

EXHIBIT NO. _____ (MHO-1T)
DOCKET NOS. UE-170033/UG-170034
2017 PSE GENERAL RATE CASE
WITNESS: MICHAEL H. O'BRIEN

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,

Complainant,

v.

PUGET SOUND ENERGY,

Respondent.

DOCKETS UE-170033 and UG-170034
(Consolidated)

PREFILED RESPONSE TESTIMONY (NON-CONFIDENTIAL) OF

MICHAEL H. O'BRIEN

ON BEHALF OF NW ENERGY COALITION, RENEWABLE NORTHWEST, AND
NATURAL RESOURCES DEFENSE COUNCIL

JUNE 30, 2017

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II. PLANNING FOR POST-RETIREMENT SYSTEM NEEDS
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MHO-1T Direct Testimony of Michael O'Brien (non-confidential)

MHO-2 Resume of Michael H. O'Brien

I. INTRODUCTION

Q Please state your name, occupation and business address.

A Michael O'Brien, Research Director at Renewable Northwest. My business address is 421 SW 6th Avenue, Suite 975, Portland, OR 97204.

Q On whose behalf are you testifying?

A This testimony is on behalf of NW Energy Coalition, Renewable Northwest, and the Natural Resources Defense Council.

Q Please describe your educational background and work experience.

A I hold a Ph.D. in Physics from the University of Birmingham, in the United Kingdom, which included an MSc in the Physics and Technology of Nuclear Reactors. I also hold a BSc(Hons) in Physics from the University of Birmingham. After post-doctoral research with the United Kingdom Atomic Energy Authority, I completed an MPhil in Technology Policy at the University of Cambridge. Following Cambridge, I worked for the UK Parliamentary Office of Science and Technology as Energy Advisor, and then for the House of Commons Energy and Climate Change Select Committee as Committee Specialist. I have been working at Renewable Northwest since I moved to the United States in June 2012. As a part of my current work, I am an active participant in the Integrated Resource Planning processes ("IRPs") of regional utilities, in particular Puget Sound Energy ("PSE"), PacifiCorp, and Portland General Electric. A copy of my resume is attached as Exhibit No. ____ (MHO-2).

Q Have you previously testified before this and other regulatory commissions as an expert witness?

A While I have submitted many written and oral comments in front of the Washington Utilities and Transportation Commission ("Commission"), I have not testified before this Commission. However, I have testified in front of the Oregon Public Utility Commission on

1 several occasions.

2 II. PLANNING FOR POST-RETIREMENT SYSTEM NEEDS AND SUPPLY OPTIONS

3 **Q What is the purpose of your testimony?**

4 A The Commission is being asked to approve the depreciation expenses associated with
5 Colstrip 3 and 4 in this case. In order to do that, the Commissioners will need to understand the
6 most likely retirement date for Colstrip 3 & 4. This potential retirement date will enable the
7 Commission to determine a level of annual depreciation expense that will recover any expected
8 retirement costs by that date. In order for the Commission to make a fully informed decision on
9 an appropriate retirement date, it would be useful for the Commission to understand the post-
10 retirement system needs and supply options available to PSE.
11

12 **Q Why would it be useful for the Commission to understand the full power system
13 planning context in order to make decisions for Colstrip 3 & 4?**

14 A An appropriate retirement date would likely need to take into account the costs of
15 continued operation of Colstrip 3 & 4, versus the costs of retiring those units and, depending
16 upon system needs after retirement, replacing some or all of the generation with other sources.
17 To determine how that balance shifts in favor of an earlier or later retirement date, it would be
18 useful to know the system needs remaining after retirement, and the nature and cost of the
19 replacement power. Moreover, a thorough examination of the system needs following the
20 retirement of Colstrip 3 and 4 would enable PSE and the Commission to determine whether there
21 are any unique opportunities presented by current market conditions that could lead to lower-cost
22 replacement resources.
23

24 **Q When must PSE file its 2017 IRP with the UTC?**

25 A On or before November 15, 2017. UE-160918, UG-161919, Order 01.
26

Q What retirement dates is PSE currently modeling for Colstrip 3 & 4 in its 2017

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IRP?

A PSE has indicated that it will analyze retiring Colstrip Units 1, 2, 3, and 4 in 2018 and 2022, as well as retiring Colstrip 1 & 2 in 2022, with units 3 & 4 retiring in 2030.

Q In light of all these moving parts, what do you recommend?

A The Commission should require PSE to report on the costs of continued operation of Colstrip 3 & 4, system needs after shutdown, and the cost of the electric supply that may be needed as a result of resource retirement, as investigated in PSE’s IRP.

Q Does this conclude your testimony?

A Yes.