DISTRIBUTION SYSTEM ACTION PLAN (DNG ACTION PLAN)

The Company is currently planning, designing, and constructing several reinforcement and replacement projects on its system. The following is a brief description of the major planned projects for 2017 and beyond.

High Pressure Projects:

Station Projects:

1. <u>LG0012 District Regulator Station, Nibley, Utah:</u> This pressure regulator station is required to alleviate low pressures in the IHP system in Nibley, Utah. The pipeline required to serve the station is 13,200 lf of 8-in diameter pipe. The pipeline begins near U.S. Highway 89 on 3200 S, approximately 3 miles north of Wellsville. The alignment then runs east along 3200 S for approximately 2.5 miles until 3200 S and Main St in Nibley. The Company first discussed this project on page 4-14 of the 2016-2017 IRP. Over the last year high level design including survey and subsurface utility engineering have allowed the Company to refine the project cost estimate. The project is currently in the design phase, and the Company anticipates construction in 2019.

The updated estimated cost for this project is \$4,800,000 with a first-year revenue requirement of \$640,000.

2. TG0006 District Regulator Station, Lehi, Utah: The Company first discussed this project on page 4-15 of the 2017-2018 IRP. The third option presented in the 2017-2018 IRP was chosen due to the cost savings compared to the other options. The project is currently in the construction phase, and the Company anticipates commissioning the station in 2018.

The estimated cost for this project is \$3,200,000 with a first-year revenue requirement of \$427,000.

3. North Temple HP Regulator Station, Salt Lake City, Utah: The Company first discussed this project on page 4-16 of the 2017-2018 IRP. In that report the station number was erroneously identified as WA0085. The correct station ID is WA0045. The project is currently in the planning phase, and the Company anticipates construction in 2019.

The estimated cost for this project is \$3,000,000 with a first-year revenue requirement of \$423,000.

4. Westport Tap Station, Salt Lake City, Utah: The Company first discussed this project on page 4-17 of the 2017-2018 IRP. At the time the Company published the 2017-2018 IRP, the Company indicated that a portion of the project's cost would be offset with customer contributions. That customer was United Parcel Service (UPS) who is currently finishing construction on its distribution center at 380 S 6400 W in Salt Lake City. UPS entered a Facilities Agreement with the Company under which UPS will pay \$2,536,000 for its portion of the station capacity that was driven by its contracted gas usage.

Throughout the design process, the Company elected to design and build the gate station with greater capacity than the UPS load would require in order to serve future growth. Additionally, the station needed to have the capability of delivering 720 psi into the dedicated pipeline for UPS and 354 psi into the pipeline feeding the rest of the area's high-pressure system. This gate station betterment provides a two-way feed for FL55, which is the primary feed for the Salt Lake International Airport, and supports general system growth in the area.

In the 2017-2018 IRP the Company indicated that its portion of the station costs would be \$3,200,000. Due to the increased station complexity described above, the total project cost increased, thus resulting in the Company's portion increasing as well. After the station design was completed and the contractor costs established, the new forecasted total project cost increased to \$7,656,000, with the Company's portion at \$5,120,000. The project is currently in the construction phase, and the Company anticipates commissioning the station in 2018.

The first-year revenue requirement will be \$716,000.

5. Rose Park Gate Station, Salt Lake City, Utah: The Company first discussed this project on page 4-17 of the 2017-2018 IRP, where it was referred to as the North Salt Lake Kern River Gate Station. In an effort to clearly distinguish this project from others, the Company now refers to this project as the "Rose Park Gate Station." One additional clarification to last year's report is that the station will deliver gas into FL33. Property for the station is being acquired at approximately 2200 W 2400 N in Salt Lake City.

In 2017 the Company paid KRGT an initial payment of \$1,500,000 for the construction of a tap and meter facility. The total cost of the KRGT portion of the gate station is estimated to be \$15,800,000, which will be paid between 2017 and 2019. The Company plans to spend \$5,300,000 in 2018 to purchase land, equipment, valves, pipe and fittings, as well as finalize the design and perform shop fabrication on major assemblies for the Company's facilities at the gate station. The Company will spend the balance of the estimated cost in 2019 on final materials, contractor costs, and facility commissioning costs. The Company's facilities related to this project are currently in the design phase, and the Company anticipates construction of those facilities in 2019.

The estimated cost for this project is \$15,800,000 with a first-year revenue requirement of \$2,196,000.

6. <u>TG0007 Regulator Station, Saratoga Springs, Utah:</u> The Company first discussed this project on page 4-18 of the 2017-2018 IRP. The project is currently in the planning phase, and the Company anticipates commissioning the station in 2019.

The estimated cost for this project is \$9,300,000 with a first-year revenue requirement of \$1,297,000.

7. Syracuse Regulator Station, Syracuse, Utah: The residential growth rate in the area west of Bluff Road in northern Davis County has increased in recent years. As farm lands develop with residential and commercial uses, the Company will need to reinforce the IHP distribution system in the area. In order to serve these high-growth areas, the Company must construct a pressure regulator station. The location for the station will be around 3000 W 2700 S in Syracuse. The shortest and most economical pipeline route to bring high pressure gas to the site is to extend an 8-in pipeline 15,600 lf to the south from the current SY0001 station on 150 S and 3000 W in Syracuse. This proposed route would run down 3000 W.

As the Company begins to pursue property acquisition, the exact location of the station and the pipeline route may change. Once the property is purchased and the initial engineering is complete, the Company will provide updated route selection and project costs as part of the IRP Variance Report process. The Company currently estimates that the cost will be approximately \$5,200,000. The Company plans to begin construction in 2020. The first-year revenue requirement will be \$725,000.

- 8. <u>Jamestown Regulator Station</u>, <u>Jamestown</u>, <u>Wyoming</u>: Jamestown is a small community approximately 2.5 miles northwest of Green River in Wyoming. The Company currently serves the town through a one-way feed of 2 miles of IHP main extending from Green River to Jamestown. The Company plans to construct a regulator station in Jamestown to provide redundant feed. However, at present, all of the regulator stations in the area are fed directly from DEQP and the Company does not have odorized HP pipelines in the area that could be extended to Jamestown. Therefore, in order to provide redundancy in the service to Jamestown, the Company plans to install a new regulator station off DEQP's ML133 to the north of Jamestown and extend 6,300 lf of IHP main to the town. The project's construction is anticipated for 2020. The Company is in the early stages of planning. When it has completed its initial analysis, the Company will provide updated routing information and estimated project costs as part of the IRP Variance Report process.
- 9. White Dome Regulator Station, St George, Utah: A large master-planned residential community called White Dome is under construction at the far south end of St. George, Utah. It will likely take 10 years or more to fully develop the planned 10,000 homes and commercial areas. In order to serve this community, the Company must extend its HP system approximately 2 miles south from the current GE0015 station located on River Rd and Commerce Dr. and install a full capacity high-pressure regulator station. As the Company completes its initial review of the project, and determines the most appropriate location for the station, it will provide updates as part of the IRP process in the future. At this time, the Company plans to commence construction in 2021.
- 10. South Bluffdale Regulator station, Bluffdale, Utah: As the Bluffdale area continues to grow, the Company's IHP distribution system has grown southward. Currently, the Company's IHP system is fed and regulator stations are located on the north end of Bluffdale. The Company's modeling shows that IHP pressures have dropped as a result of the increased load. The Company must construct a new district regulator station nearer to the growing load in order to maintain safe and reliable service to the area. The Company is identifying available property and will be analyzing different routes in the near future. Based on development rates and load

growth, the Company anticipates construction of this project to commence in 2022. As the Company establishes viable route options and refines the cost estimate, it will provide updates as part of the IRP process in the future.

Feeder Line Projects:

1. <u>FL 111 Extension, Reliance City, Wyoming</u>: This project is required to reinforce the HP service into Reliance, Wyoming. The current 4-inch diameter HP feed into the area has reached its capacity. The Company considered multiple options for improving system pressures in Reliance. The Company determined a HP reinforcement was necessary rather than IHP reinforcements in order to maintain pressures in the area for the short term and meet future growth.

The route, alternatives and costs were fully described on page 4-19 of the 2017-2018 IRP. The project is currently in the construction phase, and the Company anticipates the pipeline will be in service in 2018.

The estimated cost for this project is \$4,850,000 with a first-year revenue requirement of \$619,000.

2. New Utah State Prison Site, Salt Lake City, Utah: The Utah State Department of Facilities and Construction Management (DFCM) is constructing a new state prison at approximately 7800 west, approximately 3 miles north of I-80 and expects to complete construction in late 2020. The new prison will require natural gas service in 2019. The Company does not currently have any facilities within this area.

The Company's Engineering department has determined that the minimum system required to serve the new prison would be a 4-in high pressure pipeline. The Company believes it is prudent to plan for future growth in this area and therefore plans to construct an 8-in high pressure pipeline to serve the prison's gas needs, and to reinforce the area in anticipation of future growth. The Company estimates the cost to construct the minimum system required by the prison facilities is \$7,783,000. The total cost of the project is \$10,645,000. The Company will bear the approximately \$2,862,000 difference with a first-year revenue requirement of \$372,000.

The project will be constructed in two phases: phase 1 includes 7,700 lf of 8-in pipeline to be constructed in 2018, and phase 2 includes 25,300 lf of 8-in pipeline and a 5,000 lf of a 6-in pipeline lateral to be in service in 2019. The 6-in pipeline lateral included in phase 2 is a company betterment that will provide two-way feed to FL55, which is the primary feed to the Salt Lake City International Airport.

The currently proposed route leaves the new Westport gate station (approx. 5700 W 450 S) heads north along 5600 W, under I-80 to Amelia Earhart Dr, then west to John Glen Rd, then north for 1/3 of a mile, then west for 1.5 miles. From there the route turns north for a mile and then west for a mile along future roads that have yet to be constructed.

The original route alignment left the Westport gate station, went north on 5600 W, but then headed west primarily on the north side of I-80 for 2.75 miles, and then headed north straight up to the prison for 2.5 miles. This route was originally pursued due to it being the most direct route, but after wetlands were delineated, an old land fill was discovered, and the I-80 bore line-up proved difficult, Engineering began looking at alternatives. The currently proposed route has a more feasible I-80 bore and most of the alignment is either in existing roads or future roads. Pipeline footage is comparable on either route.

3. Feeder Line Replacement Program: Pursuant to the Utah Commission's Order approving the Settlement Stipulation in Docket No. 09-057-16, on November 15, 2015 the Company filed an infrastructure replacement plan detailing the planned projects, the anticipated costs and other relevant information. When the original high pressure replacement plan was approved in Docket 13-057-05, it was anticipated that the program would be complete in 2028. Currently, the program is taking longer than anticipated and is currently expected to be complete in 2037. The Company plans to propose to increase the allowed amount of expenditures in the Feeder Line Replacement program in the next General Rate Case.

Southern System Expansion:

1. St George Reinforcement tie, St George, Utah: In order reinforce its HP system to meet the growing demands of St George and the surrounding area the Company has determined it necessary to construct a 12-in pipeline through the north end of the city. The pipeline will begin at the high pressure regulator station WH0030 on Bluff Street and Snow Canyon Drive, will terminate at 3000 E and 450 N, and will be approximately 6.3 miles long. After leaving the WH0030 station, the route will run east on Red Hills parkway until 1680 E, where it will then bore under I-15 and run south to 450 N, then east to 3000 E. The Company will buy a 1.5 acre property near the intersection of 450 N and 3000 E where a pig receiver and interconnect valves with FL71 will be constructed. The total project cost is currently forecasted at \$21,000,000.

The alternative route that the Company considered is a pipeline that begins at the WH0030 station and runs south on Bluff Street for approximately 1.5 miles. It then turns east on 100 S until River Road, then travels northeast until Mall Drive, then south to 450 N, then east to 3000 E. This alternative route had an approximate cost of \$24,000,000. The increased cost is due mainly to the fact that this route requires traffic control and asphalt replacement along the entire alignment. Additionally, the City of St. George discouraged this route because it impacted roads with high traffic volume.

The project is currently in the design phase. The Company anticipates beginning construction in the fall of 2019 and completing in the fall of 2020. The first-year revenue requirement will be \$2,666,000.

 Central 20-in loop, St George, Utah: In order to meet the long-term demand needs of the growing St George community, the Company is planning to construct a 24 mile, 20-in pipeline reinforcement between the Central gate station and the WA0030 Bluff Street highpressure regulator station in St George. This new pipeline will allow the Company to bring more gas from the Central gate station, where FL81 taps into KRGT, and deliver it to the St George high-pressure system.

The new pipeline will "loop" the Company's existing FL 81 by running parallel to the 8-in pipeline along Hwy 18. Given the design parameters of the pipeline project's starting and ending points, there are not any other viable route alternatives. Running cross country in a more direct manner would be challenging and possibly prohibitive from an easement acquisition, permitting, and environmental perspective. The construction costs of the cross-country alternative would be excessive due to the mountainous and rugged terrain. There are not any other roads that directly connect the Central gate station and St George.

The construction of this project will be executed in three phases. Phase 1 will take place between 2021 and 2022 and have an estimated cost of \$36,000,000. Phase 2 will take place between 2023 and 2024 and have an estimated cost of \$36,000,000. The Company anticipates that the remaining phase of this project will occur somewhere between 2026 and 2029 depending on actualized load growth in the area and have an estimated cost of \$46,000,000.

The first-year revenue requirement for Phases 1 and 2 will be \$4,567,000 each.

Preliminary Timeline Summary:

High Pressure Project Summary Table					
(Excluding Feeder Line Replacement)					
Year	Project	Estimated Cost	Revenue Requirement		
2018	TG0006 District Regulator Station	\$3,200,000	\$427,000		
	Westport tap station	\$5,120,000	\$716,000		
	FL111 Extension	\$4,850,000	\$619,000		
2019	LG0012 District Regulator Station	\$4,800,000	\$640,000		
	Rose Park Gate Station	\$15,800,000	\$2,196,000		
	North Temple HP Regulator Station	\$3,000,000	\$423,000		
	TG0007 District Regulator Station	\$9,300,000	\$1,297,000		
	New Utah State Prison Extension	\$2,862,000	\$372,000		
2020	St George Reinforcement Tie	\$21,000,000	\$2,666,000		
	Syracuse District Regulator Station	\$5,200,000	\$725,000		
	Jamestown District Regulator Station	TBD	TBD		

2021	White Dome District Regulator Station	TBD	TBD
2022	Bluffdale District Regulator Station	TBD	TBD
2021- 2024	Central 20-in Loop (Phases 1 and 2)	\$72,000,000	\$9,133,000

Plant Projects:

1. On-System LNG Facility: As discussed in greater detail in the Application and accompanying testimony and exhibits in Docket No. 18-057-03, supply disruptions upstream of the Company's system have become an increasing concern. The Company is also concerned that, in the event of a significant supply disruption, it would be unable to provide safe and reliable service to its customers. Accordingly, the Company has proposed the construction of an on-system LNG facility. This facility would provide a reliable supply source that the Company could call upon in the event of unanticipated supply disruption, line damage, or events caused by forces of nature.

The Company has set forth a detailed analysis of alternatives evaluated, and all of required information set forth in the 2009 IRP Guidelines and the Report and Order in the 2017-2018 IRP process (Docket No. 17-057-12) in the Application accompanying testimony and exhibits in Docket No. 18-057-03. In an effort to avoid inclusion of Highly Confidential information in this IRP, the Company incorporates that analysis by reference. These are also summarized in the "Supply Reliability" section of this IRP.

The Company has obtained an option to purchase property in the western side of the Salt Lake valley and has completed a Front End Engineering and Design (FEED) study on the facility. The proposed facility would include a 15 million gallon LNG storage tank, gas liquefaction capabilities of 8.2 MMcfd, and vaporization capabilities of 150 MMcfd. Detailed information regarding the costs, schedule and comparison with alternatives can be found in the Company's pre-approval application (DEU 18-057-03).

Intermediate High Pressure Projects:

- 1. <u>Belt Main Replacement Program</u>: The Company continued its Belt Main Replacement program in 2018. Pursuant to the Settlement Stipulation of Utah Commission's Order Approving the Settlement Stipulation, in Docket No. 13-057-05, on November 15, 2015 the Company filed an infrastructure replacement plan detailing the planned projects, the anticipated costs and other relevant information.
- 2. <u>Aging Infrastructure Replacement (Not Included in the Infrastructure Rate Adjustment Tracker)</u>: The Company is reviewing the replacement rate of its aging

infrastructure relative to its expected life and may propose to accelerate replacement in the future. At the end of 2016 there was approximately 4,300 miles of preregulatory (pre-1971) steel main and service lines, some dating back to 1929, that are not currently in the Infrastructure Rate Adjustment Tracker. The Company is currently working towards replacing all 58 miles of its 1929 – 1939 steel IHP main in the next 7 years. The Company is concerned that the current rate of replacement may be inadequate.

The Company also has approximately 7,000 miles of Aldyl-A pipe, which is early vintage plastic that has a higher than average leak rate. Because of the higher leak rate, many utilities have targeted programs to replace this type of pipe. The Company is evaluating the best approach to replace this pipe in the future.

Transponder Replacement Program:

On January 6, 2018, the Company provided information to the Commission and interested parties relating to its transponder replacement program. Beginning in 2012, the Company began to experience challenges related to non-responsive transponders. Battery degradation in Elster transponders was resulting in an unacceptably high failure rate, and an increase in estimated customer bills. In order to address the matter, the Company determined that it should replace the Elster transponders with Itron transponders. The only alternatives would be to either continue to replace the Elster transponders as they fail, or to increase manual meter reading. Because neither option would address the problem, the Company opted to replace all of the transponders proactively.

The Company began installing Itron transponders November of 2015. To date the Company has completed replacements for more than half of its customers, including customers located in Tooele, St George, Park City, Moab, Wyoming, Richfield, Cedar City, and Springville. Eagle Mountain customers already had Itron transponders when the Company purchased the system. Bluffdale, Ogden, Salt Lake, Logan, Vernal, and Price remain to be installed. The Company anticipates completing the project by mid-2020 with a total cost of approximately \$70 million. Spending on this project is anticipated to be approximately \$11.6 million in 2018, \$11.6 million in 2019, and \$5 million in 2020 with first-year revenue requirements of \$1,643,000, \$1,643,000 and \$708,000, respectively.