

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION

Complainant,

v.

NORTHWEST NATURAL GAS
COMPANY,

Respondent.

DOCKET UG-200994

DOCKET UG-200995

DOCKET UG-200996

DOCKET UG-210085

NORTHWEST NATURAL GAS COMPANY

Direct Testimony of Jim R. Downing

YEAR TWO INFORMATION TECHNOLOGY & SERVICES

CAPITAL PROJECT

Exh. JRD-3T

December 2, 2022

DIRECT TESTIMONY OF JIM R. DOWNING

Table of Contents

	<u>Page</u>
I. Introduction and Summary	2
II. Year Two IT&S Capital Project	4
A. The Horizon 1 Project.....	4

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

I. INTRODUCTION AND SUMMARY

Q. Please state your name, address and position at Northwest Natural Gas Company (“NW Natural” or “the Company”).

A. My name is Jim Downing. I am Vice President and Chief Information Officer for NW Natural. I am responsible for NW Natural’s information technology and services (“IT&S”), including cyber security, the information technology (“IT”) desk, and technology-related architecture, infrastructure network, and applications—all of which enable NW Natural to support our customers and operations successfully.

Q. Please summarize your educational background and business experience.

A. I have an undergraduate degree in Business Science Information Systems and received a Master of Business Administration from Tulane. I have earned my Microsoft Certified Systems Engineer credential and am a Cisco Certified Design Associate. I have been an IT&S professional since 1995. Prior to NW Natural, I worked as a Customer Contact and Help Desk consultant, helped consolidate European Help Desk services for Compaq, and provided IT&S support for major oil and gas companies for 17 years. Recently, I was recognized by Governor Kate Brown for helping to evaluate and create a multi-year IT strategy for the State of Oregon. I joined NW Natural in 2017.

Q. Have you previously filed testimony in Docket UG-200994?

A. Yes. I filed Direct Testimony as Exhibit JRD-1T and its associated confidential Exhibit JRD-2C as part of the Company’s initial filing in its rate case Docket UG-200994, made on December 18, 2020 (“Initial Filing”).

1 **Q. What is the purpose of your testimony?**

2 A. The purpose of my testimony is to present evidence sufficient to demonstrate the
3 prudence of the Year Two IT&S capital project listed in paragraph 10 of the Full Multi-
4 Party Settlement Agreement (“Agreement”) (and its Attachment 1), filed with the
5 Washington Utilities and Transportation Commission (“Commission”) on July 27,
6 2021, and approved by the Commission in Order 05 issued in Dockets UG-200994,
7 UG-200995, UG-200996 and UG-210085 on October 21, 2021 (“Order”), and to
8 quantify incremental ongoing operation and maintenance (“O&M”) costs associated
9 with that project.

10 **Q. What is the Year Two IT&S capital project in the Agreement?**

11 A. The Year Two IT&S capital project in the Agreement is:

- 12
 - The Horizon 1 Project

13 **Q. Did the Horizon 1 Project go in service prior to November 1, 2022, the rate**
14 **effective date for Year Two?**

15 A. Yes. The Horizon 1 Project went in service on September 6, 2022, and it is used and
16 useful.

17 **Q. What evidence of the prudence of the Horizon 1 Project are you providing in your**
18 **testimony?**

19 A. In accordance with paragraph 14 of the Agreement, I am providing evidence regarding
20 any changes to the project and related costs, including but not limited to:

- 21
 - a. The justification for the project, including supporting information;
 - 22 b. Actual in-service date;
 - 23 c. Actual final cost, as well as explanations for significant cost variances;

- 1 d. Any changes to the project itself (for example, deviations from the scope
2 and descriptions provided in the Company's Initial Filing);
3 e. Evidence that any cost overruns and the decision to continue to invest in the
4 project under any relevant changed circumstances was prudent; and
5 f. Updated information on offsetting factors presented in this case.

6 **II. YEAR TWO IT&S CAPITAL PROJECT**

7 **A. The Horizon 1 Project**

8 **Q. Before turning to the Horizon 1 Project specifically, please comment on the**
9 **importance of IT&S systems to NW Natural's operational needs.**

10 A. IT&S systems and platforms continue to change rapidly and are increasingly vital to
11 utility operations. NW Natural relies on the availability of comprehensive, accurate,
12 and timely information and analytics to efficiently conduct business. Concurrently,
13 customers expect reliable on-demand access to IT&S services like customer support
14 and bill payment options. NW Natural must balance its own IT&S needs and customer
15 demands against increased costs and security concerns that come with increased
16 digitization.

17 Today, the Company's complex technology assets are essential to NW
18 Natural's ability to provide safe, reliable, and affordable service to its customers. As a
19 result, a comprehensive strategic vision is essential to plan for, implement, and evaluate
20 technological investments, thus ensuring that the Company's business operations,
21 customer engagement, and reliable provision of service are all adequately supported at
22 a reasonable cost to customers.

1 **Q. Please comment on NW Natural's need to update its IT&S platforms.**

2 A. NW Natural has sought to balance the growing need for technological innovation with
3 the goal of serving customers in a cost-effective manner, both by preserving and
4 extending the usefulness of existing IT&S platforms and programs and by maintaining
5 a lean staffing profile. However, NW Natural's IT&S architecture experienced
6 substantial maintenance problems, requiring the Company's IT&S employees to triage
7 a growing volume of urgent upgrades. The Company's outdated application portfolio
8 became both disruptive and inefficient and thus overdue for a strategic and
9 comprehensive update. Additionally, some of our applications were not only outdated,
10 but also reaching end-of-life, meaning that the application providers no longer offered
11 support or critical security updates, which exposed the Company and its customers to
12 increased cybersecurity risk.

13 **Q. Does NW Natural have an overarching strategic goal in this increasingly**
14 **complicated IT&S environment?**

15 A. Yes. Our central goal guiding NW Natural's IT&S strategy is reducing complexity for
16 the benefit of our customers. The Company's IT&S systems became outdated, which
17 led to increasingly complex solutions when issues arose, burdening our staff, and led
18 to increased risk of system outage. To help streamline NW Natural's IT&S systems,
19 we are consolidating and streamlining the number of applications in our portfolio, using
20 off-the-shelf rather than custom-developed software, and relying on a more focused
21 number of reliable software providers to support the IT&S infrastructure.

1 **Q. Has the Company developed a strategy for migrating certain IT&S systems to the**
2 **cloud?**

3 A. Yes. The Company undertook an Enterprise Cloud Strategy and Architecture project
4 to create a comprehensive data center cloud strategy that included determining which
5 IT&S systems and applications should move to the cloud and developing a detailed
6 application migration strategy. The Company partnered with an IT&S consultant to
7 develop the cloud strategy, cloud architecture and cloud operating model aligned with
8 industry standards. As a result of this project, the Company determined that most of
9 its IT&S systems and applications, including the new enterprise resource planning
10 (“ERP”) platform implemented during Horizon 1, should be hosted in the cloud.

11 **Q. Turning now to the Horizon Program, please provide its overall justification.**

12 A. The Horizon Program is a multi-year, two-phase IT&S initiative to implement
13 necessary upgrades to NW Natural’s technology architecture that will increase
14 operational efficiency and improve technological resilience and security. Each phase
15 (“Horizon 1” and “Horizon 2”) is driven by a significant keystone project to upgrade a
16 major piece of software using new software tools developed by a single developer,
17 SAP. This testimony focuses on Horizon 1 because Horizon 2, which most notably
18 will upgrade and replace NW Natural’s decades-old Customer Information Systems
19 (“CIS”) platform, will be implemented at a later time.

20 **Q. Please briefly describe the Horizon 1 Project.**

21 A. Horizon 1’s central project upgraded the outdated system that had managed the
22 Company’s key business functions, specifically finance (e.g., performing accounting
23 and reporting), human capital management (e.g., managing payroll and benefits),

1 enterprise asset management (e.g., tracking and managing plant lifecycles and
2 maintenance), supply chain management (e.g., handling procurement and inventory
3 management), and environmental, health, and safety management (e.g., tracking and
4 coordinating responses to safety issues). This system is known as an ERP platform,
5 which functions as the Company's backbone software—managing and integrating all
6 of NW Natural's essential business functions. SAP no longer would have supported
7 the Company's replaced ERP platform (called the SAP ERP Central Component) after
8 2027.¹ The new SAP ERP software is called SAP S/4HANA. Horizon 1 also
9 encompassed a series of related upgrades, replacements, and activities necessary to
10 implement the new ERP. Additionally, Horizon 1 addressed risks associated with
11 several other integrated and related systems—many of which were also end-of-life—
12 by either having upgraded them or replaced them with the new ERP's increased
13 functionality. By conducting these upgrades at the same time as the Company moved
14 to the new ERP platform, NW Natural was able to maximize the benefits of the SAP
15 S/4HANA transition, reduce the complexity of its system, and address critical system
16 risks—all while minimizing overall costs to customers. NW Natural undertook the
17 Horizon 1 Project to respond to the challenges discussed above and to better serve the
18 needs of the Company and its customers.

¹ SAP News, "SAP Extends Its Innovation Commitment for SAP S/4HANA, Provides Clarity and Choice on SAP Business Suite 7," (Feb. 4, 2020), available at: <https://news.sap.com/2020/02/sap-s4hana-maintenance-2040-clarity-choice-sap-business-suite-7/>. In February 2020, SAP extended the support deadline from 2025 to 2027. SAP News, "SAP Committed to Innovation and Choice for SAP Business Suite Applications," (Oct. 14, 2014) (announcing that maintenance for legacy software will be supported "until end of 2025"), available at: <https://news.sap.com/2014/10/sap-committed-innovation-choice-sap-business-suite/>.

1 **Q. What are the expected benefits of the newly implemented S/4HANA ERP**
2 **software?**

3 A. In addition to supporting Horizon 2's replacement of the more than two-decade-old
4 CIS platform, the newly implemented S/4HANA ERP software is a secure, modern
5 platform that is expected to provide substantial improvements in enterprise asset
6 management, supply chain management, finance, IT&S capabilities, human capital
7 management, and environmental, healthy, and safety performance.

8 • **Enterprise Asset Management:** The new platform is expected to increase overall
9 system stability by transitioning away from end-of-life, end-of-support software
10 systems, eliminating duplicate order entries on various order types, and increasing
11 the efficiency of work order processing.

12 • **Supply Chain Management:** The new platform is expected to improve inventory
13 management by lowering the need for on-hand supplies, resulting in lower
14 inventory carrying costs. It is also anticipated to help the Company to better
15 optimize contract compliance and management and to streamline oversight of
16 construction services.

17 • **Finance:** The new ERP platform consolidates and automates processes that were
18 time-intensive and manual, provides real-time data and analytics, and is expected
19 to improve the accuracy of information through a timely consolidation tool.

20 • **IT&S:** The new platform is expected to carry all of the security, agility, and support
21 benefits of a cloud-based solution (discussed above), to allow for faster upgrades
22 with out-of-the-box functionality, and to significantly improve data governance and
23 quality.

- 1 • **Human Capital Management:** The new platform is expected to reduce
2 administration costs, reduce errors in merit-based compensation planning, payroll,
3 benefits, and overtime tracking, improve visibility into the effectiveness of the
4 Company’s Diversity, Equity, and Inclusion efforts, and create savings by
5 eliminating paper mailings.
- 6 • **Environmental, Healthy, and Safety:** The new platform is expected to streamline
7 the Company’s Environmental, Health, and Safety data sources, reduce manual
8 processes, and enable better reporting—and, by extension, reduce employee
9 injuries.
- 10 • **Reporting Capabilities:** The new platform is expected to provide significantly
11 greater functionality in preparing financial reports for regulatory purposes,
12 including reporting to both state and federal regulators. The Company’s replaced
13 IT&S infrastructure had barriers and fragmentation in its data tracking and
14 recording; that process has been streamlined and consolidated under the new ERP
15 platform, allowing for streamlined accounts payable, greater visibility and details
16 into financial ledgers, and real-time reporting with any level of detail.
- 17 As the new ERP is integrated with other technical components of the Company’s
18 business processes, NW Natural’s productivity is expected to increase as users
19 maximize the functionality of the new program. NW Natural anticipates that these
20 various improvements and efficiencies will allow for substantial ongoing O&M cost
21 savings.

1 **Q. Are the expected benefits of the newly implemented S/4HANA ERP software**
2 **being realized now that Horizon 1 Project is in service and used and useful?**

3 A. Yes. The expected benefits that I just described are being realized. The Company now
4 is focused on making continual refinements to the newly implemented platforms to
5 address issues as the Company learns to use the new business applications, which is
6 normal and to be expected in all complex technology projects such as the Horizon 1
7 Project.

8 **Q. Does the new S/4HANA ERP platform avoid the need for other costly**
9 **investments?**

10 A. Yes. The new S/4HANA ERP platform has avoided the need for substantial, costly
11 investments that would otherwise be necessary to sustain the viability of the
12 Company's replaced ERP platform and other key applications. As stated in my Direct
13 Testimony to the Initial Filing (Exh. JRD-1T, page 53), NW Natural estimates that the
14 S/4HANA ERP platform has avoided the need for approximately \$13.4 million in
15 additional costs on a system-wide basis, or \$1.5 million on a Washington-allocated
16 basis.

17 **Q. Did the Company implement the Horizon 1 Project as envisioned in its Initial**
18 **Filing?**

19 A. Yes. The Company delivered one of the biggest business and technology
20 transformations in NW Natural's history on time and within 1.6% of its capital budget
21 stated in the Initial Filing. The Company made refinements along the way between the
22 Initial Filing and Horizon 1 Project's implementation, as expected, but there were no
23 material changes to the envisioned Horizon 1 Project.

1 **Q. What was the actual final cost of the Horizon 1 Project, compared with the**
2 **Company's cost estimate provided in its Initial Filing?**

3 A. The actual final cost of the Horizon 1 Project was \$74.2 million at the end of October
4 2022, or approximately \$8.6 million on a Washington-allocated basis. I provided the
5 actual final cost of the Horizon 1 Project to Company witness Kyle T. Walker, who is
6 presenting Direct Testimony (Exh. KTW-10T) on the revenue requirement increase for
7 Year Two. In its Initial Filing, the Company's cost estimate for the Horizon 1 Project
8 was \$73.2 million, or approximately \$8.4 million on a Washington-allocated basis, as
9 detailed in my confidential exhibit Exh. JRD-2C. Washington-allocated ongoing
10 incremental operation and maintenance ("O&M") costs associated with the Horizon 1
11 Project are approximately \$592,000, or approximately \$112,000 higher than our
12 original estimate that was developed prior to the completion of project planning and
13 contracting processes. Company witness Kyle Walker shows this ongoing incremental
14 O&M cost refinement in his Exh. KTW-11.

15 **Q. Did NW Natural adopt any processes or practices to guard against overruns in**
16 **time and investment in the Horizon 1 Project?**

17 A. Yes. To help ensure that the Horizon 1 Project proceeded on-time and at a reasonable
18 cost, NW Natural hired an independent outside expert to help obtain software and
19 services at a reasonable price point, and established and implemented a project
20 governance structure, including senior executives, that tracked project performance and
21 provide management oversight.

22 By approaching NW Natural's IT&S needs in a systematic, deliberate, and
23 comprehensive manner, the Horizon 1 Project ensured that NW Natural has made

1 prudent and timely investments to ensure the efficiency, resilience, and security of its
2 technological foundation, and thereby has allowed the Company to continue to provide
3 safe, adequate, and reliable service to customers.

4 **Q. Are there any offsetting factors associated with the Horizon 1 Project?**

5 A. Yes, and those offsetting factors already have been reflected in the Agreement
6 approved by the Commission's Order. In particular, paragraph 12 of the Agreement
7 states that the Year Two revenue requirement increase of \$3.0 million accounts for
8 "O&M savings (such as avoided additional costs and reduced O&M expenses
9 associated with the Horizon 1 Project)."² In particular, the Company included \$1.5
10 million system, or \$0.15 million on a Washington-allocated basis, in cost savings that
11 reflect identifiable reductions in O&M costs that are currently included in revenue
12 requirement, largely driven by expected improvements to supply chain management
13 and organizational efficiencies. NW Natural has reduced revenue requirement in
14 anticipation of capturing these benefits. The cost savings are aspirational and may take
15 more than one year to harvest, but we included them as an offset to revenue requirement
16 immediately when the project is included in rates. We also have included as an offset
17 to revenue requirement \$0.6 million system, or \$0.1 million on a Washington-allocated
18 basis, of reduced costs related to replaced or retired applications. These include
19 removing any remaining depreciation expense from the legacy SAP system and
20 removing sunseting applications from rates that are no longer being upon the
21 implementation of the Horizon 1 Program.

² See UG-200994, Exh. JRD-1T at 45:11-20, 52:9-20.

1 **Q. Does this conclude your Direct Testimony?**

2 A. Yes.