Docket No.: A.22-05-015 et seq.
Exhibit No.: PCF-07
ALJ: Manisha Lakhanpal

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

Application of Southern California Gas Company (U904G) for Authority, Among Other Things, to Update its Gas Revenue Requirement and Base Rates Effective on January 1, 2024.	Application 22-05-015 (Filed May 16, 2022)
And Related Matters.	Application 22-05-016 (Filed May 16, 2022)

THE PROTECT OUR COMMUNITIES FOUNDATION EXHIBIT PCF-07

Excerpt from
SYNTHESIS REPORT OF THE IPCC SIXTH ASSESSMENT REPORT (AR6)

Section 4: Near-Term Responses in a Changing Climate

4.1 The Timing and Urgency of Climate Action

Deep, rapid and sustained mitigation and accelerated implementation of adaptation reduces the risks of climate change for humans and ecosystems. In modelled pathways that limit warming to 1.5°C (>50%) with no or limited overshoot and in those that limit warming to 2°C (>67%) and assume immediate action, global GHG emissions are projected to peak in the early 2020s followed by rapid and deep reductions. As adaptation options often have long implementation times, accelerated implementation of adaptation, particularly in this decade, is important to close adaptation gaps. (*high confidence*)

The magnitude and rate of climate change and associated risks depend strongly on near-term mitigation and adaptation actions (*very high confidence*). Global warming is *more likely than not* to reach 1.5°C between 2021 and 2040 even under the very low GHG emission scenarios (SSP1-1.9), and *likely* or *very likely* to exceed 1.5°C under higher emissions scenarios[84]. Many adaptation options have medium or high feasibility up to 1.5°C (*medium to high confidence*, depending on option), but hard limits to adaptation have already been reached in some ecosystems and the effectiveness of adaptation to reduce climate risk will decrease with increasing warming (*high confidence*). Societal choices and actions implemented in this decade determine the extent to which medium- and long-term pathways will deliver higher or lower climate resilient development (*high confidence*). Climate resilient development prospects are increasingly limited if current greenhouse gas emissions do not rapidly decline, especially if 1.5°C global warming is exceeded in the near-term (*high confidence*). Without urgent, effective and equitable adaptation and mitigation actions, climate change increasingly threatens the health and livelihoods of people around the globe, ecosystem health, and biodiversity, with severe adverse consequences for current and future generations (*high confidence*). {WGI SPM B.1.3, WGI SPM B.5.1, WGI SPM B.5.2; WGII SPM A, WGII SPM B.4, WGII SPM C.2, WGII SPM C.3.3, WGII Figure SPM.4, WGII SPM D.1, WGII SPM D.5, WGIII SPM D.1.1 SR1.5 SPM D.2.2}. (Cross-Section Box.2, Figure 2.1, Figure 2.3)

In modelled pathways that limit warming to 1.5°C (>50%) with no or limited overshoot and in those that limit warming to 2°C (>67%), assuming immediate actions, global GHG emissions are projected to peak in the early 2020s followed by rapid and deep GHG emissions reductions (*high confidence*) [85]. In pathways that limit warming to 1.5°C (>50%) with no or limited overshoot, net global GHG emissions are projected to fall by 43% [34–60%][86] below 2019 levels by 2030,60% [49–77%] by 2035, 69% [58-90%] by 2040 and 84% [73-98%] (*high confidence*) (Section 2.3.1, Table 2.2, Figure 2.5, Table 3.1)[87]. Global modelled pathways that limit warming to 2°C (>67%) have reductions in GHG emissions below 2019 levels of 21% [1–42]% by 2030, 35% [22–55%] by 2035, 46% [34-63%] by 2040 and 64% [53-77%] by 2050 [88](*high confidence*). Global GHG emissions associated with NDCs announced prior to COP26 would make it *likely* that warming would exceed 1.5°C (*high confidence*) and limiting warming to 2°C (>67%) would then imply a rapid acceleration of emission reductions during 2030–2050, around 70% faster than in pathways where immediate action is taken to limit warming to 2°C (>67%) (*medium confidence*) (Section 2.3.1) Continued investments in unabated high-emitting infrastructure[89] and limited development and deployment of low-emitting alternatives prior to 2030 would act as barriers to this acceleration and increase feasibility risks (*high confidence*). {WGIII SPM B.6.3, WGIII Chapter 3.5.2, WGIII SPM B.6, WGIII SPM B.6., WGIII SPM C.1, WGIII SPM C1.1, Table SPM.2} (Cross-Section Box.2)

[84] In the near term (2021–2040), the 1.5°C global warming level is *very likely* to be exceeded under the very high GHG emissions scenario (SSP5-8.5), *likely* to be exceeded under the intermediate and high GHG emissions scenarios (SSP2-4.5, SSP3-7.0), *more likely than not* to be exceeded under the low GHG emissions scenario (SSP1-2.6) and *more likely than not* to be reached under the very low GHG emissions scenario (SSP1-1.9). The best estimates [and *very likely* ranges] of global warming for the different scenarios in the near-term are: 1.5°C [1.2°C–1.7°C] (SSP1-1.9); 1.5°C [1.2°C–1.8°C] (SSP1-2.6); 1.5°C [1.2°C–1.8°C] (SSP2-4.5); 1.5°C [1.2°C–1.8°C] (SSP3-7.0); and 1.6°C [1.3°C–1.9°C] (SSP5-8.5). {WGI SPM B.1.3, WGI Table SPM.1} (Cross-Section Box.2)

[85] Values in parentheses indicate the likelihood of limiting warming to the level specified (see Cross-Section Box.2).

[86] Median and *very likely* range [5th to 95th percentile] {WGIII SPM footnote 30}.

[87] These numbers for CO2 are 48% [36-69] in 2030, 65% [50-96%] in 2035, 80% [61-109%] in 2040 and 99 [79-119%] in 2050.

[88] These numbers for CO2 are 22% [1-44] in 2030, 37% [21-59%] in 2035, 51% [36-70%] in 2040 and 73 [55-90%] in 2050

[89] In this context, 'unabated fossil fuels' refers to fossil fuels produced and used without interventions that substantially reduce the amount of GHG emitted throughout the life cycle; for example, capturing 90% or more CO_2 from power plants, or 50–80% of fugitive methane emissions from energy supply {WGIII SPM footnote 54}.