**EXHIBIT NO. \_\_\_(RG-3C)**

**DOCKET NO. UG-15\_\_\_\_**

**WITNESS:  ROGER GARRATT**

**BEFORE THE**

**WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

|  |  |
| --- | --- |
| **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-15\_\_\_\_** |

**SECOND EXHIBIT (CONFIDENTIAL) TO THE**

**PREFILED DIECT TESTIMONY OF ROGER GARRATT
ON BEHALF OF PUGET SOUND ENERGY, INC.**

**Confidential per**

**WAC 480-07-160**

**AUGUST 11, 2015**

**Budget for Development Phase Activities Associated with the Tacoma LNG Facility**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |  | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **TOTAL** |
| *1* | Engineering | $357,154 | $1,835,721 | $2,205,007 | $3,084,122 | — | — | — | $7,482,004 |
| *2* | Permitting/Legal | $135,716 | $697,562 | $1,700,142 | $1,172,431 | — | — | — | $3,705,851 |
| *3* | Site/Real Estate | $10,298 | $52,929 | $384,203 | $1,009,876 | — | — | — | $1,457,305 |
| *4* | Communication/Outreach | $16,749 | $86,087 | $453,440 | $349,412 | — | — | — | $905,687 |
| *5* | Development Contingency | — | — | — | — | — | — | — | — |
| *6* | **Total DevelopmentPhase Costs** | **$519,917** | **$2,672,299** | **$4,742,792** | **$5,615,840** | **—** | **—** | **—** | **$13,550,847** |

**Budget for Construction Phase Activities Associated with the Tacoma LNG Facility**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |  | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **TOTAL** |
| *7* | **Site, Civil, Foundations, Buildings & Structural** | **—** | **—** | **—** | **$668,138** | **$3,173,655** | **$946,529** | **$779,494** | **$5,567,816** |
| *8* | All Foundations | **—** | **—** | **—** | $230,764 | $1,096,129 | $326,916 | $269,225 | $1,923,034 |
| *9* | Buildings | **—** | **—** | **—** | $143,638 | $682,281 | $203,487 | $167,578 | $1,196,985 |
| *10* | Earthworks | **—** | **—** | **—** | $92,275 | $438,305 | $130,723 | $107,654 | $768,956 |
| *11* | Structural | **—** | **—** | **—** | $201,461 | $956,939 | $285,403 | $235,038 | $1,678,841 |
| *12* | **Receiving Equipment** | **—** | **—** | **—** | **$738,842** | **$3,509,499** | **$1,046,693** | **$861,982** | **$6,157,016** |
| *13* | Feed Gas Compressor | **—** | **—** | **—** | $617,097 | $2,931,209 | $874,220 | $719,946 | $5,142,472 |
| *14* | Plant Inlet Filter Separator | **—** | **—** | **—** | $22,178 | $105,348 | $31,419 | $25,875 | $184,820 |
| *15* | Feed Gas Compressor Aftercooler | **—** | **—** | **—** | $23,847 | $113,275 | $33,784 | $27,822 | $198,728 |
| *16* | Gas Chromatograph | **—** | **—** | **—** | $75,719 | $359,667 | $107,269 | $88,339 | $630,995 |
| *17* | **Pretreatment System** | **—** | **—** | **—** | **$2,025,166** | **$9,619,541** | **$2,868,986** | **$2,362,694** | **$16,876,387** |
| *18* | Amine Pretreatment System | **—** | **—** | **—** | $1,978,830 | $9,399,442 | $2,803,342 | $2,308,635 | $16,490,249 |
| *19* | Piping | **—** | **—** | **—** | $46,337 | $220,099 | $65,643 | $54,059 | $386,138 |
| *20* | **LNG Liquefaction Train & Compressors** | **—** | **—** | **—** | **$3,179,538** | **$15,102,808** | **$4,504,346** | **$3,709,462** | **$26,496,155** |
| *21* | Liquefaction HX | **—** | **—** | **—** | $674,476 | $3,203,759 | $955,507 | $786,888 | $5,620,630 |
| *22* | MRL Compressor | **—** | **—** | **—** | $2,054,648 | $9,759,577 | $2,910,751 | $2,397,089 | $17,122,065 |
| *23* | MRL Condensor | **—** | **—** | **—** | $236,284 | $1,122,351 | $334,736 | $275,665 | $1,969,037 |
| *24* | MRL Storage Vessel | **—** | **—** | **—** | $214,131 | $1,017,121 | $303,352 | $249,819 | $1,784,423 |

**Budget for Construction Phase Activities Associated with the Tacoma LNG Facility (continued)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |  | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **TOTAL** |
| *25* | **LNG Tank Storage and Boil Off Gas System** | **—** | **—** | **—** | **$8,281,133** | **$39,335,387** | **$11,731,607** | **$9,661,323** | **$69,009,450** |
| *26* | Tank Concrete (double, wall, rf) | **—** | **—** | **—** | $5,122,656 | $24,332,619 | $7,257,097 | $5,976,433 | $42,688,805 |
| *27* | Tank Seismic Isolators | **—** | **—** | **—** | $148,252 | $704,198 | $210,024 | $172,961 | $1,235,435 |
| *28* | LTC Tank | **—** | **—** | **—** | $2,063,540 | $9,801,815 | $2,923,348 | $2,407,463 | $17,196,166 |
| *29* | BOG Compressor | **—** | **—** | **—** | $754,739 | $3,585,009 | $1,069,213 | $880,528 | $6,289,489 |
| *30* | Storage Piping | **—** | **—** | **—** | $68,952 | $327,523 | $97,682 | $80,444 | $574,602 |
| *31* | BOG Piping | **—** | **—** | **—** | $122,994 | $584,223 | $174,242 | $143,493 | $1,024,953 |
| *32* | **Vaporization Train** | **—** | **—** | **—** | **$976,358** | **$4,637,700** | **$1,383,174** | **$1,139,084** | **$8,136,315** |
| *33* | LNG Vaporizer | **—** | **—** | **—** | $528,017 | $2,508,080 | $748,024 | $616,020 | $4,400,141 |
| *34* | LNG IN-tank Loading Pumps | **—** | **—** | **—** | $228,373 | $1,084,769 | $323,528 | $266,435 | $1,903,104 |
| *35* | Vaporization Pumps | **—** | **—** | **—** | $96,751 | $459,569 | $137,064 | $112,877 | $806,261 |
| *36* | Piping | **—** | **—** | **—** | $123,217 | $585,281 | $174,557 | $143,753 | $1,026,808 |
| *37* | **Truck Loading System** | **—** | **—** | **—** | **$443,956** | **$2,108,791** | **$628,938** | **$517,949** | **$3,699,633** |
| *38* | Loading Station | **—** | **—** | **—** | $115,537 | $548,802 | $163,678 | $134,793 | $962,811 |
| *39* | Truck Weigh Scale | **—** | **—** | **—** | $115,537 | $548,802 | $163,678 | $134,793 | $962,811 |
| *40* | Piping | **—** | **—** | **—** | $212,881 | $1,011,187 | $301,582 | $248,362 | $1,774,012 |
| *41* | **Blair Marine Fueling System** | **—** | **—** | **—** | **$672,218** | **$3,193,037** | **$952,309** | **$784,255** | **$5,601,820** |

**Budget for Construction Phase Activities Associated with the Tacoma LNG Facility (continued)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |  | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **TOTAL** |
| *42* | **Electrical, Instrumentation and Control Systems** | **—** | **—** | **—** | **$3,434,687** | **$16,314,766** | **$4,865,807** | **$4,007,136** | **$28,622,396** |
| *43* | Instrumentation | **—** | **—** | **—** | $1,013,563 | $4,814,424 | $1,435,881 | $1,182,490 | $8,446,358 |
| *44* | Electrical  | **—** | **—** | **—** | $2,397,124 | $11,386,342 | $3,395,927 | $2,796,645 | $19,976,038 |
| *45* | Electrical to Facilities | **—** | **—** | **—** | $24,000 | $114,000 | $34,000 | $28,000 | $200,000 |
| *46* | **Balance of Plant (Utilities, Safety, Security and Telecom)** | **—** | **—** | **—** | **$1,887,125** | **$8,963,844** | **$2,673,427** | **$2,201,646** | **$15,726,042** |
| *47* | Essential Generator | **—** | **—** | **—** | $394,809 | $1,875,341 | $559,312 | $460,610 | $3,290,072 |
| *48* | Flare | **—** | **—** | **—** | $304,165 | $1,444,786 | $430,901 | $354,860 | $2,534,711 |
| *49* | Flare Piping | **—** | **—** | **—** | $987,859 | $4,692,329 | $1,399,467 | $1,152,502 | $8,232,156 |
| *50* | WPG Cooling Exchanger | **—** | **—** | **—** | $111,041 | $527,444 | $157,308 | $129,548 | $925,340 |
| *51* | Instrument Air System | **—** | **—** | **—** | $42,914 | $203,841 | $60,795 | $50,066 | $357,617 |
| *52* | Water Treatment Unit | **—** | **—** | **—** | $46,337 | $220,103 | $65,645 | $54,060 | $386,146 |
| *53* | **Start Up and Commissioning** | **—** | **—** | **—** | **$1,079,729** | **$5,128,712** | **$1,529,616** | **$1,259,684** | **$8,997,740** |
| *54* | **CBI Phase II Credit** | **—** | **—** | **—** | **$(114,000)** | **$(541,500)** | **$(161,500)** | **$(133,000)** | **$(950,000)** |
| *55* | **Project Management & Outside Services** | **—** | **—** | **—** | **—** | **$5,272,000** | **$4,082,000** | **$6,822,000** | **$16,176,000** |
| *56* | PSE Labor | **—** | **—** | **—** | **—** | $960,000 | $960,000 | $3,700,000 | $5,620,000 |
| *57* | Outside Services/QA | **—** | **—** | **—** | **—** | $2,000,000 | $750,000 | $750,000 | $3,500,000 |
| *58* | Rent - Lease | **—** | **—** | **—** | **—** | $1,812,000 | $1,872,000 | $1,872,000 | $5,556,000 |
| *59* | Permitting Support and Mitigation | **—** | **—** | **—** | **—** | $500,000 | $500,000 | $500,000 | $1,500,000 |

**Budget for Construction Phase Activities Associated with the Tacoma LNG Facility (continued)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |  | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **TOTAL** |
| *60* | **Insurance** | **—** | **—** | **—** | **—** | **$320,000** | **$640,000** | **$640,000** | **$1,600,000** |
| *61* | Builders Risk Insurance | **—** | **—** | **—** | **—** | $240,000 | $480,000 | $480,000 | $1,200,000 |
| *62* | Pollution Insurance | **—** | **—** | **—** | **—** | $80,000 | $160,000 | $160,000 | $400,000 |
| *63* | Marine Insurance | **—** | **—** | **—** | **—** | $20,000 | $40,000 | $40,000 | $100,000 |
| *64* | **Plant Sales Tax** | **—** | **—** | **—** | $**1,509,463** | **$6,312,313** | **$5,033,369** | **$2,963,040** | **$15,818,185** |
| *65* | Sales Tax | **—** | **—** | **—** | $1,509,463 | $6,312,313 | $2,783,369 | $963,040 | $11,568,185 |
| *66* | Payment in Lieu of Sales Tax  | **—** | **—** | **—** | **—** | **—** | $2,250,000 | $2,000,000 | $4,250,000 |
| *67* | **Contingency and OH's** | **—** | **—** | **—** | **$4,599,616** | **$18,456,371** | **$6,708,830** | **$2,669,716** | **$32,434,533** |
| *68* | Contingency: 5% on EPC Initial Scope of Work | **—** | **—** | **—** | $1,170,845 | $5,561,512 | $1,658,697 | $1,365,985 | $9,757,039 |
| *69* | Contingency: 20% on Substation and Direct Line to TOTE | **—** | **—** | **—** | **—** | $395,379 | $2,581,515 | **—** | $2,976,894 |
| *70* | Contingency: 50% on Geotech and Demolition | **—** | **—** | **—** | $2,400,000 | $7,600,000 | $500,000 | **—** | $10,500,000 |
| *71* | Construction OH | **—** | **—** | **—** | $1,028,771 | $4,899,480 | $1,968,619 | $1,303,731 | $9,200,601 |
| *72* | **Total ConstructionPhase Costs** | **—** | **—** | **—** | **$34,181,969** | **$158,103,817** | **$63,501,707** | **$41,366,465** | **$297,153,958** |

**Budget for Natural Gas Distribution Upgrades**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |  | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **TOTAL** |
| *73* | Baseline Estimate | $50,674 | $203,060 | $452,417 | $801,433 | $3,783,740 | $28,441,110 | **—** | $33,732,433 |
| *74* | Contingency on Baseline Estimate | **—** | **—** | **—** | **—** | $1,808,499 | $13,593,886 | **—** | $15,402,386 |
| *75* | Permitting Mitigations | **—** | **—** | **—** | **—** | $513,049 | $3,856,422 | **—** | $4,369,471 |
| *76* | **Total Natural Gas Distribution Improvements** | **$50,674** | **$203,060** | **$452,417** | **$801,433** | **$6,105,288** | **$45,891,418** | **—** | **$53,504,290** |

**Total Budget for the Tacoma LNG Project**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |  | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **TOTAL** |
| *77* | Total DevelopmentPhase Costs(Page 1, line 6) | $519,917 | $2,672,299 | $4,742,792 | $5,615,840 | — | — | — | **$13,550,847** |
| *78* | Total ConstructionPhase Costs(Page 5, line 72) | — | — | — | $34,181,969 | $158,103,817 | $63,501,707 | $41,366,465 | **$297,153,958** |
| *79* | Total Natural GasDistribution Improvements(Page 6, line 76) | $50,674 | $203,060 | $452,417 | $801,433 | $6,105,288 | $45,891,418 | — | **$53,504,290** |
| *80* | **Total Tacoma LNGProject Costs** | **$570,591** | **$2,875,359** | **$5,195,209** | **$40,599,242** | **$164,209,105** | **$109,393,125** | **$41,366,465** | **$364,209,096** |

**Total Closing Gross Plant for the Tacoma LNG Project**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   |  | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **TOTAL** |
| *81* | Total Tacoma LNGProject Costs(Page 7, line 80) | $570,591 | $2,875,359 | $5,195,209 | $40,599,242 | $164,209,105 | $109,393,125 | $41,366,465 | $364,209,096 |
| *82* | AFUDC | $22,167 | $157,765 | $483,565 | $2,296,162 | $10,414,669 | $21,815,201 | $25,048,581 | $60,238,111 |
| *83* | AFUDC Reserve | — | — | — | — | $(651,964) | $(1,234,229) | $(1,582,390) | $(3,468,583) |
| *84* | **Total Tacoma LNGProject Closing Gross Plant** | $592,759 | $3,033,123 | $5,678,773 | $42,895,403 | $173,971,811 | $129,974,098 | $64,832,656 | $420,978,623 |