CALIFORNIA STATE BOARD OF EQUALIZATION

SUMMARY DECISION UNDER REVENUE AND TAXATION CODE SECTION 40

In the Matter of the Petition for Reassessment of the 2021 Unitary Value for:

RUSSELL CITY ENERGY COMPANY, LLC (1151)

Petitioner

Appeal No.: SAU 21-028

Nonappearance Hearing Date: December 14, 2021[1]

Representing the Parties:

For the Petitioners: Tess Onderick, Representative
KPMG, LLP

For the Respondent: Sonya Yim, Tax Counsel III (Specialist)
Attorney for State-Assessed Properties Division

Michelle Cruz
Principal Property Tax Appraiser
State-Assessed Properties Division

Appeals Attorney: Sarah J. Garrett, Tax Counsel III (Specialist)

VALUES AT ISSUE

	Value	Penalty	Total
2021 Board-Adopted Unitary Value	$364,400,000	$0	$364,400,000
Petitioner's Requested Unitary Value	$258,400,000	$0	$258,400,000
Respondent's Appeal Recommendation	$364,400,000	$0	$364,400,000

[1] The Board voted unanimously to deny the petition for reassessment, thereby affirming the 2021 Board-adopted unitary value of $364,400,000, for Russell City Energy Company, LLC.

Factual Background

Russell City Energy Company, LLC (Russell City or Petitioner), a wholly owned subsidiary of Calpine Corporation, is a combined-cycle gas-fired power facility located in Hayward, California. Petitioner's facility is a 600-megawatt (MW) combined-cycle power plant that consists of two "F-Class" combustion turbine generators, two multi-pressure, supplementary fired heat recovery steam generators, a single 3-pressure, reheat, condensing steam turbine generator, and a hybrid, wet/dry plume abated mechanical draft cooling tower. Russell City began commercial operation in August 2013, under a 10-year Power Purchase Tolling Agreement[2] (PPTA) with Pacific Gas & Electric Company.

Petitioner's 2021 Board-adopted unitary value of $364,400,000 was determined by placing 50 percent reliance on the Replacement Cost New Less Depreciation (ReplCLD) indicator of value and a 50 percent reliance on the Capitalized Earnings Ability indicator of value. The ReplCLD value indicator was calculated using a replacement cost new[3] (ReplCN) per MW value, and then adjusted for physical, functional, and economic obsolescence.

On appeal[4], Petitioner contends that the 2021 Board-adopted unitary value is overstated due to additional obsolescence[5] present. Specifically, Petitioner agrees with the State-Assessed Properties Division's (SAPD or Respondent) methodology of calculating functional obsolescence[6] by comparing Petitioner's operating factors to that of a new plant employing modern technology, by calculating an adjustment that compares the subject facility's heat to a benchmark or standard rate; however, Petitioner contends the heat rate benchmark utilized in this calculation is too high.

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[2] Power Purchase Tolling Agreements ("PPTAs") are contracts to purchase power wherein the utility pays the seller a periodic payment for capacity for the length of the contract. The utility is responsible for the procurement and delivery of the fuel (e.g., natural gas) to the seller's power plant generating units, and the scheduling of the generating units under contract. As a result, the utility customer bears the risks of fuel price volatility.

[3] ReplCN is an estimate of the current cost to replace a property with new property of equivalent utility of the existing property. This cost should include all economic costs necessary to prepare the property for productive and beneficial use. State Board of Equalization, *Unitary Valuation Methods* (March 2003), p. 23.

[4] In Petitioner's first submission to the Board on July 20, 2021, Petitioner included a contention challenging real estate soft costs included within its petition; however, no evidence or argument substantiated this argument, and it was not renewed in Petitioner's amended petition submitted on August 17, 2021. Accordingly, the Board viewed this issue as abandoned.

[5] There are three principal categories of obsolescence/depreciation: physical deterioration, functional obsolescence, and external/economic obsolescence. See https://www.boe.ca.gov/proptaxes/pdf/Obsolescence_Guidelines.pdf.

[6] Functional Obsolescence is defined as the loss in utility and value due to deficiencies and superadequacies attributable to changes in style or design. See https://www.boe.ca.gov/proptaxes/pdf/Obsolescence_Guidelines.pdf.

Legal Issue: **Whether Petitioner has shown that SAPD failed to adjust for the appropriate level of functional obsolescence in determining the ReplCLD value indicator.**

Findings of Fact and Related Contentions

Petitioner contends that their Board-adopted value does not include sufficient functional obsolescence adjustment. Specifically, Petitioner asserts that the 7,030 Btu/kWh[7] ReplCN heat rate used by Respondent to benchmark Petitioner's operating inefficiency is inconsistent with industry studies and reports. (Perfected Petition, Cover Letter, August 17, 2021.) Petitioner contends an ReplCN heat rate closer to 6,000 Btu/kWh is more appropriate for their combined cycle plant. (*Ibid.)* Petitioner notes this revised benchmark heat rate indicates the appropriate operating inefficiency adjustment is instead 22.03% and has included corresponding calculations. (Perfected Petition, p. 8.) In support of this request, Petitioner has included excerpts from the U.S. Environmental Protection Agency's (EPA) *Combined Heat and Power Technologies Report*[8] (Perfected Petition, Exhibit 'A', Pages 58-60) and the book *Combined Cycle Systems for Near-Zero Emission Power Generation*[9] (Perfected Petition, Exhibit 'B', Pages 1-3). Utilizing the revised benchmark heat rate of 6,000 Btu/kWh, Petitioner requests a revised 2021 unitary value of $258,400,000.

Respondent contends that the data Petitioner provided is both insufficient and inapplicable to Petitioner's facility. First, with respect to the U.S. EPA excerpt, Respondent contends that as the data referenced on Table 3-2 is based on gas turbines ranging from 3.3 MW to 44.4 MW, whereas Petitioner's CEC rating is 600 MW, the comparison is inapt. Based on the size range depicted in Petitioner's Exhibit A, it appears that the data may refer to simple gas cycle turbines, rather than combined-cycle gas turbines like Petitioner's. Further, Respondent asserts that the data included on the reference tables solely relates to gas turbines, whereas Petitioner has both gas and steam turbines, making the comparison of such data incongruous. Second, with respect to the Exhibit B textbook

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[7] Heat rate, or power plant efficiency, is expressed in British thermal unit per kilowatt hour, or Btu/kWh. In general, heat rate in an efficiency context indicates the input needed to produce one unit of output; as such, lower heat rates indicate higher efficiency.

[8] Darrow, Ken, et al. "Catalog of CHP Technologies." EPA, Environmental Protection Agency, Sept. 2017, www.epa.gov/chp/catalog-chptechnologies.

[9] "Combined Cycle Systems for Near-Zero Emission Power Generation." United Kingdom, Elsevier Science, 2012.

excerpt discussing combined-cycle power plants, Respondent contends the only data provided displays potential or theoretical heat rates for these types of facilities, without any specific data as to models, sizing, or actual heat rate ranges. Further, no supporting data utilized to generate the graphic chart is provided, which does not allow Respondent to review or verify the assertions therein.

With respect to the underlying assessment, Respondent noted that the heat rate benchmark used to calculate functional obsolescence is the result of review and analysis of many studies, reports, and primary resources, including data from the CEC, the U.S. Energy Information Administration (EIA), and the Gas Turbine World Annual Publication. Respondent further notes that these sources are not only generally accepted in the industry as reliable, but also comments that CEC reports reflect empirical evidence of combined-cycle power plants that operate within the state of California. Respondent concludes that their review of all reliable data indicates a benchmark heat rate range from 6,750 Btu/kWh to 11,000 Btu/kWh, with an average full-load heat rate of 7,640 Btu/kWh. Thus, Respondent concluded the majority of power plants centered around the 7,000 Btu/kWh heat rate, which is consistent and supportive of the 7,030 Btu/kWh heat rate benchmark used by SAPD to calculate Petitioner's 2021 unitary value. Additionally, Respondent notes that SAPD continually reviews the latest industry data to determine whether any updates are necessary for each lien date and has not found sufficient verifiable data that warrants a change to the heat rate benchmark utilized within Petitioner's assessment. Therefore, Respondent maintains no adjustment is appropriate for this issue.

Applicable Law and Appraisal Principles

Burden of Proof

Assessing officers are presumed to have properly performed their duties. (Evid. Code, § 664.) Therefore, petitioner has the burden of showing that the assessment is incorrect or illegal. (*ITT World Communications v. Santa Clara* (1980) 101 Cal.App.3d 246; see also Cal. Code Regs., tit. 18, § 5541, subd. (a).)

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Value Standard

Property Tax Rule[10] 2, subdivision (a) states that "in addition to the meaning ascribed to them in the Revenue and Taxation Code, the words "full value," "full cash value," "cash value," "actual value," and "fair market value" mean the price at which a property, if exposed for sale in the open market with a reasonable time for the seller to find a purchaser, would transfer for cash or its equivalent under prevailing market conditions between parties who have knowledge of the uses to which the property may be put, both seeking to maximize their gains and neither being in a position to take advantage of the exigencies of the other."

Replacement Cost Approach to Value (ReplCLD Value Indicator)

Property Tax Rule 6, subdivision (a) provides, in pertinent part: "The reproduction or replacement cost approach to value…is preferred when neither reliable sales data…nor reliable income data are available…" In general, the ReplCLD valuation indicator methodology is a two-step process: 1) ReplCN is calculated by applying an index factor to the historical acquisition cost of the property, segregated by year of acquisition; and 2) the ReplCN is adjusted for depreciation by the application of a percent good factor to the ReplCN. (Property Tax Rule 6, subd. (d); Cal. Bd. of Equaliz., *Unitary Valuation Methods,* (2003), p. 23.) Step two includes the ReplCN being "reduced by the amount that such cost is estimated to exceed the current value of the reproducible property by reason of physical deterioration, misplacement, over- or under-improvement, and other forms of depreciation or obsolescence." (Property Tax Rule 6, subd. (e); Cal. Bd. of Equaliz., *Unitary Valuation Methods,* (2003), pp. 23-24.)

Depreciation and the Cost Approach

In general, the cost approach recognizes three types of depreciation: physical deterioration, functional obsolescence, and external, or economic, obsolescence, through the application of the Board's replacement cost new trend factors and "percent" good factors. Obsolescence may occur when property is outmoded (functional obsolescence) or when some event has substantially diminished the future earning power of the property (economic obsolescence). (*See* Assessors' Handbook section 501, *Basic*

[10] "Property Tax Rule" or "Rule" references are to sections of title 18 of the California Code of Regulations.

Appraisal (January 2002), pp. 80-83.) Functional obsolescence is the loss of value in a property caused by the property's loss of capacity to perform the function for which it was intended. (*Id*. at p. 81.) Economic obsolescence is the diminished utility of a property due to adverse factors external to the property being appraised and is incurable by the property owner. (*Id*. at p. 82.) The existence of any additional or extraordinary obsolescence must be supported with verifiable documentation and evidence, consistent with Board Guidelines. (See Property Tax Rule 6, subds. (d) & (e); Assessors' Handbook section 502, *Advanced Appraisal* (Reprinted January 2015) (AH 502), pp. 20-21; *Unitary Valuation Methods*, (2003), p. 30; and Cal. Bd. of Equaliz., *Guidelines for Substantiating Additional Obsolescence*, at p. 1.)

Analysis and Disposition

Respondent is presumed to have correctly determined the value of the property at issue, and Petitioner bears the burden of proving otherwise. Here, Petitioner contends Respondent's calculated functional obsolescence adjustment is understated, and that the benchmark heat rate utilized to calculate Petitioner's functional obsolescence should be 6,000 btu/kWh instead of 7,030 btu/kWh. However, Respondent contends no adjustment is appropriate, as the existing benchmark heat rate of 7,030 btu/kWh is supported by reliable industry data, including verifiable data from other state-assessees in the same industry. Further, Respondent asserts Petitioner provided no new verifiable evidence to support the requested modification to the benchmark heat rate. We concur with Respondent and we find Petitioner's exhibits are both less reliable and less appropriate than the data sources SAPD utilized in determining the benchmark heat rate used within Petitioner's 2021 unitary value. Further, we find Petitioner has not raised any new argument, submitted any new supporting authority, nor provided any new evidence to suggest that the benchmark heat rate utilized to calculate the functional obsolescence within their 2021 unitary value was incorrect or overstated. Therefore, we find that Petitioner has not presented sufficient evidence to meet their burden of proof to show that any adjustment is warranted.

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Decision

Accordingly, the petition for reassessment is denied, and the 2021 Board-adopted unitary value of $364,400,000 for Russell City Energy Company, LLC is affirmed.*

Antonio Vazquez, Chairman

Mike Schaefer, Vice Chair

Ted Gaines, Member

Malia M. Cohen, Member

Betty T. Yee, Controller

* The decision was rendered in Sacramento, California on December 14, 2021. This summary decision document was approved on February 23, 2022, in Sacramento, California.