

Adelphia Gateway, LLC
Adelphia Project

DOCKET No. CP18-____-000

Exhibit Z-4

Gas Quality and Interchangeability Chart

Gas Quality Comparison Chart

Pipeline:	<u>Adelphia</u>	<u>Transco</u>	<u>Texas Eastern</u>	<u>Columbia</u>
Total Heating Value	>967 BTU / cubic foot <1,110 BTU / cubic foot	>980 BTU / cubic foot <1,100 BTU / cubic foot	>967 BTU / cubic foot <1,110 BTU / cubic foot	<967 BTU / cubic foot <1,110 BTU / cubic foot
Hydrocarbon Dew Point	No spec	No spec	<15 deg F May accept higher but not exceeding 0.032 GPM of C6+	<25 deg F
Objectionable odors, solid matter, dust, gums, gum-forming constituents, water, etc.	Commercially free	Commercially free	Commercially free	Commercially free
Oxygen	No spec	No spec	<0.1% by volume	<0.02% by volume
CO2 Nitrogen	No spec	No spec	<2.0% by volume N & O2 combined <2.75% N & CO2 combined <4.0%	<1.25% N, CO2, and inert components combined < 4.0%
Hydrogen Sulfide	<.5 grain per 100 cubic feet	<0.3 grain per 100 cubic feet	<.5 grain per 100 cubic feet	<0.25 grain per 100 cubic feet
Sulphur	<20 grains per 100 cubic feet	<20 grains per 100 cubic feet	<5 grains per 100 cubic feet	<2 grain per 100 cubic feet
Temperature	No minimum temp <120 deg F	No minimum temp <120 deg F	No minimum temp <120 deg F	No minimum temp <120 deg F
Water Vapor	<7 pounds per million cubic feet	<7 pounds per million cubic feet	<7 pounds per million cubic feet	<7 pounds per million cubic feet
Wobbe index	No spec	No spec	1,314 to 1,400	1,350 (+/- 4%) to 1,400
Odorant	Pipeline and Customer may agree to odorize gas before delivery to Customer or before delivery to Pipeline, but Pipeline is not obligated to receive such gas if harmful to operations	Shall contain odorant at the point of delivery (w/ exceptions)	Pipeline and Customer may agree to odorize gas before delivery to Customer or before delivery to Pipeline, but Pipeline is not obligated to receive such gas if harmful to operations	Transporter and Shipper may agree to odorize gas before delivery to Shipper.
Composition	No spec	No spec	Ethane and heavier hydrocarbons (C2+) <12% by volume Butanes and heavier hydrocarbons (C4+) <1.5% by volume	No spec