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AQUARION WATER COMPANY OF CONNECTICUT v. PUBLIC UTILITIES REGULATORY AUTHORITY (SC 21010)

Mullins, C. J., and D'Auria, Ecker, Alexander and Bright, Js.

Syllabus

Pursuant to statute (§ 16-19e (a) (4) and (5)), the Public Utilities Regulatory Authority (PURA) is required to ensure "that the level and structure of rates" charged by a public service company are "sufficient, but no more than sufficient, to allow [the company] to cover [its] operating costs including, but not limited to, appropriate staffing levels, and capital costs, to attract needed capital and to maintain [its] financial integrity, and yet provide appropriate protection to the relevant public interests," and "that the level and structure of rates charged customers . . . reflect prudent and efficient management of the franchise operation"

The plaintiff, A Co., a public service company that supplies water to certain Connecticut customers, appealed from the judgment of the trial court, which had dismissed in part A Co.'s administrative appeal from the final decision of the defendant, PURA, in connection with A Co.'s rate application, which A Co. had filed in August, 2022. In its application, A Co. sought an increase in the rates it charges customers, and it attributed the need for the increase to various capital improvements to water utility infrastructure (plant additions) that it had made since it last requested an amendment to its rates in 2013. Specifically, A Co. sought to include in its rate base approximately \$650 million in plant additions that it had completed between 2013 and 2022. A Co. also sought to recover approximately \$3 million in deferred water conservation expenses that it had incurred between 2017 and 2021, and to fund approximately \$2.2 million in expenditures made in connection with its employee incentive compensation program. Overall, A Co. sought to increase its approved revenue requirement from approximately \$199 million to approximately \$236 million, and its return on equity (ROE) from 9.63 percent to 10.35 percent. Between September and December, 2022, while the administrative proceeding was pending, A Co. continued to invest in plant additions and thereafter supplemented its application, seeking to include in its rate base an additional approximately \$48 million in postapplication plant additions. PURA declined A Co.'s request to increase its annual revenue $\,$ requirement and its ROE, instead reducing those values to approximately \$195 million and 8.7 percent, respectively. PURA concluded that the prudence of the approximately \$650 million in plant additions that A Co. had completed on or before August 31, 2022, was supported by some limited evidence in the administrative record and, thus, permitted A Co. to include those expenditures in its rate base. PURA concluded, however, that there

was no evidence on which it could make a prudence determination with respect to the expenditure of the approximately \$48 million in postapplication plant additions and, therefore, excluded the cost for the postapplication plant additions from A Co.'s rate base. PURA also concluded that the evidence in the record was insufficient to establish the prudence of A Co.'s request for approximately \$2.2 million for its employee incentive compensation program and that only one half of the nearly approximately \$3 million in deferred conservation expenses, or approximately \$1.5 million, was prudent, as only that portion resulted in quantifiable cost savings for customers. On appeal, A Co. claimed that PURA had acted arbitrarily, capriciously, and in abuse of its discretion in finding that the evidence in the record was insufficient to establish the prudence of approximately \$42 million out of the approximately \$48 million in expenditures for the postapplication plant additions, for approximately \$2.2 million in employee incentive compensation, and for the approximately \$1.5 million of the approximately \$3 million in deferred conservation expenses. A Co. also challenged the total effect of PURA's rate order, claiming, inter alia, that it constituted a confiscatory taking of A Co.'s property in violation of the takings clause of the fifth amendment to the United States constitution. Held:

PURA did not act arbitrarily, capriciously, or in abuse of its discretion in finding that the evidence was insufficient to establish that A Co.'s expenditure of approximately \$42 million in postapplication plant additions, completed after August 31, 2022, was prudent, while simultaneously finding that the evidence was sufficient to establish the prudence of approximately \$650 million in plant additions that A Co. had completed before August 31, 2022.

The evidence in the record supported the distinction made by PURA regarding the quality and type of evidence offered in support of the preapplication and postapplication plant additions, and it was not unreasonable for PURA to conclude that the data provided with respect to the postapplication plant additions lacked the particularity necessary for PURA to ascertain why those plant additions were undertaken, how they benefited customers, or whether the associated costs were prudently incurred.

PURA did not act arbitrarily, capriciously, or in abuse of its discretion in denying A Co.'s request for approximately \$2.2 million to fund its employee incentive compensation program, as PURA's finding that the evidence was insufficient to establish the prudence of that program was supported by substantial evidence in the administrative record.

Moreover, contrary to A Co.'s claim, PURA did not improperly use hindsight to assess the prudence of the employee incentive compensation program but, rather, considered the prudence of A Co.'s future accrual of approximately \$2.2 million in expenses for funding the program on the basis of relevant testimony about the program, the design and structure of the program, and historical data regarding the efficacy of the program.

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PURA erred in rejecting A Co.'s request to recover approximately \$1.5 million out of nearly \$3 million in deferred water conservation expenses it incurred between 2017 and 2021, as PURA improperly used hindsight to evaluate the prudence of those expenses, and, therefore, this court reversed in part the trial court's judgment, and the case was remanded so that PURA could reconsider the prudence of those expenses as of the time A Co. made the decision to incur them.

Rather than considering whether A Co.'s deferred conservation expenses were reasonable and prudent when they were incurred between 2017 and 2021, on the basis of information known to or ascertainable by A Co. at that time, PURA improperly relied on subsequent knowledge of the success of A Co.'s water conservation program to calculate customer savings, and the focus on the after-the-fact economic savings, rather than the prudence of A Co.'s decision to incur the conservation expenses at the time that decision was made, was improper.

Furthermore, PURA's use of hindsight to assess the prudence of A Co.'s deferred conservation expenses was not authorized by certain legislation (P.A. 13-78, § 2) allowing a water company to recover the costs of its water conservation program if it can demonstrate that the program's expenses were reasonable and prudent, as the language of the public act plainly contemplated that a utility would be required to establish, in a future rate case, that its past conservation expenses were reasonable and prudent.

There was no merit to A Co.'s claim that PURA's rate order approving an ROE of 8.7 percent resulted in a confiscatory taking of A Co.'s property, which was premised on the argument that PURA's denial of some of A Co.'s requested capital expenditures and operating costs effectively reduced the allowed ROE from 8.7 percent to approximately 5 percent.

This court previously concluded in $GenConn\ Energy$, $LLC\ v$. $Public\ Utilities\ Regulatory\ Authority$ (348 Conn. 532) that PURA did not effectively prevent a utility company from earning a reasonable ROE by reducing the company's overall recoverable capital costs in violation of the general rate-making principles set forth in § 16-19e (a), Genconn applied equally to statutory and constitutional claims, insofar as the constitutional standard for determining whether a rate is confiscatory tracks nearly verbatim the standard for establishing just and reasonable rates under § 16-19e (a) (4), and GenConn compelled the conclusion that A Co.'s approved ROE of 8.7 percent was not altered by PURA's disallowance of certain capital expenditures and operating costs consistent with the general rate-making principles set forth in § 16-19e (a) (4) and (5).

Argued March 7—officially released July 15, 2025

Procedural History

Appeal from the decision of the defendant denying, inter alia, the plaintiff's request to recover certain

operating costs, brought to the Superior Court in the judicial district of New Britain, where the court, *Budzik*, *J.*, granted the motion to intervene filed by the Office of Consumer Counsel; thereafter, the case was tried to the court, *Budzik*, *J.*, which rendered judgment dismissing in part the appeal, from which the plaintiff appealed. *Reversed in part*; *further proceedings*.

John W. Cerreta, with whom were Erick M. Sandler and, on the brief, Duncan R. MacKay, Vincent P. Pace, George C. Jepsen and Perry Z. Rowthorn, for the appellant (plaintiff).

Evan O'Roark, assistant solicitor general, with whom, on the brief, was William Tong, attorney general, for the appellee (defendant).

Thomas H. Wiehl, legal and regulatory director, with whom were Claire E. Coleman, consumer counsel, and, on the brief, Andrew W. Minikowski, staff attorney, for the appellee (intervenor Office of Consumer Counsel).

Opinion

ECKER, J. The plaintiff, Aquarion Water Company of Connecticut (Aquarion), appeals from the judgment of the trial court dismissing in part its appeal from the final decision of the defendant, the Public Utility Regulatory Authority (PURA), on the rate application submitted by Aquarion in 2022. Aquarion claims that PURA acted arbitrarily, capriciously, and in abuse of its discretion by denying its requests (1) to include in its rate base¹ \$42,136,826 million in capital improvements, and (2) to recover from ratepayers certain operating costs, namely, \$2,222,298 million in employee incentive compensation and \$1,498,050 million in deferred conserva-

¹Rate base "represents the total investment of the [utility] facility, or, in other words, the value of the property on which the facility is permitted to earn a rate of return." *GenConn Energy, LLC* v. *Public Utilities Regulatory Authority*, 348 Conn. 532, 539, 308 A.3d 1018 (2024).

tion expenses. Aquarion also claims that the total effect of PURA's rate order was confiscatory, in violation of the takings clause of the fifth amendment to the United States constitution and General Statutes § 16-19e (a). We conclude that PURA erred in rejecting Aquarion's request to recover \$1,498,050 million in deferred conservation expenses but that its final decision on Aquarion's rate application was not otherwise improper or unconstitutional. Accordingly, we reverse in part the judgment of the trial court.

The following facts and procedural history are relevant to this appeal. Aquarion is a public service company that supplies drinking water to approximately 685,000 Connecticut residents and businesses in fiftysix municipalities. In August, 2022, Aquarion filed an application with PURA pursuant to General Statutes §§ 16-19 and 16-19e, and § 16-1-53 et seq. of the Regulations of Connecticut State Agencies, to increase the rates it charges ratepayers. This was Aquarion's first rate application since 2013. It attributed the need for a rate increase primarily to its expenditure of approximately \$700 million in capital improvements to water utility infrastructure, hereinafter referred to as plant additions, between 2013 and 2022. In its rate application, Aquarion sought to increase its approved revenue requirement by approximately \$37 million, to \$236 million.² Additionally, Aquarion requested a return on equity

² A utility company's revenue requirement is the amount "required to recover its allowed costs and for it to receive a reasonable rate of return on equity." (Footnote omitted.) *GenConn Energy, LLC* v. *Public Utilities Regulatory Authority*, 348 Conn. 532, 536, 308 A.3d 1018 (2024); see also *Charlottesville* v. *Federal Energy Regulatory Commission*, 774 F.2d 1205, 1217 (D.C. Cir. 1985) ("R (revenue requirement) = C (operating costs) + Ir (invested capital or rate base times rate of return on capital)"), cert. denied, 475 U.S. 1108, 106 S. Ct. 1515, 89 L. Ed. 2d 914 (1986). "The allowed recoverable costs include the projected capital costs, operations and maintenance costs, and administrative and general expenses. Capital costs include the cost of debt." *GenConn Energy, LLC* v. *Public Utilities Regulatory Authority*, supra, 536 n.1.

(ROE) of 10.35 percent, which was a .72 percent increase over the 9.63 percent ROE previously approved in 2013. Aquarion's requested rate increase would have cost the average residential ratepayer an additional 9 percent per year, or \$61 annually.

PURA subjected Aquarion's rate application to an extensive review, which included revenue audits, public comment hearings, evidentiary hearings, exhibits, interrogatory responses, and late filed exhibits. The voluminous administrative record spans approximately 48,000 pages. Various entities were made parties to the administrative proceeding, including PURA's Office of Education, Outreach and Enforcement (EOE), the Commissioner of Energy and Environmental Protection, and the Office of Consumer Counsel (OCC). See General Statutes §§ 16-2a (a), 16-9b and 16-19j (b). At the close of evidence, arguments, and briefing, PURA issued a 154 page final decision establishing a new rate, effective March 15, 2023, which was approved by a split vote of 2 to 1.

In its final decision, PURA declined to increase Aquarion's annual revenue requirement to \$236 million; instead, it reduced the revenue requirement to \$195,561,690. PURA also rejected Aquarion's request to increase its ROE to 10.35 percent, instead reducing it to 8.70 percent. PURA reasoned that a ROE of 8.70 percent was within the range suggested by the parties, would not adversely affect Aquarion's credit rating, and would provide the proper balance between the interests of shareholders and ratepayers. As a result of PURA's final decision, residential ratepayers would see a decrease

³ PURA also recognized the following parties as intervenors in the administrative proceeding: the Office of the Attorney General; the City of Rye and the Villages of Port Chester and Rye Brook, New York; Smart Water Westport; Veolia Water New York, Inc.; and all fifty-six Connecticut towns and municipalities within Aquarion's service territory.

in their water bill in the amount of 11 percent per year, or approximately \$67 annually.

In arriving at its decision, PURA permitted Aquarion to include in its rate base approximately \$650 million in plant additions completed between the date of the last rate case in 2013 and the date of filing of Aquarion's rate application on August 31, 2022, but did not permit Aguarion to include \$48,060,300 in plant additions completed between September 1 and December 15, 2022. PURA explained that Aquarion's capital investment in plant additions may be included in its rate base only if those additions were prudent and reasonable. See General Statutes § 16-19e (a) (5). PURA was highly critical of the evidence submitted by Aquarion to establish the prudence of all of the plant additions throughout the entire time period; however, it ultimately determined that the plant additions completed on or before August 31, 2022, were supported by "some, albeit limited, evidence" By contrast, PURA concluded that there was "simply no evidence (not even a bald statement) on which [it] could make a prudenc[e] determination" for the plant additions completed after that date. (Emphasis in original.)

With respect to operation and maintenance costs, PURA denied Aquarion's request for \$2,222,298 to fund its employee incentive compensation program, concluding that "[t]he evidence in the record does not support a finding that the [i]ncentive [p]rogram properly incentivizes employees or benefits ratepayers in such a way that it constitutes prudent and efficient management of [Aquarion's] operation." PURA also denied Aquarion's request to recover \$1,498,050 out of \$2,996,101 in conservation expenses spent between 2015 and 2022 on the ground that only one half of Aquarion's conservation expenses were prudent in that they resulted in quantifiable cost savings to ratepayers.

Aguarion appealed to the Superior Court pursuant to General Statutes §§ 4-183 (a) and 16-35 (a),⁴ raising twelve claims, only four of which are at issue in the present appeal. Aquarion claimed that PURA's final decision was arbitrary, capricious, and an abuse of discretion because (1) the evidence in support of the approximately \$650 million in allowed plant additions and \$42,136,826 out of \$48,060,300 in disallowed plant additions was essentially the same, 5 (2) the evidence was sufficient to establish that the employee incentive compensation program is reasonable, prudent, and necessary to achieve appropriate staffing levels, and (3) all of Aquarion's deferred conservation expenses were prudent when they were incurred. Lastly, Aquarion challenged the constitutionality of PURA's rate order, claiming that its overall effect was confiscatory and deprived Aquarion of a fair, just, and reasonable ROE.

The trial court rejected Aquarion's claims on the ground that there was substantial evidence in the record to support PURA's findings regarding Aquarion's failure to establish the prudence of the approximately \$42 million in plant additions, \$2.2 million in employee incentive compensation, and \$1.5 million in deferred conservation expenses. The trial court also rejected Aquarion's claim that the overall effect of PURA's rate order was confiscatory, concluding that "PURA's authorization of an ROE of 8.70 percent is supported by

⁴ The OCC participated in the proceedings in the trial court and the appeal before this court by filing briefs and participating in oral argument in support of PURA's final decision.

 $^{^5}$ Aquarion also challenged PURA's disallowance of the remaining \$5,923,474 in plant additions, claiming that PURA improperly had determined that they were not supported by reliable data. The trial court dismissed Aquarion's claim, concluding that "PURA's decision rejecting the disallowed plant additions . . . is supported by substantial evidence in the record." Aquarion has not challenged the trial court's dismissal of this portion of its claim, and, therefore, only \$42,136,826 of the \$48,060,300 in disallowed plant additions are at issue in the present appeal.

substantial evidence in the record, is well within PURA's reasonable exercise of its broad discretion, and is well within the 'zone of reasonableness' for an enterprise facing such little economic risk." (Footnote omitted.) This appeal followed.⁶

I

WHETHER PURA'S PRUDENCE FINDINGS WERE ARBITRARY, CAPRICIOUS, OR AN ABUSE OF DISCRETION

Aguarion claims that PURA acted arbitrarily, capriciously, and in abuse of its discretion in finding that the evidence in the administrative record was insufficient to establish the prudence of its request for approximately \$42 million in plant additions, \$2.2 million in employee incentive compensation, and \$1.5 million in deferred conservation expenses. Judicial review of PURA's rate order is governed by the Uniform Administrative Procedure Act, General Statutes § 4-166 et seq., which requires us "to determine whether there is substantial evidence in the administrative record to support the agency's findings of basic fact and whether the conclusions drawn from those facts are reasonable. . . . Neither this court nor the trial court may retry the case or substitute its own judgment for that of the administrative agency on the weight of the evidence or questions of fact. . . . Our ultimate duty is to determine, in view of all of the evidence, whether the agency, in issuing its order, acted unreasonably, arbitrarily, illegally or in abuse of its discretion." (Internal quotation marks omitted.) Wheelabrator Lisbon, Inc. v. Dept. of Public Utility Control, 283 Conn. 672, 690–91, 931 A.2d 159 (2007); see also General Statutes § 4-183 (j).

⁶ Aquarion appealed from the decision of the trial court to the Appellate Court, and we transferred the appeal to this court pursuant to General Statutes § 51-199 (c) and Practice Book § 65-1.

In setting utility rates, PURA has broad regulatory authority "to take into account such varying factors as economics, public policies, accounting principles, fairness to the parties, and the context and intent of any prior agreements entered into by the utility, and to balance those factors by a process of reasoned decisionmaking. . . . [PURA] is not required, however, to place determinative weight on any single factor." (Internal quotation marks omitted.) Office of Consumer Counsel v. Dept. of Public Utility Control, 279 Conn. 584, 593–94, 905 A.2d 1 (2006). PURA's rate-making authority is governed by the statutory factors set forth in § 16-19e (a), which require PURA to ensure, among other things, "that the level and structure of rates [are] sufficient, but no more than sufficient, to allow public service companies to cover their operating costs including, but not limited to, appropriate staffing levels, and capital costs, to attract needed capital and to maintain their financial integrity, and yet provide appropriate protection to the relevant public interests"; General Statutes § 16-19e (a) (4); and "that the level and structure of rates charged customers . . . reflect prudent and efficient management of the franchise operation "General Statutes § 16-19e (a) (5).

Pursuant to subdivision (5) of § 16-19e (a), "[a] public utility may . . . recover through rate base [only] those moneys that were spent prudently and reasonably. . . . Therefore, there exists a distinction between, on one hand, utility property and, on the other hand, the cost of utility property allowed in rate base, because only that portion of utility property that is the result of prudent and reasonable management is included in rate base." (Citation omitted.) *Connecticut Light & Power Co.* v. *Dept. of Public Utility Control*, 219 Conn. 51, 67–68, 591 A.2d 1231 (1991). "The prudence of a management decision depends on good faith and reasonableness, judged at the time the decision is made."

Connecticut Light & Power Co. v. Dept. of Public Utility Control, 216 Conn. 627, 645, 583 A.2d 906 (1990).

Before addressing the merits of Aquarion's claims, it is helpful to briefly review the rate-making process. Rate-making is a prospective endeavor, in which PURA makes reasoned estimates about future events to establish a rate that "reflects a prospective anticipation of what rate will be necessary adequately to compensate" the utility. Office of Consumer Counsel v. Dept. of Public Utility Control, 246 Conn. 18, 23-24, 716 A.2d 78 (1998); see also Office of Consumer Counsel v. Dept. of Public Utility Control, supra, 279 Conn. 602 (recognizing that "retroactive" rate-making generally is "not permissible"). To maximize the accuracy of PURA's estimates, a test year "is employed to show what the probable operating and financial condition of the company will be in the immediate future, in order that rates may be fixed [that] will compensate the company for all operating expenses and provide it with a fair return " Southern New England Telephone Co. v. Public Utilities Commission, 29 Conn. Supp. 253, 258, 282 A.2d 915 (1970); see Regs., Conn. State Agencies § 16-1-54 ("in each rate application the test year shall consist of the most recent twelve month period available ending at a calendar quarter").

There are two exceptions to the use of a test year in rate-making. First, the test year may be adjusted "forward for a reasonable period of time" to permit the utility to recover "definite, ascertainable expenses maturing or certain to materialize during that period of time." Connecticut Natural Gas Corp. v. Public Utilities Commission, 29 Conn. Supp. 379, 390–91, 289 A.2d 711 (1971); see also El Paso v. Public Utility Commission, 883 S.W.2d 179, 188 (Tex. 1994) (public utility commission "may, in its discretion, go outside the test year when necessary to achieve just and reasonable rates"). Such forward adjustments commonly are referred to

as "pro forma adjustments" Ameren Illinois Co. v. Illinois Commerce Commission, 967 N.E.2d 298, 304 (Ill. App. 2012). Second, the utility may recover expenses incurred before the test year if those expenses were recognized as a deferred regulatory asset⁷ in a prior administrative proceeding and the requirements of § 16-19e (a) (4) and (5), including the prudence requirement, have been met. See Office of Consumer Counsel v. Dept. of Public Utility Control, supra, 279 Conn. 601–602.

A

Plant Additions

Aquarion claims that PURA acted arbitrarily, capriciously, and in abuse of its discretion by finding the evidence insufficient to establish the prudence of the \$42,136,826 in plant additions completed after August 31, 2022. The following additional facts and procedural history are relevant to this claim.

Aquarion filed its rate application on August 31, 2022, using a test year beginning on January 1, 2021, and ending on December 31, 2021. In its application, Aquarion sought to include in its rate base two categories of plant additions completed since 2013. The first category was comprised of approximately \$600 million of plant additions completed between 2013 and the end of the

⁷ "A regulatory asset is a liability of a utility's ratepayers. Utility companies may incur large expenses in various ways—storm damages, installation of new facilities, increased taxes and so forth. These expenses, if passed immediately on to ratepayers, could create havoc. An immediate recovery of such expenses could cause sudden upward increases in rates, commonly termed rate shock. In order to avoid rate shock, [public utility] commissions often will permit utility companies to recover their expenses from ratepayers on a deferred basis, listing the ratepayers' debt as a regulatory asset. A regulatory asset is, therefore, a future debt of the ratepayers that can be passed on, together with interest, to the ratepayers." (Internal quotation marks omitted.) Office of Consumer Counsel v. Dept. of Public Utility Control, supra, 279 Conn. 594.

2021 test year (test year plant additions). The second category was comprised of \$51,177,892 of pro forma plant additions completed between January 1 and August 31, 2022 (preapplication pro forma plant additions). In support of these two categories of plant additions, Aquarion submitted the prefiled testimony of Daniel R. Lawrence, its vice president of engineering and real estate. Lawrence's testimony addressed the major plant additions "that have been completed or will be completed by August 31, 2022," and provided a brief, narrative description of each. For example, Lawrence explained that Aguarion spent \$3.5 million on the Saugatuck dam and gatehouse to rehabilitate these "high hazard" structures built in 1941 and "to restore functionality and reliability of the gates and gatehouse operators including structural repairs to each of the gatehouses. Security improvements were incorporated. The project included the piping and valves required to meet streamflow regulations."

In September, 2022, PURA submitted interrogatories, asking Aquarion to provide more information regarding the test year plant additions and preapplication proforma plant additions. Specifically, PURA asked Aquarion to list "all utility rate base plant additions implemented . . . as capital improvement projects since the

⁸ Approximately one third of these plant additions, \$202,312,780, previously had been the subject of a water infrastructure and conservation adjustment (WICA) pursuant to General Statutes § 16-262w. See General Statutes § 16-262w (a) (PURA may "authorize a water company to use a rate adjustment mechanism . . . for eligible projects completed and in service for the benefit of the customers in between rate cases"). The amount of the WICA that a water company may include in its charges between general rate cases is capped at "ten per cent of the water company's annual retail water revenues approved in its most recent rate filing" and cannot "exceed five per cent of such revenues for any twelve-month period." General Statutes § 16-262w (i). In 2021, PURA approved a 9.78 percent cumulative WICA surcharge on ratepayers. The WICA surcharge is not at issue in the present appeal.

 $^{^{\}rm 9}$ These major additions totaled \$531.8 million.

2013 Aquarion [r]ate [c]ase through year-end 2021" and to "identify the projects, the systems and divisions involved, the types of construction, the quantities, the actual and estimated costs, the actual or estimated inservice dates, and the percentages of completion to date. Discuss the results of those improvements." PURA also asked Aquarion to "[p]rovide a breakdown of the 2021 pro forma plant additions," including "when the project started, the percentage of completion to date, and the anticipated percentage of completion by December 15, 2022." In response, Aquarion submitted a 712 page spreadsheet listing all completed plant additions, their locations, dates of completion, and cost.

Aquarion continued to invest in plant additions while the administrative proceeding was ongoing and supplemented its rate application by seeking to include a third category of plant additions consisting of \$48,060,300 in pro forma plant additions completed between September 1 and December 15, 2022 (postapplication pro forma plant additions). In support of its request for postapplication pro forma plant additions, Aquarion provided various spreadsheets in a format similar to the spreadsheets previously submitted in support of the other two categories of plant additions. Additionally, Aquarion supplied a two page chart "summariz[ing] the major investments greater than \$1 million . . . which represents approximately \$34.5 million of the total investment [of \$48,060,300]." The chart included a summary description of the reason for each of these major categories of investments. For example, Aquarion explained that it spent \$1,078,972 to replace a water main on Dogwood Lane in Westport due to "[a]ging [i]nfrastructure and [c]apacity [i]mprovement," and \$1,924,294 on "[v]arious" water "[t]reatment [p]rojects [costing] [l]ess than \$100,000 at [v]arious [f]acilities" because of "[a]ging [i]nfrastructure." No narrative testimony detail-

 $^{^{\}rm 10}$ Additional examples from the chart and Lawrence's prefiled narrative testimony are set forth in our analysis of Aquarion's claim.

ing the prudence of the postapplication pro forma plant additions was submitted.

In its final decision, PURA characterized the hundreds of millions of dollars in plant additions completed since Aquarion's last rate case in 2013 as "an astounding level of plant investment," noting that it previously had expressed concern about Aquarion's level of spending and cautioned Aquarion that it "should be scaling back" on capital improvements. (Internal quotation marks omitted.) PURA stated that, "[a]lthough capital additions are within [Aquarion's] discretion, the rapid and substantial increases in spending, together with [PURA's] prior admonitions, would normally signal to a utility that the prudenc[e] of such additions would be particularly scrutinized and, thus, would need to be adequately supported by record evidence and balanced against the parameters of . . . § 16-19e (a)."

With respect to the test year and preapplication pro forma plant additions, in its final decision, PURA was critical of the evidence submitted by Aquarion, pointing out that Lawrence's prefiled testimony "provides [two or three] sentences generally explaining the completed additions and providing a cursory rationale for why the projects were undertaken. . . . However, the testimony does not, for any of the discrete projects, specifically address why the chosen investment was the best option or why the incurred costs were prudent and reasonable." (Citations omitted.) "[T]he word 'prudent' does not appear anywhere in . . . Lawrence's prefiled testimony," which was "completely silent" on millions of dollars of additions. The final decision also observed that Aguarion's interrogatory responses failed to "provide direct evidence in support of a determination that the investments, either individually or in [the] aggregate, were prudent." Nonetheless, "[n]either [the] OCC, [the Commissioner of Energy and Environmental Protection], nor [the Office of the Attorney General (OAG)] took a specific position on the prudenc[e]" of the plant additions, and, notwithstanding its expressed dissatisfaction with the evidence submitted by Aquarion, PURA determined that it provided at least "a mere wisp of 'evidential hair' covering 'bald statements' of [Aquarion's] executives." See *Connecticut Natural Gas Corp.* v. *Public Utilities Commission*, supra, 29 Conn. Supp. 394 ("[b]ald statements" of utility executives regarding prudence "need to be covered with some evidential hair . . . to be judicially acceptable"). PURA therefore allowed Aquarion to include the approximately \$650 million in test year and preapplication pro forma plant additions in its rate base.

PURA, however, reached the opposite conclusion with respect to the postapplication pro forma plant additions, concluding that the evidence was insufficient to establish the prudence of those additions because Aquarion "did not offer any prefiled testimony with respect to [them]." It noted that the spreadsheets and charts submitted in response to interrogatories, although abundant in "quantity," were deficient in "quality " PURA reasoned that Aquarion had "provided large volumes of data to support a finding that it has spent millions of dollars on capital improvements," but, "to be included as a pro forma adjustment to rate base, a finding that the expenditures were made is simply not enough. Instead, [PURA] must find that the expenditures were prudent and that the plant is used and useful. . . . None of the evidence explains why the expenditures were made, which options were considered, how the costs were managed, or any of the other factors that would allow [PURA] to assess the good faith and reasonableness of the management decisions related to the expenditures."11 (Internal quotation marks

¹¹ PURA also expressed concern "about the use of late filed exhibits as a vehicle for proposing substantial changes to the [rate] [a]pplication," noting that, "two days before the late filed exhibit evidentiary hearings, [Aquarion] increased its proposed pro forma plant additions from \$48 million through August 31, 2022, to \$109 million through December 15, 2022." The late notice

omitted.) Because there was "simply *no* evidence (not even a bald statement) on which [PURA] could make a prudenc[e] determination for these proposed [postapplication] pro forma adjustments," PURA denied Aquarion's request to include in its rate base the \$48,060,300 in plant additions completed between September 1 and December 15, 2022.¹² (Emphasis in original.)

The trial court upheld PURA's decision to disallow \$42,136,826 of the \$48,060,300 in postapplication pro forma plant additions. See footnotes 5 and 12 of this opinion. The court recognized that the evidence submitted in support of both the allowed and disallowed plant additions was similar in nature and observed that, "in light of PURA's universally negative characterization of Aquarion's evidence proffered in support of the allowed plant additions, there appears to be little basis . . . to

of the postapplication pro forma plant additions, PURA explained, deprived it, "other parties, and [the] intervenors of a meaningful opportunity to review and challenge the information and the proposed changes to the [a]pplication." PURA announced that, in "future water utility rate cases . . . pro forma adjustments for [plant in service] should generally be limited to [a] plant that is or will be placed in service as of the date of the rate amendment application—a date that is notably within a utility's sole discretion." PURA rejected Aquarion's contention that this new rule had been applied retroactively to Aquarion's rate application on the ground that "the sheer dearth of evidence with respect to capital additions alleged to be prudent and complete after the August 31, 2022 [a]pplication date, regardless of eligibility," rendered Aquarion's claim "superfluous."

¹² PURA also found that \$5,923,474 of the postapplication pro forma plant additions were not supported by reliable data because they "were completed prior to or during the [t]est [y]ear and are not pro forma additions." See footnote 5 of this opinion.

Although PURA declined to include the \$48,060,300 of postapplication pro forma plant additions in Aquarion's rate base, PURA does not dispute that Aquarion may seek to include these plant additions in its rate base in its next rate application. In the meantime, some of these plant additions are eligible for a water infrastructure and conservation adjustment (WICA) pursuant to General Statutes § 16-262w. See General Statutes § 16-262v (1) (WICA eligible projects include "those water company plant projects not previously included in the water company's rate base in its most recent general rate case and that are intended to improve or protect the quality and reliability of service to customers").

infer" that PURA found any of the three categories of plant additions to be prudent. Nonetheless, the trial court reasoned that any incongruity between PURA's allowance of test year and preapplication pro forma plant additions and its disapproval of the postapplication pro forma costs was permissible because (1) on appeal, Aguarion challenged only the \$42,136,826 in disallowed plant additions, not the approximately \$650 million in approved test year and preapplication pro forma plant additions, and (2) "the court [could] find no legal support for the proposition that PURA's factual conclusions must be consistent across differing decisions." The court concluded that "PURA's decision rejecting the disallowed plant additions is supported by substantial evidence in the record because PURA's conclusion that it lacked evidence to make a prudenc[e] determination was reasonably supported by PURA's factual findings."

On appeal to this court, Aquarion contends that the evidence regarding the prudence of all of the plant additions, both preapplication and postapplication, was materially identical and that PURA thus arbitrarily and capriciously distinguished between the sufficiency of the evidence submitted in support of the plant additions completed before and after August 31, 2022. PURA responds that it found *all* of the evidence submitted in support of the plant additions to be insufficient but nonetheless exercised its general rate-making authority to establish just and reasonable rates pursuant to § 16-19 (a). According to PURA, it permitted the approxi-

¹³ General Statutes § 16-19 (a) provides in relevant part: "If the authority finds any proposed amendment of rates to not conform to the principles and guidelines set forth in section 16-19e, or to be unreasonably discriminatory or more or less than just, reasonable and adequate to enable such company to provide properly for the public convenience, necessity and welfare, or the service to be inadequate or excessive, it shall determine and prescribe, as appropriate, an adequate service to be furnished or just and reasonable maximum rates and charges to be made by such company. . . ."

mately \$650 million in test year and preapplication pro forma plant additions to enter rate base, despite Aquarion's failure to adduce sufficient evidence of prudence, because disallowing those plant additions "could have devastated [Aquarion]" and "because those capital investments were supported by at least 'some, albeit limited, evidence' of prudence and usefulness." To this argument, Aquarion replies that PURA's characterization of its final decision is inaccurate because PURA clearly found the first two categories of plant additions to be prudent, and, in addition, PURA lacks the discretion under § 16-19 (a) to include in rate base plant additions that were not prudently incurred, as required by § 16-19e (a) (5).

We need not decide whether PURA found the test year and preapplication pro forma plant additions to be prudently incurred under § 16-19e (a) (5), or whether PURA possesses statutory authority to exercise its discretion to include those plant additions in rate base under § 16-19 (a) in the absence of evidence of prudence. ¹⁴ Those claims are not before us because the

¹⁴ Although we do not decide the issue, we caution that PURA should not assume lightly that it is authorized to exercise its rate-making discretion under § 16-19 (a) in a manner inconsistent with the general rate-making principles codified in § 16-19e (a). The prudence requirement "counterbalance[s] the monopolistic effects on the ratepayers who do not have a choice about which company provides their utility service. . . . [A] utility's only motivation to act prudently arises from the prospect that imprudent costs may be disallowed." (Citation omitted; internal quotation marks omitted.) Entergy Gulf States, Inc. v. Louisiana Public Service Commission, 726 So. 2d 870, 873-74 (La. 1999). By requiring a utility to establish that its capital investments reflect prudent and efficient management, § 16-19e (a) (5) protects ratepayers from "negligent, wasteful or improvident expenditures, or for the cost of management decisions [that] are not made in good faith." (Internal quotation marks omitted.) Public Service Co. of New Mexico v. New Mexico Public Regulation Commission, 444 P.3d 460, 470 (N.M. 2019). PURA can honor the prudence requirement in § 16-19e (a) (5), while also ensuring that rates are sufficient to allow utilities "to maintain their financial integrity"; General Statutes § 16-19e (a) (4); by, for example, disallowing only the portion of an imprudently incurred investment decision that has an adverse effect on ratepayers. See, e.g., Public Service Co. of New Mexico

inclusion of approximately \$650 million in plant additions is not the subject of this appeal. What has been challenged on appeal is the exclusion of \$42,136,826 in postapplication pro forma plant additions, a ruling that PURA justifies on the ground that it found a discernible distinction in the quality and nature of the evidence submitted in support of the different categories of plant additions. We conclude that there was sufficient evidence to support the distinction made by PURA in the quality and type of evidence submitted in support of the test year and preapplication pro forma plant additions versus the postapplication pro forma plant additions and, therefore, that PURA's exclusion of the latter category of plant additions from rate base was not arbitrary, capricious, or an abuse of discretion.

In support of the test year and preapplication pro forma plant additions, Aquarion not only submitted hundreds of pages of spreadsheets and charts, but narrative testimony that contained some, albeit limited, detail from which prudence reasonably could be inferred. Lawrence's testimony described the major capital improvements to water infrastructure completed between 2013 and August 31, 2022, the location of each improvement, and the reason why it was completed. For purposes of illustration, Lawrence explained that Aquarion invested \$3.4 million in the rehabilitation of the Means Brook dam and gatehouse "to ensure public safety in

v. New Mexico Public Regulation Commission, supra, 475 (recognizing that "total disallowance may be an appropriate remedy for [some imprudent investment decisions]" but upholding decision of regulatory agency permitting some costs of imprudent decision-making to be included in rate base because it conferred some "value to ratepayers"); see also In re PacifiCorp, UE 246, Order No. 12-493, p. 32 (Or. P.U.C. December 20, 2012) (concluding that disallowance of only 10 percent of imprudent investment decision was "reasonable in relationship to the potential harm to [ratepayers]" when evidence was insufficient "to precisely quantify the impact of . . . [the] imprudence"). Again, we need not resolve the issue to decide the present case.

accordance with modern engineering standards, and to preserve and extend the useful life of these critical assets. In this instance, the rehabilitation of the dam and gatehouse was completed to improve the dam's stability in a flooded condition; functionality of the gates and valves was restored; structural repairs were completed for each of the gatehouses; the electric service was replaced (it was unsafe and [noncode] compliant); security improvements and [supervisory control and data acquisition] upgrades were incorporated. The project included the piping and valves required to meet streamflow regulations." Although Lawerence did not characterize this \$3.4 million investment as prudent or discuss alternative options, his testimony provides factual details that would allow PURA to satisfy itself that the project was reasonably necessary and conferred a valuable benefit on ratepayers.

In contrast, no narrative testimony was submitted in support of the prudence of the \$42,136,826 in postapplication pro forma plant additions. Aquarion provided PURA with hundreds of pages of spreadsheets, but the data contained in those spreadsheets were limited to generic information like the name, location, date of completion, and cost of the project. For example, in a typical entry, the spreadsheet explained only that "Peaceable Ridge Rd. (W. Mountain)" in "Ridgefield" was completed on "9/30/2022" for \$116,643.67. It was not unreasonable for PURA to decide that this data failed to explain adequately why these itemized plant additions were performed or how they benefited rate-payers.

Aquarion points out that, in response to one of PURA's interrogatories, it offered a two page chart providing information regarding \$34.5 million out of \$48,060,300 in postapplication pro forma plant additions. A representative excerpt of the chart is provided in the appendix of this opinion.

Although reasonable minds could differ regarding the conclusion reached by PURA, we disagree with Aguarion that this evidence is "exactly the same" or "materially identical" to Lawrence's narrative testimony describing the major test year and preapplication pro forma plant additions. Applying the deferential standard of review applicable to PURA's decision, we are compelled to conclude that there is a subtle but viable distinction between the two categories of evidence that is sufficient to merit differential treatment. See, e.g., Connecticut Light & Power Co. v. Dept. of Public Utility Control, supra, 219 Conn. 56 ("[t]he court may not substitute its own balance of regulatory considerations for that of the agency"). In comparison to the evidence submitted in support of the allowed plant additions, the data provided with respect to the postapplication pro forma plant additions can reasonably be seen as lacking the particularity and detail necessary to ascertain exactly why the costs were prudently incurred. 15 The additional detail in Lawrence's narrative testimony constitutes a discernible, articulable difference in the kind and quality of evidence submitted in support of the test year and preapplication pro forma plant additions. On the present factual record, we cannot conclude that PURA acted arbitrarily, capriciously, or in abuse of its discretion by excluding the postapplication pro forma plant additions from Aquarion's rate base.

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Employee Incentive Compensation

Aquarion challenges PURA's disallowance of \$2,222,298 in employee incentive compensation, claiming that PURA

¹⁵ Aquarion contends that there is no principled, coherent distinction between the evidence submitted in support of the different categories of plant additions because Lawrence's prefiled testimony described Aquarion's four stage process for planning, designing, and delivering infrastructure projects, and addressed future plant additions beyond August 31, 2022. We reject this claim as grounds for reversal because Lawrence's general descriptions of Aquarion's four stage process for water infrastructure projects.

improperly assessed the prudence of this program after the fact and with the benefit of hindsight, rather than applying the operative standard that requires PURA to judge Aquarion's decision-making at the time it was made. We disagree.

In support of its request to fund the employee incentive compensation program, Aquarion submitted the prefiled testimony of Lucy A. Teixeira, its vice president of customer and administrative services. Teixeira explained that employee compensation is comprised of three key components: (1) base pay, which "is set within a range around the competitive market rate of each individual's job," (2) variable pay or incentive pay, which "provides additional individual earnings potential as a percentage of base pay if certain corporate, business unit, and individual goals are met," and (3) the employee benefits program, "such as retirement savings and health and welfare plan coverage " The second category of employee pay, incentive compensation, is "designed to incentivize employee behavior toward achievement of goals and objectives as outlined in the business plan, including financial achievement, employee, customer service and operations goals, as well as individual employee performance." The "funding of the annual variable pay program is dependent on the achievement of these goals and the individual payouts are directly related to the actual performance against these goals." According to Teixeira, incentive pay "is [a] standard labor market practice, both within the utility industry and within general industry," and, "[i]f Aquarion were to compensate employees only with the level of base pay provided for under the current compensation program, it would not be competitive with others in the market, and, over time, customers would be harmed because it would

ects and five year capital investment plan are untethered to the facts and lack the particularity and detail that accompanied the narrative description of the major test year and preapplication pro forma plant additions.

be unable to attract and retain the type of qualified employees needed to provide safe, reliable, and efficient service."

The OCC submitted the prefiled testimony of John Defever, a certified public accountant who testified regarding various deficiencies in Aquarion's rationale regarding its employee incentive compensation program. First, Defever pointed out that "70 percent of the awards are based on financial goals" and that "[i]ncentive compensation based on financial goals is designed to align the interest of the employees with [that of] the shareholders. As the goals are focused on shareholder benefit, the costs should not be recovered from ratepayers." Second, "practically every employee is rewarded,"16 which diminishes the efficacy of the program. Third, according to Defever, "the goals are also insufficiently motivating" because Aquarion has not adjusted the plan's goals to create the requisite level of incentivization. For example, the incentive goal for customer service complaints had not changed between 2017 and 2020, even though the actual number of complaints was less than the incentive goal.¹⁷ Because the incentive goals were not calibrated to reduce the number of customer complaints, Defever opined that there was "no incentive to improve" and that "ratepayers receive no benefit." Defever believed that "a complete disallowance could be justified based on the ineffective design of the plan" but recommended a 70 percent disallowance.

Aquarion provided rebuttal testimony clarifying that 70 percent of employee incentive compensation is tied

 $^{^{\}rm 16}$ Between 2017 and 2020, 99.9 percent of Aquarion's eligible employees received incentive compensation.

¹⁷ In 2017, the actual number of customer service complaints was 2650, lower than the incentive goal of 3230. In 2018 and 2019, the incentive goal remained the same, even though the number of customer service complaints increased (there were 3009 complaints in 2018 and 3166 in 2019). Because the number of customer service complaints remained below the incentive goal, the goal was achieved despite the increase in the number of customer complaints.

to financial goals to ensure that there are sufficient earnings to fund the program. Without adequate financial results, "there will not be sufficient money to fund the incentive compensation pool" According to Aquarion, Defever's contention that the incentive compensation program is insufficiently motivating is "completely unfounded," but Aquarion acknowledged that "an employee squarely fulfilling the requirements of the position will likely receive 100 percent of target . . . because the incentive compensation plan is calibrated so that an award is earned by [an] employee [when he has] done [his] job on a satisfactory basis." (Emphasis omitted.)

In its final decision, PURA found that the evidence in the record was insufficient to establish the prudence of the employee incentive compensation program for four reasons. First, Aguarion had "failed to demonstrate that the [i]ncentive [p]rogram is required to maintain competitive salaries and employee retention" because nonexecutive compensation "appears to use base wages when comparing Aquarion employee compensation to compensation offered by peer utilities." Second, there was no evidence that the incentive program actually incentivizes employees because "[a]lmost 100 [percent] of eligible employees receive employee incentive compensation The record evidence instead supports a finding that the [p]rogram has no discernable impact on the customer-facing metrics." (Citation omitted.) Third, employees receive incentive compensation only if the program is funded, and "[t]his funding approach protects shareholders at the expense of ratepayers." Fourth, "since 70 [percent] of the employee incentive compensation is tied to [the] achievement of financial goals, the [i]ncentive [p]rogram primarily benefits [Aquarion's] shareholders, rather than ratepayers." PURA determined that the incentive program "is more accurately described as a bonus plan than an incentive plan"

and "denie[d] [Aquarion's] request to recover \$2,222,298 from ratepayers to fund the [i]ncentive [p]rogram as the program provides little, if any, benefit to ratepayers." (Internal quotation marks omitted.)

On appeal, Aquarion claims that employee incentive compensation is necessary to attract and maintain qualified workers and that PURA improperly used hindsight to assess the prudence of this program. We reject this claim. As we previously explained, rate-making is a prospective endeavor, and, in the present case, PURA was not asked to decide whether to permit Aguarion to recover its past expenditure of \$2,222,298 in employee incentive compensation during the 2021 test year but whether to fund the *future* expenditure of this amount for the program going forward through an increase in rates. To ascertain the prudence of this prospective cost, PURA did not use hindsight to deny past costs; instead, it considered the testimony of Teixeira and Defever, the design and structure of the employee compensation program, and historical data regarding the efficacy of the program in fulfilling its objectives.¹⁸ PURA's factual finding that the program is not prudent is supported by substantial evidence in the administrative record, and we perceive no error. See, e.g., Woodbury Water Co. v. Public Utilities Commission, 174 Conn. 258, 263, 386 A.2d 232 (1978) ("[t]he weight and credibility of the evidence offered are . . . matters within the province of [an agency]," and "[the] court is not to substitute its own judgment or discretion for that of the [agency]" (internal quotation marks omitted)).

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Deferred Conservation Expenses

We next address whether PURA applied the proper legal standard to assess the prudence of Aquarion's

¹⁸ Aquarion does not claim that it is precluded from altering its employee incentive compensation plan going forward in light of PURA's conclusion, and there is nothing in the record that would support such a claim.

deferred water conservation expenses, which PURA previously designated as a regulatory asset. See footnote 7 of this opinion. Aquarion claims that PURA improperly focused on an after-the-fact measurement of the economic success of the water conservation program, rather than judging the prudence of the program at the time the expenses were incurred. PURA acknowledges that it used hindsight to evaluate the prudence of Aquarion's deferred conservation expenses but claims that it did so only after first finding that none of those expenditures was prudent at the time they were made. PURA contends that its use of hindsight in this manner was not improper because it resulted in Aquarion's recovery of one half of its deferred conservation expenses and was authorized by No. 13-78, § 2, of the 2013 Public Acts (P.A. 13-78). We agree with Aquarion.

The following additional background is relevant to our resolution of this claim. In 2013, the legislature enacted P.A. 13-78, which, in relevant part, requires PURA to "initiate a docket to identify water and energy conservation programs, including, as applicable, measures in an approved water supply plan pursuant to section 25-32d of the [G]eneral [S]tatutes, that would be eligible for recovery by any water company, as defined in section 16-1 of the [G]eneral [S]tatutes, in a general rate case, provided such company implements such programs and demonstrates with information and data available to the public that the expenses for such programs were reasonable and prudent. . . ." P.A. 13-78, § 2.

In accordance with this provision, PURA initiated a docket to identify eligible water conservation programs for cost recovery in the next general rate case. See Public Utilities Regulatory Authority, Decision, PURA Investigation of Water and Energy Conservation Programs Eligible for Cost Recovery During General Rate Cases (Docket No. 13-08-16) (July 6, 2016) (water con-

servation proceeding). Aquarion participated in the water conservation proceeding and offered evidence of new conservation programs, such as "enhanced public education; expanded customer auditing; implementing a subsidized customer fixture replacement program; incentive or rebate programs to incent conservation; expanded water audits to identify leaks; [conservation based rate design and utilization of forecasted consumption data; and implementation of full metering when economically feasible." Id., p. 2. PURA issued a final decision in 2016, stating that it was "reluctant to preselect specific programs for rate inclusion or exclusion. In general, the utilities are free to develop any program for rate consideration that is [cost-effective]. That is, the annual savings in typical rate case expenses, such as electric bills, water treatment and transportation costs must exceed annual program costs." Id., p. 3. In the meantime, PURA permitted Aquarion to treat its water conservation expenses as a deferred regulatory asset, provided it "implements them and demonstrates [in the next general rate case] that the expenses for such programs were reasonable and prudent." Id., p. 1.

After the water conservation proceeding, Aquarion incurred water conservation expenses for "(1) communication costs, including costs incurred for television ads, radio spots, social media, print media, including its Water Watch bill insert, and [Aquarion's] website; and (2) costs incurred for pilot programs in nine towns, education and irrigation consultants, and summer help to patrol during irrigation season." From 2017 through 2021, Aquarion spent a total of \$2,996,101 on water conservation expenses.

In August, 2022, Aquarion instituted the present general rate case, seeking, among other things, to recover its deferred conservation expenses from ratepayers. To support recovery of these expenses, Aquarion submit-

ted various charts, receipts, and invoices, as well as its 2018 long-term conservation plan and the testimony of Robert J. Ulrich, its vice president of Connecticut operations. Unlike the evidence submitted in support of Aquarion's employee incentive compensation program, this evidence was not proffered to establish the prudence of Aquarion's *future* accrual of these expenses but, instead, to establish the prudence of Aquarion's *past* payment of these costs prior to the test year. See part I B of this opinion.

Ulrich testified that Aquarion evaluates the success of its water conservation program by measuring the difference in water consumption before and after implementation of the program. Since commencing its water conservation program, "[t]he average annual reduction from 2017 [to] 2021 is 754 million gallons or 12 percent of production." Additionally, Ulrich explained that the reduction in water consumption resulted in variable cost metric savings due to the need to use fewer chemicals and less power. From 2017 through 2021, these variable cost metric savings amounted to approximately \$1.5 million.

As for the approximately \$1.5 million in remaining water conservation costs, Aquarion argued that these expenses were prudent because they benefited ratepayers, even if the benefit could not easily be quantified monetarily. Ulrich testified that the incalculable benefits of water conservation include a decrease in the size of and need for future water infrastructure projects, an improvement in customer satisfaction, an increase in water pressure, a reduction in the carbon footprint associated with the transportation of chemicals, fewer drought restrictions, and the preservation of a limited natural resource.

On the basis of this evidence, PURA determined that Aquarion had failed to "demonstrate that 100 [percent]

of the [water conservation] expenses are reasonable and prudent." Although water consumption had decreased between 2017 and 2021, Aquarion was "unable to attribute these reductions specifically to its conservation program; nor does [Aquarion] have any other way in which to assess the program's success, particularly with respect to its heavy reliance on customer communication and behavioral programs. Specifically, [Aquarion] does not have any goals regarding water conservation It also does not have any [k]ey [p]erformance [i]ndicators . . . associated with its conservation communication campaigns, which [encompass] the majority of the costs of Aquarion's conservation program." (Citation omitted.) PURA found that Aquarion had "saved approximately \$1.5 million in variable cost savings" due to "less consumption, primarily driven by reductions in chemical and power costs," but that it was unable to quantify the savings associated with the remaining \$1.5 million in expenses. PURA therefore determined that "only \$1,498,051 . . . or 50 [percent], of the deferred conservation expenses were reasonable and prudent" and recoverable through rates.

As we previously explained, for rate-making purposes, "[t]he prudence of a management decision" must be "judged at the time the decision is made." Connecticut Light & Power Co. v. Dept. of Public Utility Control, supra, 216 Conn. 645. Under this standard, "a utility is compensated for all prudent investments at their cost when made, irrespective of whether they are deemed necessary or beneficial in hindsight. . . . That is, the focus in a prudence inquiry is not whether a decision produced a favorable or unfavorable result, but rather, whether the process leading to the decision was a logical one, and whether the utility company reasonably relied on information and planning techniques known or knowable at the time. . . . Although a prudence review is necessarily retrospective in that it involves

an examination of past circumstances, past information available, and past decisions, these factors may not be evaluated in light of subsequent knowledge." (Citations omitted.) *Gulf States Utilities Co.* v. *Louisiana Public Service Commission*, 578 So. 2d 71, 85 (La.), cert. denied, 502 U.S. 1004, 112 S. Ct. 637, 116 L. Ed. 2d 655 (1991); see also *Duquesne Light Co.* v. *Barasch*, 488 U.S. 299, 309, 109 S. Ct. 609, 102 L. Ed. 2d 646 (1989) ("[u]nder the prudent investment rule, the utility is compensated for all prudent investments at their actual cost when made (their 'historical' cost), irrespective of whether individual investments are deemed necessary or beneficial in hindsight").

Our review of the record reveals that PURA improperly used hindsight to evaluate the prudence of Aquarion's deferred conservation expenses. Rather than considering whether these expenses were reasonable and prudent when they were incurred in 2017 through 2021 on the basis of information known or knowable to Aquarion at that time, PURA relied on subsequent knowledge of the success of the program to calculate the dollar-to-dollar savings to ratepayers. PURA found that Aquarion had failed to meet its burden of establishing prudence with respect to one half of the deferred conservation expenses because Aquarion was unable to quantify the benefit to ratepayers in terms of a precise dollar amount. PURA's focus on after-the-fact economic savings, rather than the prudence of Aquarion's decision-making at the time, was improper. Cf. Estate of Rock v. University of Connecticut, 323 Conn. 26, 30, 144 A.3d 420 (2016) (administrative agency acts unreasonably, arbitrarily, illegally, or in abuse of its discretion when its decision "result[s] from an incorrect application of the law to the subordinate facts" (internal quotation marks omitted)).

PURA contends that it did not apply the wrong legal standard because it also relied on "several design flaws in the program that existed from the outset: Aquarion had no way of reliably assessing the program's success; never set water conservation goals; and never used key performance indicators for its communication campaigns." We reject this contention because these design flaws apply to *all* of Aquarion's deferred conservation expenses, yet PURA explicitly found that 50 percent of those expenses, or \$1,498,051, "were reasonable and prudent." As PURA stated in its final decision, the only difference between the two categories of conservation expenses was the after-the-fact hindsight evidence of the success of the water conservation program, insofar as it resulted in "cost savings associated with 50 [percent] of the deferred conservation costs"

Alternatively, PURA claims that its use of hindsight to assess the prudence of Aquarion's deferred conservation expenses is authorized by § 2 of P.A. 13-78. PURA argues that the legislature's use of the past tense verb "were" in connection with the phrase "reasonable and prudent" reflects the legislature's intent to adopt a retrospective standard that uses hindsight to evaluate the reasonableness and prudence of a utility's conservation expenses. P.A. 13-78, § 2 (permitting recovery of

¹⁹ PURA also contends that its use of hindsight was not improper because it benefitted Aquarion by allowing it to recover one half of its deferred conservation expenses through rates, despite the lack of evidence of prudence. PURA's premise, that it found the evidence insufficient to establish that any of the deferred conservation expenses were reasonable or prudent, is belied by its final decision in which it explicitly found that "\$1,498,051 . . . or 50 [percent], of the deferred conservation expenses were reasonable and prudent." (Emphasis added.) Regardless, for the reasons explained in footnote 14 of this opinion, we are skeptical of PURA's contention that it can include imprudently incurred costs in rates, despite the plain language of § 16-19e (a) (5) requiring "that the level and structure of rates charged customers shall reflect prudent and efficient management" (Emphasis added.)

²⁰ PURA does not argue that its interpretation of P.A. 13-78, § 2, is time-tested or has been subjected to judicial scrutiny. Thus, our review of this claim is plenary. See, e.g., *GenConn Energy, LLC v. Public Utilities Regulatory Authority*, 348 Conn. 532, 542, 308 A.3d 1018 (2024). To ascertain the meaning of the public act, we apply the well established principles of statutory construction codified in General Statutes § 1-2z.

water conservation expenses in next general rate case if utility "implements such programs and demonstrates with information and data available to the public that the expenses for such programs were reasonable and prudent" (emphasis added)). We are not convinced. By its plain language, P.A. 13-78, § 2, requires the utility to identify recoverable water conservation expenses between general rate cases, meaning that PURA's prudence review always will occur after the utility's expenditure of funds to pay for identified conservation costs. In other words, the public act contemplates that a utility will be required to establish in a *future* rate case that its past conservation expenses were reasonable and prudent. Rather than implementing a substantive change to the conventional and well established methodology governing the prudence review of a utility's costs, the statutory language plainly reflects the prescribed method by which conservation costs are first identified in a water conservation proceeding, and, then, in the next general rate case, those historical costs are reviewed for reasonableness and prudence as of the time the costs were incurred.21

Because PURA used hindsight to evaluate the prudence of Aquarion's deferred conservation expenses, that portion of the trial court's judgment upholding PURA's final decision must be reversed, and the case must be remanded so that PURA may reconsider the prudence of Aquarion's deferred conservation expenses as of the time the decision to incur those expenses was made.

²¹ To the extent that the language of the public act is ambiguous, nothing in the legislative history supports PURA's assertion that the legislature intended to adopt a new prudence standard unique to deferred water conservation expenses. Instead, the purpose of the public act was to "save consumers some money and . . . [to] help the environment" by "protect[ing] our natural resources " 56 S. Proc., Pt. 4, 2013 Sess., p. 948, remarks of Senator Bob Duff.

WHETHER PURA'S RATE ORDER WAS CONFISCATORY

Lastly, Aquarion claims that PURA's rate order resulted in a confiscatory taking of its property because (1) the denial of some of Aquarion's requested capital expenditures and operating costs effectively reduced the allowed ROE from 8.70 percent to almost 5 percent, and (2) PURA's factual finding that the approved ROE would be sufficient to maintain Aquarion's credit rating and to attract capital was premised on an incorrect assumption that Aquarion would recover all of its requested capital expenditures and operating costs. We disagree.

In its rate application, Aquarion requested a ROE of 10.35 percent. Other parties objected and provided evidence in support of a lower ROE. In particular, the EOE recommended a ROE between 7.65 and 8.91 percent, the OCC recommended a ROE of 9 percent, and the OAG recommended a ROE between 8.33 and 9 percent. To ascertain a ROE that was sufficient, but no more than sufficient, to allow Aguarion to cover its capital expenditures and operating costs in accordance with § 16-19e (a) (4), PURA considered the respective effects that this range of ROEs would have on Aquarion's credit rating. PURA noted that Aquarion had maintained an "A3 [s]table [r]ating" from Moody's Investors Service (Moody's) since 2018. After evaluating the factors that Moody's uses to calculate credit ratings, PURA determined that, "[u]nder all the recommendations offered by [Aquarion], [the] OCC, and [the] EOE . . . the metrics remain in the range of the core metrics followed by Moody's to maintain its A3 rating." PURA therefore concluded that "an ROE set within the ranges presented by [the] EOE, [the] OCC, and [Aquarion] (i.e., 7.765 [percent] to 10.35 [percent]) would not adversely affect [Aquarion's] credit rating."

To arrive at a precise ROE, PURA examined "several factors . . . including current economic and market conditions, analytical models and cost of equity capital methodologies . . . ROEs of similar companies in other jurisdictions, and [Aquarion's] financial risk and credit rating." With respect to comparable allowed ROEs, PURA noted that, "[o]ver the period [of] 2021 through July 26, 2022, water company allowed ROEs ranged from 7.46 [percent] to [10 percent], with an average of 9.37 [percent]." PURA also calculated various ROEs under two different analytical models, the discounted cash flow model and the capital asset pricing model, which yielded "a reasonable ROE for [Aquarion] . . . in the range of [8 percent] to [9.5 percent]." As for Aquarion's financial risk, PURA concluded that it was comparable to other similarly situated utility companies and that "the regulatory framework in Connecticut, by design, also provides certain risk mitigation mechanisms that should be accounted for in setting a reasonable ROE." See, e.g., General Statutes § 16-262w (authorizing use of water infrastructure and conservation adjustments); General Statutes § 16-262y (revenue adjustment mechanism); see also footnote 8 of this opinion. After a thorough analysis of Aquarion's "capital structure, its financial condition, ROEs from other jurisdictions, analytical models, testimony from the [p]arties and [i]ntervenors, prevailing and anticipated market conditions, and the regulatory environment," PURA found that "an ROE of [8.7 percent] is reasonable and provides the proper balance between shareholders and ratepayers."

The trial court upheld PURA's determination, reasoning that a ROE of 8.7 percent was within the range recommended by the parties and was reflective of the fact that Aquarion operates in a highly regulated,

monopolistic environment involving little practical economic risk. The court rejected Aquarion's claim that the "actual ROE will be closer to 5 percent because Aguarion will be forced to use revenue it has otherwise designated to return to investors in order to make up for the revenue shortfalls caused by PURA's denial of Aguarion's revenue requests in other areas" on the basis of GenConn Energy, LLC v. Public Utilities Regulatory Authority, 348 Conn. 532, 548–50, 308 A.3d 1018 (2024) (GenConn), which held that a reduction in overall recoverable capital costs does not alter a utility company's allowed ROE. The court also was not persuaded by Aquarion's claim that the combined effect of disallowing certain capital expenditures and operating costs, and adopting a ROE of 8.7 percent would undermine Aquarion's financial integrity or ability to attract capital, pointing out that "PURA specifically made the factual determination that [its] decision would not harm Aquarion's credit rating" and that, even if this factual finding was clearly erroneous, "a credit rating is only one factor in a company's ability to attract capital." Because there was no evidence that a downgrade in Aquarion's credit rating "would wholly prevent Aquarion from raising capital or . . . [would] jeopardize its financial integrity," the court determined that PURA's rate order was not confiscatory.

Our review of the constitutionality of PURA's rate order is governed by the standards articulated by the United States Supreme Court in *Federal Power Commission* v. *Hope Natural Gas Co.*, 320 U.S. 591, 64 S. Ct. 281, 88 L. Ed. 333 (1944). See *Woodbury Water Co.* v. *Public Utilities Commission*, supra, 174 Conn. 264. When a rate order is challenged as confiscatory, the appellant "carries the heavy burden of making a convincing showing that it is invalid because it is unjust and unreasonable in its consequences." *Federal Power Commission* v. *Hope Natural Gas Co.*, supra, 602. A

regulatory agency is "not bound to the use of any single formula or combination of formulae in determining rates," and may exercise its rate-making authority to make "pragmatic adjustments." (Internal quotation marks omitted.) Id. "[I]t is the result reached not the method employed [that] is controlling. . . . It is not theory but the impact of the rate order [that] counts. If the total effect of the rate order cannot be said to be unjust and unreasonable, judicial inquiry . . . is at an end. The fact that the method employed to reach that result may contain infirmities is not then important." (Citations omitted.) Id. A rate order is not unjust and unreasonable if the utility company's return on investment is enough "not only for operating expenses but also for the capital costs of the business," "commensurate with returns on investments in other enterprises having corresponding risks," and "sufficient to [ensure] confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital." Id., 603.

We first address whether our holding in GenConn Energy, LLC v. Public Utilities Regulatory Authority, supra, 348 Conn. 548–50, applies to Aquarion's claim that disallowance of some requested capital expenditures and operating costs effectively lowered Aquarion's approved ROE below 8.7 percent and resulted in a confiscatory taking. In GenConn, the plaintiff, GenConn Energy, LLC (GenConn), claimed that, by disallowing recovery of certain prudently incurred operating costs to prevent an over recovery, PURA effectively prevented GenConn from earning a reasonable ROE in violation of General Statutes §§ 16-19e (a) and 16-243u. Id. We rejected GenConn's claim that the denial of costs effectively reduced the allowed rate of ROE from 9.85 percent to 7.59 percent on the ground that "[t]he rate of [ROE] was not lowered by PURA. It is true that GenConn's recoverable capital is lower than what it requested . . . but this is a result of a reduction in the debt rate. The rate of [ROE] remains 9.85 percent Simply because GenConn's overall recoverable capital was lowered as a result of the reduction in the debt rate does not mean that the [ROE] has been altered." Id., 548. Thus, despite the reduction in recoverable capital costs, GenConn was "allowed a reasonable rate of [ROE] pursuant to the same rate of return" authorized by PURA. Id., 549.

Aguarion claims that GenConn is distinguishable because, in that case, the court "did not confront, or express any view about, the federal constitutional rule against confiscatory rates." Aquarion's claim lacks merit because the statutory standard for establishing just and reasonable rates under § 16-19e (a) (4) tracks, almost verbatim, the constitutional standard articulated in Federal Power Commission v. Hope Natural Gas Co., supra, 320 U.S. 602–603. As we explained in *Connecticut* Light & Power Co. v. Dept. of Public Utility Control, supra, 219 Conn. 55–56, the statutory requirement that rates be sufficient to enable utility companies "to cover their operating costs including, but not limited to, appropriate staffing levels, and capital costs, to attract needed capital and to maintain their financial integrity"; General Statutes § 16-19e (a) (4); is not materially different from the constitutional requirement that rates be "sufficient to [ensure] confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital." Federal Power Commission v. Hope Natural Gas Co., supra, 603; see Connecticut Light & Power Co. v. Dept. of Public Utility Control, supra, 56 ("§ 16-19e (a) (4) embodies the 'just and reasonable' provision of *Hope* [Natural Gas Co.]"). Our decision in GenConn applies equally to statutory and constitutional claims, and compels the conclusion that Aquarion's approved ROE of 8.7 percent was not altered, for purposes of our constitutional analysis, by the disallowance of certain capital expenditures and operating costs

consistent with the general rate-making principles codified in § 16-19e (a) (4) and (5). See Fitchburg Gas & Electric Light Co. v. Dept. of Public Utilities, 375 Mass. 571, 575, 380 N.E.2d 1304 (1978) ("A confiscation claim is not made out by showing that the effective rate of return will be less than the allowed rate of return" because inherent in policy of disallowing certain costs "is the possibility that a company's effective rate of return will be less than its allowed rate of return. Such a result is not a constitutional violation."); Toledo Edison Co. v. Public Utilities Commission, 12 Ohio St. 3d 143, 146, 465 N.E.2d 886 (1984) (utility's claim that disallowance of requested costs resulted in confiscatory taking because "the 'effective' rate of return [fell] outside of the range approved by the commission" was "without merit," insofar as "[t]he 'effective' rate of return . . . was computed outside Ohio's [rate-making] formula").

Alternatively, Aquarion contends that PURA improperly found that a ROE of 8.7 percent would not adversely affect Aquarion's credit rating and ability to attract capital because this finding was premised on the incorrect assumption that Aguarion would recover all of its requested capital expenditures and operating costs. According to Aquarion, if PURA had evaluated its credit outlook using the approved revenue requirement of \$195,561,690, instead of the requested revenue requirement of \$236 million, PURA necessarily would have found that a ROE of 8.7 percent was insufficient to maintain Aquarion's credit rating and its ability to attract capital. This claim fails because it is unsupported by legal analysis or citation to evidence in the administrative record. Notably, Aquarion has not examined the financial metrics that Moody's uses to calculate credit ratings,²² applied those metrics to the evidence in the

²² According to the evidence in the administrative record, one half of Moody's credit rating is based on a utility's business profile, which includes the stability and predictability of the regulatory environment (15 percent),

administrative record, 23 or explained how a ROE of 8.7 percent is insufficient to permit Aguarion to maintain its credit rating or ability to attract capital. "[I]t is the result reached not the method employed [that] is controlling," and, in the absence of any concrete analysis demonstrating that the result reached by PURA was unjust and unreasonable, Aquarion has failed to fulfill its "heavy burden" of establishing a confiscatory taking. Federal Power Commission v. Hope Natural Gas Co., supra, 320 U.S. 602; see Trunkline Gas Co. v. Federal Energy Regulatory Commission, 880 F.2d 546, 552 (D.C. Cir. 1989) (utility could not prevail on claim that rate order undermined its creditworthiness and deprived investors of reasonable financial safeguards because "much more concrete information [was] required . . . [to] hold these consequences to be unjust and unreasonable").

asset ownership model (5 percent), cost and investment recovery (15 percent), revenue risk (5 percent), and the scale and complexity of the capital program and asset condition risk (10 percent). Forty percent of Moody's credit rating is based on leverage and coverage, which includes adjusted interest coverage or FFO (funds from operations) interest coverage (12.5 percent), net debt/regulated asset base, or debt/capitalization (10 percent), FFO/net debt (12.5 percent), and retained cash flow/net debt (5 percent). The remaining 10 percent depends on financial policy.

²³ Aquarion relies on a June, 2024 article in the Hartford Business Journal reporting that, after PURA's decision in the present case, Moody's downgraded Aquarion's credit rating from A3 to Baa1. See A. Larson, "Moody's Downgrades Water Utility's Credit Rating, Citing Weakening Finances, Debt," Hartford Business Journal, June 4, 2024, available at https://www.hartfordbusiness.com/article/moodys-downgrades-water-utilitys-credit-ratingciting-weakening-finances-debt (last visited July 7, 2025). We decline to consider this evidence because it is outside of the administrative record, and PURA did not have, and could not have had, knowledge of this evidence at the time it rendered a final decision on Aquarion's rate application. See, e.g., Adriani v. Commission on Human Rights & Opportunities, 220 Conn. 307, 325-26, 596 A.2d 426 (1991) ("[a]n appeal from an administrative tribunal should ordinarily be determined upon the record of that tribunal, and only when that record fails to present the hearing in a manner sufficient for the determination of the merits of the appeal, or when some extraordinary reason requires it, should the court hear the evidence" (internal quotation marks omitted)); see also General Statutes § 4-183 (i) (administrative appeals "shall be confined to the record").

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The judgment is reversed only with respect to the trial court's decision to uphold PURA's assessment as to the prudence of Aquarion's deferred conservation expenses and the case is remanded with direction to remand to PURA for further proceedings concerning those expenses; the judgment is affirmed in all other respects.

In this opinion the other justices concurred.