

BEFORE THE PUBLIC UTILITIES COMMISSION

STATE OF COLORADO

Proceeding No. 13A-0686EG

IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF COLORADO FOR APPROVAL OF A NUMBER OF STRATEGIC ISSUES RELATING TO ITS DEMAND SIDE MANAGEMENT PLAN

**STAFF OF THE COLORADO PUBLIC UTILITIES COMMISSION'S
STATEMENT OF POSITION**

I. Executive Summary

Though the demand-side management (DSM) landscape in Colorado is changing, Public Service Company of Colorado's (Public Service or the Company) DSM plans continue to be cost effective and DSM should continue to be aggressively pursued. Staff recommends that Public Service's DSM energy savings goals remain high but obtainable while acknowledging the low avoided costs in the state at this time. Staff suggests that the Commission adopt a flat goal of 400 GWh per year each year until the next DSM Strategic Issues proceeding. The current incentive mechanism and the level of incentives are working well and have succeeded in motivating Public Service to exceed its goals each year; Staff recommends retaining both the incentive mechanism and the level of incentives and recommends rejecting the Company's efforts to link its total incentive package to its perceived financial disincentive.

The proposed Distribution Voltage Optimization (DVO) project should not be included as a part of the Company's DSM programs because the project would provide utility-side benefits necessary to provide electric service as well as potential energy savings. Staff recommends that the Commission reject DVO as a DSM program. The Commission should require Public Service to file a separate application, either a CPCN application or a DVO-specific DSM plan application, that would allow the Commission to decide how much of DVO's estimated \$92 million cost should be given DSM regulatory treatment and how much should be recovered as a distribution asset. Should the Commission decide that the whole of DVO is to be considered DSM, Staff recommends the Commission require the Company to file a comprehensive, DVO-specific plan application encompassing the full DVO rollout.

Finally, Staff recommends that the Commission change the cost-effectiveness test for natural gas DSM programs from the modified Total Resource Cost test (mTRC) to the Societal Cost Test (SCT) and reject the Company's proposed LED streetlight program and behavioral program until it presents more detailed information on these programs.

II. Argument

A. The future of DSM policy in Colorado

Staff evaluates the Company's DSM plans and DSM Strategic Issues proposals from a high-level perspective, meaning that it typically does not take

positions on proposals at the plan and portfolio levels, leaving the details of specific programs, products, and measures to other intervenors with greater expertise.

From this high-level perspective, Staff acknowledges the challenges currently facing the Company's DSM plans, specifically, that excess capacity and low natural gas prices have resulted in reduced avoided costs and recent changes to federal lighting standards have reduced the energy savings potential from lighting retrofits, one of the Company's core DSM products. Both of these challenges have reduced the cost effectiveness of DSM. However, it is important to note that plenty of DSM measures and products continue to be cost-effective under the mTRC test, which is the test the Company must use under Colorado statute.¹ It is Staff's position that these challenges should inform the future of DSM in Colorado, but they do not justify an abrupt change of course. The flat goal recommended by Staff is a reasonable accommodation to these challenges.

Colorado statute established that the Company must achieve, at a minimum, a reduction of five percent of energy sales and a reduction of five percent of peak demand by 2018, with 2006 as the baseline year.² Despite this apparent statutory "finish line," the statute specifically states that the Commission "may establish interim goals and may revise the goals as it deems appropriate."³ Although after 2018, the Commission could eliminate or significantly scale-back the Company's DSM efforts, it is Staff's position that after 2018 the Commission will retain

¹ Section 40-1-102(5), Colorado Revised Statutes (C.R.S.)

² Section 40-3.2-104(2).

³ Id.

significant discretion to require the Company to continue to pursue DSM. As long as DSM remains a cost-effective option for the Company's ratepayers, Staff favors continuing the Company's DSM programs in some manner.

B. The proper level of DSM goals

As pointed out by Staff in testimony and during the hearing in this proceeding, the Company has a history of arguing in favor of low goals only to surpass its goals, even when those goals were increased by the Commission.⁴ That trend continued during the 2013 DSM Plan year, in which the Company achieved 108 percent (384 GWh of savings) of its midpoint energy savings goal,⁵ despite its arguments that it would not be able to achieve the goals that were ultimately approved by the Commission in the previous Strategic Issues proceeding.⁶ Given the structure of the incentive mechanism, in which the Company earns proportionately larger shares of the total economic benefits of its DSM efforts as its level of goal attainment increases, the Company has a clear financial incentive to propose relatively low goals that it will have little trouble meeting and exceeding. Even though lower avoided costs and higher savings baselines for lighting measures present new challenges for the Company's DSM efforts, the Commission should examine the Company's proposed decrease in goals with significant skepticism.

⁴ See Hrg. Trans. Vol. 2, p. 218, ll. 2-12.

⁵ Hrg. Exh. 57.

⁶ In Decision No. C11-0442, the Commission established a goal of 356 GWh of energy savings for 2013.

An abrupt reduction in the Company's DSM goals, as proposed by the Company, the Office of Consumer Counsel (OCC), and the Colorado Energy Consumers (CEC), would harm the many ratepayers who have come to rely on the Company's DSM products as a cost-effective way to lower their energy bills, reduce their environmental footprints, and increase the comfort of their homes and businesses. Such a reduction would increase the environmental impact of the Company's generation of electricity and, contrary to Colorado policy established by statute, could increase the net present value of the Company's revenue requirements.⁷ It would also harm the Company's trade partners who provide many of the products and services that are essential to achieving the Company's DSM goals. As noted by Energy Efficiency Business Coalition (EEBC) witness Jim Bradford at hearing, these trade partners have made significant investments in the expectation that there would continue to be a market for energy efficiency products and services in Colorado for years to come.⁸ These providers seek regulatory stability in the energy efficiency markets.⁹ If the market for these products and services is reduced or dries up due to lower goals, it is reasonable to expect that these providers would not risk making these investments a second time should the Commission attempt to revitalize DSM in the future.

Staff initially recommended that the Commission retain the energy savings goals established by the Commission in the previous Strategic Issues proceeding,

⁷ See Section 40-3.2-104(1), C.R.S.

⁸ See Hrg. Trans. Vol. 3, p. 88, ll. 7-20.

⁹ Id.

Decision No. C11-0442, Proceeding No. 10A-554EG.¹⁰ This would be one reasonable course of action that the Commission could adopt in this proceeding. However, Staff's primary goal recommendation is that the Commission adopt a flat midpoint goal of 400 GWh of energy savings (or an amount close to 400 GWh) per year beginning in 2015 and continuing until the next DSM Strategic Issues proceeding.¹¹ Staff has not performed a market potential study that would allow it to say confidently that 400 GWh of energy savings per year is the only "correct" energy savings goal for Public Service. Staff's position is that 400 GWh is a reasonable goal that will be both ambitious and achievable based on the Company's past performance, and has a reasonable estimated cost per kWh of energy savings.

A goal that remains flat year over year strikes a balance between the steadily decreasing goals proposed by the Company, the OCC, and CEC and the gradually increasing goals proposed by the Southwest Energy Efficiency Project (SWEET) and the Sierra Club. A constant annual goal also recognizes that the institutional knowledge and infrastructure necessary to support the Company's DSM programs have increased over the years, which would tend to make higher goals more feasible, while acknowledging that DSM goal attainment may be becoming more challenging in the future. Further, although the changes in lighting standards are here to stay, the lower avoided costs the Company is currently experiencing may be short-lived. Both the amount of Staff's proposed goals and their constancy over time allows the Commission to acknowledge and address, without overreacting to, these

¹⁰ Hrg. Exh. 15, p. 5.

¹¹ Hrg. Exh. 16, pp. 8-14.

lower avoided costs. Finally, a flat goal provides for a constant point of reference for year-to-year DSM plan comparisons. Keeping the goal constant may help the Commission compare future DSM plans to one other, especially as avoided costs and markets change.

C. The DSM incentive mechanism and incentive levels

Public Service's current DSM incentive mechanism is working well. The current level of Public Service's incentives have successfully motivated Public Service to consistently achieve levels of energy savings above the 100 percent midpoint goal each year since 2009. Staff recommends that the Commission retain the current DSM incentive package approved in the previous DSM Strategic Issues proceeding, 10A-554EG.

In that proceeding, the Commission described the overall DSM incentive package as consisting of 1) current cost recovery "whereby Public Service expenses its costs and recovers them, on a prospective basis, via a combination of base rates and the DSMCA;" 2) a disincentive offset, the purpose of which is "to address the fact that DSM, as a business venture, runs counter to the Company's business practices;" 3) a performance incentive, through which the Company collects an increasing percentage share of the net economic benefits of its programs as its level of goal attainment increases between 80 percent and 150 percent of the midpoint goal.¹² The maximum annual award is capped at \$30 million.¹³

¹² Commission Decision No. C11-0442, pp. 21-22.

In this proceeding, the Company also recommends retaining the basic structure of the disincentive offset and the performance incentive but asks the Commission to increase the total incentive that it can earn by increasing the disincentive offset, allowing it to collect a disincentive offset and a share of net economic benefits at a lower level of goal achievement, and increasing the Company's percentage of net economic benefits retained at every level of goal achievement.¹⁴ The Company also asks to decrease its energy savings goals, which, in combination with the more generous incentive structure, will make it easier for the Company to keep a larger portion of DSMCA dollars as its performance incentive compared to the current DSM incentive package.

As noted by Chairman Epel at the hearing in this proceeding and discussed by CEC Witness Mr. Kevin Higgins in his Answer Testimony, between 2009 and 2012, the Company's total DSM expenditures grew at an annual rate of 22 percent while the performance incentive grew at an annual rate of 47 percent.¹⁵ The Commission should not allow that trend to continue. Awarding the Company an increasing share of the ratepayer funds collected through the DSMCA as a financial incentive is unnecessary to motivate the Company to continue to aggressively pursue cost-effective energy savings opportunities and will serve to enrich the Company at the expense of ratepayers.

¹³ Id. at p. 22.

¹⁴ See Hrg. Exh. 11, Exhibit SBB-7, p. 1 for a complete summary of the Company's incentive structure proposal.

¹⁵ Hrg. Trans. Vol. 1, p. 267, ll. 14-24 and Hrg. Exh. 20, p. 9-10.

Staff is also concerned that the Company's proposal for a more generous financial incentive package is accompanied by a proposal for gradually decreasing goals. In the previous DSM Strategic Issues proceeding, the Commission increased the Company's financial incentive (specifically, the disincentive offset) partly in recognition that it was also establishing a higher level of goals.¹⁶ By that same sound reasoning, if the Commission decreases the Company's goals in this proceeding, the Company's financial incentive should be decreased accordingly, or, at the very least, should not be increased.

The Company justifies its need for a higher level of financial incentives by calculating what it says will be its total financial disincentive at each level of goal attainment.¹⁷ The Commission has settled this issue twice by rejecting such a justification and should do so again in this proceeding. In the first DSM Strategic Issues proceeding, the Commission rejected the Company's proposal to directly recover the lost margins it experiences due to its DSM efforts, finding that "it is not appropriate, and likely not even feasible, to define in this docket the 'lost margins' resulting from DSM," and instead provided the Company with a flat disincentive offset.¹⁸ In the previous DSM Strategic Issues proceeding, the Commission followed its precedent by providing a modified disincentive offset to acknowledge the

¹⁶ Decision No. C11-0442, p. 21.

¹⁷ See Hrg. Exh. 11, Exhibits SBB-7 and SBB-8.

¹⁸ Decision No. C08-0560, p. 36.

inherent disincentive to the Company of providing DSM programs “without defining, quantifying, and explicitly compensating the Company for lost margins.”¹⁹

When asked at hearing whether the “financial disincentive” discussed throughout this proceeding was really just another term for the same concept referred to as “lost margins” in the earlier proceedings, Company Witness Mr. Scott Brockett agreed that “the two [terms] are equivalent.”²⁰ The Company’s repeated attempts throughout this proceeding to justify a financial incentive package based on its financial disincentive are essentially back-door attempts at lost margin recovery, an approach that has already been rejected. There is no doubt that the Company experiences a financial disincentive/lost margins from its DSM efforts, but the Commission should find, as it has twice before, that it is not feasible to accurately calculate the exact amount of the disincentive. Further, the Company’s recovery of the fixed-cost portion of its rates is “trued-up” during rate cases, when billing determinants are recalculated, which addresses the impact of DSM on the Company’s kWh sales. The Company’s attempt to tailor its total incentive package based on its attempted calculations of the financial disincentive per kWh (which, as Ms. Ackermann pointed out in testimony, is a highly sensitive value that conveys a false sense of precision²¹) is as equally inappropriate as its proposals in earlier proceedings to directly recover its lost margins.

¹⁹ Decision No. C11-0442, p. 21.

²⁰ Hrg. Trans. Vol. 1, p. 214, l. 24.

²¹ Hrg. Exh. 16, p. 25.

The Commission has previously found that the Company's entire incentive package, including a lump-sum disincentive offset, is sufficient to ensure that the Company has an opportunity for its "investments in cost-effective DSM programs to be more profitable to the utility than any other utility investment that is not already subject to special incentives."²² The Commission should reject the Company's attempt to indirectly recover its lost margins and instead continue to offer the Company the current incentive package, which has successfully and consistently motivated the Company to achieve high levels of cost-effective energy savings.²³

D. Proper regulatory treatment of DVO

Traditional DSM measures are installed on the customer's side of the meter and allow a customer to reduce her energy consumption, typically while providing an equivalent level of energy service. In addition to reducing her energy bill, a customer may have reasons of her own for installing the energy efficient equipment, such as reducing her environmental footprint or increasing the comfort of her home. Like the installation of the equipment itself, many benefits that motivate the customer occur on the customer's side of the meter. However, the customer's decision to participate in a DSM program also benefits Public Service's system. The Company enjoys these benefits in the form of deferred investments in plant and by

²² Section 40-3.2-105(5), C.R.S.

²³ As noted earlier, Staff does not recommend keeping the current level of incentives if the Commission greatly reduces the Company's energy savings goals.

collecting a share of the net economic benefits caused by implementing the program (including a share of the customer's energy savings).

The Company's proposed DVO program shares only one common element with traditional DSM programs – it potentially reduces energy consumption on the customer's side of the meter for some customers. The Commission should decide, for legal, practical, and policy reasons, that the proposed \$92 million DVO project is not a DSM program.²⁴ Staff does not oppose the implementation of DVO, but believes that, if the Company wishes to pursue the project further, proper regulatory treatment of DVO would fall outside the DSM rubric.

As discussed at length in Staff Witness Mr. Paul Caldara's Answer and Surrebuttal Testimonies and Staff Witness Ms. Rachel Ackermann's Answer Testimony,²⁵ the DVO project as proposed would not allow the Commission to fulfill its statutory duty to "ensure that utilities develop and implement DSM programs that give all customers an *opportunity* to participate and...give due consideration to the impact of DSM programs on nonparticipants."²⁶ The DVO program as proposed will not give all customers an opportunity to participate; it will *require* them to participate (or at least most of them – those customers on distribution feeders where DVO will not be installed will not have the opportunity to participate). Having an opportunity requires having a real choice, and under the DVO proposal,

²⁴ Because Staff's legal arguments regarding the question of whether DVO is DSM are somewhat brief and intertwined with its practical and policy arguments, Staff is including its legal arguments in this Statement of Position, rather than filing a separate legal brief.

²⁵ Hrg. Exh. 15, pp. 23-25; Hrg. Exh. 17, pp. 12-13; Hrg. Exh. 18, pp. 4-9.

²⁶ Section 40-3.2-104(4), C.R.S. (emphasis added).

Public Service's customers would not be given the opportunity to evaluate the cost effectiveness of DVO for their homes and business and would not be given the opportunity to then choose whether or not to participate.

The Company would have the Commission believe that its DVO proposal complies with its earlier directive that "the first way to address the impact of DSM on non-participants is to minimize the occurrence of non-participants."²⁷ This directive was clearly intended to compel the Company to create a wide variety of DSM products that customers could choose from, as indicated by its clarification that "all customers need to be provided a reasonable opportunity to participate in DSM."²⁸ Pursuant to this directive, the Company in its DSM plans has often foregone optimal cost-effectiveness in order to provide a suite of measures designed to allow all ratepayers a reasonable opportunity to participate in DSM.²⁹

When the Commission used the term "reasonable opportunity" in its earlier decision, it was undoubtedly more focused on the *availability* of DSM products, but

²⁷ Commission Decision No. C08-0560, p. 50.

²⁸ *Id.*

²⁹ For example, in Decision No. R14-0389, Proceeding No. 13A-0773EG, the 2014 DSM Plan, paragraph 42, ALJ Gomez stated, "Public Service stated that it developed the 2014 DSM Plan to recognize that the residential market requires choices of conservation opportunities which accommodate various lifestyles, convenient participation, and information to make smart energy choices, presented in useable and understandable forms and formats." In paragraph 163, the ALJ further stated, "The Settling Parties concur that the OCC cost-focused proposals fail to consider the fact that not every DSM product in a particular DSM program, such as the residential program, is required to achieve an MTRC of 1.0 or higher, as long as the program as a whole achieves that objective." Finally, in paragraph 165, the ALJ found that "the arguments raised by the Settling Parties regarding OCC's budget and DSM program recommendations are compelling. It is agreed that cutting or reducing program budgets as OCC suggests, would in effect provide fewer opportunities for customers to participate in the 2014 DSM program, which would in turn significantly increase the number of non-participants."

an opportunity still requires a choice and the ability for customers to make a choice was contemplated by this decision. (Notably, the Commission did not attempt to reduce the non-participants issue by requiring the Company to forcibly enroll all its customers in a DSM program, for example by sending them CFL light bulbs in the mail.) Under the DVO proposal, most customers will be required to participate through no choice of their own, eviscerating the meaning of “a reasonable opportunity to participate.” The Company presumably would have the Commission believe that those customers who would not directly benefit from DVO would find solace in the system benefits of DVO. If system benefits become a reason to implement DSM regardless of the ability of rate payers to directly benefit, then arguably future DSM plans should not contain a suite of measures to allow all ratepayers a reasonable opportunity to participate. Instead, those plans should be maximally cost effective, so that those ratepayers who cannot directly participate can take solace in the maximum system benefits from those plans.

Further, DVO will have a disparate impact on Public Service’s customers. Some customers in the areas where DVO is rolled out first will begin enjoying the benefits of DVO early, while others will begin paying for DVO through the DSMCA (and eventually through base rates) but may have to wait five years or more to begin enjoying any benefits.³⁰ Some customers will benefit more from DVO than other customers depending on the type, number, and age of their electrical

³⁰ See Hrg. Exh. 18, pp. 6-7.

devices.³¹ As mentioned, the Company may not deploy DVO on every feeder, and the customers on those feeders where DVO is not implemented will receive no direct benefits. Finally, customers at the beginning of a feeder will likely benefit more from DVO than customers at the end of a feeder, where the service voltage is already at the low end of the acceptable range.³² All of this disparity would not be much of a concern if customers had the opportunity to participate or not participate according to their own preferences and according to their own cost-benefit analyses, or if DVO was considered by the Commission to be part of the Company's routine responsibility to provide electric service. Instead, any direct benefits from DVO will accrue to customers based on happenstance, and those customers who will not benefit directly or who will benefit very little will not be able to take any actions to increase their level of benefit. Nevertheless, those ratepayers will fund this \$92 million project through the DSMCA and base rates. Such a result is inequitable.

Even if the Commission disagrees with Staff and finds that DVO fulfills the statutory requirement that due consideration be given to non-participants, it should

³¹ At hearing, Mr. Caldara expressed his opinion that many apartment dwellers would not experience much benefit from DVO because many apartment buildings already have the latest energy efficiency measures installed and "will probably come with CFLs." Hrg. Trans. Vol. 2, p. 206, ll. 5-13. As indicated by his use of the future tense, Mr. Caldara was speaking of new construction, but unfortunately did not clarify that in his response. Both with new construction and the existing apartment and housing stock, as the percentage of customers' loads are comprised of CFLs, modern appliances, flat-screen televisions, and computers increases, the potential for DVO to provide customers with energy savings decreases.

³² At hearing, Company Witness Ms. Kelly Bloch said that customers who currently experience service voltage at 114 volts, which is the very bottom of the acceptable range, only experience this voltage during peak demand. Hrg. Trans. Vol. 2, p. 92, ll. 8-16. This distinction is beside the point. Customers who experience 114 volts at peak demand will also have service voltage at the low end of the range during off-peak times, so DVO would only be able to lower their off-peak service voltage by a very small amount, if at all.

not find that DVO qualifies for DSM regulatory treatment merely because DVO would help reduce energy consumption for some customers. If reduced energy consumption is the only metric for qualifying a program as DSM, then arguably any program that helps reduce customers' energy consumption could receive DSM regulatory treatment and allow the Company to earn DSM incentives. Such programs could include inverted block rates, dynamic pricing, and the installation of larger feeder conductors (which achieve similar voltage results as DVO). Admittedly, the statutory definition of "demand-side management programs" allows for the inclusion of conservation programs,³³ but the Commission has previously declined to categorize pricing programs as DSM, instead finding that such programs are sufficiently distinct to warrant separate treatment.³⁴ The Commission should likewise find that DVO is sufficiently distinct from the rest of the DSM portfolio that it should be given separate regulatory treatment. Approving DVO as a DSM program simply because it may help save some customers energy would set a troubling precedent and open the door for a variety of other programs to receive DSM treatment and DSM incentives.

Further, there are other substantial differences between traditional DSM programs and the DVO proposal that argue in favor of distinct regulatory treatment for DVO outside of the DSM rubric. As mentioned, customers have the opportunity

³³ See §40-1-102(6), C.R.S.

³⁴ See Commission Decision No. C10-0491, Proceeding No. 09A-796E, p. 26. See also Decision No. C10-0286, which approved inverted block rates with the understanding that they could reduce peak demand and overall energy consumption, but did not mention DSM treatment for the inverted block rate programs.

to perform their own cost-benefit analysis before purchasing a traditional DSM measure, an opportunity they will not have under the DVO proposal. Also, the term demand-side management itself would seem to exclude DVO, which is a supply-side investment. Further, virtually all energy efficiency measures, by definition, provide the same level and quality of energy service as the non-efficient alternative.³⁵

However, in order to reduce energy consumption, DVO might also reduce the quality of service provided by a variety of other devices and appliances. As Staff Witness Mr. Paul Caldara testified at hearing, DVO may reduce the energy consumption of, for example, a customer's incandescent light bulbs, but the bulbs will also be dimmer.³⁶ Other appliances, such as electric heaters, stoves, or clothes dryers, may have to run longer to sufficiently warm a home, cook a meal, or dry clothes when a lower voltage is applied to them through DVO. Still other devices will draw as much power as they need to get the job done, so if DVO provides them with less voltage, they will respond by drawing more current and ultimately consuming as much power as they would at a higher voltage. For example, as Mr. Caldara explained at hearing, an elevator needs a given amount of power to lift a load from the first floor to the second floor, so reducing the voltage to an elevator will not reduce its energy consumption.³⁷

In addition, customers who purchase a traditional DSM measure typically receive a rebate from the Company only for some portion of the incremental cost of

³⁵ See Hrg. Trans. Vol. 2, p. 185, ll. 12-20.

³⁶ Hrg. Trans. Vol. 2, p. 190, ll. 13-18.

³⁷ Hrg. Trans. Vol. 2, p. 188, ll. 17-22.

the measure. Customers bear the entire non-incremental cost of the DSM measure they select, as well as the portion of the incremental cost not covered by the rebate. This arrangement provides some protection to the non-participant who does not benefit directly from, for example, his neighbor's choice to install an energy-efficient air conditioner. Under the DVO proposal, however, customers will pay, through the DSMCA and later through base rates, the entire cost of the equipment, software, and other costs of DVO. From the perspective of a customer who will receive very little or no benefit from DVO, DVO as proposed is equivalent to paying the entire cost, i.e. both the incremental and non-incremental costs, of his neighbor's new efficient air conditioner. Further, the Company would have the opportunity to earn its authorized return on equity and collect its cost of debt for the cost of the DVO project and would depreciate the asset over time, as it does for other supply-side investments. The Company's DVO proposal challenges the entire DSM regulatory paradigm.

In order to give DVO proper regulatory treatment, the Commission should explore, along with other interested parties, the many uses and benefits of DVO other than potential energy savings at the customer meter. As discussed throughout the testimony of Mr. Caldara,³⁸ in the Direct Testimony of Company witness Kelly Bloch,³⁹ and as attested to by Colorado Energy Office (CEO) Witness Mr.

³⁸ See Hrg. Exhs. 17 and 18.

³⁹ See Hrg. Exh. 7, p. 9, where Ms. Bloch states, "Voltage optimization will also help facilitate the integration of distributed generation, energy from renewable resources, energy storage, and other distributed energy resources through the use of sensors." At hearing, Ms. Bloch attempted to backpedal from this position, saying that DVO would only

Christopher Worley,⁴⁰ the DVO project, if approved, would provide the Company with valuable capabilities such as power factor correction,⁴¹ integration with outage detection systems,⁴² increased grid resiliency,⁴³ and improved integration of distributed generation (DG) resources.⁴⁴ The data that DVO would collect on the distribution grid and the insights that data would provide would be very useful to the Company for future planning purposes.⁴⁵

Section 40-3-101(2), C.R.S., requires that “every public utility shall furnish, provide, and maintain such service, instrumentalities, equipment, and facilities as shall promote the safety, health, comfort, and convenience of its patrons, employees, and the public, and as shall in all respects be adequate, efficient, just, and reasonable.” DVO will provide system benefits as well as customer benefits. Like other distribution system upgrades, DVO’s capabilities will support the Company’s mission to provide safe and reliable service to customers and argues in favor of at least partial supply-side regulatory treatment for DVO. All of these functionalities are inextricably linked with DVO’s potential ability to reduce some customers’

help the Company integrate distributed generation resources “at a very minimal level.” Hrg. Trans. Vol. 2, p. 93, l. 1. Ms. Bloch testified that this minimal impact was due to DVO’s ability to adjust voltage; however, see Hrg. Exh. 18, Exhibit PCC-4, p. 2, where a pamphlet on a DVO provided by the Company explains that DVO will address increasing penetrations of DG through both voltage adjustments and power factor corrections. Staff believes that Ms. Bloch’s earlier, unqualified assessment of the ability of DVO to facilitate integration of DG resources is more accurate.

⁴⁰ Hrg. Trans. p. 105, l. 7 – p. 106, l. 5 and p. 109, l. 2 – p. 110, l. 22.

⁴¹ See Hrg. Trans. Vol. 2, p. 83, l. 1-8; Hrg. Exh. 7, p. 4; and Hrg. Exh. 18, Exhibit PCC-4, p. 2.

⁴² Hrg. Ex. 18, p. 14.

⁴³ Hrg. Trans. Vol. 3, p. 105, ll. 2-13.

⁴⁴ Hrg. Exh. 7, p. 9. See also footnote 39, above.

⁴⁵ See Hrg. Exh. 18, Exhibit PCC-4, p. 6. Specifically, see the subheadings “Multi-Level Security: Analytics User” and “Graphs and Plots.”

energy consumption, yet the Company would have the Commission ignore these functionalities and treat DVO fully as DSM, including a DVO-specific financial incentive structured similarly to its traditional DSM incentive mechanism. Staff recommends that the Commission order the Company, if it desires to implement DVO, to file a separate and more detailed application for a Certificate of Public Convenience and Necessity (CPCN) so that the Company and interested parties can more fully explore the many capabilities of DVO and help the Commission determine how to allocate and recover the costs of the project appropriately.

Staff believes that a CPCN proceeding would be the most appropriate forum in which to explore the many capabilities and functionalities of the DVO technology. A CPCN proceeding would, among other things, allow the Commission to address the DVO-related concerns raised in this proceeding, evaluate the full capabilities of DVO, allow the Company to articulate a strategic vision for DVO, determine DVO's cost recovery mechanism, and establish a not-to-exceed maximum level of expenditures to ensure that the costs and rate impacts associated with the project remain reasonable over the course of its implementation.

Further, it is Staff's position that a CPCN is legally required for the proposed DVO project based on the Commission's own precedent. In Decision No. C09-1446, the Commission found that Public Service's Smart Grid City project was not in the ordinary course of business and therefore required a CPCN because of, among other reasons, "its cost and magnitude (\$42 million); ... its uniqueness, including the fact that many of the technologies are being deployed for the first time;" and because it

was “not simply a distribution project.”⁴⁶ The proposed DVO project is more than twice as expensive as Smart Grid City and will potentially span the entirety of Public Service’s service territory, a geographic magnitude far greater than Smart Grid City. DVO is also a unique, cutting-edge technology that has not yet been widely adopted. Finally, DVO will influence how the Company operates its generation and transmission facilities, and the program will provide system benefits outside of the distribution system, so it is also “not simply a distribution project.” The Commission should find that the DVO project requires a CPCN.

If the Commission disagrees and finds that a CPCN is not required, Staff still recommends that the project proposal be examined in a separate proceeding. If the Commission also decides that DVO fully qualifies as a DSM program, a separate DVO proceeding could take the form of a DVO-specific DSM plan application that would apply to the entire project, which would eliminate the need to review the project (estimated to roll out over five years or longer) continually in the biennial DSM plan proceedings. Regardless of the type of proceeding, a separate DVO-specific proceeding would allow the Commission and other parties to vet the proposal fully without being distracted by or distracting from other issues.

Examining DVO in a separate CPCN or other DVO-specific proceeding would allow the Commission to explore several issues that remain unclear in this

⁴⁶ Decision No. C09-1446 in Proceeding No. 09AL-299E. Another reason that the Commission found that Smart Grid City was not in the ordinary course of business was because of the “elaborate financing and intellectual property arrangements” involved in the project. DVO will not necessarily involve such arrangements, but the absence of this factor does not indicate that DVO is in the Company’s ordinary course of business.

proceeding. This lack of clarity is reason enough to withhold approval of the project at this time. First, the Commission should fully vet the measurement and verification (M&V) methods proposed by the Company for DVO. The M&V procedures that the Company has proposed will involve deemed savings and it is unclear how the actual savings achieved by DVO will change over time as customers purchase and install more modern devices that may not respond to DVO.⁴⁷ Second, the Commission should explore the possibility of cost caps for the project. At hearing, Company Witness Ms. Kelly Bloch testified that the Company was reasonably confident that its \$92 million estimate was accurate within 15 percent.⁴⁸ If the Company is reasonably confident of its cost estimate, it should be comfortable agreeing to a cost cap to protect ratepayers against cost overruns. Third, Staff is concerned that customers with DG resources such as rooftop solar, who often “zero out” their net energy consumption over the course of the year and so do not contribute to the DSMCA, would nevertheless benefit from DVO’s ability to help integrate DG. Likewise, it is possible that DG customers who have a small net kWh usage may reduce their usage down to zero with the help of DVO. The Commission should find an equitable way to ensure that these customers help pay for the benefits that DVO will provide specifically for them.

Finally, DVO, if implemented, can and will be used for the other functionalities of DVO described earlier for the simple reason that these functions are inextricably linked with the energy reduction capabilities of DVO. Also, DVO

⁴⁷ See Hrg. Trans. Vol. 2, p. 189, ll. 5-14.

⁴⁸ Hrg. Trans. Vol. 2, p. 103, ll. 6-10.

can emphasize different functionalities through its different modes; it can be operated in a “power factor optimization” mode and a “demand reduction” mode, in addition to the “voltage optimization” mode that is intended to reduce customers’ energy consumption. Relying on the Company’s assurances that it plans to operate DVO principally in voltage optimization mode provides insufficient protection to the ratepayers who will pay for the project under the promise of energy bill savings. Further, the Company plans to stop collecting its proposed DVO performance incentive (two percent of the net economic benefits of customer energy savings) once the project is completed. At that point, the Company would no longer have a financial incentive to use DVO to reduce customers’ energy consumption and might be motivated to operate DVO in its other modes and with other objectives. At hearing, Company Witness Mr. Scott Brockett would not commit the Company to operating DVO in voltage optimization mode after it stops collecting its two percent performance incentive.⁴⁹ If the Commission wishes to approve DVO because of its potential to save customers energy, it should, with the help of other parties, develop an oversight method that will ensure that the Company actually operates DVO in voltage optimization mode as often as possible for the foreseeable future.

Staff wants to be clear that it does not oppose DVO. DVO has the potential to greatly improve the resiliency and adaptability of Public Service’s distribution system as DG penetration levels increase⁵⁰ and as new plug-loads, such as electric vehicles, become more common. Though it differs from traditional DSM measures in

⁴⁹ Hrg. Trans. Vol. 3, p. 132, l. 16 – p. 133, l. 22.

⁵⁰ Hrg. Exh. 7, p. 9.

many fundamental ways, it also has the potential to reduce some customers' energy consumption. However, many aspects of the proposed DVO project remain unclear, as discussed. Perhaps most importantly, the Commission does not have sufficient information to determine whether or not DVO's \$92 million price tag is justified. Staff's overarching concern is that DVO, if approved, be given proper regulatory treatment that is just and reasonable for the ratepayers who will pay for it. If the Commission wishes to explore the many uses and benefits of DVO further, Staff recommends that it do so in a separate proceeding.

E. Miscellaneous issues raised in this proceeding

In his Answer Testimony, Staff Witness Mr. Gene Camp recommended that the Commission change the cost-effectiveness test for natural gas DSM products from the mTRC test to the Societal Cost Test (SCT). The SCT is considered a variant of the mTRC test and complies with the statutory definition of "cost-effective" found at §40-1-102(5), C.R.S. In Rebuttal Testimony, Company Witness Ms. Debra Sundin expressed the Company's support for switching to the SCT for gas DSM products.⁵¹ As Ms. Sundin explained, this switch "may result in a few more measures being considered cost-effective, and thereby increase the potential of the gas DSM portfolio."⁵² Pursuant to Mr. Camp's recommendation, the Company also agreed to use a societal discount rate in conjunction with the SCT equal to the

⁵¹ Hrg. Exh. 2, p. 61.

⁵² Id.

US Department of the Treasury's 20-year Constant Maturity (CMT) rate.⁵³ No party expressed opposition to these changes and Staff recommends that the Commission adopt them. Rather than repeating the relevant arguments in favor of these changes, Staff refers the Commission to the Answer Testimony of Gene Camp⁵⁴ and the Rebuttal Testimonies of Debra Sundin⁵⁵ and Jeremy Petersen.⁵⁶

In Answer Testimony, Staff also recommended that the Commission not approve the Company's proposed behavioral program or its proposed LED streetlight program. Rather than reiterate these arguments, Staff refers the Commission to the Answer Testimony of Rachel Ackermann.⁵⁷ Staff continues to recommend that these programs not be approved unless and until the Company provides more information and clarity on how the programs will work and therefore that they not be approved in this proceeding.

III. Conclusion

The Company's current DSM incentive mechanism and the current level of its DSM incentives have successfully motivated the Company to exceed its DSM goals in recent years. The Commission should reject the Company's efforts to calculate its incentive package based on its perceived financial disincentive, as the Commission has already twice rejected the Company's efforts to recoup its perceived

⁵³ Hrg. Exh. 5, p. 16.

⁵⁴ Hrg. Exh. 19, pp. 14-17.

⁵⁵ Hrg. Exh. 2, pp. 61-62.

⁵⁶ Hrg. Exh. 5, pp. 26-27.

⁵⁷ Hrg. Exh. 15, pp. 25-29.

lost margins due to DSM. Staff recommends retaining the current incentive structure, including the percentage amount of net economic benefits that the Company collects at each level of goal attainment. Staff also recommends that the Commission adopt a flat midpoint goal that will remain constant each year until the next DSM Strategic Issues proceeding and suggests that the appropriate level for a flat midpoint goal is 400 GWh of energy savings per year. A high but obtainable energy savings goal addresses, without overreacting to, the current low avoided costs in the state.

The Commission should not approve the Company's proposed DVO project in this proceeding. DVO is an expensive supply-side technology that, in addition to potential energy savings for customers, will provide benefits that should be considered within the Company's routine responsibility to provide service. Unlike every other DSM program and in violation of Colorado Statute, customers will not have an opportunity to decide whether or not to participate in DVO. Some customers will benefit more than other customers from DVO and the energy savings potential of the technology will likely decrease over time as modern devices replace older ones. Staff recommends that the Commission require the Company to file a CPCN application for DVO if it wishes to pursue the project further or, alternatively, to require the Company to file a DVO-specific DSM plan application. In a separate proceeding, the Commission and interested parties can explore the many uses of DVO and determine whether the project's proposed \$92 million cost is

justified and whether the rate impact it will have will be just and reasonable for the Company's customers.

Finally, the Commission should adopt the Societal Cost Test and a societal discount rate for the Company's natural gas DSM programs. The Commission should also not, at this time, approve the Company's proposed behavioral programs or LED streetlight program until it can vet both programs more fully.

Dated May 6, 2014.

Respectfully submitted,

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CERTIFICATE OF SERVICE

This is to certify that on this 6th day of May 2014, I have duly served the within
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