BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF DELAWARE

IN THE MATTER DELMARVA POWER & LIGHT COMPANY'S GAS 2022 INFRASTRUCTURE, SAFETY, AND RELIABILITY PLAN (Filed April 28, 2023)	)))))	PSC DOCKET NO. 23-0596

COMMENTS OF THE DELAWARE PUBLIC SERVICE COMMISSION STAFF AND THE DELAWARE DIVISION OF THE PUBLIC ADVOCATE ON DELMARVA POWER & LIGHT'S 2022 GAS ISR REPORT

Pursuant to 26 *Del. Admin. C.* §§ 8003 *et seq.*, on April 28, 2023 Delmarva Power & Light Company ("Delmarva" or the "Company") submitted its 2022 Infrastructure, Safety and Reliability Plan Annual Report to the Public Service Commission (the "Commission").[1] The Public Service Commission Staff ("Staff") and the Delaware Division of the Public Advocate ("DPA") retained Rod Walker & Associates ("RWA") to review Delmarva's ISR Plan. Staff, the DPA, and RWA conducted discovery and held discussions with Company representatives to review information received in response to discovery requests. The Company submitted to the Commission its final proposed ISR Plan ("ISR Plan") on August 4, 2023.[2] On August 22, 2023, RWA submitted its review (the "Review"), which is attached as Exhibit "A."

These Comments reflect Staff and the DPA's overall assessment of Delmarva's ISR Plan.[3]

[1] 26 *Del. Admin. C.* § 8003-6.1 requires natural gas companies to submit their ISR Plans before April 30 of each year.
[2] *Id.* § 8003-7.2 requires natural gas companies to submit their proposed ISR Plan with the Commission no later than 120 days following the submission of the Plan to Staff and the DPA.
[3] *Id.* § 8003-7.3, which states that Staff and DPA may submit comments on the Plan to the Commission by filing those comments within ten days of the natural gas companies filing of its proposed Plan.

I. SUMMARY

Overall, Delmarva's ISR Plan met the filing requirements of the Regulations and provided sufficient data to perform a capital review of the proposed 2023 budget. Delmarva worked with Staff, DPA, and RWA, resolved data requests, and held follow-up discussions where needed.

II. DISCUSSION

A. RELIABILITY PERFORMANCE REPORT REVIEW

Delmarva's Reliability Performance Report was generally in compliance with the regulations; however, there were some exceptions upon which Staff, DPA, and RWA believe Delmarva could improve.

Specifically, RWA had concerns about several areas surrounding the reporting of outages that lacked clarity and required further discussion with Delmarva. The Regulations organize outages into two main categories: planned and unplanned. 26 *Del. Admin. C.* § 8003-2.0[4] defines a planned outage as:

> a loss of natural gas service that results when one or more components are *deliberately* taken out of service at a selected time, *usually for the purposes of preventive maintenance, repair or construction*. Where attempts have been made to notify customers in advance, planned outages shall not be included in reliability calculations. (emphasis added)

In contrast, Section 8003-2.0 defines an unplanned outage as:

> a loss of natural gas service that results when one or more components are out of service at a selected time, usually as a result of a weather event, low pressure condition, water infiltration or some other unexpected operational event or outside force.

RWA noted in its Review that in the event of damages, leaks or other system issues, if the Company is able to shut off service before the pressure drop from the damage, leak, or other system

[4] References to 26 *Del. Admin. C.* § 8003 shall hereinafter be abbreviated to "Section 8003-__"

issue reaches its customer(s), then Delmarva will report the outage(s) as planned.[5] RWA provided an example of how Delmarva's interpretation of the definition of a planned outage could run wild: the Company experiences a major incident, a gas explosion, which affects gas mains. The Company is able to quickly use a remote valve to shut off gas service to affected customers. The Company then would report that outage (no matter the duration) to the customers affected as *planned, as opposed to unplanned*.[6] Staff and the DPA believe that this interpretation of a planned outage is a stretch of the definition as provided in the Regulations so as to render it meaningless.

Clearly, a major gas explosion is not planned. However, the Company could theoretically record it as such because of how the Company currently interprets the definition. The Commission should make clear that deliberate actions taken after an unplanned or accidental event do not change the type of outage. Actions taken in response to unplanned events remain unplanned actions because they were not planned out in advance.

In contrast, actions taken in response to scheduled maintenance, repairs to gas mains, and the like remain planned because the Company is deliberately planning those actions in advance. The difference between the types of outages is what the outage is in response to, not what makes the Company look better. If an outage's root cause is from an unplanned event, the outage is unplanned, and vice versa. As RWA noted, "DPL simply inserting itself at the last minute during an unplanned emergency event does not make the impetus for the outage 'planned.'" Staff and the DPA believe doing so is a misinterpretation of the Regulation. This is Staff, the DPA, and RWA's largest concern stemming from the ISR Plan.

[5] *See* Exhibit "1", page 4.
[6] Exhibit "1", page 4.

B. 2022 ISR REPORT AND 2023-2027 ISR PLAN REVIEW

Within each category of capital spend identified in Section 8003-6.1 of the Regulations, RWA developed a tailored approach to analyze and review existing data. RWA then requested data in discovery. Finally, RWA developed a set of observations and recommendations as needed.

i. New Business

There were three approaches to RWA's analysis: (1) evaluate compliance with capital expenditure requirements; (2) calculate cost/new connect and simple payback by customer class; and (3) determine if costs and payback are reasonable when compared to typical costs and regulatory requirements. RWA recommended, based on its observations in Exhibit "A," that for larger blanket project budgets, future variance analyses would benefit from understanding the units of work forecasted and the actual amount of units achieved per blanket project or per spend category, in addition to the cost variance already provided. Likewise, an underbudget with consistent units or increased units would be helpful for analysis of variance.

ii. Facility Relocations

There were two approaches to RWA's analysis: (1) evaluate budget forecast to determine reasonableness; and (2) evaluate consistency with budget processes described in the ISR Plan. RWA observed that the 2023 Facility Relocation budget is consistent with historical budget levels for this category of work (not including the recent variance in 2022). RWA also observed that the Facility Relocation budget is *not* consistent with the "historical spend" budgeting process outlined in the ISR Plan. However, RWA noted that there are a significant number of projects awaiting a DelDOT notice to proceed that supports the 2023 budget amount; Therefore, RWA did not make any recommendations with respect to this category.

iii. Required Statutory and Regulatory Requirements

RWA evaluated budget forecast to determine reasonableness. RWA did not make any recommendations regarding these requirements.

iv. Reliability – Emergency Failures/System Improvements

There is no budget used for damage claims. RWA did not make any recommendations.

v. Infrastructure Replacement Programs

There were two approaches to RWA's analysis: (1) determine total cost per replaced mile by project for completed and planned projects; and (2) determine if costs are reasonable when compared to other infrastructure replacement projects and similar work being performed by other utilities. RWA observed that its analysis resulted in a very consistent cost per mile and in unit costs that appear generally reasonable. However, the unit costs were inconsistent with the forecast unit costs, and these unit costs are what drove down actual costs compared to budgeted unit costs. RWA recommended that the Company should include the following information for each project exceeding $1M in future reports: (1) footage of main; (2) pipe size and type; and (3) count of services.

vi. Supply, Capacity, Load, System Pressure

There were two approaches to RWA's analysis: (1) evaluate budget forecast to determine reasonableness; and (2) evaluate consistency with budget processes described in the ISR Plan. RWA recommended that the Company continue to monitor total budget variances for projects that span multiple years to better understand the budgeting process.

vii. Asset Condition

There were two approaches to RWA's analysis: (1) evaluate budget forecast to determine reasonableness; and (2) evaluate consistence with budget processes described in the ISR Plan.

RWA observed that this is a relatively small budget amount, and this category includes projects that are based on preventative maintenance inspections and unforeseen asset conditions. RWA further noted that while budget variance is not a concern, the variances can be reduced by following the stated budgeting process.

viii. Other Reliability

There were two approaches to RWA's analysis: (1) evaluate budget forecast to determine reasonableness; and (2) evaluate consistence with budget processes described in the ISR Plan. RWA noted that critical reliability equipment is often the type of infrastructure that allows a utility to maintain reliable service under peak load conditions. Therefore, the project budget for reliability must be tracked to allow the Company to maintain tight controls. Scope creep, excessive change orders, and design flaws are not uncommon in large infrastructure projects. RWA recommends tracking the actual benefits as the vaporization and liquefaction equipment are placed in service over the next several years. Additionally, given its significant project budget, the Company should consider deeper analysis on project budget and customer benefits by engaging engineering and gas supply experts for analysis including: engineering basis for project budget; project change orders; benefit cost ratio of stated benefits; and actual benefits as infrastructure is placed into service. Staff and the DPA believe that without the deeper analyses stated above, the reliability budget could be exploited by the Company to add unnecessary plant to its infrastructure, a cost which is then included in rate base to the possible detriment of customers. Similar to the electric side practices of the Company, the Company may be adding gas plant that is unnecessary or more costly in order to benefit stockholders by maintaining or increasing dividends, as opposed to for the benefit of its customers. Deeper analyses would support whether the budget is necessary.

III. CONCLUSION

In summary, RWA recommends that the Company work with Staff, the DPA and Chesapeake Utilities Corporation to arrive at a consistent interpretation of the definition of planned versus unplanned outages in Section 8003-2.0. of the Regulations. This is the most critical of RWA's recommendations. Additionally, RWA recommends:

1. For large blanket project budgets, future variance analysis would benefit from understanding the units of work forecast and actual achieved in addition to the cost variance already provided.
2. For infrastructure replacement projects, consider including the following information for each project exceeding $1M for future reports.
    - Footage of Main;
    - Pipe size and type; and
    - Count of Services.
3. "Asset Condition" budget is very small, but large variances could be reduced by following DPL's stated budgeting process.
4. Ongoing cost control measures should be monitored as the Wilmington LNG project proceeds – not just overall variance to budget.
5. Staff and the DPA to work with DPL to better understand the following:
    a. Capital reforecasting process as the year goes on and how projects are reforecast/added/removed;
    b. The closed loop analysis process where budget estimates and actual expenditures are analyzed to determine variance drivers to improve budgeting accuracy; and

c. The use of blanket accounts and budgeting processes to improve the accuracy of evaluating performance against plan. To do this, it may help to better understand forecast work quantities (i.e. miles of pipe or customer connections) to help with variance analysis within large blanket Investment Tracking Numbers and shifting funds.

Exhibit "A"

Natural Gas Service Reliability and System Planning Standards Compliance Review

Delmarva Power

August, 21 2023

I. General Observations

Rod Walker & Associates Consultancy ("RWA") performed a review of Delmarva Power and Light Company's ("DPL", the "Company") 2023 filings in compliance with the Natural Gas Service Reliability and System Planning Standards, published at 26 *Del. Admin. C.* § 8003[1] (the "Regulations") in 2020.

The review focused on DPL's compliance with the Regulations for its filing and the general adherence of the utility's forward-looking plan.

RWA offers the following general observations regarding our review of:

1) DPL's Reliability Performance Report;

2) DPL's 2022 ISR status report ("2022 Annual Report"); and

3) DPL's updated 2023 5-year Infrastructure, Safety and Reliability Plan ("ISR Plan).

A. Section 8003-8.1: Reliability Performance Report:

- DPL's Reliability Performance Report was generally compliant with the reporting requirements set forth in Section 8003-8.1 of the Regulations.
- RWA participated in discussions with DPL staff and representatives who clarified portions of the Report.
  Of note, DPL appears to be reporting outages as "planned" when they occur due to unplanned events like leaks or weather events as long as the shutoffs are done before actual service is lost. This methodology appears inconsistent with the Regulations.

B. Section 8003-6.0: 2023 ISR Plan

- DPL's ISR Plan was complete and provided the necessary information to review the 2023 capital budget.
- The Company's staff was helpful in filling in gaps related to budget details and inputs and responsive to information requests. The Company's staff shared insights into budgeting methodology and logic behind changes from last year's budgets that were not clear from the initial April 27, 2023 filing.
- Most budget categories were developed in a data driven and logical method, and exceptions to the stated budget methods were based on reasonable, however DPL did not always appear to follow those budgeting guidelines.

C. § 8003-8.2 – Infrastructure, Safety and Reliability Plan 2022 Annual Report

- DPL's report was thorough and met the requirements of Section 8003-8.2.

[1] Hereinafter, all references to 26 *Del. Admin. C.* § 8003-__ shall be "Section 8003-__".

- There remains a continued lack of clarity surrounding the relationship of budget to specific projects. Need to better understand the budgeting process and the way that changes occur.
    - Blankets are created and funds assigned to specific projects once initiated.
    - Budget dollars are frequently moved between projects with projects being added and removed.
    - Carryover work seems to continue to cause variance leading to lack of transparency into budget performance which requires additional calculation. DPL has acknowledged this and has improved its clarity on this over the previous year's ISR filing.
- Some of the variances and movement of budget dollars from project to project appears to conflict with the strict budgeting process described in the ISR Plan.

D. RWA Recommendations

1. Work with DPL and Chesapeake to arrive at a consistent interpretation of the definition of planned vs. unplanned outages in § 8003-2.0. of the Regulations. This is the most critical of RWA's recommendations.
2. For large blanket project budgets, future variance analysis would benefit from understanding the units of work forecast and actual achieved in addition to the cost variance already provided.
3. For infrastructure replacement projects, consider including the following information for each project exceeding $1M for future reports.
    - Footage of Main
    - Pipe size and type
    - Count of Services
4. "Asset Condition" budget is very small, but large variances could be reduced by following DPL's stated budgeting process.
5. Ongoing cost control measures should be monitored as the Wilmington LNG project proceeds – not just overall variance to budget.
6. Consider working with DPL to better understand the following:
    a. Capital reforecasting process as the year goes on. How are projects reforecast/added/removed.
    b. Better understand the closed loop analysis process where budget estimates and actual expenditures are analyzed to determine variance drivers to improve budgeting accuracy.
    c. Better understand the use of blanket accounts and budgeting processes to improve the accuracy of evaluating performance against plan. To do this, it may help to better understand forecast work quantities (i.e. miles of pipe or customer connections) to help with variance analysis within large blanket ITNs and shifting funds.

II. Reliability Performance Report Review

DPL's 2021 Reliability Performance Report (updated April 4, 2023) contains an overall assessment of the state of system Reliability in DPL's service territory for the previous calendar year activities and includes various performance metrics.[2]

The Reliability Performance Report was generally in compliance with the Regulations, however there were several areas surrounding the reporting of outages that lacked clarity and which required further discussion with DPL.RWA has concerns with these areas.

Specifically, DPL has included certain outages in its planned outages reporting that do not appear to meet the letter or the intent of the Regulations. When RWA inquired about this, DPL explained that outages due to damages are considered a "planned outage" if DPL shuts off service to the customer prior to the customer experiencing an outage.[3]

As examples, DPL provided that outages which occurred during Hurricane Ida in 2021. DPL took customers out of service as it was concerned about water infiltration from the hurricane flooding getting into gas mains and impacting customers' pilots.

RWA discovered another example in DPL's responses to discovery in which the DPL was performing maintenance work and due to incorrect operations by the DPL crew, an active leak occurred. Due to the active leak, DPL shut off service to several nearby customers. DPL then reports that it "planned" the outage since it took direct action to stop gas service to those customers.

After discussions with DPL, RWA ascertained that in the event of damages, leaks, or other system issues, if the Company is able to shut off service before the pressure drop from the damage, leak, or system issue reaches its customer(s), DPL will report the outages as planned. DPL explicitly confirmed this in response to discovery, stating that, even in the event of excavation damage leading to a leak, that damage is "considered a planned event if Delmarva shuts off service to the customer prior to the customer experiencing an outage."[4]

As a hyperbolic hypothetical example, if DPL experienced a major incident that involved a gas explosion but was able to quickly use a remote valve to shut off service to the affected customers, then DPL would report that outage (no matter the duration) as planned.

This approach appears, at face value, to be inconsistent with the Regulations. The Regulations define planned and unplanned outages as below:

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[2] *See* Section 8003-8.1 of the Regulations.

[3] DPL response to DR STAFF-DPA-1.5, (a).

[4] *Id.*

- *"Outage, planned" means a loss of natural gas service that results when one or more components are deliberately taken out of service at a selected time, usually for the purposes of preventive maintenance, repair, or construction. Where attempts have been made to notify customers in advance, planned outages shall not be included in reliability calculations.*[5]

- *"Outage, unplanned" means a loss of natural gas service that results when one or more components are out of service at a selected time, usually as a result of a weather event, low pressure condition, water infiltration or some other unexpected operational event or outside force.*[6]

Based on this, it is RWA's finding that DPL is misinterpreting the definitions of planned and unplanned outages. DPL's "planned outages" are not all for purposes of preventative maintenance, repair, or construction. DPL's own model example of a "planned outage" (the example involving the hurricane, as discussed above) clearly fits the definition of an *unplanned outage* (*usually a result of a weather event, low pressure condition, water infiltration or some other unexpected operational event or outside force).* DPL simply inserting itself at the last minute during an unplanned emergency event does not make the impetus for the outage "planned".

III. 2022 ISR Report & 2023-2027 ISR Plan Review

A. Overview

RWA performed a review of DPL's 2022 ISR Report and its ISR Plan for the 2023-2027 period. To do this, RWA structured its review by the reporting categories in Section 6.1.1 of the Regulations.

Within each category of capital spend, RWA developed a tailored approach to analyze and review existing data. RWA then requested further data in discovery a needed/ Finally, RWA developed a set of observations and recommendations (as needed).

In the interest of brevity, each category of spend in the ISR Report and ISR Plan are condensed into the following summary tables for easy review with subsequent further discussion following each table as needed.

[5] Section 8003-2.0.
[6] *Id.*

B. New Business (Section 8003-6.1.1.1)

2022 Budget	2022 Actual	Variance	2023 Budget
$9,535,971	$8,766,862	$769,109 / 8%	$6,222,945
Approach to Analysis	1. Evaluate compliance with capital expenditure requirements. 2. Calculate cost/new connect and simple payback by customer class. 3. Determine if costs and payback are reasonable when compared to typical costs and regulatory requirements.		
Observations	2022 Actuals 1. Under budget as a whole by $769K or 8%. 2. Significant budget variance due to several factors: i. MSTG DCF Model modifications ii. Supply chain issues related to gas meters. 3. Cost/connect in line with expectations. 2023 Budget 1. Significant budget reduction, presumably to align with Main Extension Settlement provisions. 2. Reduction in budget is consistent with recent changes.		
Recommendations	1. For large blanket project budgets, future variance analysis would benefit from understanding the units of work forecast and actual achieved in addition to the cost variance already provided.		

Importantly in this year's ISR filing, DPL has, through discussions with the PSC Staff and the DPA, agreed on a new framework for New Business project evaluation – the Discounted Cash Flow ("DCF") Model.[7] In June of 2022, a new DCF model was approved in Order No. 10064 on which the Company evaluates potential projects on a neighborhood-by-neighborhood basis.

Per the requirements of the Regulations, DPL reported on two categories: (1) major projects in the 2022 Report that exceeded $1 million and have a variance of 10% or more; and (2) projects in the 2023 ISR Plan that are expected to exceed $1 million.

There was a significant overlap in these two categories as the projects that reach those thresholds are blanket budget projects. For example, the three biggest "projects" going forward, per the 2023 ISR Plan are:

1. Gas Meter Equipment;

[7] Settlement Agreement in PSC Docket No. 12-546.

2. Install Commercial Distribution Main; and
3. Install Established Development Distribution Main.

Of note, these are the three projects with the greatest variances per the 2022 ISR Report, seeing a 40%, 19%, and 33% overbudget variance in 2022, respectively.[8]

Per the Company, the primary driver of the metering budget variance is supply chain issues. This appears to be consistent with the data provided. Variance in the other major blanket budgets for 2022 appear mostly tied to the DCF Model approval timing and shuffling of funds from one project to another. This makes true variance analysis difficult since the Company doesn't aways budget for specific projects, but rather budgets a spending level allocated to a general purpose.

For future variance analyses, it would be helpful to have transparency into the forecast unit of work and the actual achieved per blanket project budget or per spend category. In a hypothetical example: if the Company forecasts connecting 100 customers at a cost of $300,000, but the actual cost was $320,000 and only 80 customers were connected, then that information would be critical to understanding the scope of the variance. Likewise, an underbudget with consistent units or increased units would be helpful for analysis of variance.

C. Facility Relocations (Section 8003-6.1.1.2)

2022 Budget	2022 Actual	Variance	2023 Budget
$2,447,700	$991,886	$1,455,814 / 59%	$2,339,581
Approach to Analysis	1. Evaluate budget forecast to determine reasonableness. 2. Evaluate consistency with budget processes described in the ISR Plan.		
Observations	2022 Actuals 1. Significant under expenditure. 2. A delay in the final completion of the James St Bridge (ITN 77164) at the end of 2022, caused the overall category to be off budget. 2023 Budget 1. The 2023 Facility Relocation budget is consistent with historical budget levels for this category of work, not including the recent variance in 2022. 2. The Facility Relocation budget is not consistent with the "historical spend" budgeting process outlined in the ISR Plan, however there are a significant number of projects awaiting a DelDOT notice to proceed which supports the 2023 budget amount.		

[8] 2022 ISR Report, pg. 4, Table 1.

Recommendations	1. None.

D. Required Statutory and Regulatory Requirements (Section 8003-6.1.1.3)

2022 Budget	2022 Actual	Variance	2023 Budget
$88,125	$0	$88,125 / 100%	$108,000
Approach to Analysis	1. Evaluate budget forecast to determine reasonableness.		
Observations	1. This ITN is primarily used for reimbursable state or local work, it serves as a blanket account where dollars are assigned to specific projects and no actuals are booked against this ITN.		
Recommendations	None.		

E. Reliability – Emergency Failures/System Improvements (Section 8003-6.1.1.4)

2022 Budget	2022 Actual	Variance	2023 Budget
$0	$0	n/a	$0
Approach to Analysis	n/a		
Observations	1. This ITN is primarily used for damage claims, no budget is associated with the ITN.		
Recommendations	None.		

F. Infrastructure Replacement Programs (Section 8003-6.1.1.5)

2022 Budget	2022 Actual	Variance	2023 Budget
$36,123,403	$28,378,135	$7,745,268 / 21%	$36,379,922
Approach to Analysis	1. Determine total cost per replaced mile by project for completed and planned projects. 2. Determine if costs are reasonable when compared to other infrastructure replacement projects and similar work being performed by other utilities.		

Observations	2022 Actuals 1. 21% under budget variance - due to bids for the renewal projects coming back at a lower cost per foot for main ($375/ft instead of $550/ft) and services, than originally budgeted. 2. Large over and under budget variances exist at the project level. 3. Variances and adherence to budget are difficult to analyze due to unplanned work, budget $'s moving from blankets and from project to project, and work spanning multiple budget years. 2023 Budget 1. 2023 budget is consistent with historical total spend, but also with the revised unit costs experienced in 2022.
Recommendations	1. In future reports include the following information for each project exceeding $1M. - Footage of Main - Pipe size and type - Count of Services

In 2022, DPL retired approximately 11 miles of main and installed about 9.7 miles of replacement pipe. RWA prepared a unit cost analysis of the major pipeline replacement projects on a per-project basis. This analysis resulted in a very consistent cost/mile and in unit costs that appear, generally, reasonable. However, these unit costs are inconsistent with the forecast unit costs and are what drove down actual costs compared to the budgeted.

Figure 1:

Cost per Mile by Project			
	Total Cost	Cost/ft.	Cost/mile
2022 CoW CI - 2500 Civic Association	$2,734,218	$254	$1,343,446
2022 CoW CI - Neighbors Rebuilding	$2,051,349	$233	$1,228,854
2022 CoW CI - The Flats	$692,882	$332	$1,755,057
2022 CoW CI - Vandever Ave	$4,117,595	$296	$1,563,250
2022 CoW CI - Washington Heights	$3,757,849	$243	$1,283,198
Total/Average	**$13,353,893**	**$262**	**$1,382,128**

Per DPL's proposed Plan filed on August 4th, 2023, the Company adopted unit costs of $375/ft unit cost for the 2023 budget, instead of using the $550/ft unit cost it assumed for 2022. While a

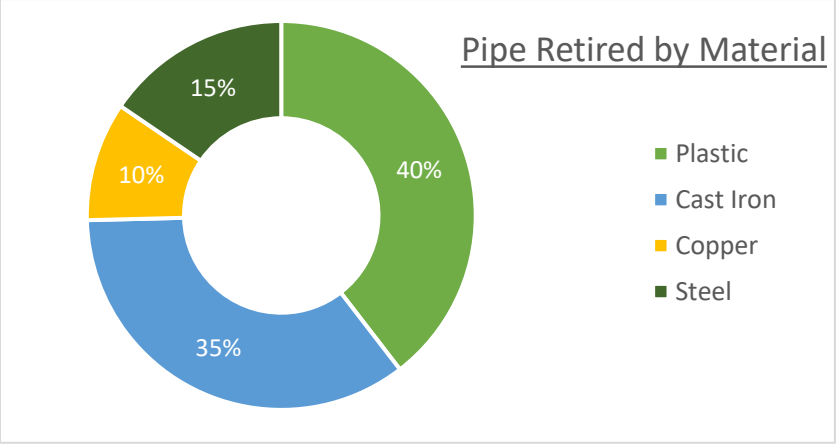
marked improvement, this figure is still somewhat higher than the actual nit costs experienced and it appears that, barring other impacts to unit pricing, the 2023 actuals would come in somewhat lower than the forecast on a unit cost basis alone.

Variance at the project level is very inconsistent. Some variance is due to delays, material shortages and similar factors outside of the Company's control. However, other variances are due to the Company shuffling funds around from project to project.

For example, the Company "de-scoped" the Flats project (in Figure "1", above) and shifted some of those funds over to another project that the Company claims was "higher leak risk".[9] While this specific example may be a non-issue, it is a good example of how entirely unclear what this secondary project was, and or why it was high enough risk to warrant reduction in the Flats project, yet was not originally budgeted for. In its mandated variance explanations, the Company describes a "shift in focus" several times that appears to result in funds being reallocated or projects receiving changing levels of priority intra-year. While RWA understands that having a catalog of "shovel-ready" projects prepared to substitute for delays or opportunities is a good industry practice, shifting priorities and dollars between projects make any variance analyses difficult to understand, as well as make it difficult to ascertain whether DPL is choosing projects in a reasonable manner.

Additionally, in the theme of opaque focus within these projects – RWA expected that the retirement targets of these "Cast Iron Renewal" projects to be cast iron main. However, the majority of the pipe retired by these projects was plastic pipe per the Company's data provided in discovery[10]:

Figure 2:



[9] DPL 2022 ISR Report, pg. 9.
[10] DPL Response to STAFF-DPA-1.3, Attachment.

Again, this may have a reasonable explanation but if so, none was provided. This lack of transparency plus the "shifting focus" and shifting funds raises concerns within these large-scale infrastructure programs.

To remedy some of this, RWA has identified a small amount of additional data that would allow for more analysis of the actual and forecast projects. This additional data for future reports shouldn't be burdensome and is data that has been requested on an annual basis through discovery. The inclusion of it in the draft report should reduce the administrative burden on all parties and further streamline the review process.

G. Supply/Capacity/Load/System Pressure (Section 8003-6.1.2.1)

2022 Budget	2022 Actual	Variance	2023 Budget
$ 2,721,790	$2,264,017	$457,773 / 17%	$1,821,168
Approach to Analysis	1. Evaluate budget forecast to determine reasonableness. 2. Evaluate consistency with budget processes described in the ISR Plan.		
Observations	2022 Actuals 1. A 17% under budget variance was due to a delay in the final design of a looping project for ITN 83320, delays in finalizing the RFP and bid for ITN 84918, and the Company experienced delays in the construction of the new Wrangle Hill regulator station due to negotiating final contract language for the easement. 2023 Budget 1. The 2023 budget is in-line and slightly lower than 2022 actuals.		
Recommendations	1. Continue to monitor total budget variances for projects that span multiple years. 2. Like other budget categories, need to better understand the budgeting process.		

H. Asset Condition (Section 8003-6.1.2.2)

2022 Budget	2022 Actual	Variance	2023 Budget
$99,129	$24,318	$74,811 / 75%	$124,476
Approach to Analysis	1. Evaluate budget forecast to determine reasonableness. 2. Evaluate consistency with budget processes described in the ISR Plan.		
Observations	2022 Actuals 1. Significant variance to budget 2. Budget amount did not reach the level to require a detailed explanation. 2023 Budget 1. This budget amount does not appear consistent with the budgeting process which is described in the ISR plan as based on “historical investments and specific programs or projects”.		
Recommendations	1. This is a relatively small budget amount, and this category includes projects that are based on preventative maintenance inspections and unforeseen asset conditions. The budget variance is not a concern, but the variances can be reduced by following the stated budgeting process.		

I. Other Reliability (LNG, regulator station upgrades) (Section 8003-6.1.2.3)

2022 Budget	2022 Actual	Variance	2023 Budget
$ 27,778,620	$15,800,629	$11,977,991 / 43%	$51,113,386
Approach to Analysis	1. Evaluate budget forecast to determine reasonableness. 2. Evaluate consistency with budget processes described in the ISR Plan.		
Observations	2022 Actuals 1. Significant variance to budget, the primary cause of the variance was due to internal approval required to proceed to the next phase (Phase 2) of the Wilmington LNG Upgrade Project. The project was scheduled to start design in mid-2022, but a required approval was not issued until November 2022. 2023 Budget 2. The 2023 budget has been increased significantly and this increase appears to align with the approval received in November 2022. While critical redundancy and reliability infrastructure, LNG upgrades are a high budget, multi-year projects. It will be important to track yearly performance to budget as well as the total project budget to plan.		
Recommendations	1. Actual benefits should be tracked as the vaporization and liquefaction equipment are placed in service over the next several years. 2. With the significant project budget, consider deeper analysis on project budget and customer benefits by engaging engineering and gas supply experts for analysis including: • Engineering basis for project budget • Project change orders • Benefit:cost ratio of stated benefits • Actual benefits as infrastructure is placed into service.		

RWA's analysis focused on the Wilmington LNG Upgrade project. This project is massive in scope and cost, but based on the business justification provided, the project appears to show positive benefits to the customer.

While the type of infrastructure is often critical reliability equipment that allows a utility to maintain reliable service under peak load conditions, it is equally critical that the project budget is tracked, and the Company maintains tight cost controls. Scope creep, excessive change orders, and design flaws are not uncommon in large infrastructure projects, so tight oversight by the Company is necessary to avoid incurring unreasonable costs.