

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,
Complainant,
v.
PUGET SOUND PILOTS,
Respondent.**

Docket TP-

**TESTIMONY OF
CHRISTOPHER R. WOOD
ON BEHALF OF PUGET SOUND PILOTS**

JUNE 29, 2022

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I. IDENTIFICATION OF WITNESS

1 **Q: Please state your name, business and business address.**

2
3 A: Christopher R. Wood, Principal and Consulting Actuary, Milliman, 1455 SW
4 Broadway, Suite 1600, Portland, OR 97201.

5
6 **Q: Does Exhibit CRW-02 provide your educational and work history?**

7 A: Yes.

8
9 **Q: Do you have past experience that is relevant to the potential transition of the**
10 **Puget Sound Pilots unfunded pay-as-you-go retirement plan to a fully funded pension**
11 **plan?**

12
13 A: Yes, I served as the actuary for two public ports and ultimately performed all of the
14 actuarial analysis in connection with a transition in Oregon in the mid-1990s of the pay-as-
15 you-go pension plans for Oregon pilot groups to a funded pension system, which is now been
16 in place for over 25 years.

II. PURPOSE OF TESTIMONY

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20 **Q: Please describe the purpose of your testimony.**

21 A: I am offering testimony regarding the 50-year cost of three different approaches to the
22 funding of the PSP pension plan:

- 23
24 1. Continue the current pay-as-you-go pension program;
- 25 2. Continue to pay existing retirees on a pay-as-you-go basis, but transition
26 the retirement benefits of all current and future working pilots to a funded
defined benefit plan covering both past and future pension benefit
accruals; and

- 1 3. Continue to pay both existing retirees and working PSP pilots' past
2 pension benefit accruals on a pay-as-you-go basis, but transition the future
3 pension benefit accruals of current and future working PSP pilots to a
4 funded defined benefit plan.

5 My testimony also addresses the benefits of a transition to a funded pension plan for PSP, the
6 reasons why use of the group-wide defined benefit multiple employer plan described by
7 pension lawyer Bruce McNeil is preferable to the defined contribution plan approach adopted
8 by the Oregon Board of Maritime Pilots in 1995 and the types of pension-related impacts on
9 prospective PSP pilot applicants resulting from a mid-career move from employment as a
10 master or captain in the US merchant marine to an independent contractor position as a PSP
11 pilot.

12
13 **Q: Please describe how your firm prepared the 50-year cost projections for these**
14 **three different plan funding scenarios.**

15 A: To prepare the 50-year cost projections, we first reviewed the PSP pension plan and
16 secured the census data for both PSP retirees and working pilots with dates of hire, dates of
17 birth and current pension benefit levels for retirees and/or their surviving spouse. We selected
18 what we consider to be an appropriate and reasonably conservative set of actuarial
19 assumptions to project the expected benefit payments under the PSP pension plan over the
20 next 50 years. The census information and actuarial assumptions are described in Exhibits
21 CRW-03 and CRW-04, respectively. Then, with the data and the actuarial assumptions, we
22 developed the 50-year cost projections for the three scenarios. Key assumptions included a
23 start date of July 1, 2022, a fixed complement of 52 licensed pilots, a retirement base against
24 which the annual accrual percentage of 1.5% per year applied as of July 1, 2022 of \$393,790
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1 (which is the average of the last three years of PSP pilot actual net income or distributable
2 net income approved by the UTC), pilot income levels increasing at a rate of 2% per year and
3 financial returns on investment funds averaging 5% net of expenses. For the two scenarios
4 under which a portion of pension plan benefits are being prefunded, the actuarial cost method
5 used is the method required under IRS plan funding rules for a tax-qualified retirement plan,
6 and we assumed that minimum required contributions would be made. The 50-year cost
7 projections are displayed side-by-side on the two pages that make up Exhibit CRW-05.
8

9 **Q: What do the cost projections show?**

10 **A:** These projections show that, over 50 years, continuing the pay-as-you-go pension
11 program will cost approximately \$472 million. In the first funded pension plan scenario,
12 which continues the pay-as-you-go system for retirees only as of July 1, 2022 and funds
13 pension benefits for all current and future working pilots (both past and future accruals), the
14 cost is \$337 million. For the second funded pension plan scenario, which continues funding
15 for both existing retirees and past pension accruals for working pilots as of July 1, 2022 on a
16 pay-as-you-go basis and then funds future pension accruals for working pilots and future
17 licensees in a funded defined benefit plan, the cost is \$354 million. From a cost standpoint,
18 these projections show that transitioning to a funded defined benefit plan covering both past
19 service accruals and future accruals for working pilots will save \$135 million over 50 years.
20 Under the alternative fully funded defined benefit plan scenario, where existing retiree
21 benefits and past service accruals for current and future working pilots are paid on a pay-as-
22 you-go basis and there is a transition of the future accruals for the PSP pilot corps to a fully
23 funded defined-benefit plan, the savings is approximately \$118 million.
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1 **Q: In your opinion, are there benefits to transitioning to a fully funded defined-**
2 **benefit plan in addition to substantial cost savings?**

3
4 A: Yes, there are two significant additional benefits. First, moving to a fully funded
5 pension plan eliminates the risk to retirees that PSP would be unable to cover the cost of their
6 pension benefits due to some sort of extraordinary circumstance such as a catastrophic
7 natural disaster that disrupted vessel traffic into and out of Puget Sound for a substantial
8 period. Second, because the funds supporting the pension plan payments are invested and
9 managed by professional investment advisors, the long-term level of investment returns has
10 the effect of stabilizing the long-term cost of the PSP pension plan compared to continuing
11 the pay-as-you-go or farebox approach to plan funding. As our cost projections demonstrate,
12 the savings are very significant over the long term.

13
14
15 **Q: Are there advantages to the group-wide multiple employer plan approach that is**
16 **the subject of your firm's cost projections compared to the defined contribution**
17 **approach utilized by the Oregon Board of Maritime Pilots when it ordered that Oregon**
18 **pilot groups transition to a defined contribution pension plan funded by the pilotage**
19 **tariff in each pilotage district by allocating funds annually to individual pilots to**
20 **dedicate to their retirement plan?**

21
22 A: In my opinion, the major advantage of the defined benefit multiple employer plan
23 approach for an entire pilot group compared to the individualized per pilot defined
24 contribution plan approach adopted in Oregon is the opportunity to pool mortality rates
25 across an entire group. With the individualized per pilot approach adopted in Oregon, there is
26

1 built-in uncertainty associated with how long the pilot and/or his or her spouse will live and
2 whether the funds which the pilot is charged with managing will grow to a level that is
3 sufficient for the life of the pilot and his or her surviving spouse. With pooling of the
4 mortality in a pilot group of significant size, that risk is eliminated.

5
6 **Q: With respect to defined contribution plans benefiting an individual person and**
7 **his or her surviving spouse, was the actuarial community as aware of the mortality risk**
8 **issue that you have just described in the 1990s when the Oregon Board of Maritime**
9 **Pilots ultimately approved the defined contribution approach to funding of**
10 **individualized pilot pensions in Oregon?**

11
12 A: No. At that time, the actuarial community in the U.S. did not have the level of
13 understanding that exists today concerning this issue, which has become a more significant
14 consideration as lifespans in the United States and throughout the world have been rising
15 because of multiple factors including lifestyle changes (i.e. lower smoking levels) and
16 advances in medicine. Today, the whole question of how long a retiree and his or her spouse
17 will live adds considerable uncertainty to determining what level of funds in a retirement
18 account are necessary to last the lifetimes of the retiree and spouse. With a funded defined
19 benefit plan, that annual pension benefit is guaranteed to the retiree and the 50% level to the
20 spouse under the PSP plan regardless of how long either lives.

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23 **Q: Have you had an opportunity to examine whether any of the 401(k) or IRA**
24 **options available in the US could be used to replicate the level of pension benefits**
25 **promised to PSP retirees and working pilots under their pension plan?**
26

1 A: Yes.

2
3 **Q: What were the results of that analysis?**

4 A: In my opinion, the limits on the amounts of annual contribution to these types of
5 plans all fall substantially short of the levels necessary to generate a pension benefit that
6 equals that promised to participants in the PSP pension plan.

7
8 **Q: From an actuarial perspective, what are the disadvantages to a worker who is a**
9 **beneficiary of a funded union or employer defined benefit plan where the benefit is**
10 **based upon years of service and the average of the last three years of annual**
11 **compensation deciding to make a change midcareer to a new employer?**

12
13 A: Assuming identical defined-benefit pension plans based on the same final average
14 earnings formula, a worker who makes a midcareer move at the end of year 20 from one
15 employer and then works for another 20 years for a new employer with the same pension plan
16 will end up with two pensions (assuming the vesting period is no longer than 20 years) which,
17 added together, will generate a substantially lower combined pension benefit than a worker who
18 devoted a 40-year career to an employer with an identical defined benefit pension plan. As an
19 example, for a worker who works 40 years with a pension accrual rate of 1.5% per year, their
20 benefit will be 60% of the final average earnings formula. In contrast, for the worker who works
21 20 years for the same employer and then makes a midcareer move and works 20 years for a
22 second employer, both with identical defined benefit pension plans with 1.5% per year of service
23 accrual rates, that employee will retire with the first pension equal to 30% of their average
24 earnings at a much earlier stage in their career (and hence a lower earnings average) and a
25
26

1 second 30% pension based upon their average earnings at the end of their career. The total
2 benefits between the two pensions will be substantially lower than that of a worker who did not
3 make a midcareer change of employer. The amount of difference will be a function of the salary
4 increases in the second half of the career. For example, if one were to expect pay increases
5 averaging 3.0% per year over the last 20 years, the benefit for the worker with the two-part
6 career will be less than 80% of the benefit of the worker with a single employer. Looked at
7 another way, in order for the worker to end up with the same total benefit, the second employer
8 would have to provide a pension accrual of 2.2% of final average earnings per year of service.
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10 **III. CONCLUSION**

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12 **Q: Does this conclude your testimony?**

13 A: Yes.
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