BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

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| **In the Matter of the Petition of****PUGET SOUND ENERGY, INC.****for (i) Approval of a Special Contract for Liquefied Natural Gas Fuel Service with Totem Ocean Trailer Express, Inc. and (ii) a Declaratory Order Approving the Methodology for Allocating Costs Between Regulated and Non-regulated Liquefied Natural Gas Services** | **Docket No. UG-151663** |

BRIEF (CONFIDENTIAL) OF
PUGET SOUND ENERGY, INC.

**Redacted**

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PUGET SOUND ENERGY, INC.

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# I. INTRODUCTION

 Puget Sound Energy, Inc. (“PSE”) respectfully requests that the Washington Utilities and Transportation Commission (the “Commission”) find that it can exercise jurisdiction, pursuant to Title 80 RCW, over sales of liquefied natural gas (“liquefied natural gas” or “LNG”) by PSE to Totem Ocean Trailer Express, Inc. (“TOTE”) pursuant to the LNG Fuel Supply Agreement, dated October 27, 2014, between PSE and TOTE (the “TOTE Special Contract”). PSE is a “gas company” as defined in RCW 80.04.010. Liquefied natural gas is “natural gas” as defined by WAC 480-90-023 in its liquid rather than gaseous state due solely to a refrigeration process. The Commission has jurisdiction over sales of natural gas by gas companies under Title 80 RCW. Therefore, it should be beyond dispute that the Commission has jurisdiction over sales of LNG by PSE to TOTE pursuant to the TOTE Special Contract.

# II. ISSUE

 Can the Commission exercise jurisdiction, pursuant to Title 80 RCW, over sales of liquefied natural gas by PSE to TOTE pursuant to the TOTE Special Contract?

# III. BACKGROUND

 PSE provides natural gas service to retail natural gas customers located in its service territory in western Washington in accordance with the rules and regulations of the Commission, including, but not limited to, PSE rates and tariffs on file therewith.[[1]](#footnote-2)

 PSE’s 2013 Integrated Resource Plan (“2013 IRP”) identified sufficient peak resources for PSE to meet peak day need until the winter of 2016-17 and a need for additional peak day resources beginning in the winter of 2017-18.[[2]](#footnote-3) The 2013 IRP identified a cost-effective, regional LNG peaking plant (titled PSE LNG Peaking Project) in the gas resource plan.[[3]](#footnote-4) With an LNG peaking plant, PSE would have sufficient resources to supply loads until the winter of 2021 to 2022.[[4]](#footnote-5)

 Although the primary purpose of the LNG storage facility contemplated by PSE was to provide peak‐day supply for PSE’s retail natural gas customers, the project’s benefits can be enhanced by serving additional markets.[[5]](#footnote-6) LNG facilities are capital intensive and, therefore, costs for all customers are reduced when the facilities’ cost can be distributed across a larger customer base.[[6]](#footnote-7) The peaking component of an LNG storage facility requires significant storage and relatively small liquefaction capacity.[[7]](#footnote-8) Conversely, the marine, heavy‐duty trucking and other fuel markets require significant, steady liquefaction and minimal storage.[[8]](#footnote-9)

 TOTE is a shipping company that transports approximately 30 percent of all consumer goods shipped to Alaska.[[9]](#footnote-10) TOTE operates two Orca class ships between the Port of Tacoma and the Port of Anchorage on a regimented schedule of sailings departing from Tacoma every Wednesday and Friday evening.[[10]](#footnote-11) TOTE selected PSE pursuant to a competitive bidding process to provide LNG as marine fuel for use in two Tacoma, Washington-based Orca class cargo ships.[[11]](#footnote-12) PSE therefore determined to construct an LNG storage facility at the Port of Tacoma (the “Tacoma LNG Facility”). PSE will provide TOTE with fuel for ships that are being converted from diesel to cleaner-burning natural gas.[[12]](#footnote-13) Using LNG will allow TOTE to exceed new, stricter emission standards in the maritime shipping industry.[[13]](#footnote-14)

## A. Background Regarding the Tacoma LNG Facility

### 1. The Tacoma LNG Facility

 The Tacoma LNG Facility will be capable of producing 250,000 gallons of LNG per day and storing approximately 8 million gallons of LNG.[[14]](#footnote-15) The Tacoma LNG Facility will be capable of injecting 66,000 decatherms per day (“Dth/day”) of vaporized natural gas and diverting up to 19,000 Dth/day of natural gas into PSE’s distribution system to provide 85,000 Dth/day of peak‐day supply.[[15]](#footnote-16) The Tacoma LNG Facility will also dispense LNG to other end‐use customers via a tanker truck loading system and marine loading facilities located on the water.[[16]](#footnote-17)

 The Tacoma LNG Facility will be located in PSE’s gas service territory on a 33-acre parcel at the Port of Tacoma on the Hylebos waterway, on the corner of East 11th Street and East Alexander Avenue.[[17]](#footnote-18) PSE has negotiated lease terms with the Port of Tacoma for the selected site. PSE will lease approximately 30.15 acres of uplands and approximately three acres of submerged lands, together with all improvements located thereon, for the purpose of liquefied natural gas production, storage, and distribution.[[18]](#footnote-19) The lease will have an effective operating term of 25 years from the date of first commercial operations.[[19]](#footnote-20) The lease also provides for a two-year due diligence and permitting phase, and a three-year construction phase.[[20]](#footnote-21) The lease provides for a 25-year renewal, provided at least 45% of the capacity involves marine uses (either fueling or transported by marine vessel); otherwise, the renewal is at the Port of Tacoma’s discretion.[[21]](#footnote-22)

 The Tacoma LNG Facility will consist of the following equipment:

* **New 16-Inch Pipe.** The Tacoma LNG Facility will be connected to PSE’s North Tacoma high pressure system with approximately four miles of new 16-inch pipe, allowing the plant to inject natural gas directly into PSE’s distribution system.[[22]](#footnote-23) Receiving equipment at the Tacoma LNG Facility will include inlet natural gas compression, particulate filtration, and metering.[[23]](#footnote-24)
* **Pretreatment System.** A pretreatment system will remove carbon dioxide and sulfur compounds.[[24]](#footnote-25) The pretreatment system will also remove any entrained water in the natural gas stream that has not been previously removed.[[25]](#footnote-26) After pretreatment, the natural gas that is sent to the liquefaction train is mainly methane with small amounts of nitrogen, propane, ethane and other hydrocarbons.[[26]](#footnote-27)
* **Liquefaction Train.** The liquefaction train will cool the natural gas to negative 260 degrees Fahrenheit, using a heat exchanger to transfer heat from the natural gas to a refrigerant loop.[[27]](#footnote-28) The refrigerant loop will be made up of other hydrocarbons and will require a large compressor, which will consume the majority of the electric load at the Tacoma LNG Facility (approximately 14 MW).[[28]](#footnote-29) The system used at the Tacoma LNG Facility will be a single mixed-refrigerant system.[[29]](#footnote-30)
* **Storage Tank.** Liquefied natural gas will be stored on-site in a full-containment, field-erected tank, which consists of an inner nickel-steel tank and an outer concrete tank that share a common roof.[[30]](#footnote-31) In the event of a failure of the inner tank, the outer tank will contain the liquefied natural gas.[[31]](#footnote-32) Liquefied natural gas will be removed from the tank via submersed pumps that pump the natural gas out through the roof.[[32]](#footnote-33) There are no wall penetrations in either tank.[[33]](#footnote-34)
* **Vaporization Train.** The vaporization train will include the facilities that PSE will need on a peak day to vaporize the liquefied natural gas in the storage tank and inject it into the distribution system to serve PSE’s retail gas customers.[[34]](#footnote-35)
* **Truck Loading Facilities.** The Tacoma LNG Facility will have two truck loading racks capable of filling tanker trucks simultaneously.[[35]](#footnote-36) Tanker trucks will be used to support the operations of PSE’s natural gas system by moving liquefied natural gas to PSE’s satellite liquefied natural gas facility in Gig Harbor, Washington, or by use of mobile liquefied natural gas vaporization and injection units.[[36]](#footnote-37) Tanker trucks may also supply liquefied natural gas to fuel customers like large interstate trucking fleets or small volume marine users like the Washington State Ferry system.[[37]](#footnote-38)
* **Cryogenic Pipeline to the TOTE Berthing Location.** The Tacoma LNG Facility will include a cryogenic pipeline that will connect the on-site storage tank to a fueling station located at TOTE’s berthing location.[[38]](#footnote-39) This line will be buried, and cross beneath a public road, a rail line and TOTE’s property.[[39]](#footnote-40)
* **Marine Fueling System.** The marine fueling system will be located near the stern end of TOTE’s berthing location.[[40]](#footnote-41) The system will include a loading arm for fueling TOTE’s vessels, and associated equipment necessary for safety and security of the operation.[[41]](#footnote-42)
* **Balance-of-Plant Equipment.** Balance-of-plant equipment will include an on-site backup generator for essential loads, a gas flare, instrument air system, water treatment unit, power distribution systems, safety and security equipment, and an integrated plant control system.[[42]](#footnote-43)
* **Substation and Electricity.** Tacoma Power will construct an on-site substation that connects to its 115 kV transmission system.[[43]](#footnote-44) PSE will own the substation.[[44]](#footnote-45) Electricity for the Tacoma LNG Facility will be purchased from Tacoma Power Utilities.[[45]](#footnote-46)

 PSE will supply the natural gas required for production of liquefied natural gas for PSE’s peaking need and to satisfy TOTE’s needs under the TOTE Special Contract.[[46]](#footnote-47) The Tacoma LNG Facility will require nearly 21,000 Dth per day of natural gas when liquefying at nameplate capacity.[[47]](#footnote-48) Approximately 2,000 Dth per day will be used for the peaking resource and up to 19,000 Dth per day will be used to supply TOTE fuel sales and any other fuel sales.[[48]](#footnote-49) The Tacoma LNG Facility demand would represent approximately (i) seven and one-half percent (7.5%) of PSE’s average daily demand; (ii) two percent (2%) of PSE’s peak-day demand; (iii) nine-tenths of one percent (0.9%) of the region’s average daily demand; and (iv) three-tenths of one percent (0.3%) of the region’s peak-day demand.[[49]](#footnote-50)

 PSE will not require firm pipeline capacity for the peaking portion of the Tacoma LNG Facility because liquefied natural gas will be produced for peak-day storage requirements in the non-winter months when PSE generally has pipeline capacity available.[[50]](#footnote-51) PSE will procure firm pipeline capacity and natural gas supply for liquefied natural gas service to be provided under the TOTE Special Contract.[[51]](#footnote-52) TOTE will pay for one hundred percent (100%) of the firm interstate pipeline cost to provide service under the TOTE Special Contract.[[52]](#footnote-53)

### 2. Projected Development Timeline and Budget

 PSE’s project schedule and budget for the Tacoma LNG Project is divided into two distinct phases: (i) a development phase, and (ii) a construction phase.[[53]](#footnote-54) PSE will also make improvements to its PSE natural gas distribution system as part of the Tacoma LNG Project.[[54]](#footnote-55) Development activities include the work PSE must undertake prior to entering into the construction contracts to build the Tacoma LNG Facility.[[55]](#footnote-56) The construction phase begins with the execution of the Engineering, Procurement and Construction (“EPC”) contract and other construction contracts, and continues through the commercial operations date.[[56]](#footnote-57)

 The development phase associated with the Tacoma LNG Facility began in 2012 with due diligence and feasibility studies.[[57]](#footnote-58) The major project development work includes the following: (i) commercial and technical feasibility and due diligence; (ii) identifying and securing the site for the Tacoma LNG Facility and procuring all required real estate rights for the Tacoma LNG Project; (iii) preliminary facility design; (iv) preliminary distribution upgrades design; (v) contracting with potential long-term liquefied natural gas fuel customers, including TOTE; and (vi) permitting.[[58]](#footnote-59) PSE has developed a capital budget of approximately $13.6 million (not including an allowance for funds used during construction (“AFUDC”)) associated with activities performed or to be performed during the development phase of the Tacoma LNG Facility.[[59]](#footnote-60)

 The construction phase schedule is driven by the field-erected storage tank, which PSE expects will take approximately 27 months to construct.[[60]](#footnote-61) PSE has developed a capital budget of approximately $297.1 million (not including AFUDC) associated with activities to be performed during the construction phase of the Tacoma LNG Facility.[[61]](#footnote-62)

 PSE will be making improvements to the PSE natural gas distribution system, in part, to support the Tacoma LNG Facility, including approximately five miles of new pipeline in the cities of Fife/Tacoma and Pierce County, a new limit station and existing gate station modifications (“Distribution Upgrades”).[[62]](#footnote-63) This work is expected to be completed by the end of 2017 to support plant startup and commissioning in 2018.[[63]](#footnote-64) PSE has developed a capital budget of approximately $53.5 million (not including AFUDC) associated with the Distribution Upgrades.[[64]](#footnote-65)

 The total projected capital budget for the Tacoma LNG Facility is approximately $310.7 million (not including AFUDC).[[65]](#footnote-66) This amount includes (i) the projected budget of $13.6 million (not including AFUDC) for the development phase[[66]](#footnote-67) and (ii) the projected budget of $297.1 million (not including AFUDC) for the construction phase.[[67]](#footnote-68) The total projected capital budget for the Distribution Upgrades is approximately $53.5 million (not including AFUDC).[[68]](#footnote-69) The total projected capital budget for the Tacoma LNG Project is approximately $364.2 million (not including AFUDC).[[69]](#footnote-70)

 The Tacoma LNG Facility would serve as a peaking resource for PSE’s core natural gas customers.[[70]](#footnote-71) PSE would liquefy natural gas over the summer months and store the liquefied natural gas in the Tacoma LNG Facility’s large cryogenic tank.[[71]](#footnote-72) During peak winter days, PSE would vaporize the liquefied natural gas and inject that natural gas into PSE’s natural gas distribution system.[[72]](#footnote-73) This peaking resource would allow PSE to avoid purchasing 365-day pipeline capacity to meet a few days of peak demand that may only occur once every few winters.[[73]](#footnote-74)

 PSE would make liquefied natural gas fuel sales from the Tacoma LNG Facility to TOTE under the TOTE Special Contract, which would be a special contract regulated by the Commission pursuant to WAC 480-80-143.

## B. Background Regarding the TOTE Special Contract

 TOTE is a shipping company that transports approximately 30 percent of all consumer goods shipped to Alaska.[[74]](#footnote-75) TOTE is fully owned by Saltchuk Resources Inc., a privately held investment group based in Seattle.[[75]](#footnote-76) TOTE operates two Orca class ships between the Port of Tacoma and the Port of Anchorage on a regimented schedule of sailings departing from Tacoma every Wednesday and Friday evening.[[76]](#footnote-77)

 TOTE’s decision to use liquefied natural gas (as opposed to a petroleum-based fuel) has been driven by regulatory, environmental, and economic factors.[[77]](#footnote-78) In 2010, the International Maritime Organization, a United Nations organization, approved the North American Emissions Control Area, establishing more stringent emissions standards within 200 nautical miles of the U.S. and Canadian coast.[[78]](#footnote-79) The Environmental Protection Agency is responsible for administering vessels operating in the North American Emissions Control Area.[[79]](#footnote-80) Ships operating within the North American Emissions Control Area were required to reduce the sulfur content of their fuel to one percent (1%) in August 2012 and are further required to reduce it to one-tenth of one percent (0.1%) in January 2015.[[80]](#footnote-81)

 Vessel operators can meet the new standard by switching to lower sulfur diesel fuels, installing scrubbers, or transitioning to a cleaner fuel, such as liquefied natural gas.[[81]](#footnote-82) TOTE has chosen to meet the new standard by switching to liquefied natural gas as a marine fuel.[[82]](#footnote-83) TOTE will consume more than 39 million gallons of liquefied natural gas annually, which represents 44 percent of the liquefaction capacity of the Tacoma LNG Facility.[[83]](#footnote-84)

 The initial term of the TOTE Special Contract is ten years, beginning on January 1, 2019 and terminating on December 31, 2028.[[84]](#footnote-85) TOTE has the unilateral right to extend the TOTE Special Contract in five‐year increments with 18 months’ notice.[[85]](#footnote-86) Extension term pricing contains favorable terms for three successive extension periods, recognizing that TOTE will have paid a short-term contract premium during the initial 10‐year term.[[86]](#footnote-87)

 PSE will provide pricing under the TOTE Special Contract using a cost‐of‐service model, with demand and variable components, and including overhead allocations.[[87]](#footnote-88) Typical cost‐of‐service ratemaking applies, with the following exceptions:

* TOTE will be charged a levelized premium to compensate for a ten-year contract term (the “short-term contract premium”).[[88]](#footnote-89)
* Pricing will be ██████████████████████████, recovering
capital and fixed O&M.[[89]](#footnote-90)
* Provided TOTE gives proper notice to extend, extension pricing will include capital recovery at reduced rates, recognizing that TOTE will have paid the short‐term contract premium during the initial term.[[90]](#footnote-91)

PSE will purchase and deliver natural gas to the Tacoma LNG Facility.[[91]](#footnote-92) The cost-of-service rate charged to TOTE will include a market-based price for natural gas (based on the monthly Sumas index).[[92]](#footnote-93) In addition, liquefied natural gas volumes billed to TOTE under the Special Contract will include natural gas that is used as “plant fuel” for pipeline transportation and processes at the Tacoma LNG Facility.[[93]](#footnote-94)

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## C. Procedural Background

 On August 11, 2015, PSE filed with the Commission a petition for approval of, among other things, the TOTE Special Contract.[[94]](#footnote-95) On September 8, 2015, the Commission adopted a preliminary procedural schedule including technical conferences on September 18 and 21, and October 8, 2015.[[95]](#footnote-96) The parties agreed to reconvene in prehearing to discuss their progress on the afternoon of October 13, 2015.[[96]](#footnote-97)

 At the prehearing conference of October 13, 2015, the parties agreed to continue seeking common ground and to either report success in this regard, or to file simultaneous briefs on November 20, 2015, stating their respective positions on these issues that do not involve contested facts. On October 15, 2015, the Commission issued Order 03 in this proceeding that reflected this agreement among the parties.[[97]](#footnote-98)

# IV. ARGUMENT

## A. The Commission Can Exercise Jurisdiction over Natural Gas Sales by a Gas Company

 The Commission is an agency of the State of Washington, vested by statute with authority to regulate rates, rules, regulations, practices, and accounts of public service companies, including electrical and gas companies. The Commission is tasked with regulating “…the rates, services, facilities and practices of all persons engaging within this state in the business of supplying any utility service or commodity to the public for compensation.”[[98]](#footnote-99) For purposes of Title 80, the term “service” is to be used “in its broadest and most inclusive sense.”[[99]](#footnote-100) It is the Commission’s responsibility to ensure regulated companies provide safe and reliable service to customers at reasonable rates, while allowing them the opportunity to earn a fair profit.

### 1. PSE is a Gas Company (as Defined by RCW 80.04.010)

 The Revised Code of Washington (RCW) defines the phrase “public service company” to include, among other entities, every gas company.[[100]](#footnote-101) The RCW defines “gas company” to include every corporation that owns, controls, operates or manages “any gas plant within the state.”[[101]](#footnote-102) Under the RCW, “gas plant” is defined to include

all real estate, fixtures and personal property, owned, leased, controlled, used or to be used for or in connection with the transmission, distribution, sale or furnishing of natural gas, or the manufacture, transmission, distribution, sale or furnishing of other type gas, for light, heat or power.[[102]](#footnote-103)

 The Washington Administrative Code (WAC) defines the term “gas utility” to mean any business entity or person that: (1) owns or operates any gas plant in Washington state; (2) distributes or sells gas to the public for compensation; and (3) is subject to the Commission’s jurisdiction.[[103]](#footnote-104) Under the WAC, gas is defined to include “any fuel or process gas, whether liquid petroleum gas, manufactured gas, natural gas, or any mixture of these.”[[104]](#footnote-105) *Id*.

 PSE is a public service company and a gas company, as those terms are defined in RCW 80.04.010 and as those terms otherwise are used in Title 80 RCW.[[105]](#footnote-106) PSE is engaged in the State of Washington in the business of supplying utility services and commodities to the public for compensation.[[106]](#footnote-107) PSE owns gas plant in Washington, including the Gig Harbor LNG satellite storage facility, that is used in connection with distributing and selling natural gas to the public and is a gas utility for purposes of Commission regulation. PSE has a natural gas tariff on file with the Commission, and its natural gas operations and the rates it charges are subject to the jurisdiction of the Commission.

### 2. LNG is Natural Gas (as Defined by WAC 480-90-023)

 The WAC defines gas as “any fuel or process gas, whether liquid petroleum gas, manufactured gas, natural gas, or any mixture of these.”[[107]](#footnote-108) “Natural gas” means “a mixture of gaseous hydrocarbons (chiefly methane) and nonhydrocarbons that occur naturally in the earth.”[[108]](#footnote-109) LNG is pretreated natural gas that has been cooled to -260 degrees Fahrenheit and converted to a liquid state for ease of storage or transport.

 Natural gas is composed primarily of methane (CH4), but may also contain ethane (C2H6), propane (C3H8), and heavier hydrocarbons and nonhydrocarbon gases.[[109]](#footnote-110) Small quantities of nitrogen, oxygen, carbon dioxide, sulfur compounds and water may also be found in natural gas.[[110]](#footnote-111) Natural gas that contains hydrocarbons and nonhydrocarbon gases is called “wet” natural gas.[[111]](#footnote-112) Wet natural gas is separated from most of these compounds at a gas processing plant.[[112]](#footnote-113) The gas is then considered “dry”, pipeline quality gas and is sent through pipelines to a local distribution company such as PSE for distribution to the consumer.[[113]](#footnote-114)

 Liquefied natural gas is simply natural gas that has been condensed to a liquid through a cooling process.[[114]](#footnote-115) The composition of natural gas, and hence the LNG that is formed from it, varies slightly according to its source and processing history.[[115]](#footnote-116) Typically, the composition of LNG is 85 to 95 percent methane, along with a few percent ethane, even less propane and butane, and possibly trace amounts of nitrogen.[[116]](#footnote-117) Water is necessarily removed from the natural gas stream prior to its liquefaction.[[117]](#footnote-118)

 PSE will receive dry pipeline quality natural gas from the Williams Northwest Pipeline (“Northwest Pipeline”) into its distribution system to serve the Tacoma LNG Facility.[[118]](#footnote-119) The Northwest Pipeline General Terms and Conditions define the term “natural gas” to be delivered to PSE as “[a]ny mixture of hydrocarbons or of hydrocarbons and noncombustible gases, in a gaseous state, consisting essentially of methane.”[[119]](#footnote-120) In accordance with the Northwest Pipeline Tariff, the natural gas delivered to PSE by Northwest Pipeline is natural gas that shall: (1) contain a gross heating value of at least 985 Btus; (2) not contain more than one-quarter grain hydrogen sulfide per one hundred cubic feet; (3) not contain more than five grains of total sulfur per one hundred cubic feet; and (4) not have a water content in excess of seven pounds per million cubic feet.[[120]](#footnote-121) Thus, the natural gas delivered by Northwest Pipeline to PSE satisfies the definition of “natural gas” in the WAC as “a mixture of gaseous hydrocarbons (chiefly methane) and nonhydrocarbons that occur naturally in the earth.”[[121]](#footnote-122)

 PSE will treat the natural gas it receives from Northwest Pipeline at the Tacoma LNG Facility prior to liquefaction. During the pretreatment process, carbon dioxide, sulfur compounds, and other components that would freeze and damage the equipment are removed from the natural gas stream.[[122]](#footnote-123) These components are removed before the gas stream will be cooled to -260 degrees Fahrenheit solely to prevent these components from freezing and clogging the heat exchanger.[[123]](#footnote-124) Following removal of these components, the natural gas stream (mainly methane with small amounts of nitrogen, propane, ethane, butane and other hydrocarbons) will be cooled in a refrigeration system until it condenses into a liquid.[[124]](#footnote-125) It will then be stored on site in an insulated tank at essentially atmospheric pressure.[[125]](#footnote-126) All of the liquefied natural gas that will be stored at the Tacoma LNG Facility will be pretreated and liquefied using this process. Indeed, the same liquefied natural gas will be used to meet PSE’s peaking supply needs and to meet PSE’s obligations under the TOTE Special Contract. Therefore, the liquefied natural gas that results from the liquefaction process is natural gas (as defined in the WAC) cooled to a liquid stated.

 The TOTE Special Contract expressly recognizes that LNG to be provided by PSE consists of “a mixture of gaseous hydrocarbons (chiefly methane) and nonhydrocarbons that occur naturally in the earth.” The TOTE Special Contract defines “LNG” as “Gas in a liquid state at or below its point of boiling and at or near atmospheric pressure”.[[126]](#footnote-127) The definition of “Gas” in the TOTE Special Contract is very similar to the definition of “natural gas” in WAC 480-90-023 and provides as follows:

pipeline quality natural gas consisting predominately of methane, but including other combustible hydrocarbons or mixtures of hydrocarbons, and which may include other combustible and noncombustible components, that are in a gaseous state at atmospheric conditions of temperature and pressure[.][[127]](#footnote-128)

 It would be incorrect to suggest that the LNG to be provided pursuant to the TOTE Special Contract is “liquid methane” or anything other than natural gas (as that term is defined in WAC 480-90-023) in a liquid state. For example, the TOTE Special Contract contains a detailed exhibit that provides the minimum specifications for the LNG to be provided to TOTE by PSE.[[128]](#footnote-129) This exhibit specifies that the main components of the LNG that PSE will supply TOTE are CH4 (methane), C2H6 (ethane), C3H8 (propane), C4H10 (butane), C5H12 (pentane), and N2 (nitrogen).[[129]](#footnote-130) This exhibit also expressly states that the LNG to be supplied to TOTE must have a minimum methane content of 70%, and may contain maximum amounts of various non-methane molecules:[[130]](#footnote-131)

Methane content, minimum 70% (by volume)
Hydrogen sulfide, maximum 0.05% (by volume)
Hydrogen, maximum 3% (by volume)
Ammonia, maximum 25 mg/Nm3Chlorine + Fluorines, maximum 50 mg/Nm3Particles or solid content, maximum 50 mg/Nm3Particles or solid size, maximum 5 μm

Thus, any assertion that PSE would be providing “liquid methane,” “refined natural gas,” or anything other than natural gas in a liquid state would be erroneous.

### 3. The Commission Has Authority to Regulate Natural Gas Sales under Title 80 RCW

 As discussed above, PSE is a “gas company” (as defined in RCW 80.04.010), and the LNG to be sold by PSE is “natural gas” (as defined in WAC 480-90-023). The Commission’s authority over gas companies and their operations is expansive and certainly extends to a gas company providing LNG service. This is consistent with the statutory definition of “service” for purposes of Commission regulation, which is to be construed in its broadest and most inclusive sense.[[131]](#footnote-132) Thus, if PSE, a gas company, owns the Tacoma LNG Facility and makes retail sales of natural gas in a liquid state for use as vehicular fuels, then such sales are subject to the Commission’s jurisdiction, unless the Commission disclaims jurisdiction over such transactions.

 Each of PSE and TOTE entered into the TOTE Special Contract with the understanding and expectation that the Commission would have jurisdiction over the contract. For example, the TOTE Special Contract has Commission approval as a condition precedent to closing, and pricing under the TOTE Special Contract is “based on cost-of-service rate design,” including “the depreciation of the asset, the cost of capital (both debt and equity) to finance the asset, a pass through of operational costs and all applicable taxes.”[[132]](#footnote-133) Therefore, any Commission requirement imposed upon PSE to provide a non-regulated service to TOTE under the TOTE Special Contract would undermine both the plain language of the relevant statutes and regulations and the expectations of the parties to the contract.

 Moreover, the Commission has over two decades of precedent regarding sales of natural gas for use as vehicular fuel. The Commission has long authorized the sale of compressed natural gas (CNG) by gas companies for use as vehicular fuel, provided that the sales are made under compensatory rates (i.e., not at a subsidized rate).[[133]](#footnote-134) This regulatory treatment is consistent with state statutes favoring use of LNG and CNG to reduce vehicle emissions and decrease dependence on petroleum-based fuels:

Effective June 1, 2015, all state agencies, to the extent determined practicable by the rules adopted by the department of commerce pursuant to RCW 43.325.080, are required to satisfy one hundred percent of their fuel usage for operating publicly owned vessels, vehicles, and construction equipment from electricity or biofuel. Compressed natural gas, liquefied natural gas, or propane may be substituted for electricity or biofuel if the department of commerce determines that electricity and biofuel are not reasonably available.[[134]](#footnote-135)

 The sale of liquefied natural gas to TOTE for use as a marine fuel would advance the same goals that underlie the use of CNG as vehicular fuel. Indeed, TOTE seeks to obtain LNG service from PSE to meet or exceed new, stricter emission standards in the maritime shipping industry. The service to be provided under the TOTE Special Contract will be at a compensatory rate and will not be subsidized by other PSE customers. Therefore, consistent with its regulation of CNG sales, the Commission can and should regulate the liquefied natural gas service that PSE will provide under the TOTE Special Contract.

### 4. PSE Meters and Passes Title to LNG Under the TOTE Special Contract As the LNG is Loaded Into the TOTE Vessel

 Parties may attempt to argue that the Commission’s jurisdiction with respect to the regulation of natural gas stops at the gas company meter, at which point the title transfers from the gas company to customers and the gas company measures customer usage. No such statute, regulation, or Commission order provides that the Commission’s jurisdiction continues up to but not beyond the gas meter. As discussed below, PSE will meter and title to the LNG will pass from PSE to TOTE as the LNG is loaded into the TOTE vessel, not at the point at which the Tacoma LNG Facility receives natural gas from PSE’s natural gas distribution system. Assuming *arguendo* that the Commission’s jurisdiction does “stop at the meter,” then the Commission could exercise jurisdiction over sales under the TOTE Special Contract because PSE meters and passes title to the LNG as it is being loaded into the TOTE vessel. This situation is no different than any other natural gas customer of PSE.

 Pursuant to the terms and conditions of the TOTE Special Contract, PSE will meter LNG provided to the TOTE vessel via a coriolis mass flow meter on the LNG line between the Tacoma LNG Facility and the TOTE vessel.[[135]](#footnote-136) Natural gas vapor from the TOTE vessel back to the Tacoma LNG Facility will be metered via an ultrasonic mass flow meter on the vapor return line.[[136]](#footnote-137) In other words, PSE will meter the liquefied natural gas provided under the TOTE Special Contract as such LNG is loaded into the manifold of the TOTE vessel.

 PSE will sell and deliver liquefied natural gas in accordance with certain specifications to TOTE at the delivery point, and TOTE will purchase and bunker the liquefied natural gas at the delivery point.[[137]](#footnote-138) The delivery point under the TOTE Special Contract is the LNG intake manifold of the applicable TOTE vessel at the TOTE Berthing Facility, or such other point as may be mutually agreed by the parties.[[138]](#footnote-139) Title to and risk of loss of the LNG will also pass from PSE to TOTE at the LNG intake manifold of the applicable TOTE vessel at the TOTE Berthing Facility, or such other point as may be mutually agreed by the parties.[[139]](#footnote-140) In other words, title to the natural gas will pass from PSE to TOTE as the LNG is loaded into the manifold of the TOTE vessel.

## B. Liquefied Natural Gas Sales by a Gas Company in Washington for Use as Transportation Fuel by Marine Vessels Are Not Subject to Federal Jurisdiction

 Under section 1(d) of the Natural Gas Act, the sale or transportation of “vehicular natural gas” will not subject a company to jurisdiction under the Natural Gas Act if the company meets either of the following two tests:

(a) The company is not otherwise a “natural-gas company” (defined under section 2 of the Natural Gas Act as “a person engaged in the transportation of natural gas in interstate commerce, or the sale in interstate commerce of such gas for resale”); or

(b) The company is subject primarily to regulation by a state commission, regardless of whether the state Commission actually exercises jurisdiction over the sale or transportation of vehicular natural gas.[[140]](#footnote-141)

PSE meets the second test because it is subject primarily to regulation by the Commission.

 Because PSE meets one of the tests, the sale or transportation of LNG to LNG-fueled marine vessels would not subject PSE to the jurisdiction of the Federal Energy Regulatory Commission (“FERC”) under section 7 of the Natural Gas Act, provided the LNG qualifies as vehicular natural gas. Section 2 of the Natural Gas Act defines the term “vehicular natural gas” as “natural gas that is ultimately used as a fuel in a self-propelled vehicle.”[[141]](#footnote-142) In implementing the Natural Gas Act, FERC has further defined “vehicular natural gas” in its regulations as “natural gas that will be used, in either a gaseous or liquefied state, as fuel in any self-propelled vehicle.”[[142]](#footnote-143)

 In Order No. 543,[[143]](#footnote-144) FERC broadened its then-proposed definition of “vehicular natural gas” or “VNG,” which would have been limited to “natural gas that is ultimately used as a fuel in a motor vehicle.” In response to comments from parties suggesting that the definition be broadened to include LNG and the full array of vehicles that may utilize natural gas, FERC expressly adopted a broader definition that includes gas-fueled boats and any other self-propelled vehicles:

[B]ecause there are other types of vehicles that may utilize “VNG,” (e.g., boats and locomotives), we shall modify the proposed definition. Specifically, the revised definition of “VNG” is as follows: “VNG is natural gas that will be used, in either a gaseous or liquefied state, as fuel in any self-propelled vehicle.” This definition shall be broadly construed to include, among other things, automobiles, trucks, buses, trains, aircraft, boats, non-road farm vehicles, and construction vehicles, or any other self-propelled vehicle.[[144]](#footnote-145)

It is clear from this definition, which FERC has said is to be “broadly construed,” that the contemplated sale or transportation of LNG by a gas company (such as sales of LNG by PSE to LNG-fueled marine vessels) would qualify as vehicular natural gas exempt from FERC jurisdiction.

 Additionally, the vehicular natural gas exemption precludes a state utility commission from regulating sales of vehicular natural gas by a company that is not a public utility. Specifically, section 404(b) of the Energy Policy Act of 1992 provides as follows:

(b) STATE LAWS AND REGULATIONS — The transportation or sale of natural gas *by any person who is not otherwise a public utility*, within the meaning of State law—

(1) in closed containers; or

(2) otherwise to any person for use by such person as a fuel in a self-propelled vehicle,

*shall not be considered to be a transportation or sale of natural gas within the meaning of any State law, regulation, or order* in effect before January 1, 1989. This subsection shall not apply to any provision of any State law, regulation, or order to the extent that such provision has as its primary purpose the protection of public safety.[[145]](#footnote-146)

Federal law has preempted state regulation of sales of vehicular natural gas by entities other than public utilities. Therefore, the Commission’s jurisdiction over PSE’s sales of LNG to TOTE would not “open the floodgates” and subject non-utility companies in the business of selling vehicular natural gas to the Commission’s jurisdiction.

# V. CONCLUSION

 For the reasons set forth above, PSE respectfully requests that the Commission issue an order affirming that the Commission can exercise jurisdiction, pursuant to Title 80 RCW, over sales of liquefied natural gas by PSE to TOTE pursuant to the TOTE Special Contract.

DATED this 24th day of November, 2012.

**Respectfully submitted

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1. Petition of Puget Sound Energy, Inc. for Commission Approval of a Special Contract for Providing LNG Service and a Declaratory Order Approving a Cost Allocation Methodology, dated August 11, 2015, filed in Docket No. UG-151663, at ¶ 6 (“PSE Petition”). [↑](#footnote-ref-2)
2. Riding, Exh. No. \_\_\_(CR-1CT), at page 5, lines 7-9; *see also* Riding, Exh. No. \_\_\_(CR-3) (providing a depiction of PSE’s need identified in the 2013 IRP). [↑](#footnote-ref-3)
3. Riding, Exh. No. \_\_\_(CR-1CT), at page 5, lines 13-16. [↑](#footnote-ref-4)
4. *Id*. at page 6, Figure 1. [↑](#footnote-ref-5)
5. PSE Petition at ¶ 9. [↑](#footnote-ref-6)
6. *Id*. at ¶ 9. [↑](#footnote-ref-7)
7. *Id*. at ¶ 9. [↑](#footnote-ref-8)
8. *Id*. at ¶ 9. [↑](#footnote-ref-9)
9. Garratt, Exh. No. \_\_\_(RG-1CT), at page 6, lines 10-11. [↑](#footnote-ref-10)
10. *Id*. at page 6, lines 11-13. [↑](#footnote-ref-11)
11. *Id*. at page 14, lines 1-3. [↑](#footnote-ref-12)
12. Garratt, Exh. No. \_\_\_(RG-1CT), at page 14, lines 3-4. [↑](#footnote-ref-13)
13. *Id*. at page 14, lines 4-6. [↑](#footnote-ref-14)
14. Riding, Exh. No. \_\_\_(CR-1CT) at page 10, lines 3-5. [↑](#footnote-ref-15)
15. *Id*. at page 10, lines 14-17. [↑](#footnote-ref-16)
16. *Id*. at page 10, lines 17-19. [↑](#footnote-ref-17)
17. Garratt, Exh. No. \_\_\_(RG-1CT), at page 10, line 21, through page 11, line 2. [↑](#footnote-ref-18)
18. *Id*. at page 14, lines 11-14. [↑](#footnote-ref-19)
19. *Id*. at page 14, lines 15-16. [↑](#footnote-ref-20)
20. Garratt, Exh. No. \_\_\_(RG-1CT), at page 14, lines 16-17. [↑](#footnote-ref-21)
21. *Id*. at page 14, lines 17-20. [↑](#footnote-ref-22)
22. *Id*. at page 11, lines 2-4; *see also generally* Anderson, Exh. No. \_\_\_(LEA-1T). [↑](#footnote-ref-23)
23. Garratt, Exh. No. \_\_\_(RG-1CT) at page 16, lines 20-21. [↑](#footnote-ref-24)
24. *Id*. at page 17, line 4. [↑](#footnote-ref-25)
25. *Id*. at page 17, lines 4-6. [↑](#footnote-ref-26)
26. *Id*. at page 17, lines 6-7; *see also* Riding, Exh. No. \_\_\_(CR-4C) at page 78 (specifying that the main components of the LNG that PSE will provide to TOTE under the TOTE Special Contract include CH4 (methane), C2H6 (ethane), C3H8 (propane), C4H10 (butane), C5H12 (pentane), and N2 (nitrogen)). [↑](#footnote-ref-27)
27. Garratt, Exh. No. \_\_\_(RG-1CT), at page 17, lines 11-13. [↑](#footnote-ref-28)
28. *Id*. at page 17, lines 12-14. [↑](#footnote-ref-29)
29. *Id*. at page 17, lines 14-16. [↑](#footnote-ref-30)
30. Garratt, Exh. No. \_\_\_(RG-1CT), at page 17, lines 19-21. [↑](#footnote-ref-31)
31. *Id*. at page 17, lines 21-22. [↑](#footnote-ref-32)
32. *Id*. at page 17, line 22, through page 18, line 1. [↑](#footnote-ref-33)
33. *Id*. at page 18, line 1. [↑](#footnote-ref-34)
34. *Id*. at page 18, lines 10-12. [↑](#footnote-ref-35)
35. *Id*. at page 18, lines 16-17. [↑](#footnote-ref-36)
36. *Id*. at page 18, lines 17-20. [↑](#footnote-ref-37)
37. *Id*. at page 18, lines 20-22. [↑](#footnote-ref-38)
38. *Id*. at page 19, lines 3-4. [↑](#footnote-ref-39)
39. *Id*. at page 19, lines 4-6. [↑](#footnote-ref-40)
40. *Id*. at page 19, lines 10-11. [↑](#footnote-ref-41)
41. *Id*. at page 19, lines 11-12. [↑](#footnote-ref-42)
42. Garratt, Exh. No. \_\_\_(RG-1CT), at page 20, lines 4-7. [↑](#footnote-ref-43)
43. *Id*. at page 20, lines 10-11. [↑](#footnote-ref-44)
44. *Id*. at page 20, line 11. [↑](#footnote-ref-45)
45. *Id*. at page 20, lines 11-13. [↑](#footnote-ref-46)
46. Riding, Exh. No. \_\_\_(CR-1CT), at page 23, lines 4-5. [↑](#footnote-ref-47)
47. *Id*. at page 23, lines 5-7. [↑](#footnote-ref-48)
48. *Id*. at page 23, lines 7-9. [↑](#footnote-ref-49)
49. *Id*. at page 23, lines 11-15. [↑](#footnote-ref-50)
50. *Id*. at page 23, lines 18-19. [↑](#footnote-ref-51)
51. Riding, Exh. No. \_\_\_(CR-1CT), at page 23, lines 21-23. [↑](#footnote-ref-52)
52. *Id*. at page 23, line 23, through page 24, line 3. [↑](#footnote-ref-53)
53. Garratt, Exh. No. \_\_\_(RG-1CT), at page 22, lines 5-6. [↑](#footnote-ref-54)
54. *See generally*, Anderson, Exh. No. \_\_\_(LEA-1T). [↑](#footnote-ref-55)
55. Garratt, Exh. No. \_\_\_(RG-1CT), at page 22, lines 7-8. [↑](#footnote-ref-56)
56. *Id*. at page 22, lines 8-11. [↑](#footnote-ref-57)
57. *Id*. at page 22, lines 16-17. [↑](#footnote-ref-58)
58. *Id*. at page 22, line 17, through page 23, line 4. [↑](#footnote-ref-59)
59. Garratt, Exh. No. \_\_\_(RG-1CT), at page 23, lines 7-10; *see also* Garratt, Exh. No. \_\_\_(RG-3C), at page 1 (providing PSE’s capital budget associated with activities performed or to be performed during the development phase of the Tacoma LNG Facility). [↑](#footnote-ref-60)
60. Garratt, Exh. No. \_\_\_(RG-1CT), at page 24, lines 15-16. [↑](#footnote-ref-61)
61. *Id*. at page 25, lines 5-7; *see also* Garratt, Exh. No. \_\_\_(RG-3C), at pages 2-5 (providing PSE’s capital budget associated with activities performed or to be performed during the construction phase of the Tacoma LNG Facility). [↑](#footnote-ref-62)
62. Garratt, Exh. No. \_\_\_(RG-1CT), at page 25, lines 14-17. [↑](#footnote-ref-63)
63. *Id*. at page 25, lines 18-19. [↑](#footnote-ref-64)
64. *Id*. at page 25, lines 20-21; *see also* Garratt, Exh. No. \_\_\_(RG-3C), at page 6 (providing PSE’s capital budget associated with the natural gas distribution upgrades). [↑](#footnote-ref-65)
65. Garratt, Exh. No. \_\_\_(RG-1CT), at page 27, lines 10-11. [↑](#footnote-ref-66)
66. Garratt, Exh. No. \_\_\_(RG-3C), at page 7, line 77. [↑](#footnote-ref-67)
67. Garratt, Exh. No. \_\_\_(RG-3C), at page 7, line 78. [↑](#footnote-ref-68)
68. *Id*. at page 7, line 79. [↑](#footnote-ref-69)
69. *Id*. at page 7, line 81. [↑](#footnote-ref-70)
70. Garratt, Exh. No. \_\_\_(RG-1CT), at page 9, lines 19-20. [↑](#footnote-ref-71)
71. *Id*. at page 9, lines 21-22. [↑](#footnote-ref-72)
72. *Id*. at page 9, line 22, through page 10, line 23. [↑](#footnote-ref-73)
73. *Id*. at page 10, lines 1-4. [↑](#footnote-ref-74)
74. *Id*. at page 6, lines 10-11. [↑](#footnote-ref-75)
75. *Id*. at page 6, lines 15-16. [↑](#footnote-ref-76)
76. Garratt, Exh. No. \_\_\_(RG-1CT), at page 6, lines 11-13. [↑](#footnote-ref-77)
77. *Id*. at page 6, lines 17-18. [↑](#footnote-ref-78)
78. *Id*. at page 6, line 21, through page 7, line 2. [↑](#footnote-ref-79)
79. *Id*. at page 7, lines 6-7. [↑](#footnote-ref-80)
80. *Id*. at page 7, lines 7-10. [↑](#footnote-ref-81)
81. *Id*. at page 7, lines 10-12. [↑](#footnote-ref-82)
82. *Id*. at page 7, lines 12-13. [↑](#footnote-ref-83)
83. *Id*. at page 6, lines 13-15. [↑](#footnote-ref-84)
84. Riding, Exh. No. \_\_\_(CR-4C),at page 11 (defining “Delivery Term”). [↑](#footnote-ref-85)
85. Riding, Exh. No. \_\_\_(CR-4C),at page 22. [↑](#footnote-ref-86)
86. *Id.* at pages 22 and 91. [↑](#footnote-ref-87)
87. Riding, Exh. No. \_\_\_(CR-1CT) at page 14, lines 16-18; *see also* Riding, Exh. No. \_\_\_(CR-4C), at pages 43-47 and at pages 79-85. [↑](#footnote-ref-88)
88. Riding, Exh. No. \_\_\_(CR-1CT) at page 14, lines 20-22; *see also* Riding, Exh. No. \_\_\_(CR-4C), at page 81. [↑](#footnote-ref-89)
89. Riding, Exh. No. \_\_\_(CR-1CT) at page 15, lines 1-4; *see also* Riding, Exh. No. \_\_\_(CR-4C), at pages 61-63 and at pages 86-90. [↑](#footnote-ref-90)
90. Riding, Exh. No. \_\_\_(CR-1CT) at page 15, lines 5-8; *see also* Riding, Exh. No. \_\_\_(CR-4C), at pages 22 and 91. [↑](#footnote-ref-91)
91. Riding, Exh. No. \_\_\_(CR-1CT) at page15, lines 11-12. [↑](#footnote-ref-92)
92. Riding, Exh. No. \_\_\_(CR-1CT), at page 24, lines 4-5; *see also* Riding, Exh. No. \_\_\_(CR-4C), at page 14 (defining “Fuel Charge”), page 18 (defining “Sumas Index Price”), and page 83-84 (providing the Fuel Charge calculations). [↑](#footnote-ref-93)
93. Riding, Exh. No. \_\_\_(CR-1CT), at page 24, li*n*es 5-7. [↑](#footnote-ref-94)
94. *See*, *e.g.*, PSE Petition. [↑](#footnote-ref-95)
95. *In the Matter of the Petition of Puget Sound Energy, Inc. for (i) Approval of a Special Contract for Liquefied Natural Gas Fuel Service with Totem Ocean Trailer Express, Inc. and (ii) a Declaratory Order Approving the Methodology for Allocating Costs Between Regulated and Non-regulated Liquefied Natural Gas Services*, Docket UG-151663, Order 01 (Prehearing Conference Order; Notice of Prehearing Conference) (Sept. 8, 2015). [↑](#footnote-ref-96)
96. *Id.* [↑](#footnote-ref-97)
97. *In the Matter of the Petition of Puget Sound Energy, Inc. for (i) Approval of a Special Contract for Liquefied Natural Gas Fuel Service with Totem Ocean Trailer Express, Inc. and (ii) a Declaratory Order Approving the Methodology for Allocating Costs Between Regulated and Non-regulated Liquefied Natural Gas Services*, Docket UG-151663, Order 03 (Prehearing Conference Order, Notice of Hearing) (Oct. 15, 2015). [↑](#footnote-ref-98)
98. RCW 80.01.040. [↑](#footnote-ref-99)
99. RCW 80.04.010(25). [↑](#footnote-ref-100)
100. RCW 80.04.010(23). [↑](#footnote-ref-101)
101. RCW 80.04.010(14). [↑](#footnote-ref-102)
102. RCW 80.04.010(15). [↑](#footnote-ref-103)
103. WAC 480-90-023. [↑](#footnote-ref-104)
104. *Id*. [↑](#footnote-ref-105)
105. *See, e.g., WUTC v. Puget Sound Energy, Inc.*, Dockets UE-111048 & UG-111049, Order 08 at ¶ 514 (May 7, 2012). [↑](#footnote-ref-106)
106. *See, e.g., id.* [↑](#footnote-ref-107)
107. WAC 480-90-023. [↑](#footnote-ref-108)
108. WAC 480-90-023. The reference to “occur[ring] naturally in the earth” in the definition of “natural gas” in WAC 480-90-023 distinguishes natural gas from manufactured gas, which is also defined in WAC 480-90-023 as “gas produced artificially by any process.” Cooling natural gas to a liquid state is not a process for producing “artificial” gas. The liquefied natural gas is still natural gas. [↑](#footnote-ref-109)
109. *See, e.g.,* University of Texas Center for Energy Economics, *Composition of Natural Gas and LNG*, available at <http://www.beg.utexas.edu/energyecon/lng/LNG_introduction_07.php> (last accessed Nov. 24, 2015). [↑](#footnote-ref-110)
110. *See, e.g.,* University of Texas Center for Energy Economics, *Composition of Natural Gas and LNG*, available at <http://www.beg.utexas.edu/energyecon/lng/LNG_introduction_07.php> (last accessed Nov. 24, 2015). [↑](#footnote-ref-111)
111. U.S. Energy Information Administration, *Natural Gas Explained*, available at <http://www.eia.gov/EnergyExplained/index.cfm?page=Natural_Gas_Home> (last accessed Nov. 24, 2015). [↑](#footnote-ref-112)
112. *Id.* [↑](#footnote-ref-113)
113. *Id.* [↑](#footnote-ref-114)
114. U.S. Department of Energy, Office of Fossil Energy, National Energy Technology Laboratory, Strategic Center for Natural Gas, *Liquefied Natural Gas (LNG)*, at page 1 (June 2004), available at <https://www.netl.doe.gov/publications/factsheets/policy/Policy023.pdf> (last accessed Nov. 24, 2015). [↑](#footnote-ref-115)
115. *Id.* [↑](#footnote-ref-116)
116. *Id.* [↑](#footnote-ref-117)
117. *Id.* [↑](#footnote-ref-118)
118. Riding, Exh. No. \_\_\_(CR-1CT), at page 4, lines 8-10. [↑](#footnote-ref-119)
119. Northwest Pipeline LLC, FERC Gas Tariff, Fifth Revised Volume No. 1, at Fourth Revised Sheet No. 202-A, available at <http://www.northwest.williams.com/Files/Northwest/tariff/tariff_GTC.pdf> (last accessed Nov. 24, 2015) (“Northwest Pipeline Tariff”). [↑](#footnote-ref-120)
120. Northwest Pipeline Tariff at First Revised Sheet No. 204-D. [↑](#footnote-ref-121)
121. WAC 480-90-023. [↑](#footnote-ref-122)
122. Hogan, Exh. No. \_\_\_(JPH-1T), at page 6, lines 13-16. [↑](#footnote-ref-123)
123. *Id.* at page 6, lines 16-17. [↑](#footnote-ref-124)
124. *Id.* at page 6, lines 17-19. [↑](#footnote-ref-125)
125. *Id.* at page 6, lines 19-20. [↑](#footnote-ref-126)
126. Riding, Exh. No. \_\_\_(CR-4C), at page 16. [↑](#footnote-ref-127)
127. *Id.* at page 14. [↑](#footnote-ref-128)
128. *Id.* at page 78. [↑](#footnote-ref-129)
129. *Id.* [↑](#footnote-ref-130)
130. *Id.* [↑](#footnote-ref-131)
131. RCW 80.04.010(25). [↑](#footnote-ref-132)
132. *See* Exh. No. \_\_\_(CR-4C) at page 23 (condition precedent of Commission approval) and page 80 (pricing based on cost-based rate design). [↑](#footnote-ref-133)
133. *See*, *e.g.*, *WUTC v. Wash. Natural Gas Co.*, Docket UG-920840, 4th Suppl. Order (Sept. 27, 1993) [↑](#footnote-ref-134)
134. RCW 43.19.648(1). [↑](#footnote-ref-135)
135. *See* Riding, Exh. No. \_\_\_(CR-4C), at page 92. [↑](#footnote-ref-136)
136. *Id.* [↑](#footnote-ref-137)
137. Riding, Exh. No. \_\_\_(CR-4C), at page 29. [↑](#footnote-ref-138)
138. *Id.* at page 33. [↑](#footnote-ref-139)
139. *Id.* [↑](#footnote-ref-140)
140. 15 U.S.C. § 717(d). [↑](#footnote-ref-141)
141. 15 U.S.C. § 717a(10). [↑](#footnote-ref-142)
142. 18 C.F.R. § 152.1(b)(1)(i). [↑](#footnote-ref-143)
143. *Regulations Governing Vehicular Natural Gas*, Order No. 543, 57 Fed. Reg. 32,890 (1992) (“Order No. 543”). [↑](#footnote-ref-144)
144. Order No. 543, 57 Fed. Reg. 32890 at 32. [↑](#footnote-ref-145)
145. Pub. L. 102–486, title IV, § 404(b) (emphasis added). [↑](#footnote-ref-146)