTC that would perform at very limited annual generation, thus limited emissions and heating impact.

A key element of an effective OTC and older GFG generator retirement plan needs to be the extensive and effective use of smart inverters and distributed storage, all working smartly to provide VAR support and other local grid support capabilities. It is important to also incorporate limited least regrets transmission expansion, taking modest cost-effective steps to smartly transform available transmission to more effectively integrate zero-carbon generation and bulk storage to give greater local capacity contributions. Much can be accomplished at low cost by better utilizing new rooftop solar, local commercial solar and distributed storage, combined with modest new transmission to more tightly link preferred resources and bulk storage with load centers, and utilizing facilities already partially built for higher capacity where feasible.

[11] LTPP 2014 OIR, December 19, 2013, p. 14.
[12] LTPP 2014 OIR, December 19, 2013, p. 15.

However, the CAISO has not been studying how to specify, require, and implement these services and capabilities effectively in order to reduce the amount of local GFG that is needed for grid reliability. The CAISO must do these studies, starting in this proceeding, and create a sufficient, focused plan that can be relied upon here in this proceeding. The CAISO's task is not small, and is extremely important to the optimal success of the work in this proceeding.

VII. THERE IS AN URGENT NEED FOR REFERENCE AND STUDY WORK FROM THE CAISO AND CEC TO BE DIRECTLY FOCUSED ON THE NEEDS OF LTPP RATHER THAN THE MORE GENERAL WORK USED IN THE PAST

The need for increased Interagency Consideration[13] is urgent. We compliment the Commission, CEC, and CAISO for the obvious major improved cooperation and collaboration in the LTPP process. We are concerned, however, that as information is brought into LTPP from sister agencies that it comes in with adequate opportunity for vetting and adapting in the LTPP process, as this is the one forum where the vetting process performs at the highest standard of interaction between parties.

CAISO studies historically used in the LTPP process have been largely from other processes and purposes due to limited resources, and have fallen short in studying and supplying the critical insight necessary to utilize transmission as an important creative resource in solving the sorts of issues that will be faced in this proceeding. Strong focused input from CAISO on the full range of LTPP considerations is needed. Maybe this proceeding can do more for LTPP study needs, but the draft proposal for the scope of TPP 2014-15 studies falls short of studying the magnitude of zero carbon resources needed to meet the CARB's goals in 2024 and 2034. A more extensive CAISO study scope consistent with Section IV above is needed for least regrets evaluations in this proceeding. This proceeding must work early to give CAISO sufficient time to do a good study effort.

The 2013 IEPR has now been adopted. We note that it is heavily focused on energy efficiency and demand response, and its overall assessments of energy technologies are so broad

[13] LTPP 2014 OIR, December 19, 2013, p. 9.

that cost evaluations in many cases are not aligned with least-cost, proven zero-carbon technologies capable of reliable operations and timely development. The need in this proceeding is to focus on the zero-carbon technologies that can deliver reliable cost effective supply on an appropriately large-scale now.

We feel a careful focus in this proceeding is crucial, with near term procurement of pumped hydro storage, along with adequate wind and solar. This will ensure that the CEC's higher-level goal is achieved, which we strongly agree with, as stated in the recent 2013 IEPR:

> "*To help ensure progress toward its 2050 greenhouse reduction goals, California needs to determine what the electricity system should look like in 2030 as an interim target." "To achieve its greenhouse gas reduction goals, California must be even more aggressive in developing and implementing these policies. Also, the state needs to be prepared to deal with the effects of climate change on the energy sector itself" ... Achieving California's 2050 greenhouse gas emission reduction goals will require substantial transformation of California's energy system."*[14]

VIII. CONCLUSION.

Alton Energy thanks the Commission for its thoughtful start to this proceeding.

Respectfully submitted,

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[14] CEC 2013 IEPR, Final Commission Report, p. 2, 14, 15.