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April 4, 2023

ELECTRONIC FILING

Mr. Adam J. Teitzman, Commission Clerk
Office of Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Docket 20230023-GU, Petition for Rate Increase by Peoples Gas System, Inc.

Dear Mr. Teitzman:

Attached for filing on behalf of Peoples Gas System, Inc. in the above-referenced docket is the Direct Testimony of Christian C. Richard and Exhibit No. CCR-1.

Thank you for your assistance in connection with this matter.

(Document 6 of 18)

Sincerely,

A handwritten signature in blue ink, appearing to read 'J. Jeffry Wahlen', with a long horizontal flourish extending to the right.

J. Jeffry Wahlen

cc: Charles J. Rehwinkel, Public Counsel
Jon Moyle, FIPUG
Major Thompson, OGC
Ryan Sandy, OGC

JJW/ne
Attachment



BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 20230023-GU

IN RE: PETITION FOR RATE INCREASE
BY PEOPLES GAS SYSTEM, INC.

PREPARED DIRECT TESTIMONY AND EXHIBIT
OF
CHRISTIAN C. RICHARD

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OF
CHRISTIAN C. RICHARD

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

PREPARED DIRECT TESTIMONY

OF

CHRISTIAN C. RICHARD

POSITION, QUALIFICATIONS AND PURPOSE

Q. Please state your name, address, occupation and employer.

A. My name is Christian C. Richard. I am employed by Peoples Gas System, Inc. ("Peoples" or the "company") as its Vice President of Engineering, Construction and Technology ("ECT"). My business address is 702 North Franklin Street, Tampa, Florida 33602.

Q. Please describe your duties and responsibilities in that position.

A. I am responsible for (1) the design, engineering and construction of the company's transmission and distribution facilities; (2) the company's supply chain management; and (3) information technology ("IT") oversight. I am also responsible for developing annual capital and operating budgets for the ECT area.

1 **Q.** Please summarize your educational background and business
2 experience.

3
4 **A.** I graduated from the University of New Brunswick (New
5 Brunswick, Canada) with a bachelor's degree in engineering in
6 2000 and earned a master's degree in business administration
7 ("MBA") from l'Université de Moncton (New Brunswick, Canada)
8 in 2003.

9
10 I have worked in the utility industry for over 15 years, with
11 seven at an electric utility in New Brunswick, Canada, and
12 eight years in the natural gas sector. I served as General
13 Manager of Emera Brunswick Pipeline in New Brunswick, Canada,
14 and was on the Management Committees of Maritimes and
15 Northeast Pipeline United States and Maritimes and Northeast
16 Pipeline Canada. My work experience also includes managing
17 industrial operations in the forestry sector (sawmills) and
18 the tidal energy sector. I joined Peoples in 2019 as its Vice
19 President-Strategy and assumed my current position in 2022.

20
21 **Q.** Please describe the company's ECT team.

22
23 **A.** Peoples' ECT team consisted of 150 team members as of December
24 31, 2022 and is expected to grow to 191 by December 31, 2024.
25 I will discuss the reasons behind the growth of the ECT team

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later in my direct testimony.

As of December 31, 2022, 146 members of the ECT team were dedicated to designing, engineering, and constructing gas infrastructure and related activities. These activities include maintaining the company's "as built" construction records and its Geographic Information System ("GIS"), integrity management, codes and standards, and gas control, measurement, and regulation.

Three team members currently focus on supply chain management and this team needs to expand to eight by the end of 2023. The supply chain management team oversees the company's procurement process and applies supply chain principles to business processes. Additionally, this team ensures that the company's supply chain principles are followed by outside service providers or contractors working for the company. I discuss specific supply chain management approaches and the drivers for the team expansion later in my direct testimony.

One member of the company's ECT team focuses on IT and serves as a liaison between Peoples and its shared services provider, Tampa Electric Company ("Tampa Electric"), for IT related activities.

1 The ECT team works closely with both the residential and small
2 commercial team and the gas supply and development team.
3 Together we design, engineer, and construct distribution
4 facilities to serve the growing demand from the company's
5 customers. My team also collaborates with the gas operations
6 and safety teams to ensure that the company's system complies
7 with federal and state safety requirements. The ECT and gas
8 operations teams work to identify and mitigate risk across
9 the company's transmission and distribution system while
10 ensuring reliability, resiliency, and efficiency ("RRE").

11
12 **Q.** What role does safety play at Peoples?

13
14 **A.** The safety of Peoples' team members, contractors, customers,
15 and the public is paramount. As the largest local gas
16 distribution company ("LDC") in the state, Peoples seeks to
17 set the standard for LDCs in Florida and beyond. Peoples seeks
18 to lead by example with safety, compliance, and reliable
19 operations with a sharp focus on customer service. Peoples
20 expects its outside contractors adhere to the company's
21 safety standards and devotes resources to ensure that
22 happens.

23
24 Peoples' approach to safety is founded on its Pipeline Safety
25 Management System ("PSMS"), which is based on the American

1 Petroleum Institute's (API) Recommended Practice 1173. The
2 PSMS' 10 elements encompass all facets of safety management
3 for the company's business and promote continuous improvement
4 through a plan, do, check, and act cycle.

5
6 Peoples' witness Timothy O'Connor will discuss the company's
7 efforts to operate safely in his direct testimony. I will
8 discuss ECT's Contract Business Partner Safety Program later
9 in my testimony.

10
11 **Q.** What are the purposes of your prepared direct testimony in
12 this proceeding?

13
14 **A.** The purposes of my direct testimony are to:

15 (1) Explain how the ECT group works with other areas of the
16 company to prudently expand the company's distribution
17 system;

18 (2) Describe the company's supply chain management system
19 and how that system enables the company to procure goods and
20 services at the lowest reasonable cost and greatest value;

21 (3) Explain how Peoples works with Tampa Electric to deliver
22 IT solutions;

23 (4) Describe the capital budgeting and forecasting processes
24 in place in the ECT area and how those feed into the company's
25 overall financial forecasting process;

1 (5) Discuss the residential and small commercial, RRE,
2 legacy pipe, and technology capital projects undertaken by
3 the company since its last general base rate proceeding and
4 why they are prudent; and

5 (6) Demonstrate that the level of ECT operations and
6 maintenance ("O&M") expenses in the company's 2024 projected
7 test year is reasonable and prudent.

8

9 **Q.** Did you prepare an exhibit to support your prepared direct
10 testimony?

11

12 **A.** Yes. Exhibit No. CCR-1, entitled "Exhibit of Christian C.
13 Richard," was prepared under my direction and supervision and
14 accompanies my prepared direct testimony. The contents of my
15 exhibit and the MFR schedules referenced in them were derived
16 from the business records of the company and are true and
17 correct to the best of my knowledge and belief. My exhibit
18 consists of the following documents:

19

20	Document No. 1	List of Minimum Filing Requirement
21		Schedules Sponsored or Co-sponsored by
22		Christian C. Richard
23	Document No. 2	Residential and Small Commercial Capital
24		Spending 2022 to 2024
25	Document No. 3	Work and Asset Management System ("WAM")

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Components and Cost

Document No. 4 IT Project Costs

Document No. 5 Major IT Project Descriptions

DISTRIBUTION SYSTEM EXPANSION AND IMPROVEMENTS

Q. How does the company identify areas where it needs to expand its gas distribution infrastructure?

A. The company identifies the need to expand Peoples' gas distribution system in two ways. First, the company and its sales team collaborate with large residential developers to understand and anticipate potential areas of growth. This collaboration allows the company to plan where, when, and how to expand its gas distribution facilities to meet expected demand from residential and small commercial customers. Second, the company's Gas Supply and Development team works with large commercial and industrial customers, and companies seeking alternative energy solutions, to plan for and meet the demand in these market segments.

Q. How does Peoples identify the need to improve its distribution system?

A. The company identifies the need to improve the RRE of its distribution system on both a day-to-day and long-term

1 planning basis. The Gas Operations and ECT team members (gas
2 control and technical services) work closely to identify
3 facilities in need of replacement and improvement to maintain
4 the safe and reliable operation of the system. Together these
5 teams plan and achieve replacements and upgrades, as
6 necessary.

7
8 The ECT team uses a long-term and risk-based systems planning
9 view to identify larger RRE projects by evaluating system
10 pressures, locating reliability issues and concerns, and
11 forecasting growth through system modeling. RRE projects are
12 primarily designed to enhance the safety and reliability of
13 the natural gas supply to customers. These projects include
14 activities to maintain adequate pressure or flows and ensure
15 the availability of a primary and secondary feed of supply.
16 RRE projects also include construction activities related to
17 mandatory municipal relocation activities.

18
19 **Q.** Please describe the principles that guide the investments the
20 company makes to improve the RRE of its systems.

21
22 **A.** When evaluating potential RRE capital projects, the ECT team
23 focuses on: (1) ensuring the safe and reliable operations
24 that customers expect, (2) being effective and efficient in
25 the design and engineering of pipeline infrastructure, and

1 (3) constructing pipeline facilities to deliver value to
2 customers.

3
4 The company includes safety and reliability considerations in
5 all aspects of engineering, construction and technology from
6 the design and engineering stage to ongoing integrity
7 management. For example, the ECT team continuously evaluates
8 and integrates new construction codes and standards into the
9 company's practices. This allows the company to construct and
10 place new facilities in service using the latest and safest
11 construction practices. This approach facilitates the
12 company's compliance with evolving Pipeline and Hazardous
13 Materials Safety Administration ("PHMSA") and Florida Public
14 Service Commission ("Commission") engineering and
15 construction requirements. The company's Codes and Standards
16 group evaluates and approves the materials used by the company
17 to provide service.

18
19 **Q.** Do the company's engineering, design and construction
20 practices vary depending on whether the project is classified
21 as a growth or RRE project?

22
23 **A.** No. The company builds projects using safe practices and in
24 a cost-effective manner - no matter the size or purpose. This
25 practice extends to contractors used by the company for any

1 project. The size, purpose, and complexity of a project
2 determine whether a project is considered growth or RRE.

3
4 The company uses standard design, engineering and
5 construction practices for its routine operational projects
6 such as small pipeline and lateral extension projects or
7 simple equipment changeouts. These routine projects are
8 performed by the company's team members or outside
9 contractors.

10
11 The projects advanced by the Gas Supply and Development team
12 are typically driven by a customer's specific needs and are
13 larger in scale and more complex. Typically, only a few of
14 these types of projects are active at any given time. The
15 company uses a team of professional project managers to
16 design, engineer and construct these projects. The company
17 uses the same project management approach for large RRE
18 projects.

19
20 **Q.** What other processes and controls does Peoples use for large
21 growth and RRE projects?

22
23 **A.** The company uses more governance, controls and rigor in design
24 and construction for the higher dollar value, large growth,
25 and RRE projects.

1 The company applies a class design estimate process and
2 decision stage-gate approach for larger projects. Classes are
3 ranked from Five to One. As you proceed from Five towards
4 One, each class involves more specificity for the design,
5 engineering, and cost estimate for the project. The (-/+)
6 percentage for each class, is the margin of error in price
7 estimating that considers past similar projects while
8 incorporating the lack of design of the project being scoped.
9 Design and engineering for large projects begins with a Class
10 Five estimate (-70/+90 percent) and, if project economics
11 continue to meet the requirements, design, and engineering
12 advances to a Class Four (-45/+55 percent), Class Three (-
13 30/+40 percent), Class Two (-25/+30 percent), and eventually
14 a Class One estimate (-10/+10 percent), provided all decision
15 stage-gate requirements have been met. A Class One design
16 includes construction drawings, firm pricing and schedules
17 and makes a project ready for construction.

18
19 I will describe the system of management approvals the company
20 applies before beginning construction later in my direct
21 testimony.

22
23 **Q.** How does the company procure the materials, supplies, and
24 contractor support to construct its routine and large
25 projects?

1 **A.** The company uses supply chain management practices for all
2 system growth, RRE projects, and legacy pipe replacement
3 projects described later in my direct testimony. Doing so
4 enables the company to grow and improve the RRE of its
5 distribution infrastructure, and replace legacy pipe, in a
6 safe and efficient manner and at the lowest reasonable cost
7 to the company and its customers.

8

9 **Q.** How does the company apply technology to the assets it
10 constructs to promote safety, RRE?

11

12 **A.** Peoples uses technology to monitor and protect the integrity
13 of its distribution system so it can provide safe and reliable
14 gas to its customers and protect the public.

15

16 PHMSA imposes requirements for asset traceability, asset
17 tracking, mapping, and system monitoring, all of which
18 influence how the company applies technology and the costs of
19 engineering, designing, constructing, and operating its
20 systems.

21

22 Once pipeline assets are placed into service, Peoples uses
23 state-of-the-art barcode tagging and GPS Technologies to
24 capture as-built information. This information is loaded
25 directly into the company's GIS systems to ensure accurate

1 and up-to-date maps and records of assets are maintained.
2 Accurate and timely updates to maps and records promote
3 effective and efficient system operation and maintenance,
4 enable the company to locate its facilities quickly and
5 efficiently, and facilitate routine and emergency repairs.

6
7 The company's Gas Control team uses advanced information
8 technology including its Supervisory Control and Data
9 Acquisition ("SCADA") system to monitor the operating status
10 of the company's gate stations and compressor operations 24
11 hours a day and 365 days a year.

12
13 The company's new Work and Asset Management system ("WAM")
14 will increase productivity, efficiency, and safety by
15 centralizing work in one system. It will also digitalize and
16 standardize manual processes while providing data and process
17 support to enable the company to optimize the efforts of its
18 operations workforce. WAM is described in greater detail
19 later in my direct testimony.

20
21 **Q.** What role does inspection play during construction
22 activities?

23
24 **A.** Peoples uses internal and contracted construction inspectors
25 throughout the construction process on both large

1 (transmission projects) and high-volume work (new services)
2 to ensure construction practices are followed.

3
4 **SUPPLY CHAIN MANAGEMENT**

5 **Q.** What does the term "supply chain management" mean to Peoples?

6
7 **A.** Supply chain management is the active management of supply
8 chain activities to maximize value and support the safe and
9 reliable provision of gas services to the company's
10 customers. It is a way of managing company procurement of
11 goods and services and applies principles to business
12 processes to promote efficiency, manage or reduce costs and
13 avoid supply disruptions.

14
15 **Q.** How has the company historically supported its supply chain
16 activities?

17
18 **A.** Peoples' supply chain activities have historically been
19 supported entirely by the company's affiliate, Tampa
20 Electric, as a shared service. Effective January 1, 2023,
21 Peoples established its supply change management group within
22 the ECT area with three team members. It is necessary to
23 expand to a team of eight by the end of 2023 to enable
24 strategic sourcing of materials and services, provide
25 inventory management functions, and impose governance

1 procedures and controls on all aspects of the company's supply
2 chain system.

3
4 **Q.** Why did the company establish its supply chain management
5 team?

6
7 **A.** Although Tampa Electric has done a good job over the years
8 supporting Peoples' supply chain needs, Peoples chose to
9 establish its own dedicated supply chain management team for
10 the following reasons.

11
12 First, as Peoples' witness Helen J. Wesley explains in her
13 prepared direct testimony, Florida is growing at a remarkable
14 pace and Peoples is growing with it. As a result, Peoples
15 must: (1) invest in new mains, laterals, service lines and
16 meters; (2) hire team members to operate and maintain a
17 growing system; and (3) spend money building, upgrading, and
18 relocating the company's gas distribution infrastructure to
19 accommodate public infrastructure construction. Peoples'
20 growth challenged Tampa Electric's ability to keep pace with
21 the company's supply chain needs.

22
23 Second, the company's supply chain needs are different than
24 Tampa Electric's. Not only do the two companies operate in
25 different geographic areas of Florida, but also in different

1 segments of the utility industry, which means they procure
2 different types of materials, supplies and services. Peoples
3 has key suppliers that were not critical to Tampa Electric
4 and needed to enhance its communications, coordination and
5 working relationship with these suppliers. One example was
6 the need to apply the company's unique gas safety standards
7 to its outside contractors.

8
9 In working with Tampa Electric, Peoples identified two
10 options, namely: (1) Tampa Electric could modify and enhance
11 its supply chain operations to address Peoples' growing and
12 specific needs or (2) Peoples could establish its own supply
13 chain management system. After careful analysis, and to
14 enable Peoples to continue to grow and meet customer demand
15 in the most cost-effective manner, Peoples concluded that
16 establishing its own supply chain management operation was
17 the best option. The company views this move as part of
18 Peoples' natural evolution as described in witness Wesley's
19 direct testimony.

20
21 **Q.** What supply chain management functions will Peoples perform
22 with its new supply chain management team?

23
24 **A.** As previously stated, the expansion of the supply chain
25 management team to eight team members will enable the company

1 to implement several key processes and best practices, such
2 as Category Management, Strategic Sourcing, Total Cost of
3 Ownership and Contractor and Supplier Relationship
4 Management. Transaction-intensive functions like Procure-to-
5 Pay, Master Data and Contractor Lifecycle Management will
6 continue to be provided by Tampa Electric. Its efforts will
7 help optimize the company's capital spending and stewardship
8 of IT resources, which is increasingly important to safe,
9 reliable, and efficient gas operations.

10
11 **Q.** Did Peoples perform a cost-benefit or other business analysis
12 showing that it is prudent for the company to establish its
13 own supply chain management team?

14
15 **A.** Yes. Utilizing a third-party supply chain consulting firm to
16 develop the strategy and business case, the company concluded
17 having its own supply chain management team was most cost
18 effective. The value comes from using supply chain best
19 practices: governance, systems, and processes; contracting;
20 total cost of ownership; strategic sourcing; category
21 management; and supplier relationship management. Peoples
22 will still utilize Tampa Electric's procure-to-pay software
23 system, as well as the shared services provided by Tampa
24 Electric. The new Supply Chain Management function will
25 deliver benefits to the company's customers by maintaining or

1 reducing costs for new construction and cultivating supplier
2 relationships to ensure that projects are done on time and
3 are ready for service within the timeline promised.
4

5 **Q.** What supply chain challenges has the company experienced
6 since its last general base rate proceeding?
7

8 **A.** Global supply chain issues and inflation have not spared the
9 natural gas industry. Peoples has experienced upward cost
10 pressure on materials and labor, shortages of gas meters and
11 higher prices for pipeline materials. The cost to the company
12 of polyethylene (plastic) pipe increased 23 percent and the
13 cost of steel pipe increased by 165 percent from 2020 to 2022.
14

15 The company's contractors who rely on labor to perform
16 services are experiencing the same labor pressures Peoples is
17 experiencing for its internal labor. Those pressures are
18 discussed in the prepared direct testimonies of Peoples'
19 witnesses Donna L. Bluestone and O'Connor and include: (1)
20 general labor market disruptions seen by most industries; (2)
21 changing workforce demographics; and (3) the relative newness
22 and small size of the natural gas industry and the resulting
23 lack of workers in Florida with natural gas experience. These
24 factors make it challenging to recruit skilled talent,
25 require companies to spend more time and money to train

1 inexperienced workers when experienced workers are not
2 available to hire and are causing upward pressure on
3 contractor labor rates.

4
5 The company's new supply chain management team is working
6 diligently to mitigate price increase pressures when
7 contracting for services; however, applying best practices
8 and its diligent efforts may not be sufficient to completely
9 overcome the impacts of rising labor market costs.

10
11 **Q.** What specific supply chain management practices does the
12 company use to ensure that the materials, supplies and
13 services that it uses to serve its customers are procured at
14 the lowest reasonable total cost of ownership?

15
16 **A.** The company's supply chain management team is focused on
17 strategic sourcing, contracting, inventory management and
18 supply chain governance to ensure materials and supplies are
19 contracted to provide the best value for Peoples' customers.

20
21 The company is developing and enhancing its uniform material
22 standards to reduce the different number of items it must
23 purchase and maintain in inventory. This includes the
24 management of more efficient inventory levels across its 14
25 service areas.

1 Peoples competitively bids management of its consolidated
2 material inventory and supply through a centralized material
3 management firm, Vendor Managed Inventory. This approach
4 allows the company to secure necessary construction material
5 resources at pre-established competitive prices.

6
7 The supply chain management team uses competitive sourcing
8 and competitive bidding to procure materials and supplies not
9 normally maintained in inventory and construction services.
10 It is also strengthening its controls over reviewing,
11 approving, and paying vendor invoices. These controls ensure
12 that vendor invoices do not include negative penalties and
13 that the company gets the full benefits of rebates and
14 incentives that are generally available or specified in the
15 company's contracts.

16
17 **INFORMATION TECHNOLOGY**

18 **Q.** What general principles guide the company's use of IT in its
19 operations?

20
21 **A.** Peoples' digitization pursuits include continuous improvement
22 of safety, asset management, business processes and customer
23 experience. Peoples believes the continued investment in
24 technology, such as WAM, will directly serve the company's
25 customers by delivering efficiencies, risk management and

1 enhanced customer service experiences. The partnership
2 between the company's IT shared services provider (Tampa
3 Electric) and the Peoples' operation team ensures that the
4 digital and technology investments align with Peoples'
5 strategic objectives.

6
7 **Q.** How does Peoples obtain IT services?

8
9 **A.** As mentioned previously, Peoples receives most of its IT
10 services on a shared service basis from Tampa Electric, but
11 on limited occasions the company has contracted with third-
12 party vendors for specific, Peoples-focused applications.

13
14 **Q.** What IT services does Tampa Electric provide to Peoples?

15
16 **A.** Tampa Electric provides two general categories of IT services
17 to Peoples.

18
19 The first category can be considered "common" IT services
20 because the same services are provided to both Peoples and
21 Tampa Electric. These services include cybersecurity; IT
22 strategy and leadership; enterprise desktop support; service
23 desk and access administration; application development and
24 support; IT project management; IT infrastructure services
25 (computers, storage, networking, and telecommunications);

1 enterprise resource planning suite support; customer
2 relationship management and billing suite support; IT asset
3 and vendor management; and IT compliance.

4
5 The second category includes procuring or developing and
6 operating Peoples-specific applications the company needs to
7 provide safe and reliable services to its customers. Examples
8 include the company's SCADA system, GIS, MobileGuard and WAM
9 systems that are discussed later in my direct testimony. All
10 these technologies are linked to pipeline safety and
11 compliance, and will promote public safety, efficiency, and
12 environmental stewardship.

13
14 The costs of both categories are directly charged or allocated
15 by Tampa Electric to Peoples according to the company's
16 intercompany agreement. For some of the common services
17 provided by older, legacy systems, Tampa Electric charges
18 Peoples a user fee that covers the capital and O&M expenses
19 associated with the service. For common services provided by
20 newer systems, Tampa Electric incurs the capital and O&M
21 expenses to build or buy, and operate, maintain, and upgrade
22 the system, and allocates a percentage of the related capital
23 and O&M expenses to Peoples. Peoples is charged all the
24 capital and O&M expenses when Tampa Electric provides a
25 Peoples-specific application.

1 **Q.** Please describe the working relationship between Peoples and
2 Tampa Electric for IT services.

3

4 **A.** Tampa Electric has a sophisticated IT organization that
5 provides the backbone for all common and company-specific IT
6 applications to Peoples and Tampa Electric. Within its IT
7 organization, Tampa Electric has eight team members who are
8 dedicated to meeting the IT needs of Peoples. These team
9 members treat Peoples as a client and coordinate their efforts
10 with Peoples through a member of the company's ECT team, who
11 serves as the Peoples IT liaison to Tampa Electric, and the
12 company's Technology Strategy Council ("TSC"). In addition to
13 these eight team members, Tampa Electric's IT organization
14 also provides overarching team member support across all
15 affiliates including Peoples, which the company and its
16 customers benefit from as part of the company's shared service
17 agreement.

18

19 **Q.** What role does cybersecurity play in the company's IT
20 operations?

21

22 **A.** Peoples takes cybersecurity concerns and threats very
23 seriously. The company has a comprehensive cybersecurity
24 program to address its due diligence efforts in this area.
25 Tampa Electric has 13 full time cybersecurity team members

1 dedicated to protecting IT infrastructure that Peoples shares
2 as part of the affiliate shared service model. They follow
3 the National Institute of Standards and Technology ("NIST")
4 prescribed best-practice functions of identify, protect,
5 detect, respond, and recover. Using a defense-in-depth
6 methodology, the program uses a combination of best-of-class
7 technology tools and best practice processes to provide
8 around-the-clock protection and response to the thousands of
9 daily intrusion attempts at the company. The company also
10 implements an IT culture of security, ensures that
11 cybersecurity risks are considered for all services that IT
12 delivers, and embeds risk mitigations into the service
13 delivery.

14
15 **Q.** What is the Technology Strategy Council ("TSC") and what role
16 does it serve for Peoples?

17
18 **A.** Peoples implemented the TSC to guide formal governance and
19 value-driven decision-making for technology investments and
20 is developing a technology strategy for all Peoples
21 technologies, both IT and Operations Technology ("OT"). It
22 consists of Peoples team members from multiple business
23 functions, including finance, gas operations, safety,
24 regulatory, and technology.

25

1 Peoples invests in technology that enhances safety, increases
2 efficiency, and increases customer value.

3
4 The TSC: (1) reviews technology project proposals; (2)
5 evaluates the risks and business/customer value of proposed
6 projects; (3) determines if the need to be met by a proposed
7 project can be met with existing IT or OT resources; (4) works
8 with Tampa Electric's IT team on project and resource
9 prioritizations and implementations; (5) provides oversight
10 on technology capital and O&M spending; and (6) evaluates
11 completed projects to confirm desired results were achieved.

12
13 The TSC's primary goal is to ensure that Peoples continues to
14 invest in value-based technology solutions and team members
15 that enable the business, meet the needs of Peoples'
16 customers, center on value proposed and realized, and support
17 current and future technological capabilities.

18
19 The company's 2022 actual and budgeted 2023 and 2024 capital,
20 including key projects, and O&M spending for technology is
21 described later in my direct testimony.

22
23 **CAPITAL BUDGETING AND FORECASTING**

24 **Q.** How does the company classify capital projects for internal
25 purposes and capital budgeting?

1 **A.** The company classifies capital projects into three groups:
2 (1) growth projects; (2) RRE projects; and (3) legacy pipe
3 replacement projects. Technology projects are considered RRE
4 projects.

5
6 I have previously described how Peoples identifies the need
7 for growth and RRE projects. The legacy pipe program is
8 addressed later in my direct testimony.

9
10 Many larger-scale capital projects have elements of both
11 growth and system sustainability features. All infrastructure
12 expansion and RRE projects consider the company's short and
13 long-term capacity needs. Proper planning ensures that
14 projects are developed and constructed in a timely and cost-
15 effective manner.

16
17 **Q.** How much does Peoples expect to invest in each of these
18 categories from January 1, 2022, to December 31, 2024?

19
20 **A.** As stated in the prepared direct testimony of company witness
21 Rachel B. Parsons, the company expects to invest a total of
22 approximately \$1.1 billion from January 1, 2022, to December
23 31, 2024, in the following ways:

24 (1) \$600.8 million to support customer growth and
25 environmental sustainability, of which \$150 to \$160 million

1 is attributable to major, customer-specific projects;
2 (2) \$404.4 million to enhance RRE; and (3) \$79.5 million
3 to replace legacy pipe.

4
5 **Q.** Which company witnesses will explain why these levels of
6 capital spending and rate base growth are prudent and should
7 be included in rate base for the 2024 projected test year?

8
9 **A.** The capital spending is split as follows among Peoples'
10 witnesses:

11 1. Witness O'Connor will explain \$144.5 million of RRE
12 projects.

13 2. Witness Lew Rutkin, Jr. will explain \$131.2 million of
14 growth projects.

15 3. Witness Karen K. Sparkman will explain \$10.5 million of
16 RRE projects.

17 4. I will explain \$469.6 million of growth projects, \$249.4
18 million of RRE projects and \$79.5 million of legacy pipe
19 projects. I will also describe the capital budgeting process
20 applicable to all infrastructure projects.

21
22 **Q.** Are natural gas system construction costs increasing, and if
23 so, why?

24
25 **A.** Yes, the cost to construct distribution system projects has

1 increased since the company's last general base rate
2 proceeding and is expected to continue increasing due to: (1)
3 higher material costs; (2) strong industry demand for
4 external contractors; (3) governmental, regulatory and
5 compliance requirements, including permitting and
6 maintenance of traffic requirements; (4) higher costs to
7 retire, remove and restore existing plant; and (5) new
8 construction safety protocols and enhanced construction
9 management, inspection, and quality control activities.

10
11 Additionally, new federal regulations issued by PHMSA, and
12 other Transportation Safety Administration ("TSA")
13 requirements have increased the costs of building, operating,
14 and maintaining new facilities and in some cases have required
15 the company to improve existing facilities. The PHMSA
16 regulation, known as the "Mega Rule," is intended to improve
17 pipeline safety by reducing the frequency of pipeline
18 failures. The new TSA rules include enhanced cybersecurity
19 and physical security requirements for pipeline owners and
20 operators. These safety and reliability requirements, and
21 others, have and will continue to increase the costs of
22 constructing new plant, improving existing plant and
23 operating and maintaining the company's distribution system.

24
25 **Q.** What challenges has the company experienced in recruiting new

1 team members and outside contractors for its construction
2 projects?

3
4 **A.** The company's recruitment efforts have been challenged by a
5 very active labor market, especially for technical resources
6 such as engineers, project managers, and other industry
7 specialists. Recruitment for highly technical positions
8 typically requires more time to fill and requires Peoples to
9 recruit out of state, which means the company must compete on
10 salaries with external markets. This puts upward pressure on
11 labor costs. Hiring experienced and technically trained
12 experts directly impacts the safety and reliability of
13 Peoples' gas distribution system.

14
15 Peoples has mitigated its labor market risks for construction
16 projects through long-term contracts with national
17 contractors for new services. However, the company's
18 construction contract partners have shared with Peoples that
19 attracting and retaining labor has been challenging. This has
20 forced them to increase labor rates, which impacts Peoples
21 when contracts expire. Others have requested labor rate
22 increases during the term of a contract.

23
24 The same issue materializes differently for construction
25 contractors working on larger projects. These contractors bid

1 for larger projects on a project-by-project basis, typically
2 travel nationally or regionally for these types of projects,
3 have access to a broader labor market, and reflect national
4 and regional labor market rates in their bids. Peoples
5 considers these labor challenges when it evaluates the
6 business case for potential construction projects.

7
8 **Q.** How did Peoples develop its capital budget for 2023 and the
9 2024 projected test year?

10
11 **A.** The process differs depending on the size and type of the
12 project. Projects designed to serve anticipated new
13 residential and small commercial customers are budgeted
14 differently than large customer and RRE projects.

15
16 **Q.** How does the company budget for growth in residential and
17 small commercial customers?

18
19 **A.** The company budgets the capital costs for the mains, services,
20 meters, regulators, and equipment needed to serve anticipated
21 new residential and small commercial customers by considering
22 the level of anticipated demand identified by its residential
23 and small commercial team as well as customer forecasts
24 provided by external parties such as company witness Eric
25 Fox's customer forecast for 2023 and 2024. The company

1 considers estimates of labor and material price increases and
2 anticipated overall demand estimates by operating service
3 area to budget the capital costs required for the equipment
4 described above to meet the overall customer forecasts.

5
6 Capital budgeting for this type of growth is less project
7 specific, because it is often difficult to predict a year or
8 more in advance which specific residential lots will seek
9 service or where a restaurant will be constructed. The company
10 can, however, reasonably predict the total number of new
11 residential and small commercial connections in future
12 periods and uses those estimates to create a capital plan for
13 serving these kinds of customers. Peoples considers the
14 capacity required to serve development - both short-term and
15 long-term - so it can efficiently plan and construct
16 facilities to serve the growing population and energy demand
17 of Florida.

18
19 **Q.** How does the company budget for large customer and RRE
20 projects?

21
22 **A.** The process for large customer and RRE projects is more
23 complex due to the typically larger dollar values of the
24 projects. For these projects, the process begins by
25 identifying the need (which occurs as previously discussed),

1 developing a preliminary design and cost estimate and
2 evaluating the importance of the project for safety,
3 compliance, reliability, environmental value and supporting
4 growth. The company primarily focuses on whether a large
5 project: (1) is necessary to serve a specific customer need
6 and/ or (2) will be supported by a revenue stream based on a
7 regular or special contract with the customer. Large projects
8 like these may also be considered if they support anticipated
9 demand for residential and small commercial customers. The
10 evaluation process involves the consideration of these
11 varying factors and is accompanied by the process for
12 determining whether large customers are offered tariffed-
13 based pricing or negotiated rates by special contract as
14 described by witness Rutkin.

15
16 Once the projects have been evaluated, the company uses
17 preliminary cost estimates and its rankings to develop a
18 capital budget that reflects a reasonable total amount of
19 capital spending and supports its efforts to provide safe and
20 reliable gas service to customers at fair, just, and
21 reasonable rates. Once a project is included in the capital
22 budget, the ECT team continues to refine the design of the
23 project and its cost estimates using the class estimating and
24 gating process described above until the design of the project
25 and cost estimates are construction ready.

1 Q. How are capital budgets approved?

2

3 A. As described by witness Parsons, the company's capital
4 budgets are approved by senior management annually as part of
5 the overall budget approval process; however, the company has
6 an internal system of management approvals that considers
7 construction, design, costs, safety, risks, and other factors
8 before individual projects are approved for construction. The
9 levels of approval required increase as the dollar value of
10 projects increase.

11

12 Q. Please explain the approval process for the company's higher
13 dollar value projects.

14

15 A. Approval of Peoples' capital projects is governed by TECO
16 Energy procurement policy. All projects above \$5 million must
17 be first reviewed by the Capital Leadership Team ("CLT") that
18 is made up of executives from Peoples, Tampa Electric and
19 Emera that are appointed by the Emera Chief Financial Officer
20 ("CFO"). The CLT works with the project team seeking approval
21 to ensure that the customer benefit and impact, financial
22 analysis and risk assessment used in the evaluation of the
23 project is accurate and complete. The CLT performs its review
24 of the project and ultimately makes a recommendation to the
25 President and CEO of Peoples, TECO Energy's Chief Executive

1 Officer, and the TECO Energy CFO (together referred to as
2 "Company Senior Management"). The Company Senior Management
3 then approves or rejects the project. All company projects
4 over \$10 million must also be approved by the company's board
5 of directors.

6
7 **Q.** How does the company perform the work included in its capital
8 budget?

9
10 **A.** Once capital execution has been approved to proceed, projects
11 are categorized as either Blanket Work, Funding Projects, or
12 Large Projects. The company applies the supply chain
13 management principles and practices previously described in
14 my direct testimony to all three categories.

15
16 Blanket Work refers to service main and service line
17 installation for new residential and commercial customers.
18 This high-volume work has averaged nearly 22,000 services per
19 year during the past three years (i.e., 2020 to 2022) and is
20 typically awarded to construction contractors via fixed unit
21 price multi-year contracts ("blanket contracts"). Company
22 witness Dr. Richard K. Harper discusses the economic
23 conditions, value of natural gas service to the growing
24 population of Florida and customer development of these
25 markets.

1 Funding Projects include distribution projects that exceed a
2 financial threshold of \$500,000 but are less than \$1.5
3 million. The company assigns these projects to a project
4 manager who leads the design, engineering, and construction
5 process. Smaller and less complex projects take advantage of
6 unit prices established in blanket contracts while more
7 complex projects go to market for formal construction bids
8 and proposals.

9
10 For all project types (Growth, RRE, Legacy Replacements and
11 Large Projects), ECT is responsible to complete engineering,
12 construction, and commissioning. The evolving needs of the
13 operations teams in maintaining, ensuring compliance, and
14 serving customers as the company expands its systems are
15 described by witness O'Connor.

16
17 **Q.** Does the company use outside contractors to build capital
18 projects?

19
20 **A.** Yes. Peoples relies on experienced national contractors
21 because it is the most cost-effective way to construct some
22 types of facilities including: (1) the approximately 22,000
23 new services Peoples installs each year and (2) all large
24 construction projects. Experienced contractors have the
25 expertise to ensure that Peoples can execute planned projects

1 safely and in the most cost-effective way. Using outside
2 construction contractors gives Peoples the ability to rapidly
3 increase and decrease the resources applied to construction
4 contracts or shift resources from one geographic area to
5 another based on customer demand. Relying solely on internal
6 labor for construction projects would otherwise limit
7 Peoples' agility to meet customer demand in a cost effective
8 and timely manner.

9
10 **Q.** What policies and procedures does Peoples use to ensure that
11 capital projects are constructed at the lowest reasonable
12 cost?

13
14 **A.** As part of the company's supply chain activities, Peoples
15 competitively sources or bids contractors to perform blanket
16 capital projects and larger construction projects.

17
18 The company uses construction project managers, job-site
19 inspectors, and system-wide project management to monitor
20 construction projects for compliance with construction
21 standards and contractual provisions and to help avoid
22 problems that may cause costly delays before they occur.

23
24 **Q.** How does Peoples manage safety performance of construction
25 activities?

1 **A.** In 2016, Peoples developed a robust construction quality
2 assurance program. The Quality Assurance team performs audits
3 of operational controls, safety programs, and contractor
4 operator qualification programs. This program is designed to
5 ensure continuous improvement and is governed by Peoples'
6 PSMS.

7
8 In 2018, Peoples implemented a Contract Business Partner
9 Safety Program that helps to ensure pipelines are built safely
10 even though this has resulted in an increase to construction
11 costs. This program is designed to ensure that there is
12 adequate oversight of the contractors working on and
13 constructing Peoples' system and reduce costs to customers by
14 mitigating safety incidents.

15
16 Peoples uses a third-party system, ISNetWorld.com, to track
17 and review pertinent contractor documentation (e.g., drug and
18 alcohol plan, safety program participation, insurance
19 certification, etc.) and to verify the contractor's operator
20 qualifications and inspection reports recorded by the
21 company's inspectors.

22
23 Peoples' Safety and Construction Management Departments
24 monitor the inspection reporting for any potential safety
25 issues and respond when needed. Throughout the construction

1 process, inspectors use ISNetWorld.com to confirm that crews
2 working on Peoples' system have appropriate operator
3 qualifications.

4
5 **Q.** What happens when construction projects are completed?

6
7 **A.** The company's accounting department has its own set of
8 processes for closing work orders and recording the project
9 in the company's financial records. From an operations
10 perspective, completed projects are placed under the care of
11 the Operations and Measurement and Regulation Teams when they
12 are placed in service and are monitored by the Gas Control
13 team.

14
15 **CAPITAL PROJECTS**

16 **A. Growth Projects 2022 to 2024**

17 **Q.** How much did the company spend in 2022 on capital projects to
18 serve residential and small commercial customers, and how
19 much does it plan to spend in 2023 and in the 2024 projected
20 test year to serve those customers?

21
22 **A.** The company spent approximately \$174.4 million on capital
23 projects to serve residential and small commercial customers
24 in 2022 and expects to spend approximately \$148.2 and \$147.0
25 million in 2023 and 2024, respectively. The budgeted amounts

1 for 2023 and 2024 were developed using the budgeting process
2 described above. These amounts are based on projected new
3 customer counts, service area growth, historical experience,
4 market conditions, and known residential and commercial
5 developments. A schedule showing the major categories of
6 capital spending in these areas for actual 2022 and forecasted
7 2023 and 2024 is shown on Document No. 2 of my Exhibit No.
8 CCR-1.

9
10 **Q.** Are these levels of spending prudent and should they be
11 included in rate base for the 2024 projected test year?

12
13 **A.** Yes. The levels of capital spending to serve residential and
14 small commercial customers shown on Document No. 2 of my
15 Exhibit No. CCR-1 are needed to serve anticipated demand, are
16 consistent with the level of customer growth reflected in the
17 demand forecast outlined by witness Fox and will be performed
18 as previously described in my direct testimony. The overall
19 spending levels to serve residential and small commercial
20 customers reflects Peoples' view that Florida and the areas
21 served by Peoples will continue to experience strong
22 residential growth as discussed in the direct testimonies of
23 witnesses Harper and Wesley.

24
25 **B. RRE Projects Since Last General Base Rate Proceeding**

1 Q. What major projects has Peoples placed in service to support
2 the distribution system RRE since its last general base rate
3 proceeding?

4
5 A. Four major projects with both growth and RRE elements were
6 under construction and discussed in the company's 2020
7 general base rate proceeding, namely the Jacksonville,
8 Thomas/Baldwin Compressor Station, Southwest Florida, and
9 Panama City projects. These four projects were engineered,
10 designed, and constructed using the processes previously
11 described, are prudent, and should be included in rate base
12 in this proceeding.

13
14 Peoples also completed the Florida Gas Transmission Company
15 ("FGT") to Big Bend project, which is a customer-backed
16 project serving Tampa Electric's Big Bend Power Station and
17 is discussed in the prepared direct testimony of witness
18 Rutkin. The Dade City Connector project, which began at the
19 end of the 2020 general base rate proceeding, was included in
20 the settlement agreement that resolved that case and will be
21 discussed later in my direct testimony as a 2022 to 2024 RRE
22 project.

23
24 Q. Please explain the Jacksonville project.

25

1 **A.** The recent Jacksonville system expansion to meet customer
2 growth and demand resulted in higher inlet pressure
3 requirements and was the primary reason for this capital
4 investment. Peoples completed the Jacksonville project in
5 October 2021. The project expanded the company's Jacksonville
6 system in four areas to provide additional system RRE and
7 serve existing and new customers. The cost of this project
8 was \$66 million and involved adding nine miles of new pipe
9 and uprating 17 miles of existing pipe to a higher maximum
10 operating pressure ("MAOP").

11

12 **Q.** Please describe the Thomas/Baldwin Compressor Project.

13

14 **A.** Like the Jacksonville project, the Thomas/Baldwin Compressor
15 project helped meet Jacksonville inlet pressure requirements
16 to serve the Jacksonville market. The Thomas/Baldwin
17 Compressor Project added a 3,800-horsepower compressor
18 station to the company's system to move approximately 60 to
19 120 MMCFD of gas. The compressor station went in service in
20 April 2021 and cost approximately \$25 million.

21

22 **Q.** Please describe the Southwest Florida project.

23

24 **A.** Southwest Florida is one of the fastest growing areas of the
25 Peoples system. As highlighted by witness Harper, the

1 population growth in Collier and Charlotte Counties in
2 Southwest Florida from 2000 to 2019 has increased by 52.1
3 percent and 30.4 percent, respectively. These increases
4 exceed the U.S. population growth of 17.1 percent for the
5 same period. Additionally, Collier County population growth
6 has exceeded the 34.0 percent population growth of Florida
7 from 2000 to 2019. This growth is contributing to customer
8 demand for natural gas, and this trend is expected to
9 continue.

10
11 The increase in customer demand has caused pressure drops and
12 an associated reliability risk on the South side of the
13 Southwest Florida service area, so Peoples completed the
14 Southwest Florida project in October 2020 to maintain
15 pressures and reliable service. The project expanded Peoples'
16 distribution system to the east and reinforced the Southwest
17 Florida part of Peoples' distribution system by adding a loop
18 from Fort Myers to Naples at a cost of approximately \$47
19 million. The project involved adding 65 miles of mains and
20 was engineered, designed, and constructed using the processes
21 previously described in my direct testimony. The project is
22 prudent and should be included in rate base in this case.

23
24 **Q.** Please describe the Panama City project.
25

1 **A.** Much like Southwest Florida and other parts of the state,
2 Panama City has also experienced significant population
3 growth. Company witness Harper's direct testimony describes
4 the Panama City population growth increase of 26.1 percent
5 between 2000 to 2019, which exceeded the national growth of
6 17.1 percent. The population growth in this period and
7 projected future growth underpins the need for natural gas
8 expansion of the Panama City project. This project was
9 completed in April 2021 and enabled the company to access
10 incremental natural gas capacity to address current and
11 future growth by constructing a line to connect the 18-inch
12 FGT pipeline to the west with the eight-inch FGT pipeline to
13 the east. The cost of this project was \$33 million, and it
14 involved adding 21 miles of mains. It was engineered,
15 designed, and constructed using the processes previously
16 described in my direct testimony. The project is prudent and
17 should be included in rate base in this case.

18

19 **C. RRE Projects from 2022 to 2024**

20 **Q.** What major RRE projects were underway in 2022 and will be
21 placed in service in 2023?

22

23 **A.** There are four major RRE projects and a collection of
24 technology projects, including the company's WAM system. Two
25 of the RRE projects were ongoing in 2022 and will be completed

1 in 2023. Construction on two of the projects will begin in
2 2023 and extend into 2025. A schedule summarizing the projects
3 and their projected capital spending for them from 2022 to
4 2024 is included in Exhibit CCR-1 as Document No. 2.

5
6 **Q.** What major RRE projects were underway in 2022 and will be
7 placed in service in 2023?

8
9 **A.** There are two, the Sumterville-Dade City Connector ("Dade
10 City Connector") project and the WAM project. Both projects
11 will provide important RRE benefits to Peoples and its
12 customers, are being constructed using the processes I
13 previously described in my direct testimony, are prudent, and
14 should be included in rate base for the 2024 projected test
15 year.

16
17 Dade City Connector

18 **Q.** Please describe the Dade City Connector project.

19
20 **A.** The Dade City Connector project is currently under
21 construction and projected to be in service by December 31,
22 2023. This project involves constructing a 30-mile lateral
23 using eight-inch steel pipe. The facilities are being
24 installed mainly in the public rights-of-ways adjacent to US
25 Highway 301 from Dade City to Sumterville, Florida. The

1 pipeline will address capacity and reliability issues in the
2 Ocala service area. As part of the project, the company will
3 install three Main Line Valve sites equidistance along the
4 lateral on fee-owned parcels. The new pipeline will be fed
5 from the Lakeland to Dade City 12-inch pipeline.
6

7 **Q.** How does the Dade City Connector project address the company's
8 capacity needs in its Ocala service area?
9

10 **A.** The Ocala service area has seen significant load growth in
11 the past six years with loads increasing by 28 million therms,
12 or 97 percent, since 2018. In terms of customers, total
13 customer count went from 43,408 in 2018 to 54,583 in 2022 for
14 the Ocala service area. This growth has caused pressure drops
15 in the southern parts of the Ocala service area, which is
16 several miles away from the Ocala main gate station located
17 in the northern part of the Ocala service area. These pressure
18 drops and other day-to-day system balancing and operating
19 challenges are the reasons this project is needed. In short,
20 the company needed the additional capacity to serve the
21 growing Ocala service area.
22

23 **Q.** What are the company's capacity needs in its Ocala service
24 area and how will the Dade City Connector provide the
25 necessary additional capacity?

1 **A.** The current peak demand in the Ocala service area is
2 approximately 38,900 MMBtu/day, and the company's current
3 system is designed to handle approximately 12,500 MMBtu/day.
4 The Dade City Connector will add approximately 33,500
5 MMBtu/day of additional capacity to the Ocala system, thus,
6 raising the Ocala service area's peak capacity to
7 approximately 46,000 MMBtu/day. The incremental load handling
8 capacity of the system will result in better service to
9 existing and new customers across the system. The new capacity
10 will immediately improve system pressure across the Ocala
11 service area.

12
13 **Q.** Did Peoples consider any alternatives to address the
14 increasing demand in its Ocala service area?

15
16 **A.** Yes. Peoples initially considered a new long-term interstate
17 transportation service from FGT and Sabal Trail Transmission
18 ("STT") as a solution to capacity restraints; however, the
19 new cost of this alternative became prohibitive and the
20 resulting rate impact on the company's customers was a
21 concern. This led Peoples to explore other alternatives,
22 including the Dade City Connector project, which ultimately
23 proved to be the lowest cost and best overall long-term
24 solution for customers.

25

1 Q. How will the Dade City Connector project benefit customers?

2

3 A. The Dade City Connector will provide a back-feed to the
4 company's entire Ocala service area and hydraulically connect
5 the Tampa and Ocala service areas. It will provide system
6 hardening to the company's entire distribution system and
7 will bolster the Ocala service area's current capacity which
8 will benefit all customers in the Ocala area.

9

10 The project will also: (1) allow the company to redeploy and
11 repurpose its Pasco Cogen line that formerly served the Pasco
12 Cogen Power Plant; (2) support the safe addition of new
13 customers seeking gas service and will enable existing
14 customers to add high-load appliances, including standby
15 generators, without experiencing gas supply delivery
16 curtailments or limitations; and (3) improve gas service
17 availability in a geographic area with a growing population
18 with increasing energy demand.

19

20 Q. What is the projected total cost of the Dade City Connector
21 project and how does that cost compare to the estimated cost
22 provided by the company in its last general base rate
23 proceeding?

24

25 A. In the 2020 general base rate proceeding, the 2019 cost

1 estimate was approximately \$69 million. With the project
2 being constructed four years later, the estimate for Dade
3 City Connector is now \$79 million. This increased estimate
4 reflects the inflationary pressures of the materials and
5 labor increases experienced by Peoples over that period. The
6 project team continues to work to identify opportunities for
7 cost reduction including cost savings with route selection,
8 the strategic procurement of pipe at lower than estimate
9 pricing, and lower than expected costs from the contractor by
10 using Peoples' bid process, which now incorporates early
11 contractor engagement to ensure greater price certainty.

12
13 WAM

14 **Q.** Please describe the company's WAM project.

15
16 **A.** WAM is a central technology platform used by most utilities
17 to track all aspects of an asset's life including planning,
18 design, construction, use and retirement and provide for safe
19 operations. It facilitates better work planning and
20 execution, centralized management of assets, enhanced
21 customer service and system safety. The company expects its
22 WAM system to deliver efficiency improvements that will
23 support system growth and reduce risks.

24
25 **Q.** How does WAM fit into the company's overall strategy?

1 **A.** The company's strategy revolves around meeting customer
2 demand for safe, clean, and affordable natural gas. The
3 challenge for the company is to determine the best, most cost-
4 effective, and efficient way to meet this demand. Deploying
5 technology is part of that answer. WAM will allow Peoples to
6 use technology to efficiently meet customer demand as Peoples
7 manages an increasingly complex gas system. WAM will enable
8 more effective use of capital and O&M resources through better
9 planning and work management.

10

11 **Q.** What is the projected cost of the WAM system and when will it
12 be in service?

13

14 **A.** The company budgeted the capital portion of the WAM system to
15 cost approximately \$34.4 million, which is reflected in the
16 company's projected rate base for the 2024 projected test
17 year. The project is projected to be completed mid-2023. As
18 of March 31, 2023, all major components were purchased,
19 contracts were place and the project was within budget. The
20 company spent approximately \$12.7 million on WAM in 2022 and
21 expects to spend approximately \$10 million in 2023.

22

23 **Q.** Is the company's projected investment in its WAM system
24 reasonable and prudent?

25

1 **A.** Yes. The WAM system will provide substantial operational,
2 customer service and risk reduction benefits for the company
3 and its customers. It was procured using the company's
4 standard supply chain practices which are designed to ensure
5 that goods and services are purchased at the lowest reasonable
6 cost. WAM systems are considered the industry standard.

7
8 **Q.** How did the company procure the equipment and services for
9 the WAM system?

10
11 **A.** The company ultimately selected SAP as its major software
12 vendor using Deloitte as its system integrator through a
13 technical requirement and needs assessment and a rigorous
14 procurement process that evaluated multiple options. The
15 objective technical review of multiple proposals showed that
16 SAP: (1) offered the most cost-effective and robust solution,
17 (2) is a known industry leader, and (3) integrates well in
18 the Peoples SAP information technology ecosystem. More
19 importantly, SAP's products can be updated and improved as
20 new applications become available. A schedule detailing the
21 major components and projected costs for the company's WAM
22 project by year is included in Document No. 3 of Exhibit No.
23 CCR-1.

24
25 **Q.** How will WAM benefit Peoples' customers?

1 **A.** The WAM system will allow the company to centralize work in
2 one system, eliminating the need for multiple independent
3 niche systems and will serve as the hub for all work including
4 new construction, system reliability and maintenance and
5 compliance. WAM will: reduce the risk associated with
6 multiple niche systems; digitalize and standardize manual
7 processes; and integrate them with existing enterprise
8 financial and customer systems (e.g., ERP and CRB).

9
10 WAM will enable the optimization of work planning, scheduling
11 and dispatch, and better project planning and tracking. In
12 providing a new source of operational data and reporting, WAM
13 will improve decision-making, eliminate manual work, and
14 enable tighter controls.

15
16 These benefits will provide net efficiency gains, mitigate
17 cost increases, reduce risks, and allow Peoples to continue
18 to efficiently grow and meet customer demand for safe and
19 reliable gas service with an exceptional customer experience.

20
21 **Q.** Will WAM result in lower O&M expense in the 2024 projected
22 test year?

23
24 **A.** In time, WAM will generate O&M cost savings and avoidance,
25 but only minimally in the 2024 projected test year. Benefits

1 realizations are expected gradually by year three of
2 operating the system. In 2024, WAM will deliver a
3 technological foundation to gain efficiencies in managing the
4 limited personnel resources, supply chain costs, and other
5 project costs for engineering and construction. Once the
6 infrastructure is fully implemented, WAM will also provide a
7 technological foundation to enhance routing, resource
8 management, and task prioritization efforts described by
9 witness O'Connor. Peoples has operated without a WAM system
10 in the past, but with the expanding customer base, evolving
11 compliance requirements and overall workload challenges, this
12 implementation is the most prudent option to maximize current
13 and future resources using the most current technology.

14
15 **Q.** What major RRE projects are beginning in 2023 and will extend
16 into the 2024 projected test year?

17
18 **A.** There are two, the Tampa City Distribution Trunk and the
19 Downtown Tampa Main projects. Both will be engineered,
20 designed, and constructed using the processes previously
21 described in my direct testimony. Due to the size of these
22 projects and their 2025 in-service dates, they will be
23 eligible to accrue an Allowance for Funds Used During
24 Construction ("AFUDC") and the capital cost will not be
25 included in the company's 2024 projected test year rate base

1 calculation.

2

3 Tampa City Distribution Trunk Project

4 **Q.** Please describe the Tampa City Distribution Trunk project.

5

6 **A.** This project involves using approximately 15 miles of six-
7 inch, 125 pounds per square inch ("psi") of pressure coated
8 steel pipe to form high-pressure trunk line, mainlines which
9 connect at distant points, through the 60-psi large urban
10 Tampa distribution system. The trunk line will connect the
11 high-pressure mainlines at Crest and Hubert Avenues with the
12 Tampa Southwest gate station and the Estuary regulator
13 station. The company will install three to four additional
14 regulator stations off the coated steel pipeline in strategic
15 areas to feed the existing 60 psi distribution system,
16 eliminate pressure issues, and support a significant amount
17 of new demand. Construction of this project is expected to
18 begin in 2023 and end in 2025 and is budgeted to cost
19 approximately \$14 million.

20

21 Tampa Downtown Main Project

22 **Q.** Please describe the Tampa Downtown Main project.

23

24 **A.** This project will replace approximately 12 miles of aging gas
25 main and accompanying service lines in the downtown area of

1 Tampa. The existing pipeline infrastructure consists of steel
2 pipe and some sections of plastic pipe incased in steel pipe
3 under existing sidewalks and pavement which needs to be
4 removed and replaced to ensure proper leak detection.
5 Replacement of these mains will allow operation up to 60 psi
6 and provide better service for increased load in the downtown
7 area. It will also enhance the company's ability to physically
8 locate its assets to facilitate repairs and prevent damages.
9 Construction of this project is expected to begin in 2023 and
10 end in 2025 at a budgeted cost of approximately \$19 million.

11
12 Technology Projects

13 **Q.** Other than for WAM, what amount did the company spend on
14 technology capital projects in 2022, and how much does it
15 expect to spend in 2023 and 2024?

16
17 **A.** The company spent approximately \$9.5 million on technology
18 capital projects in 2022 and has budgeted to spend
19 approximately \$9.0 and \$15.1 million in 2023 and 2024,
20 respectively. These amounts represent either (1) Peoples'
21 share of the capital cost of common IT projects being
22 performed by Tampa Electric or (2) specific projects for
23 Peoples to be executed by Tampa Electric or Peoples. The
24 allocation and attribution process is described earlier in my
25 direct testimony.

1 Q. What are the non-WAM IT projects in 2022, 2023 and 2024?

2

3 A. The company's non-WAM IT project costs for 2022 through 2024
4 are shown on Document No. 4 of Exhibit No. CCR-1. Explanations
5 of the most significant non-WAM IT projects, how they benefit
6 customers and why they are prudent are captured in Document
7 No. 5 of the exhibit.

8

9 Q. Are the non-WAM IT projects for 2022 to 2024 prudent?

10

11 A. Yes. They are needed to provide safe, reliable, and efficient
12 gas service to Peoples' customers. They were or will be
13 procured at the lowest reasonable cost, will benefit Peoples'
14 customers, and should be included in rate base for the
15 company's 2024 projected test year.

16

17 **D. LEGACY PIPE PROJECTS**

18 Q. Please describe Peoples' Cast Iron/Bare Steel Replacement
19 ("CI/BSR") rider program.

20

21 A. Maintaining safe and reliable assets while delivering value
22 to customers is Peoples' primary focus, especially for the
23 ECT group. Like many other utilities in the U.S., Peoples
24 identified legacy assets that required replacement to ensure
25 long-term reliability and system integrity, namely legacy

1 cast iron pipe, bare steel pipe ("CI/BS") and problematic
2 plastic pipe ("PPP").

3
4 In 2012, Peoples began a program to retire and replace all
5 CI/BS pipe from its system through the CI/BSR rider, which
6 was approved by the Commission in Docket No. 20110320-GU, by
7 Order PSC-12-0476-TRF-GU, issued on September 18, 2012. The
8 Commission later approved extending the program to include
9 PPP. The company will continue to minimize safety risks and
10 improve operational reliability for its customers and the
11 public by replacing these high-risk legacy pipes. The CS/BSR
12 program has enhanced the safety of Peoples' distribution
13 system and has reduced methane emissions by mitigating
14 pipeline assets that have a higher prevalence for leaks.

15
16 **Q.** What progress has the company made replacing legacy pipe?

17
18 **A.** By the end of 2023, Peoples will have replaced all but
19 approximately 0.5 miles of CI/BS pipe, or a total of 431
20 miles. The replacement of the remaining 0.5 miles of CI/BS is
21 delayed due to a local government-imposed construction
22 moratorium in place until 2027.

23
24 Peoples removed all remaining low-pressure pipelines, 11
25 miles, from the system as of mid-2019. These low-pressure

1 pipelines were considered high safety risks since there are
2 no added protections (e.g., pressure regulators) installed at
3 the connected customer premises.

4
5 Peoples began replacing PPP on July 1, 2017 and has replaced
6 approximately 528 miles of PPP since that date. By the end of
7 2023, the company will have approximately 239 miles of PPP
8 remaining for replacement. The company expects to complete
9 PPP replacements by 2028.

10
11 **Q.** What amount did the company spend in 2022 to replace CI/BS
12 and PPP pipe, and how much does it expect to spend in 2023
13 and 2024?

14
15 **A.** Peoples spent approximately \$31.3 million for legacy pipe
16 replacement in 2022. It expects to spend \$27.3 and \$20.8
17 million, respectively, in 2023 and 2024. This represents the
18 capital costs associated with replacing a total of 71 and 53
19 miles of legacy pipe in 2023 and 2024, respectively. The
20 company performs work associated with these projects in
21 accordance with the supply chain and other processes
22 described earlier in my direct testimony. This work is needed
23 for safety and is prudent. The company's proposal for
24 recovering the cost of these projects and other CI/BSR
25 projects will be explained by witness Parsons in her prepared

1 direct testimony.

2

3 **TEST YEAR OPERATIONS AND MAINTENANCE EXPENSES**

4 **Q.** What amount of ECT O&M expenses is included in the 2024
5 projected test year and calculation of the company's proposed
6 rate increase?

7

8 **A.** The ECT group is forecasted to incur approximately \$7.1
9 million of O&M attributed in the 2024 projected test year. Of
10 this amount, \$4.4 million is categorized as trended O&M, while
11 \$2.7 million is categorized as not trended O&M. Company
12 witness Parsons addresses trended O&M in her direct testimony
13 and my direct testimony provides explanations for not trended
14 O&M including team member additions.

15

16 **Q.** How does the 2024 not trended O&M expense amount compare to
17 the actual ECT not trended O&M amount in 2022 and 2023, and
18 projected for 2024?

19

20 **A.** The ECT not trended O&M for ECT was \$2.3 million and \$2.7
21 million in 2022 and 2023, respectively. The increase from
22 2023 to 2024 is negligible (less than \$10,000) and the
23 increase over the two-year period of 2022 compared to 2024 is
24 approximately \$400,000, or 18 percent. The major causes of
25 the variance between 2022 and 2024 are attributed to an

1 increase in Distribution Integrity Management Program
2 ("DIMP") costs and IT-related costs including software
3 licensing and WAM support, which are being offset by
4 reductions in Transmission Integrity Management Program
5 ("TIMP") costs and Tampa Electric allocations for Supply
6 Chain.

7
8 Peoples' TIMP O&M remained constant between 2022 and 2023 at
9 \$1.4 million each year due to a levelized accounting
10 treatment approved by the Commission in the company's last
11 general base rate proceeding. As discussed further in the
12 direct testimony of witness Parsons, the term of this approved
13 levelized accounting treatment expires in 2023 and the
14 company proposes continuing the treatment but lowering the
15 O&M to just under \$1 million based on projected TIMP spending
16 for 2024 through 2026. Peoples' O&M spending for the DIMP
17 system is projected to increase from \$27,000 to \$154,000
18 between 2022 and 2023 (and \$157,000 in 2024) due to the
19 introduction of a new DIMP probabilistic risk modeling system
20 to replace the existing index-based risk model.

21
22 Renewal of the Microsoft Enterprise Agreement (EA) will come
23 due in 2023 and into 2024, and increased licensing costs are
24 expected. In addition, WAM maintenance will begin in 2023.
25 Combined, these items add \$334,000 in 2023 and \$341,000 in

1 2024 for vendor license and maintenance costs.

2

3 The WAM-related increase of approximately \$407,000 between
4 2022 and 2023 is primarily caused by a shift from capital to
5 O&M contractor support. The projection for WAM maintenance
6 will slightly increase to approximately \$416,000 as more
7 support is needed and additional releases and enhancements
8 are deployed.

9

10 By implementing its own Supply Chain team, Peoples has reduced
11 its dependency on Tampa Electric. This is evidenced by the
12 reduction of procurement allocation costs of \$839,000 in 2022
13 to around \$374,000 in 2023, with a projected amount of
14 \$382,000 in 2024.

15

16 **Q.** What factors have contributed to the growth in ECT not trended
17 O&M expenses since 2022?

18

19 **A.** Currently, Peoples is making a strategic capital investment
20 into a new DIMP probabilistic risk model system. The new
21 system is scheduled for deployment by end of year 2023, meets
22 PHMSA recommendations and best practices, and will replace
23 the company's current DIMP index-based risk modeling system.
24 Implementation in 2023 will generate an increase in O&M
25 expense for DIMP Risk Analysis and Planning.

1 In 2022, the WAM project deployed its first release to
2 Peoples. This release has produced a shift in contractor
3 project resources from implementation to support and
4 maintenance. This has resulted in a move from capital to O&M
5 in 2023, with continued O&M expense into 2024.

6
7 Additionally, starting in the second half of 2023, Peoples
8 will not be able to capitalize a major portion of the
9 company's existing enterprise agreement with Microsoft.
10 Peoples capitalized the cost of license agreements for prior
11 projects as part previous workstation refresh and server
12 infrastructure capital investments. From these workstation
13 and server investments, Peoples now transitions to support
14 these systems, which also shifts funding to maintenance and
15 compliance efforts. This will move portions of the company's
16 investment from capital to O&M for the EA licensing and
17 maintenance agreement.

18
19 **Q.** Has the company needed to add personnel in the ECT area?

20
21 **A.** Yes. Demand for natural gas as a safe, clean, and reliable
22 source of energy continues to be high in Florida. The value
23 of natural gas coupled with the continued population growth
24 in Florida is projected to result in the addition of over
25 51,000 new customers from 2022 to 2024. This growth, in

1 combination with reliability projects and emerging market
2 projects, notably Renewable Natural Gas ("RNG"), has
3 increased the company's need for team members and outside
4 service providers in the ECT area.

5
6 The company need to add people to its ECT team so it can
7 continue to focus on improving processes and leveraging
8 technologies to better manage an increasingly complex natural
9 gas system, operate safely and reliably, and support the
10 capital portfolio to ensure projects are delivered with value
11 in mind.

12
13 **Q.** Please describe how the ECT team has grown since the company's
14 last general base rate proceeding and its hiring plans through
15 2024?

16
17 **A.** Peoples added 20 additional team members to the ECT team in
18 2022, and as shown on pages 19c through 19e of MFR Schedule
19 G-2, intends to add 33 and eight additional team members in
20 2023 and 2024, respectively. The 41 added personnel are
21 categorized as "operation supervision and engineering" (FERC
22 Account 870), "other expenses (Operations)" (FERC Account
23 880), and "administrative and general salaries" (FERC Account
24 920). It is worth noting that only a fraction of the costs
25 for the added positions for the ECT team result in an O&M

1 impact. Most of the costs relate directly to capital work and
2 will be capitalized as part of the cost of capital projects.

3
4 **Q.** Please describe the roles and responsibilities of the ECT
5 team members the company has and plans to add in 2023 and
6 2024?

7
8 **A.** 28 of the 41 ECT positions to be added between 2023 and 2024
9 are in support of operation supervision and engineering -
10 FERC account 870. These positions will support customer
11 growth (installation of new services), capital management
12 (planning, execution, and governance) and support services
13 (GIS, engineering and design, and system planning).

14
15 Of the 28 new positions for FERC account 870, 17 will support
16 customer growth. These 17 positions include a combination of
17 replacements and new positions. These positions are needed to
18 support the continued growth of new services installed each
19 year including Gas Design Technicians, Construction
20 Inspectors, Gas Design Supervisors and Construction
21 Supervisors.

22
23 Seven of the 28 positions will be members of a new Capital
24 Management Group. The purpose of this group is to reinforce,
25 monitor, and govern capital investment execution to ensure

1 continued customer value. Use of a capital management group
2 is a common utility best practice.

3
4 The balance of the 28 team member additions - FERC account
5 870 support the natural gas system integrity. These four
6 positions will support Peoples expanding and increasingly
7 complex system to ensure safe operations. These positions
8 include Engineers, GIS Technicians, and system modelling
9 personnel. These positions are critical to ensure compliance
10 with regulatory requirements, safe operations, and prudent
11 system planning.

12
13 In addition to the 28 positions supporting FERC account 870,
14 the company plans to add eight team members under FERC account
15 880 - other expenses (Operations) in 2023 and 2024. These
16 personnel will support a growing natural gas system through
17 24hr monitoring of the natural gas system from the Gas Control
18 and Measurement and Regulation teams.

19
20 The remaining five of the 41 ECT additional positions in 2023
21 and 2024 will be included in FERC account 920 - Administrative
22 and General Salaries. These personnel will support delivering
23 greater value to customers through strategic materials and
24 supplies contract management. A portion of the team was
25 established in 2022 with the balance hired or to be hired in

1 2023. The Supply Chain team will ensure strategic contracting
2 and management for Peoples materials and services so Peoples
3 can effectively deliver on its O&M and capital budgets with
4 the best value for customers in mind.

5
6 Finding qualified persons to fill these positions has been a
7 challenge in the current labor market. The current labor
8 market challenges experienced in the ECT area are explained
9 by witness Bluestone in her prepared direct testimony.

10
11 **Q.** What actions has the company taken to control the level of
12 ECT O&M expenses in the 2024 projected test year?

13
14 **A.** With the growth experienced in the past few years, the Peoples
15 system continues to evolve and grow in complexity. To ensure
16 Peoples continues to operate a safe and reliable system while
17 delivering value to customers, the team continues to evaluate
18 and implement opportunities to increase productivity,
19 efficiency and reduce costs. This includes formal process
20 improvement projects, refinement, and implementation of
21 better Key Performance Indicators (KPIs), lessons learned on
22 large projects, implementation of the Supply Chain team to
23 reduce materials and supply costs, and implementation and
24 leveraging of technologies such as GPS and Barcoding,
25 MobilGuard leak detection, WAM, and Integrity Management

1 software.

2

3 **Q.** Is the level of ECT O&M expenses in the 2024 projected test
4 year reasonable?

5

6 **A.** Yes. Positions have been added in areas to support customer
7 demand, better manage a growing capital budget, lower
8 supplies and materials costs, and operate a growing and more
9 complex system. The year-over-year growth in O&M, including
10 2024, is aligned and in support of system growth.

11

12 **SUMMARY**

13 **Q.** Please summarize your prepared direct testimony.

14

15 **A.** Peoples is committed to operating a safe and reliable system
16 while delivering value to customers. Florida's population
17 growth has resulted in greater demand for natural gas. As the
18 company expands its distribution system to meet growing
19 customer demand, the ECT group works with other areas of the
20 company to ensure those commitments are met. The team works
21 with its affiliate service provider, Tampa Electric, to
22 deliver IT solutions that are foundational to delivering
23 safe, reliable, and efficient gas service and an exceptional
24 customer experience for Peoples' customers. Understanding
25 that the increase in demand drives costs, the supply chain

1 management system enables Peoples to secure goods and
2 services at the greatest value and lowest reasonable cost to
3 its customers. The residential and small commercial, RRE,
4 legacy pipe, and technology capital projects undertaken by
5 the company since its last general base rate proceeding and
6 the ECT O&M expenses in the company's 2024 projected test
7 year are reasonable and prudent.
8

9 **Q.** Does this conclude your prepared direct testimony?
10

11 **A.** Yes.
12
13
14
15
16
17
18
19
20
21
22
23
24
25

PEOPLES GAS SYSTEM, INC.
DOCKET NO. 20230023-GU
WITNESS: RICHARD

EXHIBIT

OF

CHRISTIAN C. RICHARD

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PEOPLES GAS SYSTEM, INC.
DOCKET NO. 20230023-GU
EXHIBIT NO. CCR-1
WITNESS: RICHARD
DOCUMENT NO. 1
PAGE 1 OF 1
FILED: 04/04/2023

MINIMUM FILING REQUIREMENT SCHEDULES
SPONSORED OR CO-SPONSORED BY CHRISTIAN C. RICHARD

MFR Schedule	Page No.	MFR Title
C-38	P. 1	O & M Benchmark Variance By Function
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G-1	P. 23	Historic Base Year + 1 - Construction Budget
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G-2	P. 12c	Projected Test Year - Calculation Of Maintenance Expenses
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G-2	P. 19a	Projected Test Year - Total Expenses
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G-2	P. 19c	Projected Test Year - Total Expenses
G-2	P. 19d	Projected Test Year - Total Expenses
G-2	P. 19e	Projected Test Year - Total Expenses
G-6	P. 1-9	Projected Test Year - Major Assumptions

Peoples Gas System, Inc.
Residential and Small Commercial Capital Spending 2022 to 2024
Note: Schedule also includes Capital Spending for Technology
Witness: Christian Richard

Capital Category	Project / Expenditure	2022	2023	2024
Growth	Gas Heat Pump (GHP)	\$ -	\$ 500,000	\$ 125,000
Growth	Main-FGT to Big Bend Lateral Ph2	32,495,819	-	-
Growth	Main-Greater Orlando Aviation Auth	1,118,420	-	-
Growth	Main-Silverleaf Village Developer	1,512,806	-	-
Growth	Measuring and Regulation Station Equipment	4,386,747	4,839,782	7,509,918
Growth	Meters	8,045,118	7,187,832	7,733,200
Growth	Meters and Regulators - Commercial	3,556,869	3,824,180	4,121,817
Growth	Meters and Regulators - Commercial Install	4,302,072	3,064,815	2,970,030
Growth	Meters and Regulators - Residential	2,176,703	1,051,084	964,592
Growth	Meters and Regulators - Residential Install	7,970,356	7,276,605	6,879,736
Growth	New Revenue Mains	43,548,482	56,805,292	55,461,916
Growth	New Revenue Services	61,454,960	62,740,129	60,239,652
Growth	Regulators	1,647,153	905,350	974,000
Growth	Southwest Lakeland Loop	2,200,861	-	-
	Subtotal Growth	\$ 174,416,365	\$ 148,195,068	\$ 146,979,862
Reliability, Resiliency, and Efficiency	Distribution System Improvements	\$ 1,943,101	\$ 13,526,640	\$ 3,358,763
Reliability, Resiliency, and Efficiency	GPS Barcoding Program	-	300,000	300,000
Reliability, Resiliency, and Efficiency	Main Replacements	852,377	5,523,322	3,978,202
Reliability, Resiliency, and Efficiency	Main Replace-Tampa Downtown	-	1,054,546	10,749,999
Reliability, Resiliency, and Efficiency	Measuring and Regulation Station Equipment	436,238	718,000	-
Reliability, Resiliency, and Efficiency	Municipal Improvements	17,589,601	10,834,672	11,492,130
Reliability, Resiliency, and Efficiency	New Revenue Mains	(601,084)	-	-
Reliability, Resiliency, and Efficiency	PGS Project Tampa Building	6,612,085	19,046,042	28,173,525
Reliability, Resiliency, and Efficiency	Sumterville Dade City Connector	12,665,409	46,943,651	-
Reliability, Resiliency, and Efficiency	Tampa City Distribution Trunk	-	120,000	7,138,521
Reliability, Resiliency, and Efficiency	Undetectable Gas Pipes	-	-	4,622,671
Reliability, Resiliency, and Efficiency	Technology Projects - Capital Investment Planning Solution	-	-	1,750,000
Reliability, Resiliency, and Efficiency	Technology Projects - Computers	113,997	120,000	120,000
Reliability, Resiliency, and Efficiency	Technology Projects - Design Tools Upgrade	-	100,000	275,000
Reliability, Resiliency, and Efficiency	Technology Projects - ERP Portfolio Optimization 2024	-	-	639,600
Reliability, Resiliency, and Efficiency	Technology Projects - JANA DIMP Software	-	1,070,597	535,300
Reliability, Resiliency, and Efficiency	Technology Projects - PGAS to FlowCal Migration	-	825,000	-
Reliability, Resiliency, and Efficiency	Technology Projects - PGS Analytics/Feasibility & Power Application	108,627	85,000	-
Reliability, Resiliency, and Efficiency	Technology Projects - PGS Finance SW Projects	28,746	418,600	63,156
Reliability, Resiliency, and Efficiency	Technology Projects - PGS HR SW Projects	170,451	261,489	149,328
Reliability, Resiliency, and Efficiency	Technology Projects - PGS IT SW Projects	1,384,291	753,240	439,400
Reliability, Resiliency, and Efficiency	Technology Projects - Miscellaneous Technology Projects	-	800,000	1,260,000
Reliability, Resiliency, and Efficiency	Technology Projects - SAS/Data Analytics Tool Upgrade	-	200,000	-
Reliability, Resiliency, and Efficiency	Technology Projects - TSA	220,621	848,000	637,500
Reliability, Resiliency, and Efficiency	Technology Projects - WAM Enhancements 2024	-	-	1,500,000
Reliability, Resiliency, and Efficiency	Technology Projects - WAM	12,684,283	9,945,535	-
Reliability, Resiliency, and Efficiency	Technology Projects - Tools & Equipment	119,583	-	-
Reliability, Resiliency, and Efficiency	Technology Projects - Compressor Station Monitoring	242,204	-	-
Reliability, Resiliency, and Efficiency	Technology Projects - Customer Profiles & Retention	167,969	-	-
Reliability, Resiliency, and Efficiency	Technology Projects - FCS Upgrade (Itron)	85,256	-	-
Reliability, Resiliency, and Efficiency	Technology Projects - GIS Upgrade - ESRI - 2020	106,731	-	-
Reliability, Resiliency, and Efficiency	Technology Projects - GMS Upgrade to Quorum	303,768	-	-
Reliability, Resiliency, and Efficiency	Technology Projects - Long Term Forecast (LTF) Model	426,986	-	-
Reliability, Resiliency, and Efficiency	Technology Projects - PC Hardware Upgrade	706,012	-	-
Reliability, Resiliency, and Efficiency	Technology Projects - PGS HR Payroll Optimization	94,428	-	-
Reliability, Resiliency, and Efficiency	Technology Projects - PGS Safety Training Scheduling & Tracking	23,937	-	-
Reliability, Resiliency, and Efficiency	Technology Projects - PGS SAP Procurement Automation	178,725	-	-
Reliability, Resiliency, and Efficiency	Technology Projects - RouteSmart Enhancements	4,548	-	-
Reliability, Resiliency, and Efficiency	Technology Projects - PGS SCADA Replacement Pro	505,999	-	-
Reliability, Resiliency, and Efficiency	Technology Projects - Gas Utility Underground Mapping	-	-	1,500,000
	Subtotal Reliability, Resiliency, and Efficiency	\$ 57,174,888	\$ 113,494,334	\$ 78,683,095
Legacy	CIBS & PPP Replacement	\$ 31,303,625	\$ 27,339,750	\$ 20,844,519
	Subtotal Legacy	\$ 31,303,625	\$ 27,339,750	\$ 20,844,519
Total Witness Richard		\$ 262,894,878	\$ 289,029,151	\$ 246,507,475

Peoples Gas System, Inc.
Work and Asset Management System ("WAM")
Components & Costs

Description	2020	2021	2022	2023	Total
WAM - Hardware	\$ 2,750,000	\$ -	\$ -	\$ -	\$ 2,750,000
WAM - Software	155,558	14,110,000	13,195,000	3,530,000	30,990,558
WAM - Other	-	130,000	130,000	344,500	604,500
	<u>\$ 2,905,558</u>	<u>\$ 14,240,000</u>	<u>\$ 13,325,000</u>	<u>\$ 3,874,500</u>	<u>\$ 34,345,058</u>

<i>Technology Projects</i>	<i>2022 Actuals</i>
<i>Blanket ⁽¹⁾</i>	\$525,013.58
<i>PGS Work and Asset Management Solution</i>	\$10,636,300.91
<i>PGS Technology Projects ⁽²⁾</i>	\$ -
<i>IT&T ⁽³⁾</i>	\$2,562,652.40
<i>Customer Experience</i>	\$4,161,098.82
<i>SAS/Data Analytics Tool Upgrade⁽⁴⁾</i>	\$ -
<i>COMPUTERS - Statewide PC Purch.</i>	\$113,996.64
<i>FCS Upgrade (Itron)</i>	\$85,256.22
<i>GIS ESRI Upgrades</i>	\$106,731.01
<i>PGS Analytics/Feasibility & Pwr App</i>	\$108,627.43
<i>PGS Safety Training Schdlnng & Trck</i>	\$23,936.62
<i>Compressor Station Monitoring</i>	\$242,203.96
<i>GMS Upgrade to Quorum</i>	\$303,767.91
<i>RouteSmart Enhancements</i>	\$4,548.29
<i>SOFTWARE PGS SCADA Replacement Pro</i>	\$505,999.15
<i>TSA</i>	\$220,620.61
<i>Long Term Forecast (LTF) Model</i>	\$426,985.76
<i>Barcoding GPS Handheld Readers</i>	\$119,582.70
<i>Grand Total</i>	\$20,147,322.01

1. Blanket (\$6.0 million) - Blanket capital dollars used to fund approved Customer Experience, IT&T and Peoples Gas technology projects through a combined bucket of dollars rather than individual budgeted line items. Efforts included in the 2022 blanket are IT&T software projects, IT&T business projects, and PGS technology capital project. Some of the projects included in 2022 bucket are Barcode PGS Readers, SCADA Replacement, GMS Upgrade, Statewide PC Purchases, Itron Upgrade, GIS Upgrade.
2. PGS Technology Projects (\$1.26 million) - Annual technology capital strategy funding to enable and support PGS business strategy. 2022 investment was used towards Customer Profiles and Retention (TPI), Analytics/Feasibility & PowerApps (Business Development), Safety Training, Scheduling and Tracking (Regulatory and Safety), Long Term Forecast Model (Business Planning). Remaining dollars were adjusted as part of PGS Q1F capital savings effort.
3. IT&T (\$2.56MM) - IT&T efforts include:
 - a. IT Software Projects (\$1.38 million) - These include optimizations and enhancements to corporate SAP and business solutions. Majority of the costs are due to ERP enhancements and hardware refresh, Portal & SharePoint enhancements, OpenText upgrades

- b. PC and IT Infrastructure Hardware Upgrade (\$706,000) - Project was budgeted for 2022. Funds are not included in blanket like other IT&T efforts.
 - c. Finance, Human Resources, and Procurement Automation projects (\$472,100)
4. SAS/Data Analytics Tool Upgrade (\$200,000) - PGS Technology Project that was delayed to 2023.

Year 2023

<i>Projects</i>	Proposed Budget
<i>Blanket</i>	\$633,966.33
<i>PGS Work and Asset Management Solut</i>	\$9,945,535.00
<i>Customer Experience⁽¹⁾</i>	\$2,892,500.00
<i>TSA⁽²⁾</i>	\$848,000.00
<i>IT&T⁽³⁾</i>	\$1,433,329.00
<i>JANA DIMP Software</i>	\$1,070,597.00
<i>PGAS to FlowCal Migration</i>	\$825,000.00
<i>PGS Technology Projects</i>	\$800,000.00
<i>SAS/Data Analytics Tool Upgrade</i>	\$200,000.00
<i>COMPUTERS - Statewide PC Purchases</i>	\$120,000.00
<i>Design Tools Upgrade</i>	\$100,000.00
<i>PGS Analytics/Feasibility & Pwr App</i>	\$85,000.00
<i>Grand Total</i>	\$18,953,927.33

1. Customer Experience (\$2.9 million) - Peoples Gas partners with the TEC Customer Experience team as part of the TECO affiliate shared services.
2. TSA (\$848,000) - To meet the directives and recommendations from the United States Transportation Security Administration, Peoples Gas will invest in efforts to harden the security of our remote devices, enable remote administration and control of RTUs and modems, and deploy access control CCTV network video recorders. These projects are to ensure that Peoples Gas remains in compliance with federal mandates.
3. IT&T (\$1.4 million) - Peoples portion of shared and split 2023 projects with the TEC IT&T team includes upgraded, optimization and enhancement efforts to support our corporate Procurement, Finance / Accounting, and HR business functions.

Year 2024

<i>Projects</i>	Proposed Budget
<i>Blanket</i>	\$410,896.96
<i>Customer Experience⁽¹⁾</i>	\$3,448,500.00
<i>PGS Advanced Gas Metering⁽²⁾</i>	\$1,200,000.00
<i>AMI Pilot⁽²⁾</i>	\$1,000,000.00
<i>Capital Investment Planning Solution</i>	\$1,750,000.00
<i>PGS WAM Enhancements</i>	\$1,500,000.00
<i>Gas Utility Underground Mapping</i>	\$1,500,000.00
<i>IT&T⁽³⁾</i>	\$1,141,484.00
<i>PGS Technology Projects</i>	\$1,260,000.00
<i>TSA⁽⁴⁾</i>	\$637,500.00
<i>JANA DIMP Software</i>	\$535,300.00
<i>GIS ESRI Upgrades⁽⁵⁾</i>	\$275,000.00
<i>GPS Upgrade⁽⁵⁾</i>	\$200,000.00
<i>ITS Upgrade</i>	\$150,000.00
<i>COMPUTERS - Statewide PC Purchases</i>	\$120,000.00
Grand Total	\$15,128,680.96

1. Customer Experience (\$3.5 million) – Peoples Gas partners with the TEC Customer Experience team as part of the TECO affiliate shared services.
2. Peoples Advanced Gas Metering and AMI Pilot (\$2.2 million Combined) – This investment is in support of Gas Operations’ ability to pilot advanced metering infrastructure (AMI) including piloted meters and IT infrastructure to capture and store remote meter reading measurements and integration with Peoples Gas billing processes of the piloted group.
3. IT&T (\$1.41 million) – Peoples portion of shared and split 2024 projects with the TEC IT&T team includes upgraded, optimization and enhancement efforts to support our corporate Procurement, Finance / Accounting, and HR business functions.
4. TSA (\$638,000) – To meet the directives and recommendations from the United States Transportation Security Administration, Peoples Gas will continue their efforts in deploying access control CCTV network video recorders 2024. These projects are to ensure that Peoples Gas remains in compliance with federal mandates.

5. GIS ESRI and GPS Upgrades (\$475,000 combined) - Peoples Gas GIS and GPS systems have given PGS the ability to geospatial tag assets for improved asset location and spatial information. This information reduces risk and improves on asset management and safety capabilities. To further improve on our geospatial capabilities, Peoples Gas will look to upgrade and enhance our systems to ensure they are in compliance and can meet our customer and asset growth potential.

SCADA: Peoples has invested in the modernization of our Supervisory Control and Data Acquisition (SCADA) system to allow our Gas Control area to automatically switch over to a secondary connected path in the event of a disruption to our primary systems. This significantly decreased the time it takes to re-establish critical visibility and control of our gas systems down to seconds from up to an hour using the previous manual processes.

Geographical Information System (GIS) and handheld barcode scanners: This technology has allowed us to mitigate risks and improve safety as assets are identified, geo-located, and information is sent to our GIS system. Furthermore, this information is used to identify and quickly locate assets that are due for replacement or need maintenance.

MobileGuard: This technology continues to provide significant benefits to our leak detection efforts. This highly sensitive data collection technology allows Peoples to detect and monitor methane and ethane levels in an area. Having this technology within a vehicle allows Peoples to readily investigate potential moderate to large gas leaks in virtually any given location.

Together, GIS and MobileGuard support Peoples' continued focus on incident prevention, inspection and monitoring, replacement of obsolete materials, and hardening our management of gas distribution.

Quorum FLOWCAL System: This technology allows Peoples to substantially improve our gas measurement processes by utilizing a measurement data system that reduces manual processes for BTU calculations and improves measurement data imports and processing through standardized data structure and automation. This will result in improved gas volume data integrity and more accurate customer billing.

Additional benefits include increased efficiency through automation, utilization of industry standards in data structure and management, single source of volume measurement data, easily identifiable exceptions and flow abnormalities, and improvements in predictive analytics on customer growth and trends.

JANA DIMP: This technology provides Peoples with a probabilistic risk modeling solution for Gas Distribution Integrity Management Program (DIMP) and crossbores. The change from the existing risk modeling approach will allow Peoples' Integrity Management team to better plan

inspections, repairs, and replacements on a risk-cost optimized basis. This pipeline risk modeling standard has been supported by gas operators and regulators and meets the US Department of Transportation's PHMSA best practice recommendations. Additional benefits include the ability to visualize and quantify risk and allows for annual data consolidation and model tuning to ensure modeling accuracy for future decision-making capabilities.

Gas Utility Underground Mapping: To further enhance Peoples' safety and risk management, investment in improvements to our underground pipeline identification and mapping capabilities is key to minimizing risk, damages, costs, and delays. Peoples planned investments in subsurface gas pipeline utility mapping capabilities allows Peoples to map underground or inaccessible pipelines where traditional location processes have limitations. With integration into Peoples' GIS, WAM, and DIMP solutions Peoples will have the ability to: (1) view As-Built vs As-Planned mapping on the location of underground utility pipelines, (2) improve data analysis and reporting capabilities on utility pipelines, (3) make well-informed decisions using geospatial information, (4) further minimize risks to life, property, and cost due to unknown and accidental damage to various utilities near the excavation site, (5) further minimize damage incidents due to location

errors, incorrect/inaccurate maps or record data, invalid or missing markings, abandoned lines, and unlocatable utilities through traditional methods.

Advanced Gas Metering: To support the modernization of our metering system and capabilities, Peoples' technology capital investment would include the IT systems and infrastructure needed to transmit, collect, and store meter reading data. By modernizing our system and processes, meter readings can be recorded remotely, automatically, and more frequently. This can give our customers the benefit of monitoring and managing their usage in virtually real-time. In addition to remote communication capabilities and faster usage information, this technology has the potential to further enhance Peoples' current safety initiatives.

Capital Investment Planning Solution: Maturing Peoples' capital management capabilities will re-enforce our ability to make cost-effective capital investments. For our construction and technology projects, knowing when and where to invest helps Peoples further mitigate financial risks, achieve strategic goals, and maximize our ability to deliver cost-effective solutions. The result is an efficient and effective capital investment planning solution that will streamline our processes in managing capital projects.

Investing in an industry-leading capital and investment planning solution will allow for enhanced risk modeling and value; assess benefits of all capital projects to ensure Peoples initiates and invests provide the highest value; optimize investment portfolios to maximize value and drive strategic outcomes; expand Peoples' decision making processes on identifying the priority, initiation, and deferment of projects based on budgetary constraints; and provide data analytics and what-if scenarios that can compare value, timing, risk, and cost to help build a stronger, long term investment plan.