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October 20, 2017

**VIA E-PORTAL FILING**

Ms. Carlotta S. Stauffer  
Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

Re: Docket No. 20170206-GU- Petition for approval of tariff modifications to accommodate receipt and transportation of renewable natural gas from customers, by Peoples Gas System

Dear Ms. Stauffer:

Attached for electronic filing in the above docket on behalf of Peoples Gas System, please find its Response to Staff's First Data Request (Nos. 1-11).

Your assistance in this matter is greatly appreciated.

Sincerely,

Andrew M. Brown

AB/plb

Attachment

cc: Office of Public Counsel  
Ms. Kandi M. Floyd  
Ansley Watson, Jr., Esq.

**PEOPLES GAS SYSTEM  
DOCKET NO. 20170206-GU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 1  
BATES STAMPED PAGES: 1 - 12  
FILED: OCTOBER 20, 2017**

1. Please provide a color copy of the June 6, 2017 Renewable Natural Gas (RNG) presentation given to staff on June 6, 2017.
  - A. See attached.

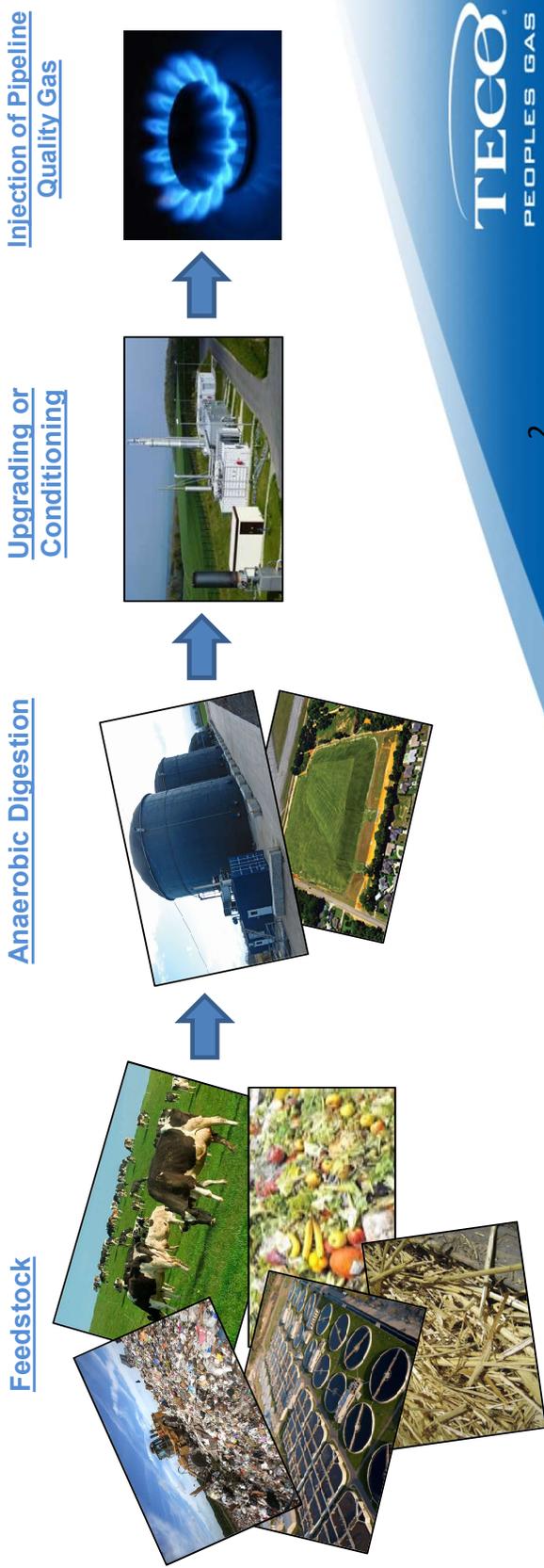
# Renewable Natural Gas

## June 6, 2017



# What is Renewable Natural Gas (RNG)?

- **Pipeline-quality gas** derived from biomass sources that are injected into the pipeline system or direct use to offset pipeline gas.
- Sources of biomass include wastewater treatment plants, landfills, livestock manure, municipal solid waste, agricultural residues, and energy crops
- Renewable Natural Gas has many names: RNG, Biomethane, High Btu gas, and upgraded gas.



# Interesting Statistics

6

Florida ranks **6<sup>th</sup>** in methane production potential from biogas sources (Source: National Renewable Energy Laboratory, Biogas Potential in the United States, 2013)

6

Florida ranks **6<sup>th</sup>** in Total CO<sub>2</sub> Emissions, 4.22% share (Source: U.S. Energy Information Administration, Total Carbon Dioxide Emissions, 2014)

480/350

There are roughly **480** landfills and **350** treatment plants in Florida

56+/48

Currently, there are **56+** RNG Project in the U.S. with **48** direct injection into NG Pipelines (and growing)

25

RNG projects operate or are under construction in **25** U.S. States



# Why consider RNG?

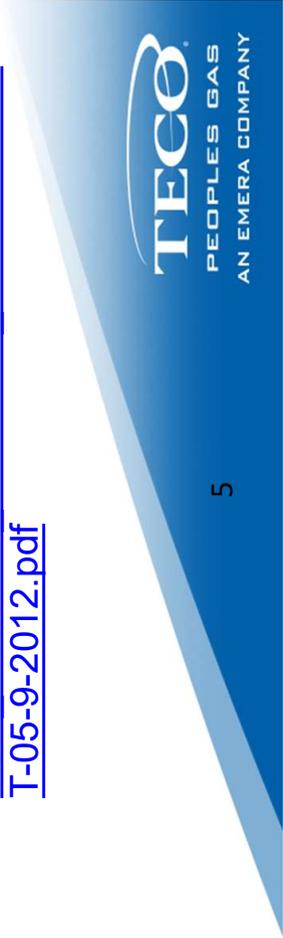
- RNG provides a real option for managing and using local waste resources to produce renewable natural gas.
  - Direct waste reduction
  - Reuse of landfill gas that is currently captured and flared
- RNG is interchangeable with traditional pipeline natural gas, therefore, enhancing diversity of gas supply with a local resources.
- RNG developments in Florida will **stimulate the local economies and create jobs** by the development of a new **renewable energy** industry.
- RNG used in natural gas vehicles enhances the goal of reducing reliance on traditional liquid fuel sources.



# Quality Considerations

- **Gas Technology Institute (GTI) RNG White Paper**
  - Guidance document to identify criteria that should be considered in pipeline injection projects
  - Performed representative testing of 27 high-Btu landfill-derived projects and compared to typical tariff and contract requirements
  - Concluded “that high-Btu landfill-derived renewable gas of high quality may be produced within agreed-upon tolerance specifications for introduction with natural gas supplies”
  - [http://www.gastechnology.org/news/Documents/BiomethaneGuidanceDoc/120007\\_Landfill\\_Guidance\\_Document\\_FINALREPOR T-05-9-2012.pdf](http://www.gastechnology.org/news/Documents/BiomethaneGuidanceDoc/120007_Landfill_Guidance_Document_FINALREPOR T-05-9-2012.pdf)

The image shows the cover of a report from Gas Technology Institute (GTI). The cover features the GTI logo at the top left, which includes the text 'the Energy to Lead' and 'gti.'. Below the logo, the report title is prominently displayed: 'Guidance Document for the Introduction of Landfill-Derived Renewable Gas into Natural Gas Pipelines'. To the left of the title, it specifies 'FINAL REPORT # GTI-12/0007' and 'GTI PROJECT NUMBER 20792'. The cover lists various project investors and the GTI project team. The project investors include Amos Energy Marketing, Cambrian Energy, Shell Energy, Air Liquide, Clean Energy Treaters, Clean Energy Fuels, AGI Resources, Montark Energy, Williams Pipeline, TransCanada, and El Paso Corporation. The GTI project team consists of Alan G. Janos, Karen Crippen, Kristine Wiley, Russell J. Bora, Amanda Harmon, and Monica Ferrer. At the bottom of the cover, the full address of Gas Technology Institute is provided: 1700 S. Mount Prospect Rd., Des Plaines, Illinois 60018, with the website www.gastechnology.org.



# Quality Considerations cont.

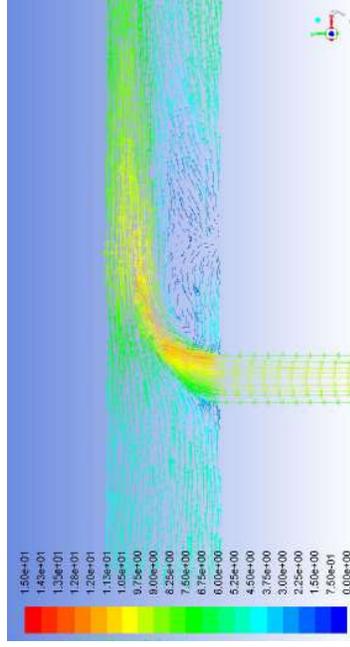
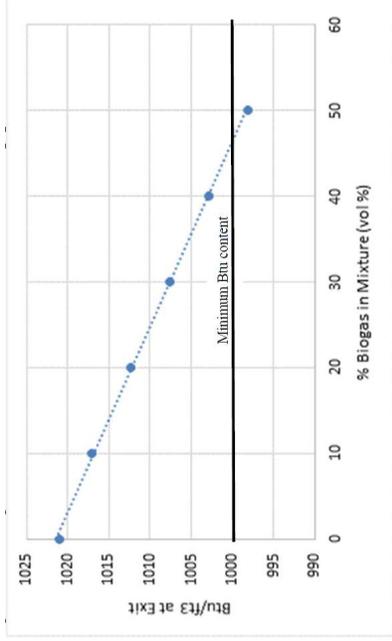
- Pipeline-quality RNG can be achieved
  - Heating Value appears to be the major consideration that can be mitigated by inline blending (preferred method) or propane injection

Parameter	PGS Tariff	Range found in 27 Landfill-Derived RNG Samples <sup>1</sup>	Specifications from potential project
Heating Value (BTU/SCF)	1,000 to 1,075	930 to 1010	967
Total Sulfur (grains per 100 SCF)	20	BDL to 0.3	<20
Hydrogen Sulfide (grains per 100 SCF)	0.25	BDL	<0.25
Carbon dioxide (Vol %)	3.0	BDL to 2.2	1.0
Nitrogen (Vol %)	3.0	0.5 to 6.0	3.0
Oxygen (Vol %)	1.0	0.1 to 0.9	0.4

<sup>1</sup>Source: Guidance Document for the Introduction of Landfill-Derived Renewable Gas into Natural Gas Pipelines, Gas Technologies Institute, May 02,2012

# CFD modeling for RNG inline blending

- **PGS Project-Specific Evaluation**
  - PGS contracted with GTI to perform a Computation Fluid Dynamics (CFD) analysis to understand the effect of blending RNG with pipeline gas
  - Results indicated that a RNG blend of about 47% with pipeline gas achieves 1000 BTU/SCF
  - At max flow, gas streams were fully mixed within ~40 ft (120 pipe diameters for a 4" pipe); the nearest customer is over 1 mile downstream



## Market Drivers

- Market conditions are incentivizing landfill and waste-water treatment owners/operators consider investments in RNG projects:
  - **High RFS and LCFS credit pricing** provide attractive returns to improve projects' feasibilities
  - Provides environmental benefits and demonstrates sustainability by using waste for energy
  - Compliments investments in Compressed Natural Gas (CNG) Projects

# EPA's RFS & California's LCFS

## **EPA Renewable Fuel Standard (RFS)**

- Created under EPCA of 2005 and has set a goal to reach 36 trillion gallons of renewable fuel by 2022 (most of the mandate achieved by ethanol blending)
- Also includes advanced biofuels and cellulosic biofuel, e.g. RNG
- EPA has developed a framework for the creation and trading of credits for obligated parties to meet minimum renewable fuel mandates
- For the creation of RIN credits, RNG must be used as a transportation fuel

10

## **California Low Carbon Fuels Standard (LCFS)**

- Calls for a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020.
- Requires oil refineries and distributors to ensure that the mix of fuel they sell in the Californian market meets the established declining targets for greenhouse gas (GHG)
- Oregon is also implementing a low carbon fuel standard

# Conclusion

- Processed and monitored correctly, **RNG is suitable for pipeline injection.**
- Current market conditions are in place for FL to take advantage of this emerging market.
- Our customers and surrounding communities are requesting pipeline access for RNG projects.
- RNG demonstrates sustainability and provides immediate economic upside to the communities we serve.
- PGS fully expects to bring forward a filing to the PSC in the upcoming months to facilitate the development of RNG projects in Florida.

# Questions



**PEOPLES GAS SYSTEM  
DOCKET NO. 20170206-GU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 2  
BATES STAMPED PAGE: 13  
FILED: OCTOBER 20, 2017**

- 2.** Please refer to paragraph 7 of the petition for the following questions.
- a. This paragraph provides names of Florida government entities which have issued RFPs for waste-to-energy projects, including landfills. On average, how many therms of RNG would a waste-to-energy project, such as a landfill, generate in a year?
  - b. Will Peoples be able to respond to the RFPs issued by local governments if the tariff is approved? Please explain.
  - c. What other entities (other than Peoples) typically respond to an RFP issued by a local government?
  - d. Please explain how the price of the gas would be determined if Peoples were to purchase RNG for its system supply.
- A.**
- a. The size of the projects can vary depending on the size and gas production of the facility. Peoples anticipates projects can range between 50,000 therms and 4,000,000 therms annually.
  - b. Yes. The approval of this tariff will allow Peoples to respond to RFPs from producers or developers whose biogas requires conditioning and will permit PGS to receive gas from customers situated on its distribution system.
  - c. Private developers
  - d. Peoples would seek to purchase the gas at or near the market price similar to other gas purchases that PGS would make for system supply.

**PEOPLES GAS SYSTEM  
DOCKET NO. 20170206-GU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 3  
BATES STAMPED PAGE: 14  
FILED: OCTOBER 20, 2017**

- 3.** Referring to paragraph 9 of the petition, can Renewable Identification Number (RIN) credits be created by companies such as Peoples, who transport RNG? Please explain.
  - A.** No, these credits are not created by transporters of the RNG such as Peoples. RINs are created through a defined pathway (certified by the EPA) and agreement between the RNG producer (owner of the gas) and a CNG (or LNG) station owner that dispenses the fuel into vehicles. Typically, gas transporters do not play a direct role in the RIN creation/generation. There are Quality Assurance Plans (QAPs) detailed by the EPA that validate the RNG production, the pipeline injection to CNG vehicle notional pathway, and the conversion to CNG vehicle fuel.

**PEOPLES GAS SYSTEM  
DOCKET NO. 20170206-GU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 4  
BATES STAMPED PAGE: 15  
FILED: OCTOBER 20, 2017**

- 4.** Referring to paragraph 10 of the petition, please describe the steps needed to cleanup the biogas to pipeline quality.
- A.** The cleanup process can vary and is designed specifically to accommodate the biogas quality and methane content. Biogas cleanup system configurations do vary due to system capacity, inlet gas quality, RNG specifications, and air permit requirements. A typical processing can include the following:
- a) The liquid water in the biogas is separated from the gas
  - b) The biogas is compressed by a blower
  - c) The gas is then cooled for further condensate and trace contaminant removal
  - d) Depending on the biogas quality and RNG specifications, further gas treatment is done via contact with sacrificial media or catalytic systems
  - e) A gas compressor further increases the gas pressure
  - f) Separation of carbon dioxide and other trace contaminants via pressure swing adsorption (PSA), physical absorption (amine or Selexol), or membrane systems
  - g) Nitrogen and oxygen is removed via PSA
  - h) Vacuum pumps regenerate the PSA system and move the separated gas to the thermal oxidizer
  - i) A RNG compressor boosts the RNG to natural gas pipeline pressure
  - j) The RNG is then cooled via a radiator, to ensure pipeline temperature requirements are met
  - k) The RNG is then odorized to meet pipeline RNG requirements
  - l) RNG quality is measured, along with flow and pressure prior to pipeline injection
  - m) A thermal oxidizer combusts the separated gases to ensure air permit compliance
  - n) If needed to meet heating value requirements, propane can be introduced and mixed.
  - o) Prior to injection into the pipeline, the RNG is tested for compliance with the PGS tariff quality requirements. If quality requirements are not met, the RNG is not introduced into PGS' system, but is sent back through steps a-n or sent to a flare for destruction.

**PEOPLES GAS SYSTEM  
DOCKET NO. 20170206-GU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 5  
BATES STAMPED PAGE: 16  
FILED: OCTOBER 20, 2017**

- 5.** Please explain the last sentence in paragraph 14 of the petition (“These new receipt points may or may not be located in areas in which the upcoming gas is needed to serve Peoples’ customers in the same area”). Does this mean that Peoples could build an interconnection with a biogas producer in the service territory of another natural gas utility (investor-owned, municipality, etc.)?
- A.** No. Historically, interconnections with upstream gas supply sources were constructed to serve downstream customer demands. Interconnections with biogas producers would be constructed for injection needs (i.e., to receive rather than deliver gas within the Company’s system). Peoples would have to evaluate each project for the adequacy the system and gas service needs of downstream distribution customers. The sentence in question was not meant to address the issue of whether Peoples could build an interconnection with a biogas producer in the service territory of another natural gas utility (investor-owned, municipality, etc.), and tariff provisions generally do not address such issues. The tariff changes for which approval is sought would not prevent Peoples from building such an interconnection.

**PEOPLES GAS SYSTEM  
DOCKET NO. 20170206-GU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 6  
BATES STAMPED PAGE: 17  
FILED: OCTOBER 20, 2017**

- 6.** Referring to paragraph 15 of the petition, please confirm that the minimum annual delivery of gas into the system by a customer is the 50,000 therm minimum of the GS-3 tariff.
  
- A.** This is correct.

**PEOPLES GAS SYSTEM  
DOCKET NO. 20170206-GU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 7  
BATES STAMPED PAGE: 18  
FILED: OCTOBER 20, 2017**

- 7.** Referring to revised tariff sheet No. 4.101-1, RNG definition (BSP 12), please explain under what conditions “gas produced from agricultural, animal, or municipal or other waste” may not need “further processing” to have the characteristics consistent with Peoples’ standards for gas.
  
- A.** The definition is a broad term that describes gas that meets Peoples’ current quality standards for gas as RNG. Peoples anticipates most biogas will require some type of processing.

**PEOPLES GAS SYSTEM  
DOCKET NO. 20170206-GU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 8  
BATES STAMPED PAGE: 19  
FILED: OCTOBER 20, 2017**

**8.** Exhibit A to the petition (BSP 46) states that a typical cow produces 120 pounds of manure per day. How many pounds of cow manure produce one therm of RNG?

**A.** The source of the statistic was an industry article to which Peoples did not contribute. Peoples has no direct experience with methane or biogas production from cow manure. However, a recent Penn State study found that roughly 4 cows (see calculation below) can produce one therm of RNG per day (<https://extension.psu.edu/biogas-from-manure>). Assuming 120 lbs/day of manure per cow, roughly 480 lbs/day of manure would produce one therm per day. Note that other studies on the subject have been completed and there is a wide range of manure to RNG production rates. Some of the key variables affecting rates include:

- Manure collection method (e.g. flush vs. scrape)
- Anaerobic digestion (AD) technology
- Use of AD co-feeds to boost biogas production
- Biogas to RNG technology and configuration

Using the following table, which yielded 47.5 ft<sup>3</sup>/cow/day of 60% CH<sub>4</sub> biogas:

$$\text{BTU/day} = (47.5 \times 60\% \times 1000 \text{ BTU/scf}) = 28,500 \text{ BTU/day RNG per cow}$$

Converting to therms:

$$\text{Therm/day} = (28,500 \text{ BTU/day} \times 10 \text{ Therm/mmBTU}) \times \text{mmBTU}/1,000,000 \text{ BTU} = 0.285 \text{ Therm per cow per day}$$

$$\sim 4 \text{ cows} \times 0.285 = 1 \text{ therm}$$

PEOPLES GAS SYSTEM  
DOCKET NO. 20170206-GU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 9  
BATES STAMPED PAGE: 20 - 25  
FILED: OCTOBER 20, 2017

9. Please refer to revised tariff sheet No. 5.501-3, section 4 (BSP 15) for the following questions.
- a. Please provide examples of a pipeline companies that might have an FPSC tariff.
  - b. Please define “merchantable.”
- A.
- a. See attached tariff sheets for Florida Division of Chesapeake Utilities and Florida Public Utilities. While not approved by the FPSC, the tariff of Florida Gas Transmission Company has been provided for reference.
  - b. Most definitions are similar. For example, *Salable; of quality and type ordinarily acceptable among vendors and buyers.*

An item is deemed merchantable if it is reasonably fit for the ordinary purposes for which such products are sold. For example, soap is merchantable if it cleans.

See <https://legal-dictionary.thefreedictionary.com/Merchantable>.

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*RULES AND REGULATIONS (Continued)*

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2. Maximum Daily Transportation Quantity (MDTQ)

Company may establish a MDTQ for Gas for one or more Shipper(s) if, in the reasonable opinion of the Company, it is necessary to protect system integrity or to ensure existing Consumers are not adversely affected by Shipper(s) requiring an MDTQ. Company shall not be obligated to transport Consumer-owned Gas above the Shipper's MDTQ, if established, but may do so if feasible and without adverse affect to other Consumers, in the reasonable opinion of the Company.

3. Quality

The quality of Gas delivered by Shipper to the Company shall meet the same specifications as the FERC-approved or Commission-approved tariff requirements of the Transporter connected to Company.

4. Shipper's Delivery Obligations

a. Unless excused by Force Majeure, Shipper shall cause Transporters to deliver on each Gas Day to all Transporter delivery points where Company is the DPO a quantity of Gas sufficient to reliably serve the requirements of its Consumer Pool and off-system customers. Shipper shall have no obligation to deliver Gas to Company on behalf of Consumers whose service is terminated, either upon request of the Consumer or for cause. Company shall promptly notify the Shipper of any known change in Consumer account status that will affect Gas quantity deliveries.

b. If any act or omission of Shipper causes Company, as the DPO, to incur any Transporter penalties, other expenses or liabilities of any kind, Shipper will indemnify and reimburse Company for all said penalties, other expenses or liabilities. Nothing herein shall be deemed to foreclose Company from employing other remedies, including cessation of deliveries for the unauthorized usage of Gas.

K. MUTUALLY BENEFICIAL TRANSACTIONS

Shipper recognizes that Company maintains the operation and integrity of Company distribution system on a daily basis. Shipper also recognizes that as DPO for the interstate pipeline interconnects, Company or its agent is subject to the rules and regulations of the Transporters with regard to operational flow rates, pressures and penalties. As such, Company may need Shipper to vary its daily delivery from the nominated delivery quantities. On those occasions, Company may request, at its sole discretion, and Shipper may agree to, a change to Shipper's nominated Gas supply



GENERAL TERMS AND CONDITIONS

2. QUALITY

- A. Gas delivered by Shipper or for its account into Transporter's pipeline system at receipt points shall conform to the following quality standards:
1. shall be free from objectionable odors, solid matter, dust, gums, and gum forming constituents, or any other substance which might interfere with the merchantability of the gas stream, or cause interference with proper operation of the lines, meters, regulators, or other appliances through which it may flow;
  2. shall contain not more than seven (7) pounds of water vapor per one thousand (1,000) MCF;
  3. shall contain not more than one quarter (1/4) grain of hydrogen sulphide per one hundred (100) cubic feet of gas;
  4. shall contain not more than ten (10) grains of total sulphur per one hundred (100) cubic feet of gas;
  5. shall contain not more than two percent (2%) by volume of carbon dioxide or a combined total three percent (3%) by volume of carbon dioxide and/or nitrogen;
  6. shall contain not more than one quarter percent (1/4%) by volume of oxygen;
  7. shall have a temperature of not more than one hundred twenty (120) degrees Fahrenheit;
  8. shall have a Btu content of not less than one thousand (1000) Btu per cubic foot; and,
  9. shall have no carbon dioxide, oxygen or nitrogen injected as a dilutant.
- B. Gas delivered into Transporter's pipeline system at point(s) of receipt in Transporter's Market Area shall, in addition to the provisions contained in Section 2.A.1 through 2.A.8, conform to the following quality standards:
1. shall have a methane composition of not less than eighty-five (85) mole percent;
  2. shall have an ethane composition of not more than ten (10) mole percent;

3. shall have a combined composition of not more than one and two tenths (1.2) mole percent of isobutane and normal butane and pentanes and heavier hydrocarbons; and a Hydrocarbon Dew point not to exceed 25 degrees Fahrenheit;
4. shall have a minimum temperature, and a physical means to maintain such minimum temperature; such minimum temperature to be determined on a case-by-case basis, considering the pipeline operating conditions at, and downstream of, the receipt location, such as: (i) gas flow and the ability to blend gas streams, (ii) the magnitude of the pressure drop at the point of the interconnection, and (iii) any potentially adverse impact to, or unsafe condition on, Transporter's or customers' facilities downstream of the interconnection, such as those occurring from the receipt of excessively cold gas or liquid hydrocarbon fallout;
5. shall have a Btu content of not more than eleven hundred and ten (1110) Btu per cubic foot;
6. shall have a Wobbe Index absolute limit from 1320 to 1396 (calculated using Higher Heating Value (HHV), dry, under standard conditions at 14.73 psia at 60 degrees Fahrenheit) based on the following mathematical definition and in accordance with Section 4 of these GT&C;

HHV/SQRT SGgas

Where:

HHV = Higher Heating Value (Btu/scf)

SGgas = Specific Gravity

Sqrt = Square Root of

and shall be subject to a limitation on the rate of change of two percent (2%) of Wobbe per six-minute interval; and,

7. shall contain not more than two (2) grains of total sulphur per one hundred (100) cubic feet of gas.
- C. Transporter may refuse to accept any gas which fails to conform with the quality standards itemized in Sections 2.A and 2.B above. Transporter, in its reasonable discretion exercised on a not unduly discriminatory basis, may waive the quality standards for gas delivered into its pipeline system at receipt points, provided that such waiver will not affect Transporter's ability to maintain an acceptable gas quality in its pipeline and adequate service to its customers consistent with the applicable Rate Schedule and these General Terms, including (without limitation) Section 2.D below. Such waiver will not be effective unless in writing and signed by an authorized representative of Transporter.

- D. The gas delivered by Transporter to Shipper shall conform to the following standards:
1. The gas shall be natural gas, or its equivalent as provided for in Section 2.D.3 below, from the sources of supply attached or delivered to Transporter's pipeline system; provided however, that moisture, impurities, helium, natural gasoline, butane, propane, and other hydrocarbons or other substances, may be removed prior to delivery to Shipper. Nothing herein shall restrict Shipper's right to remove any merchantable products prior to delivery into Transporter's system by or for the account of Shipper. Further, nothing herein shall prevent Shipper from making arrangements for the processing of Shipper's gas on Transporter's system (nor, in the event such arrangements are made, from designating a processing plant as the Delivery Point for the MMBtu attributable to processed liquefiabiles). Transporter may subject or permit the subjection of the gas to compression, heating, cooling, cleaning or other processes, which are not substantially detrimental to the merchantability of the gas stream.
  2. To the extent Shippers conform with requirements hereof, the gas shall have a total heating value of not less than one thousand (1000) Btu per cubic foot of dry gas, and be reasonably free of moisture, objectionable liquids and solids so as to be merchantable upon delivery to Shipper, and shall contain not more than two hundred (200) grains of total sulphur, nor more than fifteen (15) grains of hydrogen sulphide, per MCF. The gas may contain an odorant at the point of delivery, but it is the responsibility of the customer to monitor and maintain any required odorant levels after the point of delivery.
  3. Transporter may utilize gas from any standby equipment to effectuate deliveries provided the gas shall be reasonably equivalent to the gas delivered to Transporter by or for the account of Shipper hereunder, and adopted for use by Shipper's consumers without the necessity of making adjustments to fuel-burning equipment.

**PEOPLES GAS SYSTEM  
DOCKET NO. 20170206-GU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 10  
BATES STAMPED PAGE: 26 – 29  
FILED: OCTOBER 20, 2017**

- 10.** For the following questions, please refer to original tariff sheets No. 7.404 and 7.404.1, Monthly Services Charge (BSP 23-24).
- a. Please explain why the monthly services charge is equal to a “mutually agreed percentage multiplied by the Company’s Gross Investment,” rather than the 1.6 percent used for rate schedule NGVS-2.
  - b. Please discuss the factors or considerations that would go into a mutually agreed upon percentage.
  - c. Would a special contract be subject to Commission approval? Please explain.
  - d. How would Peoples decide whether to recover a difference between the otherwise applicable tariff rate and the approved special contract rate through the Competitive Rate Adjustment clause set forth on tariff sheet No. 7.101-5? Please explain.
- A.**
- a. Each project varies in its scope, scale, specific site conditions, and biogas characteristics. Therefore, it would be impossible to determine a monthly services charge that is entirely dependent on the capital cost of the project, or that would “fit” (either for Peoples or the customer) every project. Due to the individuality or uniqueness of each project, negotiation is the only reasonable way to determine the monthly services charge for these types of projects.
  - b. The monthly services charge will be designed to recover Peoples’ revenue requirement. In addition, the services charge would be designed to recover the O&M costs related to the ongoing operations of the RNG processing infrastructure.
  - c. Peoples is, concurrently with the filing of these responses, also filing a revised Rate Schedule RNG, 7.404.1 originally filed in Exhibit A to the petition. As revised, there will be no reference to “special contract,” as it has never been Peoples’ intention to seek approval of a special contract involving the monthly services charge provided by the new rate schedule. Any request by Peoples to the Commission for approval of a special contract would involve the distribution rate to be paid by the customer delivering RNG into the

**PEOPLES GAS SYSTEM  
DOCKET NO. 20170206-GU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 10  
BATES STAMPED PAGE: 27 – 29  
FILED: OCTOBER 20, 2017**

Company's system, and Peoples would expect such a request to be addressed by the Commission in the same manner in which it would address any other special contract. Further, as a result of these changes, the following tariff sheets should be excluded from this filing and remain in the tariff as follows:

Tariff Sheet 7.101-5 will remain as Fifth revised, dated July 25, 2013  
Tariff Sheet 7.101-6 will remain as Fourth revised, dated July 25, 2013

- d. See response to 10 c.

Peoples Gas System  
a Division of Tampa Electric Company  
Original Volume No. 3

Original Sheet No. 7.404-1

**RENEWABLE NATURAL GAS SERVICE (continued)**

If a Customer desires to phase in its deliveries of RNG into Company's system over a period of years the Monthly Services Charge may, in the discretion of Company, be phased-in over the term of the agreement between Customer and Company. The terms of any such phase-in shall be included in the agreement between Customer and Company.

Issued By: T. J. Szelistowski, President  
Issued On:

Effective:

Peoples Gas System  
a Division of Tampa Electric Company  
Original Volume No. 3

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Original Sheet No. 7.404-1

**RENEWABLE NATURAL GAS SERVICE (continued)**

If a Customer desires to phase in its deliveries of RNG into Company's system over a period of years the Monthly Services Charge may, in the discretion of Company, be phased-in over the term of the agreement between Customer and Company. The terms of any such phase-in shall be included in the agreement between Customer and Company.

**PEOPLES GAS SYSTEM  
DOCKET NO. 20170206-GU  
STAFF'S FIRST DATA REQUEST  
REQUEST NO. 11  
BATES STAMPED PAGE: 30  
FILED: OCTOBER 20, 2017**

11. Referring to paragraph 20 of the petition, please discuss the benefits to Peoples' general body of ratepayers of the proposed RNG tariff.
- A. The proposed RNG tariff will allow Peoples to meet customers' needs by providing an option for managing and using local waste resources to produce renewable natural gas. In addition to waste reduction, RNG projects could provide landfill and wastewater treatment operators and owners, typically local counties and municipalities, reduced O&M costs, improved environmental compliance, and new revenue sources for gas streams that currently provide little to no value and which may have detrimental environmental effects. Therefore, RNG developments in Florida can provide opportunities to stimulate local economies and create jobs for a new and emerging industry.

Accepting gas from RNG projects would allow Peoples to leverage its investment in its existing distribution system to serve a new class of customer. RNG is interchangeable with traditional pipeline natural gas, and therefore offers opportunities to enhance diversity of gas supply with RNG obtained from local resources.

RNG used in natural gas vehicles enhances the goal of reducing reliance on traditional liquid fuel sources and provides environmental benefits. According to the Coalition of Renewable Natural Gas, the following emission reductions can be realized for vehicles using RNG instead of diesel.

- 80 to 90 % reduction in NOx
- 99 % reduction in SOx
- 80 % reduction in GHG emissions