BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

PROCEEDING NO. 21A-0141E

IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF COLORADO FOR APPROVAL OF ITS 2021 ELECTRIC RESOURCE PLAN AND CLEAN ENERGY PLAN.

THE CONSERVATION COALITION'S REQUEST FOR REHEARING, REARGUMENT, AND RECONSIDERATION OF DECISION NO. C24-0052

February 12, 2024

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INTRODUCTION

Pursuant to Rule 1506, NRDC and Sierra Club (the "Conservation Coalition") respectfully request that the Commission reconsider its approval of the Inverse 1324 Plan ($0CO2). We urge the Commission to instead select the Inverse 1324 Plan (SCC), which is equally reliable but has a lower overall cost (both with and without the social cost of carbon ("SCC") emissions) and lower emissions than the Plan the Commission selected. If the Commission does not select the Inverse 1324 Plan (SCC), it should select either the Least-Cost Plan (SCC), which has lower costs and lower emissions than the Plan the Commission selected, or the Lower-Dispatchable Plan (SCC), which has slightly higher (by 0.4%) costs (when the SCC is omitted), but lower costs when the social cost of emissions is included, and lower emissions than the Inverse 1324 Plan ($0CO2) the Commission selected.

The statute governing this Clean Energy Plan, SB 19-236, instructs the Commission to consider three primary factors: reductions in carbon dioxide and other emissions; reliability; and cost, "evaluated on a net present value basis."[1] It is both unlawful and bad policy for the Commission to select a portfolio, the Inverse 1324 Plan ($0CO2), that has both higher costs and higher emissions than alternative portfolios that are equally reliable, such as the Inverse 1324 Plan (SCC). Moreover, given the Commission's focus on affordability, the Commission should select the SCC version of the Inverse 1324 Plan, which is $86 million cheaper than the $0CO2 version of the Inverse 1324 Plan that the Commission selected. When the SCC is included in the NPV, the Inverse 1324 Plan (SCC) is more than $600 million cheaper than the $0CO2 version the Commission approved. The Inverse 1324 Plan (SCC) does not include the Hayden biomass

[1] § 40-2-125.5(4)(d)(I)-(III), C.R.S.

project, which aligns with the Commission's finding that the Hayden biomass project should not be approved at this time given its high cost.

In addition to having a lower NPV than the Plan the Commission selected, the SCC version of the Inverse 1324 Plan is more cost-effective, as it would procure more than 1,500 MW of additional generating capacity *for free*, at no incremental cost relative to the cost of the Plan the Commission selected. The SCC version of the Inverse 1324 Plan procures 1,538 MW more capacity than the $0CO2 version the Commission approved, but is $86 million *cheaper* than the Plan the Commission approved even when the SCC is omitted from the Net Present Value ("NPV"). Precisely because alternative portfolios such as the Inverse 1324 Plan (SCC) procure more capacity at the same or lower cost than the Inverse 1324 Plan ($0CO2), alternatives are significantly more cost-effective than the Inverse 1324 Plan ($0CO2) on a dollar-per-megawatt basis.

In addition to being cheaper, the SCC version of the Inverse 1324 Plan has lower emissions than the $0CO2 version the Commission selected (because the SCC version builds more renewables, leading to greater zero-carbon generation). The Company has expressly stated that the Inverse 1324 Plan (SCC) is reliable, because it is a version of the Company's preferred plan, and includes new gas in the locations the Company believes are necessary for reliability.

It is our understanding that one of the primary reasons the Commission selected the Inverse 1324 Plan ($0CO2) is the idea that a smaller portfolio will either avoid the need for transmission upgrades or at least buy time to consider those upgrades, whereas selecting a larger portfolio will lock-in associated transmission upgrades. The record evidence contradicts this notion. The only material difference in transmission costs between portfolios is whether the portfolio includes or excludes the May Valley transmission project. Aside from May Valley,

every portfolio–including the Inverse 1324 Plan ($0CO2)–has virtually identical transmission upgrade costs. Both during its deliberations and in its written Order, the Commission acted as if selecting the Inverse 1324 Plan ($0CO2) would somehow result in no transmission upgrade costs. But the Inverse 1324 Plan ($0CO2) the Commission approved has estimated transmission costs of more than $1.9 billion--a fact the Commission acknowledges only in a footnote.

Indeed, the unrebutted evidence is that the same roughly $2 billion in transmission upgrades will be needed regardless of which portfolio is selected. Most of those costs are due to a power flow imbalance into and out of the Denver Metro area that will exist under every portfolio, including the Inverse 1324 Plan ($0CO2) the Commission approved. Given that the need for the Denver Metro transmission upgrades is the same across all portfolios, there is no rational basis for the Commission to prefer one portfolio to another on the basis of a factor (Denver Metro transmission costs) that does not vary materially across the portfolios.

By itself, selecting a smaller portfolio will not avoid the need for transmission upgrades and is not necessary to enable greater scrutiny review of those potential upgrades. While the Commission can and should decline to approve the transmission network upgrades in this proceeding, the Company did not even ask for approval of those transmission projects. The Company is already required under Commission rules to apply for a CPCN for transmission upgrades, and thus the Commission's instruction to the Company to file a CPCN is superfluous. Given that the Company is required by Commission rules to apply for a CPCN for any transmission projects for any portfolio, the Commission's desire to further scrutinize transmission projects is not a valid basis for selecting one portfolio over another.

In addition, the Order indicates the Commission selected a smaller portfolio based on concerns that the transmission projects needed to deliver electricity from a larger portfolio could not be built in time (the so-called mismatch between generation and transmission in-service dates). However, it is simply not true that over half of the transmission projects the Company assumed would be needed for a larger portfolio would remain unfinished until 2030. To the contrary, for the portfolios that acquire more capacity than the Inverse Plan the Commission selected (i.e., the SCC portfolios), the Company estimates that 68% of transmission upgrades would be completed by 2028 and 92% of transmission upgrades would be completed by 2029.

The Commission also stated that it selected the Inverse 1324 Plan ($0CO2) because it has more storage and lower curtailments relative to the Company's Preferred Plan. The manner in which the Commission considered curtailments is both unlawful and bad policy. The statute instructs the Commission to consider three primary factors in this Clean Energy Plan: costs on an NPV basis, emissions, and reliability. Here, the lower curtailments in the Inverse 1324 Plan ($0CO2) do not provide net benefits on any of these three statutory factors. To the contrary, the Commission has selected a plan that spends more to reduce curtailments than the cost of the curtailments, as evidenced by the fact that the Inverse 1324 Plan ($0CO2) is more expensive on a NPV basis than the SCC version of the Inverse 1324 Plan (and other plans). The Commission's fixation on lower curtailments independent of effects on cost and emissions is inconsistent with the CEP statute's direction to consider cost on an NPV basis and emissions. It is also fundamentally irrational to pursue lower curtailments at the expense of both increasing overall costs and increasing emissions, when the Commission cannot point to any other objective criterion that has been improved by the lower curtailments in the Inverse 1324 Plan ($0CO2).

The Commission also states that it is concerned about the risk of new gas plants becoming stranded assets, and believes that the inclusion of a single gas PPA in the Inverse 1324 Plan ($0CO2) weighs in favor of its selecting that plan. While we support considering the risk of new gas plants becoming stranded assets, we are troubled by the Commission's application of that concept here. First, it is irrational to use the risk of new gas becoming stranded assets as the basis for selecting a portfolio with *more* new gas than viable alternatives. Second, the plan the Commission selected is not unique in including a gas PPA, as other portfolios, such as the Lower Dispatchable Plan (SCC) and the Least-Cost Plan (SCC), also include gas PPAs. Third and most importantly, the Commission has less authority to reduce stranded asset risk from a PPA than from a Company-owned gas plant. The gas PPA in the Inverse 1324 Plan ($0CO2) is for 20 years,[2] and the Commission has no unilateral authority to reduce the length of that PPA. During deliberations, the Commissioners made the incorrect statement that a Company-owned gas plant must be depreciated over 40-60 years. That is incorrect. No rule or statute prescribes the depreciable life of a new gas plant. The Commission has wide discretion to set the depreciable life of a Company-owned gas plant at whatever term it chooses in a CPCN and/or rate case– including a term less than 20 years. Moreover, even after setting the initial depreciable life of a Company-owned plant, the Commission can revisit and shorten the depreciable life in future rate cases, whereas the Commission has no such authority to revisit and shorten the term of a PPA. Thus, from the standpoint of stranded asset risk of new gas plants, the fact that a resource is a PPA does not, by itself, reduce stranded asset risk relative to a Company-owned resource.

[2] 120-Day Report, Public Appendix P, Corrected at 1. The gas PPA in question is Bid 0235.

For these reasons, and as explained below, we respectfully request that the Commission reconsider its decision and select the Inverse 1324 Plan (SCC), or, in the alternative, the Least-Cost Plan (SCC) or the Lower Dispatchable Plan (SCC).

FACTUAL BACKGROUND

A. PSCo's Resource Need

This ERP originally had a resource acquisition period that stretched through 2030. However, most of the parties reached a settlement in which the Company agreed to acquire resources only through 2028, deferring to the next solicitation resources that would come online in 2029 and 2030.[3] In addition, in Phase I, the settlement the Commission approved obligates the Company to close the 500 MW Comanche Unit 3 no later than January 1, 2031.[4] Taken together, the Phase I record indicated that in the Just Transition Solicitation for which the Company must file its application no later than June 1, 2024, the Company needs to fill a capacity need of at least 2,247 MW[5] (not counting any additional need from new economic development, population growth, and/or load growth from transportation or building electrification). Note that that is accredited capacity, not nameplate capacity. To put that in perspective, the plan the Commission approved in this Phase II proceeding would acquire 5,835 of nameplate capacity, resulting in 1,562 MW of accredited capacity. This suggests that even before considering the impact of the Commission's decision to select a smaller portfolio here, the next solicitation likely has a greater accredited capacity need to fill and will likely entail approving a larger amount of nameplate capacity than in this Phase II proceeding.

[3] H'rg Exh. 156 at ¶ 15.
[4] *Id.* at ¶ 33.
[5] *See* H'rg Exh. 101, Attachment AKJ-1, Plan Overview, Rev. 2 at 35 (Table 1.4-1).

B. Cost of the Inverse Plan Compared to Other Plans

In the 120-Day Report, the Company presented two sets of portfolios: SCC portfolios; and $0CO2 portfolios. SCC portfolios utilize the social cost of carbon in the capacity expansion modeling, whereas the $0CO2 portfolios do not use the social cost of carbon in the capacity expansion modeling. The Commission's discussion of the cost of the Inverse Plan focuses on comparing the NPV of the Inverse 1324 Plan ($0CO2) to the NPV of the Company's Preferred Plan (SCC).[6] In many ways, this is an apples-to-oranges comparison, because the Commission compared a portfolio that was developed with the SCC in capacity expansion to a portfolio that was developed without the SCC in capacity expansion.

The Commission's Order does not compare the Inverse Plan it selected on an apples-to-apples basis with other $0CO2 portfolios. Table 1 below provides that comparison, which shows that the Inverse Plan ($0CO2) is nearly $400 million more expensive than the Least-Cost Plan ($0CO2).

Table 1. Cost of the Inverse Plan ($0CO2) vs. Least-Cost Plan ($0CO2)

	Inverse 1324 Plan ($0CO2)[7]	**Least-Cost Plan ($0CO2)[8]**
NPV, SCC excluded ($ millions)	43,997	43,608
NPV, SCC included ($ millions)	50,858	50,509
Decrease in NPV (SCC excluded) relative to Inverse ($0CO2) Plan	**n/a**	**-389**

[6] Decision No. C24-0052 at ¶¶ 92, 103.
[7] 120-Day Report, Appendix S, Rev. 1 at 26.
[8] *Id.* at 27.

The Inverse Preferred Plan ($0CO2) is also more expensive than SCC portfolios that the Commission rejected. Specifically, the $0CO2 version of the Inverse 1324 Plan that the Commission approved is $86 million more expensive than the SCC version of the Inverse 1324 Plan on an NPV basis (when the SCC is excluded from the NPV). When the social cost of emissions is included in the NPV, the Plan the Commission approved is more than $600 million more expensive than the Inverse 1324 Plan (SCC). Not only is the Plan the Commission approved more costly on an NPV basis, it is dramatically less cost-effective on a dollar-per-megawatt basis than other SCC portfolios, as shown in Table 2 below.

Table 2. Cost of the Inverse 1324 Plan ($0CO2) vs. SCC Portfolios

	Inverse 1324 Plan ($0CO2)[9]	**Inverse 1324 Plan (SCC)[10]**	**Least-Cost Plan (SCC)[11]**	**Lower Dispatchable Plan (SCC)[12]**
Nameplate Capacity (MW)	5,835	7,373	7,814	7,467
NPV, no SCC ($M)	43,997	43,911	43,984	44,192
Increased/(decreased) cost of plan relative to Inverse 1324 Plan ($0CO2), no SCC ($M)	n/a	-86	-13	+195
NPV, SCC included ($M)	50,858	50,236	50,197	50,421
Increased/(decreased) cost of plan relative to Inverse 1324 Plan ($0CO2), SCC included ($M)	n/a	-622	-661	-437
$/MW Cost, no SCC ($ millions)	7.5	5.9	5.6	5.9
Decrease in $/MW Cost Relative to Inverse Plan	n/a	-21%	-25%	-21%

[9] 120-Day Report, Appendix S, Rev. 1 at 26.
[10] *Id.* at 3.
[11] 120-Day Report at 103 (Table 24).
[12] *Id.* at 111 (Table 27).

C. Estimated Transmission Upgrades for Portfolios

Appendix S to the 120-Day Report includes the Company's estimates of the transmission network upgrades needed for each portfolio. Setting aside the reference case, the estimated transmission costs for the portfolios range from a minimum of $1.956 billion to a maximum of $2.353 billion.[13] Most of that difference is attributable to whether a portfolio includes the May Valley transmission line, which has an estimated cost of $252 million.[14]

The Company estimated that the Inverse Plan that the Commission approved will require $1.956 billion in transmission upgrades.[15] Thus, the Company estimates that the Inverse Plan will require the same set of transmission projects comprising the so-called "2-billion surprise" discussed in the Commission's Order. Setting aside the May Valley line, the $0CO2 and the SCC versions of the Inverse Plan have transmission costs that differ by $147 million.

D. In-Service Date for Transmission Network Upgrades

As noted above, setting aside the May Valley line, the Company estimated that all portfolios would require nearly identical transmission upgrade projects. The Commission's Order contains inaccurate statements regarding the estimated in-service dates for these proposed transmission projects. The Company identified 25 total transmission network upgrades needed for its Preferred Portfolio,[16] but stated that "due to the magnitude and location of clean energy being acquired outside the Denver metro area, similar investment would be needed to support any of the Clean Energy Plan portfolios" in the 120-Day Report,[17] including the Inverse 1324 ($0CO2) Plan the Commission selected. The Company estimates that nearly half of the

[13] *See* 120-Day Report, Appendix S, Rev. 1.
[14] 120-Day Report at 34, Table 5.
[15] 120-Day Report, Appendix S, Rev. 1 at 26.
[16] 120-Day Report, Appendix Q at 32-40 (Appendix 1 to Appendix Q).
[17] *Id.* at 3.

transmission network upgrades would be completed by 2027 (12 of 25 projects, which is 48%), over half of the transmission projects would be completed by 2028 (17 of 25 projects, which is 68%), and nearly all of the projects would be completed by 2029.[18] This is shown in Table 3 below.

Table 3. In-Service Dates for Proposed Transmission Network Upgrades[19]

In-Service Date	Number of Projects with that In-Service Date
2025	2
2026	7
2027	3
2028	5
2029	6
2030	2

ARGUMENT

I. THE PORTFOLIO THE COMMISSION APPROVED IS OBJECTIVELY WORSE THAN ALTERNATIVES ON THE FACTORS THE COMMISSION CONSIDERED.

A. Emission Reductions

The Inverse 1324 Plan ($0CO2) the Commission selected will result in higher emissions than other portfolios, including the Inverse 1324 Plan(SCC), the Lower Dispatchable Plan (SCC), or the Least-Cost Plan (SCC). The Commission acknowledges that the Company's modeling shows that the Inverse Plan the Commission approved has higher emissions than alternatives, as shown in the Table below.

[18] 120-Day Report, Appendix Q at 32-40 (Appendix 1 to Appendix Q).
[19] *See id*.

Table 4. The Inverse 1324 ($0CO2) Plan Has Higher Emissions than Alternatives[20]

	Inverse 1324 Plan ($0CO2)[21]	**Inverse 1324 Plan (SCC)**[22]	**Least-Cost Plan (SCC)**[23]	**Lower Dispatchable Plan (SCC)**[24]
CO_2 Emissions, 2023-2030 (Short tons)	73,174,627	69,237,755	68,810,832	68,763,543
Decrease in CO_2 Emissions, 2023-2030, Relative to Inverse 1324 Plan ($0CO2) (Short tons)	n/a	-3,936,872	-4,363,795	-4,411,084

The Commission characterizes the increased emissions from the Inverse 1324 Plan ($0CO2) relative to other portfolios (specifically, the Updated Preferred Portfolio) as "slight[]."[25] The Commission does not explain how it decided that the emissions increase is slight, as opposed to significant. As Table 4 above shows, between now and 2030, the Inverse 1324 Plan ($0CO2) would emit approximately 4 million tons more CO_2 than certain SCC portfolios. There is no evidence in the record supporting the conclusion that a cumulative emissions increase of nearly 4 million tons between now and 2030 is "slight."

[20] The data in this table comes from the CDPHE Verification Workbooks filed in Phase II. Note that the numbers in the Verification Workbooks differ by a small amount from the numbers provided in the 120-Day Report for the Least-Cost Plan (68,822,125 vs. 68,810,832) and Lower Dispatchable Plan (68,775,275 vs. 68,763,543). However, because the 120-Day Report does not provide the emissions for the SCC and $0CO2 versions of the Inverse 1324 Plans, we use the data from the CDPHE Verification Workbooks to enable an apples-to-apples comparison of the portfolios' CO_2 emissions.
[21] *See* CHPDE, Phase II Verification Report, Attachment A2 at 2, 6. For each portfolio listed in Table 4, the total CO_2 emissions are the sum of the emissions presented on page 6 for 2023-2029 and the emissions presented on page 2 for 2030 (using the retail + wholesale emissions).
[22] *See* CHPDE, Phase II Verification Report, Attachment A20 at 2, 6.
[23] *See* CHPDE, Phase II Verification Report, Attachment A3 at 2, 6.
[24] *See* CHPDE, Phase II Verification Report, Attachment A5 at 2, 6.
[25] Decision No. C24-0052 at ¶ 97.

To put approximately 4 million short tons of CO_2 emissions into context, in many years, the Company's largest coal unit, Comanche 3, emits approximately 4 million short tons of CO_2 annually.[26] Thus, for many years, the increase in emissions from selecting the $0CO2 version of the Inverse 1324 Plan instead of the SCC version of the Inverse Plan is larger than an entire year of CO_2 emissions from Comanche 3. Put differently, selecting the SCC version of the Inverse 1324 Plan instead of the $0CO2 version of the Inverse Plan would yield CO_2 emission reductions roughly equivalent to retiring Comanche 3 a year earlier and replacing it entirely with zero-carbon resources. We believe that is a significant emissions benefit, and that the Commission's Order does not properly characterize the magnitude of the increased emissions of the portfolio it selected relative to alternative portfolios.

1. Curtailments and Emissions

The Commission refers to the Company's statement that its curtailment estimates are optimistic, and notes that if actual curtailments are higher than modeled, the emissions of the Preferred Portfolio would have been higher as well.[27] The Commission uses this argument to discount the increased emissions from the portfolio it selected relative to alternatives.

The flaw in the Commission's logic is that it even if the Commission were correct that *absolute* emissions from each portfolio will be higher than modeled, there is no evidence that the *relative* difference in emissions from each portfolio would change. And it is the relative differences between portfolios that matter to the issue of portfolio selection. The Commission ignores that if actual curtailments are in fact higher than the Company modeled, that would be equally true for the Inverse 1324 Plan ($0CO2) as for the Company's Preferred Plan.

[26] *See* EPA, Air Markets Database, *available at* https://campd.epa.gov/data/custom-data-download.
[27] Decision No. C24-0052 at ¶ 93.

With the exception of May Valley, the Inverse Plan the Commission selected relies on the identical set of transmission upgrades as all other portfolios. The Inverse Plan assumes $1.9 billion in transmission upgrades[28] to deliver the power from nearly 6,000 MW of new resources.[29] Thus, if as the Commission speculates, there were problems bringing new transmission online, that would impact the ability of the Inverse Plan to deliver its claimed emission reductions. There is no basis in the record for the Commission to assume that actual curtailments will be higher than modeled curtailments for the Company's Preferred Portfolio but not for the Inverse 1324 Plan ($0CO2), and thus there is no basis for assuming that the relative difference in emissions between portfolios would change even if actual curtailments exceed modeled curtailments.

2. Transmission and Emissions

The Commission also has no record evidence to support the assertion that the Company's Preferred Plan cannot reduce emissions "if Public Service cannot construct the majority of the associated transmission investments until 2030."[30] The Commission repeats this erroneous claim throughout its Order, yet never cites any supporting evidence in the record.

Table 3 above shows that under the Updated Preferred Plan, nearly half of the assumed transmission projects would be completed by the end of 2027 (12 out of 25); the majority of transmission projects (17 out of 25) would be completed by the end of 2028; and virtually all projects would be online by the end of 2029 (23 out of 25).[31] Thus, the Commission's statement that the majority of the transmission projects assumed under the Preferred Portfolio would not come online until 2030 is contradicted by the record evidence.

[28] 120-Day Report, Appendix S, Rev. 1 at 26.
[29] *Id.*
[30] *Id.* at ¶ 97.
[31] 120-Day Report, Appendix Q at 32-40 (Appendix 1 to Appendix Q).

In sum, the Inverse 1324 Plan ($0CO2) will increase emissions in both the short-term and the long-term relative to other portfolios the Commission rejected. The Commission's arguments to the contrary are not supported by record evidence.

B. Reasonable Cost

Senate Bill 19-236 requires the Commission to consider whether a "Clean Energy Plan will result in a reasonable cost to customers, as evaluated on a net present value basis."[32] One of the reasons the Commission should reconsider its decision and select the SCC version of the Inverse 1324 Plan is that its NPV is $86 million lower than the NPV of the $0CO2 version of the Inverse Plan that the Commission approved–and that is without including the SCC in the NPV.[33]

Senate Bill 19-236 also required the Company to present the NPV of portfolios both with and without the social cost of carbon,[34] and required the Commission to consider the "net present value of the cost of carbon dioxide emissions."[35] When the SCC is included in the NPV, the Inverse 1324 (SCC) Plan is $622 million cheaper than the Inverse 1324 ($0CO2) Plan.[36]

In addition to being more expensive than alternatives on a NPV basis (both with and without the SCC included in the NPV), the portfolio the Commission selected is far less cost-effective on a dollar-per-megawatt basis than alternatives. The SCC version of the Inverse 1324 Plan acquires more generating capacity than the $0CO2 version of the Inverse Plan, but does so at a lower absolute cost (on a NPV basis)–and with lower emissions.

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[32] § 40-2-125.5(4)(d)(III), C.R.S.
[33] *Compare* 120-Day Report, Highly Confidential Appendix S at (PVRR without the SCC for the Inverse 1324 ($0CO2) Plan is $44,014 million) *with id. at 3* (PVRR without the SCC for the Inverse 1324 Plan (SCC) is $43,911 million).
[34] § 40-2-125.5(2)(b)(I)-(II), C.R.S.
[35] § 40-2-125.5(3)(a), C.R.S.
[36] Table 2 *supra*; *compare* 120-Day Report at 99 (Table 22) *with id.* at 103 (Table 24).

The Commission's decision to reject portfolios that have lower absolute costs (on a NPV basis) and are more cost-effective than the Inverse 1342 ($0CO2) Plan is troubling given the evidence that the Company has a near-term need for additional capacity and energy. It would be one thing if the Commission had selected a smaller portfolio if the Company were not going to need to acquire additional capacity and energy soon after this proceeding. To the contrary, in less than six months,[37] the Company must file its application in the Just Transition Solicitation, to fill a capacity and energy shortfall for 2029, 2030, and 2031.[38] Given that the record is unrefuted that the Company must soon acquire additional resources beyond what it has acquired in this proceeding, it is irresponsible for the Commission to reject larger portfolios (such as the Inverse 1324 (SCC) Plan) that could acquire incremental generating resources at no incremental cost relative to the portfolio the Commission approved.

The Commission's Order states that the Inverse Plan will save customers money relative to the Company's Preferred Plan and other alternatives. Those statements are not supported by the record, as explained below.

1. Curtailment and Costs

As explained above, the Commission's claim that the Inverse 1324 ($0CO2) Plan will lower customer costs because it has lower levels of curtailment has no basis in the record because other portfolios, such as the SCC version of the Inverse 1324 Plan, have a lower NPV than the Plan the Commission selected. This suggests that for the Inverse 1324 ($0CO2) Plan, the cost to reduce curtailment exceeds the economic benefits of reduced curtailment.

[37] Proceeding No. 21A-0141E, H'rg Exh. 156 at 28 (par. 45) (requiring the Company to file a Phase I application in the Just Transition Solicitation no later than June 1, 2024).
[38] *Id.* at 11 (par. 15).

The Commission cites no statute or rule directing the Commission to minimize curtailments when doing so does not provide a quantifiable net benefit. Here, the lower curtailment levels in the Inverse 1324 ($0CO2) Plan do not provide net economic or emissions benefits relative to other portfolios, because the Inverse 1324 ($0CO2) Plan has higher overall costs and higher emissions than other portfolios such as the Inverse 1324 (SCC) Plan.

2. Company-owned gas and costs

In the name of reducing the risk of new gas assets from becoming stranded, the Commission has taken the remarkable step of approving a portfolio with even more gas than the Company has said is needed for reliability. The $0CO2 version of the Inverse Plan has 41 MW more new gas capacity than the SCC version of the Inverse Plan,[39] yet the Commission claims that a portfolio with more gas somehow reduces the stranded asset risks from new gas.

The Commission asserts that the Inverse 1324 Plan ($0CO2) reduces cost risks to customers by replacing a single Company-owned new gas bid in the Updated Preferred Plan with a PPA gas bid and therefore allegedly reducing the risk of cost overruns during construction and decommissioning costs. To begin, the risk that the Company's capital costs to construct or decommission a unit will exceed the Company's cost estimates has nothing to do with stranded asset risk (which refers to the risk that an asset will have a shorter useful life than expected because of economic and/or regulatory factors).[40] As applied to new gas, the concept of stranded asset risk refers to the risk that new gas units will become stranded because of economic and/or

[39] The Inverse 1324 (SCC) Plan has 628 MW of new gas, while the Inverse 1324 ($0CO2) Plan has 669 MW of new gas. 120-Day Report, Appendix S, Rev. 1 at 3, 26.

[40] Decommissioning costs for a gas plant are usually small, and the Commission cites to no evidence regarding the magnitude of alleged savings in decommissioning costs from substituting a single PPA for a single Company-owned gas asset. As for capital costs, the Commission has other tools available to address capital costs, such as its authority in CPCNs, and its authority to set PIMs. In order to mitigate costs from a single new Company-owned gas plant, the Commission does not need to reject alternatives that, relative to the Inverse 1324 ($0CO2) Plan, have an incremental cost of $0 but acquire more than 1,500 MW of incremental capacity.

regulatory reasons before the depreciable life of the asset, such as by 2040 (the date by which the Governor has announced a goal of a carbon-free grid) or by 2050 (the statutory date for Colorado to be carbon-free). There is no evidence in the record that stranded asset risk is dependent on ownership type.

The Commission ignores that it has less control over the length of a gas PPA than over the depreciable life of a Company-owned gas plant. Here, the gas PPA in the Inverse Plan has a 20-year term, meaning customers will be forced to pay for that gas PPA from 2027 through 2047.[41] By contrast, the Commission has discretion over a Company-owned asset's depreciable life, which the Commission can establish in a CPCN proceeding and/or in rate cases.[42] Here, the Commission has discretion to set the depreciable life of a Company-owned gas plant shorter than 20 years. The Commission has not explained how it has unilateral authority to change the length of a gas PPA, whereas it has the authority to establish the depreciable life of Company-owned gas assets in CPCN and rate proceedings.

The Commission deflects criticism of selecting a plan with more new gas than alternatives by noting that the Inverse 1324 Plan ($0CO2) has less new gas than the Company modeled in Phase I. That is true–but *all* Phase II portfolios have less new gas than the 1,372 MW of new gas in the portfolio reflecting the Phase I Revised Settlement Agreement.[43] Given that every Phase II portfolio has less new gas than the Phase I portfolio, this does not provide a reason to prefer the Inverse 1324 Plan ($0CO2) to any other plan.

[41] 120-Day Report, Public Appendix P, Corrected at 1.
[42] In this proceeding, the Phase I settlement obligated the Company to model new gas resources as having a 25-year depreciable life in Phase II. H'rg Exh. 156 at 18 (par. 24). But that settlement provision specified the depreciable life for modeling purposes only, stating that the depreciable life "for ratemaking" purposes would be addressed in a "future depreciation study." *Id.* *See also* 120-Day Report at 121.
[43] H'rg Exh. 157 at 2 (Table 3).

Moreover, the Commission ignores that Company witnesses expressly testified in Phase I that the Phase II portfolios would almost certainly have less new gas. This outcome was also predictable because, after many parties criticized the ELCCs that the Company used in Phase I,[44] the Commission directed the Company to redo its ELCC study, resulting in ELCCs for battery storage in Phase II that are higher than in Phase I,[45] which in turn resulted in more batteries and less gas in the Phase II portfolios than in the Phase I portfolios. The fact that it was predicted that Phase II portfolios would have less new gas than in the Phase I modeling does not provide justification for the Commission having selected the Inverse 1324 ($0CO2) Plan, which contains more new gas than alternatives such as the Inverse 1324 Plan (SCC), the Least-Cost Plan (SCC), and the Lower Dispatchable Plan (SCC).

3. Size of the portfolio and future tech developments/costs

It is well-established that Commission decisions must be supported by substantial evidence in the record.[46] The Commission states that it selected the smaller portfolio of resources in the Inverse 1324 Plan ($0CO2) because that enables the Commission to select new technologies in future solicitations instead of being limited to technologies available now, and also that it enables the Commission to approve projects at lower prices than are available now.[47] [48] It is both unlawful and bad policy for the Commission to select the Inverse 1324 Plan ($0CO2) based on considerations that have no supporting evidence in the record, such as speculation about future technologies and speculation about future price declines.

[44] *E.g.*, H'rg Exh. 1403, Rev. 1 at 38-39.
[45] 120-Day Report, Appendix D at 14-15.
[46] *E.g., City of Boulder v. Colo. Pub. Util. Comm'n*, 996 P.2d 1270, 1274 (Colo. 2000).
[47] *Id.*
[48] Decision No. C24-0052 at ¶ 109.

In selecting a $0CO2 portfolio that is smaller than the SCC portfolios, the Commission has merely deferred acquisition of those incremental resources until the June 2024 Just Transition Solicitation (given that the record shows the Company has a capacity and energy shortfall for 2029-2031). Based on the timeline of Phase I in this proceeding, it is reasonable to expect the RFP in the JTA to be issued in the second half of 2025, with responses to the RFP due in late 2025 or early 2026.

Thus, the Commission is claiming that it is rational to select a smaller portfolio now because some brand-new technology will become commercially available in the next one to two years. There is no evidence in the record to support that claim. Even if it were lawful for the Commission to look outside the record (which it is not), we are not aware of any analysis showing there is a reasonable likelihood for a utility-scale technology to become commercially available in the next 1-2 years that was not commercially available in this current proceeding.

Equally unsupported is the Commission's claim that it should select a smaller portfolio now because bid prices will be lower in the next solicitation. Again, there is no record evidence to support that claim.

The Commission has the opportunity to acquire over 1,500 MW of additional generating capacity at an incremental cost of $0 relative to the cost of the Inverse 1324 Plan ($0CO2) it approved. Even if the Commission were right that prices will decline in the next 1-2 years for the Just Transition Solicitation (which is wholly speculative), capital costs for the incremental 1,500 MW of capacity that the Commission rejected here will not decline to zero. Thus, it is 100% certain that the cost to acquire 1,500 MW of capacity in the Just Transition Solicitation will vastly exceed the incremental cost to acquire 1,500 MW of additional capacity now (particularly because the Inverse 1324 Plan (SCC) acquires 1,500 MW more capacity than the

$0CO2 Plan at a lower overall cost). By rejecting larger portfolios that have lower NPVs than the plan the Commission selected, the Commission has guaranteed that customers will have to pay much more (likely hundreds of millions if not billions of dollars more) to acquire that incremental 1,500 MW of capacity in the Just Transition Solicitation.

C. Reliability

The Commission states that the Inverse 1324 Plan ($0CO2) is equally reliable as alternatives such as the Company's Preferred Plan.[49] Even if true, that does not make the Inverse 1324 Plan ($0CO2) superior to alternatives–it would instead merely mean that the Inverse Plan is no worse than certain alternatives with respect to reliability. Thus, reliability does not provide an affirmative basis to prefer the Inverse 1324 Plan ($0CO2) over other plans that are reliable.[50]

We urge the Commission to select the SCC version of the Inverse 1324 Plan. The Company has stated that it believes the Inverse 1324 Plan (SCC) is reliable, as the Company urged the Commission to approve the Inverse 1324 Plan (SCC) if the Commission rejected the Hayden biomass project.[51] The Inverse 1324 Plan (SCC) includes 628 MW of new gas resources, sited in the locations that the Company claims are necessary for reliability purposes.[52] Given that the SCC version of the Inverse 1324 Plan is just as reliable as the $0CO2 version of

[49] Decision No. C24-0052 at ¶ 120.
[50] The Commission cites the corrected version of Table 19 as the sole piece of evidence supporting its claim that the Inverse 1324 ($0CO2) Plan is more reliable than the Updated Preferred Plan. *Id.* at ¶ 123. But the Commission misinterprets Table 19 as indicating how the final portfolios performed under the extreme summer weather test. However, Table 19 provides the results of the extreme summer weather sensitivity before the Company adjusted portfolios using the "Reliability Rubric." Indeed, the first sentence after Table 19 states that: "The outputs from these scenarios were reviewed for unserved energy and ancillary service violations, and if any of these conditions existed in the outputs, the portfolios were adjusted in accordance with the rubric." 120-Day Report at 78. Thus, Table 19 does not provide any insight into the relative reliability of the final portfolios, because Table 19 was used by the Company to determine which portfolios to adjust using its "Reliability Rubric," which then changed the composition of the portfolios.
[51] 120-Day Report at 53 ("In the event the Commission decides to not approve the Hayden Biomass project, the Company recommends approval of this alternate portfolio (i.e., Inverse 1324 Plan (SCC)).").
[52] 120-Day Report, Appendix S, Rev. 1 at 3.

the Inverse 1324 Plan that the Commission selected, reliability is not a proper basis for rejecting the Inverse 1324 Plan (SCC).

If the Commission does not approve the SCC version of the Inverse 1324 Plan, it should approve the Least-Cost Plan (SCC) or the Lower Dispatchable Plan (SCC). In rejecting these alternatives as unreliable, the Commission merely cites to[53] statements from the Company that it cannot support these alternatives because the Company claims they are unreliable. But the Commission does not cite any analysis showing that the Least-Cost Plan or the Lower Dispatchable Plan are unreliable. To the contrary, the Least-Cost Plan and the Lower Dispatchable Plan meet all of the reliability metrics that the Commission approved in its Phase I Order; the Least-Cost Plan and the Lower Dispatchable Plan meet the planning reserve margin, the loss-of-load standard, and the expected unserved energy standard (and meet those reliability metrics under the extreme weather sensitivities).[54]

D. Future Technology Development

As discussed above, the Commission's speculation about future technology development and potential price declines are not supported by record evidence, and therefore are not lawful bases for selecting the Inverse 1324 Plan ($0CO2). This subsection does not repeat those arguments, but focuses on the Commission's statements that selecting a smaller portfolio now allows for demand response and/or distribution system planning to obviate the need for new generation and new transmission, respectively.

1. The Commission Does Not Explain How Incremental Demand Response or Distribution System Planning Could Reduce the Need for the Incremental Generation it Rejected Here.

[53] Decision No. C24-0052 at ¶¶ 121, 122, 126, 127.
[54] 120-Day Report at 103 (Table 24) (showing the Least-Cost Plan exceeds the 18% PRM approved by the Commission in Phase I), at 111 (Table 27) (showing the Lower Dispatchable exceeds the 18% PRM approved by the Commission in Phase I).

The Commission suggests that it selected the smaller portfolio of the Inverse Plan in part to enable demand response to obviate the need for additional supply-side resources.[55] NRDC and Sierra Club have long advocated for demand response, and share the Commission's belief in the importance of demand-side resources. However, the Commission does not explain how the Commission could possibly approve additional demand response before the Company's next solicitation.

Currently, the Company must file the JTA application by June 1, 2024, meaning that bids for the next RFP would likely be due in late 2025 or early 2026. To procure incremental demand response instead of incremental supply-side resources in the JTA, the Commission would need to either: (1) approve additional DR in a DSM Strategic Issues proceeding and/or (2) approve additional DR in the JTA itself. Under the Commission's rules and past practice, demand response has always been excluded from bidding into ERPs. In this current ERP, the Company's RFPs did not solicit bids for demand response,[56] and the Company thus did not accept bids for demand response. The Commission's Phase II Order does not change that, and thus, because demand response resources will not be allowed to bid into the JTA, there is no possibility the Commission could approve additional DR instead of supply-side resources in the JTA.

Moreover, under current timelines, there is no realistic possibility of the Commission issuing a final decision in the next DSM Strategic Issues in time to influence the RFP or bids into the RFP in the Just Transition Solicitation. In the Company's most recent DSM Strategic Issues case, the Commission approved demand response goals through 2026,[57] and ordered the Company to file its next DSM Strategic Issues case some time in 2025,[58] meaning the

[55] *See* Decision No. C24-0052 at ¶¶ 132, 135, 137.
[56] *See* H'rg Exh. 101, Attachment AKJ-3, Volumes 3.1, 3.2, 3.3.
[57] Proceeding No., 22A-0309EG, Decision No. C23-0413 at ¶¶ 52, 63, 180.
[58] *Id.* at ¶ 281.

Commission's next approval of demand response goals would occur sometime in 2026–which would likely be after the Company has issued the RFP and received responses to the RFP in the Just Transition Solicitation. In sum, the Commission has not explained how it could approve incremental demand response in time to affect the acquisition of supply-side resources in the JTA, and thus it was error for the Commission to select a smaller portfolio based on the notion that doing so would enable demand-side resources to displace supply-side resources in the next solicitation.

The story is the same with the Commission's statement that distribution system planning could reduce or obviate the need for transmission upgrades. Here too, the Commission does not provide a concrete mechanism for changes to be made to the Company's distribution system plan in time to affect the Company's next solicitation, which is currently set to start on June 1, 2024.

This is emblematic of a major flaw underlying the Commission's decision: the Commission rejected larger portfolios on the basis of hopes that future events will render additional supply-side resources and transmission unnecessary. But as the saying goes, hope is not a strategy. It was irrational and unlawful to reject the Inverse 1324 Plan (SCC), which would procure an incremental 1,500 MW of capacity at an incremental cost of $0 relative the plan the Commission approved, on the basis of the mere hope that incremental DR and non-wires solutions could be approved in time to reduce the need for supply-side resources and transmission in the Just Transition Solicitation.

E. Transmission

The Commission's selection of the Inverse 1324 Plan ($0CO2) is not a rational response to the Commission's valid concerns about the Company's transmission cost estimates. We agree with the Commission that it is very troubling that the Company's cost estimate of transmission

upgrades changed so substantially between Phase I and Phase II, that the Company did not alert the Commission and parties to that change before issuing the 120-Day Report, and that the Company did not provide a more accurate estimate during the Power Pathways proceeding.

However, selecting the Inverse 1324 Plan ($0CO2) does not do anything to address those issues. In particular, the fails to explain how selecting the Inverse 1324 Plan ($0CO2) does not lock-in the need for new transmission upgrades, but all other portfolios somehow lock-in the transmission associated with those portfolios.

1. The Inverse 1324 Plan ($0CO2) Has Nearly Identical Assumed Transmission Upgrades as the Portfolios the Commission Rejected.

If two or more options do not have material differences on a given factor, then that factor is not a logical basis for distinguishing between the options. Here, the portfolios do not have material differences regarding the need for transmission upgrades, and thus the need for transmission network upgrades is not a logical basis for preferring one portfolio over another.

Buried in footnote 171 of the final Order is a key fact: the Inverse 1324 Plan ($0CO2) has over $1.9 billion in transmission upgrades. The Inverse 1324 Plan ($0CO2) depends upon nearly all of the "$2 billion surprise" transmission that the Commission is so critical of. Yet there is not a single place in the final Order where the Commission grapples with the implication of the Inverse 1324 Plan ($0CO2) being based on the very $2 billion in transmission upgrades that is the primary basis of the Commission's rejection of the Company's Preferred Plan.

The Commission has disregarded the unrebutted evidence that the Company estimated that all portfolios–including the Inverse 1324 Plan ($0CO2) the Commission approved–will need nearly identical transmission network upgrades. The Company stated this repeatedly,[59] and no

[59] *E.g.*, 120-Day Report, Appendix Q at 3, 3 n. 1, 11; 120-Day Report at 128; Public Service's Response to Comments at 65.

party presented any contrary evidence. For example, the Company stated that "[w]hile the Company's transmission portfolio is tailored to its Preferred Plan, we fully expect that due to the magnitude and location of clean energy being acquired outside the Denver metro area, similar investment would be needed to support *any* of the Clean Energy Plan portfolios identified in the Company's 2021 ERP & CEP 120-Day Report."[60]

The Company explained the reason that all portfolios would require virtually the same transmission network upgrades: "[w]ithin the Denver metro area, transmission capacity constraints pose a significant challenge to taking full advantage of the environmental and economic benefits of the Preferred Plan, *or any clean energy resource planning scenario*, that would deliver significant amounts of new remotely located clean energy generation into the Denver metro area."[61]

In sum, the Company estimated that every portfolio in the 120-Day Report would need the same roughly $2 billion in transmission network upgrades. It was irrational for the Commission to use transmission network upgrades as a basis for distinguishing between portfolios when those portfolios do not differ materially in assumed transmission upgrades.

2. Approving A Portfolio Other than the Inverse 1324 Plan ($0CO2) Would not "Lock-in" the Estimated Transmission Upgrades.

The Commission never explains how approving the Inverse 1324 Plan ($0CO2) would somehow *not* lock in $1.9 billion in estimated transmission costs, but approving the Preferred Plan (or some other plan) would lock in their respective transmission costs. The Commission did not need to select the Inverse 1324 Plan ($0CO2) in order to have the opportunity to further scrutinize the Company's proposed transmission projects. The Company did not seek approval

[60] 120-Day Report, Appendix Q at 3.
[61] *Id.* at 11.

of those estimated transmission upgrade costs in this proceeding, and instead stated that it "has not sought such approval."[62] Moreover, for any portfolio the Commission approves, the Company is required by Commission Rule 3206 to apply for a CPCN for any associated transmission projects. There is no rational basis for using portfolio selection as the vehicle for achieving greater scrutiny of transmission investments when the Company is already required to file a CPCN for such transmission projects regardless of which portfolio is approved here.

3. There is No Evidentiary Basis for Assuming Future Solicitations Will Approve Supply-Side Resources that Could Obviate the Need for Denver Metro Transmission.

The Company states that transmission upgrades in Denver metro area are needed because there is an imbalance in the flow of electricity caused by a decline in generation in the Denver metro area and an increase in generation outside the Denver metro area.[63] The Commission appears to have selected the smaller Inverse 1324 Plan ($0CO2) in part based on the desire to defer resources until a solicitation that more expressly seeks generation resources in the Denver Metro area, in order to obviate the need for some or all of the Denver Metro transmission upgrades.[64] We agree with the Commission that the Company should have more clearly communicated to parties, the Commission, and bidders the potential avoided transmission benefits of locating bids in the Denver Metro area. However, there is no evidence to suggest that doing so would have changed the outcome in this, or future, solicitations.

The RFPs issued in this proceeding allowed entities to submit bids for resources "located in the State of Colorado," including the Denver Metro area.[65] Nothing in the RFPs prohibited

[62] Public Service's Response to Comments at 66.
[63] 120-Day Report at 130-33; 120-Day Report, Appendix Q at 10-12.
[64] Decision No. C24-0052 at ¶¶ 142, 168.
[65] H'rg Exh. 101, Attachment AKJ-3 at 17.

bids for resources in Denver. The Company received over 1,000 bids[66] from dozens of companies, and the Company itself submitted many bids. Despite the RFPs allowing bids for projects anywhere in Colorado, and the historically high volume of bids, there was a "lack of bids for new or existing generation located within the Denver metro area transmission constraint."[67]

Moreover, while other bidders may not have been aware of the locational benefits of siting new generation in Denver, the Company itself was well aware of this. Yet the Company did not submit bids for new generating resources in Denver, despite the Company knowing full well the locational benefits of such bids.

This is yet another example of the Commission basing its portfolio selection on hopes that a future solicitation will turn out differently, without any evidence that there is a reasonable likelihood of a different outcome. The Commission does not grapple with the significant opportunity cost of its decision, namely, that the Commission is foregoing the acquisition of an incremental 1,500 MW of generating capacity at an incremental cost of $0, when the record is uncontested that far more than 1,500 MW must be acquired in the solicitation that begins on June 1, 2024. The Commission's mere hope that the next solicitation will feature cost-effective bids for utility-scale resources in the Denver metro area is not a rational basis for rejecting the acquisition now of an additional 1,500 MW of resources that have an incremental cost of $0 relative to the portfolio the Commission selected.

[66] 120-Day Report at 11.
[67] *Id.* at 132.

II. THE COMMISSION SHOULD SELECT AN SCC PORTFOLIO INSTEAD OF THE INVERSE 1324 ($0CO2) PLAN.

A. The Commission Should Select a SCC Portfolio Rather Than a $0CO2 Portfolio.

We are deeply disappointed that the Commission selected a $0CO2 portfolio rather than a SCC portfolio. We are equally troubled that the Commission's Order does not address the issue of whether to select a $0CO2 portfolio instead of a SCC portfolio.

Choosing the $0CO2 version of a portfolio instead of the SCC version of a portfolio has significant consequences that are not discussed in the Order. For example, the $0CO2 version of the Least-Cost Plan has 800 MW of new gas, 3,419 MW of wind and solar, and 1,420 MW of batteries. By contrast, the SCC version of the Least-Cost Plan has 619 MW of new gas, 5,775 MW of wind and solar, and 1,420 MW of batteries. This shows the significant implications of omitting the social cost of carbon in the capacity expansion modeling: for the Least-Cost Plan, that single choice leads to 33% more new gas and 41% less renewables.

While the magnitude of the differences vary based on the portfolio in question, the overall story is the same for each portfolio: the $0CO2 version of each portfolio has more gas[68] and less renewable capacity than the SCC version of that portfolio. That is no accident. It is instead a predictable result of the $0CO2 portfolios not using the SCC in capacity expansion.

Given the legislature's emphasis on reducing carbon emissions,[69] and its instructions that the Commission consider the social cost of carbon,[70] the Commission should select a SCC portfolio rather than a $0CO2 portfolio. By using the social cost of carbon in capacity

[68] The only exception is that the $0CO2 version of the Lower Dispatchable Plan has the same amount of new gas as the SCC version. However, the $0CO2 version of the Lower Dispatchable Plan has significantly less renewable capacity than the SCC version of the plan.
[69] *E.g.*, HB 19-1261; SB 19-236.
[70] § 40-2-125.5(3)(a), C.R.S.

expansion, SCC portfolios ensure that the social cost of carbon influences the model's selection of resources in a portfolio.

Moreover, the Commission's selection of a $0CO2 portfolio in Phase II is inconsistent with the Commission's Phase I decision approving the use of the SCC in the Company's real-world dispatch decisions. In Phase I, the Commission unanimously approved a requirement that, "[b]eginning in the summer of 2022, the Company will utilize a SCC value in the dispatch or commitment of resources in the Public Service system . . ."[71] The Commission explained that doing so was an important step in achieving early emission reductions and is more consistent with the State's carbon goals.[72] It is inconsistent for the Commission, in the same proceeding, to order in Phase I that the Company use the SCC in its real-world dispatch decisions, but then in Phase II select a portfolio that does not use the SCC in capacity expansion modeling. This is one of many reasons we urge the Commission to reconsider its selection of the $0CO2 version of the Inverse 1324 Plan and instead approve the Inverse 1324 Plan (SCC), or, in the alternative, the Lower-Dispatchable Plan (SCC) or the Least-Cost Plan (SCC), as explained below.

B. The Commission Should Select the Inverse 1324 Plan (SCC), or the Lower Dispatchable Plan (SCC) or the Least-Cost Plan (SCC).

As we argued in our comments, we continue to believe that the Lower Dispatchable Plan (SCC) is the optimal plan, and that the Least-Cost Plan is the next-best option. However, should the Commission continue to want to select only a version of the Company's preferred portfolio, such as one of the Inverse 1324 Plans, the Commission should select the SCC version of the Inverse 1324 Plan. The Inverse 1324 Plan (SCC) removes the Hayden biomass project from the

[71] H'rg Exh. 156 at 23 (par. 36).
[72] Decision No. C22-0459 at ¶ 416.

Company's preferred plan and substitutes a 200 MW solar project, and we agree with the Commission's reasons for not approving the Hayden biomass project.

The Commission should select an SCC portfolio such as the Lower Dispatchable Plan, the Least-Cost Plan, or the Inverse 1324 Plan because each is superior to the Inverse 1324 Plan ($0CO2) the Commission selected. On the five factors that the Commission considered, these plans are superior to the Inverse 1324 Plan ($0CO2) on three factors, and there are no material differences between the plans on two factors, as summarized below.

- **Emissions**: The SCC versions of the Inverse 1324 Plan, the Lower Dispatchable Plan, and the Least-Cost Plan have lower emissions than the Inverse 1324 ($0CO2) Plan, as shown in Table 4 above. As explained above, even if actual curtailments exceed modeled curtailments (which is speculative), there is no evidence that the relative differences between the portfolios would change. Thus, if actual curtailments were higher than modeled, that would be true for all portfolios, and the Inverse 1324 Plan ($0CO2) would still have higher emissions than the SCC portfolios because it acquires less renewables and thus has less carbon-free generation than the SCC portfolios.

- **Cost**: As shown in Table 2 above, the SCC version of the Inverse 1324 Plan has a lower NPV (both with and without the social cost of carbon) than the $0CO2 version of the Inverse 1324 Plan. The SCC versions of the Inverse 1324 Plan, the Lower Dispatchable Plan, and the Least-Cost Plan are each significantly more cost-effective than the Inverse 1324 ($0CO2) on a dollar-per-megawatt basis.

  The Least-Cost (SCC) Plan is also cheaper on an NPV basis (both with and without the SCC included) than the Inverse Plan the Commission selected. The Lower Dispatchable (SCC) Plan is very slightly more expensive than the Inverse Plan the Commission selected (by less than half-a-percent) when the social cost of emissions is excluded, but is cheaper when the SCC is included.

- **Reliability**: The SCC version of the Inverse 1324 Plan is equally reliable as the $0CO2 version. The Company states that the Inverse 1324 Plan (SCC) is reliable and that the Company is comfortable with the amount and location of dispatchable resources in the Inverse 1324 Plan (SCC). On the objective reliability metrics, the Lower Dispatchable Plan (SCC) and the Least-Cost Plan (SCC) meet the 18% PRM the Commission established in Phase I, and were built to pass the extreme summer and winter weather tests the Company used in Phase

II modeling.[73] There is no reliability metric that the Commission approved in Phase I that these SCC portfolios fail.

- **Future technology development**: The record shows that in the next solicitation, currently set to start in June 2024, the Company will need to procure far more than 1,500 MW to fill a capacity and energy shortfall for 2029-2031. This factor weighs in favor of selecting one of the three SCC portfolios listed above, because there is no evidence that the Company can obtain an incremental 1,000 to 1,500 MW of capacity in the next solicitation at an incremental cost ranging from $0 (for the Inverse 1324 Plan (SCC)) to slightly less than $200 million (for the Lower-Dispatchable Plan (SCC)), relative to the NPV of the Plan the Commission selected.

- **Transmission**. The Commission erred by assuming that the Inverse Plan has materially different transmission network upgrades than other portfolios, but it does not. All portfolios rely on virtually identical assumed transmissions upgrades (except for May Valley). The Inverse 1324 Plan ($0CO2) the Commission approved relies on the same $1.9 billion in transmission upgrades that is assumed to be needed in every portfolio the Company modeled. Selecting the Inverse 1324 Plan ($0CO2) does not accomplish anything relative to transmission upgrades that could not be accomplished by selecting another portfolio. In particular, the Commission does not need to select the Inverse 1324 Plan ($0CO2) to be able to decline to approve transmission upgrades now and order the Company to file a transmission CPCN.

In sum, there are no material differences between the Inverse 1324 Plan (SCC) and the Inverse 1324 ($0CO2) Plan on reliability and assumed transmission upgrades. But the Inverse 1324 Plan (SCC) is superior to the Inverse 1324 ($0CO2) Plan on three factors: emissions (the Inverse 1324 Plan (SCC) has lower emissions); cost (the Inverse 1324 Plan (SCC) has a lower NPV); and future technology developments (the Inverse 1324 Plan (SCC) will prevent having to spend more in the next solicitation to acquire additional generating capacity). For these reasons,

[73] 120-Day Report at 34 (". . . other portfolios satisfy the reliability rubric, meet the PRM, and have met deliverability requirements . . .").

we respectfully request that the Commission reconsider its decision and select the Inverse 1324 Plan (SCC).

III. THE COMMISSION SHOULD REQUIRE THE COMPANY, IN THE JUST TRANSITION SOLICITATION, TO CONSTRUCT ALL PORTFOLIOS TO BE RELIABLE.

We respectfully request that the Commission reconsider its rejection of the Conservation Coalition's recommendation that the Commission direct the Company, in the forthcoming Just Transition Solicitation, to ensure that all portfolios it presents in modeling meet minimum reliability requirements. As we explained in our comments on the 120-Day Report,[74] the Company announced locational reliability requirements in the 120-Day Report that were never proposed in Phase I, much less approved by the Commission in Phase I. Specifically, in the 120-Day Report, the Company claimed that certain dispatchable resources needed to be located in certain locations for reliability[75]–a claim it had never made in Phase I. Then, instead of constructing all portfolios to meet this newfound locational reliability requirement, the Company deliberately constructed *only* its preferred portfolio (and the version of its preferred portfolio, the Inverse 1324 Plans) to meet this new locational reliability requirement. This enabled the Company to claim that the only reliable portfolios are its Preferred Portfolio and the Inverse 1324 Plan (which is a variation of the Preferred Portfolio).

Given that the Commission accepted the Company's statements about which portfolios are reliable, the net effect was to limit the Commission's consideration to only two portfolios: the Company's Updated Preferred Portfolio, and the Inverse 1324 Plan (which is a variation of the Preferred Portfolio). Ultimately, this resulted in a huge waste of the Company's, the parties',

[74] Conservation Coalition's Comments on the 120-Day Report at 2, 4-8.
[75] 120-Day Report at 34, 39.

and the Commission's time. The Company wasted time constructing portfolios that the Company then deemed to be unreliable. The parties and the Commission wasted time reviewing portfolios that the Company deemed to be unreliable. In addition to wasting vast amounts of time, this outcome is contrary to the intent of the settling parties that bargained for a Phase I settlement requiring the Company to model portfolios that could be viable alternatives to the Company's preferred portfolio.

Unfortunately, the Commission has let the Company get away with this gamesmanship. The Commission's Phase II Order does not impose any remedy for the Company's deviation from the Phase I Order by inventing new location reliability requirements in Phase II that were not disclosed to or approved by the Commission in Phase I. Nor has the Commission taken any steps in its Order to prevent this from recurring in the Just Transition Solicitation that is set to begin June 1 of this year.

We respectfully request that the Commission revise its Phase II Order to specify that in the forthcoming Just Transition Solicitation: the Company should not use any reliability metrics and/or methodologies in Phase II unless they have been previously approved by the Commission either in its Phase I order or a subsequent order; and instruct the Company that the Commission will not tolerate the Company deviating from the modeling methodology and assumptions approved in a Phase I Order unless the Company has obtained prior approval from the Commission.[76]

[76] The Conservation Coalition included these requests on page 2 of its comments on the 120-Day Report.

CONCLUSION

The Conservation Coalition respectfully requests that the Commission reconsider its selection of the Inverse 1324 ($0CO2) Plan and instead select the Inverse 1324 (SCC) Plan. If the Commission declines to do so, then in the alternative we recommend selecting the SCC version of the Lower Dispatchable Plan or the Least-Cost Plan.

We also request that the Commission order that, in the forthcoming Just Transition Solicitation, the Company should not use any reliability metrics and/or methodologies in Phase II unless they have been previously approved by the Commission either in its Phase I order or a subsequent order; and instruct the Company that the Commission will not tolerate the Company deviating from the modeling methodology and assumptions approved in a Phase I Order unless the Company has obtained prior approval from the Commission

Dated February 12, 2024.

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CERTIFICATE OF SERVICE

I hereby certify that on February 12, 2024, the foregoing document, "The Conservation Coalition's Request for Rehearing, Reargument, and Reconsideration," was filed with the Colorado Public Utilities Commission via e-file and served on those parties shown on the Commission's Certificate of Service accompanying such filing.

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