



**VIRGIN ISLANDS  
WATER & POWER  
AUTHORITY**

Pricing, Rates, & Strategic Planning  
**EXECUTIVE DIVISION**

Post Office Box 1450  
St. Thomas, U.S. Virgin Islands 00804  
Tel: (340) 774-3552 ext. 2112  
Fax: (340) 774-3422  
Email: [joan.foy@viwapa.vi](mailto:joan.foy@viwapa.vi)

July 13, 2022

Mr. Donald Cole  
Executive Director  
Public Services Commission  
P.O. Box 40  
St. Thomas, VI 00804-0040

Re: Minimum Filing Requirements, Semi-Annual Reports

Dear Director Cole:

The Authority is hereby submitting the proposed revised Minimum Filing Requirements (MFRs) for Electric and Water LEAC filings. The proposed MFRs were developed through collaboration between the Public Service Commission (“PSC” or “Commission”) and the Water and Power Authority. Included with this transmittal letter is a detailed explanation of the revised MFRs and proposed schedules.

**PROPOSED MINIMUM FILING REQUIREMENTS  
FOR ELECTRIC AND WATER LEAC RATE FILINGS**

*The proposed modification to the Commission’s MFRs contained herein seeks to improve and streamline the LEAC process. Figures and estimates included herein are purely illustrative in purpose. The proposed MFR’s and associated schedules **IN NO WAY REFLECT A REQUEST TO CHANGE RATES**, LEAC or otherwise.*

*Accordingly, please note that in the attached schedules the figures and calculations underlying the most recent full LEAC petition covering July-December 2021 are included so that the inputs and calculations can be followed. Given that the proposed MFRs do not reflect a LEAC filing, but rather a proposal for the structure of the future LEAC process, prospective figures and calculations in the schedules are left blank or a subset of data is included (for example one*

*month out of the six months), but the proposed LEAC column is included so that the layout and contents of the schedules can be followed.*

These proposed modifications to the PSC's MFRs are designed to streamline and make the existing LEAC ratemaking process more efficient while providing the PSC a complete record for, and to assist in, its review of Petitions to modify the LEAC rates for the Water and Power Authority's ("WAPA") Electric and Water Departments. The Commission, through its agents, may seek additional information that supports information provided in the MFRs from WAPA through an established discovery process and informal discussions, if necessary.

WAPA's rate petition inclusive of a transmittal Cover Letter, MFR Worksheets, and any related follow-up requests and responses detailing data provided in the MFR Worksheets are all part of the record. Informal discussions between the Commission's agents and WAPA's representatives are not part of the record.

The proposed MFR's consist of two major components: (i) a Cover Letter outlining key elements of the filings and (ii) Worksheets that provide relevant data and calculations in support of the requested LEAC rate.

## **1. Cover Letter to the Commission**

A Cover Letter to the Commission shall be submitted in lieu of pre-filed written testimony. The Cover Letter will contain the following information and indicate in the narrative the location within the MFR Worksheets of any supporting data contained in the Petition:

- 1.1** The proposed LEAC rates
- 1.2** Explanation of the impact of the requested LEAC rate adjustment on typical consumers' bills and illustration of impacts based on a range of average kWh usage
- 1.3** If applicable, WAPA's position supporting the amortization period if it seeks to recover any deferred fuel balance. (*Calculation to be determined in supplemental petition*)
- 1.4** Identification of any material changes in operations from the prior LEAC rate period that support the need for the requested rate adjustment, to include, but not be limited to the following:
  - 1.4.1** Changes in equipment utilized for production of electricity or water, scheduled equipment outages, maintenance management planning, unit efficiencies, and plant condition from the prior LEAC rate period
  - 1.4.2** Changes in purchased energy prices and non-electricity revenue
  - 1.4.3** Description of fuel supply and fuel diversity
  - 1.4.4** Description of any changes in WAPA's fuel hedging program, inclusive of the number of hedges, size of hedges, price of the hedge and expiration date of hedges
- 1.5** Status of renewable energy production and changes in renewable energy and costs

**2. Content of the Petition** – the Petition for the proposed LEAC rate shall contain information in the form of worksheets (Detailed in Section 2.2 through 2.4) that define the overall

performance of the utility for the six-month projected period and the resulting impact on LEAC rates.

Historical information for the Electric System shall consist of actual data for the current, as approved six month LEAC period and where applicable, the same six month time period of the proposed rate change from the previous year.

The historical information for the Water System (Detailed in Section 2.5) consists of actual data for the same twelve-month period for the prior year.

## **2.1 Electric LEAC Petition MFR Worksheets**

The following serves to present illustrative examples of the MFR worksheets to be submitted to the Commission in an electronic format acceptable to the Commission. Examples of the MFR worksheets are included as templates in the exhibits attached and are for illustrative purposes only. **In some cases, the worksheets are simply blank templates and in others, data has been populated as sample data and does not represent any request for rate action on behalf of the PSC by WAPA.**

## **2.2 OUTPUT PROCESS MFR's**

### **2.2.1 Proposed LEAC Rate (Worksheet 1)**

This Worksheet presents the proposed LEAC Rate for the upcoming semi-annual period and identifies the authorized components of the proposed LEAC rate.

### **2.2.2 Comparison of Rate Change Forecast (Worksheet 2)**

This Worksheet provides all of the factors that comprise the proposed LEAC rate with a comparison to the current LEAC rate in effect including factors such kWh sales, fuel cost, energy production, fuel purchased and consumed, and eligible non-fuel costs.

### **2.2.3 Consumer Retail Rate Impact (Worksheet 3)**

This Worksheet provides the impact the proposed LEAC rate will have on the typical monthly consumer bill for different classes of customers.

### **2.2.4 Comparison of Fuel Parameters (Worksheet 4)**

This Worksheet provides a comparative analysis of the parameters impacting fuel expense in the proposed period compared to the current period. It breaks down the current fuel costs portion of the LEAC rate based on energy requirements, sales, heat rates, and fuel consumed.

## **2.3 ANALYSIS PROCESS MFR's**

### **2.3.1 Production Costing and Fuel Cost Summary (Worksheet 5)**

This Worksheet takes the detailed unit fuel usage output from the production costing worksheet (Worksheet 10) and combines that data with the latest future fuel forecast (Worksheet 13) of fuel prices by type based using the fuel

pricing index and pricing premiums included in the WAPA's contracts, if any.

**2.3.1.1 Hedging Activity**

If there are hedging activities the following shall be detailed in a Worksheet for the relevant LEAC period: summary of hedge contracts (financial or physical), expiration dates, hedging pricing levels, and percent of projected volumetric fuel purchases hedged to determine if an adjustment to the market cost of fuel is needed to reflect the impact of WAPA's realized fuel price as a result of hedging. We note that it is unlikely that in WAPA's current financial condition that engaging in fuel hedging is feasible. As with deferred fuel we recommend that development of any hedging impacts as part of the LEAC process be deferred to a time when such activity could be initiated.

**2.3.2 LEAC Rate Calculation (Worksheet 1)**

This Worksheet takes the output from the production costing worksheet and combines it with the output of the Eligible Non-Fuel LEAC expenses to determine the proposed LEAC rate.

**2.4 INPUT PROCESS MFR's**

**2.4.1 Consumer Billing Forecast (Worksheet 6)**

This Worksheet provides a forecast of WAPA billings to its various customer classes. It is a new worksheet and will identify all authorized billings including those metered and unmetered. As stipulated by previous order of the Commission, two NRE (Non-Recoverable Electricity) components are to be added to the billing forecast to arrive at the energy production requirement (generation necessary to provide for sufficient energy production to support the projected billings). As of this filing, these two components are been set at a level of 6.6% (to account for line loss) and 2.5% (to account for WAPA's internal use). A brief accompanying narrative describing how the forecast was derived should be provided.

**2.4.2 Renewable Power & Energy Forecast (Worksheet 7)**

This Worksheet provides a forecast of all non-WAPA sources of power and energy as well as WAPA owned sources of non-thermal power and energy. This forecast will be based on recent generation from the renewable sources and known changes to the renewable generation mix for the upcoming LEAC period (additional capacity on-line, known maintenance schedules, etc).

**2.4.3 Thermal Power & Energy Forecast (Worksheet 8)**

This Worksheet combines the Consumer Billing Forecast (Worksheet 6) with the Renewable Power and Energy Forecast (Worksheet 7) for the purposes of determining the Thermal Power and Energy Forecast to be used by the Production Costing (Economic Dispatch) model to determine all fuel related parameters of WAPA's thermal units for the forecast period.

**2.4.4 Production Costing Model Thermal Units - Economic Dispatch (Worksheets 9a – 9d)**

These Worksheets replaces the dispatch worksheets contained in the existing MFR's and summarize the output of the production costing analysis which is

performed by WAPA using a commercially available program for the purposes of providing for each thermal unit for the forecast period unit megawatt-hour generation and fuel consumption in terms of MMBtu's and ultimately provide a quantity of fuel needed to complete the LEAC rate calculation. Necessary supporting data inputs required to undertake the production costing analysis include the following (which should be provided for each generating unit):

- Renewable Capacity and Energy Parameters
- Load Curve & Peak Demand Parameters
- Thermal Generating Unit Fuel and Operational Parameters, including:
  - Generation capacity
  - Forced outage rates
  - Planned maintenance schedules
  - Fuel Type
  - Heat rate curves (Unit efficiencies at varying loads)

**2.4.5 Water System Reimbursable Costs (Worksheet 10)**

This Worksheet should identify non-fuel water charges incurred in the production of power and energy. These charges are related to the supply of ultra-pure Reverse Osmosis (RO) water for emission control and power production make up water. This worksheet currently identifies the energy sales by WAPA to a third-party contractor who supplies RO water production. It may be desirable to move these electricity sales for RO water into the new Consumer Billing Forecast (Worksheet 7).

**2.4.6 Other Eligible LEAC Costs (Worksheet 11)**

This Worksheet should detail any additional costs or deductions that should apply to the calculation of the LEAC rate. This can include regulatory costs of WAPA, RO water expenses for plant operations, charges to the Water Department, or any other item approved by the Commission.

**2.4.7 Final Fuel Futures Pricing Forecast (Worksheet 12)**

This Worksheet should provide forecasted fuel prices by type for the projection period using the fuel pricing index included in WAPA's fuel procurement contracts plus contractual transportation costs.

**2.5 MFR Worksheets to Water LEAC Petition**

Because the Water LEAC review process occurs only once per year, and there have been few or no issues with that analysis in the recent past, it is recommended that the MFR process for the Water LEAC remain unchanged as detailed below.

- Worksheet 1: Differential Analysis  
This Worksheet presents the proposed Water LEAC rate and compares the proposed Water LEAC rate components with the current as approved Water LEAC rate components.

- Worksheet 2: Comparative Analysis Over 12 Months  
This Worksheet compares the Water LEAC rate components on an annual basis.
- Worksheet 3: Monthly Bill Comparison  
This Worksheet compares the effect the change in the rate will have on the typical monthly bill.
- Worksheet 4: Water Sales and Production Costs  
This Worksheet reflects an annual comparison of the water sales and purchase and production costs for the projected year in comparison to the prior year.
- Worksheet 5: Water LEAC True-Up  
This Worksheet shows the deferred fuel/surplus balance and the period for which it is amortized. It also shows the change from the previous period to the current period. This should eventually tie into the deferred fuel process for the electric department that is proposed to be deferred currently.
- Worksheets 6 and 7: Input Pages on Historical Water Sales and Purchase and Production Costs  
This Worksheet identifies and quantifies the costs of purchased water and any contracts for which recovery of costs is sought.
- Worksheets 8 and 9: Approved Water Sales and Costs  
This Worksheet reflects the water sales and costs that were approved in the most recent Water LEAC proceeding
- Worksheets 10 and 11: Projected Water Sales and Cost  
This Worksheet reflects the projected water sales and costs for the proposed period of the rate change.

Annual Water System LEAC audits filed in the form of a worksheet with explanation and reconciliation of the audit worksheet to the figures provided in the financial reports for the water departments should be provided on an annual schedule determined by the Commission.

### **3. Timeline for Consideration of LEAC Petition**

All days described herein shall reflect business days and business days shall mean days that the general government of the US Virgin Islands is open for business.

- 3.1** No later than ten (10) days from filing of the Petition, the Executive Director of the Commission shall confirm whether the filing of information required by the MFRs is complete.
- 3.2** If the filing is incomplete, the Executive Director will inform WAPA of the missing information within ten (10) days and the WAPA must provide the missing information within five (5) days of being notified that the Petition is incomplete.

- 3.3** WAPA and the Commission staff are encouraged to participate in an informal pre-discovery conference within twenty (20) days of the filing of the Petition. Additional conferences are encouraged by the Commission and supported by WAPA to foster a collaborate working relationship with Commission staff and WAPA to streamline the LEAC filing process and eliminate the need for formal discovery to the extent possible.
- 3.4** If informal pre-discovery conferences determine that there is a need for formal discovery, the discovery conference will trigger a thirty (30) day discovery period to be conducted as follows:
- Commission staff to submit discovery requests to WAPA within ten (10) days of the discovery conference.
  - WAPA to respond to discovery requests within ten (10) days of receipt of discovery.
  - WAPA to submit objections to any discovery requests within five (5) days of receipt of discovery request.
  - The parties to meet and confer regarding any objections within five (days) of the receipt of the objections.
  - Commission staff to notify WAPA of incomplete discovery requests within five (5) days of receipt of incomplete discovery. The parties are to meet and confer regarding any incomplete discovery responses within five (5) days of the notification to WAPA by Commission staff of an incomplete discovery response and resolve to the extent possible.
- 3.5** The scope of discovery shall be limited to questions seeking clarification of information contained in the Petition, the Cover Letter, the exhibits submitted in support of the Petition and any other information directly related to the short-term cost of fuel or energy that is to be charged to customers through the proposed LEAC rate.
- 3.6** WAPA and Commission staff may conduct informal discussions to address any issues or concerns raised in the Petition to streamline the discovery process and to further the resolution of the Petition and are encouraged to do so.
- 3.7** The Commission staff shall submit its report to the Commission ten (10) days prior to any proposed Commission action. WAPA shall be copied at the same time.  
WAPA shall submit a response to the report to the Commission within five (5) days of receipt of the report.
- 3.8** The Commission to meet and consider the Petition within sixty (60) days of the filing of the Petition

Sincerely,



Andrew Smith  
CEO, Executive Director

# U.S. Virgin Islands Water and Power Authority

Preliminary Draft - Work in Process / Subject to Material Change

Information contained herein has not been independently verified and is subject to material change based on continuing review. Accordingly, the information contained herein is not intended to be and should not be relied upon by any third party or as legal, auditing, or accounting advice.

The attached preliminary cash flow tool and their accompanying analyses, assumptions and underlying data are the product of U.S. Virgin Islands Water and Power Authority ("WAPA") and its management ("Management") and consist of information obtained solely from WAPA. With respect to prospective financial information relative to WAPA, there has not been any examination, compilation or application of agreed upon procedures to such information in accordance with attestation standards established by the AICPA. Consequently, no assurance of any kind is given with respect to, or on, the information presented. It is WAPA's responsibility to make its own decision based on the information available to it. Management has the knowledge, experience and ability to form its own conclusions related to WAPA's cash flow forecast. There will usually be differences between forecasted and actual results because events and circumstances frequently do not occur as expected and those differences may be material. As a result, no responsibility for the achievement of forecasted results is made. Accordingly, reliance on this report is prohibited by any third party as the projected financial information contained herein is subject to material change and may not reflect actual results.

Many of numbers set forth herein are estimates or based on assumptions which are subject to change. Such changes may be material and can materially affect the calculation of other amounts reflected herein.

**All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
Numbers do not represent any request for rate action on behalf of the PSC.**



All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
 Numbers do not represent any request for rate action on behalf of the PSC.

## U.S. Virgin Islands Water and Power Authority

### Worksheet 1: LEAC Rate

Line #		Current As Approved Jul-Dec 2021	Proposed LEAC Jul-Dec 2022
<u>Sales</u>			
1	Total Sales Forecast (MWh)		304,462
<u>Costs to be Recovered (\$)</u>			
2	Current Fuel Cost Portion of LEAC	\$	50,628,577
Other Charges			
3	PSC Regulatory Costs		84,000
4	Renewable Energy Costs		686,351
5	Ultra Pure Water Charge		883,868
6	Plant Repair RO Contract		122,787
7	Total Other Charges		1,777,006
8	Total Costs to be Recovered (Line 2+7)	\$	52,405,583
<u>LEAC Rate Calculation (¢/kWh)</u>			
9	Current Fuel Cost Portion of LEAC		16.63
Other Charges			
10	PSC Regulatory Costs		0.03
11	Renewable Energy Costs		0.23
12	Ultra Pure Water Charge		0.29
13	Plant Repair RO Contract		0.04
14	Total Other Charges		0.58
15	Total LEAC Rate (Line 9+14)		17.21

All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
 Numbers do not represent any request for rate action on behalf of the PSC.

## U.S. Virgin Islands Water and Power Authority

### Worksheet 2: Comparison of Rate Change

Line #		Current As Approved Jul-Dec 2021	Proposed LEAC Jul-Dec 2022	Cross Reference WS #	Line #
<u>LEAC Rate Summary (¢/kWh)</u>					
LEAC Rate					
1	Current Fuel Costs		16.63	1	9
2	All Other		0.58	1	14
3	Total LEAC		17.21	1	15
<u>Energy Volumes</u>					
4	Total Sales Forecast		304,462	1	1
5	% Change vs. Currently Approved				
<u>Average Thermal Heat Rates (BTU/kWh)</u>					
6	Plant		12,095		
7	% Change vs. Currently Approved				
<u>Fuel Cost and Mix</u>					
8	No. 2 Oil Average Price Delivered (\$/gal)	\$	2.44		
9	% Change vs. Currently Approved				
10	LPG Average Price Delivered (\$/gal)	\$	1.10		
11	% Change vs. Currently Approved				
Fuel Mix (MMBTU)					
12	No. 2 Oil		33.1%		
13	LPG		66.9%		

All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
 Numbers do not represent any request for rate action on behalf of the PSC.

## U.S. Virgin Islands Water and Power Authority

### Worksheet 3: Consumer Retail Rate Impact

Line #	Rate Class		
	Residential	Commercial	Large Power
1	Average Monthly Usage (kWh)		
2	Change in LEAC Rate (¢/kWh)		
3	Impact to Bill (Monthly)		

	Avg. Monthly Usage (kWh)	Change in LEAC Rate (¢/kWh)	Impact to Bill
4	200		
5	400		
6	600		
7	800		
8	1,000		
9	1,200		
10	1,400		
11	1,600		
12	1,800		
13	2,000		

All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
Numbers do not represent any request for rate action on behalf of the PSC.

U.S. Virgin Islands Water and Power Authority

Worksheet 4: Comparison of Fuel Parameters

Line #		Current As Approved Jul-Dec 2021	Proposed LEAC Jul-Dec 2022	Cross Reference WS #	Line #
<u>Fuel Consumption</u>					
1	No. 2 Oil (MMBTU)		1,288,794		
2	LPG (MMBTU)		2,603,274		
3	Total Consumption (MMBTU) (Line 1+2)		3,892,068		
4	No. 2 Oil Heat Content		141,000		
5	LPG Heat Content		91,500		
6	No. 2 Oil Gallons - Line 1/4		9,140,383		
7	LPG Gallons - Line 2/5		28,451,082		
8	Total Gallons Required (Line 6+7)		37,591,465		
Fuel Mix (MMBTU)					
9	No. 2 Oil		33.1%	2	12
10	LPG		66.9%	2	13
11	Plant Heat Rate (BTU/kWh)		12,095	2	6
<u>Fuel Prices (\$/Gal)</u>					
12	No. 2 Oil - Delivered	\$	2.44	2	8
13	LPG - Delivered		1.10	2	10
14	Weighted Average - Delivered	\$	1.54		
<u>Fuel Costs (\$)</u>					
15	No. 2 Oil - Delivered	\$	21,512,792		
16	LPG - Delivered		31,332,134		
17	Total (Line 15+16)	\$	52,844,926		
18	Less: Energy Charges to Water Department	\$	(2,216,349)		
19	Current Fuel Cost to be Recovered (Line 17+18)	\$	50,628,577	1	2

All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
 Numbers do not represent any request for rate action on behalf of the PSC.

U.S. Virgin Islands Water and Power Authority

Worksheet 5: Production Costing and Fuel Cost Summary

Line # St. Thomas

	Month	Fuel Consumption (Gal)		Fuel Cost (\$/Gal)		Fuel Cost (\$)		Total Generation (MWh)	Total Renewable Generation (MWh)
		LPG	No. 2 Oil	LPG	No. 2 Oil	LPG	No. 2 Oil		
1	1								
2	2								
3	3	4,033,561	368,639	\$ 1.57	\$ 3.95	\$ 6,346,136	\$ 1,456,050	31,417	1,244
4	4								
5	5								
6	6								
7	Total	4,033,561	368,639	\$ 1.57	\$ 3.95	\$ 6,346,136	\$ 1,456,050	31,417	1,244

St. Croix

	Month	Fuel Consumption (Gal)		Fuel Cost (\$/Gal)		Fuel Cost (\$)		Total Generation (MWh)	Total Renewable Generation (MWh)
		LPG	No. 2 Oil	LPG	No. 2 Oil	LPG	No. 2 Oil		
8	1								
9	2								
10	3	3,033,100	0	\$ 1.57	\$ -	\$ 4,772,077	\$ -	22,478	713
11	4								
12	5								
13	6								
14	Total	3,033,100	0	\$ 1.57	\$ -	\$ 4,772,077	\$ -	22,478	713

All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
Numbers do not represent any request for rate action on behalf of the PSC.

U.S. Virgin Islands Water and Power Authority

Worksheet 6: Billing Forecast (Net-to-Gross Reconciliation)

Line #		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	6-Month Total
<u>St. Thomas (MWh)</u>								
1	Total Sales Forecast	29,465	29,642	28,721	28,586	27,407	27,535	171,356
2	Renewables Generation	1,370	1,384	1,244	1,139	983	949	7,069
3	Thermal Sales Forecast (Line 1-2)	28,095	28,258	27,477	27,447	26,424	26,586	164,286
4	Line Loss Assumption As Stipulated	6.6%	6.6%	6.6%	6.6%	6.6%	6.6%	6.6%
5	Add: Thermal Line Loss As Stipulated	1,985	1,997	1,942	1,939	1,867	1,879	11,609
6	Sales Required from Thermal Generation (Line 3+5)	30,080	30,254	29,419	29,386	28,291	28,465	175,896
7	Allowable Plant Use Assumption As Stipulated	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
8	Add: Thermal Allowable Plant Use As Stipulated	771	776	754	753	725	730	4,510
9	Total Thermal Generation Required (Line 6+8)	30,851	31,030	30,173	30,140	29,017	29,195	180,406
10	Total Generation (Line 2+9)	32,222	32,414	31,417	31,279	29,999	30,144	187,475
<u>St. Croix (MWh)</u>								
11	Total Sales Forecast	22,486	21,594	20,533	20,795	18,685	18,698	122,791
12	Renewables Generation	797	760	713	689	591	610	4,160
13	Thermal Sales Forecast (Line 11-12)	21,689	20,834	19,820	20,106	18,094	18,088	118,630.91
14	Line Loss Assumption As Stipulated	6.6%	6.6%	6.6%	6.6%	6.6%	6.6%	6.6%
15	Add: Thermal Line Loss As Stipulated	1,533	1,472	1,401	1,421	1,279	1,278	8,383
16	Sales Required from Thermal Generation (Line 13+15)	23,221	22,306	21,221	21,526	19,373	19,366	127,014
17	Allowable Plant Use Assumption As Stipulated	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
18	Add: Thermal Allowable Plant Use As Stipulated	595	572	544	552	497	497	3,257
19	Total Thermal Generation Required (Line 16+18)	23,817	22,878	21,765	22,078	19,870	19,863	130,271
20	Total Generation (Line 12+19)	24,614	23,638	22,478	22,767	20,460	20,473	134,430

All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
 Numbers do not represent any request for rate action on behalf of the PSC.

U.S. Virgin Islands Water and Power Authority

Worksheet 7: Renewable Power & Energy Forecast

Line #	St. Thomas			Cross Reference WS #	Line #
	Unit	Renewable Capacity (MW)	Trailing Six Months Generation (MWh)	Proposed Period Generation (MWh)	
1	Bovoni Landfill			0	
2	Port Authority (Cyril E King Airport)			490	
3	Donoe Solar (BMR)			6,579	
4	Cruz Bay, STJ Solar			0	
5	PV Street Lights			0	
6	Total Renewable Energy			7,069	6 2

Line #	St. Croix			Cross Reference WS #	Line #
	Unit	Renewable Capacity (MW)	Trailing Six Months Generation (MWh)	Proposed Period Generation (MWh)	
7	Spanish Town Solar Farm			4,160	
8	Adventure Solar			0	
9	Henry Rohlsen Airport Solar			0	
10	Longford Wind Farm			0	
11	PV Street Lights			0	
12	Total Renewable Energy			4,160	6 12

All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
 Numbers do not represent any request for rate action on behalf of the PSC.

U.S. Virgin Islands Water and Power Authority

Worksheet 8: Thermal Power and Energy Forecast

Line #		Current As Approved		Proposed LEAC		Cross Reference	
		Jul-Dec 2021	Jul-Dec 2022	Jul-Dec 2021	Jul-Dec 2022	WS #	Line #
<u>St. Thomas (MWh)</u>							
1	Total Energy Requirement for Billings (WS 6)	157,331				6	10
2	Less: Renewable Generation (WS 7)	0				7	6
3	Total Thermal Power & Energy Forecast (Line 1-2)	157,331				6	9
<u>St. Croix (MWh)</u>							
4	Total Energy Requirement for Billings (WS 6)	113,957				6	20
5	Less: Renewable Generation (WS 7)	0				7	12
6	Total Thermal Power & Energy Forecast (Line 4-5)	113,957				6	19



All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
 Numbers do not represent any request for rate action on behalf of the PSC.

U.S. Virgin Islands Water and Power Authority

Worksheet 9a: Production Costing Inputs

Line #		Total - All Units	GT 14-STT	GT 15-STT	GT 23-STT	GT 27-STT	GT 15-STT	GT 27-STT	Rice 1-STT	Rice 2-STT
1	Maximum Capacity (MW)									
2	Minimum Capacity (MW)									
3	Forced Outage Rate (%)									
4	Annual Required Maintenance Hours									
5	Planned Maintenance Start (Date & Time)									
6	Planned Maintenance End (Date & Time)									
7	Avg. Heat Rate 1 (BTU/kWh)									
8	Avg. Heat Rate 2 (BTU/kWh)									
9	Avg. Heat Rate 3 (BTU/kWh)									
10	Heat Points 1 (MW)									
11	Heat Points 2 (MW)									
12	Heat Points 3 (MW)									

		Rice 3-STT	Rice 4-STT	Rice 5-STT	Rice 6-STT	Rice 7-STT	Rice 8-STT	Rice 4-STT	Rice 5-STT	Rice 6-STT
13	Maximum Capacity (MW)									
14	Minimum Capacity (MW)									
15	Forced Outage Rate (%)									
16	Annual Required Maintenance Hours									
17	Planned Maintenance Start (Date & Time)									
18	Planned Maintenance End (Date & Time)									
19	Avg. Heat Rate 1 (BTU/kWh)									
20	Avg. Heat Rate 2 (BTU/kWh)									
21	Avg. Heat Rate 3 (BTU/kWh)									
22	Heat Points 1 (MW)									
23	Heat Points 2 (MW)									
24	Heat Points 3 (MW)									

All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
 Numbers do not represent any request for rate action on behalf of the PSC.

U.S. Virgin Islands Water and Power Authority

Worksheet 9a: Production Costing Inputs

Line #	Rice 7-STT	GT 20-STX	GT 17-STX	GT 19-STX	GT 20-STX	GT 17-STX	AGG 1-STX	AGG 2-STX	AGG 3-STX
1	Maximum Capacity (MW)								
2	Minimum Capacity (MW)								
3	Forced Outage Rate (%)								
4	Annual Required Maintenance Hours								
5	Planned Maintenance Start (Date & Time)								
6	Planned Maintenance End (Date & Time)								
7	Avg. Heat Rate 1 (BTU/kWh)								
8	Avg. Heat Rate 2 (BTU/kWh)								
9	Avg. Heat Rate 3 (BTU/kWh)								
10	Heat Points 1 (MW)								
11	Heat Points 2 (MW)								
12	Heat Points 3 (MW)								

Line #	AGG 4-STX	AGG 5-STX	AGG 6-STX	AGG 7-STX	AGG 8-STX	AGG 9-STX	AGG 10-STX	AGG 11-STX	Rice 1-STX
13	Maximum Capacity (MW)								
14	Minimum Capacity (MW)								
15	Forced Outage Rate (%)								
16	Annual Required Maintenance Hours								
17	Planned Maintenance Start (Date & Time)								
18	Planned Maintenance End (Date & Time)								
19	Avg. Heat Rate 1 (BTU/kWh)								
20	Avg. Heat Rate 2 (BTU/kWh)								
21	Avg. Heat Rate 3 (BTU/kWh)								
22	Heat Points 1 (MW)								
23	Heat Points 2 (MW)								
24	Heat Points 3 (MW)								

All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
 Numbers do not represent any request for rate action on behalf of the PSC.

U.S. Virgin Islands Water and Power Authority

Worksheet 9a: Production Costing Inputs

Line #		AGG 12-STX	AGG 13-STX	AGG 14-STX	AGG 15-STX	AGG 16-STX	AGG 17-STX	AGG 18-STX	Rice 2-STX	Rice 3-STX
1	Maximum Capacity (MW)									
2	Minimum Capacity (MW)									
3	Forced Outage Rate (%)									
4	Annual Required Maintenance Hours									
5	Planned Maintenance Start (Date & Time)									
6	Planned Maintenance End (Date & Time)									
7	Avg. Heat Rate 1 (BTU/kWh)									
8	Avg. Heat Rate 2 (BTU/kWh)									
9	Avg. Heat Rate 3 (BTU/kWh)									
10	Heat Points 1 (MW)									
11	Heat Points 2 (MW)									
12	Heat Points 3 (MW)									

		Rice 4-STX	Rice 1-STX	Rice 2-STX	Rice 3-STX	Rice 4-STX
13	Maximum Capacity (MW)					
14	Minimum Capacity (MW)					
15	Forced Outage Rate (%)					
16	Annual Required Maintenance Hours					
17	Planned Maintenance Start (Date & Time)					
18	Planned Maintenance End (Date & Time)					
19	Avg. Heat Rate 1 (BTU/kWh)					
20	Avg. Heat Rate 2 (BTU/kWh)					
21	Avg. Heat Rate 3 (BTU/kWh)					
22	Heat Points 1 (MW)					
23	Heat Points 2 (MW)					
24	Heat Points 3 (MW)					

All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
Numbers do not represent any request for rate action on behalf of the PSC.

U.S. Virgin Islands Water and Power Authority  
Worksheet 9b: Production Costing Outputs - Island Totals

Line #	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	6-Month Total	Cross Reference WS #	Line #
<b>St. Thomas Total</b>									
1			28,243						
2			1,930						
3			30,173					6	9
4			369,071						
5			51,978						
6			421,049						
7			91,500						
8			141,000						
9			4,033,561						
10			368,639						
11								2	10
12								2	8
13								5	7
14								5	7
15									
16									
<b>St. Croix Total</b>									
17			21,765						
18			-						
19			21,765					6	19
20			277,529						
21			-						
22			277,529						
23			91,500						
24			141,000						
25			3,033,100						
26			0						
27								2	10
28								2	8
29								5	7
30									
31									
32									

All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
 Numbers do not represent any request for rate action on behalf of the PSC.

U.S. Virgin Islands Water and Power Authority

Worksheet 9c: Production Costing Outputs - St. Thomas by Unit

Line #	Unit	Fuel Type	Resource Dispatch Mode	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
<b>Generation (MWH)</b>									
1	GT 14	Diesel	OUT	0	0	0	0	0	0
2	GT 15	Diesel	OUT	0	0	0	0	0	0
3	GT 23	Diesel	ECON	0	400	0	80	0	0
4	GT 27	Diesel	ECON	2,294	4,022	1,930	2,187	3,307	3,742
5	GT 15	LPG	ECON	14,895	12,239	15,031	14,621	12,425	11,743
6	GT 27	LPG	OUT	0	0	0	0	0	0
7	Rice 1	LPG	ECON	4,505	4,962	4,516	4,424	4,457	4,617
8	Rice 2	LPG	ECON	4,589	4,821	4,455	4,496	4,538	4,628
9	Rice 3	LPG	ECON	4,568	4,586	4,241	4,332	4,290	4,464
10	Rice 4	LPG	OUT	0	0	0	0	0	0
11	Rice 5	LPG	OUT	0	0	0	0	0	0
12	Rice 6	LPG	OUT	0	0	0	0	0	0
13	Rice 7	LPG	OUT	0	0	0	0	0	0
14	Rice 8	LPG	OUT	0	0	0	0	0	0
15	Rice 4	Diesel	OUT	0	0	0	0	0	0
16	Rice 5	Diesel	OUT	0	0	0	0	0	0
17	Rice 6	Diesel	OUT	0	0	0	0	0	0
18	Rice 7	Diesel	OUT	0	0	0	0	0	0
19	Rice 8	Diesel	OUT	0	0	0	0	0	0
20	Bov PV 1	Renewable	Fixed (Renewable)	0	0	0	0	0	0
21	PA PV 1	Renewable	Fixed (Renewable)	90	91	84	82	72	71
22	Don PV 1	Renewable	Fixed (Renewable)	1,281	1,293	1,160	1,057	911	878
23	CRZ PV 1	Renewable	Fixed (Renewable)	0	0	0	0	0	0
24	Total Generation - No. 2 / LPG			30,851	31,030	30,173	30,140	29,017	29,195
25	Total Generation - All			32,222	32,414	31,417	31,279	29,999	30,144
<b>Consumption (MMBTU)</b>									
26	GT 14	Diesel	OUT	0	0	0	0	0	0
27	GT 15	Diesel	OUT	0	0	0	0	0	0
28	GT 23	Diesel	ECON	0	11,419	0	2,296	0	0
29	GT 27	Diesel	ECON	56,296	71,176	51,978	55,372	63,842	68,761
30	GT 15	LPG	ECON	239,374	196,644	241,752	237,172	202,233	192,777
31	GT 27	LPG	OUT	0	0	0	0	0	0
32	Rice 1	LPG	ECON	43,479	47,226	43,359	42,814	42,870	44,398
33	Rice 2	LPG	ECON	44,168	46,068	42,854	43,403	43,539	44,489
34	Rice 3	LPG	ECON	43,991	44,138	41,105	42,058	41,502	43,139
35	Rice 4	LPG	OUT	0	0	0	0	0	0
36	Rice 5	LPG	OUT	0	0	0	0	0	0
37	Rice 6	LPG	OUT	0	0	0	0	0	0
38	Rice 7	LPG	OUT	0	0	0	0	0	0
39	Rice 8	LPG	OUT	0	0	0	0	0	0
40	Rice 4	Diesel	OUT	0	0	0	0	0	0
41	Rice 5	Diesel	OUT	0	0	0	0	0	0
42	Rice 6	Diesel	OUT	0	0	0	0	0	0
43	Rice 7	Diesel	OUT	0	0	0	0	0	0
44	Rice 8	Diesel	OUT	0	0	0	0	0	0
45	Total Consumption - LPG			371,012	334,076	369,071	365,448	330,144	324,804
46	Total Consumption - Diesel			56,296	82,596	51,978	57,668	63,842	68,761

All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
 Numbers do not represent any request for rate action on behalf of the PSC.

U.S. Virgin Islands Water and Power Authority

Worksheet 9c: Production Costing Outputs - St. Thomas by Unit

Line #	Unit	Fuel Type	Resource Dispatch Mode	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
<u>Heat Rate (BTU/KWH)</u>									
47	GT 14	Diesel	OUT						
48	GT 15	Diesel	OUT						
49	GT 23	Diesel	ECON		28,549		28,699		
50	GT 27	Diesel	ECON	24,540	17,695	26,938	25,322	19,302	18,376
51	GT 15	LPG	ECON	16,071	16,067	16,084	16,221	16,277	16,416
52	GT 27	LPG	OUT						
53	Rice 1	LPG	ECON	9,651	9,517	9,601	9,677	9,619	9,616
54	Rice 2	LPG	ECON	9,624	9,556	9,620	9,654	9,594	9,612
55	Rice 3	LPG	ECON	9,631	9,625	9,691	9,709	9,674	9,664
56	Rice 4	LPG	OUT						
57	Rice 5	LPG	OUT						
58	Rice 6	LPG	OUT						
59	Rice 7	LPG	OUT						
60	Rice 8	LPG	OUT						
61	Rice 4	Diesel	OUT						
62	Rice 5	Diesel	OUT						
63	Rice 6	Diesel	OUT						
64	Rice 7	Diesel	OUT						
65	Rice 8	Diesel	OUT						
66	STT Total Heat Rate - (Lines 45+46)/24			13,851	13,428	13,955	14,038	13,578	13,481

All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
Numbers do not represent any request for rate action on behalf of the PSC.

U.S. Virgin Islands Water and Power Authority  
Worksheet 9d: Production Costing Outputs - St. Croix by Unit

Line #	Unit	Fuel Type	Resource Dispatch Mode	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Generation (MWH)									
1	GT 20	Diesel	OUT	0	0	0	0	0	0
2	GT 17	Diesel	OUT	0	0	0	0	0	0
3	GT 19	Diesel	ECON	0	0	0	0	0	0
4	GT 20	LPG	ECON	0	0	0	0	0	0
5	GT 17	LPG	ECON	10,322	9,483	8,706	8,539	6,598	6,168
6	AGG 1	LPG	ECON	784	797	775	792	789	804
7	AGG 2	LPG	ECON	791	777	774	805	778	804
8	AGG 3	LPG	ECON	805	784	770	801	783	810
9	AGG 4	LPG	ECON	801	785	760	796	773	806
10	AGG 5	LPG	ECON	782	774	751	793	779	804
11	AGG 6	LPG	ECON	797	783	765	791	779	802
12	AGG 7	LPG	ECON	808	795	774	802	784	804
13	AGG 8	LPG	ECON	799	789	772	801	787	810
14	AGG 9	LPG	ECON	806	777	780	799	778	802
15	AGG 10	LPG	ECON	782	801	766	792	782	814
16	AGG 11	LPG	ECON	758	791	767	796	784	804
17	AGG 12	LPG	ECON	799	786	756	790	781	809
18	AGG 13	LPG	ECON	795	798	781	796	777	810
19	AGG 14	LPG	ECON	806	798	766	797	784	812
20	AGG 15	LPG	ECON	787	782	766	801	778	804
21	AGG 16	LPG	ECON	803	786	758	790	782	802
22	AGG 17	LPG	ECON	791	791	776	796	773	795
23	AGG 18	LPG	OUT	0	0	0	0	0	0
24	Rice 1	LPG	OUT	0	0	0	0	0	0
25	Rice 2	LPG	OUT	0	0	0	0	0	0
26	Rice 3	LPG	OUT	0	0	0	0	0	0
27	Rice 4	LPG	OUT	0	0	0	0	0	0
28	Rice 1	Diesel	OUT	0	0	0	0	0	0
29	Rice 2	Diesel	OUT	0	0	0	0	0	0
30	Rice 3	Diesel	OUT	0	0	0	0	0	0
31	Rice 4	Diesel	OUT	0	0	0	0	0	0
32	PV 2	Renewable	Fixed (Renewable)	797	760	713	689	591	610
33	Advent PV 1	Renewable	Fixed (Renewable)	0	0	0	0	0	0
34	Hera PV 1	Renewable	Fixed (Renewable)	0	0	0	0	0	0
35	Wd 1	Renewable	Fixed (Renewable)	0	0	0	0	0	0
36	Total Generation - No. 2 / LPG			23,817	22,878	21,765	22,078	19,870	19,863
37	Total Generation - All			24,614	23,638	22,478	22,767	20,460	20,473
Consumption (MMBTU)									
38	GT 20	Diesel	OUT	0	0	0	0	0	0
39	GT 17	Diesel	OUT	0	0	0	0	0	0
40	GT 19	Diesel	ECON	0	0	0	0	0	0
41	GT 20	LPG	ECON	0	0	0	0	0	0
42	GT 17	LPG	ECON	170,269	160,098	149,162	148,524	123,441	119,852
43	AGG 1	LPG	ECON	7,704	7,831	7,617	7,790	7,754	7,899
44	AGG 2	LPG	ECON	7,773	7,636	7,609	7,913	7,649	7,900
45	AGG 3	LPG	ECON	7,917	7,708	7,570	7,872	7,692	7,960
46	AGG 4	LPG	ECON	7,875	7,718	7,473	7,822	7,597	7,918
47	AGG 5	LPG	ECON	7,690	7,610	7,380	7,796	7,660	7,906
48	AGG 6	LPG	ECON	7,838	7,695	7,523	7,777	7,660	7,881
49	AGG 7	LPG	ECON	7,944	7,819	7,611	7,884	7,703	7,903
50	AGG 8	LPG	ECON	7,851	7,752	7,588	7,873	7,738	7,960
51	AGG 9	LPG	ECON	7,923	7,642	7,664	7,853	7,651	7,879
52	AGG 10	LPG	ECON	7,691	7,878	7,530	7,790	7,685	8,002
53	AGG 11	LPG	ECON	7,456	7,780	7,542	7,827	7,701	7,899
54	AGG 12	LPG	ECON	7,852	7,723	7,435	7,762	7,678	7,954
55	AGG 13	LPG	ECON	7,817	7,846	7,680	7,828	7,641	7,956
56	AGG 14	LPG	ECON	7,920	7,844	7,531	7,834	7,701	7,977
57	AGG 15	LPG	ECON	7,734	7,689	7,528	7,874	7,644	7,901
58	AGG 16	LPG	ECON	7,893	7,731	7,454	7,769	7,683	7,886
59	AGG 17	LPG	ECON	7,771	7,779	7,631	7,825	7,602	7,815
60	AGG 18	LPG	OUT	0	0	0	0	0	0
61	Rice 1	LPG	OUT	0	0	0	0	0	0
62	Rice 2	LPG	OUT	0	0	0	0	0	0
63	Rice 3	LPG	OUT	0	0	0	0	0	0
64	Rice 4	LPG	OUT	0	0	0	0	0	0
65	Rice 1	Diesel	OUT	0	0	0	0	0	0
66	Rice 2	Diesel	OUT	0	0	0	0	0	0
67	Rice 3	Diesel	OUT	0	0	0	0	0	0
68	Rice 4	Diesel	OUT	0	0	0	0	0	0
69	Total Consumption - LPG			302,918	291,778	277,529	281,613	253,880	254,449
70	Total Consumption - Diesel			0	0	0	0	0	0

All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
 Numbers do not represent any request for rate action on behalf of the PSC.

U.S. Virgin Islands Water and Power Authority  
 Worksheet 9d: Production Costing Outputs - St. Croix by Unit

Line #	Unit	Fuel Type	Resource Dispatch Mode	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Heat Rate (BTU/KWH)									
71	GT 20	Diesel	OUT						
72	GT 17	Diesel	OUT						
73	GT 19	Diesel	ECON						
74	GT 20	LPG	ECON						
75	GT 17	LPG	ECON	16,495	16,882	17,133	17,394	18,708	19,430
76	AGG 1	LPG	ECON	9,831	9,830	9,829	9,830	9,827	9,829
77	AGG 2	LPG	ECON	9,830	9,832	9,829	9,829	9,829	9,829
78	AGG 3	LPG	ECON	9,829	9,831	9,830	9,829	9,828	9,828
79	AGG 4	LPG	ECON	9,829	9,831	9,831	9,830	9,829	9,829
80	AGG 5	LPG	ECON	9,831	9,833	9,832	9,830	9,829	9,829
81	AGG 6	LPG	ECON	9,830	9,831	9,830	9,830	9,829	9,829
82	AGG 7	LPG	ECON	9,828	9,830	9,829	9,829	9,828	9,829
83	AGG 8	LPG	ECON	9,829	9,831	9,829	9,829	9,828	9,828
84	AGG 9	LPG	ECON	9,828	9,832	9,829	9,829	9,829	9,829
85	AGG 10	LPG	ECON	9,831	9,829	9,830	9,830	9,828	9,827
86	AGG 11	LPG	ECON	9,835	9,830	9,830	9,830	9,828	9,829
87	AGG 12	LPG	ECON	9,829	9,831	9,832	9,831	9,828	9,828
88	AGG 13	LPG	ECON	9,830	9,829	9,828	9,830	9,829	9,828
89	AGG 14	LPG	ECON	9,829	9,829	9,830	9,830	9,828	9,828
90	AGG 15	LPG	ECON	9,831	9,831	9,830	9,829	9,829	9,829
91	AGG 16	LPG	ECON	9,829	9,831	9,831	9,830	9,828	9,829
92	AGG 17	LPG	ECON	9,830	9,830	9,829	9,830	9,829	9,830
93	AGG 18	LPG	OUT						
94	Rice 1	LPG	OUT						
95	Rice 2	LPG	OUT						
96	Rice 3	LPG	OUT						
97	Rice 4	LPG	OUT						
98	Rice 1	Diesel	OUT						
99	Rice 2	Diesel	OUT						
100	Rice 3	Diesel	OUT						
101	Rice 4	Diesel	OUT						
102	STX Total Heat Rate - (Lines 69+70)/36			12,719	12,754	12,751	12,755	12,777	12,810



All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
 Numbers do not represent any request for rate action on behalf of the PSC.

## U.S. Virgin Islands Water and Power Authority

### Worksheet 10: Water System Reimbursable Costs

Line #		Current As Approved Jul-Dec 2021	Proposed LEAC Jul-Dec 2022	Cross Reference WS #	Line #
<u>Ultra Pure Water Charge - Island Totals</u>					
1	St. Thomas	\$	645,080		
2	St. Croix		238,788		
3	Total	\$	883,868	1	10
4	Plant Repair RO Contract (STT Only)	\$	122,787	1	6
<u>Ultra Pure Water Charge - kgal</u>					
5	STT		64,400		
6	STX		25,760		
7	Total kgal		90,160		
<u>Ultra Pure Water Charge - Cost per kgal</u>					
8	STT	\$	10.02		
9	STX		9.27		
10	Weighted Average Cost per kgal	\$	9.80		
<u>RO Energy Consumed (kWh)</u>					
11	STT		4,483,667		
12	STX		6,369,179		
13	Total		10,852,846		

All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
 Numbers do not represent any request for rate action on behalf of the PSC.

## U.S. Virgin Islands Water and Power Authority

### Worksheet 11: Other Eligible LEAC Costs

Line #		Current As Approved		Proposed LEAC		Cross Reference	
		Jul-Dec 2021	Jul-Dec 2021	Jul-Dec 2022	Jul-Dec 2022	WS #	Line #
Other Eligible LEAC Costs							
1	PSC Regulatory Costs	\$	84,000			1	3
2	Renewable Energy Costs		686,351			1	4
3	Ultra Pure Water Charge		883,868			1	5
4	Plant Repair RO Contract		122,787			1	6
5	Total Other Charges	\$	1,777,006			1	7

All numbers are illustrative. Worksheets provided to outline future rate request procedures.  
 Numbers do not represent any request for rate action on behalf of the PSC.

U.S. Virgin Islands Water and Power Authority

Worksheet 12: Fuel Futures Pricing Forecast

Line #		Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Cross Reference WS #	Line #
<u>LPG</u>									
7-Day Sample (Unhedged)									
1	5/5/2022	1.28	1.28	1.28	1.28	1.28	1.28		
2	5/20/2022	1.23	1.23	1.23	1.23	1.23	1.23		
3	5/24/2022	1.21	1.21	1.22	1.22	1.22	1.22		
4	Insert date	-	-	-	-	-	-		
5	Insert date	-	-	-	-	-	-		
6	Insert date	-	-	-	-	-	-		
7	Insert date	-	-	-	-	-	-		
8	Avg. Spot Price (per Gal)	\$ 1.24	\$ 1.24	\$ 1.24	\$ 1.24	\$ 1.24	\$ 1.24		
9	Delivery	0.33	0.33	0.33	0.33	0.33	0.33		
10	Total Price per Gallon (Line 8+9)	\$ 1.57	\$ 1.57	\$ 1.57	\$ 1.57	\$ 1.57	\$ 1.57	2	10
<u>No. 2 Oil</u>									
7-Day Sample (Unhedged)									
11	5/5/2022	3.69	3.59	3.51	3.41	3.31	3.23		
12	5/20/2022	3.54	3.48	3.43	3.34	3.25	3.18		
13	5/24/2022	3.52	3.48	3.43	3.36	3.28	3.21		
14	Insert date	-	-	-	-	-	-		
15	Insert date	-	-	-	-	-	-		
16	Insert date	-	-	-	-	-	-		
17	Insert date	-	-	-	-	-	-		
18	Avg. Spot Price (per Gal)	\$ 3.58	\$ 3.52	\$ 3.45	\$ 3.37	\$ 3.28	\$ 3.21		
19	Delivery	0.495	0.495	0.495	0.495	0.495	0.495		
20	Total Price per Gallon (Line 18+19)	\$ 4.08	\$ 4.01	\$ 3.95	\$ 3.87	\$ 3.77	\$ 3.70	2	8