DUFF & PHELPS

Highest and Best Use of the HOVENSA Refinery

August 3, 2012

Results and Findings Related to the Services Outlined in RFP-0023-2012(P)

Prepared For

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Content

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I. Executive Summary

Engagement Overview

We, Duff & Phelps, LLC ("Duff & Phelps" or "D&P") and Duff & Phelps Securities, LLC ("DPS") have individually completed the consulting services (the "Services") for the Government of the US Virgin Islands (the "GVI") related to RFP-0023-2012 (P) and the contract (the "Contract") executed in May 2012. The Services provided relate to HOVENSA L.L.C. ("HOVENSA") and the shut-down of the HOVENSA refinery (the "Refinery" or the "Facility").

The Situation

- In December 2011, HOVENSA joint-venture partners, Hess Corporation's ("Hess") subsidiary, Hess Oil Virgin Islands Corp. ("HOVIC"), and Petroleos de Venezuela, S.A.'s ("PDVSA") subsidiary, PDVSA V.I., Inc. ("PDVSA VI"), reached an agreement to commence the shut-down of the refining operations effective January 18, 2012. The shut-down of the Refinery was completed on February 21, 2012
- As part of the agreement, HOVENSA plans to transition the facility into an oil storage terminal, a process estimated to take approximately 18 months, putting completion of the conversion process in the second half of 2013
- HOVENSA is currently in the process of soliciting storage interest from third-parties. A spokesman from HOVENSA has indicated they currently have short-term customers, but was unwilling to identify the customers or provide volumes
- HOVENSA holds an agreement (the "Concession Agreement") with the GVI that outlines the taxes and other benefits provided by HOVENSA to the USVI in order to operate the Facility on St. Croix. The current agreement mandates payment of approximately $14 million per year in lieu of property taxes to the GVI. Additionally, it requires HOVENSA to supply the US Virgin Islands Water and Power Authority ("WAPA") discounted fuel for the effective period of the Concession Agreement which runs to 2022
  - According to WAPA representatives, the discounted fuel agreement provides savings of approximately $40 million to $50 million per year. HOVENSA is proposing revisions to this agreement that would substantially eliminate the savings starting in January 2013

Implications for the GVI

- The Refinery was the largest private employer and taxpayer in the territory, employing approximately 1,200 full time employees and 950 contractors at peak operations. HOVENSA has already released over 1,000 employees, and plans to operate the terminal with approximately 100 employees and 30 contractors
- To facilitate the transition of the Facility to an oil storage terminal, HOVENSA has proposed several changes to the Concession Agreement with the GVI
- The GVI is presented with the task of evaluating the proposed revisions to the Concession Agreement and determining its response
  - To determine if acceptance is in the best interest of the GVI and the citizens of St. Croix and the US Virgin Islands (the "USVI"), it is necessary to assess the prospects for the Facility as a refinery, an oil storage terminal, or some other alternative use

The Concession Agreement

The Concession Agreement in place with HOVENSA outlines rules in place with the GVI to pay taxes and provide services to the GVI and the residents of St. Croix and the USVI. The table below outlines the current Concession Agreement in place and the proposed change requested by HOVENSA to facilitate their conversion of the Facility into an oil storage terminal.

Item	HOVENSA Proposal[6]
Provide Training to USVI Residents [1]	▪ HOVENSA to work with Governor's Task Force on assessing the need for new training programs and scholarships ▪ HOVENSA is prepared to invest $2 million per year for 5 years in education and, for so long as the terminal is operated by HOVENSA, a minimum of $500,000 per year in scholarships
Pay $14 million/yr in Property Taxes [2]	▪ Commencing June 1, 2012, amount will reduce to $4 million per year, paid in monthly installments
Bid on WAPA's Fuel Supply Contract [3]	▪ The current WAPA agreement will be extended beyond June 30, 2012 and then terminated the earlier of December 31, 2012 and the date on which WAPA contracts with a third party supplier or establishes purchasing capability ▪ Pricing established through December 31, 2012, HOVENSA has no obligation to bid thereafter ▪ WAPA obligated to begin prepaying on April 1, 2012 until arrears paid in full, due by June 30, 2012
Supply GVI Agencies with Product at the Rack and Maintain Sufficient Fuel Supplies to Meet Local Fuel Needs [4]	▪ Terminates the earlier of December 31, 2012 and the date that HOVENSA concludes storage and fuel rack operation agreement(s) with third parties who have negotiated with the GVI ▪ HOVENSA to assist with the third party supplier transition ▪ HOVENSA is prepared to lease the fuel rack to the GVI or third parties on reasonable terms
Exemption from Certain Taxes/Duties [5]	▪ Exemptions include, but are not limited to: gross receipts taxes on storage, as well as custom duties and excise taxes on imported or exported products ▪ Exemptions will apply to all HOVENSA customers utilizing HOVENSA storage
Concession Agreement and Submerged Land Leases Expiry in 2022	▪ Extend Amended Concession Agreement through 2042 ▪ Amended Concession Agreement effective retroactive to May 31, 2012 ▪ Extend Submerged Land Leases to 2036 and reduce annual payments from $800,000 to $1 per year

[1] Sections 10 and 12 of the Third Extension
[2] Section 5c of the First Extension
[3] Section 3 of the Third Extension
[4] Sections 4 of the Third Extension and 12b of the First Extension
[5] Section 4a of Concession Agreement; Sections 3 and 7 of First Extension; Section 8 of Second Extension
[6] HOVENSA has requested other assistance from the GVI not related to the Concession Agreement and not considered in this analysis.

The Services

Duff & Phelps evaluated the use of the Facility under continued use as a refinery, an oil storage terminal, and other alternative uses to assist the GVI in determining the best course of action concerning the proposed changes to the Concession Agreement. We have also identified potential acquirers of the Facility and additional considerations in the event that bankruptcy is filed by HOVENSA.

Evaluating Optimal Use

- *Continued Use as a Refinery* ➔ To evaluate the Facility assuming continued use as a refinery, challenges surrounding the current refining environment have been identified, and a range of values for the Refinery have been developed giving consideration to the current market environment, operating capabilities of the refinery, and the challenges facing the refinery with or without the proposed changes to the Concession Agreement. Please refer to **Section III** for further details
- *Consideration of Liquefied Natural Gas ("LNG") as a Fuel Source* ➔ The option of fueling the Refinery using LNG has been explored weighing the benefits and drawbacks of converting the Facility for use of LNG. New construction and conversions of facilities to LNG fueled facilities have been identified and discussed relative to the Refinery. Please see **Section IV** for further details
- *Conversion to an Oil Storage Operation* ➔ We have qualitatively assessed the viability of the Facility for use as an oil storage terminal operation. Since long-term contracts are not in place, and the Facility is not yet fully modified for use as an import / export terminal, we were not able to perform a detailed independent valuation of the Facility. We have evaluated the viability of the Facility considering the current Caribbean storage capacity, modifications necessary to operate the Facility as a true import / export oil storage operation, and challenges facing HOVENSA in its efforts to execute long-term storage contracts with third-parties. Please refer to **Section V** for details of this assessment
- *Consideration of Alternative Uses* ➔ Potential alternative uses for the Facility have been identified considering the advantages and disadvantages of each alternative use. We have considered the conversion of the Facility's site as an alternative energy generation facility (with a focus on solar, wind, and waste-to-energy ("WTE")) and as a potential site for a tourist destination such as a casino or resort. Please refer to **Section VI** and **Section VII** for further details

Acquisition Potential

- The acquisition potential for the Facility has been assessed considering usage as a refinery and an oil storage terminal. Several potential acquirers have been identified and broad categories of acquirers have been assessed. Additionally, recent transactions and developments for other refineries facing similar economic conditions have been identified. Please see **Section VIII** for further details

Bankruptcy Concerns

- The potential impact of a Chapter 11 bankruptcy filed by HOVENSA has been assessed assuming an agreement is not reached with the GVI concerning the proposed changes to the Concession Agreement. Please see **Section IX** for further details

Summary of Findings

Based on our assessment of highest and best use of the Facility and giving consideration to the GVI desire to maintain employment, adjustments to the concession that permanently reduce the financial obligations of HOVENSA do not seem to be aligned with the best interest of the GVI.

Assessment of Optimal Use

- *Continued Use as a Refinery* ➔ Despite recent significant losses and unfavorable spot market oil price spreads, refinery operation continues to represent the most likely highest and best use of the Facility in the long term
  - A strategy combining Facility reconfiguration, LNG conversion and (modified) consent decree compliance may require as much as $1 billion or more of investment (including refinery optimization capital, LNG import facilities, and required environmental spend) but should yield a more economically viable refinery
  - An LNG import terminal proximate to the Refinery represents an opportunity to reduce WAPA's delivered cost of electricity

- *Conversion to an Oil Storage Operation* ➔ Significant existing crude and refined product storage capacity in the Caribbean presents a significant challenge for the Facility to obtain profitable long-term storage contracts. In addition, expansion plans at competing terminals with logistical advantages may cause additional challenges to sustaining a profitable terminal operation
  - Avoidance of Consent Decree costs and indefinite deferral of closure and associated environmental remediation costs (see discussion on Slide 59) may represent the greatest economic benefit to HOVENSA of conversion to a terminal

- *Consideration of Alternative Uses* ➔ Development of the Facility site into an industrial park will likely require high site remediation, site preparation and other transition costs relative to other proposed industrial development sites and therefore does not represent an economically viable option. The site could be a good location for renewable energy projects, but these would also require significant upfront investment and would provide limited employment benefits. Conversion to a tourist destination could require even more intensive (and expensive) remediation and transition costs, and tourism in the USVI already struggles with overcapacity versus demand

Acquisition Potential

- Recent acquisition activity indicates that buyers exist for refinery assets at relatively low price per barrel multiples despite negative refinery margins, and government assistance is generally required to help bridge buyer and seller expectations

Bankruptcy Concerns

- The total claim ultimately asserted by the GVI could be significant, accounting for the value of the WAPA fuel over the life of the contract, and GVI would likely constitute the largest unsecured claim against the bankruptcy estate

GVI Options – Potential Responses to Modification Request

Option #1: Full Acceptance

- Under this option, the GVI accepts the proposed modifications to the Concession Agreement and HOVENSA proceeds with full conversion of the site to a import / export oil terminal
- The only option that guarantees the 100 +/- jobs remain at HOVENSA and uninterrupted delivery of fuel from the docks and racks
- Permanently reduces property taxes paid by HOVENSA by $10 million per year
- Relieves HOVENSA from its obligation of the Fuel Supply Agreement with WAPA, resulting in a significant increase in the cost of power in the USVI beginning on January 1, 2013
- The Amended Concession Agreement is extended through 2042

Option #2: Interim Acceptance with HOVENSA Commitment to Restart or Sell Refinery

- Under this option, the GVI accepts the revised terms of the Concession Agreement for a three (3) year interim period with a commitment from HOVENSA to re-open or sell the Refinery within that period
- During the 3 year period, HOVENSA would be permitted to operate the facility as a storage facility subject to HOVENSA:
  - Coordinating with WAPA to provide fuel in the short-term and jointly develop and implement an integrated solution that lowers power (electricity) costs for both the Refinery and the USVI in the long-term; and
  - Committing to and implementing a capital improvement plan (including Facility reconfiguration, LNG conversion and consent decree compliance) that improves the economic viability of the Facility as an operating refinery; or
  - Committing to put the Refinery up for sale if HOVENSA is unwilling to commit to a plan to restart the Refinery

Option #3: Outright Rejection

- Based on the letter of the Concession Agreement, GVI could deny the request and require that HOVENSA fulfill its obligations
  - GVI's and WAPA's claims against HOVENSA are unaffected
  - HOVENSA would need to continue to pay $14 million of property taxes annually and honor the Fuel Supply Agreement
  - Absent a waiver of import duties, terminal operations would definitely cease, and bankruptcy would be highly likely

Concession Modification Considerations[1]

Although the requested concession modification may provide modestly less fuel and power supply risks in the short run, they represent a substantial loss of value both in terms of direct benefits as well as indirect economic development opportunity.

#1: Full Acceptance

Advantages

- No interruption of short-term power and fuel supply to St. Croix and St. Thomas
- Sustains $4 mm in property taxes through 2042 (**$45 mm** value through 2042, **$28 mm** value by 2022)
- Provides approx 100 jobs (+/-) and $2.5 mm of wage and other taxes through 2042 (**$28 mm** value)
- Scholarship / training commitments for life of terminal operations (**$12 mm** value assuming no shutdown)

Disadvantages

- Forgiveness of discounted fuel obligations (historical benefit $45 mm annually) results in significant increase in WAPA power prices (**$320 mm** value by 2022)
- Loss of $10 mm of property taxes (**$70 mm** value by 2022)
- Permanent loss of more than 1,500 jobs and more than $50 mm of taxes (**$355 mm** value by 2022)
- No scale LNG opportunity to provide cost savings to WAPA & HOVENSA, improve USVI economic outlook

Risks

- WAPA may still have difficulty sourcing residual fuel oil in the open market
- Persistent high WAPA power prices will likely hinder future economic development
- HOVENSA could shut down terminal operations before 2042 reducing the economic benefits

Quantified Net Value Implications (through 2042)

- Secured Benefits - **$85 mm value** *($8.5 mm annually)*
- Lost Benefits - **$745 mm value** *($105 mm annually)*

USVI Value not Quantified: **LOW**
Overall Implementation Risk: **LOW**

#2: Interim Acceptance

Advantages

- Sustain 100 jobs and reduced property & wage taxes while pursuing turnaround (**$20 mm** value through 2015)
- Potential for restoration of refining jobs, property and wage taxes and other benefits upon refinery restart
- LNG opportunity may provide cost benefits to WAPA & HOVENSA, economic development opportunities
- Significant economic benefits associated with capital investment to improve the refinery ($ benefit unknown)
- May provide time for desired HOVENSA sale process

Disadvantages

- Forgiveness of interim discounted fuel obligations through 2015 results in increase in short term WAPA power prices (**$115 mm** value through 2015)
- Interim loss of property taxes (**$50 mm** value through 2020) and wage/other taxes (**$165 mm** value through 2015)
- GVI likely will need to contribute more than **$25 mm** in cash or benefits to turnaround projects

Risks

- HOVENSA could cease terminal operations and/or declare bankruptcy
- Persistent unfavorable WTI/Brent spreads could hinder ability to profitably restart the refinery
- HOVENSA may not fulfill refinery restart obligations
- WAPA power costs will fluctuate with natural gas

Quantified Net Value Implications (through 2015)

- Secured Benefits - **$20 mm** value *($6.5 mm annually)*
- Lost Benefits - **$355 mm** value *($105 mm annually)*

USVI Value not Quantified: **HIGH**
Overall Implementation Risk: **LOW / MODERATE**

#3: Outright Rejection

Advantages

- No reduction to HOVENSA property tax (**$100** value **mm** through 2022) or WAPA discounted fuel commitments (**$320 mm** value by 2022) under existing concession
- Potentially forces HOVENSA to follow through on closure threat which may trigger site remediation

Disadvantages

- Litigation (and related legal and advisory costs) may be only course of action to realize value of discounted fuel commitments, outcome uncertain
- Bankruptcy election by HOVENSA would further put realized benefits at risk
- Hard-line, adversarial approach may influence level of interest in the Facility from potential buyers
- Loss of all jobs and related wage taxes until resolution (**$165 mm** value by 2015), refinery restart uncertain
- WAPA would likely need to pursue cost reduction strategies absent benefit of HOVENSA scale

Risks

- Significant risk that HOVENSA declares bankruptcy
- HOVENSA could turn air permits into DPNR prior to bankruptcy filing which would destroy refinery value
- HOVENSA could successfully implement delaying strategies to test resolve of GVI and USVI
- Bankruptcy could result in GVI owning the Facility

Quantified Net Value Implications (through 2042)*

- Secured Benefits - **$420 mm** value *($59 mm annually)*
- Lost Benefits - **$165 mm** value *($50 mm annually)*

USVI Value not Quantified: **UNCERTAIN**
Overall Implementation Risk: **VERY HIGH**

**** Values are not adjusted for Bankruptcy / Litigation risk.***

[1] *Values (but not annual amounts) on this slide have been computed based on an 8% discount rate (based on long-term B-rated yields).*

II. Refinery & Situation Overview

Refinery Overview

HOVENSA Refinery, St. Croix, USVI

- Joint venture between subsidiaries of Hess Corporation and PDVSA
- One of the ten largest refineries in the world and one of the most modern facilities serving the United States (prior to shutdown)
  - Crude oil processing capacity of approximately 500,000 barrels per day ("BPD") [1] and coker capacity of approximately 58,000 BPD
  - The Facility spans 2,000 acres of land on the south shore of St. Croix
  - Employed approximately 2,500 direct and contract employees at peak operations
- Supplied finished products to the Gulf Coast and East Coast markets of the United States as well as Venezuela
  - Imported crude oil and exported the refined products using tankers
    - The Facility has ten on-site docking points, some with the ability to accommodate vessels with up to 55 feet of draft
  - Storage tank capacity of 32 million barrels of crude oil and petroleum products
  - Provided a wide variety of finished products such as gasoline, diesel, home heating oil, jet fuel, kerosene, and residual fuel oil
  - Delayed Coking Unit ("DCU") allowed HOVENSA to competitively process heavy crude oil imported from Venezuela

[1] Capacity was reduced to 350,000 BPD in January 2011 due to poor operating performance of less efficient processing units.

Refinery Overview: Crude Supply

Crude Supply

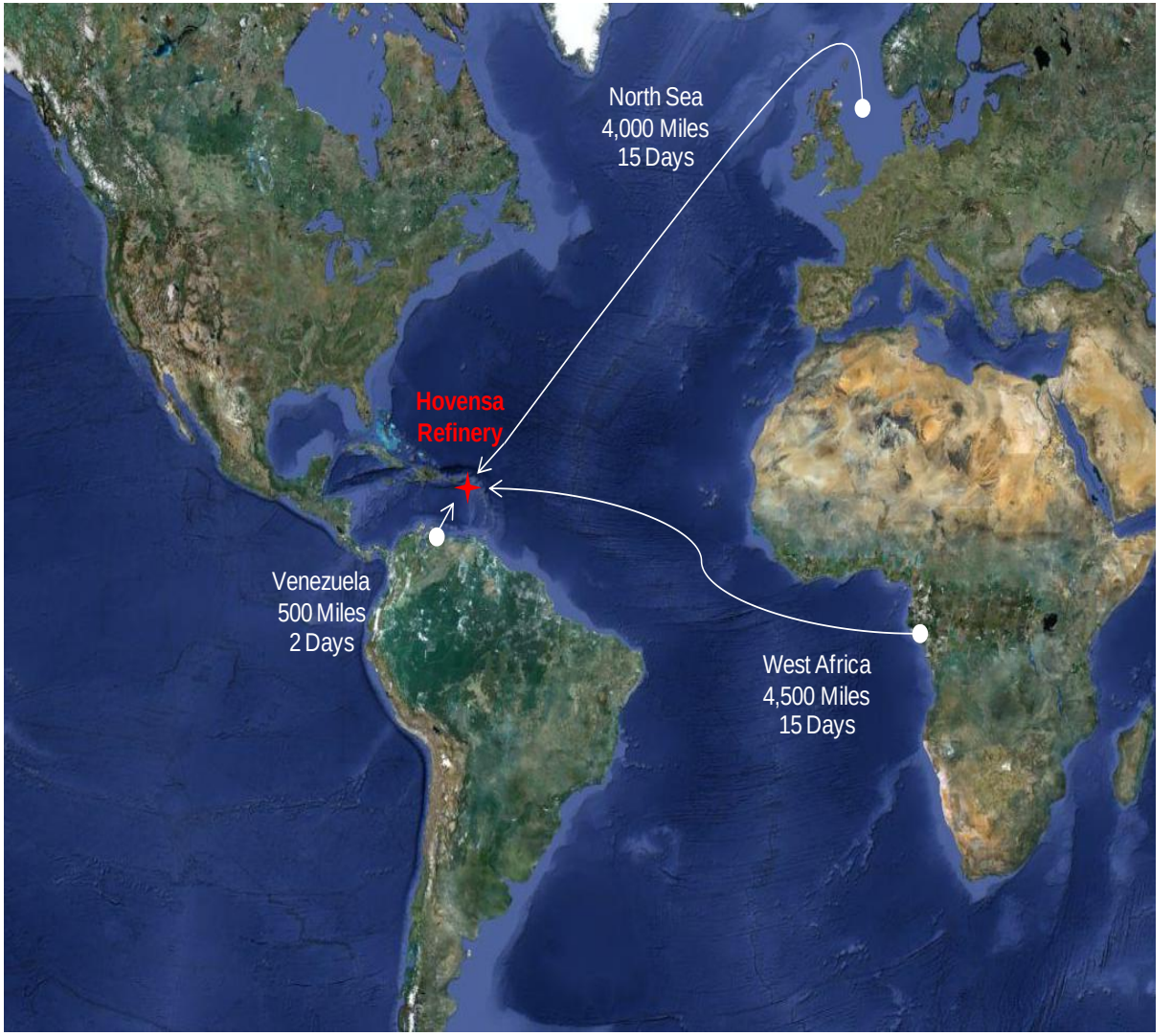
- The Refinery received crude for processing from North Sea, West African, and Venezuelan suppliers

- HOVENSA purchased 115,000 barrels per day of Venezuelan Merey heavy crude oil and 155,000 barrels per day of Venezuelan Mesa medium gravity crude from PDVSA through long-term supply contracts

  – Juan Fernández, former PDVSA planning manager, indicated that the HOVENSA crude pricing was higher than the price at which PDVSA sells crude to China, Cuba and other ALBA countries[1]

- The Remainder of HOVENSA fuel is purchased on a spot basis or through short-term contracts

[1] Antonio Maria Delgado, "Virgin Islands Refinery Shutdown to hit Venezuela Hard," Miami Herald, January 20, 2012

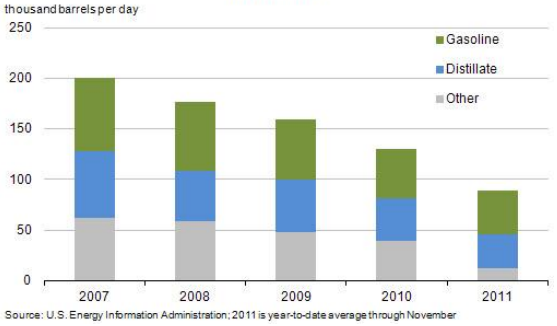


Refinery Overview: Product Distribution

Refined Product Distribution

- The location of the Refinery allowed for product deliveries to be made to a geographically diverse mix of countries
- The Refinery is exempt from the Jones Act allowing the products to be shipped between US ports using non-US flag ships
- Slightly more than half of HOVENSA's output was shipped to the US East Coast in 2011, down from 2/3 in 2008
  - HOVENSA accounted for 30% of East Coast Distillate imports and 13% of gasoline imports in 2011

Figure 1. Northeast (PADDs 1A and 1B) Product Imports from the U.S. Virgin Islands



Source: U.S. Energy Information Administration; 2011 is year-to-date average through November

HOVENSA Refinery Timeline

1966:
Hess Oil Virgin Islands Corp. ("HOVIC") commences construction of a 45,000 BPD refinery on the south shore of St. Croix, Refining begins in October 1996

1966 – 1974:
Refinery expansion to 650,000 BPD attaining the greatest processing capacity in the world

1981:
Heavy oil upgrading was gradually added commencing with the conversion of the #1 Crude Unit to a 40,000 BPD visbreaker. First extension of the Concession Agreement is signed.

1983:
Construction of a 40,000 BPD visbreaker

1990:
Second Extension Agreement to the Concession Agreement is signed.

1993:
Construction of a 110,000 BPD Fluid Cat Cracking ("FCC") unit completed and placed into operation

1996:
Expansion of the FCC unit to 135,000 BPD

1998:
HOVENSA is established through a joint venture signed between Virgin Islands subsidiaries of Hess and PDVSA. Third Extension to the Concession Agreement is signed.

2002:
Construction of a 58,000 BPD Coker completed and began commercial operations

2007:
Construction of a Low Sulfur Gasoline Unit begins

2009 – 2011:
HOVENSA reports operating losses of approximately $1.3 billion over the three year period. HOVENSA expects losses to continue

February 2012:
HOVENSA completes shut down of the Refinery. Plans to operate Facility as an oil storage terminal going forward

Recent Developments & Considerations

Operating Losses Expected to Continue Despite Efforts to Improve Profitability

- In an effort to improve operating performance, the processing capacity of the HOVENSA Refinery was reduced from 500,000 BPD to 350,000 BPD in the first half of 2011
- Operating losses have been incurred over the last twelve (12) consecutive quarters totaling **$1.3 billion**

Decision Made to Shut-Down the HOVENSA Refinery Operations

- In December 2011, HOVENSA joint-venture partners agreed to commence the shut-down of the refining operations effective January 18, 2012
  - As part of the shut-down, HOVENSA liquidated its refined product inventory, redeemed its outstanding debt, and settled or disposed of certain other liabilities

Impairment Charges Related to the Shut-Down of the Refinery [1]

- An impairment analysis was prepared by HOVENSA as of December 31, 2011 indicating the undiscounted future cash flows would not recover the carrying value of the refinery assets
  - An impairment charge of **$1.9 billion**, representing the difference between the carrying value and the estimated fair value of the Facility, was incurred
  - Additional charges of **$172** million related to the closure of the Refinery were also recognized by HOVENSA

Substantial Refinery Closure Costs to be Incurred in 2012 [1]

- Additional closure costs of approximately **$900 million** are estimated by HOVENSA to settle all obligations related to the closure of the Refinery
  - Costs relate to the cleaning and preservation of refinery process equipment and tanks, tank bottom sludge disposal, enhanced employee and contractor severance and benefits, estimated losses on long-term contracts and other costs
  - Majority of the estimated costs are expected to be incurred by HOVENSA in 2012

Plans to Operate as an Oil Storage Terminal Going Forward but Still Hurdles to be Met

- As part of the agreement to shut-down the Refinery, the decision was made by HOVENSA to operate the Facility as an oil storage terminal going forward
- According to HOVENSA, additional financial support [2] would be required to fund expenditures for the Refinery closure and conversion to an oil storage terminal in 2012
- No assurance that any or all of HOVENSA member financial support will be provided
- Absent financial support, HOVENSA has indicated it is unlikely operations would be able to continue

[1] Information provided in Hess Corporation's 2011 10K filing.
[2] Amount of financial support needed has not been indicated by HOVENSA.

Joint-Venture Relationship

Hess Corporation & PDVSA Join

- On October 30, 1998, Hess Corporation completed a joint venture transaction with PDVSA in which PDVSA's subsidiary PDVSA VI acquired a 50% interest in the Refinery's fixed assets

Venezuelan Crude Supply Agreement

- As part of the joint-venture agreement, a long-term supply contract was entered into by HOVENSA to purchase approximately 155,000 barrels per day of Venezuelan Mesa crude oil from PDVSA
- Upon completion of the delayed coking unit, HOVENSA agreed to purchase approximately 115,000 additional barrels per day of Venezuelan Merey crude oil from PDVSA
- The supply agreement with PDVSA was intended to insure supply allowing the Refinery to recover its investments, but as market dynamics shifted, the Refinery was locked into pricing for PDVSA crude oil that may have exacerbated the losses realized by HOVENSA

Joint Venture / Ownership Considerations

- Hess and PDVSA's relationship began with the joint venture agreement signed on October 30, 1998
- HOVENSA is managed through a board equally comprised of three (3) HOVIC and three (3) PDVSA VI members
  - Approval of key decisions require a majority vote of the board providing both parties veto capability
  - HOVIC is the operating partner of the Joint Venture
- Hess disclosures indicate that strategies such as LNG, plant reconfiguration and product mix refinement were evaluated as losses mounted, but ultimately no specific plan was approved to restore the profitability of the Refinery
- Equity Analysts who report on Hess emphasized that the company should focus on upstream E&P production and supported the decision to exit refining operations rather than reinvest in the Refinery
- News reports suggest that PDVSA has struggled to maintain crude production levels questioning the company's need for HOVENSA to process Venezuelan sourced crude [1]
  - Closure of HOVENSA may benefit other facilities owned by PDVSA as reduced refining capacity in the region could improve refined product pricing in the Caribbean

[1] 'Venezuela more prone to oil price jitters" Financial Times, July 15, 2012.

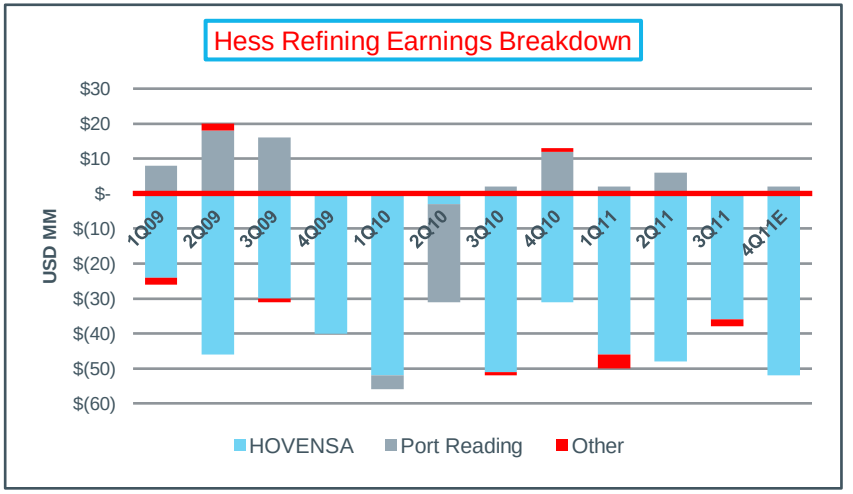
III. Evaluation of Continued Use as a Refinery

III.a. The Refinery's Situation

Historical Performance

HOVENSA, LLC	2011	2010	2009
Sales	$ 13,126	$ 12,258	$ 10,048
Product Costs	(12,803)	(11,926)	(9,782)
Operating Expenses	(555)	(586)	(548)
Depreciation and Amortization	(128)	(143)	(140)
Impairment and Shutdown Related Charges	(2,073)	-	-
Total Operating Expenses	$ (15,559)	$ (12,655)	$ (10,470)
EBIT (Adjusted for Impairment Charges)	$ (360)	$ (397)	$ (422)
EBITDA (Adjusted for Impairment Charges)	$ (232)	$ (254)	$ (282)
EBIT Margin %	*-2.74%*	*-3.24%*	*-4.20%*
EBITDA Margin %	*-1.76%*	*-2.07%*	*-2.81%*

**Financials provided for Hess Corporation's latest 10K. USD in Millions.*



Source: Hess company filings, Oppenheimer & Co. Estimates

Poor Operating Results as a Refinery

- HOVENSA reported negative operating profit ("EBIT") in the last three fiscal years, reporting the largest operating loss in 2011 due to impairment and other charges related to the shut-down of the Refinery of approximately $2 billion
- The shut-down of the HOVENSA Refinery ended three years of consecutive reported (US GAAP) losses totaling **$1.3 billion**
  - Losses were in part caused by unfavorable crude and power costs relative to US Gulf Coast refiners as well as possibly the PDVSA supply contract (which may have effectively forced HOVENSA to process heavy crude at a loss)

Cash Flow Negative

- In 2010 and 2011, HOVENSA LLC generated negative cash flow of approximately **$32.4 million** and **$2.8 million**, respectively
- The decrease in negative cash flow from 2010 to 2011 was largely due to a reduction in capital expenditures of approximately 45%

Refinery Utilization on the Decline

- Gross crude runs at HOVENSA declined in 2009, 2010, and 2011 with average BPD of 402,000; 390,000; and 284,000; respectively
- Decline in utilization reflects weaker refining margins, together with planned and unplanned maintenance

Refining Hurdles

Substantial Refinery Shut-Down Costs

- HOVENSA is expected to incur substantial refinery closure costs including costs related to the cleaning and preservation of refinery process equipment and tanks, tank bottom sludge disposal, enhanced employee and contractor severance and benefits, estimated losses on long-term contracts and other costs
- After liquidation of current assets and liabilities, HOVENSA estimates total future cash funding of approximately **$900 million** to settle all obligations, with the majority to be incurred in 2012

Significant Environmental Related Costs Required to Continue Refining Operations

- In 2011, HOVENSA entered into a consent decree (the "Consent Decree") with the US Environmental Protection Agency ("EPA") and the GVI which, among other things, requires HOVENSA to install equipment and implement operating procedures to reduce emissions over the next ten (10) years
- HOVENSA has estimated that the total estimated costs related to installing this equipment is expected to exceed **$700 million**
- The Consent Decree allows HOVENSA to permanently shut down the refinery and turn in its air permits, which HOVENSA believes could enable it to avoid substantially all of its obligations to install equipment and implement additional operating procedures (per Hess's most recent 10-K filing)
- HOVENSA claims that it has idled the refinery and that it has not made a decision to permanently shut it down, and HOVENSA has not turned in its air permits. Thus, HOVENSA must comply with these Consent Decree requirements (unless the Consent Decree is modified by the Court)
- If the refinery remains idle for an extended period of time, EPA / USVI Department of Planning and Natural Resources ("DPNR") could determine that the Refinery shut down is permanent and terminate HOVENSA's air permits, which would relieve HOVENSA from further Consent Decree expenditures but would prevent reopening of the refinery without new air permits

Refinery Fueling Competitive Disadvantage

- Although complex, the Refinery is inherently disadvantaged
  - According to Wood Mackenzie[1], HOVENSA has a 13.4 rated Nelson complexity[2] rating, which ranks it in the top quartile, including a coking unit - running on 25% Venezuelan heavy sour, 36% West African light/medium, 35% Venezuelan medium, and small percentage of Brent and Azeri Light
  - HOVENSA is an oil-fueled refinery unable to capitalize on the spread between low US natural gas prices and relatively high oil prices unlike US Gulf Coast and Midwest refineries
  - US Gulf Coast and Midwest refineries also benefit from the widening spread between the cost crude based on West Texas Intermediate ("WTI") pricing versus Brent Crude which has expanded from less than $5 per barrel to more than $10 per barrel over the past several years

[1] Wood Mackenzie provides research and consulting services for the global energy, mining, metal, oil, gas, coal, refining, power, and electricity industries.
[2] Nelson rated complexity of 13.4 assumes crude distillation capacity of 350,000 BPD. At a crude distillation capacity of 500,000 BPD, the effective rated complexity would be 9.4. The Nelson complexity describes a measure of the secondary conversion capacity of a petroleum refinery relative to the primary distillation capacity. It was developed by Wilbur L. Nelson in a series of articles in Oil & Gas Journal in 1960.

Refining Decline: Market Valuation

IHS Herolds' Valuation Shows Decline in Refining Industry

- IHS Herolds' reduction in the Appraised Net Worth ("ANW") of Hess' Refining & Marketing segment and its working interest ("WI") in the HOVENSA Refinery highlights HOVENSA's struggles

IHS Herolds' Appraised Net Worth	2005	2006	2007	2008	2009	2010
Refining & Marketing (Consolidated) ANW	$ 2,121	$ 2,280	$ 1,782	$ 1,614	$ 1,513	$ 2,019
HOVENSA Refining JV Working Interest (50%) ANW	$ 2,400	$ 2,115	$ 1,764	$ 1,030	$ 630	$ 310
% of Refining & Marketing (Consolidated) ANW	*113.15%*	*92.76%*	*98.99%*	*63.82%*	*41.64%*	*15.35%*
Δ in Refining & Marketing ANW	***n/a***	***7.50%***	***-21.84%***	***-9.43%***	***-6.26%***	***33.44%***
Δ in HOVENSA Refining JV Working Interest (50%) ANW	***n/a***	***-11.88%***	***-16.60%***	***-41.61%***	***-38.83%***	***-50.79%***

**Values expressed in Millions of U.S. Dollars.*

- IHS Herolds indicates a similar declining trend in the Refining & Marketing Segments of peer refining companies to Hess

IHS Herolds' Appraised Net Worth	2005	2006	2007	2008	2009	2010
Valero Refining Segment	$ 34,911	$ 42,526	$ 36,767	$ 20,140	$ 16,783	n/a
Tesoro Refining Segment	$ 5,382	$ 6,546	$ 5,983	$ 3,810	$ 2,920	n/a
Δ in Valero Refining Segment ANW	***n/a***	***21.81%***	***-13.54%***	***-45.22%***	***-16.67%***	***n/a***
Δ in Tesoro Refining Segment ANW	***n/a***	***21.63%***	***-8.60%***	***-36.32%***	***-23.36%***	***n/a***

**Values expressed in Millions of U.S. Dollars.*

- IHS Herolds' declining valuation of Hess, HOVENSA, Valero, and Tesoro's refining operations provides additional indications of the economic struggles of HOVENSA and the refining industry prior to the announce of the shut-down of the Refinery

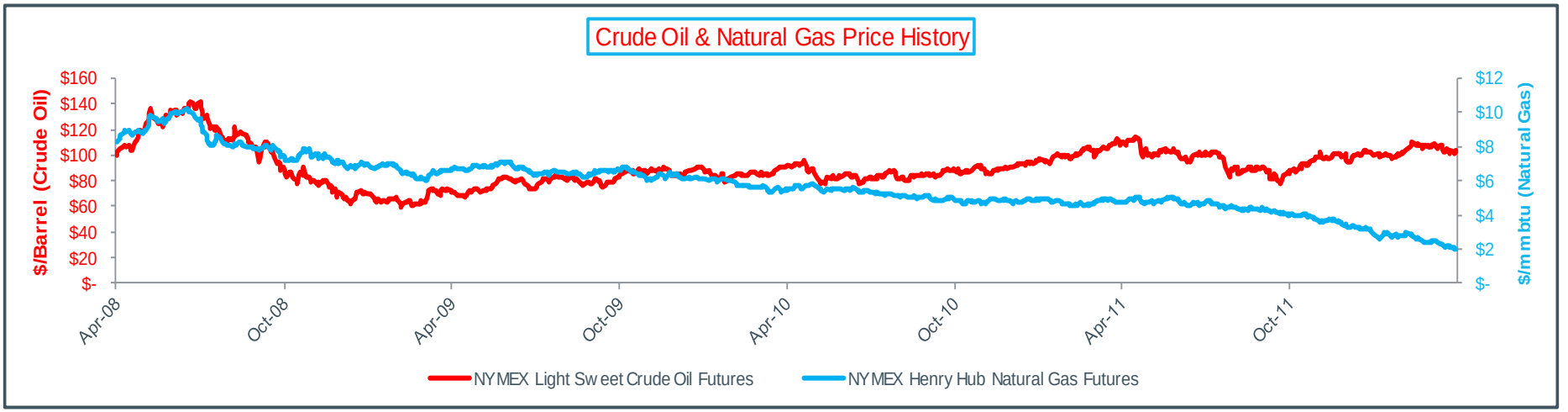
Analysts' Consensus

Analysts Believe Decision Regarding Closure of the HOVENSA Refinery was the Right Move

- *"HOVENSA Refinery Shutdown is the Right Decision"* – Oppenheimer & Company, January 19, 2012
- "*HOVENSA Shut-Down: Free At Last"* – Deutsche Bank Research, January 18, 2012
- *"Addition by Subtraction: HOVENSA Refinery Closed"* – Morgan Stanley, January 18, 2012

Analysts' Consensus Reasoning

- Island location limits the accessibility to (pipeline delivered) natural gas as a fuel-supply making HOVENSA unable to capitalize on the spread between decreasing natural gas prices and relatively high oil prices which is key to mainland refineries' profitability
  - Fuel costs have increased by an estimated **$300 million annually**[1] while US refinery fuel costs have declined



Hess's share price increased approximately 7.5% in the week following the closure announcement

[1] Oppenheimer Company, *Equity Research Company Update – Hess Corporation*, dated January 19, 2012.

Crude Cost Disadvantage

HOVENSA procures Crude Oil from Brent-based markets

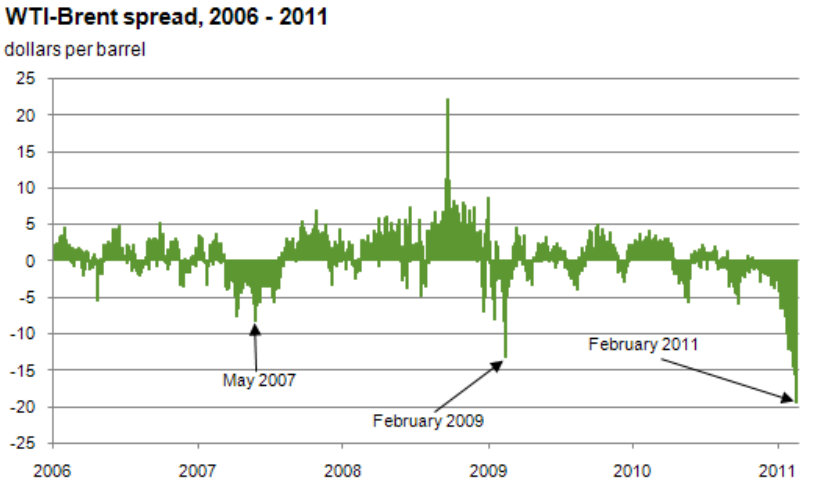
- PDVSA supply contract pricing also likely based on Brent
- Brent and WTI spread historically +/- $5 per barrel
- Many competing refineries source crude based on WTI pricing

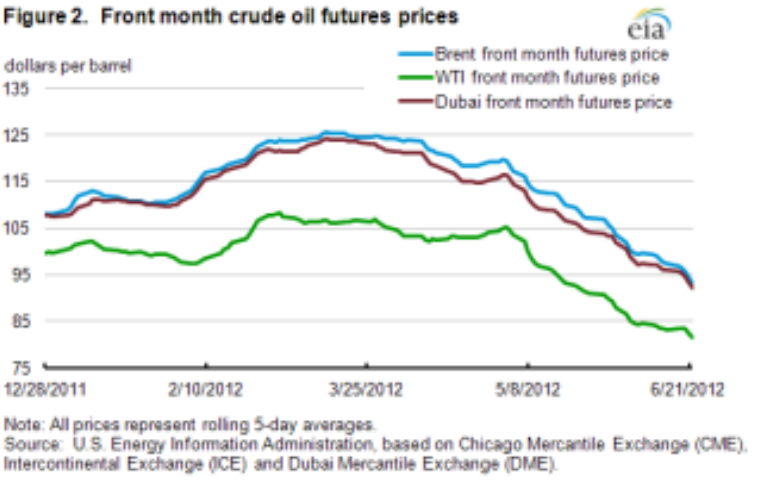
WTI now consistently trades at greater than a $10 per barrel discount

- US domestic supply of crude, particularly from tight oil and other unconventional (shale) plays, has increased substantially
- Significantly more oil pipeline capacity exists into Cushing, Oklahoma (the WTI pricing point) resulting in oversupply
  - With more than 45 million barrels, storage at Cushing is at a twenty year high and approaching capacity

Infrastructure is needed to alleviate the bottleneck, reduce discount

- Seaway Pipeline reversed flow to ship from Cushing to the Gulf Coast
  - 150,000 BPD capacity is expected to increase to 400,000 in 2013
- TransCanada's approved Gulf Coast Project will add an additional 700,000 BPD of transportation from Cushing to the Gulf Coast by 2014





[1] Oppenheimer Company, *Equity Research Company Update – Hess Corporation*, dated January 19, 2012.

III.b. WAPA Considerations

WAPA Considerations

WAPA's Power Generation Facilities

- WAPA supplies power to the USVI through two (2) facilities (the "WAPA Facilities"):
  - Richmond Power Plant located on St. Croix (the "St. Croix Facility") – 50 MW serving St. Croix
  - Harley Station Power Plant located on St. Thomas (the "St. Thomas Facility") – 80 MW serving St. Thomas and St. John
- Due to the depth of the trench between St. Croix and St. Thomas, it is economically infeasible to interconnect all three islands

WAPA's Fuel Supply Agreement

- WAPA currently benefits from a fuel agreement with HOVENSA under the Concession Agreement providing discounted fuel to fire WAPA's power generation facilities
- Under the Concession Agreement, HOVENSA is obligated to provide discounted fuel through 2022
- WAPA estimates the discounted fuel agreement provides savings of $40 to $50 million annually for the next ten years

Main Concern: Maintaining a Supply of Fuel to the USVI

- HOVENSA's proposed changes to the Concession Agreement terminate the fuel agreement with WAPA on the earlier of December 31, 2012 and the date on which WAPA contracts with a third party fuel supplier or establishes purchasing capability
  - If the revisions to the Concession Agreement are accepted, WAPA is forced to use other providers of fuel and make use of HOVENSA's terminal facilities to store their supply of fuel at market rates
    - » WAPA believes they will be able to find suppliers of fuel oil to power their generation facilities on St. Croix and St. Thomas, but will be forced to pay a premium price over the discounted price currently provided by HOVENSA
  - If the revisions to the Concession Agreement are declined and HOVENSA follows through on its plans to close the Facility rather than operate it as a storage terminal, fuel procurement from third parties may be expensive and difficult without the ability to "break bulk" at HOVENSA

WAPA Fuel Needs

WAPA's Required Fuel

- The WAPA facilities use a combination of distillate and residual fuel oil to generate power for the USVI
  - **Distillate→** No. 2 and No. 6 distillate fuel oil are used by the WAPA Facilities. The St. Thomas and St. Croix Facilities require approximately 150,000 and 90,000 barrels per month, respectively
  - **Residual→** WAPA's facilities burn 0.5 and 0.33 residual fuel oils. The St. Thomas and St. Croix Facilities require up to 25,000 barrels per month at each facility as needed to fuel the facilities

Difficulties Attaining Fuel

- Prior to the closure of the Refinery, HOVENSA was directly supplying WAPA's fuel requirement through its refined products. HOVENSA delivered the fuel to the WAPA Facilities using a sub-contracted barge and charged a nominal fee to WAPA
- Without an operating refinery, WAPA faces the challenge of bringing in fuel from outside the USVI
  - The relatively small demand needed by the WAPA Facilities presents issues receiving shipments directly from US suppliers. Larger cargos must be broken down and shipped using smaller vessels to accommodate ports with smaller dock size and draft depth
    - » The HOVENSA terminal assets could facilitate breaking down larger cargos to more manageable sizes for WAPA to receive at its generation facilities
  - The required distillate would likely come from the New York Harbor, United States, but it is unclear where the residual fuel needed would be sourced from due to refinery closures and changes in US regulation requiring lower sulfur fuel grades
    - » As of August 2012, the U.S. required marine vessels to use low sulfur fuels, substantially increasing demand for 0.33 residual fuel oil.
    - » 0.33 residual fuel oil is expected to sell at a premium at New York Harbor, which will make it more difficult and costly for WAPA to sustain supply of this fuel
    - » The 0.5 residual fuel oil is currently used in Puerto Rico, so WAPA expects this fuel type to be readily available in the market

WAPA using Market Prices: Effect on the Islands

With the loss of the discounted fuel provided by HOVENSA, it is expected that the cost of electricity in the USVI will increase significantly, detrimentally impacting the residents of the USVI directly through increased utility expenses and indirectly through reduced outside business investment in the area due to the higher power costs

Images from the Cruzan Run Distillery – St. Croix, USVI

Market Price of Fuel Oil Leads to Increased Power Costs in the USVI

- Without discounted fuel provided by the HOVENSA Refinery, WAPA will be required to pay market prices for the residual and distillate fuel oil needed to power the WAPA Facilities
  - Distillate fuel price is indexed on a retail (rather than bulk/wholesale) basis by the Castle Heating Oil Re-Seller's Posting listed in Bloomberg's weekly oil guide
  - Residual fuel is indexed by the New York Harbor price listed in Bloomberg's weekly oil guide
- If market prices are paid for fuel oil, it is estimated power prices on the island could increase to over $0.50 / kWh absent a significant strategy change

Effect on the USVI

- If power prices reach $0.50 / kWh, the impact on USVI residents could be severe
  - Already viewed as high, residential utility bills would likely increase substantially, placing additional financial burden on the citizens of the USVI
  - Utility costs could present challenges to businesses invested in the USVI potentially resulting in reduced operations or closure
- Business may elect to self generate resulting in lower WAPA load but which would place more burden on residential ratepayers to cover fixed infrastructure costs
- Higher power prices represent a major hurdle to recruiting new businesses and other economic development efforts on the USVI

Leveraging HOVENSA's Generation Assets

Excess Power Generation Capacity at the Refinery

- Based on the total generation capacity at the Refinery versus what is likely needed for operations, there is likely excess generation capacity that could be used to provide power to St. Croix
- It is estimated St. Croix requires on average of 25 MW to power the island, with a peak demand of 50 MW.
  - The Refinery's excess power capacity could meet this demand if interconnected with the power grid on the island

Potential to Lower Future Power Costs in the USVI

- Given that the Refinery's generation units have the ability to run with natural gas or propane, St. Croix's fuel costs and emissions levels could potentially be lowered vs. the St. Croix Facility which runs on higher cost residual and distillate fuel oils
- The Refinery's generating units are more efficient (newer, with lower heat rates when run at capacity) than the St. Croix Facility
- As utility costs are levelized across all three islands, reduced St. Croix costs would benefits all USVI ratepayers

Hurdles

- Upfront capital investment would be required to interconnect the grid with the Refinery's power generation units
- Negotiating terms for guaranteed delivery of WAPA's full power requirements from HOVENSA may prove challenging
  - A refinery operator may not be willing to curtail operations to meet peak load requirements without substantial compensation
- Additional generation output at HOVENSA would result in increased emissions (potentially impacting EPA compliance)

GVI Assistance

- GVI could offer assistance with negotiations of modified Consent Decree based on modified St. Croix generation mix or fuel switching
- If HOVENSA implements LNG or other fuel solutions, GVI could support the conversion with low-cost financing and other benefits
- Reduced power prices from integrated generation strategy could substantively replace lost discounted fuel benefits

III.d. Valuation Analysis of Continued Use of the Refinery

Refinery Income Approach: DCF Method

The concept underlying the Discounted Cash Flow ("DCF") Method is that a reasonable valuation of any investment is directly related to the future cash flow attributable to such an investment. Future cash flow represents the return on investment. The ability of an enterprise to create adequate cash flow, fund the proper cash disbursements, and provide for related financing activities is the primary determinant of value in that enterprise.

Development of Scenario Forecasts

- Using publicly available sources such as HOVENSA's SEC filings and data published by the Energy Information Agency ("EIA"), forecasts were developed to evaluate the value of the Refinery
- Forecasts were constructed from FY 2013 through FY 2021 (the "Discrete Period") including revenues and expenses in the build-up to net operating profit after tax ("NOPAT")
- Three scenarios were developed to evaluate the potential value of the Facility operating as a refinery:
  - **Low Case** → Assumes an escalating EBITDA margin from 0.0% to 1.6% from 2013 to 2021
  - **Mid Case** → Assumes EBITDA margin trending to 2.25% through 2021
  - **High Case** → Assumes an EBITDA margin trending to 2.5% through 2021

Calculation of Free Cash Flow

- The following adjustments were made to NOPAT to determine the available free cash flow in each year of the forecast:
  - Added back tax depreciation, as this expense does not require a cash outlay or outflow
  - Deducted capital expenditures based on historical and prospective information published in HOVENSA's SEC filings, and typical capital expenditure patterns of comparable refining companies
  - Deducted Working Capital Requirements needed to support projected revenue growth. We estimated working capital needs based on a review of historical working capital levels of HOVENSA, and working capital levels of comparable refining companies

Determination of Value

- The available free cash flow in each year over the Discrete Period was discounted to its present value equivalent to determine the aggregate discounted free cash flows provided under each valuation scenario
- In addition to the aggregate discounted free cash flows over the Discrete Period, a residual value was estimated assuming on-going operations of the Refinery into perpetuity. The present value of the residual value was added to the Discrete Period to estimate the value of the Refinery under each scenario
- A discount rate of **10%** was determined to be appropriate for the valuation of the Facility in continued use as a refinery based on review of publicly traded comparable independent refining companies. The calculation of the discount rate is detailed in the following slides

Refinery Income Approach: Determination of Discount Rate

When applying the income approach, the cash flows expected to be generated by a business are discounted to their present value equivalent using a rate of return that reflects the relative risk of the investment, as well as the time value of money (the "Weighted Average Cost of Capital" or "WACC").

$WACC = R_d(W_d) + R_e(W_e)$

R_d = Required return on debt = 3.1%
W_d = Debt weighting of capital structure = 15.0%
R_e = Required return on equity = 9.3%
W_e = Equity weighting of capital structure = 85.0%

Cost of Debt Capital (R_d)

$$R_d = i * (1 - t)$$

i = Pre-tax required return on debt = 5.1%
t = effective income tax rate = 38.5%

Cost of Equity Capital (R_e)

$$R_e = R_f + \beta (R_m - R_f) + Ssp + Crp + \alpha$$

R_f = Risk-free rate of return = 4.0%
β = beta, risk relative to the market = 0.75
$(R_m - R_f)$ = Market risk premium = 5.5%
Ssp = Small Stock Premium or unsystematic risk =
α = Alpha, or company specific risk = 0.0%

Estimation of the WACC

- The WACC is calculated by weighting the required returns on interest-bearing debt and common equity capital in proportion to their estimated percentages in an expected industry capital structure
- The expected industry capital structure was developed based on review of comparable refining companies. Please refer to **Appendix D** for the guideline companies used with business descriptions

Cost of Debt Capital

- The cost of debt capital is the rate a prudent debt investor would require on interest-bearing debt. Since the interest of debt capital is deductible for income tax purposes, we used the after-tax interest rate in our calculation
  - An effective income tax rate **38.5%** was assumed based on a 35.0% federal tax rate and a 10.0% surcharge for the USVI
  - Our estimate of the pre-tax cost of debt capital was based upon the expected return on a **20 year US Industrial BBB** rated bond by Standard & Poor's

Cost of Equity Capital

- We used a modified Capital Asset Pricing Model ("CAPM") to determine the required return on equity capital. In applying the CAPM, the rate of return on common equity is estimated as the current risk-free rate of return on United States Treasury bonds, plus a market risk premium expected over the risk-free rate of return, multiplied by the "beta"
  - The risk-free rate is assumed to **4%** in the determination of the Cost of Equity based a normalized return on a twenty-year US Treasury bonds
  - Beta is defined as a risk measure that reflects the sensitivity of a company's stock price to the movements of the stock market as a whole

Concluded Discount Rate

- Based on the methodology described above, we determined **10%** to be an appropriate discount rate to assess the value of the Facility in continued use as a refinery

Refinery Income Approach: Scenario Analysis

To assess the potential value of the Facility assuming continued use as a refinery, we have developed forecasts based on publicly available information reported in Hess' SEC filings and prospective information for the energy and refining industry compiled by the EIA. The following slides detail the common and differentiating assumptions developed for each scenario.

Refined Product Mix	
Refined Product	**Allocation %**
Gasoline	51.5%
Distillates	28.5%
Residuals	15.0%
Other	5.0%

Product Costs		
Valuation Case	**Long-term EBITDA Margin (%)**	**Avg. Product Cost ($ / Bbl)**
Low Case	0.6%	$141.8
Mid Case	2.25%	$139.5
High Case	2.5%	$139.1

Historical Operating Expense (Millions)			
2009	**2010**	**2011**	**3-Year Average**
$548.27	$586.34	$554.52	$563.04

Revenue Forecast

- A revenue forecast was developed through examination of refined product forecasts provided by the EIA from 2013 through 2035 and an assumed refined product mix for the Refinery based on historical information published in Hess' 2011 10K filing
- A weighted average refined product growth curve was developed from 2013 through 2035 by weighting the refined products forecast provided by the EIA with the assumed product mix in each year. The assumed product mix is displayed on the left

Product Costs

- Product costs are utilized in our analysis as the moving variable to develop our three cases used to assess the value of the Facility assuming continued used as a refinery
- We adjusted product costs in each year of the forecast to reconcile the EBITDA to the assumed margin for each case. The assumed EBITDA margin for each case and the average level of product costs over the forecast period is displayed on the left

Operating Expenses

- Operating expenses were determined to be relatively fixed expenses based on review of HOVENSA's historical operating performance
- To forecast operating expense, we took the **three (3) year average** operating expense amount and escalated the amount at the assumed long-term growth rate of **2%** going forward

Income Tax Expenses

- Income tax expenses were calculated using a **38.5% tax rate** based on an assumed US federal tax rate of 35.0% with an additional 10.0% surcharge on the 35.0% federal tax rate imposed on the US Virgin Islands

Refinery Income Approach: Scenario Analysis

To assess the potential value of the Facility assuming continued use as a refinery, we have developed forecasts based on publicly available information reported in Hess' SEC filings and prospective information for the energy and refining industry compiled by the EIA. The following slides detail the common and differentiating assumptions developed for each scenario.

Depreciation Expense

- Depreciation expense was calculated using Modified Accelerated Cost Recovery System ("MACRS") depreciation for the existing fixed asset basis based on the estimated value of the Facility. MACRS depreciation was also calculated based on the forecast capital expenditures
- Based on the information provided in the HOVENSA balance sheet as of December 31, 2011, we calculated a blended MACRS deprecation rate in each year of the forecast using the following asset class allocation:

Asset Class	PPE Allocation %	MACRS Life
Land	1%	Not Depreciable
Refinery Facilities	94%	7 Year MACRS
Other	3%	7 Year MACRS
Construction In Process	2%	Not Depreciable

- Capital expenditures incurred over the forecast period are depreciated over a 7 year MACRS life over the forecast period

Capital Expenditures

- Maintenance capital expenditures were estimated as **1.5%** of our estimated replacement cost of approximately **$7.5 billion**. Our calculation of estimated replacement cost appears later within this section of the presentation
- Additional capital expenditures related to compliance with the EPA Consent Decree were incorporated into each valuation scenario assuming continued use as a refinery. It is estimated **$700 million** of capital expenditures are required to bring the Refinery into compliance. We have assumed this amount will be incurred in equal amounts over a 10 year forecast period
- Total estimated capital expenditures approach **$2 billion** over the ten year forecast period

Change in Working Capital

- The change in working capital was calculated as **3.5%** of the incremental increase or decrease in revenue over the forecast period
- Our 3.5% working capital assumption is based on our review historical working capital levels of comparable refining companies. Descriptions of the comparable companies used in this analysis can be see in **Appendix D**

Refinery Income Approach: Low Case

The Low Case adjusts product costs to achieve a "break-even" EBITDA margin in FY2012 and incrementally decreases products costs on a per barrel basis to achieve an EBITDA margin of 1.6% by the Residual Year. The Residual Year EBITDA Margin of 1.6% is based on the ten year historical operating history of the HOVENSA Refinery. Based on this case, we estimate the value of the Refinery to be **de minimis**.

Low Case *(Thousands USD)*	2013	2014	2015	2016	2017	2018	2019	2020	2021	Residual Year
Sales	$ 12,856,805	$ 13,712,059	$ 14,515,444	$ 14,989,481	$ 15,572,601	$ 15,954,694	$ 16,505,829	$ 17,024,161	$ 17,478,830	$ 17,928,070
Sales Growth %	*n/a*	*6.65%*	*5.86%*	*3.27%*	*3.89%*	*2.45%*	*3.45%*	*3.14%*	*2.67%*	*2.57%*
Product Costs	(12,256,734)	(13,084,086)	(13,857,608)	(14,301,220)	(14,852,013)	(15,201,575)	(15,717,760)	(16,195,708)	(16,617,700)	(16,941,152)
Product Costs ($ / Bbl)	*$ (11.84)*	*$ (12.64)*	*$ (13.39)*	*$ (13.82)*	*$ (14.35)*	*$ (14.69)*	*$ (15.19)*	*$ (15.65)*	*$ (16.06)*	*$ (16.37)*
Gross Profit	**$ 600,071**	**$ 627,973**	**$ 657,836**	**$ 688,260**	**$ 720,588**	**$ 753,119**	**$ 788,069**	**$ 828,453**	**$ 861,130**	**$ 986,917**
Operating Expenses	(585,786)	(597,501)	(609,452)	(621,641)	(634,073)	(646,755)	(659,690)	(672,884)	(686,341)	(700,068)
EBITDA	**$ 14,285**	**$ 30,471**	**$ 48,385**	**$ 66,620**	**$ 86,514**	**$ 106,365**	**$ 128,379**	**$ 155,570**	**$ 174,788**	**$ 286,849**
EBITDA Margin	*0.11%*	*0.22%*	*0.33%*	*0.44%*	*0.56%*	*0.67%*	*0.78%*	*0.91%*	*1.00%*	*1.60%*
EBITDA ($ / Bbl)	*$ 0.01*	*$ 0.03*	*$ 0.05*	*$ 0.06*	*$ 0.08*	*$ 0.10*	*$ 0.12*	*$ 0.15*	*$ 0.17*	*$ 0.28*
Depreciation Expense	(76,107)	(158,352)	(169,259)	(177,723)	(184,517)	(203,582)	(222,977)	(218,780)	(206,156)	(137,806)
EBIT	**$ (61,821)**	**$ (127,881)**	**$ (120,875)**	**$ (111,103)**	**$ (98,002)**	**$ (97,217)**	**$ (94,598)**	**$ (63,210)**	**$ (31,367)**	**$ 149,043**
Income Taxes @ 38.5%	$ 23,801	$ 49,234	$ 46,537	$ 42,775	$ 37,731	$ 37,429	$ 36,420	$ 24,336	$ 12,076	$ (57,382)
NOPAT	**$ (38,020)**	**$ (78,647)**	**$ (74,338)**	**$ (68,329)**	**$ (60,271)**	**$ (59,788)**	**$ (58,178)**	**$ (38,874)**	**$ (19,291)**	**$ 91,662**
Plus: Depreciation Expense	76,107	158,352	169,259	177,723	184,517	203,582	222,977	218,780	206,156	137,806
Less: Maintenance Capital Expenditures	(115,310)	(117,616)	(119,968)	(122,368)	(124,815)	(127,311)	(129,858)	(132,455)	(135,104)	(137,806)
Less: EPA Mandated Capital Expenditures	(77,778)	(77,778)	(77,778)	(77,778)	(77,778)	(77,778)	(77,778)	(77,778)	(77,778)	-
Plus: (Increase)/Decrease in Working Capital	5,097	(29,934)	(28,118)	(16,591)	(20,409)	(13,373)	(19,290)	(18,142)	(15,913)	(15,723)
AVAILABLE CASH FLOW	**$ (149,904)**	**$ (145,622)**	**$ (130,943)**	**$ (107,342)**	**$ (98,757)**	**$ (74,669)**	**$ (62,126)**	**$ (48,468)**	**$ (41,930)**	**$ 75,938**
Mid-Year Convention	0.50	1.50	2.50	3.50	4.50	5.50	6.50	7.50	8.50	
Present Value Factor @ 10%	0.95	0.87	0.79	0.72	0.65	0.59	0.54	0.49	0.44	
DISCOUNTED CASH FLOW	**$ (142,927)**	**$ (126,223)**	**$ (103,181)**	**$ (76,895)**	**$ (64,313)**	**$ (44,206)**	**$ (33,437)**	**$ (23,715)**	**$ (18,650)**	

Aggregate Discounted Cash Flow	$ (633,547)
Plus: Present Value of Residual Value	422,214
Concluded Business Enterprise Value ("BEV")	**$ (211,333)**
Concluded Business Enterprise Value ("BEV") (Rounded)	**$ (200,000)**
Less: Working Capital	(450,000)
Concluded Refinery Value (Rounded)	**De Minimis**

Residual Year Cash Flow	**75,938**
Discount Rate (k)	10.0%
Long-Term Growth Rate (g)	2.0%
Capitalization Rate (k-g)	8.0%
Residual Value	949,227
Present Value Factor	0.445
Present Value of Residual Value	**$ 422,214**

Refinery Income Approach: Mid Case

The Mid Case adjusts product costs on a per barrel basis to reach a target EBITDA margin of 2.25% by the fifth year of operations through the Residual Year. Based on this case, we estimate the value of the Refinery to be approximately **$350 million**.

Mid Case *(Thousands USD)*	2013	2014	2015	2016	2017	2018	2019	2020	2021	Residual Year
Sales	$ 12,856,805	$ 13,712,059	$ 14,515,444	$ 14,989,481	$ 15,572,601	$ 15,954,694	$ 16,505,829	$ 17,024,161	$ 17,478,830	$ 17,928,070
Sales Growth %	*n/a*	*6.65%*	*5.86%*	*3.27%*	*3.89%*	*2.45%*	*3.45%*	*3.14%*	*2.67%*	*2.57%*
Product Costs	(12,258,163)	(13,011,717)	(13,724,550)	(14,105,524)	(14,588,144)	(14,948,959)	(15,474,758)	(15,968,234)	(16,399,215)	(16,824,620)
Product Costs ($ / Bbl)	*$ (11.85)*	*$ (12.57)*	*$ (13.26)*	*$ (13.63)*	*$ (14.10)*	*$ (14.45)*	*$ (14.95)*	*$ (15.43)*	*$ (15.85)*	*$ (16.26)*
Gross Profit	**$ 598,643**	**$ 700,342**	**$ 790,895**	**$ 883,956**	**$ 984,457**	**$ 1,005,735**	**$ 1,031,071**	**$ 1,055,927**	**$ 1,079,615**	**$ 1,103,450**
Operating Expenses	(585,786)	(597,501)	(609,452)	(621,641)	(634,073)	(646,755)	(659,690)	(672,884)	(686,341)	(700,068)
EBITDA	**$ 12,857**	**$ 102,840**	**$ 181,443**	**$ 262,316**	**$ 350,384**	**$ 358,981**	**$ 371,381**	**$ 383,044**	**$ 393,274**	**$ 403,382**
EBITDA Margin	*0.10%*	*0.75%*	*1.25%*	*1.75%*	*2.25%*	*2.25%*	*2.25%*	*2.25%*	*2.25%*	*2.25%*
EBITDA ($ / Bbl)	*$ 0.01*	*$ 0.10*	*$ 0.18*	*$ 0.25*	*$ 0.34*	*$ 0.35*	*$ 0.36*	*$ 0.37*	*$ 0.38*	*$ 0.39*
Depreciation Expense	(76,107)	(158,352)	(169,259)	(177,723)	(184,517)	(203,582)	(222,977)	(218,780)	(206,156)	(137,806)
EBIT	**$ (63,250)**	**$ (55,512)**	**$ 12,184**	**$ 84,593**	**$ 165,867**	**$ 155,399**	**$ 148,404**	**$ 164,264**	**$ 187,118**	**$ 265,576**
Income Taxes @ 38.5%	$ 24,351	$ 21,372	$ (4,691)	$ (32,568)	$ (63,859)	$ (59,829)	$ (57,136)	$ (63,241)	$ (72,040)	$ (102,247)
NOPAT	**$ (38,899)**	**$ (34,140)**	**$ 7,493**	**$ 52,024**	**$ 102,008**	**$ 95,570**	**$ 91,269**	**$ 101,022**	**$ 115,078**	**$ 163,329**
Plus: Depreciation Expense	76,107	158,352	169,259	177,723	184,517	203,582	222,977	218,780	206,156	137,806
Less: Maintenance Capital Expenditures	(115,310)	(117,616)	(119,968)	(122,368)	(124,815)	(127,311)	(129,858)	(132,455)	(135,104)	(137,806)
Less: EPA Mandated Capital Expenditures	(77,778)	(77,778)	(77,778)	(77,778)	(77,778)	(77,778)	(77,778)	(77,778)	(77,778)	-
Plus: (Increase)/Decrease in Working Capital	5,097	(29,934)	(28,118)	(16,591)	(20,409)	(13,373)	(19,290)	(18,142)	(15,913)	(15,723)
AVAILABLE CASH FLOW	**$ (150,782)**	**$ (101,115)**	**$ (49,112)**	**$ 13,011**	**$ 63,523**	**$ 80,690**	**$ 87,320**	**$ 91,428**	**$ 92,438**	**$ 147,606**
Mid-Year Convention	0.50	1.50	2.50	3.50	4.50	5.50	6.50	7.50	8.50	
Present Value Factor @ 10%	0.95	0.87	0.79	0.72	0.65	0.59	0.54	0.49	0.44	
DISCOUNTED CASH FLOW	**$ (143,765)**	**$ (87,645)**	**$ (38,700)**	**$ 9,320**	**$ 41,368**	**$ 47,770**	**$ 46,996**	**$ 44,734**	**$ 41,116**	

Aggregate Discounted Cash Flow	$ (38,805)
Plus: Present Value of Residual Value	820,682
Concluded Business Enterprise Value ("BEV")	**$ 781,877**
Concluded Business Enterprise Value ("BEV") (Rounded)	**$ 800,000**
Less: Working Capital	(450,000)
Concluded Refinery Value (Rounded)	**$ 350,000**

Residual Year Cash Flow	**147,606**
Discount Rate (k)	10.0%
Long-Term Growth Rate (g)	2.0%
Capitalization Rate (k-g)	8.0%
Residual Value	1,845,071
Present Value Factor	0.445
Present Value of Residual Value	**$ 820,682**

Refinery Income Approach: High Case

The High Case adjusts product costs to achieve a target EBITDA margin of 2.5% by the fifth year of operations. The assumed EBITDA margin of 2.5% is based on the EBITDA margin of the Refinery in 2007, the last year of the "Golden Age of Refining." This margin would be consistent with a sustained increase in global demand for refined products and a persistent shortfall in refining production capacity. Based on this case, we estimate the value of the Refinery to be approximately **$750 million.**

High Case *(Thousands USD)*	2013	2014	2015	2016	2017	2018	2019	2020	2021	Residual Year
Sales	$ 12,856,805	$ 13,712,059	$ 14,515,444	$ 14,989,481	$ 15,572,601	$ 15,954,694	$ 16,505,829	$ 17,024,161	$ 17,478,830	$ 17,928,070
Sales Growth %	*n/a*	*6.65%*	*5.86%*	*3.27%*	*3.89%*	*2.45%*	*3.45%*	*3.14%*	*2.67%*	*2.57%*
Product Costs	(12,258,163)	(12,998,005)	(13,673,517)	(14,015,588)	(14,549,213)	(14,909,072)	(15,433,493)	(15,925,657)	(16,355,536)	(16,779,800)
Product Costs ($ / Bbl)	*$ (11.85)*	*$ (12.56)*	*$ (13.21)*	*$ (13.54)*	*$ (14.06)*	*$ (14.41)*	*$ (14.91)*	*$ (15.39)*	*$ (15.81)*	*$ (16.22)*
Gross Profit	**$ 598,643**	**$ 714,054**	**$ 841,927**	**$ 973,893**	**$ 1,023,388**	**$ 1,045,622**	**$ 1,072,336**	**$ 1,098,505**	**$ 1,123,295**	**$ 1,148,270**
Operating Expenses	(585,786)	(597,501)	(609,452)	(621,641)	(634,073)	(646,755)	(659,690)	(672,884)	(686,341)	(700,068)
EBITDA	**$ 12,857**	**$ 116,552**	**$ 232,476**	**$ 352,253**	**$ 389,315**	**$ 398,867**	**$ 412,646**	**$ 425,621**	**$ 436,953**	**$ 448,202**
EBITDA Margin	*0.10%*	*0.85%*	*1.60%*	*2.35%*	*2.50%*	*2.50%*	*2.50%*	*2.50%*	*2.50%*	*2.50%*
EBITDA ($ / Bbl)	*$ 0.01*	*$ 0.11*	*$ 0.22*	*$ 0.34*	*$ 0.38*	*$ 0.39*	*$ 0.40*	*$ 0.41*	*$ 0.42*	*$ 0.43*
Depreciation Expense	(131,552)	(253,374)	(237,121)	(226,185)	(219,165)	(238,191)	(257,625)	(236,085)	(206,156)	(137,806)
EBIT	**$ (118,695)**	**$ (136,821)**	**$ (4,645)**	**$ 126,068**	**$ 170,150**	**$ 160,676**	**$ 155,020**	**$ 189,536**	**$ 230,798**	**$ 310,396**
Income Taxes @ 38.5%	$ 45,698	$ 52,676	$ 1,788	$ (48,536)	$ (65,508)	$ (61,860)	$ (59,683)	$ (72,971)	$ (88,857)	$ (119,502)
NOPAT	**$ (72,998)**	**$ (84,145)**	**$ (2,857)**	**$ 77,532**	**$ 104,642**	**$ 98,816**	**$ 95,337**	**$ 116,565**	**$ 141,941**	**$ 190,893**
Plus: Depreciation Expense	131,552	253,374	237,121	226,185	219,165	238,191	257,625	236,085	206,156	137,806
Less: Maintenance Capital Expenditures	(115,310)	(117,616)	(119,968)	(122,368)	(124,815)	(127,311)	(129,858)	(132,455)	(135,104)	(137,806)
Less: EPA Mandated Capital Expenditures	(77,778)	(77,778)	(77,778)	(77,778)	(77,778)	(77,778)	(77,778)	(77,778)	(77,778)	-
Plus: (Increase)/Decrease in Working Capital	5,097	(29,934)	(28,118)	(16,591)	(20,409)	(13,373)	(19,290)	(18,142)	(15,913)	(15,723)
AVAILABLE CASH FLOW	**$ (129,436)**	**$ (56,099)**	**$ 8,400**	**$ 86,980**	**$ 100,805**	**$ 118,545**	**$ 126,038**	**$ 124,275**	**$ 119,301**	**$ 175,170**
Mid-Year Convention	0.50	1.50	2.50	3.50	4.50	5.50	6.50	7.50	8.50	
Present Value Factor @ 10%	0.95	0.87	0.79	0.72	0.65	0.59	0.54	0.49	0.44	
DISCOUNTED CASH FLOW	**$ (123,412)**	**$ (48,626)**	**$ 6,619**	**$ 62,308**	**$ 65,647**	**$ 70,181**	**$ 67,834**	**$ 60,805**	**$ 53,065**	

Aggregate Discounted Cash Flow	$ 214,422
Plus: Present Value of Residual Value	973,940
Concluded Business Enterprise Value ("BEV")	**$ 1,188,361**
Concluded Business Enterprise Value ("BEV") (Rounded)	**$ 1,200,000**
Less: Working Capital	(450,000)
Concluded Refinery Value (Rounded)	**$ 750,000**

Residual Year Cash Flow	**175,170**
Discount Rate (k)	10.0%
Long-Term Growth Rate (g)	2.0%
Capitalization Rate (k-g)	8.0%
Residual Value	2,189,626
Present Value Factor	0.445
Present Value of Residual Value	**$ 973,940**

Sales Comparison Approach: Overview

In the sales comparison approach, recent comparable sales in the marketplace are reviewed and adjusted to the Subject based on appropriate units of comparison. For instance, similar properties that have recently sold are compared with the property being appraised, with adjustments being made for differences such as time of sale, location, size, type, age, condition of improvements, and prospective use.

Identification of Comparable Sales

- Investigation into the petroleum refining industry within the last several years revealed meaningful individual refinery sales. Nine sales of operating refineries and one proposed sale between July 2008 and May 2012 were utilized in the analysis. Each comparable sale was adjusted for size, refining complexity/Equivalent Distillation Capacity ("EDC"), market conditions/economic obsolescence at the time of the sale, age of the refinery, and location of the refinery

- In order to establish a meaningful range of results, the sales comparison approach analysis included verification of the information from market participants familiar with each transaction, including, but not limited to: literature and press releases regarding the transactions, industry publications, industry consultants, and buyer and/or seller personnel involved in the transactions

- Intangible assets consist of items such as goodwill, planned synergies, environmental emission credits, non-compete agreements, trained and assembled workforce, internally developed software, and other items. Despite attempts to verify all the details of the transactions, we are only able to provide an estimate of the intangible value allocated to the sales. As such, we have assumed a value estimate of 0.0% intangibles for transactions occurring in 2009, 2010, 2011, and 2012 and 10.0% intangibles of the sale price for the transaction occurring in 2008

For details of the transactions used for the Sales Comparison Approach, please refer to Appendix A.

Sales Comparison Approach: Adjustment Grid

Sales Comparison Approach *(USD in Thousands)*	Subject	Proposed Sale	Sale 1	Sale 2	Sale 3	Sale 4
Details						
Seller	HOVENSA LLC	Valero Energy Corp.	Phillips 66 Co.	Murphy Oil Corp.	Sunoco, Inc.	Valero Energy Corp.
Buyer	----	PetroChina Co Ltd	Delta Air Lines, Inc.	Valero Energy Corp.	PBF Energy Company	PBF Energy Company
Location	St. Croix, USVI	San Nicolas, Aruba	Trainer, Pennsylvania	Meraux, Louisiana	Toledo, Ohio	Paulsboro, New Jersey
Energy Source[1]	Fuel Oil	Fuel Oil	Dual-Fired	Dual-Fired	Dual-Fired	Dual-Fired
Original Construction	1966	1929	1925	1920s	1894	1917
Modernization	1974, 1993, 2002, 2007	2000s	1980s, 1997	2003-2008	2007	1970s, 80s
Crude Processed	Venezuelan	Venezuelan	Light, Low-Sulfur	Medium Sour	Light Sweet	Sour Arab Light/Heavy
Sale Date	----	May 2012	May 2012	October 2011	March 2011	December 2010
Sale Price[2]	----	$350,000	$280,000	$270,000	$483,400	$340,000
$/EDC	----	$186	$189	$225	$306	$152
Adjustments						
Property Rights Conveyed	Fee Simple	Fee Simple =	Fee Simple =	Fee Simple =	Fee Simple =	Fee Simple =
Size (BPCD)	500,000	235,000 ⊦	185,000 ⊦	125,000 ⊦	170,000 ⊦	166,000 ⊦
Complexity	9.4	Inferior ⊦	Inferior ⊦	Superior -	Inferior ⊦	Superior -
Economic Obsolescence	45%	Equal =	Equal =	Equal =	Equal =	Inferior ⊦
Age[3]	25	Equal =	Inferior ⊦	Inferior ⊦	Equal =	Inferior ⊦
Location	Gulf Coast	Equal =	Inferior ⊦	Superior -	Superior -	Inferior ⊦
Total Adjustments		Inferior ⊦	Inferior ⊦	Inferior ⊦	Inferior ⊦	Inferior ⊦
Adjusted Sale Price to the HOVENSA Refinery		$697,600	$771,700	$464,100	$709,600	$658,600
$/Equivalent Distillation Capacity		*$148*	*$164*	*$99*	*$151*	*$140*

[1]Dual-Fired facilities represent those refineries with the ability to power operations (steam and electricity) using both natural gas and fuel oil.

[2]The announced Sale Price for the Proposed Sale and Sale No. 1was considered to be fully allocated to the refinery assets; therefore, this represents the absolute maximum value of the refineries.

[3]Had it not ceased operations, the effective age of the HOVENSA Refinery would be estimated to be approximately 22 years. However, since it is in shutdown mode and there is an outstanding consent decree required to bring the Refinery into compliance upon restart, the effective age has been adjusted to 25 years.

Sales Comparison Approach: Adjustment Grid

Sales Comparison Approach *(USD in Thousands)*	Subject	Sale 5	Sale 6	Sale 7	Sale 8	Sale 9
Details						
Grantor	HOVENSA LLC	Marathon	Valero Energy Corp.	Sinclair Oil Corp.	Sunoco, Inc.	Valero Energy Corp.
Grantee	----	Northern Tier Energy	PBF Energy Company	Holly Corp.	Holly Corp.	Alon USA Energy, Inc.
Location	St. Croix, USVI	St. Paul Park, Minnesota	Delaware City, Delaware	Tulsa, Oklahoma	Tulsa, Oklahoma	Krotz Springs, Louisiana
Energy Source[1]	Fuel Oil	Dual-Fired	Dual-Fired	Dual-Fired	Dual-Fired	Dual-Fired
Original Construction	1966	1939	1957	1910	1913	1955
Modernization	1974, 1993, 2002, 2007	1980s, 1990s, 2000s	1990s, 2010	2004, 2007	N/A	1980s, 2000s
Crude Processed	Venezuelan	Canadian High TAN/Midwest	Heavy Sour/High Acid	OK Sweet, Cushing, WTI	OK Sweet, Cushing, WTI	Light/Medium Sweet
Sale Date	----	December 2010	June 2010	December 2009	June 2009	July 2008
Sale Price[2]	----	$272,775	$320,000	$128,500	$190,600	$299,700
$/EDC	----	$323	$140	$282	$216	$547
Adjustments						
Property Rights Conveyed	Fee Simple	Fee Simple =	Fee Simple =	Fee Simple =	Fee Simple =	Fee Simple =
Size (BPCD)	500,000	74,000 ⊦	210,000 ⊦	70,000 ⊦	85,000 ⊦	83,000 ⊦
Complexity	9.4	Superior -	Superior -	Inferior ⊦	Superior -	Inferior ⊦
Economic Obsolescence	45%	Inferior ⊦	Inferior ⊦	Inferior ⊦	Inferior ⊦	Superior -
Age[3]	25	Equal =	Inferior ⊦	Inferior ⊦	Inferior ⊦	Superior -
Location	Gulf Coast	Superior -	Inferior ⊦	Superior -	Superior -	Superior -
Total Adjustments		Inferior ⊦	Inferior ⊦	Inferior ⊦	Inferior ⊦	Inferior ⊦
Adjusted Sale Price to the HOVENSA Refinery		$683,800	$723,200	$607,900	$824,000	$716,300
$/Equivalent Distillation Capacity		*$145*	*$154*	*$129*	*$175*	*$152*

[1]Dual-Fired facilities represent those refineries with the ability to power operations (steam and electricity) using both natural gas and fuel oil.

[2]The announced Sale Price for the Proposed Sale and Sale No. 1was considered to be fully allocated to the refinery assets; therefore, this represents the absolute maximum value of the refineries.

[3]Had it not ceased operations, the effective age of the HOVENSA Refinery would be estimated to be approximately 22 years. However, since it is in shutdown mode and there is an outstanding consent decree required to bring the Refinery into compliance upon restart, the effective age has been adjusted to 25 years.

Sales Comparison Approach: Concluded Value Range

Based on the ten (10) comparative sales and the adjustments displayed on the previous slides, we have estimated a range of values for the HOVENSA Refinery from $475 million to $700 million, or $100 to $150 per EDC. This conclusion is presented below.

Comparative Sale	Sale Date	Seller	Buyer	Energy Source	Unadjusted Sale Price	Adjusted Sale Price to the HOVENSA Refinery	$/Equivalent Distillation Capacity
Proposed Sale	May 2012	Valero Energy Corp.	PetroChina Co Ltd	Fuel Oil	$350,000	$697,600	$148
Sale 1	May 2012	Phillips 66 Co.	Delta Air Lines, Inc.	Dual-Fired	$280,000	$771,700	$164
Sale 2	October 2011	Murphy Oil Corp.	Valero Energy Corp.	Dual-Fired	$270,000	$464,100	$99
Sale 3	March 2011	Sunoco, Inc.	PBF Energy Company	Dual-Fired	$483,400	$709,600	$151
Sale 4	December 2010	Valero Energy Corp.	PBF Energy Company	Dual-Fired	$340,000	$658,600	$140
Sale 5	December 2010	Marathon	Northern Tier Energy	Dual-Fired	$272,775	$683,800	$145
Sale 6	June 2010	Valero Energy Corp.	PBF Energy Company	Dual-Fired	$320,000	$723,200	$154
Sale 7	December 2009	Sinclair Oil Corp.	Holly Corp.	Dual-Fired	$128,500	$607,900	$129
Sale 8	June 2009	Sunoco, Inc.	Holly Corp.	Dual-Fired	$190,600	$824,000	$175
Sale 9	July 2008	Valero Energy Corp.	Alon USA Energy, Inc.	Dual-Fired	$299,700	$716,300	$152

Mean		$ 293,498	$ 685,680	$ 146
Median		$ 289,850	$ 703,600	$ 150
High		$ 483,400	$ 824,000	$ 175
Low		$ 128,500	$ 464,100	$ 99

Concluded Value Range	**n/a**	**$475,000 - $700,000**	**$100 - $150**

* *USD in Thousands.*

- Based on published but unverified estimates of Carlyle Group's capital commitments associated with the acquisition of 67% of the Philadelphia refinery from Sunoco and the potential that a buyer would be interested in the 350,000 BPD high-complexity east side of the Refinery, it is likely that the value of HOVENSA would be near the lower end of the indicated range

Replacement Cost Approach: Overview

- Replacement Cost New ("RPLCN") is the estimated cost required to substitute, at current prices as of the Valuation Date, the asset being appraised with a modern new unit using the most current technology and construction materials that will duplicate the production capacity and functional utility of the asset being appraised
- To determine the costs of modern replacement facilities, data was reviewed from SRI International "Petroleum Refining Profitability ("PEP") Report No. 215." SRI is an independent, nonprofit research institute that serves industries worldwide. It is the leading business research service for the chemical and refining industry and has been publishing its process analyses for over sixty years
- In the PEP Report, construction costs and operating characteristics are provided for each process unit and off-site. Construction costs were attributed to each major process or operating unit to determine an overall RPLCN. Adjustments then were made to the costs for time, location, and capacity to reflect the assets at the Refinery
- To verify our results and provide additional support for our analysis, we also reviewed data from Petroleum Science and Technology, "Refinery Cost Functions in the US Gulf Coast", written by M.J. Kaiser and J.H. Gary. In the article, a cost function is provided for each type of major process unit within a refinery. Replacement costs were also validated by consideration of recent expansion and upgrade projects, published information regarding anticipated construction costs, and Duff & Phelps proprietary construction cost data

Relative to the indicated Income & Sale Comparison Value, the RCNLD highlights the significant amount of Economic Obsolescence indicated at the Facility.

Replacement Cost Approach: Summary

Process Unit at Refinery	Refinery Cost ($MM)[1,2,3] 1/1/2012	Size Scale Factor	Concluded Replacement Size (BPCD)	Number of Units	Replacement Cost Adjusted To Subject Size ($000s)
Atmospheric Crude Distillation Unit	281.7	0.70	500,000	4	$749,100
Vacuum Crude Distillation Unit	248.0	0.70	205,000	4	508,500
Delayed Coker Unit	473.5	0.60	55,000	1	402,200
Fluid Catalytic Cracking Unit	397.5	0.60	140,000	2	802,900
Catalytic Reformer Unit	240.5	0.60	105,000	2	421,800
Naphtha Hydrotreater	55.4	0.60	160,000	3	199,700
Kerosene Hydrotreater (Jet)	63.5	0.60	50,000	1	76,600
FCC Feed Hydrotreater	202.3	0.60	130,000	2	413,900
Distillate Hydrotreater	202.3	0.60	95,000	2	342,900
Alkylation Unit	158.4	0.60	18,000	1	177,800
Aromatics Extraction	157.4	0.60	18,000	1	80,400
Isomerization Unit ($C_4/C_5/C_6$)	40.6	0.60	17,000	1	59,200
Sulfur Plant (LT/d)	70.7	0.60	500	5	85,100
Thermal Operations - Visbreaking			37,000	1	91,100
Dimerization			7,000	1	65,300

Process Units RPLCN		$4,476,500
Off-Sites RPLCN		$2,327,800
Docks RPLCN		$50,000
Process Units & Off-Sites RPLCN		$6,854,300
Indirect Expenses		$205,600
Interest During Construction		$476,690
Grand Total RPLCN		**$7,536,590**
Estimated RPLCN	**$**	**7,500,000**

[1]RPLCN was developed utilizing various sources such as: SRI International's Petroleum Refining Profitability Report No. 215, Petroleum Science and Technology, "Refinery Cost Functions in the U.S. Gulf Coast" by M.J. Kaiser and J.H. Gary, and Duff & Phelps proprietary construction cost data.

[2]Location Adjustment - added 20% to cost to account for USVI location.

[3]Utilized M&S Petroleum Cost Index to trend from July 1993 to January 2012.

Refinery Income Approach: Range of Values

- Based on the three (3) cases evaluated for continued use of the Refinery, we have estimate a preliminary range of value for the Refinery as presented below.[1]

Valuation Approach	Value Indication ($000)
Income Approach	
Low Case	De minimis
Mid Case	$350,000
High Case	$750,000
Market Approach	
Low Case	$475,000
High Case	$700,000

- Assuming a sale were to occur for HOVENSA, it should be noted that the ultimate value realized by Hess and PDVSA would depend in part on the modifications to the Concession Agreements negotiated with the buyers in conjunction with the transaction (which would likely to be essential to an agreement by a new owner to a capital investment plan)

[1]The valuation scenarios were evaluated using publicly available information.

IV. Consideration of LNG as a Fuel Source for the Refinery

Current Crude Oil and Natural Gas Price Environment

Current Price Environment

- US Natural Gas prices are currently hovering around $3.00/MMBtu, near their 10-year lows as a result of warmer-than-normal temperatures, ample natural gas in storage, and growing production, particularly within shale plays that produce both oil and gas
- Natural gas production increases are a result of new, unconventional methods such as hydraulic fracturing ("fracking") and horizontal drilling that have been introduced over the last few years, opening up vast amounts of reserves that were previously unrecoverable
  - This has contributed to a significant spread between crude oil and natural gas prices, with the price of oil (per BTU) roughly 12 times that of natural gas
- Due to higher global prices for natural gas, various US companies are planning to begin exporting natural gas by 2015[1]

Crude oil-to-natural gas spot price ratio, January 3, 2000 - April 11, 2012[2]

Impact on HOVENSA

- The Refinery requires a substantial volume of fuel oil as it was recently estimated that HOVENSA consumes twice the amount of power for its Refinery annually as the rest of St. Croix consumes[3]
- HOVENSA and refining industry analysts cite the Refinery having an inherent competitive disadvantage from depending entirely on crude oil to fuel its operations
- Current natural gas capacity, expected additions, and new supply (e.g. US Shale) from advanced extraction techniques are expected to keep the price of natural gas low for several years
- A facility conversion may present an opportunity for the Refinery to exploit lower natural gas prices and become more competitive

[1] Bloomberg, "Cheniere Wins Approval for Biggest US Gas-Export Terminal", April 17, 2012.
[2] US Energy Information Administration, Today in Energy, "Price Ratio of Crude Oil to Natural Gas Continues to Increase", April 13, 2012.
[3] Virgin Island Daily News, "HOVENSA's Closure Makes Natural Gas More Expensive, but Possible", Daniel Shea, Feb. 16, 2012.

About LNG

The LNG Process [1]

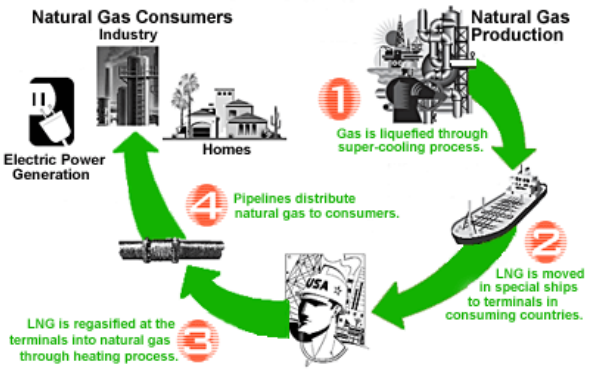
- There is a need to transport natural gas from where it is produced to where it is consumed. The most efficient way to transport natural gas, where pipelines cannot be built, is in the form of LNG
- LNG is natural gas in liquid form. When natural gas is cooled to -259 degrees Fahrenheit (-161 degrees Celsius), it becomes a clear, colorless, odorless liquid. This process reduces its volume by a factor of more than 600 and allows natural gas to be transported efficiently by sea. Once it reaches its destination, LNG is unloaded from ships at import terminals where it is stored as a liquid until it is warmed back to natural gas
- The majority of LNG supply currently comes from exporting countries with large natural gas reserves. These countries include: Algeria, Australia, Brunei, Indonesia, Libya, Malaysia, Nigeria, Oman, Qatar, and Trinidad and Tobago
- LNG is transported in double-hulled ships specifically designed to handle the low temperature of LNG. There are currently 136 ships that transport more than 120 million metric tons of LNG every year
- When LNG is received at terminals, it is transferred to insulated storage tanks that are built specifically to hold LNG. When natural gas is needed, the LNG is warmed to a point where it converts back to its gaseous state. This is accomplished using a regasification process involving heat exchangers
- Once converted to a gaseous state, the natural gas is then either used for power consumption or shipped via pipelines to the end consumers

[1] The California Energy Commission, "Frequently Asked Questions About LNG", www.energy.ca.gov.

Map of Regional LNG Import Terminals

There are currently approximately 60 LNG import terminals worldwide. Note: There are LNG import terminals in operation in Caribbean neighbors, Dominican Republic and Puerto Rico. Source: Bloomberg.

How LNG Reaches Consumers



LNG Diagram provided from Conoco Philips' website

Pros & Cons of Converting the Refinery to Run on LNG Instead of Fuel Oil

Pros

- Reduces or eliminates the Refinery's current competitive disadvantage based on fuel oil as its power source
- Natural gas is the cleanest burning fossil fuel, producing approximately 45% less carbon dioxide compared with oil or coal [1]
- Natural gas plants typically require lower fixed costs to build and have the ability to come on line quickly and support peak load conditions at times when power demand is the highest [1]
- Potential to team with WAPA to supply entire territory and share conversion costs
- Close geographic proximity to large potential suppliers (Trinidad & Tobago,[2] US to export by 2015 from Gulf Coast LNG facilities)[3], USVI a US domestic off taker
- Required infrastructure to receive large ships for LNG import terminal is already in place with 10 onsite docks that can receive tankers with capacity up to 13,000 dwt (approx. 1 million barrels) and 55 feet of draft

Cons

- Significant upfront investment ($100 million to $500 million) for conversion of Refinery power assets and infrastructure construction to receive, store, and convert the natural gas from its liquid form
- Costly to import LNG to a location (St. Croix) with relatively low annual LNG demand (estimated that the Refinery would demand approximately 300,000 tons of LNG per year, more than double WAPA's potential requirements) [4]
- Absent other economic development, a facility built on St. Croix may not realize the same economies of scale that benefit most industrial recipients
- Need for a skilled workforce to operate the LNG facility
- Robust refining expansion from China, India, Brazil, and the Middle East may increase competition for and price of LNG[1]

Steps Needed to Convert the Refinery to Run on LNG[5]

1.	Secure required governmental permitting to construct LNG import facility (1-2 years)
2.	Build infrastructure to receive, store, and regasify LNG (12-18 months)
3.	Perform required construction to convert Refinery to run on natural gas (6-12 months)
4.	Secure supply of LNG at reasonable price (Depends on timing of LNG availability, but likely 2015 or 2016 from US, possibly sooner from Dominican Republic or Puerto Rico)
5.	Train employees to operate new Facility (3-6 months or more depending on workforce)

Saudi Aramco Total Refining Co (Satorp) refinery in Jubail, Saudi Arabia

[1] Sterne Agee, Industry Report, *Engineering & Construction,* December 14, 2011.
[2] Atlantic LNG company website, *About Us,* www.atlanticlng.com/about-us/.
[3] Bloomberg, "Cheniere Wins Approval for Biggest US Gas-Export Terminal", April 17, 2012.
[4] Virgin Island Daily News, "HOVENSA's Closure Makes Natural Gas More Expensive, but Possible", Daniel Shea, Feb. 16, 2012.
[5] Some steps could run concurrently, but it is not likely that LNG would be received prior to 2015.

Potential LNG Sources

Atlantic LNG (Trinidad & Tobago)

Advantages

- Close proximity to the USVI (approximately 500 nautical miles) could provide a cost benefit over other LNG sources
- Atlantic LNG's freight-on-board buyers could potentially deliver LNG to the Virgin Islands. Atlantic LNG's FOB buyers include:
  - BG Group
  - BP
  - GDF Suez
  - Repsol
- The government owned Natural Gas Company of Trinidad & Tobago ("NGC") should have control of the equivalent of approximately five (5) full size cargoes making NGC a potential supplier through an agreement between Trinidad & Tobago and the USVI

Challenges

- Atlantic LNG loading facilities may need to be modified to accommodate small scale LNG ships to serve the Caribbean
- Atlantic LNG will likely limit the number of small scale ships loading at their facility to avoid impacting loading schedules for traditional LNG ships
- Trinidad & Tobago government may seek global market price from USVI (very high due to demand from Japan) negating cost savings
- Atlantic LNG's gas suppliers and off takers may oppose a government agreement to protect their interests

U.S. Gulf Coast

Advantages

- Cheniere's Sabine Pass LNG terminal has received all permits and finalizing financing
  - Base capacity is fully subscribed
  - Approximately 1 million tonnes per annum ("MTPA") for each phase will be marketed once the terminal is operating
- Eight (8) new LNG projects have been announced on the Gulf and Atlantic Coasts
- US may seek to limit LNG exports resulting in attractive price to USVI / HOVENSA based on Henry Hub gas price (plus a premium)

Challenges

- Only small scale LNG ships offer economic viability from the U.S. Gulf Coast to the USVI.
  - The US Gulf Coast is approximately 1,700 nautical miles from the USVI
  - Articulated tug-barges ("ATB") are too slow making economics more difficult given the load required by the USVI
- Most projects in the Gulf Coast and Atlantic regions are focused on traditional LNG ships
  - 3 projects are already sold out
  - Most others are looking for larger creditworthy capacity holders

Regional Full Size LNG Terminals

Advantages

- Existing LNG terminals in Puerto Rico and the Dominican Republic could potentially re-export smaller volumes of LNG to the USVI
- Puerto Rico Electric Power Authority ("PREPA") is developing a new floating LNG terminal and will control full capacity
  - An agreement between GVI and the government of Puerto Rico or PREPA could represent a viable option
- Alternative import terminals are being considered in the Dominican Republic, Jamaica has issued RFP for LNG terminal
- Multiple regional terminals could provide some ability to negotiate for more favorable pricing (because USVI represents incremental margin)

Challenges

- Commercial agreements with terminal capacity owners and lenders will be needed in Puerto Rico (Gas Natural Fenosa) or the Dominican Republic (AES Corporation)
- Regulatory approval will be needed to re-export LNG to the USVI from Puerto Rico, and likely the Dominican Republic
- Small Scale deliveries could be at a meaningful premium to landed LNG cost, limiting cost savings

Bringing LNG to the USVI

Puerto Rico's EcoEléctrica LNG Terminal.

AES Corporations LNG Import Terminal in the Dominican Republic.

Most Likely LNG Supplier

- Given the small scale LNG demand needed by the USVI, transshipments from a regional LNG terminal (Puerto Rico or the Dominican Republic) presents the most likely option to supply the USVI
  - Direct exports from the US Gulf Coast or Atlantic LNG in Trinidad & Tobago are unlikely as they will be hesitant to load small scale ships in place of traditional LNG ships
- AES Corporation's existing regional terminal in the Dominican Republic and EcoEléctrica, Puerto Rico's only LNG terminal, are potential supply points for the USVI
- New regional terminal projects are expected and could also provide LNG to the USVI
  - For example, PREPA is developing a new floating LNG terminal and will control full capacity, Jamaica has issued RFP for LNG facility
- Cheniere (or others) may also be willing to develop a full service solution to the USVI in order to lock up a long-term arrangement with a domestic (U.S.) customer

Hurdles

- The small scale LNG development must be fully integrated with easily identifiable value created for the suppliers to entice them to service the small scale LNG ships over traditional LNG ships
- Inter-government negotiations will be critical to establish an agreement with either Puerto Rico or the Dominican Republic and the regional LNG terminal capacity owners
- Market competition by suppliers is critical in establishing a price for LNG that will not outweigh the value created by switching to LNG as a fuel source
  - The initial investment of constructing an small scale LNG solution should be considered when determining a price that will create positive value over the life of the investment

Pricing Expectations of LNG in the Current Market

U.S. Expected to be a Net LNG Exporter

- The pricing market overwhelmingly views the U.S. as a net LNG exporter due an increase in natural gas supply through unconventional methods of extracting natural gas
- Pricing expectations are incorporating anticipated levels of U.S. natural gas exports with other new projects commencing around the world
  - If exportation is limited, USVI would likely be able to receive a "domestic export" price indexed to Henry Hub gas prices
  - "Analysts have said they expect the United States to cap its LNG exports to ensure low gas prices for its domestic industry" [1]
- Pricing from Sabine Pass has been noted as initially being set at 1.15 times Henry Hub gas price plus $2.25 to $3.00 per MMBtu[1]
  - Based on current gas prices, this indicates a range of approximately $5.75 to $6.50 per MMBtu

The Impact of the Tsunami in Japan is Still Being Felt

- The tsunami that hit the Tohoku region of Japan resulting in the Fukushima nuclear accident continues to impact world energy markets as Japan is now heavily reliant on LNG to replace its nuclear capacity
  - Japan's increased demand has significantly impacted markets, driving up prices for LNG across the globe
  - Japan's demand for LNG is anticipated to remain high as it seeks to reduce its reliance on nuclear power
- Currently it is expected LNG suppliers with require FOB netbacks for any LNG sales be equivalent to or greater than the FOB netback from the Asia markets, which are heavily influenced by the situation in Japan
  - According to Japan's Customs Bureau, Japanese companies were paying $20.87 per million Btus to attract Yemeni LNG in January and $18.43 for Algerian shipments[2]
- As global supply of LNG expands to match demand, prices are expected to decline

The LNG price attained in the Virgin Islands may be influenced by Japanese demand as LNG suppliers will seek to maximize profitability on the Global Market. However, the USVI would benefit significantly if the United States ultimately elects to limit exports in order to ensure low domestic natural gas prices.

[1] *US LNG exports to be at same price as UK's NBP hub*, Reuters, August 3, 2012.
[3] *LNG Export Plant Verges on U.S. Approval Amid Shale Glut*, Bloomberg News, April 12, 2012.

Estimated Cost Savings from Switching to LNG

The chart below estimates potential cost savings from switching to LNG as power source for Refinery. Based on the assumption of HOVENSA demanding approximately 300,000 tonnes of LNG per year. Cost of imported LNG for HOVENSA is estimated based on the average cost of LNG imports in the US over the past year with premiums to account for HOVENSA's location and low demand. Cost per barrel of feedstock Venezuelan Heavy Crude Oil estimated by subtracting spot discount rate for Canadian Heavy Crude Oil from WTI NYMEX Light Sweet Crude oil futures settlement price. This assumes Venezuelan and Canadian Heavy Crude Oil is of similar quality and price.

Estimated Annual Cost of Powering Refinery with LNG	Avg. U.S. Case [4]	Downside Case [6]	Break-Even
HOVENSA's estimated annual LNG Demand (Tonnes) [1]	300,000	300,000	300,000
Energy Content per tonne of LNG (MMBtu's) [2]	52.0	52.0	52.0
Estimated Annual Energy Content HOVENSA Demands (MMBtu's)	15,600,000	15,600,000	15,600,000
Estimated Cost per MMBtu's of LNG to HOVENSA	$ 6.00	$ 9.00	**$ 12.37**
Estimated Cost to Power Refinery with LNG	**$ 93,600,000**	**$ 140,400,000**	**$ 192,982,759**
Estimated Annual Cost of Powering Refinery with Crude Oil			
Estimated Annual Energy Content HOVENSA Demands (MMBtu's)	15,600,000	15,600,000	15,600,000
Energy Content per Barrel of Oil (MMBtu's) [2]	5.8	5.8	5.8
Estimated Annual Barrels of Oil HOVENSA Requires to Power Refinery	2,689,655	2,689,655	2,689,655
Estimated Cost per Barrel of Imported Venezuelan Heavy Crude (May 24, 2012) [3]	$ 71.75	$ 71.75	$ 71.75
Estimated Cost to Power Refinery with Crude Oil	**$ 192,982,759**	**$ 192,982,759**	**$ 192,982,759**
Estimated Annual Savings from Converting to LNG to Power Refinery (Rounded)	**$ 99,500,000**	**$ 52,500,000**	**$ -**

[1] Virgin Islands Daily News, "HOVENSA's Closure Makes Natural Gas More Expensive, But Possible", Daniel Shea, February 16, 2012.

[2] Standard & Poor's Industry Survey, *Oil & Gas: Production & Marketing*, Michael Kay, March 29, 2012.

[3] Based on spot discount of Canadian Heavy Crude Oil to spot price of WTI NYMEX Light Sweet Crude as of May 24, 2012 as reported from Bloomberg.

[4] Average U.S. Case price estimated from average price paid by U.S. import terminals over past year as reported by Bloomberg.

[5] Downside Case assumes a LNG cost at $9 per MMBtu.

Recent Construction & Cost of Comparable LNG Import Terminals

Simulation of AES Corporation's planned AES Ocean LNG Terminal on the South side of Ocean Cay, The Bahamas, as provided by www.downstreamtoday.com.

Simulation of Occidental's planned LNG Facility next to their existing chemical plant, as provided by www.downstreamtoday.com.

- In June of 2010, AES Corporation started construction on AES Ocean LNG Terminal on the south side of Ocean Cay, The Bahamas. The facility will comprise a LNG removal plant and storage facilities, a desalination plant, an undersea natural gas supply pipeline, liquefied petroleum gas ("LPG") terminal, LPG storage, an LPG removal plant, ragasification, sendout system and ancillary structures, and an ancillary electricity generation unit [1]
  - Total project cost is $650 million. However, this is an entirely new construction as opposed to HOVENSA, where some infrastructure is likely in place that may reduce construction costs. This $650 million also includes cost to construct a 26 inch pipeline from the plant to Florida, which HOVENSA would not require

- Occidental Petroleum's proposed LNG facility, Ingleside Energy Center ("IEC"), will be located next to Occidental's existing chemical plant on the Corpus Christi Bay near Ingleside, Texas. Construction will include a docking facility, new slip, two 160,000-cubic-meter storage tanks, ethane recovery facility, LPG recovery facility, LNG vaporizing equipment, and the San Patricio Pipeline (pipe diameter and length not reported) [2]
  - Total project cost is $400 million. However, this also includes pipeline construction. Despite the fact that much natural gas will be sent via pipelines to other areas, a quarter of imported LNG will be used to power Occidental's chemical plant

[1] Downstream Today, Project Snapshot, *AES Ocean LNG*, www.downstreamtoday.com/projects.
[2] Downstream Today, Project Snapshot, *Ingleside Energy Center*, www.downstreamtoday.com/projects.

Recent Construction & Cost of Comparable LNG Import Terminals

Skangass

- Norwegian Skangass and Preem, Sweden's largest oil company, announced in March 2012 the signing of a deal to supply LNG to Preem's refinery on the west coast of Sweden. The agreement also includes the construction of an LNG terminal to neighbor the refinery[1]
  - Total project cost of building the LNG terminal is €55 million (approximately $73 million). The terminal will receive much less volume per year than HOVENSA would require (20,000 vs. 300,000 tons of LNG) meaning that the Preem LNG terminal is most likely much smaller than what HOVENSA would require. The transaction is similar in the fact that the facility will be primarily constructed to power a neighboring oil refinery

Simulation of Sempra's Cameron LNG Terminal on the Calcasieu Channel of southwestern Louisiana, as provided by www.downstreamtoday.com.

- In July 2009, Sempra Energy finished building its wholly owned Cameron LNG terminal on the Calcasieu Channel in southwestern Louisiana. The facility will feature two unloading docks; three storage tanks; associated equipment to transform LNG back to natural gas; and a pipeline to existing interstate pipelines. The LNG terminal is capable of sending out 1.5 billion cubic feet per day (Bcf/d), but plans are in the works for that capacity to be expanded to 2.65 Bcf/d[2]
  - Total project cost is $750 million. This is a much larger import terminal than HOVENSA would require and lacks existing infrastructure to leverage in the construction of the facility. The project also includes 36 miles of pipeline to ship to major gas markets

[1] Natural Gas Europe, "Skangass and Preem Sign Swedish LNG Deal", www.naturalgaseurope.com, March 14, 2012.
[2] Downstream Today, Project Snapshot, *Cameron LNG*, www.downstreamtoday.com/projects.

Specific Construction Requirements and Potential Costs of Refinery Conversion

View of Current HOVENSA Facility

View of South Hook Terminal, Europe's Largest LNG Regasification Facility

Construction Requirements of Refinery Conversion

- Convert current Refinery infrastructure to run on natural gas rather than fuel oil
- Construct terminals with temperature-controlled storage for imported LNG
- Construct re-gasification facilities to transform the liquid back into its gas form
- Construct/Convert storage tanks that would feed into a pipeline, onto trucks, or directly into the Facility to be used as power

Estimated Range of Total Required Cost

- Total estimated cost is expected to be no less than $100 million (According to Roland Fisher, CEO of Gasfin Development, a company that develops LNG facilities in the Caribbean and South America).[1] The Preem LNG terminal construction price supports $100 million as a reasonable low estimate
- Total costs likely would not exceed $500 million, given the cost of Occidental's recent new construction of an LNG import terminal of approximately $400 million
  - Occidental's terminal was a greenfield develop, is of greater size than HOVENSA would require, and includes the cost of a pipeline construction that HOVENSA would not require.
- The AES Ocean and Sempra LNG terminals also support a $500 million high-range estimate as they are both more expensive, but also much larger and more complex than what HOVENSA would require
- Expected construction and conversion time is estimated at 2 - 3 years, based on the comparable AES Ocean and Preem import terminal constructions. Based on initial availability of LNG from Sabine Pass, deliveries may not be available prior to 2016

[1] Virgin Island Daily News, "HOVENSA's Closure Makes Natural Gas More Expensive, but Possible", Daniel Shea, Feb. 16, 2012.

Potential to Team with WAPA on LNG Conversion

HOVENSA
PEOPLE FUELING A BRIGHTER FUTURE

VIRGIN ISLANDS WATER AND POWER AUTHORITY

WAPA Currently Also Stands to Benefit from a Conversion to LNG

- WAPA is also operating fuel oil-powered facilities resulting in the high costs to power the USVI relative to operating on natural gas (per slide 51, savings from gas could be 25% to 50% of costs)
- Prior to HOVENSA's announced closure, WAPA had been exploring the possibility of converting to run on natural gas by importing LNG. Although it becomes more complicated (assuming HOVENSA is closed), WAPA continues to explore this possibility [1]
- Potential for HOVENSA, GVI and WAPA to jointly develop and finance an LNG import terminal resulting in more economical delivery costs for both HOVENSA and WAPA.
- As is the case with HOVENSA, WAPA would also require needed infrastructure conversion to operate on natural gas rather than fuel oil
- In addition, large scale conversion to natural gas may not align with stated renewable energy targets

Opportunities to Explore

- A decision to build an LNG import terminal at or proximate to the Refinery could provide opportunity for a strategic agreement with WAPA
  - One potential solution could include HOVENSA covering costs for LNG import terminal in lieu of HOVENSA's obligation under the Concession Agreement to supply discounted fuel oil
  - An agreement of this nature could prove to be mutually beneficial to both parties as HOVENSA (or another party) would secure cheaper fuel inputs to the Refinery and eliminate a current sizable liability under the Concession Agreement, while WAPA stands to gain by ensuring cheaper energy costs for the USVI
- LNG at HOVENSA could augment the benefits of interconnecting its generation with WAPA
- This conversion to run the Refinery on LNG would also make the Refinery more valuable and marketable for a potential future sale

[1] Virgin Island Daily News, "HOVENSA's Closure Makes Natural Gas More Expensive, but Possible", Daniel Shea, Feb. 16, 2012

LNG: A Viable Alternative, But Still Uncertainty

Converting the Refinery to use LNG as the fuel source appears to be the best option to achieve profitability. However, there are other factors that must be considered that may present difficulties for conversion of the Refinery.

Lowering Fuel Costs

- The largest single factor leading to the closure of the Refinery was the high fuel costs of the Refinery driven by the rising price of crude oil
- LNG presents the most evident opportunity to improve the economics of the Refinery by lowering its cost of the fuel used for operations
  - Natural gas prices have fallen significantly over the last 5 years, and both the NYMEX forward curve and forecasts prepared by the EIA indicate that natural gas prices are expected to remain fairly stable at lower levels for the short and long-term

Sourcing & Pricing LNG

- Due to the small demand needed by the Refinery, the cost and logistics of small-scale LNG supply options must be further evaluated to weigh the benefits of implementation
  - Pooling the LNG demand that would be needed by WAPA with HOVENSA would increase interest of small-scale LNG suppliers
  - However, the combined LNG demand for the USVI is still relatively small, creating challenges in securing supply as acceptable pricing
- With the exorbitant demand for LNG in the Asian markets driven by Japan's current needs, there is uncertainty around the price that could be attained in the USVI, which could cut into the savings achieved by switching fuel sources
  - If the United States limits exports to sustain lower domestic pricing, the USVI would benefit substantially as pricing for "domestic" LNG would likely be substantially lower than global prices and indexed to the Henry Hub natural gas price

V. Evaluation of the Facility for Use as an Oil Storage Terminal

Oil Storage Terminal Overview

- An oil storage terminal is a facility that stores oil, refined products, and/or petrochemical products and from which these products are usually transported to end users or further storage facilities.
  - Products are stored in storage tanks, referred to as "tank farms."
  - Storage terminals generate revenue through long term "reservation fees" as well as spot market "storage fees"
  - Terminals typically have a significant portion of their capacity contracted on a long-term basis with one or more "anchor" customers
- Oil storage terminals interconnect with, provide services to and transfer products to and from oceangoing tank ships, tank barges, pipelines, tank trucks, and tank rail cars and are usually situated close to oil refineries or in locations where marine tankers can discharge and load cargo
- Compared to a refinery, an oil storage terminal is a comparatively unsophisticated facility with little or no processing, blending, or other transformation on site, as the products are in their final form suitable for delivery to customers.
- An oil storage terminal on the HOVENSA site would require fewer employees and use a much smaller footprint of the overall refinery acreage.
- The map to the left is an overview of the EAST side of the HOVENSA site:
  - The area marked in RED represents submerged land and Coastal Zone Management ("CZM") leases / permits
  - The areas highlighted in GREEN represent likely current and future areas that could be utilized by HOVENSA in an oil storage terminal operation

Oil Storage Operation

In December 2011, HOVENSA's owners reportedly reached an agreement to commence the shutdown of the refining operations effective January 18, 2012 and transition the Facility into an oil storage terminal.

Ample Oil Storage Capacity

- The HOVENSA facility has present oil storage capacity of 32 million barrels
- HOVENSA's plan is to isolate oil storage terminal operations to the tanks nearest to the existing docks representing **13 million barrels** of the 32 million barrel capacity at the facility including Four (4) million barrels of crude oil storage and Nine (9) million barrels of refined petroleum product storage

Existing Docking Facilities Needed to Accommodate the Storage Operation

- The Facility has ten on-site docking sites accessible to tankers with capacity up to 313,000 deadweight tonnage ("dwt") (approximately 1 million barrels) and 55 feet draft
- Reports indicate some modifications may be needed to the docking facilities to accommodate import / export oil storage operation

Reduction in Workforce

- At full operations, the Refinery employed approximately 2,500 direct and contract employees
- As an oil storage terminal, the Facility is expected employ approximately 100 to 130 people largely to operate the facilities used to blend crude and refined products

Avoidance of Environmental Related Costs Imposed by the EPA

- In 2011, HOVENSA entered into the Consent Decree with EPA and the GVI which requires the installation of equipment and the implementation of additional operating procedures with an estimated total cost of **$700 million**
  - HOVENSA may believe these costs could be deferred (through a modification to the Consent Decree) as long as the Refinery remains idle
- Conversion to a terminal may also indefinitely delay remediation costs including but not limited to RCRA requirements that a hazardous waste treatment, storage, or disposal facility (such as the Facility), upon termination of operations, achieve RCRA regulatory closure, which requires restoration of the site for industrial use. The bonded amount for RCRA closure is currently $32 million, but full site remediation could be substantially greater.
- Conversion would not address EPA's April 2012 Finding of Violation, in which EPA found that HOVENSA must install and operate a vapor recovery system for its offshore terminal, which HOVENSA estimates would cost up to $50 million
- Conversion would not address DPNR's ongoing CERCLA natural resource damage litigation against HOVENSA and HOVIC seeking restoration of the groundwater at the site

Deferral of Environmental Related Cost Imposed by EPA / DPNR

- Deferral of regulatory closure and associated environmental remediation costs (estimates range from $32 million to hundreds of millions of dollars) may represent the greatest economic benefit to HOVENSA of conversion to terminal

Oil Storage Operation: Considerations

Hurdles to Conversion to an Oil Storage Operation

- Oil Price Information Service ("OPIS") reported that terminal sources estimate it would take HOVENSA approximately 18 months to fully convert the Facility to a merchant oil storage facility
- HOVENSA is already offering storage capacity and reaching out to potential customers to register their interest, but does not seem to have any large long-term contracts in place
- According to HOVENSA, most of the clean product tanks are already operational
- The Refinery was designed for receiving crude for processing and crude storage for PDVSA. Significant conversions will likely need to be made for use of the Facility for import / export activities for crude and refined oil products, cost estimates for conversion are not available
- Additionally, modifications will have to be made for vessel draft at the docking facilities, and pipelines will need to be constructed to facilitate oil deliveries to the port for export

No Assurance of Financial Support

- The Facility requires additional financial support from the members of the joint-venture to fund any additional necessary expenditures for the refinery shutdown and conversion to an oil storage terminal during 2012
- There is no assurance financial support will be provided by the members
- Absent member support and support from the GVI, HOVENSA has indicated it is improbable operations would be able to continue as an oil storage terminal

Obtaining Storage Contracts

- The Facility's storage terminals were originally used to store crude oil inventory provided by and refined products sold to Hess and PDVSA
- Long-term third-party storage contracts will be necessary to support profitable operations of the Facility as an oil storage terminal
- A HOVENSA spokesman has indicated they currently have some short-term customers, but was unwilling to disclose volumes or customer names

Oil Storage Operation: Considerations

Valero's Aruba Refinery

BORCO Terminal

Additional Oil Storage Supply Added in the Caribbean

- Valero Energy Corp. announced the closure of their Aruba refinery with processing capacity of 235,000 BPD on March 19, 2012
  - Valero is exploring the option to transition the facility to an oil storage terminal with 63 storage tanks totaling nearly 12 million barrels of storage capacity
  - Valero subsequently agreed to sell the facility to PetroChina ***as a refinery***
- The Bahamas Oil Refining Company International Limited ("BORCO") Terminal plans to capitalize on the shut-down of the HOVENSA and Aruba refineries by expanding the 80 tank, 21.6 million barrel oil storage facility
  - An expansion project will add 7.9 million barrels of capacity with 3.5 million barrels being added in Phase I of the process
  - BORCO announced on May 7th, 2012, a "key commercial win" that will support an additional 1.2 million barrel expansion
  - The $350 to $400 million expansion project is expected to generate an additional $70 to $80 million in revenue
  - Analyst reports have forecasted a rate of ~$0.85 / bbl and an implied operating margin of ~$0.50 / bbl
  - BORCO's facilities are strategically positioned along the Northwest Providence Channel off the southern tip of Grand Bahama Island. This location is ideally suited for blending, transshipping and terminaling operations for the Arabian Gulf, Northwest Europe and West Africa trade to the United States' Gulf coast and East coast, as well as for North America trade to Europe, Latin America and the Pacific

Caribbean Oil Storage Capacity

In addition to the new storage capacity offered by the HOVENSA conversion, the Aruba refinery conversion, and the BORCO terminal expansion, there are several existing oil storage facilities adding to the competitive landscape facing HOVENSA in its effort to solicit long-term storage contracts.

Country	Terminal Name	Ports / Cities	Owners	Capacity (Million Bbls)	Products Handled	Additional Notes
Aruba	Valero Aruba Refinery	Saint Nicolaas	Valero	12.0	Crude Oil	The refinery has closed, but will be restarted by PetroChina at a future date TBD rather than operate as a terminal.
Bahamas	BORCO Terminal	Freeport	Buckeye	21.6	Petroleum Products, Crude, Other	A storage expansion project is taking place at BORCO. The first phase will add 3.5 million barrels of capacity.
Bahamas	South Riding Point Terminal	South Riding Point	Statoil	5.3	Petroleum Products, Crude, Other	
Netherlands Antilles	Bopec Terminal	Bopec	PDVSA	10.7	Petroleum Products, Crude	
Netherlands Antilles	Curacao Terminal	Bullenbay	PDVSA	17.8	Petroleum Products, Crude, Chemicals	Partly leased by PDVSA as a storage/supply facility for the Isla Refinery.
Netherland Antilles	NuStar – St. Eustatius	Orange Bay	NuStar Energy LP Statia	16.7	Petroleum Products, Crude	Leased by PetroChina.
Puerto Rico	Buckeye Terminals	Yabucoa	Buckeye	4.6	Petroleum Products, Crude	Puerto Rico also has two other smaller terminals that handle petroleum products and chemicals.
St. Lucia	Saint Lucia Facility	Saint Lucia	Hess Oil	10.0	Petroleum Products, Crude	Leased by PDVSA, currently for sale. Hess has not been able to find a buyer.
Trinidad & Tobago	Petrotrin Point Fortin Terminal	Port Fortin	Petrotrin	3.6	Crude Oil	Trinidad & Tobago has four additional smaller terminals that handle petroleum products, crude, and gas.
Trinidad & Tobago	Petrotrin Pointe-a-Pierre Terminal	Pointe-a-Pierre	Petrotrin	4.1	Petroleum Products, Crude	
US Virgin Islands	HOVENSA	St. Croix	HOVENSA LLC	32.0	Petroleum Products, Crude	The refinery has closed, but is in the process of converting to a storage terminal.

Caribbean Oil Storage Capacity

The map highlights several terminals in a more strategic position to countries delivering product for storage (Venezuela) and markets where product is to be delivered (the United States). Specifically, the Bopec and Curacao Terminal offering nearly 30 million barrels of storage capacity proximate to Venezuela and the BORCO Terminal offering approximately 22 million barrels of storage capacity proximate to Florida have a distinct advantage as an import / export terminal over the Facility based on proximity to the US East and Gulf Coast, Europe and the Arabian Gulf.

Viability of an Oil Storage Terminal

Based on our review of the Caribbean oil storage market and the obstacles facing the oil storage terminal, there are indications that the transition of the Facility to an oil storage operation will be difficult due to ample ready-to-use storage capacity in the Caribbean market, and modifications that may prove difficult and costly. Additionally, the minimal employment offered by the Facility as an oil storage terminal provides little benefit to the citizens of St. Croix and the USVI.

Ample Existing Caribbean Storage Capacity

- Currently existing storage facilities in the Caribbean offer over 100 million barrels of storage capacity for crude oil and refined petroleum products
  - This figure excludes the potential capacity offered by the recently shut-down HOVENSA and Aruba refineries offering 13 million and 12 million barrels of capacity, respectively
  - Further, this figure excludes planned expansions at the BORCO Terminal adding 7.9 million barrels of storage capacity
- Assuming the Facility still requires conversion expenditures (docking facility modifications and additional pipelines) before it can begin full operations as an import / export terminal, attaining firm long-term contracts will be difficult when competing with other storage terminal operators in the Caribbean

Strategic Disadvantage: Location

- Several terminals in the Caribbean are located in a more strategic position to countries delivering product for storage (Venezuela) and markets where product is to be delivered (the United States). Specifically, the Bopec and Curacao Terminal offering nearly 30 million barrels of storage capacity proximate to Venezuela and the BORCO Terminal offering approximately 22 million barrels of storage capacity proximate to Florida have a distinct advantage as an import / export terminal over the Facility

Terminal Transactions

Over the past five (5) years, there have been several terminal transactions within the United States and in the Caribbean and Latin America. Given the limitations and modifications necessary to operate the Facility as a terminal, it is difficult to apply the multiples of the transactions identified below to provide a range of values for the Facility as a terminal. The table below presents $ per barrel of storage capacity multiples based on the transactions identified as most comparable to the HOVENSA Facility assuming use as an oil storage terminal.

North American Terminal Acquisitions

Announced Date	Primary States	Buyers	Sellers	Key Assets	Total Transaction Value (US$MM)	Implied Value $ Per Bbl of Acquired Terminals Storage Capacity	Terminals Storage Capacity (MMboe)
2/10/2012	New Jersey	Buckeye Partners LP	Chevron Corporation	Marine terminal facility for liquid petroleum products in New York Harbor, on 250 acres in Perth Amboy, NJ, with4 MMbbls of tankage and 4 docks	$ 260.00	$ 65.00	4.00
10/3/2011	Multiple States	Targa Resources Partners LP	Undisclosed company(ies)	Targa Sound Terminal on the Hylebos Waterway in the Port of Tacoma, Washington with 758,000 bbls of capacity for refined petroleum products, LPGs and biofuels; and Targa Baltimore Terminal on the Patapsco River in Baltimore, Maryland, with about 505,000 bbls of storage capacity and blending and heating capabilities with tanker truck and barge loading and unloading infrastructure	$ 127.00	$ 100.55	127.00
6/29/2011	Massachusetts	Sunoco Logistics Partners LP	ConocoPhillips	1.2-MMbbl refined products terminal in East Boston, Massachusetts	$ 56.00	$ 46.67	56.00
6/29/2011	New Jersey	Sunoco Logistics Partners LP	Sunoco Incorporated	5-MMbbl Eagle Point tank farm and related assets in Westville, N.J.	$ 100.00	$ 20.00	100.00
2/28/2011	Oklahoma	Kinder Morgan Energy Partners LP	Deeprock Energy Resources LLC;Mercuria Energy Trading, Inc.	50% stake in 1 MMbbl crude oil tank	$ 25.00	$ 50.00	25.00
6/1/2010	Alabama	NuStar Energy L.P.	Denham Capital Management LP	3 storage terminals that include 24 storage tanks with total capacity of approximately 1.8 MMbbl, rail- and truck-loading facilities, and 3 docks with barge or ship access, located in Alabama on 17 acres of land on Blakeley Island on the east bank of the Mobile River and another 28.5 acres at the Port	$ 44.10	$ 24.50	44.10
9/16/2009	West Virginia	World Point Terminals Incorporated	Apex Oil Company Inc.	680,000 barrel petroleum storage facility in Weirton, West Virginia	$ 9.14	$ 13.44	9.14
8/6/2009	New York	Global Partners L.P.	Warex Terminals Corporation Inc.	Three terminal facilties in New York state with capacity of 950,000 bbls	$ 47.50	$ 50.00	47.50

Caribbean Terminal Acquisitions

Announced Date	Primary States	Buyers	Sellers	Key Assets	Total Transaction Value (US$MM)	Implied Value $ Per Bbl of Acquired Terminals Storage Capacity	Terminals Storage Capacity (MMboe)
12/20/2010	Bahamas	Buckeye Partners LP	First Reserve Corporation	21.6 MMbbl (17.3 MMbbl net to the 80% interest) BORCO storage terminal for crude oil, fuel oil and petroleum products in Freeport, Bahamas	$ 1,360.00	$ 78.70	$ 17.28
7/8/2009	Bahamas	Statoil ASA	World Point Terminals Incorporated	South Riding Point terminal and 50% interest in Freepoint Tug and Towing Service tug boat business on Grand Bahama Island, the Bahamas	$ 263.08	$ 38.20	$ 6.75

Overall Findings – HOVENSA as an Oil Storage Terminal

Significant competing oil storage capacity exists in the Caribbean

- Many of the existing oil storage terminals in the Caribbean have superior logistics to HOVENSA
- BORCO is ideally located and currently completing a significant expansion
- Pricing available for short and long term contracts will be adversely impacted by supply and logistical considerations

Most recent proposed refinery conversions to oil storage terminals have not been successfully sold as terminals

- More often, market participants have determined that restarting the refinery represents the highest and best use of the asset
  - Aruba was closed with intent to convert to a terminal, in discussions to be sold ***as a refinery*** to PetroChina
  - Sunoco was not able to sell either Marcus Hook or Philadelphia as a terminal, but Philadelphia sold ***as a refinery***
  - Delta Airlines elected to acquire the idled Trainer facility and restart it ***as a refinery***
- Those (primarily in Europe) that were successfully converted to terminals serve as import / export facilities
  - HOVENSA would predominantly serve transshipment and storage during periods of Contango[1]

Conclusions

- HOVENSA would be at a logistical and scale disadvantage to many storage facilities in the Caribbean
- There is a reasonable probability that there are buyers who would be more interested in HOVENSA ***as a refinery***
  - Just the employment and related wage taxes associated with an operating refinery dwarf the remaining benefits offered by HOVENSA if the Facility operates as an oil storage terminal
- In its requested modification to the Concession Agreement, HOVENSA indicated that the oil storage terminal was not economic absent the significant requested modifications
  - An oil storage terminal represents a method for HOVENSA to defer or avoid environmental and other remediation costs

An Oil Storage Terminal does not Represent Highest and Best Use of the Facility

[1] Contango refers to a market situation when the futures or forwards contract price is trading above the expected future spot price at contract maturity.

VI. Evaluation of Alternative Uses: Renewable Energy

Renewable Energy Overview

- As evidenced by the USVI partnerships with the National Renewable Energy Laboratory ("NREL"), the Department of Energy ("DOE"), and the International Partnership for Energy Development in the Island Nations ("EDIN"), it is clear the USVI is looking to showcase the territory as a leader in the aggressive development of renewable energy resources

- Therefore, as part of our analysis we gave consideration to the alternative uses for the HOVENSA facility as a potential renewable energy development site in the USVI. In particular, we considered the following:
  - Recent developments & legislation in the USVI pertaining to renewable energy
  - The need for diversity of energy resources in the USVI
  - Potential renewable energy resources available for deployment in the USVI
  - The Levelized Cost of Energy ("LCOE" or "Approximate Cost of Delivered Energy") for the resources considered
  - Key facts and development considerations pertinent to opportunity identified
  - Summary of other renewable energy developments in the USVI or Caribbean for the selected resources
  - Evaluation of the renewable energy resources with the most potential at the HOVENSA site
  - Our conclusion pertaining to the viability of the usage of the Facility as a renewable energy facility in the USVI

Recent Developments & Legislation[1]

EDIN

- EDIN is an international partnership amongst the United States, New Zealand, and Iceland, started in 2008 and focused on addressing the unique energy challenges islands face due to the following:
  - Islands are often highly dependent on fossil fuels for electricity and transportation and often have high retail electricity rates
  - Islands often have abundant renewable resources alongside small populations, and hence, are ideal places to implement renewable energy penetration

Act 7075

- In July 2009, the Virgin Islands passed Act 7075. This legislation, amongst other provisions, establishes that the "peak demanded generating capacity" of the WAPA must be from renewable energy resources in accordance to the following schedule:
  - 20% by January 1, 2015
  - 25% by January 1, 2020
  - 30% by January 1, 2025

60% by 2025 Goal ("60x25")

- In 2010, a partnership between the USVI, DOE, and the US Department of Interior ("DOI") was formed under the guidance of the EDIN initiative
- At the inaugural EDIN-USVI workshop held in Golden, Colorado, in February 2010, USVI Governor John P. de Jongh Jr. announced his goal to reduce USVI's dependence on fossil fuel by 60% by 2025, widely known as ("60x25"). All three agencies are working together to achieve this goal
- The key areas of focus for EDIN-USVI have been:
  - Increase the affordability and reliability of energy throughout the territory
  - Build a thriving clean energy sector that generates green jobs
  - Preserve the natural beauty that is the lifeblood of the islands

[1] United States. Energy Development in Island Nations. *USVI Energy Road Map*. 2011

Renewable Energy[1]

Need for Energy Diversity

- In 2010, WAPA burned 2.6 million barrels of oil to generate 900 million kilowatt hours ("kWh") of electricity and 270,000 barrels of oil to desalinate nearly 2 billion gallons of drinking water
- If no action is taken to improve the situation, oil use for electricity and water production in the USVI is predicted to grow at a rate of 1.2% annually and reach 3 million barrels by 2025[2], as demonstrated in Figure 1 below
- Supply-side and End-user efficiency improvements, fundamental to reducing fossil fuel consumption, alongside renewable energy installations, are being incorporated into the current USVI energy mix to achieve the 60 x 25 goal (see Figure 2 below)

The USVI Renewable Energy Progress to Date vs. 60 x 25 Target

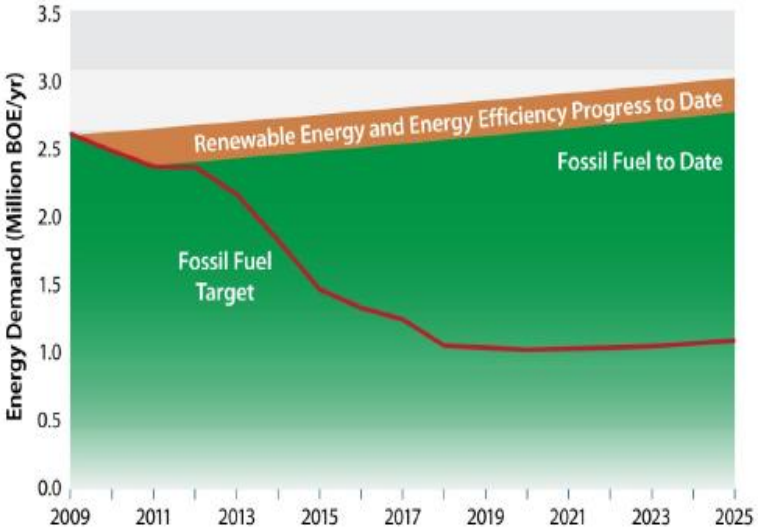


Figure 1
Source: US Department of Energy, ***NREL report***

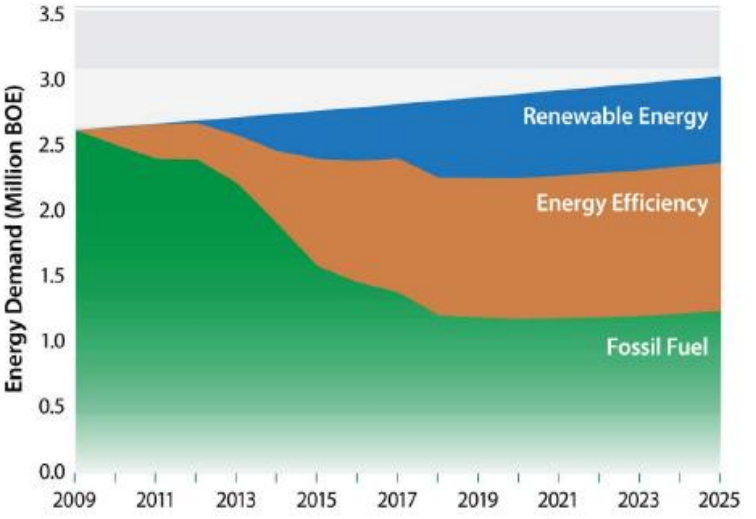


Figure 2
Source: US Department of Energy, ***NREL report***

- The closing of the Facility has only exasperated the need for energy and fuel diversity given the Refinery's position as the primary fuel oil provider to WAPA and the Territory

[1] United States. US Department of Energy. National Renewable Energy Laboratory. *US Virgin Islands Energy Roadmap: Analysis*. Technical Report, 2011.

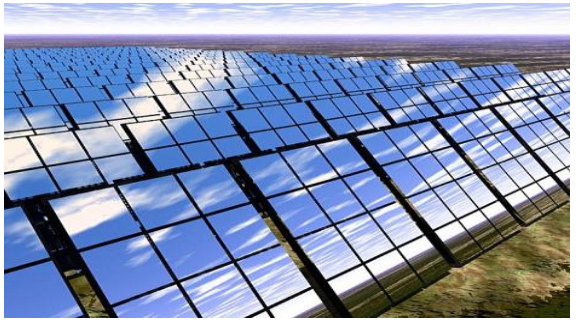
Renewable Energy Resources

- A recent study performed by NREL notes that there are considerable resources and technical potential across the islands for renewable energy deployment. The table below outlines potential renewable energy technologies that are possible options:

Technology	Resource Potential in USVI	Technical Maturity	Approximate Cost of Delivered Energy	Estimated USVI (Island Specific) Commercial Installation Cost	Land Use Impact	Viability
Landfill Gas	Medium	Commercial	$0.18-$0.27/kWh	$1,715/kW	Low	Yes
Land Based Wind	High	Commercial	$0.10-$0.20/kWh	$3,600/kW	Medium	Yes
Solar Hot Water[1]	High	Commercial	$0.15-$0.20/kWh	$4,000/kW	Low	Yes
Offshore Wind[2]	High	None in US	$0.20-$0.30/kWh	$4,250/kW	Low	No
Solar (PV)	High	Commercial	$0.19-$0.36/kWh	$6,000/kW	Medium	Yes
Waste-to-Energy	Medium	Commercial	$0.08-$0.16/kWh	$8,300/kW	Low	Yes
Biomass Power	Medium	Commercial	$0.13-$0.18/kWh	$8,500/kW	High	Yes
Concentrating Solar Power[3]	Low					No
Geothermal Power [4]	None					No
HydroKinetic Power	Low	R&D Stage				No
Ocean Thermal Energy Conversion	High	R&D Stage				No

[1]Solar Water Heating ("SWH"), was considered as it is resource abundant, and the largest distributed renewable energy technology; however, not viable as other options at the HOVENSA refinery location;
[2]Offshore Wind technology is untested, and due to the likelihood of hurricanes in the USVI and surrounding regions would likely not be viable;
[3]Potential for concentrating solar power ("CSP") is very low, due to a relatively low level of direct normal irradiance ("DNI"); and
[3]The geothermal power potential in the USVI is unknown and untested, hence, not viable.

Evaluation of Most Effective Uses



Consideration of the Facility as a Renewable Energy Facility

- The HOVENSA facility site is zoned for industrial usage, making it a potential site for an alternative energy generation facility

- A variety of renewable energy generating facilities have proven viable in the USVI and potential for use of the Facility as a renewable energy generation development site was evaluated giving consideration to several factors:
  - Evaluation of the feasibility of each of the renewable energy sources considering the available resources in the USVI, available government incentives, and obstacles in the development of the alternative energy source
  - Assessment of the market demand for an alternative energy source in St. Croix and the USVI
  - Selection of the most efficient and cost effective use of the facility for generation using renewable resources

- Based on NREL and our assessment the Refinery's potential for renewable energy development focused on following renewable energy sources:
  - Waste-to-Energy Facility
  - Wind Farm
  - Solar Photovoltaic Plant

With respect to each of the evaluation criteria above, we considered the LCOE[1] of each renewable energy source.

[1]**LCOE** - cost of generating energy (usually electricity) for a particular system. It is an economic assessment of the cost of the energy-generating system including all the costs over its lifetime: initial investment, operations and maintenance, cost of fuel, cost of capital. LCOE is the minimum price at which energy must be sold for an energy project to break even.

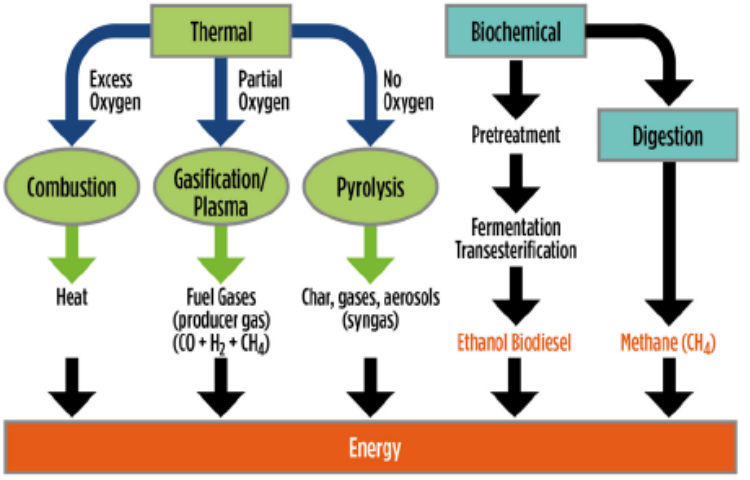
VI.a Renewable Energy: Waste to Energy

Renewable Energy: Waste to Energy

Overview

- WTE technologies consist of various methods for extracting energy from waste materials. These methods include thermo-chemical and biological methods. The figure below, illustrates the various pathways, most of which are early in their developmental stages
- Combustion is the primary WTE technology that is commercially available in the United States using Municipal Solid Waste ("MSW") feedstock. The primary challenge with this technology is the heterogeneous nature of MSW, which creates a widely varying chemical constituency of the energy products generated from these processes. This variance affects the ability to extract energy efficiently
- Major concerns regarding the combustion of organic material such as waste with energy recovery include fine particulate, heavy metals, trace dioxin and acid gas emissions, which could pose a hazardous impact on the environment
- Although WTE is comparatively a more expensive energy generation source to install, it has the least approximate cost of delivered energy primarily due to its baseload operating profile
- There are a number of new emerging technologies that produce energy from waste and other fuels without direct combustion. Many of these have the potential to produce electric power more efficiently from the same amount of fuel than would be possible by direct combustion by the separation of corrosive components (ash) from the converted fuel, thereby allowing higher combustion temperatures in e.g. boilers, gas turbines, internal combustion engines, fuel cells

USVI Waste to Energy Summary	
Estimated Installation Cost	$8,300/kW
Approx. Cost of Delivered Energy	$0.08 -$0.16/kWh
Resource Potential in USVI	Medium
Land Use Impact	Low
Viability	Strong



Source: United States. US Department of Energy. National Renewable Energy Laboratory. *Waste-to-Energy Evaluation: US Virgin Islands*

Renewable Energy: Waste to Energy

Highlights

- WTE offers firm, dispatchable power and is considered renewable energy by various federal and state laws, Executive Orders, the Federal Energy Regulatory Commission ("FERC") and the Internal Revenue Service ("IRS")
- The USVI creates approximately 150,000 tons per year ("tpy") of waste, of which 135,000 tpy is appropriate for use in a WTE plant. (See Figure 1)
- The currently operating landfills in the USVI cannot be sustained indefinitely
- NREL allocated 16.0% (16.5 MW) of the USVI's 60x25 initiative to renewable energy from WTE resources. To remain aligned with this goal, the USVI must have a firm plan within the next 10 years on how they will develop this technology
- USVI based WTE facilities have the potential to meet all EPA emissions standards (based on similar WTE plants in the United States)
- WTE is a proven technology for island locations as Covanta has developed a facility under a private public partnership in Oahu, Hawaii (See Figure 2)
  - Covanta Honolulu ("HPOWER"), began commercial operation in May 1990 and is owned by the City and County of Honolulu
  - HPOWER processes up to 2,160 tons per day of municipal solid waste into refuse derived fuel ("RDF"), generating up to 57MW of energy for Hawaiian Electric Company—enough to power 45,000 homes and meet 4.5% of Oahu's energy needs

The USVI Waste Stream Profile	
Total Municipal Solid Waste	147,000 tpy
Less: Metal & Glass Recyclable Material	14,000 tpy
Available MSW for Waste-to-Energy	**133,000 tpy**

Figure 1: NREL - USVI Energy Roadmap Analysis. September 2011.

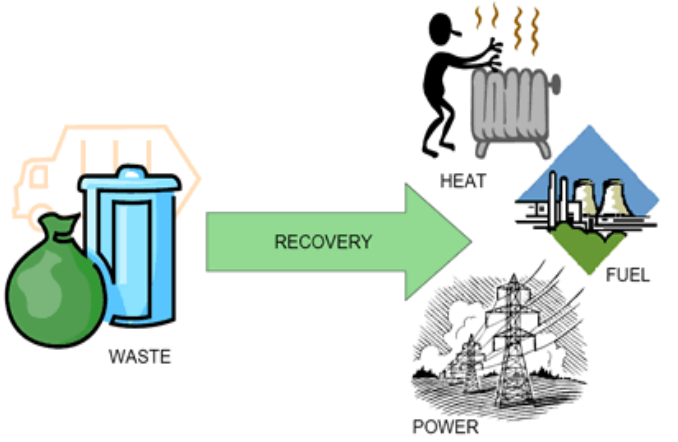
Figure 2: 50 MW Waste-to-Energy Facility in Oahu, Hawaii

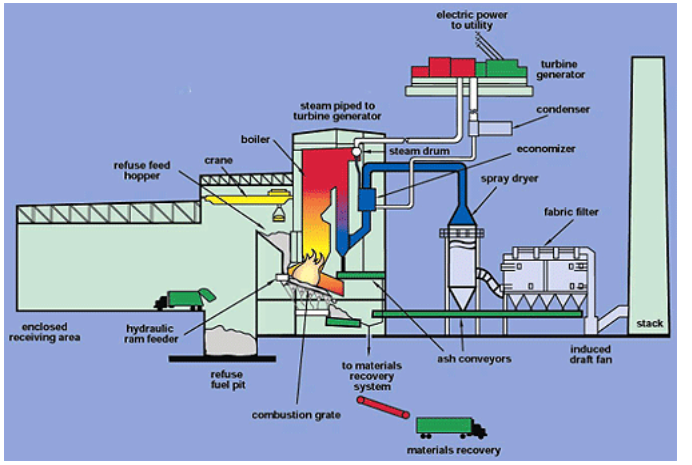
United States. US Department of Energy. National Renewable Energy Laboratory. *Waste-to-Energy Evaluation: US Virgin Islands*

Alpine Energy Group

Project Development and Issues

- Alpine Energy Group ("AEG") was commissioned in 2009 by the USVI government to construct two WTE facilities—one on St. Croix (near the Anguilla Landfill) and another on St. Thomas (near the Bovani Landfill)[1]
  - The project concept encompassed the following[2]
    - » Receive and process MSW for sale into recycle markets and for processing into refuse-derived fuel ("RDF")
    - » Combustion of RDF for waste disposal and energy recovery
  - The project's capital costs were estimated at $440 million
- In 2010, the USVI Legislature voted down the project. One of the primary reasons cited by many senators was the use of pet coke as a fuel source to generate additional power[1]
- The plan was revised to remove the use of pet coke in the facilities' power production. With the removal of pet coke in the latest plan, AEG asked for an additional piece of legislation (the "credit support bill") which would effectively require the government to cover costs of underproduction if the Territory did not produce enough waste for the facility
  - The USVI Legislature defeated the revised plan in February 2012 by a 13-2 vote[3]





[1] *Virgin Island Daily News*. "What Alpine is Asking for". 11 Jan 2012.

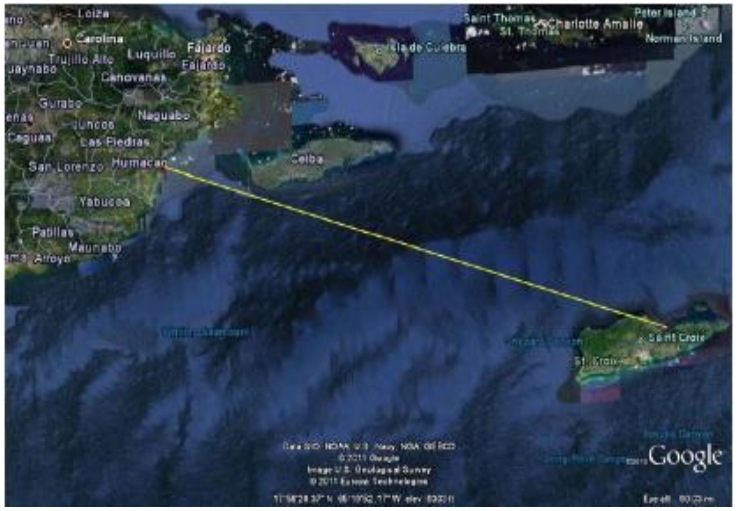
[2] United States. US Department of Energy. National Renewable Energy Laboratory. *Waste-to-Energy Evaluation: US Virgin Islands*

[3] *Virgin Island Daily News*. "Senate Says No to Alpine". 9 Feb 2012.

Renewable Energy: Waste to Energy in the USVI

WTE Project Considerations

- Despite the defeat of the AEG project, the potential for WTE within the USVI has been studied and proven feasible and attractive to investors. Therefore, potential for development of a WTE facility on the HOVENSA site should be considered as an alternative use of the Refinery's industrial zoned land
- Moreover, in an attempt to boost the feasibility of a future WTE project additional items should be explored:
  - ***Fuel Source*** → the USVI could jointly explore the viability of generating additional revenue and power by processing the waste of Puerto Rico and the British Virgin Islands ("BVI"). A WTE project on St. Croix would be favorably positioned to service the USVI, Puerto Rico and BVI
    - » The cost of waste management will only continue to increase. As neighboring territories look for solutions, USVI could be poised to be a leader in this arena
    - » Additionally, the potential loss of HOVENSA employees in the USVI could negatively affect the level of MSW needed to fire a WTE facility
  - ***Education*** → the USVI must make greater strides in working with the public to inform citizens of the necessity and efficiency of WTE technologies and repurposing the HOVENSA site may provide some needed support
  - ***Other*** → as one of the most popular cruise ship ports in the Caribbean, Charlotte Amalie could potentially be retrofitted to support the disposal of cruise ship waste for premium fees. Applicable solid waste could become an additional fuel source for a USVI WTE facility



Distance from St. Thomas MRF/transfer station to St. Croix: 43 miles [1]

Distance from St. Croix MRF/transfer station to Puerto Rico: 75 miles [1]

[1] United States. US Department of Energy. National Renewable Energy Laboratory. *Waste-to-Energy Evaluation: US Virgin Islands*

Renewable Energy: Waste to Energy in the Caribbean

Recent WTE Developments:

- In April 2012, the Barbados government approved $189 million for financing the Mangrove Pond Green Energy Complex, a 10 to 14 MW renewable energy facility.[1] The industrial site will be situated at the island's major landfill, and will include the following facilities:
  - Waste-to-Energy plant expected to process 350 tons of waste per day
  - Solar power facility
  - Wind energy facility
  - Landfill Gas Management System designed to capture greenhouse gasses that can be sold as credits in the Carbon Trading Markets
- The Barbados government announced in May 2012 that it will borrow $250 million from the Inter-American Development Bank to fund efforts in making the island nation more energy-efficient
- Puerto Rico is currently awaiting formal EPA approval of their proposed waste-to-energy facility. The plant is expected to have the following features[2]:
  - 2,000 tons of waste per day
  - 80 MW capacity
  - 150 permanent jobs
  - $500 million investment

Future site for Mangrove Pond Green Energy Complex in Bridgetown, Barbados

Proposed waste to energy plant in Arecibo, Puerto Rico

[1] http://www.caribbean360.com/index.php/business/568793.html#axzz1vXgx6Z3P

[2] *Caribbean Business*. "Waste-to-energy project gains ground". 12May 2012.

Renewable Energy: Waste to Energy[1]

Pros

- According to the 2011 NREL analysis on the USVI, WTE is among the lowest cost and most feasible renewable energy resources available to the territory
- The HOVENSA location is already zoned for industrial usage, a requirement of WTE plants
- The USVI creates approximately 150,000 tpy of waste, of which 135,000 tpy is appropriate for use in a WTE plant. These amounts could potentially be expanded through agreements with neighboring islands
- The NREL analysis indicated that a waste-to-energy plant would produce at least 0.03 MW per ton per day, resulting in a generation of 16.5 MW[1], a significant portion of the islands total energy needs
- WTE is a proven technology for island locations as Covanta has developed a facility under a private public partnership in Oahu, Hawaii and other Caribbean islands have begun developing their own facilities

Cons

- WTE plants are resource and fuel limited
- A facility built on St. Croix may not realize the same economies of scale that most industrial plants benefit from in the US
- There are only a few major players in the US waste-to-energy construction and management space
- A previously proposed facility with AEG received public disapproval and ultimate defeat in the Legislature[2]
- The loss of significant jobs from the shut down of the Refinery could mean less waste available for processing, affecting the economics of a WTE facility

With respect to the evaluation criteria above, we considered the LCOE for the WTE technology, as well as, the availability of resources that make this technology viable in the USVI. Although a similar facility has been publically refused in the USVI, the job creation and cost benefits for WTE deployment in the USVI are very attractive.

[1] United States. US Department of Energy. National Renewable Energy Laboratory. *US Virgin Islands Energy Roadmap: Analysis*. Technical Report, 2011.
[2] Virgin Island Daily News, *Senate Says No to Alpine*, February 9, 2012.

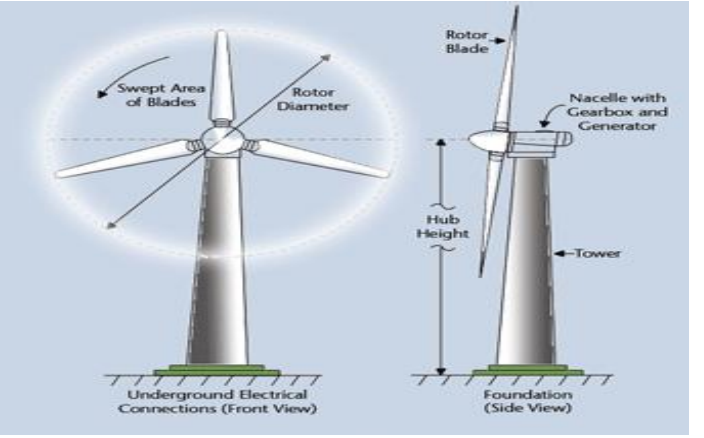
VI.b Renewable Energy: Wind Power

Renewable Energy: Wind Power

Overview

- Wind Power is the conversion of wind energy into electricity by use of wind turbines
- A large wind farm may consist of several hundred individual wind turbines which are connected to the electric power transmission network
- The typical rule-of-thumb is that wind developments will require 25–50 acres of land (0.1–0.2 km2) per megawatt of wind
- For locations with a predominant wind direction like the USVI, turbines can sometimes be installed closer together at the expense of lower efficacy when wind blows from a less-than-ideal direction
- For the USVI, it is estimated that the 22.5 MW of wind turbines will occupy 550–1,100 acres (2.2–4.4 km2)
- Comparatively wind appears to be quite cost-competitive under the current pricing structure to other renewable energy
- According to recent reports, resource potential in the USVI for wind power generation is high

USVI Land Based Wind Power Summary	
Estimated Installation Cost	$3,600/kW
Approx. Cost of Delivered Energy	$0.10-$0.20/kWh
Resource Potential in USVI	High
Land Use Impact	Medium
Viability	Strong



Renewable Energy: Wind Power in USVI

Key Facts & Highlights Pertinent to USVI

- In the USVI, two sites have been identified as being accommodative of considerations that affect wind siting; Bovoni Landfill in St. Thomas, and the south shore of St. Croix, east of the Refinery. These sites appear to have adequate to good wind resources and are located in areas that have already been industrialized
- Wind power complements other power generation systems currently located in the USVI
- NREL allocated 12% (22.5 MW) of the USVI's 60x25 initiative to wind power. To remain aligned with this goal, the USVI must have a firm plan within the next 10 years on how they will develop this technology
- A wind park project in proximity to the industrial area of St. Croix could make the location more attractive to future manufacturers
- Wind generators have very few moving parts hence minimal maintenance costs

Completed Projects:

- The Vader Piet Windpark on the southeast shore of Aruba began operation in 2009.[1] The following details the facility's operational features:
  - 10 wind turbines
  - 30 MW capacity
  - Generates approximately 18% of Aruba's total daily electricity consumption (100 MW)
  - JV of European companies founded Vader Piet N.V. to sell generated electricity to W.E.B. Aruba N.V. (Aruba's state water and power company)

US Virgin Islands Wind Speeds

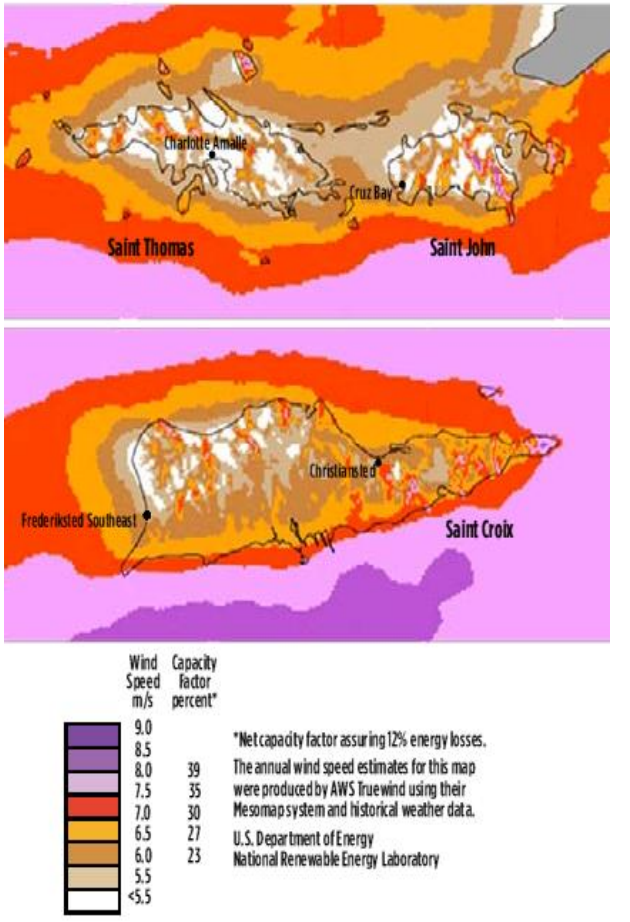


Illustration by National Renewable Energy Laboratory ("NREL")

[1] http://www.webaruba.com/en/productsequipment/new-technology/windmill-park.html

Renewable Energy: Wind Turbines in the Caribbean

Completed Projects (continued):

- The Wigton Windfarm in Jamaica recently completed phase II of the facility, which increased total capacity from 20 MW to 38 MW[2]
  - Construction on phase II began in early 2010 and was completed in late 2011. The project required $48 million in capital

Recent Developments:

- A second wind-farm is expected to begin construction in Aruba this year and should be completed by 2013[3]
  - The project operation, construction and power contract details are expected to be similar to the previous Vader Piet Windfarm
  - 10 additional wind turbines will be constructed
  - An additional 30 MW capacity will be added to the utility network
  - The second project is expected to expand the island's total wind energy capacity to approximately 40% of Aruba's electricity consumption (100 MW daily)

- Puerto Rico broke ground on the Finca de Viento Santa Isabela this year , and earlier estimates expected the project to be completed by end of 2012[4]
  - 44 Wind Turbines, 75 MW Capacity, $215 million investment
  - Upon completion, this will be the largest wind farm in the Caribbean

[2] http://www.pcj.com/wigton/about/factsheet.html

[3] *Amigoe* . "Second windmill park Urimama a fact within one month". 27 Oct 2011.

[4] *Caribbean Business*. "PR's first wind farm project on track". 9 May 2012.

Vader Piet Windpark, Aruba

Vader Piet Windpark, Aruba

Wigton Windfarm, Jamaica

Renewable Energy: Wind Power[1]

Pros

- Consistent trade winds provide an excellent, stable source of unutilized power to the USVI
- The strongest winds in the USVI are found on the southern shore of St. Croix near the HOVENSA site
- In locations with predominant wind direction, such as the USVI, turbines can be installed closer in proximity without reducing power generation
- Locating the wind turbines around the current HOVENSA refinery would limit concerns of unappealing scenery

Cons

- The USVI region is very susceptible to hurricane damage
- After construction, the long-term economic job and property tax benefit from a Wind Farm would be less that alternative renewable energy or industrial uses for the HOVENSA site
- Wind power generation typically requires 25-50 acres of land per megawatt of wind
- Concerns of aesthetically unappealing wind turbines could deter tourism
- Wind is an intermittent resource and would still require significant ancillary support from oil-fired facilities to maintain grid reliability

With respect to the evaluation criteria above, we considered the LCOE for Wind technology, as well as the availability of resources that make this technology viable in the USVI. Although the USVI has abundant wind resources, there are concerns that aesthetically unappealing wind turbines could deter tourism and other resources would provided better long-term economic job benefits.

[1] United States. US Department of Energy. National Renewable Energy Laboratory. *US Virgin Islands Energy Roadmap: Analysis*. Technical Report, 2011.

VI.c Renewable Energy: Solar Power

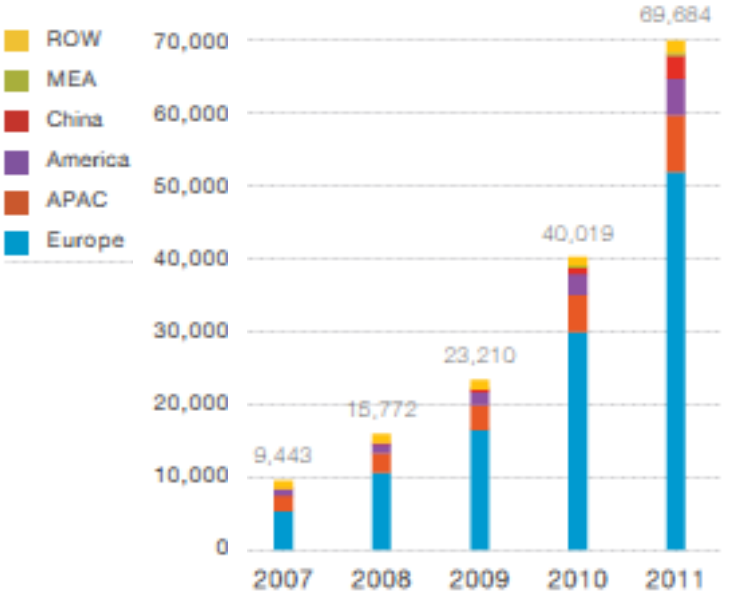
Renewable Energy: Solar Power

Overview

- Solar power is the conversion of sunlight into electricity, either directly using photovoltaic ("PV") cells, or indirectly using concentrated solar power ("CSP")
- A PV system or solar cell, is a device that converts light into electric current using the photoelectric effect
- Solar Moore's[1] Law
  - Solar module production costs are rapidly declining; approaching $1,000 per kW ($1/W), compared to $3,500 per kW ($3/W) in 2005
  - According to Industry experts, the price of PV modules has reduced by 22% each time the cumulative installed capacity (in W) has doubled
  - Lower module costs should be passed through to overall system costs leading to lower cost targets ($/kW) for utility-scale power projects
- PV Evolution by End-Use Sector
  - Over time, the share of end-use market segments (residential, commercial, utility) is expected to change significantly
  - Specifically, the utility market is expected to make up an increasingly larger portion of overall electricity market as solar becomes an larger component of new installed generation (replacing other baseload fuels)

[1] Moore's law is a rule of thumb in the history of computer hardware whereby the number of transistors that can be placed inexpensively on an integrated circuit doubles approximately every two years.

USVI Solar Power Summary	
Commercial Installation Cost	$6,000/kW
Approx. Cost of Delivered Energy	$0.19-$0.36/kWh
Resource Potential in USVI	High
Land Use Impact	Medium
Viability	Strong



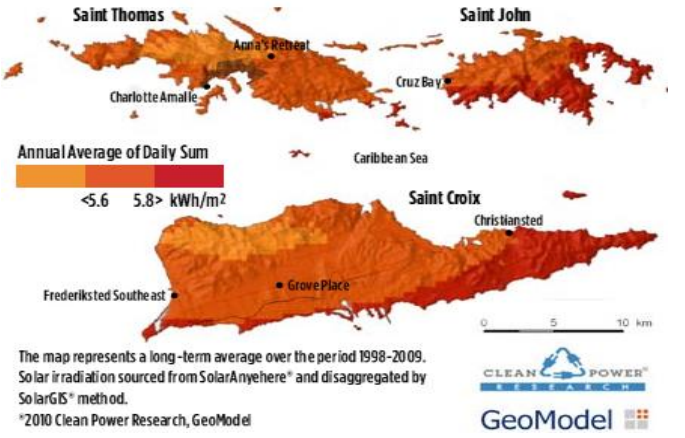
Evolution of global cumulative installed capacity 2007-2011 (MW)
Source: EPIA

Renewable Energy: Solar Power in USVI

Key Facts & Highlights Pertinent to USVI

- The Cyril E. King Airport on St. Thomas installed a 451 kW solar panel capacity in 2011, which supplies power to the airports runway and terminal. The project is the largest in the USVI[1]
- The HOVENSA site has adequate solar exposure and is located within an already flat, industrialized area
- The net-metering laws specified in Act 7075 provide support the installation of Solar generation.
- NREL allocated 3.0% (9 MW) of the USVI's 60x25 initiative to solar power
- Due to the land constraints that the USVI faces relative to Puerto Rico, solar technology may be better tailored for smaller, more widespread projects
- Solar energy can be excellent for residential and business use, and in remote applications where access to utility lines is not available
- The use of solar power technology will contribute to the USVI efforts in reducing dependence on fossil fuels

US Virgin Islands Global Horizontal Irradiation



Cyril E. King Airport on St. Thomas (451 kW Capacity)

[1] *NREL*. "St. Thomas Airport Installs Largest Solar Project in USVI". 30 Dec 2011.

Renewable Energy: Solar Power in the Caribbean

Recent Developments:

- Jamaica is set to begin construction on a 24 MW solar power park in 2012. The government partnered with ESA Renewables to provide design and construction services. Caribbean Energies Group LLC granted financing for the project [1]
  - Solamon Energy Corporation announced in early 2012 that it is considering investing close to $450 million in constructing a 60 MW solar farm in Jamaica[2]

- In 2011, the Commonwealth of Puerto Rico unveiled plans for several new Solar projects to come on-line or start throughout the year:
  - As of year-end 2011, Western Wind Energy, a Canadian company, acquired a 40-year land lease for a 401-acre plot in the municipality of Yabucoa, Puerto Rico, and implemented a 30MW Solar project in Yabucoa[3]
  - A French company Fonroche, has also proposed an investment of $115 million to build a 44 MW solar farm in Puerto Rico[4]
  - AES Illumina, a subsidiary of AES Solar, closed on financing from MetLife, and has begun construction of a 24MW PV power plant in Guayama, Puerto Rico as of the beginning of 2012[5]

- Aruba began reviewing proposals for building, owning and operating a solar park at the Reina Beatrix Airport. The project is expected to generate up to 4 MW of power[6]

[1] *SFGate*. "ESA Renewables Executes Letter of Intent for 24 MW Solar Project in Jamaica". 2 May2012.
[2] http://www.solamonenergy.com/solamon-announces-plans-for-largest-caribbean-solar-farm-jamaican-parishes-to-be-evaluated
[3] *pv-tech.org*. "Yabucoa, Puerto Rico". 04 Mar 2011.
[4] *pv-tech.org*. "Fonroche to install 44MW system in Puerto Rico". 17 Nov 2011.
[5] *Recharge News*. "Puerto Rico to get its first utility-scale PV plant at 24 MW". 6 Oct 2011.
[6] *Amigoe* . "Second windmill park Urimama a fact within one month". 27 Oct 2011.

Renewable Energy: Solar Photovoltaic[1]

Pros

- The cost for solar photovoltaic technology has dropped substantially over the last decade
- Very low fixed operating and maintenance costs after installation
- The Caribbean boasts strong and abundant solar energy
- The HOVENSA refinery site gets above average solar irradiation compared to the rest of St. Croix
- Solar energy provides minimal impact on the environment and "viewscape"
- The site of the Facility features some of the flattest spans of land in the entire USVI

Cons

- The cost of solar technology is still relatively higher than the power cost of fossil-fueled plants
- Few subsidies are in place to offset the costs of large-scale solar farm initiatives in the USVI
- After construction, the long-term economic job and property tax benefit from a solar project would be less that alternative renewable energy or industrial uses for the HOVENSA site
- The USVI region is very susceptible to hurricane damage
- Solar panels require stretches of relatively flat land and significant acreage

With respect to the evaluation criteria above, we considered the Levelized Cost of Energy for Solar technology, as well as, the availability of resources that make this technology viable in the USVI. Although the USVI has abundant Solar resources, the cost of solar technology is still relatively higher than the power cost of other technologies and would provide minimal on-going employment opportunities.

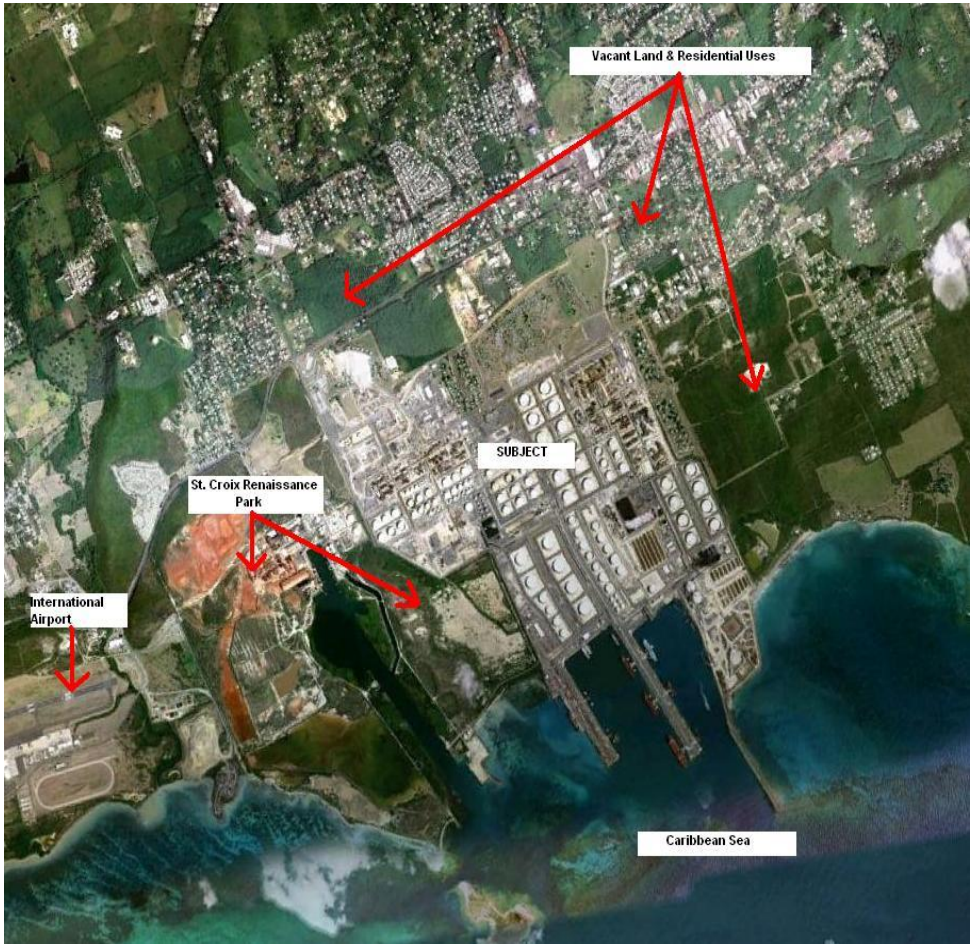
[1] United States. US Department of Energy. National Renewable Energy Laboratory. *US Virgin Islands Energy Roadmap: Analysis*. Technical Report, 2011

Renewable Energy: Conclusion

- The purpose of this analysis was to provide an overview of our consideration of additional uses for the Facility as a renewable energy development site in the USVI. As such, we considered legislative concerns in the region and gave significant thought to several renewable energy resources that could potentially be viable in the USVI for generation purposes
- We also considered key facts and development considerations pertinent to the viability of usage of the HOVENSA Facility as a renewable energy facility in the USVI. We identified WTE, Wind, and Solar technologies as viable near-term options
- In conclusion, with respect to the LCOE for each of the options mentioned, as well as the potential benefits that they could potentially provide to the USVI, WTE technology seems to be the most viable and effective option due to the following:
  - According to NREL, it has the lowest expected LCOE
  - In comparison to the other technologies considered, it offers a venue for creating jobs in the USVI
  - It offers resolve to the accumulation of waste that is a present day issue in the USVI
- However, in comparison to the continued operation of HOVENSA, the attractiveness of renewable energy development or a WTE facility is significantly less than the potential for the sale and continued use of refinery in operation for the following reasons:
  - The renewable energy facilities would offer only minimal job creation / replacement opportunities relative to an operating refinery
  - The upfront cost and time of development is significant for each of the resources studied
  - There are alternative sites located on St. Croix proximate to the Facility that would serve as more attractive immediate locations for development of renewable energy resources

VII. Evaluation of Alternative Uses: Real Estate Development

Subject Property Overview



Description of Subject

- The Facility spans 2,000 acres of land along the south shore of the Caribbean Sea on St. Croix
- The Facility includes ten on-site docking points, with the ability to accommodate vessels with up to 55 feet of draft in instances

Surrounding Uses

- The property is contiguous to vacant land and residential uses to the north and east with the Caribbean Sea to the south. Most notably, the subject is bordered by the St. Croix Renaissance Park to the west which is a 1,244-acre industrial park provided with a deep water port and located within one mile of the Henry E. Rohlsen International Airport
- Primary access to the Facility is provided by Route 66 which provides linkage to Christiansted to the east and the Henry E. Rohlsen International Airport, Camporico and Frederiksted to the west

Subject Property Overview

Zoning Restrictions

- According to the Division of Comprehensive Coastal Zone Planning, the Facility is currently zoned I-1, or Heavy Industrial, with no additional zoning overlays present
  - Permitted uses within the I-1 zone include: moderate-to-high impact commercial services, manufacturing and industrial uses. These uses are designed to be located in areas that will minimize adverse operational and visual impacts on residential and tourist areas
  - Heavy industries are defined as those likely to pollute the air or the waters, which cause undesirable noise or create problems due to heavy trucking
    - » With the heavy dependence of the Virgin Islands on tourism and with the establishment of fine residential districts of expensive homes, the Virgin Islands is sensitive to preserving the environment which today is one of its principal assets
    - » It should be noted that limited areas are established for heavy industry, with the subject property featuring this designation

- Lot and building standard highlights:
  - Required Lot Area – Minimum lot area of five (5) acres
  - Permitted Lot Occupancy – No more than 35.0% of the area of the zoning lot may be used for building or the storage of equipment other than required off-street parking or off-street loading
  - Yards – where the subject may abut residential property, every building shall be set back a minimum of one hundred feet from the residential property line
  - Maximum height limit – No building shall exceed a height of fifty feet

Industrial District Lot and Building Standards	
Setbacks	IH
Minimum Front Setback (feet) [1]	100[1]
Minimum Interior Side Setback (feet)	100[1]
Minimum Street Side (Corner) Setback (feet)	100[1]
Minimum Rear Setback (feet)	100[1]
Height and Building Coverage	IH
Maximum Building Height (feet)	50
Maximum Building Coverage (% of lot)	35

[1] Specified setback required only abutting residential zoning district.

Subject Property Overview

Zoning Restrictions (cont'd)

- Land beneath all aircraft approach lanes, as established by appropriate aeronautical authorities or airport zoning, which is not part of the airport, shall be so developed as not to endanger safe flight conditions to and from the established airport. This provision is supplemental to any adopted airport zoning plan or law
- The Facility's site would likely require reclassification to W-1 Waterfront, or a portion thereof, to support tourism development as a matter of right
  - The extensive waterfront of the USVI constitutes one of its most important assets. While a very limited amount of the waterfront is presently available for public beaches, it is anticipated that the public areas will be increased to meet the recreational needs of both residents and tourists. Potential recreational locations should be preserved and protected against intrusion of an industrial nature
  - A Waterfront – Pleasure zone is established for that purpose. Private residential areas abutting the waterfront should also be protected not only against commercial and industrial uses, but equally important, against pollution

- Casino establishments are allowed specific zoning districts in St. Croix when one of the 4 types of casino licenses is issued by the Casino Control Commission. Each type of casino is subject to all of the following conditions
  - Maximum building height may not exceed 40 feet within the Historic districts or 76 feet in all other areas
  - The number of hotel rooms, casino square footage and indoor public space square footage is subject to compliance with the provisions of Title 32, section 435 of the USVI Code

Development Opportunity: Industrial/Research Park

- The Industrial Park Development Corporation ("IPDC") is chartered as a public corporation to acquire and operate industrial parks in USVI. There are currently two industrial parks that fall under the auspices of the IPDC, including the William D. Roebuck Industrial Park in St. Croix. This park is housed within four adjoining buildings which provide commercial space of 148,160 square feet. Currently, four companies are located within the park and the buildings are only 45.0% occupied. As of the latest publicly available annual report from 2010, the park has been under 50.0% occupied for three years dating back to 2008

- Rum exports have continued to increase measured by total dollar volume exported to the US since 2004 and have doubled since 2003. This can be evidenced by the recent construction of the Diageo plant within close proximity to the subject

- St. Croix Renaissance Park is located adjacent to the subject and evidences 1,244 acres of industrial land and benefits from a deep-water port in addition to reliable and cost competitive on-site energy and water supplies

- Outside competition includes Port Point Lisas Industrial Estate, Trinidad and Tobago – The Point Lisas Industrial Estate is a 2,220-acre heavy industrial zone located on the west coast of Trinidad and Tobago and managed by PLIPDECO. The Estate houses more than 100 tenants comprising a mix of methanol, ammonia, and urea plants, three steel plants, a power plant, and smaller light manufacturing and service companies. Port Point Lisas consists of six general cargo and container berths. Furthermore, the facility handles a variety of cargo including containerized, break bulk, lumber, paper, consumables, dry bulk and steel

Development Opportunity: Industrial/Research Park

Pros

- Take advantage of existing zoning classification and continuity of land use
- Use of existing port infrastructure and proximity to airport offers potential intermodal transport of raw materials and finished goods
- Benefits of locating an industrial activity in USVI include:
  - The use of USD's and protection of the US flag and courts
  - Manufacturer's have duty-free, quota-free access to the United States mainland with "Made in the USA" labels on many types
  - Potential benefits and incentives are available through the Economic Development Authority, including:
    - » Gross Receipts Tax Exemption
    - » Property Tax Exemption
    - » Excise Tax Exemption
    - » Reduction of Virgin Islands Customs Duties
    - » Duty-Free Imports into the United States
    - » Income Tax

Cons

- Low occupancy rates for industrial parks, as evidenced at William D. Roebuck Industrial Park on the island of St. Croix suggest that demand for industrial space is minimal
- High energy costs, which may be compounded by the complete shut down of the Facility
- High development costs in comparison to operating fundamentals are prohibitive
- High vacancy has resulted in decreased rents to remain competitive
- Hurricanes pose liability to industrial-type uses in the form of business and production interruption

Development Opportunity: Tourism

Factors for Consideration of the Site as a Potential Tourism Development:

- Visitors to St. Croix experience the island's rich cultural diversity in the distinctive arts, crafts, music and festivals. Attractions include the island's various beaches, ecotourism and water activities, diving opportunities, and local dining and entertainment
- A developed barrier reef system surrounds St. Croix on its eastern and southern shores giving it potential as a snorkeling destination
- During 2010 to 2011, the Caribbean saw two successive years of record highs in terms of tourism growth. (Travel to the region decreased notably in 2008 and 2009). The World Tourism Organization is projecting modest growth for the region, with growth during 2012 expected to be 2.0%
- The Caribbean reported 77.4% occupancy in March, up 2.2% year-over-year; ADR increase of 6.1% to $209.72; and RevPAR of $162.28, an increase of 8.5% year-over-year
- Choice, Hilton, Hyatt and InterContinental are significant brands without a current presence in the US Virgin Islands. Moreover, US branded hotel groups represent only 25.2% of total market share (available rooms) as of 2010
- Hotel development is "a high priority for the government and specifically for the island of St. Croix" as said by the Commissioner of US Virgin Islands Department of Tourism. "There have been several things we've been looking at to strengthen hotel development on the island". St. Croix is the largest of the three US Virgin Islands, but the least developed in terms of hotel infrastructure
- Of the three USVI, St. Thomas is more metropolitan and gets the bulk of the cruise arrivals, St. John has the reputation as the eco-friendly natural environment with 2/3 of the island national parks, and St. Croix is the cultural and historic epicenter
- Occupancy rates have also been generally declining on the island over the previous three years and typically lag the larger resort market of St. Thomas and St. John by approximately 10.0 - 15.0%; according to the latest statistics publicly available, hotel occupancy on the island was 45.1% in 2011

Development Opportunity: Tourism

Development Examples within the Caribbean

- Interlink Group was selected by the Puerto Rico government to develop The Sheraton Puerto Rico Hotel & Casino in 2003. After three years of completing the design, acquiring permits, sourcing capital partners and solving legal issues, the Sheraton broke ground in 2006. The property was an approximately $250-million investment which opened in 2009. The government provided financial support through tax credits and also served as co-investor in the project

- Interlink went through a similar process for the 139-room St. Regis Bahia Beach Resort in Puerto Rico. The process for the St. Regis took about five years from the time work started on the hotel to its opening in 2010

Construction Pipeline and Future Supply

- Maarten Quarter in St. Maarten is slated for completion during the third quarter of 2012 and is a joint venture between Royal Caribbean and Trident Development, a subsidiary of Hill International. The project will be configured as a "mixed-use hospitality project with retail" located within the existing port of Philipsburg

- Christophe Harbour, St. Kitts is slated to be a 2,500-acre development featuring a 300-acre marina and 18-hole Tom Fazio-designed golf course

- Marriott International, Inc. will develop a JW Marriott Hotels & Resorts branded 131-room luxury hotel in Santo Domingo, Dominican Republic that is scheduled to open in 2014

- Jumeirah – Anguilla – The resort will feature 141 guestrooms and 460 residential units (both owned and managed by Jumeirah). The hotel facilities will include a spa, conference facilities, beach clubs, and a Jack Nicklaus designed golf course. The hotel is expected to be open in late-2013 to early-2014

- Baha Mar – Bahamas - Baha Mar is a $3.4 billion complex on Nassau's Cable Beach. The plan calls for 2,250 hotel rooms, a golf course, retail space, a convention center and the Caribbean's largest casino. The development will employ some 8,000 workers and is projected to generate a 10.0% boost to Bahamas' GDP. It is scheduled to open December 2014

- Kittitian Hill Resort – St. Kitts – This development will consist of over 500 rooms when complete. The $200 million Phase 1 of the development broke ground in November 2010 and features 110 guestrooms. Phase I facilities include an Ian Woosnam designed golf course, spa and beach club. The development added 350 construction jobs and long-term employment for 2,000 people

- JW Marriott – Coco Beach, Puerto Rico – The 371-room resort and spa will be the first JW Marriott in Puerto Rico. Included in the development is an existing 27-hole, Tom Kite designed, championship golf course. Resort facilities will include a casual all-day restaurant, specialty dining restaurant, beach/pool bar, lobby bar, 17,775 sq foot spa and fitness center, outdoor swimming pool, a 6,370 sq foot casino and 20,919 sq feet of meeting space featuring a 12,000 sq foot ballroom. The hotel is scheduled to open in 2013

- Hyatt Regency - Dominican Republic - The Hyatt Regency Cap Cana will be the first Hyatt in the Dominican Republic. The hotel will include 212 guestrooms and 46 private residences. The hotel is scheduled to open in early 2014

Development Opportunity: Tourism

Development Risks

- The economic crisis hit the Caribbean especially hard, drastically hurting hotel performance and halting construction of many projects. Repurposing activity has been slower than hoteliers anticipated once the economy began to recover
- The development process can be quite lengthy in the Caribbean from the start of the planning process until the time you break ground. Government incentives through tax credits, grants, programs, or direct investment are required to attract development
- Environmental obstacles present challenges that may require significant time and expenses to transition the HOVENSA facility site into a tourist location
- Many hotels in the Caribbean lack the infrastructure to produce low cost energy, and the reliance on imported fuel has led to substantial utility costs. Utilities are the greatest expense to Caribbean hotels and the closing of the HOVENSA site may compound these already above average operating costs
- Inter-regional travel is time-consuming and expensive within the Caribbean
- It is estimated by the USVI Bureau of Economic Research that approximately 83.8% of hotel guests in 2011 originate from the United States. This concentration makes the tourism industry in USVI very dependent upon economic conditions within the US
- An additional concern for many hoteliers in the region is the excessive taxation imposed on tourists which dissuades travel and thereby hinders tourism growth in the region. On the other hand, Caribbean cruise companies do not pay taxes

Financing Issues

- Financing is a challenge in the Caribbean, where hotel development is considered high risk for lenders, and they are very selective in terms of destination and product. Projects must be well thought out, locations need to have strong airlift, and branding is important
- Active hotel lenders are more likely to provide acquisition or refinancing loans for operating hotels with a proven net operating income history than construction financing for proposed projects. Debt is selectively available on feasible projects with strong sponsors at LTV ratios in the 50-60% of cost range, creating a need to raise significant amounts of equity for new projects
- Prior to the economic downturn, many hotels in the Caribbean market were developed by underwriting mixed-use projects that included a residential component for sale in order to finance the hotel development. With the backlog of stalled condominium mixed-use developments throughout the region and other parts of the world, an investor seeking to develop a hotel in the Caribbean using this approach will find it difficult to obtain financing
- One of the issues financial institutions are dealing with is the cost of construction has not evolved the same way values have, thus preventing additional construction due to low or negative return expectations
- According to KPMG's 2012 Caribbean Region Financing Survey, many lenders said they do not expect growth until 2014. Furthermore, 73% of lenders said they do not believe leadership in the region is doing enough to make the necessary changes needed in the tourism/hospitality industry

Development Opportunity: Tourism

U.S. Citizenship & Immigration Services

Other Considerations

- An alternative financing option for large-scale projects in the Caribbean region has been the Chinese Government, which has invested heavily in the region since 2004. There are several public institutions in China willing and interested in investing in Caribbean projects
- The Chinese Government is currently financing the $2.6-billion Baha Mar project in the Bahamas and funded the Montego Bay Conference Center, which opened in the beginning of 2011. In September of last year, the Chinese Government pledged another $1 billion in preferential loans to Caribbean Community Countries ("CARICOM"). However, Chinese investment means Chinese workers, so developers need to balance between what they need from China and the needs of the Caribbean work force
- Anguilla – as the economy is completely dependent on tourism, the government now provides tax incentives to every hotel undergoing renovations
- St. Kitts and St. Nevis, as well as Dominica, are located in the Caribbean and offer Citizenship-by-Investment Programs to reward investors who advance development within the country. This program allows foreign investors to benefit from the acquisition of citizenship in another country under certain conditions while also boosting the local economies of the respective countries
- The US offers a similar-type program called the EB-5 Immigrant Investor Program that was created in 1990 and requires overseas applicants to invest anywhere from $500,000 to $1 million, depending on the location of project. Furthermore, the program has a job creation condition attached to it which ensures that at least 10 full-time jobs are either created or preserved within two years. Regional Centers are a economic unit which is located in a rural or depressed area that is focused upon for improved productivity, job creation and capital investment. It should be noted that the EB-5 program is scheduled to end on September 30, 2012. Although the program has been extended in the past, it is uncertain whether it will be extended past this deadline

Development Opportunity: Tourism

Air Arrivals

- Although overall air arrivals decreased 1.8% in 2011 over 2010, the fourth quarter evidenced positive growth which has continued through the first quarter of 2012

- Access to St. Croix via major airlines is provided mostly via connecting flights from San Juan, PR via American Airlines, Continental, United, Delta, Jet Blue, American Eagle and various other international flights. Furthermore, direct flights are available from the mainland US via Delta, American Airlines and US Air

- The Henry E. Rohleson International Airport can receive jets up to the size of a Boeing 747

	ST. THOMAS/ST. JOHN			ST. CROIX			U.S.V.I., TOTAL		
PERIOD	2010	2011	Percent Change	2010	2011	Percent Change	2010	2011	Percent Change
MONTH									
January	51,997	52,932	1.8	14,215	14,264	0.3	66,212	67,196	1.5
February	53,691	50,569	-5.8	12,700	13,233	4.2	66,391	63,802	-3.9
March	66,260	61,017	-7.9	14,720	13,699	-6.9	80,980	74,716	-7.7
April	54,214	52,145	-3.8	12,312	11,304	-8.2	66,526	63,449	-4.6
May	44,585	38,393	-13.9	12,731	10,760	-15.5	57,316	49,153	-14.2
June	47,180	45,160	-4.3	12,530	11,539	-7.9	59,710	56,699	-5.0
July	51,914	50,874	-2.0	13,561	14,239	5.0	65,475	65,113	-0.6
August	38,647	36,365	-5.9	12,659	11,095	-12.4	51,306	47,460	-7.5
September	20,265	20,645	1.9	7,615	7,170	-5.8	27,881	27,816	-0.2
October	28,774	30,233	5.1	9,652	9,636	-0.2	38,426	39,869	3.8
November	36,211	39,078	7.9	11,853	13,636	15.0	48,064	52,714	9.7
December	49,265	54,497	10.6	14,007	16,478	17.6	63,272	70,975	12.2
QUARTER									
First	171,948	164,518	-4.3	41,635	41,196	-1.1	213,583	205,714	-3.7
Second	145,979	135,698	-7.0	37,573	33,603	-10.6	183,552	169,301	-7.8
Third	110,826	107,884	-2.7	33,835	32,504	-3.9	144,662	140,389	-3.0
Fourth	114,249	123,807	8.4	35,512	39,750	11.9	149,762	163,558	9.2
ANNUAL TOTAL	**543,002**	**531,907**	**-2.0**	**148,556**	**147,054**	**--1.0**	**691,558**	**678,961**	**-1.8**

	ST. THOMAS/ST. JOHN			ST. CROIX			U.S.V.I., TOTAL		
PERIOD	2011	2012	Percent Change	2011	2012	Percent Change	2011	2012	Percent Change
YEAR TO DATE									
January	52,932	54,584	3.1	14,264	15,905	11.5	67,196	70,489	4.9
February	50,569	56,250	11.2	13,233	16,096	21.6	63,802	72,346	13.4
March	61,017	65,863	7.9	13,699	17,584	28.4	74,716	83,447	11.7
QUARTER									
First	164,518	176,697	7.4	41,196	49,585	20.4	205,714	226,282	10.0

Development Opportunity: Tourism

Hotel Occupancy Rates

- The percentage change in 2011 over 2010 was not as dramatic as the balance of the USVI, evidencing a decrease of 0.7% as compared to 6.1% for St. Thomas & St. John combined

- Furthermore, the fourth quarter of 2011 evidenced an average positive increase of 4.0% on St. Croix as compared to a decrease of 0.4% for the balance of the USVI

HOTEL OCCUPANCY RATES (%'s)									
	ST. THOMAS/ST. JOHN			ST. CROIX			U.S.V.I., TOTAL		
PERIOD	Percent 2010	Percent 2011	Percent Change	Percent 2010	Percent 2011	Percent Change	Percent 2010	Percent 2011	Percent Change
MONTH									
January	67.7	60.3	-7.4	62.3	49.3	-13.1	66.4	57.6	-8.8
February	76.2	65.1	-11.1	77.5	59.5	-18.1	76.5	63.7	-12.8
March	77.7	71.4	-6.3	51.2	50.6	-0.6	71.3	66.3	--5.0
April	67.8	61.9	-5.9	37.9	41.2	3.3	60.6	56.9	-3.8
May	62.6	56.0	-6.6	39.0	36.6	-2.3	56.9	51.0	-5.9
June	63.5	51.6	-11.8	39.8	40.4	0.6	57.8	48.7	-9.1
July	65.3	53.2	-12.1	39.5	47.5	8.1	59.0	51.7	-7.3
August	54.4	44.2	-10.2	39.0	40.1	1.0	50.6	43.1	-7.5
September	38.1	33.7	-4.4	37.4	35.9	-1.5	38.0	34.3	-3.7
October	47.0	47.1	0.1	36.1	36.5	0.4	44.4	44.5	0.1
November	50.3	46.7	-3.5	50.2	52.7	2.5	50.2	48.2	-2.1
December	57.2	59.4	2.2	43.2	52.1	8.9	53.8	57.6	3.8
QUARTER									
First	73.8	65.6	-8.2	63.2	52.9	-10.3	71.3	62.5	-8.7
Second	64.6	56.6	--8.0	38.9	39.4	0.5	58.4	52.3	-6.2
Third	52.7	43.8	-8.9	38.7	41.2	2.6	49.3	43.2	-6.2
Fourth	51.5	51.1	-0.4	43.1	47.0	4.0	49.5	50.1	0.7
ANNUAL TOTAL	**60.6**	**54.4**	**-6.1**	**45.8**	**45.1**	**-0.7**	**57.0**	**52.1**	**-4.9**

Real Estate Development Opportunity: Conclusion

Industrial / Research Park Development

- Development of the Facility site into an industrial research park is considered to be **unfeasible** based upon the large size of the site coupled with the existing **oversupply** of industrial-type uses in the region evidenced locally by **high vacancy** on the island itself

Tourist Destination Development

- Development of the Facility site into a tourist destination, such as a resort location, will likely require **high transition costs** and an extended period of time to convert the property. This property is at a strategic **cost disadvantage** versus other proposed developments in the region, and we believe that financing would not be obtainable due to very selective lending practices. We believe it is **unlikely** the site would be identified as a potential site for a tourist destination such as a resort

VIII. Evaluation of Acquisition Potential[1]

[1] This section of the report was completed by Duff & Phelps Securities LLC. As part of the scope of the Services, Duff & Phelps Securities LLC has not solicited interest in HOVENSA from third parties. This screen of potential buyers is based on public information and our understanding of HOVENSA.

Mergers & Acquisitions Environment

In Recent Weeks, Buyers Have Emerged to Acquire Refineries at Low Prices

- Delta Airlines announced the purchase of the ConocoPhillips' Trainer, PA refinery for $150 million [1]
  - On April 30, 2012, Delta Airlines announced the purchase (through a newly formed, wholly owned subsidiary called Monroe Energy LLC) of the Trainer refinery complex south of Philadelphia for $150 million after taking into account $30 million from the state of Pennsylvania for job creation and infrastructure improvement. Monroe will spend an additional $100 million to convert the refinery's infrastructure to maximize the amount of jet fuel it can produce. Delta said the jet fuel from the refinery and agreements to swap the refinery's other products for jet fuel will provide it with 80.0% of its jet fuel needs in the United States
- Oil trading companies Gunvor Group and Vitol Group purchased two European refineries from Petroplus [2, 3]
  - On May 3, 2012, Gunvor, a commodities trader with offices in Geneva and Singapore, announced it has successfully completed the purchase of Petroplus's 107,500 barrels per day refinery in Antwerp, Belgium. It also completed negotiations with Petroplus Marketing AG to buy remaining inventory at the refinery
  - On May 3, 2012, The Vitol Group, an independent energy trading company based in the Netherlands, announced today that Varo Holding SA, a joint venture between the Vitol Group and AtlasInvest, have entered into a definitive agreement with Petroplus for the purchase of its Cressier plant in Switzerland and the related marketing and logistics assets
- PetroChina is reportedly in late-stages of talks to buy Valero's Aruba refinery after offering a reported $350 million [4]
  - In a filing with the US Securities and Exchange Commission on May 9, 2012, Valero said it had received a non-binding indication of interest for the 235,000 barrel-per-day Aruba plant for $350 million plus working capital, but did not identify the interested party. Sources familiar with the negotiations said the approach had been made by PetroChina
  - Reuters cites sources as saying that PetroChina has reached a deal with Petroleos de Venezuela ("PDVSA") to supply the Aruba plant with heavy crude. Sources also say PetroChina could be negotiating a separate supply agreement with PDVSA as well: one for the supply of liquefied natural gas. Valero was considering building a floating regasification unit that would allow the refinery to have the gas needed to operate the power plants that currently use diesel
- Carlyle Group and Sunoco agree to joint venture of the Philadelphia refinery. [5]
  - On July 2, 2012 the private-equity firm Carlyle Group and Sunoco agreed to form a joint venture that transfers operations of Sunoco's refinery in Philadelphia to Carlyle Group. The joint venture is expected to keep the existing refinery jobs intact and potentially add new jobs as the refinery is updated and expanded.

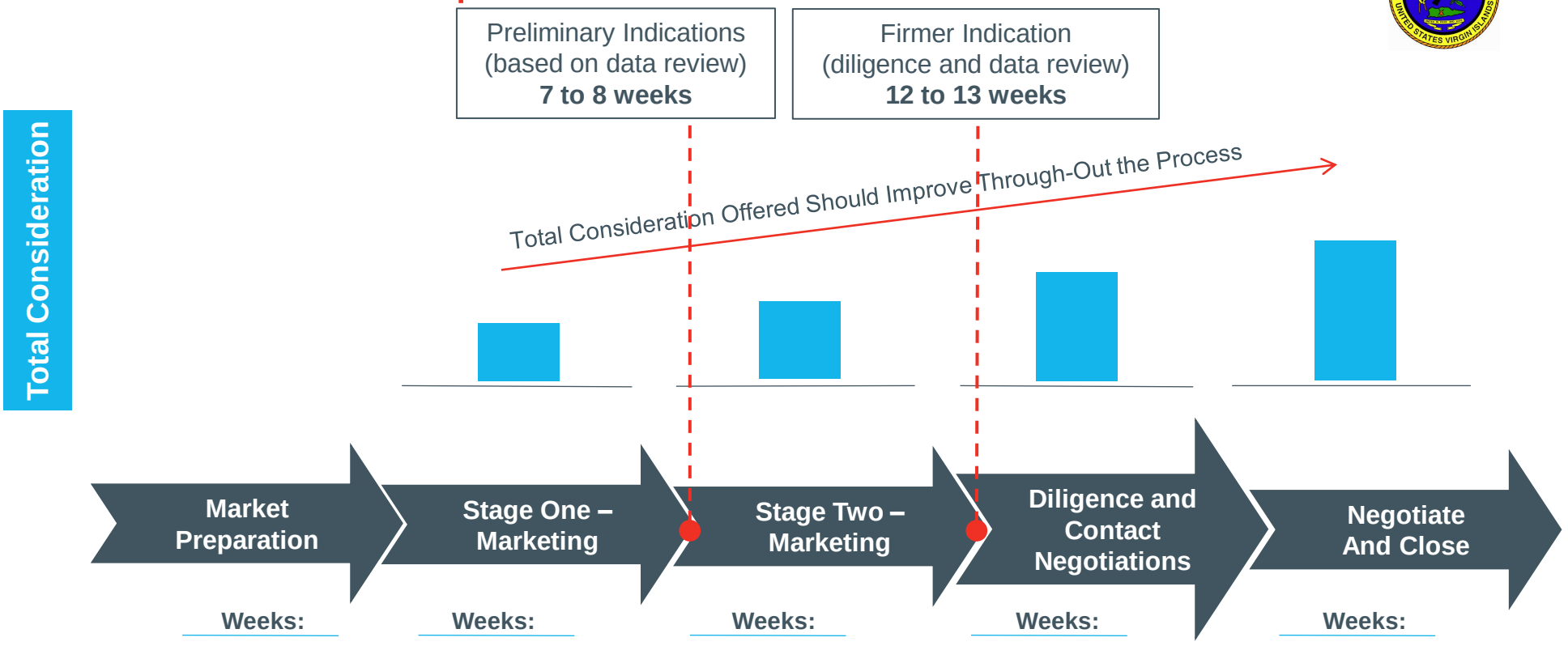
[1] Philadelphia Business Journal, www.bizjournals.com, "Delta Air Lines Buying Trainer, Pa., Refinery", Peter Key, April 30, 2012.
[2] Bloomberg Business Week, www.businessweek.com, "Gunvor to Start Antwerp Refinery After Completing Purchase", Ann Koh and John Buckley, May 3, 2012.
[3] Vitol Press Release, www.vitol.com, "Latest News", May 3, 2012.
[4] Reuters, www.reuters.com, "PetroChina in Talks to Buy Valero's Aruba Refinery: Sources", Janet McGurty, May 9, 2012.
[4] The New York Times, www.nytimes.com, "Partnership Formed to Keep Philadelphia Refinery Open", July 2, 2012.

Mergers & Acquisitions Environment

Asian Oil Giants Expected to be Key Players in the Refining M&A. According to Reuters article, "PetroChina in Talks to Buy Valero's Aruba Refinery: Sources", May 9, 2012:

- "Chinese oil giants, which have been suffering heavy refining losses at home due to state-controlled oil products prices, are pushing into the overseas refining sector to optimize their refinery operations and maximize the value of crude they produce overseas, energy bankers and analysts say"
- "Sinopec Group, parent of Asia's largest refiner Sinopec Corp (0386.HK), signed a deal with Saudi Aramco SDABO.UL earlier this year to build a new 400,000-barrel-a-day ("bpd") oil refinery in Yanbu in Saudi Arabia, its first overseas refining project"
- "'They hold the concept of building a global trading business. The concept is it allows them to get cheaper crude to China,' James Hubbard, head of Asia oil and gas research at Macquarie, said of Chinese oil firms' overseas refining strategy"
- "PetroChina has said it wants to double its global trading and marketing of oil -- including crude oil and refined fuel -- to 8 million barrels a day by 2015 from 2010 levels"
- "PetroChina bought a 50.0% stake in chemical group Ineos' INEOS.UL European refining business last year for $1 billion, its third overseas refinery deal after acquisitions in Singapore and Japan for more than $2 billion combined"
- "Venezuela is currently supplying 460,000 barrels of oil per day to China, and is set to increase its shipments to 1 million barrels per day by 2015, government officials said"
- "China National Petroleum Corp ("CNPC"), parent of PetroChina, and PDVSA are also building a $9 billion joint refinery on China's southern coast in April, paving the way for more Venezuelan oil to flow to the world's second-largest oil user"
- "China has become a major partner of President Hugo Chavez's government, supplying billions of dollars in credits, some of which are being canceled with crude shipments from the South American OPEC member"

Milestones of an Expedited Global Process[1]



	Weeks:	Weeks:	Weeks:	Weeks:	Weeks:
Timing	1-2	3 - 7	8 - 12	13 - 21	22 - 25
Parties In Process	30 - 40	10 - 20	4 - 8	1 - 3	1 - 2

[1] *May reduce proceeds, but represents best case timing of an accelerated sales process. This timeline is an estimate and is not a guarantee or an expected timeline for the Refinery. Recent refinery sales processes have extended to more than one year. Duff & Phelps Securities, LLC did not solicit interest in the Refinery.*

Key Attributes of a Potential Buyer

Assuming the Facility were to be sold, HOVENSA's size, economics and capital investment requirements would likely limit the number of interested buyers to those with specific attributes

Significant Capital Resources

- Regardless of the purchase price, substantial capital investment will be required in the first five years to optimize facility operations, address power costs disadvantages (i.e., LNG) and address Consent Decree Obligations
- In the near term, cash earnings are not likely to represent a significant source of funds for capital reinvestment

Long-Term View

- Most public companies are reducing their exposure to refining due to its earnings volatility
  - Quarterly results can vary dramatically based on the refining business cycle
  - Stock prices are generally penalized more severely during refinery troughs relative to rewards during the cycle peaks
- A buyer must be willing to assess its return on the total investment over its life (or the investor's entire investment horizon) rather than on a year-to-year basis

Willingness to Price and Accept Risk

- Even refinery cash returns are quite volatile, and a buyer of HOVENSA must be willing to accept and price the risk and volatility

Other Considerations based on Recent Transactions

- Parties with long-term crude supply contracts, increasing refined product demand or global trading platforms may consider HOVENSA as an opportunity to fold the refinery into a larger strategy
- Private equity has shown an increasing willingness to invest in refineries over the past three years

Potential Range of Acquirers[1]

Despite the historical losses generated by HOVENSA as well as the announced conversion of the Facility, recent transaction activity indicates that there likely are potential acquirers who would continue to operate the facility as a refinery. Any acquisition would likely only be consummated with a concurrent agreement on a modified concession.

Category of Acquirer	Comments
Global Public / Private Refining Companies	▪ Not likely to be in the market for refining capacity operating at a cost disadvantage x Adverse EPS impact and volatility not attractive to public companies
National Oil Companies	▪ Logical acquirer for facility such as HOVENSA ✓ Short on refining capacity, long on unrefined crude ✓ Recently shown a willingness to invest in underperforming facilities ✓ Low cost of capital ✓ Need solutions to meet growing in-country demand for refined products ▪ Ownership by a NOC may require other concessions (i.e., imported workers, etc.)
Commodity / Trading Companies	▪ Ownership of refining capacity enhances access to global crude supply ✓ Strategy may focus on trading profits rather than refinery margin ✓ Looking to establish a more vertically integrated business model ▪ Ownership may not be fully aligned with USVI desire to maintain employment
Private Equity Funds	▪ History of acquiring underperforming assets ▪ Likely would seek JV partner or joint operating agreement ▪ Investment horizon likely substantially shorter than other buyers, would seek to flip investment ▪ Seek to increase returns by aggressively reducing costs (including labor and concession)
Airlines	▪ Delta acquisition may prove to be an isolated case x Limited applicability due to size and flight volumes through USVI Airports

[1] *Duff & Phelps Securities LLC has not solicited interest in HOVENSA from third parties. This screen of potential buyers is based on public information and our understanding of HOVENSA.*

Preliminary List of Buyers: Global Trading Companies

Buyer	LTM Financials ($bn)	Business Description	Recent Transactions	Relevant Oil & Gas Assets
Vitol Holding B.V.	▪ Market Cap.: NA ▪ EV: NA ▪ Revenues: $195 ▪ EBITDA: NA	Vitol Holding B.V. operates as an independent energy trading company. The company engages in the extraction, trade, refining, storage, and transport of energy. **Headquarters**: Switzerland & Netherlands	▪ 5/2/2012: Acquired Petroplus Refining Cressier and Oléoduc du Jura and Petroplus Tankstorage and Société Française du / Refinery and related marketing and logistitics assets / Switzerland	▪ Storage tanks, exploration and production in the Philippinse, Congo, Ghana, Nigeria, Russia, Azerbaijan and Kazakhstan, and the Fujairah refinery in the United Arab Emirates
Glencore International plc (LSE:GLEN)	▪ Market Cap.: $44.3 ▪ EV: $75.1 ▪ Revenues: 186.2 ▪ EBITDA: 4.4	Glencore International plc sources, produces, processes, refines, transports, stores, finances, and supplies commodities worldwide. It operates in three business segments: Metals and Minerals, Energy Products, and Agricultural Products. **Headquarters**: Switzerland	▪ 2/28/2009: Sold Cartagena Refinery / Stake in refinery / $549.0mm / Colombia	▪ NA
Koch Industries	▪ Market Cap.: NA ▪ EV: NA ▪ Revenues: $100 ▪ EBITDA: NA	Koch Industries, Inc., through its subsidiaries, engages in the businesses of refining and chemicals, process and pollution control equipment, minerals, fertilizers, polymers and fibers, commodity trading and services, forest and consumer products, and ranching. **Headquarters**: Wichita, Kansas	▪ NA	▪ Through Flint Hills Resources, refineries in Alaska, Minnesota, and Texas with total capacity in excess of 800,000 barrels per day

Preliminary List of Buyers: Global Trading Companies

Buyer	LTM Financials ($bn)	Business Description	Recent Transactions	Relevant Oil & Gas Assets
Trafigura Beheer	▪ Market Cap.: NA ▪ EV: NA ▪ Revenues: $80 ▪ EBITDA:	Trafigura Beheer B.V. engages in the sourcing and trading of crude oil, petroleum products, renewable energies, metals, metal ores, coal, and concentrates for industrial consumers worldwide. It trades in crude oil, fuel oil, mid distillates, gasoline, naphtha, LPG, and biodiesel; purchases and supplies ferrous raw materials on a principal-to-principal basis. **Headquarters**: Netherlands	▪ 4/12/2012: Invested $130 million in Nagarjuna Oil Corp for a 24% stake	▪ 45 million barrels of storage facilities through its PUMA network
Mercuria Energy Group Holding S.A.	▪ Market Cap.: NA ▪ EV: NA ▪ Revenues: NA ▪ EBITDA: NA	Mercuria Energy Group Holding S.A. operates as an independent energy trading company in Switzerland and internationally. It provides crude oil, fuel oil, diesel, heating oil, jet oil, kerosene, naphtha, and gasoline. **Headquarters**: Switzerland	▪ 5/3/2012: Acquired Petroplus Holdings AG/ Refinery / NA / Belgium ▪ 9/2/2009: Acquired Legansky Operation Block / oil and gas field / $957.7mm / Russia	▪ Oil reserves in Argentina, Canada and the US ▪ Oil and products terminals in Europe and China ▪ Substantial investment in the coal mining industry ▪ Bio fuels plants under construction in Germany and the Netherlands
Noble Group Ltd. (SGX:N21)	▪ Market Cap.: $6.1 ▪ EV: $10.4 ▪ Revenues: $80.7 ▪ EBITDA: $0.9	Noble Group Limited, an investment holding company, provides supply chain management services for agricultural, industrial, and energy products worldwide. It operates in three segments: Agriculture; Energy; and Metals, Minerals, and Ores. **Headquarters**: Wichita, KS	▪ NA	▪ NA

Preliminary List of Buyers: Global Trading Companies

Buyer	LTM Financials ($bn)	Business Description	Recent Transactions	Relevant Oil & Gas Assets
Pibro LLC (Occidental Petroleum)	▪ Market Cap.: NA ▪ EV: NA ▪ Revenues: NA ▪ EBITDA: NA	Phibro LLC operates as a commodities trading company. Its trading activities cover oil, natural gas, metals, and agricultural/other commodities. **Headquarters**: Westport, CT	▪ 10/9/2009: Acquired by Occidental Petroleum Corporation	▪ NA
Gunvor International B.V.	▪ Market Cap.: NA ▪ EV: NA ▪ Revenues: $60 ▪ EBITDA: NA	Gunvor International B.V. engages in the trade, transport, and storage of oil and petroleum products internationally. It blends fuel oils and gasoline in Amsterdam, Singapore, and other locations, as well as involves in investing in oil terminals and port facilities. The company provides spot charterers, vessels, railcars, and facilities to store and transport petroleum products. **Headquarters**: Netherlands	▪ 5/31/2012: Acquired Ingolstadt refinery and related german marketing activities from Petroplus Holdings AG	▪ Access to more than 10 million barrels of storage in the Caribbean, North West Europe, the Mediterranean and the Far East
Total SA (ENXTPA:FP)	▪ Market Cap.: 102.7 ▪ EV: 130.0 ▪ Revenues: 219.4 ▪ EBITDA: 40.3	TOTAL S.A., together with its subsidiaries, operates as an integrated oil and gas company worldwide. The Upstream segment engages in the exploration, development, and production of oil and gas, liquefied natural gas, and electricity; and shipping and trading liquefied petroleum gas (“LPG”). **Headquarters**: France	▪ 4/13/2012: Acquired Sino-Kuwait Oil Refining Project / Refinery Project / China	▪ Upstream operations (exploration and produtction) in the United States, Venezuela, Argentina, Nigeria, Angola, Libya, Rep du Congo, Gabon, Norway, UK, Russia, Azerbajan, Indonesia, Thailand, UAE, and Qatar ▪ Refineries in Saudi Arabia, South Korea, and Normandy

Preliminary List of Buyers: Global Trading Companies

Buyer	LTM Financials ($bn)	Business Description	Recent Transactions	Relevant Oil & Gas Assets
Mitsui	▪ Market Cap.: $25.9 ▪ EV: $56.2 ▪ Revenues: $65.7 ▪ EBITDA: $6.4	Mitsui & Co., Ltd., together with its subsidiaries, operates as a general trading company. The company also engages in sales of various plants, electric power facilities, and transportations. **Headquarters:** Japan	▪ NA	▪ Gulf of Thailand oil and gas field development and production project (Thailand) ▪ Oman oil and gas development and production project (Oman) ▪ Enfield and Vincent oil field development and production projects (Australia)
Itochu	▪ Market Cap.: $17.3 ▪ EV: $49.9 ▪ Revenues: $49.9 ▪ EBITDA: $4.5	ITOCHU Corporation operates as a general trading company primarily in Japan and internationally. Its Energy, Metals, and Minerals segment involves in the development of metal and mineral, and energy resources; processing of steel products; and trade of greenhouse gas emissions, iron ore, coal, pig iron and ferrous raw materials, non-ferrous and light metal products, steel products, crude oil, oil products, gas, and nuclear fuels. **Headquarters:** Japan	▪ 9/27/2011: Itochu acquired Shell Gas Philippines Inc. / Royal Dutch Shell Plc's Philippine LPG business and 10 gas stations	▪ NA
Samsung C&T	▪ Market Cap.: $9.3 ▪ EV: $9.4 ▪ Revenues: $19.9 ▪ EBITDA: $0.4	Samsung C&T Corporation engages in the engineering, construction, trading, and investment businesses worldwide. It also engages in the development of oil and natural gas resources. **Headquarters:** South Korea	▪ NA	▪ Refinery Complex (Formosa Petrochemical Corp.)

Preliminary List of Buyers: Global Trading Companies

Buyer	LTM Financials ($bn)	Business Description	Recent Transactions	Relevant Oil & Gas Assets
Marubeni	▪ Market Cap.: $11.7 ▪ EV: $37.2 ▪ Revenues: $124.8 ▪ EBITDA: $3.5	Marubeni Corporation purchases, distributes, and markets various industrial and consumer goods worldwide. It is involved in the trading of LNG, oil, and gas. **Headquarters:** Japan	▪ 1/6/2012: Acquired Hunt Oil Company / 52000 net acres of oil and gas leases in the Eagle Ford oil and gas play / TX, United States ▪ 11/14/2011: Acquired stake in Merlin Petroleum Company / $23000mm / CA United States	▪ Exploration, Development, and production operations in the US, UK, India, Qatar, Russia, Kazakhstan and other locations worldwide ▪ Oil and gas producing blocks in the US Gulf of Mexico
Sojitz Corporation	▪ Market Cap.: $11.7 ▪ EV: $37.3 ▪ Revenues: $52.3 ▪ EBITDA: $3.0	Sojitz Corporation operates as a general trading company worldwide. . The company's Energy and Metal division handles products, such as oil, natural gas, LNG, light and heavy oil, gasoline, jet and nuclear fuel, nuclear equipment, coal, non-ferrous and rare metals, iron ore, industrial minerals, steel products, biofuels, and silicon metal. **Headquarters**: Japan	▪ 8/25/2011: Sold oil and gas assets of Albacora Japao Petroleo / $985.987mm / Brazil	▪ Oil and upstream concessions in the UK North Sea, the US Guld of Mexico, Qatar, Gabon, Egypt, and Brazil

Preliminary List of Buyers: Chinese NOCs

Buyer	LTM Financials ($bn)	Business Description	Recent Transactions	Relevant Oil & Gas Assets
China Petroleum & Chemical Corporation (SEHK: 386)	▪ Market Cap.: $97.7 ▪ EV: $136.3 ▪ Revenues: $397.6 ▪ EBITDA: $27.2	China Petroleum & Chemical Corporation engages in the exploration, development, production, and marketing of crude oil and natural gas properties primarily in China. It operates 16 oil and gas production fields in China. **Headquarters:** China	▪ 2/20/2012: Acquired oil and gas exploration rights in two plots in South Yellow Sea / China ▪ Devon Energy Corporation / five US shale oil and gas fields / $2.4bn / United States	▪ 16 oil and gas production fields / China ▪ ~ 4mm barrels of oil-equivalent reserves and ~6447 billion cubic ft of natural gas reserves ▪ Oil depots and service stations
CNOOC (SEHK: 883)	▪ Market Cap.: $89.1 ▪ EV: $79.5 ▪ Revenues: $37.8 ▪ EBITDA: $18.8	CNOOC Limited, through its subsidiaries, engages in the exploration, development, production, and sale of crude oil, natural gas, and other petroleum products. **Headquarters:** China	▪ 7/20/2011: Acquired OPTI Canada Inc. for $2.3 billion, an oil sand operator in Canada.	▪ 3.2 billion BOE net proved reserves and 909,000 BOE net daily production
PetroChina Co. Ltd. (SEHK: 857)	▪ Market Cap.: $276.4 ▪ EV: $339.4 ▪ Revenues: $317.5 ▪ EBITDA: $50.5	PetroChina Company Limited produces and distributes oil and gas in the People's Republic of China. It operates in four segments: Exploration and Production, Refining and Chemicals, Marketing, and Natural Gas and Pipeline. **Headquarters:** China	▪ 2/20/2012: Acquired oil and gas exploration rights in two plots in South Yellow Sea / China ▪ 6/29/2010: Japan Energy Corporation / stake in 115,000 barrel-a-day Osaka refinery / Japan ▪ In discussions to acquire Valero's Aruba Refinery	▪ 11,278 million barrels of proved reserves of crude oil; and 65,503 billion cubic feet of proved reserves of natural gas / China ▪ Operates 17,996 service stations / China ▪ Has a total length of 56,840 kilometers (km) of oil and gas pipelines, including 32,801 km of natural gas pipelines, 14,782 km of crude oil pipelines, and 9,257 km of refined product pipelines / China

Preliminary List of Buyers: Global NOCs

Buyer	LTM Financials ($bn)	Business Description	Recent Transactions	Relevant Oil & Gas Assets
Petróleos Mexicanos	▪ Market Cap.: NA ▪ EV: NA ▪ Revenues: $113.3 ▪ EBITDA: $6.8	Petróleos Mexicanos, together with its subsidiaries, engages in the exploration, exploitation, refining, transportation, storage, distribution, and sale of crude oil, natural gas, and derivatives of petroleum and natural gas in Mexico. **Headquarters**: Mexico	▪ NA	▪ Developed reserves of approximately 7,618 million barrels of crude oil, condensates, and liquefiable hydrocarbons
Petróleo Brasileiro SA - Petrobras	▪ Market Cap.: $123.8 ▪ EV: $176.6 ▪ Revenues: $122.3 ▪ EBITDA: $30.9	Petroleo Brasileiro S.A. primarily engages in oil and natural gas exploration and production, refining, trade, and transportation businesses. **Headquarters:** Brazil	▪ 4/2/2012: Royal Dutch Shell plc / 40% stake in exploration block / Brazil	▪ Petrobras has recently committed to a $30 billion exploration plan (primarily offshore) which is expected to substantially increase its oil production to be delivered into the global market.

Preliminary List of Buyers: Global Oil Refinery Operators

Buyer	LTM Financials ($bn)	Business Description	Recent Transactions	Relevant Oil & Gas Assets
Reliance Industries Limited	▪ Market Cap.: $42.6 ▪ EV: $45.5 ▪ Revenues: $61.4 ▪ EBITDA: $6.7	Reliance Industries Limited, together with its subsidiaries, engages in the exploration, development, and production of oil and gas in India and internationally. In addition, the company involves in refining petroleum products. **Headquarters:** India	▪ NA	▪ Manufacturing facilities / India ▪ Refinery / India ▪ Exploration and Production Sites / India
Rosneft Oil Company (MICENEX:ROSN)	▪ Market Cap.: $63.3 ▪ EV: $79.1 ▪ Revenues: $90.1 ▪ EBITDA: $22.0	Rosneft Oil Company engages in the exploration, development, production, and sale of crude oil and gas, as well as refining, transportation, and sale of petroleum products. **Headquarters:** Russia	▪ 9/15/2010: Acquired Shikhansky Oil Field / $19.7mm / Samara Region , Russia	▪ Had proved hydrocarbon reserves of 23.35 billion barrels of oil equivalent, including 18.35 billion barrels of oil and 850 billion cubic meters of gas. ▪ Operates 1,800 service stations in 41 regions of Russia ▪ Owns 7 large refineries with aggregate annual capacity of 372 million barrels; and 4 mini-refineries. ▪ Has operations primarily in western Siberia, southern and central Russia, Timan-Pechora, eastern Siberia, the Far East, Kazakhstan, and Algeria ▪ Has a strategic partnership with ExxonMobil Corporation for joint exploration and development of hydrocarbon resources

Preliminary List of Buyers: Top Private Equity Firms

Top 10 Private Equity Firms by Assets Managed[1]		
Private Equity Co.	**Headquarters**	**Assets Managed ($bn)**
1. TPG Capital	Forth Worth, TX	$51.5
2. Goldman Sachs Capital Partners	New York, NY	$47.2
3. The Carlyle Group	Washington, DC	$40.5
4. Kohlberg Kravis Roberts	New York, NY	$40.2
5. The Blackstone Group	New York, NY	$36.4
6. Apollo Management	New York, NY	$33.8
7. Bain Capital	Boston, MA	$29.4
8. CVC Capital Partners	London, UK	$25.1
9. First Reserve Corporation	Greenwich, CT	$19.1
10. Hellman & Friedman	San Francisco, CA	$17.2

- Due to the likely size of capital investment needed to restart HOVENSA, private equity buyers would likely either be one of the largest (listed here) or a Consortium (which may also include the firms listed above).

[1] *As published by Private Equity International in 2011.*

Preliminary List of Buyers: Private Equity Firms

Buyer	LTM Financials ($bn)	Business Description	Recent Transactions	Relevant Oil & Gas Assets
The Carlyle Group (NasdaqGS: CG)	▪ Market Cap.: $0.996 ▪ EV: $14.65 ▪ Revenues: $2.8 ▪ EBITDA: $1.1 ▪ Managed Assets: $159+ bn ▪ Private Equity Managed Assets: $40.5+ bn	The Carlyle Group is a global alternative asset manager with more than $159 billion in assets under management across 94 funds and 63 fund of funds vehicles. Founded in 1987 in Washington, DC, Carlyle is one of the world's largest global investment firms, with more than 1,300 professionals operating in 32 offices. **Headquarters**: Washington, DC	▪ 7/3/2012: The Carlyle Group entered into a partnership with Sunoco Inc. to keep the Philadelphia refinery from closing. Carlyle will be the majority stakeholder.	▪ A majority stake in the Philadelphia refinery, the East Coast's oldest and largest refinery. The refinery has a processing capacity of 330,000 barrels of oil per day.
TPG Capital, L.P.	▪ Market Cap.: NA ▪ EV: NA ▪ Revenues: $0.31 ▪ EBITDA: NA ▪ Managed Assets: $51.5 bn	TPG Capital, L.P. is a private equity and venture capital firm specializing in private equity, venture capital, public equity, and debt investments. The firm seeks to invest in global companies with a focus on South America and Asia. It invests in all sectors, excluding start-ups and real estate, but including industrials, infrastructure, and energy. TPG Capital, L.P. was founded in 1992 and is based in Fort Worth, Texas. **Headquarters**: Switzerland	▪ 1/12/2012: Petro Harvester Oil and Gas, an oil focused exploration & production company formed by TPG Capital, acquired mature producing assets in North America	▪ TPG Capital acquired a 50% stake in Marathon Petroleum Company LP's Minnesota downstream assets in October 2010. The assets included the St. Paul Refinery (74,000 bpd) and the Minnesota pipeline. TPG Capital owns its stake through Northern Tier Energy LLC, a company formed by TPG Capital and its partner ACON Investments.

Preliminary List of Buyers: Private Equity Firms

Buyer	LTM Financials ($bn)	Business Description	Recent Transactions	Relevant Oil & Gas Assets
PBF Energy	▪ Market Cap.: NA ▪ EV: NA ▪ Revenues: $103.9 ▪ EBITDA: NA	PBF Energy Company LLC owns and operates oil refineries. The company identifies and executes investment opportunities in the petroleum sector. Owners include Blackstone Group, First Reserve and North Sky Capital **Headquarters**: NJ, United States	▪ 12/2/2010: Sunoco Inc. / Toledo Refinery / $525.0mm / United States ▪ 9/27/2010: Valero Energy Corp. / Valero Paulsboro Refinery / $363.0mm / United States ▪ 4/10/2010: Valero Energy Corp. / Delaware City Refinery, terminal and pipeline assets and powerplant complex / $220.0mm / United States	▪ Delaware City Refinery / capacity of 190,000 bpd and a Nelson complexity rating of 11.3, ▪ Paulsboro Refinery / capacity of 190,000 bpd and a Nelson complexity rating of 11.3, ▪ Toledo Refinery / capacity of 190,000 bpd and a Nelson complexity rating of 11.3
ACON Investments, LLC	▪ Market Cap.: NA ▪ EV: NA ▪ Revenues: NA ▪ EBITDA: NA ▪ Managed Assets: $0.5	Acon Investments, L.L.C. is a private equity firm specializing in growth capital, buyouts, turnarounds, private equity funds, special purpose partnerships, and private placements in distressed, mature, and middle market companies. In the energy sector, the firm seeks to invest in firms where commodity exposure can be reduced through hedging and other financial risk-mitigating instruments. Acon Investments, L.L.C. was founded in 1996. **Headquarters**: Washington, DC	▪ 3/12/2012: ACON Latin America Opportunities Fund, led a consortium of investors to acquire Hidrotenencias, S.A. who currently owns three run-of-the-river hydro projects in Panama.	▪ ACON Investments holds a 50% stake in Marathon Petroleum Company LP's former Minnesota downstream assets. The assets include the St. Paul Refinery (74,000 bpd) and the Minnesota pipeline. ACON Investments Capital owns its stake through Northern Tier Energy LLC, a company formed by ACON Investments and its partner TPG Capital.

Preliminary List of Buyers: Private Equity Firms

Buyer	LTM Financials ($bn)	Business Description	Recent Transactions	Relevant Oil & Gas Assets
Industry Funds Management	▪ Market Cap.: NA ▪ EV: NA ▪ Revenues: NA ▪ EBITDA: NA ▪ Managed Assets: $34+ bn	Industry Funds Management Pty Ltd. is a privately owned investment manager. The firm manages client focused portfolios. It also manages superannuation funds, infrastructure funds, private equity funds, and public equity mutual funds. The firm invests in the public equity, private equity, and fixed income markets across the globe with a focus in Australia. It typically invests in infrastructure sector. Industry Funds Management Pty Ltd. was founded in 2004 and is based in Melbourne, Victoria with additional offices in London, United Kingdom and New York, New York. The firm operates as a subsidiary of Industry Super Holdings Pty Ltd. **Headquarters**: Melbourne, Australia	▪ 6/26/2012: IFM committed to $22 million to finance the $400 million widening of M5 South West Motorway in New South Wales. ▪ 6/20/2012: IFM has closed a $90 million investment in a senior secured debt facility as part of the $1.2 billion refinancing of the ConnectEast Group.	▪ IFM owns a minority interest in the Colonial Pipeline, a petroleum products pipeline connecting refineries along the Gulf Coast extending to New Jersey.
Kohlberg Kravis Roberts & Co. (NYSE: KKR)	▪ Market Cap.: $3.1 ▪ EV: $4.8 ▪ Revenues: $0.535 ▪ EBITDA: $(0.7) ▪ Private Equity Managed Assets: $40.2+ bn	KKR is a private equity and venture capital firm specializing in acquisitions, leveraged buyouts, management buyouts, special situations, growth equity, mature, and middle market investments. The firm considers investments in all industries with a focus on industry-leading franchises and companies in all industries including natural resource, energy and infrastructure assets. In energy and infrastructure, it typically focuses in upstream production and surrounding services as well as in the long-lived infrastructure assets that provide critical links in the supply chain and electric and gas utilities. KKR. was founded in 1976. **Headquarters**: New York, NY	▪ 7/6/2012: Finedining Capital GmbH*, a holding company controlled by funds advised by KKR announced its intentions to make a voluntary public takeover offer for WMF AG, a global market leader for professional fully automated coffee machines and a European market leader for kitchen- and tableware.	▪ KKR Natural Resources holds Barnett Shale properties acquired from Carizo Oil & Gas for approximately $104 million. ▪ KKR & Co. and a trio of co-investors acquired $7.2 billion for Samson Investment Co., one of the largest closely held oil and gas explorers in the US.

IX. Bankruptcy Considerations

[1] ***This section of the report was completed by Duff & Phelps Securities LLC.***

Bankruptcy Implications for HOVENSA and the GVI

- A bankruptcy filing would have several implications for HOVENSA and the GVI (and the Territory's constituents).
- Despite the potential benefits to HOVENSA associated with a filing, it is unlikely that a bankruptcy filing will yield meaningfully positive results.

Implications for HOVENSA

- Any reorganization plan **seeking to provide HOVENSA's owners with more favorable treatment than the GVI is unlikely**
  - The bankruptcy code expressly prohibits junior stakeholders from a recovery when senior claimants are impaired unless the senior class agrees to this treatment
  - The GVI most likely has a blocking position in its class and would not consent to the confirmation of a plan that provides HOVENSA's owners with an inequitable recovery, effectively rendering impotent any plan that seeks to do so
- Similarly, in a **§363 asset sale, the same equitable principles of absolute priority apply**
  - Although the threat of a forced sale in bankruptcy might appear to create some leverage over the GVI, the waterfall of proceeds would have to repay senior creditors in full before HOVENSA's owners realized any recovery
- Given the reality of recovery prospects under the bankruptcy code, HOVENSA would likely **file chapter 11 only if:**
  - No out-of-court solution is foreseeable and HOVENSA's owners simply want to exit the situation, in which case they would just "throw the keys" to their creditors and allow the bankruptcy process to work through distributions and recoveries
  - The automatic stay provisions of the bankruptcy code are needed as a stop-gap to temporarily stave off the consequences that might result from the conclusion of other litigation matters

Implications for the GVI

- Given HOVENSA's stated intent, it is **unlikely that the GVI and other stakeholders will be able to change the course of the bankruptcy if it is the Company's will to no longer operate as a going concern**
- Although the GVI may have a blocking position in their class and may use this leverage to increase its recoveries through the process, it will **not be able to stop a liquidation if there is no ability or intent on the part of HOVENSA to rehabilitate** and continue as a going concern
  - The USVI could potentially recover a substantial amount on its claims, but liquidations are usually the lowest-case recovery scenarios
  - Nonetheless, if it is HOVENSA's intent to do so, it could demonstrate that a liquidation is in the best interest of the estate
- Moreover, if the Concession Agreement cannot be resolved, an **ostensible purpose of the bankruptcy could be to simply reject the government contract**, which would result in the loss of a number of terms favorable to the GVI, including the payment of property taxes, extension of the WAPA supply contract, and resident training
  - In the event the contract is rejected, the recovery to the GVI is unclear; while the GVI's contract claims could potentially be in the hundreds of millions of dollars or more, those claims could be compromised significantly
  - If left to the court to decide damages, the impairment to the GVI could far exceed the amount contemplated by a mutually agreed out-of-court settlement
- With respect to a §363 asset sale, although the sale itself may not produce a significant economic recovery to the GVI, a new operator of the facility **could have a positive result for the GVI and the region**
  - The §363 process is not quick, however, and the ancillary results of the process are not easily quantified

Bankruptcy Considerations in General

Ultimately, the purpose of the bankruptcy process is to reorganize or sell a viable post-emergence entity for the benefit of the debtor as well as its stakeholders. In this case, HOVENSA has expressed a desire to implement a course of action that ultimately amounts to a liquidation of the majority of its assets and operations rather than reorganizing as a new entity with a cleaned-up balance sheet.

- HOVENSA has threatened to file bankruptcy if negotiations do not result in a solution allowing for it to continue in existence as a storage terminal.

General Considerations

- Broadly speaking, the purpose of filing for chapter 11 bankruptcy is to restructure as a viable and ongoing entity.
- The bankruptcy process gives the benefit of the doubt to the debtor, while at the same time providing its key stakeholders with a court-supervised process with which to advance their interests with respect to the recovery of claims outstanding.
- In this instance, however, if HOVENSA has no intent to rehabilitate itself and reorganize – which it appears is the case – the purpose of the bankruptcy would simply be to unilaterally effect a liquidation and/or conversion if HOVENSA's intentions cannot be otherwise accomplished by the Concession Agreement.
- In addition to the substantial wind down costs (including approximately $900 million of closure costs), a bankruptcy will also take a long time, create significant uncertainty, and significant professional fees will be incurred.
- HOVENSA, although a joint venture between subsidiaries of Hess Corporation and PDVSA, is a separate legal entity.
  - Joint ventures are eligible to file for bankruptcy and, as such, both Hess Corporation and PDVSA, would remain out of bankruptcy.
  - Presumably, neither JV member would be materially affected by a filing, and creditors would not have recourse on assets outside of the joint venture estate unless there are any express claims against the parent companies (e.g., parent guarantee)

Bankruptcy Considerations: Form and Plan Issues

Issue	Comments and Observations
Form of Restructuring	▪ Ultimately, bankruptcies generally contemplate three primary scenarios: a going-concern sale pursuant to §363 of the bankruptcy code, a balance sheet reorganization, or a liquidation. – A **sale of the refinery** would be premised on a sufficient level of perceived value existing at HOVENSA as a going concern refinery. In this case the proceeds from the sale would pay creditors in order of priority. – A **reorganization** would right-size HOVENSA's balance sheet and allow it to emerge as a streamlined entity – An **orderly liquidation** would be pursued only if there are no interested buyers, or if a reorganization is deemed infeasible, unrealistic, or if it would yield lower recoveries than a liquidation ▪ In connection with the conversion to a storage facility, **this scenario would be HOVENSA's presumed path forward in bankruptcy** ▪ In a chapter 11 context, HOVENSA would liquidate assets not crucial to its role as a storage facility in an attempt to settle and dispose of its outstanding debts and other liabilities ▪ JV members would be expected to fund the associated closure and wind-down costs ▪ As currently contemplated, the proposed conversion into a storage terminal will **essentially amount to a form of liquidation outside of the context of chapter 11**
Plan and Confirmation Issues	▪ The total claim ultimately asserted by the GVI could be significant, accounting for the value of the WAPA fuel over the life of the contract. – WAPA estimates this could be as much as $50 million per year ▪ In the event of a chapter 11 reorganization, the GVI would likely constitute the largest unsecured claim against the bankruptcy estate, providing it with significant leverage in the voting and plan confirmation process. ▪ Generally speaking, confirming a plan would require the agreement of the GVI in order to meet the minimum consent threshold – two thirds in the face amount of claims outstanding and half in number of the creditors holding such claims. – Moreover, in this case, it is unlikely that any value would be available to the equity holders of HOVENSA, aside, perhaps, from a token amount given by the GVI in exchange for HOVENSA's consent to a chapter 11 plan that largely reflects the GVI's interest ▪ In this instance, however, and given HOVENSA's stated intentions, the largest threat to the GVI is likely that of a conversion to a chapter 7 proceeding. ▪ The bankruptcy code affords a debtor the absolute right to convert to chapter 7, and can be approved by the court over the objections of creditors.

Bankruptcy Considerations: Contract Rejections and Value

Issue	Comments and Observations
Executory Contracts	▪ In bankruptcy, debtors are largely vested with the power to assume or reject executory contracts and unexpired leases, though any action in this regard is subject to court approval. – HOVENSA has leveraged this ability to its advantage as it has threatened to file bankruptcy if current negotiations do not result in a Concession Agreement allowing it to continue in existence as a storage terminal ▪ As such, the ability for HOVENSA to reject its contract with the GVI needs to be thoroughly evaluated from a legal perspective as the implication of this right will have severe consequences on the course of a chapter 11 bankruptcy. ▪ If the court determines that it does in fact have this rejection right in bankruptcy, HOVENSA may favor rejecting its long-standing agreement with the GVI as opposed to amending the existing agreement. – If this occurs and if approved by the court, HOVENSA's obligations could be reduced – or eliminated altogether – but the GVI's claims would remain – Claims of this nature could be placed in a trust and remain unresolved for years ▪ In the event of successful rejection, the GVI and other affected constituents, including the WAPA and the unions, would have a general unsecured claim for HOVENSA's breach of contract damages. – Affected parties will have the right to object to any rejection motions and put their case on in front of the court
Valuation	▪ Valuation, in most cases, plays a pivotal role in either a sale or reorganization in a chapter 11 context. ▪ Here it would largely determine creditors' recoveries, including that of GVI in respect of any damages associated with the contract rejection, the unions, and WAPA. ▪ In the event of a sale, value will be determined by the highest and best offer received in an auction. ▪ In a reorganization, value will be determined by expert analyses and/or in connection with a new money raise

Bankruptcy Considerations: Labor and Environment

Issue	Comments and Observations
Labor	▪ Two unions – the United Steelworkers Union and the United Industrial Workers of the Seafarers International Union – employed the majority of HOVENSA's 2,000 employees. ▪ In a bankruptcy context, negotiations with labor would be a crucial component of this restructuring. ▪ HOVENSA is going to push hard against the unions for significant concessions, and argue that the restructuring of labor contracts is imperative to exiting bankruptcy.
Environmental Obligations	▪ HOVENSA is required to abide by certain environmental obligations, including compliance with applicable environmental laws and regulations of the US and the Virgin Islands and all permits, orders, and decrees issued pursuant to such laws and regulations. ▪ Importantly, HOVENSA is expected to abide by terms of the Consent Decree, including timely implementation of corrective measures costing an estimated $700 million, as well as the EPA's April 2012 Finding of Violation requiring an estimated $50 million in vapor recovery controls for the terminal operations, which in the event of a reorganization as a going concern would need to be addressed. ▪ The ability for HOVENSA to reject any of its environmental obligations – both in a bankruptcy context and with respect to larger issues of compliance with environmental protections – needs to be thoroughly evaluated.

Appendix A

Transaction Descriptions

Refinery Transactions: Proposed Joint Venture

July 2012: Carlyle Group LP agrees to take a Majority Stake in a newly formed Joint Venture with Sunoco in exchange for an undisclosed capital investment

- No cash consideration will be provided to Sunoco (who retain a 33% minority interest in the Joint Venture) in the transaction that will keep the 330,000 barrel per day refinery open
- Capital investments to be funded by Carlyle (estimated at more than $200 million) include:
  - Construction of a high-speed unloading rail facility to handle Midwest shale oil
  - Conversion of a middle distillate hydrotreater into a mild hydrocracker
  - Construction of a natural gas-based hydrogen plant
  - Upgrade of the plant's catalytic cracker
- Local support for the deal included $25 million of state incentives and a new labor contract
- JP Morgan Chase & Co will manage crude supplies and fuel sales for the Joint Venture
- In two years, it is planned that approximately 20% of feedstock will be domestic Midwest oil (rather than 100% import currently)
- Power for the facility will be generated from gas sourced from the Marcellus Shale rather than oil
- Upgrades will also allow the refinery to increase its output of higher quality low-sulfur diesel, a growing market

Refinery Transactions: Proposed Sale

May 2012: PetroChina Company Ltd. made an offer to acquire the idle Aruba Refinery from Valero Energy Corp.

- In May 2012, PetroChina Co. Ltd. made a non-binding indication of interest to purchase the idle Aruba Refinery from Valero Energy Corp. for $350 million. PetroChina would semi-process Venezuelan crude at the Aruba refinery and then ship the product to China where further refining would be completed
- On May 8, Valero said that it had accepted a non-binding offer of $350 million for the Aruba facility, but did not identify the company
- In March 2012, the Aruba refinery was idled due to due to poor profit margins that have plagued refiners in Europe, the Caribbean and on the US East Coast
- The Aruba refinery was also shut down in 1985 by Exxon and restarted in 1990 by Coastal Oil. It was purchased by Valero from El Paso Energy in 2004. Nearly $500 million had been invested by Valero since the acquisition to improve safety, reliability and profitability
- The Aruba refinery processed lower-cost heavy sour crude oil and produced a high yield of finished distillate products and valuable intermediate feedstocks that can be marketed in the US Gulf Coast, Florida, the New York Harbor, the Caribbean, South America and Europe. Prior to shutdown, the Aruba refinery employed approximately 780 individuals, had a throughput capacity of 235,000 BPCD, and a complexity of 8.0
- The refinery has two deepwater marine docks with capacity for ultra-large crude carriers, six docks for refined products, a truck rack for local sales, and sixty-three storage tanks with almost 12 million barrels of storage capacity

Refinery Transactions: Comparable Sale No. 1

May 2012: Trainer, Pennsylvania Refinery Acquired by Delta Airlines from Phillips 66 Co.

- In May 2012, Phillips 66 Co. agreed to sell the Trainer, Pennsylvania refinery to Delta Air Lines, Inc. for $180 million. Delta Air Lines has formed a wholly owned subsidiary, Monroe Energy LLC, to purchase the facility and has received $30 million in state government assistance for job creation and infrastructure improvement from the Commonwealth of Pennsylvania. Monroe expects to close on the acquisition in the first half of 2012

- In September 2011, the Trainer refinery was idled due to severe market pressure on East Coast. Monroe Energy plans to invest another $100 million to restart the refinery and to convert existing infrastructure to maximize jet fuel production. The refinery is expected to reopen by September 2012. As such, $100 million was added to the purchase price to arrive at a total price consideration of $280 million

- The Trainer refinery is located on the Delaware River in Trainer, Pa., about 10 miles southwest of downtown Philadelphia. The acquisition includes pipelines and other transportation assets, which will provide access to Delta's jet fuel delivery network throughout the US Northeast, including the airline's hubs at LaGuardia and JFK airports in New York City

- The refinery facilities include fluid catalytic cracking, hydrodesulfurization units, a reformer and a hydrocracker that enable it to produce a high percentage of transportation fuels, such as gasoline, diesel fuel and jet fuel. Other products include home heating oil and low-sulfur fuel oil. Refined products are primarily distributed to customers in Pennsylvania, New York and New Jersey via pipeline, barge and railcar

Refinery Transactions: Comparable Sale No. 2

October 2011: Meraux, Louisiana Refinery Acquired by Valero from Murphy Oil

- In October 2011, Murphy Oil sold the Meraux, Louisiana refinery to Valero for $325 million. In addition to the refinery, the purchase price includes an adjacent product terminal, a 20% equity interest in the Collins Product Pipeline and terminal, and a 3.2% interest in the Louisiana Offshore Oil Port
- The Meraux refinery is located on 550 acres just southeast from New Orleans. It has a dock on the Mississippi River and pipeline capability to Collins, Mississippi. On the river, the distance is approximately 40 miles from the Valero St. Charles Refinery
- The facility was originally constructed in the 1920s and was acquired by Murphy Oil in 1961. Today, it has the ability to process medium sour crude and produce significant yields of premium products. The refinery employs approximately 315 individuals, has a throughput capacity of 125,000 BPCD, and a complexity of 9.6
- The Meraux refinery has the only three stage Residual Oil Supercritical Extraction (ROSE) unit operating in the US This unit fractionates vacuum tower bottoms into asphaltene, resin, and a lighter product, deasphalted oil
- The Meraux Refinery had significant infrastructure investments after Hurricane Katrina in 2005. This included a nearly total replacement of the electrical systems, tankage and utilities, as well as additional investments to increase reliability at the refinery

Refinery Transactions: Comparable Sale No. 3

March 2011: Toledo, Ohio Refinery Acquired by PBF Energy from Sunoco

- In March 2011, Sunoco sold the Toledo, Ohio refinery to PBF Energy for $400 million. The purchase terms also include a participation agreement for an additional $125 million depending on the future financial performance of the refinery. Assuming maximum payout, the present value of $125 million over the eight year term of the participation agreement at 10% results in $83.4 million as of the date of the transaction. Therefore, the maximum sale price of the refinery would be $483.4 million
- The refinery is located on approximately 400 acres, 91 miles west of Cleveland, Ohio. Sunoco, as part of the Diamond Oil Company, originally purchased the Toledo Refinery in 1894
- The refinery employs approximately 600 individuals, has a throughput capacity of 170,000 BPCD, and a complexity of 9.3. It produces gasoline, diesel fuel, kerosene, propane, and residual fuels. The refinery also manufactures petrochemicals, which are then sold to chemical companies
- Major process units include a fluidized catalytic cracking (FCC) unit, a high pressure hydrocracker, a gasoline hydrotreater, two reformers, an alkylation unit, and a UDEX unit (an aromatics extraction unit). There are approximately five million barrels of crude oil and product storage at the refinery
- The Toledo refinery spent over $200 million on capital improvement projects since 2007. The refinery installed a $40 million scrubber and Selective Catalytic Reduction (SCR) addition onto the FCC. It also added a $50 million tail gas unit onto the existing sulfur recovery unit and built an additional sulfur recovery unit and tail gas unit. Additionally, the refinery added a naphtha hydrotreater and increased capacity on the crude distillation unit

Refinery Transactions: Comparable Sale No. 4

December 2010: Paulsboro, New Jersey Refinery Acquired by PBF Energy from Valero

- In December 2010, Valero sold the Paulsboro, New Jersey Refinery to PBF Energy for $340 million. An additional $367 million was paid for the inventory and net working capital
- The Paulsboro Refinery commenced operations in 1917; however, almost all of its operating equipment was put in-service after World War II. The refinery was originally designed to produce lubricants and was later updated to manufacture gasoline. Major construction occurred in the 1970s and 1980s on four new process units as well as eleven existing units. The refinery was acquired by Valero from Mobil Corporation in 1998 for $228 million
- The refinery is located on 950 acres in southern New Jersey on the Delaware River and has access to transportation by pipeline, ship, barge, truck, and rail
- The refinery employs approximately 510 individuals and has a throughput capacity of 166,000 BPCD. The refinery has a 11,500 BPCD lubricant processing capability and an overall complexity of 13.5
- The refinery spent over $700 million on major capital improvement projects since 2003. The Paulsboro Refinery installed a scrubber and SCR on the FCC and added a gasoline Hydrotreater as part of a Clean Fuels Project. The refinery also added a 32,000 BPSD Continuous Catalytic Reformer and upgraded a Naphtha Hydrotreater in 2004

Refinery Transactions: Comparable Sale No. 5

December 2010: St. Paul Park, Minnesota Refinery Acquired by Northern Tier Energy from Marathon

- In December 2010, Marathon sold the St. Paul Park, Minnesota Refinery to Northern Tier Energy for $935 million. The sale price includes:
  - The St. Paul Park Refinery and associated terminals
  - 233 SuperAmerica convenience stores
  - SuperMom's bakery
  - 17% interest in the 300-mile Minnesota Pipeline system owned in conjunction with Flint Hills Resources (consists of four crude oil pipelines of 16-inch and 24-inch diameter)
  - Inventory associated with operations ($300 million of the total reported purchase price)
- The purchase terms also include a participation agreement for an additional $125 million depending on the future financial performance of the refinery. Assuming maximum payout, the present value of $125 million over the eight year term of the participation agreement at 10% results in $83.4 million as of the date of the transaction. Therefore, $83.4 million was added to the announced purchase price to yield the maximum sale price of the refinery
- The St. Paul Park Refinery was built in 1939 by Northwestern Refining. It was acquired by Ashland Petroleum in 1970 and became fully-owned by Marathon in 2005
- The refinery's throughput capacity is 74,000 BPCD and has a complexity of 11.4. The refinery's primary products are gasoline and diesel fuel. Refinery operations include crude fractionation, catalytic cracking, hydrotreating, reforming, alkylation, sulfur recovery, and a hydrogen plant

Refinery Transactions: Comparable Sale No. 6

June 2010: Delaware City, Delaware Refinery Acquired by PBF Energy from Valero

- In June 2010, Valero sold the Delaware City, Delaware refinery to PBF Energy for $220 million, of which $50 million was allocated to a 218 MW Integrated Gasification Combined Cycle (IGCC) power plant that was constructed in 2000
- In October 2011, the Delaware City Refinery reopened after closing in November 2009 after Valero failed to find a buyer. However, restart of the plant was originally expected in April of 2011 with plans to include a biofuels and biodiesel plant. A maintenance turnaround, which will include a complete refurbishing of the closed refinery, was estimated to cost up to $150 million. As such, $150 million was added to the purchase price to arrive at a total price consideration of $320 million
- The Delaware City Refinery was built in 1957. The plant produces conventional and reformulated gasoline, diesel, low sulfur diesel, and home heating oil. The refinery is located on 5,000 acres on the Delaware River and has access to transportation by pipeline, barge, and truck-rack facilities. Before the shutdown, the refinery employed approximately 570 individuals, had a throughput capacity of 210,000 BPCD and has an overall complexity of 10.9
- In 2005, Valero acquired the Delaware City Refinery as part of its acquisition of Premcor. Valero had spent over $450 million on capital improvements between 2005 and 2009, including $200 million each on flue gas scrubbers for the FCC Unit and the Fluidized Coker

Refinery Transactions: Comparable Sale No. 7

December 2009: Tulsa, Oklahoma Refinery Acquired by Holly Corporation from Sinclair Oil Corporation

- In December 2009, Sinclair Oil Corporation sold the Tulsa, Oklahoma refinery to Holly Corporation for $128.5 million
- The Tulsa Refinery was originally constructed in 1910. Since 2004, $300 million has been spent at the refinery in upgrades and regulatory mandates
- The refinery has pipeline connection to the Cushing crude oil hub as well as access for refined products to the Midwest via the Magellan pipeline
- At the time of sale the refinery has a 70,000 BPCD capacity and a complexity of 6.5
- In June 2009, Holly bought Sunoco's Refinery (Comparable Sale No. 7) two miles up the Arkansas River from the prior Sinclair Refinery for $65 million. Holly plans to integrate the two refineries by pipeline. The combined facility is planned to operate at 125,000 BPCD throughput capacity

Refinery Transactions: Comparable Sale No. 8

June 2009: Tulsa, Oklahoma Refinery Acquired by Holly Corporation from Sunoco

- In June 2009, Sunoco sold the Tulsa, Oklahoma refinery to Holly Corporation for $65 million. Holly is projected to spend $125.6 million in deferred maintenance at the refinery in order to bring the refinery into compliance. As a result, $125.6 million was added to the purchase price to arrive at a total price consideration of $190.6 million
- The Tulsa Refinery was originally constructed in 1913. It produces a combination of specialty lubricants as well as transportation fuels
- The refinery has pipeline connection to the Cushing crude oil hub as well as access for refined products to the Midwest via the Magellan pipeline
- At the time of sale the refinery had a 85,000 BPCD capacity and a complexity of 10.4
- In December 2009, Holly bought Sinclair's Refinery (Comparable Sale No. 6) two miles down the Arkansas River from the prior Sunoco Refinery for $128.5 million. Holly plans to integrate the two refineries by pipeline. The combined facility is planned to operate at 125,000 BPCD throughput capacity

Refinery Transactions: Comparable Sale No. 9

July 2008: Krotz Springs, Louisiana Refinery Acquired by Alon USA from Valero

- In July 2008, Valero sold the Krotz Springs, Louisiana refinery to Alon USA for $333 million. The transaction also included an earn-out provision estimated at potentially more than $100 million, plus $140 million for working capital and inventories. The status of the earn-out provision was not clear at the time of the sale and was eventually renegotiated and amended to $35 million in August 2009. As a result of the ambiguity and uncertainty surrounding the provisions of the earn-out for more than a year after the transaction closed, no adjustment was made to the sale price to account for the earn-out
- The actual price of the refinery less intangibles is estimated to be $299.7 million
- The Krotz Springs Refinery was built in 1955 and is one of the newest grass roots refineries in the United States. The majority of its process units were constructed or expanded in the 1980s and 1990s. It is a highly reliable and low cost refinery with a 95% light product yield and is ranked among the lowest in operating costs. The refinery is strategically located with access to crude supply as well as multiple demand centers in the Southeast and East coast
- The refinery has a processing capacity of 83,000 BPCD and a complexity of 6.6, processing primarily light, sweet crudes. Approximately 225 individuals are employed at the refinery

Terminal Transactions: Comparable Sale No. 1

February 2012: Perth Amboy, New Jersey Marine Terminal Facility Acquired by Buckeye Partners from Chevron

- Buckeye Partners, L.P.'s subsidiary, Buckeye Tank Terminals LLC agreed to acquire a marine terminal facility for liquid petroleum products in New York Harbor from Chevron USA for $260 million in cash
- The facility sits on approximately 250 acres on the Arthur Kill in Perth Amboy, New Jersey. It has approximately four million barrels of tankage, including about 2.7 million barrels of active refined product storage and about 1.3 million barrels of refurbishable storage, four docks (one ship, three barge - one currently out of service), and undeveloped land available for potential expansion
- The facility has water, pipeline, rail and truck access. It is located about six miles from Buckeye's Linden, NJ complex
- Buckeye plans to transform the existing terminal operations into a multi-product storage, blending and throughput facility through the investment of approximately $200-225 million over the next three years

Terminal Transactions: Comparable Sale No. 2

June 2011: Westville, New Jersey Terminal Facility Acquired by Sunoco Logistics Partners from Sunoco Inc.

- Sunoco Logistics Partners L.P. (SXL) agreed to acquire the Eagle Point tank farm and related assets in Westville, N.J. from Sunoco, Inc. for approximately US$100MM in deferred distribution units. Distributions are not paid on the deferred distribution units used to finance this transaction. The units convert to SXL common LP units on the one-year anniversary of their issuance
- The Eagle Point tank farm consists of approximately 5 MMbbls of active storage
- The transaction implies a deal value of US$20 per acquired bbl of storage
- The sale of the Eagle Point tank farm and related assets excludes the idled refinery processing units and still-operational 225-MW cogeneration facility. Sunoco is pursuing the sale of both the processing units and co-generation facility

Terminal Transactions: Comparable Sale No. 3

June 2011: East Boston, Massachusetts Terminal Facility Acquired by Sunoco Logistics Partners from Concoco Phillips

- Sunoco Logistics Partners L.P. has agreed to acquire a refined products terminal in East Boston, Massachusetts from ConocoPhillips
- The price of the terminal transaction is US$56 million, plus the fair market value of inventory
- The East Boston terminal has storage capacity of approximately 1.2 MMbbls
- It is the sole service provider for Logan International Airport under a long-term contract. The terminal's truck rack services local markets
- The transaction implies a deal value of US$47 per acquired bbl of storage capacity

Terminal Transactions: Comparable Sale No. 4

February 2011: Oklahoma Terminal Facility Acquired by Kinder Morgan Energy Partners from Deeprock Energy Resources and Mercuria Energy Trading

- Kinder Morgan Energy Partners, L.P. (KMP) agreed to acquire a 50% stake in a 1 MMbbl crude oil tank farm in Oklahoma from Deeprock Energy Resources LLC and Mercuria Energy Trading, Inc.
- The transaction price is $25 million
- The companies also agreed to form a joint venture to construct three new storage tanks that will have an incremental storage capacity of 750,000 bbls
- Deeprock will be the construction manager and will continue to operate the existing terminal. Mercuria will remain the anchor tenant for the capacity for the next five years with an option to extend. Kinder Morgan has also entered into a development agreement with Deeprock that gives Kinder Morgan an option to participate in future expansions on Deeprock's remaining 254 acres of undeveloped land
- The transaction implies a deal value of $50 per acquired bbl of storage capacity

Terminal Transactions: Comparable Sale No. 5

June 2010: Blakely Island, Alabama Terminal Facility Acquired by Nustar Energy from Denham Capital

- NuStar Energy L.P. has agreed to acquire private equity firm Denham Capital's equity holdings in Asphalt Holdings, Inc. for $44.1 million. The acquisition is expected to be immediately accretive to NuStar Energy's distributable cash flow per unit
- The acquired operations involve the receipt, storage, and distribution of asphalt and crude oil via marine vessels, barges, tank trucks, and rail cars
- The acquisition provides NuStar with three storage terminals that include 24 storage tanks with a total capacity of approximately 1.8 million barrels. Additionally, the terminals have rail- and truck-loading facilities and three docks with barge or ship access
- The facilities are located in Alabama on 17 acres of land on Blakeley Island on the east bank of the Mobile River and another 28.5 acres at the Port of Chickasaw
- The transaction implies a deal value of $24.50 per acquired bbl of storage capacity
- NuStar is a publicly-traded limited partnership based in Texas. It has 8,417 miles of crude oil and refined product pipeline, 89 crude oil and refined product storage facilities and petroleum and specialty liquids storage and terminaling business, with approximately 93 MMbbls of storage capacity, and two asphalt refineries with a combined throughput capacity of 104,000 barrels per day. The partnership's combined system has approximately 93 MMbbl of storage capacity. It operates in the US, the Netherlands Antilles, Canada, Mexico, the Netherlands and the United Kingdom

Terminal Transactions: Comparable Sale No. 6

September 2009: Weirton, West Virginia Terminal Facility Acquired by World Point Terminals from Apex Oil

- World Point Terminals, Inc.'s wholly owned subsidiary, Center Point Terminal Company acquired a 680,000 barrel petroleum storage facility located in Weirton, West Virginia from Petroleum Fuel & Terminal Company, a wholly owned subsidiary of Apex Oil Company, Inc.
- The transaction price was for $9.14 million. Mr. Novelly is the Chairman of both WorldPoint Terminals and Apex Oil
- In June 2009, Center Point acquired approximately 10.62 acres of land underlying the terminal facility from ArcelorMittal Weirton, Inc. for $743,000, subject to the remaining term of a land lease to the Apex Oil subsidiary
- The transaction implies a deal value of US$13.4 per acquired bbl of storage capacity

Terminal Transactions: Comparable Sale No. 7

August 2009: Newburgh, New York Terminal Facility Acquired by Global Partners from Warex Terminals

- Global Partners LP agreed to acquire three terminal facilities from Warex Terminals Corp.
- The transaction price is $47.5 million. Warex Terminals is a subsidiary of Warren Equities, Inc.
- The terminals are located in Newburgh, New York and have a combined gasoline and distillate storage capacity of 950,000 bbls
- Under the terms of the agreement, Global and Warex will enter into a long-term throughput contract that allows Warex to use the terminals to service its existing business and to conduct future wholesale activities

Terminal Transactions: Comparable Sale No. 8

June 2011: Tulsa, Oklahoma Terminal Facility Acquired by SemGroup Energy Partners from SemCrude

- Master limited partnership (MLP) SemGroup Energy Partners, L.P. (SGLP) agreed to acquire additional crude oil storage from SemCrude, L.P. for $90 million
- SemCrude, L.P. is a subsidiary of privately owned SemGroup, L.P. SemGroup Energy Partners G.P., L.L.C. is the general partner (GP) of SGLP. The GP has approved this transaction
- The additional storage comprises 2.0 MMbbl of newly constructed crude oil storage at the Cushing Interchange in Oklahoma, near Tulsa. According to SGLP, the acquisition involves eight crude oil tanks, each with an individual capacity of 250,000 barrels. The acquisition will increase SGLP's total storage capacity to approximately 15 MMbbl. Approximately 7 MMbbl of SGLP's storage will be within the Cushing Interchange
- In connection with the acquisition, SemCrude L.P. will transfer a third-party storage agreement to SGLP at closing. Under the take-or-pay fee-based agreement, SGLP will provide terminaling and storage services using substantially all of the newly acquired storage which is located in Cushing's north tank farm
- SGLP owns and operates terminaling and storage services, and crude oil gathering and transportation services. It is based in Tulsa, Oklahoma. SemCrude L.P. purchases crude oil and condensates from independent producers, operators, aggregators and independent refiners. It stores crude oil primarily at the Cushing Interchange
- The transaction implies a deal value of $45 per bbl of acquired storage capacity

Terminal Transactions: Comparable Sale No. 9

December 2010: Freeport, Bahamas Terminal Facility Acquired by Buckeye Partners from First Reserve Corporation

- Private investment firm First Reserve Corp agreed to sell its 80% equity interest in the Bahamas Oil Refining Company oil storage terminal (BORCO) to Buckeye Partners for $1.36 billion in units and cash
- BORCO is a 21.6 MMbbl (17.3 MMbbl net to the 80% interest) storage terminal for crude oil, fuel oil and other petroleum products in Freeport, Bahamas. The BORCO terminal is located along the Northwest Providence Channel of the Grand Bahama Island
- It stores fuel oil (64% of total), crude oil (23%) and clean petroleum products (CPP) (13%). In addition to storage, the BORCO terminal has berthing, heating, transshipment, blending, treating, and bunkering services. The facility also has an inland dock with an approximate 650-foot berth located in Freeport Harbor
- Buckeye plans an expansion project for the terminal over the next two to three years that would add about 7.5 MMbbls of petroleum product storage, increasing the total capacity to approximately 29 MMbbls. The expansion is expected to be completed at a cost of approximately $400 million, and to generate incremental Adjusted EBITDA of $70 million to $80 million per year. According to Buckeye, there is also room on unused land to install about 13 MMbbls of additional storage capacity
- The transaction implies a deal value of about $78 per acquired bbl of storage capacity. On a 100% ownership basis, BORCO is expected to generate adjusted EBITDA of $138 million ($108.8 million net to the 80% interest) in 2011, implying a forecasted 2011 EBITDA multiple of 12.5x for the transaction

Terminal Transactions: Comparable Sale No. 10

July 2009: Freeport, Bahamas Terminal Facility Acquired by StatoilHydro from World Point Terminals

- StatoilHydro has signed a stock purchase agreement with Canadian company World Point Terminals Inc to acquire the South Riding Point crude oil storage and transshipment terminal located on Grand Bahama Island in the Bahamas for NOK 1.7 billion ($263.2 million)
- The acquisition includes the South Riding Point terminal and World Point's 50% interest in the Freepoint Tug and Towing Service tug boat business, both located on Grand Bahama Island
- The terminal is located 35 miles east of Freeport on the southern part of the Island on property leased from a corporation controlled by the government of the Bahamas. The terminal has 10 storage tanks that store 6.75 MMbbls of crude oil that arrives from the North Sea, the Middle East, and North Africa, before delivery to North America. The facility also has a "break-bulk" point for transshipment operations in which crude is transferred to smaller shuttle-sized vessels able to obtain shallow water access to the US gulf coast and east coast ports. It also has 5 tugs and 2 berths; one for Very Large Crude Carriers (VLCC)
- The tug boats provide tug services to support the ship movements for crude oil for transshipment at the terminal, and also operate in the container port in Freeport Harbour. The terminal consists of an onshore crude oil tank farm coupled to an offshore "sea island" docking facility by two 36-inch submarine pipelines. The man-made "sea island" is located 4,000 feet offshore in water depths of 105 feet at its outer berth and can handle oil tankers of sizes up to 500,000 tons dwt
- The terminal has been in operation since 1975. StatoilHydro has leased storage capacity at the terminal since 1993. StatoilHydro expects the acquisition to strengthen its marketing and trading position in North America. It plans to upgrade the terminal to allow for blending of all types of crude oils, including heavy oils
- The acquisition implies an estimated deal value of about US$38 per acquired bbl of storage capacity
- The transaction is conditional upon a long term extension of the ground lease with the Bahamian government on terms acceptable to StatoilHydro, as well as satisfactory due diligence, and the receipt of Bahamian governmental approvals and clearances. StatoilHydro expects to receive all required governmental approvals during the 3Q 2009, and it expects the transaction to close by 31 December 2009
- StatoilHydro expects the acquisition to strengthen its marketing and trading position in North America. It plans to upgrade the terminal to allow for blending of all types of crude oils, including heavy oils

Appendix B

Refining Industry Overview

Refining Industry Analysis

According to Standard & Poor's Industry Surveys – *Oil & Gas: Production & Marketing*, March 29, 2012:

- After growing slowly in 2010, global refining capacity contracted slightly in 2011 for first time in nearly 10 years, according to the OGJ. Worldwide refining capacity fell by 175,000 b/cd, to 88.05 million b/cd. The total number of refineries fell by seven to 655

- Western Europe lost a net of two refineries in 2011, while total capacity for its plants fell by more than 225,000 b/cd. In North America, four refineries were closed, with a loss of 55,000 b/cd in capacity. Although no new refineries started in Asia in 2011, several new ones were in various stages of planning and construction. In terms of capacity addition, Asian refineries added 44,000 b/cd, while Middle Eastern refineries added more than 32,000 b/cd

- As the global refining market restructures amid sharply reduced demand and new and evolving product requirements, less efficient and flexible facilities worldwide are being permanently shut-in, while newer plants are being brought on-stream in emerging markets in India, China, Brazil, Russia, and the Middle East. In 2011, capacity growth occurred almost entirely in Asia and the Middle East, where new capacity was added and existing refineries expanded to meet anticipated market growth in these regions. In contrast, North America (mainly the US) and Western Europe saw the closing of several refineries

- Much of the decline in capacity in 2011 was in OECD countries, where the global recession hit the hardest. The US and European debt crises, in particular, rattled Western European and North American financial markets, impacting the oil industry. Refinery utilization rates were particularly hard hit in the US, Japan, and Europe, where refineries were operated by commercially sensitive operators, such as the IOCs. There was apparently no place to hide, and even the supermajor oils felt the downstream losses

- Refiners today need size and technology to generate the operational efficiencies required to remain competitive. The sector has seen much consolidation over the past two decades, resulting in the closure of older and smaller refineries

- Data from the US EIA and the OGJ indicate that the total number of US refineries dropped from 204 in 1989 to 149 in 2003, and then declined to 125 in 2011. US refining capacity, however, rose: from 15.66 million b/cd in 1989 to 17.78 million b/cd in 2011. During this period, the average refinery size more than doubled, from 57,000 b/cd in 1981 to 129,500 b/cd in 2011

- Using data from the US EIA and the OGJ, refinery utilization averaged around 90% from 2005 through 2007, but dropped to around 86% in 2011, reflecting reduced global demand. In general, refinery operational efficiencies tend to become optimized at rates in the high 80% to low 90% range. Thus, US refiners have moved down to a less profitable operating range, and as a result, we look for more refinery curtailments in order to restore balance to the market in the Western Hemisphere

Refining Industry Analysis

According to IBISWorld Industry Report – Oil & Gas: Petroleum Refining in the US, April, 2012

- The Refining industry has been gaining pace over five years to 2012, with revenue expected to grow an average of 3.2% annually to $725.1 billion. Revenue is anticipated to grow an average of 2.3% annually to $813.1 billion in the five years to 2017

- In the US, disposable income has risen (albeit slowly) and consumers are driving more, increasing the total number of miles driven. In turn, many refiners have passed along price increases down to distributors as demand for transport fuels expands

- Sharp increases in crude oil prices have complicated profit margins for industry players. As crude oil prices have fluctuated, industry firms have had to pass along the cost to distributors or take cuts to profit margins. Standalone refiners were particularly exposed to the fluctuations because the price they paid for crude oil was very volatile

- Refiners that were able to secure West Texas Intermediate ("WTI") crude oil are expected to enjoy higher profit during 2012 as WTI was, and still is, priced at a significant discount compared with other types of crude oil as there has been an oversupply of WTI crude. This trend has benefited refiners in the Midwest US

- During a period of rising prices, refiners that can process sour crude and turn it around for less than refined products made from sweet crude have the upper hand. As such, industry firms have expanded the capacity of their refineries to be able to process sour crude with the expectation that sour crude prices will not grow as fast as sweet crude

- In response to dwindling profit margins over the past five years, many industry firms sold or idled refineries. During the height of the recession and amid low demand for refined products, operators shed excess capacity to stay afloat. Additionally, many have plans to sell more refineries during 2012 as these firms have had continued trouble turning profit at their refineries

- Regulations stipulating the inclusion of renewable fuels will pose more of a challenge during the next five years. Industry players that can integrate these fuels according to government mandate will be competitive. Firms will also need to cope with renewable fuel mandates that will raise the cost of producing these fuels as they pass down costs

Refinery Shutdowns, Sales, and Capacity Reductions

According to Standard & Poor's Industry Surveys – Oil & Gas: Production & Marketing, March 29, 2012:

- ***BP*** → "In early 2011, BP announced that it intends to reposition its downstream business in the US and divest two of its US refineries to better align with changing trends in global demand. It intends to seek buyers for two refineries (Texas City, Texas, and the Carson refinery near Los Angeles), and its associated integrated marketing business in southern California, Arizona, and Nevada. Subject to regulatory and other approvals, BP plans to complete the sales by the end of 2012, thus reducing its US refining capacity by 50%"

- ***Royal Dutch Shell*** → "Since 2009, Royal Dutch Shell has been restructuring its downstream operations to focus on fewer and more profitable markets with growth potential (Asia-Pacific) through disposal of $8 billion in non-core assets and selective growth investments"

- ***Total*** → "In early 2010, Total SA said that there was not much hope for refinery margins in the Western Hemisphere to recover without further capacity closures in the region. As a result, Total plans a reduction of its global refining capacity. It plans to lower its gasoline output by 60% and has put up its UK Lindsay refinery for sale, which will cut its refining capacity by 20%. Total agreed not to sell or close any of its French refineries over the next five years"

- ***ConocoPhillips*** → "In July 2011, the company's board of directors approved a plan to separate the Refining & Marketing and Exploration & Production businesses into two stand-alone, publicly traded corporations via a tax-free spin-off of the refining and marketing business to ConocoPhillips shareholders. The company plans to reduce downstream exposure to 15%–20% of its total exposure (down from 20%–25% historically). The spin-off is expected in the second quarter of 2012"

- ***Chevron*** → "In 2010, Chevron implemented a plan to restructure its global downstream business to make it smaller and less complex. In August 2011, Chevron closed on a deal for Valero Energy Corp. to buy Chevron Ltd., the entity that holds the 220,000 barrel–per-day Pembroke refinery and other downstream assets in the UK and Ireland. The sale price was $730 million, plus an additional payment estimated to be $1 billion for Chevron Ltd.'s inventory and other items"

- ***Motiva*** → "In March 2009, Motiva Enterprises LLC announced it was delaying for more than two years the 2011 completion date for a planned addition to its refinery in Port Arthur, Texas. In May 2011, the company announced that it had completed the placement of the expansion project's 375-foot tall delayed-coker, which has a capacity of 95,000 b/d. The end result will be a refinery complex that can process 600,000 barrels of crude oil per day, making it the largest in the nation. It is expected to be completed in 2012"

- ***Sunoco*** → "In late 2009, Sunoco Inc. permanently shut down its Eagle Point refinery at Westville, New Jersey, and by early 2010, the company sold most of its chemical business to Braskern S.A. In September 2011, Sunoco announced plans to shut down or sell its two remaining refineries, the Philadelphia and Marcus Hook plants. As of early 2012, Sunoco was still looking for a buyer"

- ***Valero*** → "In 2010, Valero sold its terminal operations; discontinued operations at its refinery in Delaware City, Delaware; and sold its refinery in Paulsboro, New Jersey. In August 2011, Valero acquired Chevron Ltd. from Chevron Corp. (see above for details)"

- The IEA estimates that a global refining capacity overhang is expected to remain in the market for at least five years. According to June 2011 data, the IEA projected 25%–30% of OECD refining capacity would be "temporarily" idled by 2014, compared with only about 20% in the non-OECD regions

End of the "Golden Age" of Refining – Return to Volatility

According to The Wall Street Journal article, "Valero to Shut Aruba Refinery", March 19, 2012:

- "The refining industry has been grappling with major shifts in fuel demand and in energy production that have wiped out the profitability of such former refining hubs as the US East Coast and the Caribbean"
- "Caribbean refineries in particular lack access to the cheap natural gas, used as feedstock in fuel production, that have helped make US Gulf Coast refineries competitive"
- "The island refineries are also missing the bonanza experienced by some refiners in the US interior, which enjoy access to a glut of West Texas Intermediate crude that trades far below global crude prices"

According to The Bloomberg Businessweek article, "Record Glut of Oil Refineries Selling at 80% Discount", February 22, 2011:

- "Oil companies from Chevron Corp to BP PLC are selling more refineries than at any time in history even as a rebound in demand for gasoline and diesel pushes profits from running the plants to the highest level since 2007"
- "A glut of refineries put up for sale by integrated oil companies after the global recession dragged down profits are now available for 80.0% less than they fetched in 2006"
- "Since October 2010, margins at refineries in the central and southern US have swelled more than in other regions because of a glut of crude stored in Cushing, Oklahoma that cannot be accessed by the Gulf Coast"
- "While prices for refineries have started to inch up as the rebound in energy demand boosts margins, assets are still cheap relative to future profitability. 'Each refinery has gotten a little more expensive as the cycles healed,' according to Tony James, president of New York based Blackstone. 'But we still think we are at the low' part of the refining cycle James said in a February 3, 2011 conference call with analysts and investors"

Recent Developments & Considerations

Multitude of Atlantic Basin Refinery Closures Recently

- In September 2011, ConocoPhillips announced intentions to idle and sell its Trainer refinery in the Philadelphia, PA area. The company cited challenging economics that do not support continued operation of the refinery as reasons for idling and selling the refinery.[1] The Trainer refinery was subsequently acquired by Delta.

- In December 2011, Sunoco announced intentions to idle and sell its Marcus Hook, PA refinery. In addition, Sunoco announced plans to idle its remaining Philadelphia-area refinery (Sunoco Philadelphia) in August 2012 if no buyer is found. Sunoco cited mounting losses over the past two years and diminished markets for refined products as reasons for closures and sales[2,3]

  - Sunoco's Marcus Hook refinery, which company officials say aroused no interest from potential buyers to run as a refinery, is being groomed instead as a potential multipurpose industrial site for storing, handling, and even processing fuel, including by-products from the Marcellus Shale region[4]

  - On July 2, 2012 the private-equity firm Carlyle Group and Sunoco agreed to form a joint venture that transfers operations of Sunoco's refinery in Philadelphia to Carlyle Group. The joint venture is expected to keep the existing refinery jobs intact and potentially add new jobs as the refinery is updated and expanded.

- The three Philadelphia-area refineries (Trainer, Marcus Hook, and Philadelphia) taken together represented 50% of total East Coast refining capacity as of August 2011[2]

- The industry may face significant logistical challenges in the Northeast for a year or more, as infrastructure changes will be necessary to accommodate replacement product flows[2]

[1] Delco Times, www.delcotimes.com, "End of Era II: ConocoPhillips announces plans to close Trainer plant", Kathleen Carey, September 28, 2011 .
[2] US Energy Information Agency, http://www.eia.gov, *Potential Impacts of Reductions in Refinery Activity on Northeast Petroleum Product Markets,* February 2012, Updated May 11, 2012.
[3] The Wall Street Journal, www.wsj.com, "Sunoco, Carlyle Group Discuss Philadelphia Refinery", Ben Lefebvre, April 23, 2012.
[4] The Philadelphia Inquirer, www.articles.philly.com, "Marcus Hook Refinery's Fate Still Uncertain", Andrew Maykuth, May 9, 2012.

Recent Developments & Considerations

Caribbean Refineries Continue Trend of Companies Shifting Away from Underperforming Refining Assets

- In January 2012, HOVENSA announced plans to shut down the St. Croix refinery in mid-February and convert it to a petroleum storage facility. HOVENSA sent most of its product to the US East Coast, but in recent years, it had increased its sales in other markets. In 2007, HOVENSA shipped two-thirds of its output to the East Coast; that share had declined to 55% in 2011 through August). At the same time, the refinery's output dropped in 2011 after HOVENSA announced it was reducing its capacity from 500,000 bbl/d to 350,000 bbl/d [1]
  - HOVENSA cited operating losses in excess of $1 billion in the last three years alone - and projections of continued losses - due primarily to lower demand for petroleum products and the addition of new refining capacity in emerging markets as reasons behind the closure
  - As an oil-fueled refinery, HOVENSA also identified its competitive disadvantage with mainland refineries fueled with low-priced natural gas as a factor underpinning the closure
- In March 2012, Valero Energy Corp. said it will suspend operations at its Aruba refinery by the end of March because inadequate margins have resulted in financial losses
  - Valero spokesman Bill Day cites the Caribbean refineries' lack of access to the cheap natural gas, used as feedstock in fuel production, have helped to give US Gulf Coast refineries a competitive advantage[2]
  - Valero said it evaluated alternatives for the 235,000 barrel per day refinery over the past two years and is now considering the possibility of operating a terminal and storage operation at the site
  - The facility doesn't produce finished gasoline for the US market; it produces intermediate oil products shipped to refineries in the US, as well as some diesel sold mostly in South America [2]
  - As of early May, reports are surfacing that PetroChina is reportedly in late-stages of talks to buy Valero's Aruba refinery after offering a reported $350 million[3]

[1] Delco Times, www.delcotimes.com, "End of Era II: ConocoPhillips announces plans to close Trainer plant", Kathleen Carey, September 28, 2011 .
[2] The Wall Street Journal, www.wsj.com, "Valero to Shut Aruba Refinery", Angel Gonzalez, March 19, 2012.
[3] Reuters, www.reuters.com, "PetroChina in Talks to Buy Valero's Aruba Refinery: Sources", Janet McGurty, May 9, 2012.

Appendix C

Oil Storage Industry Overview

Oil Storage Terminal Industry Analysis

According to EIA article, "This Week in Petroleum – Midstream Makeover", February 15, 2012:

- "Recent shifts in US oil supply and demand patterns are testing the limits of the Nation's oil storage and transportation network"
- "Refinery closures in the Delaware Valley and the Caribbean mean that East Coast markets -- no longer as large as they once were, but still the Nation's largest - may become more reliant on product supply brought in from longer distances. On both counts, changing needs would significantly alter the web of pipelines, storage tanks and terminal facilities on which the oil industry and the Nation depend to link supply centers and end-users"
- "Downstream, East Coast and Caribbean refinery closures, if made permanent, would also require a midstream response. While refineries in Ohio and elsewhere in the Midwest could theoretically substitute for those in the Philadelphia area in supplying western Pennsylvania and upstate New York, lack of pipeline capacity is a problem. So is the limited ability of Delaware Valley terminals to receive more product imports in the short term, and the lack of connectivity between those terminals and product pipelines running west from Philadelphia"
- "Midstream companies are already seizing some of the opportunities provided by both the surge in crude production in the mid-continent and refinery closures on the East Coast. Longer supply lines to East Coast markets will not only require upgraded transportation logistics, but also raise demand for storage, as higher inventory levels will be needed to manage seasonal demand peaks and disruption risks"
- "Storage operators have announced several plans to significantly expand East Coast and Caribbean tank farms. Shrinking refining capacity there seems to go hand in hand with rising terminal capacity, not least because some of the idled refineries are being converted to storage"
- "Perhaps not coincidentally, these expansion plans occur even as the midstream services industry is itself going through a period of restructuring. Once-ancillary segments of a vertically integrated oil industry, US transportation and storage companies are increasingly becoming their own masters. Independent refiners have been spinning off storage and transportation assets, often as separate Master Limited Partnerships ("MLP"), adding to the ranks of more established midstream companies"
- "Unlike the shrinking East Coast refining industry, midstream services are undergoing a growth spurt, fuelled by both organic expansion and acquisitions. Logistics companies are snapping up discarded refining assets"
- "Even as they are breaking loose from once vertically integrated oil companies, midstream companies are consolidating horizontally, expanding their geographic reach and enhancing their assets' internal "connectivity"
- "Whereas midstream companies had often been limited to a supporting role in the oil industry, large emerging midstream independents with a global footprint could increasingly pursue strategies of their own and may become more active, direct participants in the physical and paper markets"

Oil Storage Terminal Industry Analysis

According to Standard & Poor's sub-industry report, *Oil & Gas Storage & Transportation*, March 10, 2012:

- "We expect fee-based pipeline and terminal operators to continue to expand earnings well in excess of anticipated real US GDP growth in 2012"
- "As of early March, the Energy Information Administration (EIA) estimated that US liquid fuels consumption would decline 0.3% in 2012, but would increase 0.6% in 2013, compared to a decline of 1.8% in 2011"
- "We believe that higher crude oil prices and the demand for energy infrastructure will benefit storage and transportation companies"
- "In particular, the strong demand for natural gas liquids (NGLs) has resulted in increases in both NGL prices and production. We believe demand for NGLs will continue, offering growth opportunities to storage and transportation companies with NGL operations. Longer term, we believe midstream companies will benefit from higher energy demand"
- "In June 2011, the Interstate Natural Gas Association of America published a study that concluded that the US and Canada will require an annual average midstream investment of $10 billion per year over the next 25 years to accommodate the growing oil and natural gas supply/demand infrastructure needs

According to Standard & Poor's Industry Surveys – Oil & Gas: Production & Marketing, March 31, 2011:

- "Storage is an essential function of an efficient and reliable pipeline network because it provides a means to manage fluctuations in supply and demand"
- "Storage facilities include bulk terminals, refinery tanks, pipeline tanks, barges, tankers, and inland ship bunkers. Oil companies and governments usually hold crude oil and refined product inventories. Other downstream users, such as gas stations and fuel oil dealers, may also hold refined products"

According to JPMorgan analyst report, "Energy Infrastructure: Oil and Gas Transportation & Storage", March 19, 2012:

- "As producers focus on oil and liquids-rich production, we believe new production will overwhelm existing infrastructure capacity and require new midstream build out"
- "Gas and liquids transportation & storage assets are susceptible to: 1) narrow basis differentials weighing on contract renewal rates and disincentivizing shipments on uncontracted capacity; 2) prolonged decreases in energy demand weighing on asset intrinsic values; 3) extended periods of low energy price volatility weighing on asset extrinsic values; 4) cost inflation risk on negotiated contracts without inflation escalators; 5) direct commodity price exposure closer to the wellhead under certain contracts; 6) indirect commodity price exposure due to natural declines in well throughput; and 7) regulatory risk from adverse FERC or EPA rulings"

Mergers & Acquisitions Environment

Multiple Refining Assets Being Converted to Oil Storage Terminals

- On December 29, 2011, Plains All American Pipeline completed its acquisition of Western Refining's Yorktown, Virginia, facilities, and a segment of its crude pipeline in southeast New Mexico[1]
  - Plains purchased the assets for about $220 million. The Yorktown refinery was idled in September 2010. The Virginia facility also has 6.6 million barrels of crude oil, biofuels, refined products and LPG storage capacity and a distribution terminal. Plains said that it plans to disassemble and sell surplus equipment located at the refinery site and enhance the connectivity and performance of the Yorktown terminal during the next 18-24 months[2]
- On January 18, 2012, HOVENSA announced its intention to close its refinery on St. Croix, US Virgin Islands, and continue to operate as an oil storage terminal. HOVENSA is offering about 16 million bbl of storage capacity or about 50% of its maximum capacity of 32 million bbl. The balance of unused capacity will be mothballed. Of the total capacity offered, about two-thirds will be dedicated to clean oil products and the remaining one-third to crude oil and fuel oil. HOVENSA plans for the oil terminal to offer a strategic storage space in the Caribbean, which could be used to build bulk or break bulk of oil cargoes as seen with BORCO terminal in the Bahamas[3]
- On March 19, 2012, Valero announced plans to suspend its Aruba refinery operations by the end of the month because inadequate margins resulted in financial loss. Valero said it evaluated alternatives for the 235,000 barrel per day refinery over the past two years and is now considering operating a terminal and storage operation at the site. For the immediate future, Valero will maintain the refinery in a state that would allow a restart[4]
  - However, as of early May, reports are surfacing that PetroChina is reportedly in late-stages of talks to buy Valero's Aruba refinery after offering a reported $350 million. Therefore, the conversion and operation of the Aruba refinery into an oil storage terminal is in doubt[5]
- In December 2011, Sunoco announced it was idling its Marcus Hook, PA refinery and intended to sell it. However, company officials say the refinery aroused no interest from potential buyers to run it as a refinery and is now being groomed instead as a potential multipurpose industrial site for storing, handling, and even processing fuel, including by-products from the Marcellus Shale region[6]
- Furthermore, much of Sunoco's East Coast logistical assets were also handed over to Sunoco Logistics, making the sale of the Philadelphia and Marcus Hook refineries with which they had once been associated all the more problematic[1]

[1] US Energy Information Administration, www.eia.com, "This Week in Petroleum – Midstream Makeover", Ben Lefebvre, February 15, 2012.
[2] Platts, www.platts.com, "Plains Completes $220M Acquisition of Western Refining Assets", Lucretia Cardenas, December 29, 2011.
[3] Tank Terminals.com, www.tankterminals.com, "Hovensa Soliciting Oil Storage Interest Amid Facility Conversion Plan", May 14, 2012.
[4] The Wall Street Journal, www.wsj.com, "Valero to Shut Aruba Refinery", Angel Gonzalez, March 19, 2012.
[5] Reuters, www.reuters.com, "PetroChina in Talks to Buy Valero's Aruba Refinery: Sources", Janet McGurty, May 9, 2012.
[6] The Philadelphia Inquirer, www.articles.philly.com, "Marcus Hook Refinery's Fate Still Uncertain", Andrew Maykuth, May 9, 2012

Mergers & Acquisitions Environment

Oil Storage Terminal Sales in Recent Years in the Caribbean

- In February of 2011, Buckeye Partners L.P. completed its purchase of Bahamas Oil Refining Company International ("BORCO"), an over 21 million-barrel crude, fuel oil, and light product terminal. Buckeye paid $1.7 billion in a combination of cash and equity to acquire BORCO[1]
  - The facility is located along the Northwest Providence Channel of The Grand Bahama Island. BORCO is the fourth largest oil storage terminal in the world and the largest in the Caribbean, and Buckeye has plans for further expansions. BORCO is prepared to undertake a significant expansion project, which Buckeye expects will be phased in over the next two to three years and would add approximately 7.5 million barrels of flexible petroleum product storage, increasing total storage capacity to more than 29 million barrels. The facility site also has a significant amount of unused land available for other future expansions, with room to install approximately 13 million barrels of incremental storage capacity

- In 2005, NuStar Energy bought a 13 million barrel terminal in St. Eustatius, Netherlands (in the former Netherlands Antilles). In late 2011, NuStar plans to expand capacity by almost 12 million barrels by adding approximately 30 new tanks and a new jetty. [2] However, there has been much public backlash at the proposed expansion possibly being detrimental to tourism and becoming a serious eyesore for the island. As of early 2012, NuStar has withdrawn its proposal for expansion. However, it is unclear if activities related with the NuStar terminal expansion project have simply been put on hold or if they are off the table entirely[3]

- On March 19, 2012, Hess Corp. announced intentions to sell its St. Lucia crude oil and refined products storage and transshipment terminal in the Caribbean. The company said it has retained Goldman Sachs as financial advisor in connection with the potential sale. The St. Lucia oil storage terminal has a capacity of 10 million barrels [4]

[1] Yahoo Finance, www.finance.yahoo.com, "Buckeye Partners, L.P. to Acquire 80% Interest in Marine Storage Facility for Liquid Petroleum Products in Freeport, Bahamas", December 20, 2010; Business Excellence Magazine, www.bus-ex.com/article/borco, "BORCO Terminal Expansion", July 27, 2011
[2] Source: www.ecology.com, "St. Eustatius Residents Fear Losing Their Island to Expanded Oil Terminal", Betsy Crow foot, December 12, 2011.
[3] Source: www.nustarexpansion.com. Retrieved May 23, 2012.
[4] Caribbean Journal, www.caribjournal.com, "St Lucia Waits on Potential Sale of Hess Oil Storage and Transshipment Terminal", March 27, 2012.

Mergers & Acquisitions Environment

Oil Storage Terminal Acquisitions in Recent Years Outside Caribbean

- On February 10, 2012, Buckeye Partners acquired Chevron's marine terminal facility in Perth Amboy, N.J. for $260 million in cash. The complex has more than 4 million bbl of storage, four docks, and acreage for possible expansion. As a result of the acquisition, Buckeye's inland pipeline and terminal networks will have a direct connection to a Buckeye owned and operated marine facility with water access to petroleum products imported from international and Gulf Coast suppliers
  - Additionally, the Perth Amboy facility will provide a link between Buckeye's inland pipelines and terminals and Buckeye's BORCO facility in The Bahamas, improving service offerings for Buckeye's customers and providing further support to Buckeye's planned clean products tankage expansion at the BORCO facility [2]
  - Sources believe that Perth Amboy may become a very popular destination for European gasoline cargoes headed to the northeast in the wake of refinery closures in Pennsylvania and the Virgin Islands[3]
- On October 3, 2011, Targa Resources acquired two refined petroleum products and crude oil storage and terminaling facilities. Targa purchased the Targa Sound Terminal on the Hylebos Waterway in the Port of Tacoma, Washington has 758,000 barrels of capacity and handles refined petroleum products, LPGs and biofuels, including ethanol and biodiesel. Targa also purchased The Targa Baltimore Terminal on the Patapsco River in Baltimore, Maryland has approximately 505,000 barrels of storage capacity, contains blending and heating capabilities, and has tanker truck and barge loading and unloading infrastructure. Total consideration for both transactions, which closed effective September 30, 2011, was approximately $127 million[4]
- On November 30, 2011 Kinder Morgan Energy Partners L.P. announced that it will construct seven tanks with storage capacity of 2.4 million barrels for crude oil and condensate at its Edmonton Terminal in Canada. The investment will amount to approximately $210 million. Construction will begin in early 2012 and the targeted in-service date is late 2013. The company envisions two additional phases that would ultimately allow for up to 6 million barrels of storage[1]
- On June 29, 2011, Sunoco Logistics Partners acquired a 1.2 MMbbl refined products terminal in East Boston, Massachusetts for $56 million from ConocoPhillips[4]

[1] CIBC analyst report, "Q4/2011 Preview -- Power And Energy Infrastructure", Paul Lecham, Osvaldo Matias, Ian Tharp, and Lukasz Michalowski, January 26, 2012.
[2] Buckeye company press release: www.buckeye.com, "Buckeye Partners L.P. Announces Agreement to Acquire Liquid Petroleum Products Terminal in New York Harbor", February 10, 2012.
[3] Source: www.tankterminals.com, "Buckeye Grabs Another Terminal, This Time in New York Harbor", February 10, 2012.
[4] Source: IHS Herold Energy Database.

Mergers & Acquisitions Environment

Oil Storage Terminal Acquisitions in Recent Years Outside Caribbean (Continued)

- On June 29, 2011, Sunoco Logistics Partners L.P. also announced that it has reached an agreement with Sunoco, Inc. to purchase the Eagle Point tank farm and related assets, located in Westville, N.J., for approximately $100 million in deferred distribution units. Sunoco Logistics anticipates additional capital spending of approximately $90 million to provide for operational flexibility and to meet regulatory requirements[2]
- On February 28, 2011, Kinder Morgan Energy Partners LP purchased a 50.0% stake in a 1 MMbbl crude oil tank in Oklahoma from Deeprock Energy Resources for $25 million[1]
- On January 7, 2011, Pembina Pipeline Income Fund acquired terminalling and storage facilities in Edmonton, Alberta, Canada area with about 300,000 bbls of storage capacity Gibson Energy Partnership for $58 million[1]
- On June 1, 2010, NuStar Energy LP acquired terminalling assets in Alabama from Denham Capital Management LP for $44 million. Acquired assets include three storage terminals that include 24 storage tanks with total capacity of approximately 1.8 MMbbl, rail and truck-loading facilities, and three docks with barge or ship access. Assets are situated on 17 acres of land on Blakeley Island on the east bank of the Mobile River and also include 28.5 acres at the Port of Chicksaw[1]
- On September 16, 2009, World Point Terminals Incorporated a 680,000 barrel petroleum storage facility in Weirton, West Virginia from Apex Oil Company for $9 million[1]
- On August 6, 2009, Global Partners LP acquired three terminal facilities in New York state with capacity of 950,000 bbls from Warex Terminals Corporation Inc. for $48 million[1]
- On June 6, 2008, Brazilian Ultrapar Participacoes SA purchased an oil storage facility from Uniao de Industrias Petroquimicas SA. The assets acquired include two bulk liquid storage and handling port terminals (one in Santos, Sao Paulo and the other in Rio de Janiero, Brazil)[1]
- On May 21, 2008, Blueknight Energy Partners, L.P. acquired 2.0 MMbbls of newly constructed crude oil storage at Cushing Interchange in Oklahoma from SemGroup Corporation for $90 million[1]

[1] Source: IHS Herold Energy Database.
[2] Business Wire, www.businesswire.com, "Sunoco Logistics to Buy Eagle Point Tank Farm and East Boston Terminal", June 29, 2011.

Appendix D

Guideline Companies

Guideline Companies: Refining & Marketing

- ***Alon USA Energy, Inc.***

  Alon USA Energy, Inc., together with its subsidiaries, engages in refining and marketing petroleum products primarily in the south central, southwestern, and western regions of the United States. The company operates in three segments: Refining and Unbranded Marketing, Asphalt, and Retail and Branded Marketing. The Refining and Unbranded Marketing segment refines crude oil into petroleum products, including gasoline, diesel fuel, jet fuel, petrochemicals, petrochemical feed stocks, asphalt, and other petroleum-based products. This segment also markets finished products and blend stocks through sales and exchanges with other oil companies, state and federal governmental entities, unbranded wholesale distributors, and various other third parties. The Asphalt segment markets patented tire rubber modified asphalt products; and produces paving and roofing grades of asphalt, as well as manufactures performance-graded asphalts, emulsions, and cutbacks. The Retail and Branded Marketing segment operates 302 owned and leased convenience store sites primarily in central and west Texas, and New Mexico. Its convenience stores offer various grades of gasoline, diesel fuel, food products, tobacco products, non-alcoholic and alcoholic beverages, and general merchandise primarily under the 7-Eleven, Alon, and FINA brands. This segment markets gasoline and diesel under the Alon and FINA brand names through a network of approximately 640 locations, including the company's convenience stores; and provides credit card processing services to approximately 260 licensed locations. The company was founded in 2000 and is headquartered in Dallas, Texas. Alon USA Energy, Inc. is a subsidiary of Alon Israel Oil Company, Ltd.

- ***CVR Energy, Inc.***

  CVR Energy, Inc., together with its subsidiaries, engages in refining and marketing transportation fuels in the United States. The company also produces and markets nitrogen fertilizer products. It operates through two segments, Petroleum and Nitrogen Fertilizer. The Petroleum segment owns and operates a coking medium-sour crude oil refinery in Coffeyville, Kansas; and a crude oil gathering system serving Kansas, Oklahoma, western Missouri, and southwestern Nebraska. This segment also owns a proprietary pipeline system that transports crude oil from Caney and Kansas to its refinery; and supplies products through tanker trucks directly to customers located in close geographic proximity to Coffeyville and Phillipsburg, Kansas, as well as to customers at throughput terminals on Magellan Midstream Partners, L.P. and NuStar Energy, LP's refined products distribution systems. Its refinery products include gasoline, diesel fuel, pet coke, propane, butane, slurry, sulfur, and gas oil. This segment serves refiners, convenience store companies, railroads, and farm cooperatives. The Nitrogen Fertilizer segment operates a nitrogen fertilizer plant in North America that utilizes a pet coke gasification process to produce nitrogen fertilizer. It markets ammonia products to industrial and agricultural customers; and UAN, a solution of urea and ammonium nitrate used as a fertilizer to agricultural customers. This segment markets its products in Kansas, Missouri, Nebraska, Iowa, Illinois, Colorado, and Texas. The company is headquartered in Sugar Land, Texas.

Guideline Companies: Refining & Marketing

- ***Holly Frontier Corporation***

  HollyFrontier Corporation operates as an independent petroleum refiner and marketer in the United States. It produces light products, such as gasoline, diesel fuel, jet fuel, specialty lubricant products, liquefied petroleum gas, fuel oil, and specialty and modified asphalt. The company operates refineries in El Dorado, Kansas; Tulsa, Oklahoma; Artesia, New Mexico; Cheyenne, Wyoming; and Woods Cross, Utah. HollyFrontier operates 5 refineries with a combined crude oil processing capacity of 443,000 barrels per day. Its refineries serve markets in the Mid-Continent, Southwest, and Rocky Mountain regions of the United States. The company was formerly known as Holly Corporation and changed its name to HollyFrontier Corporation as a result of its merger with Frontier Oil Corporation in July 2011. HollyFrontier Corporation was founded in 1947 and is based in Dallas, Texas.

- ***Tesoro Corporation***

  Tesoro Corporation, together with its subsidiaries, engages in refining and marketing petroleum products in the United States. It operates in two segments, Refining and Retail. The Refining segment refines crude oil and other feed stocks into transportation fuels, such as gasoline, gasoline blendstocks, jet fuel, and diesel fuel, as well as other products, including heavy fuel oils, liquefied petroleum gas, petroleum coke, and asphalt. This segment also sells refined products in the wholesale market primarily through independent unbranded distributors; and in the bulk market primarily to independent unbranded distributors, other refining and marketing companies, utilities, railroads, airlines and marine, and industrial end-users. It owns and operates 7 refineries with a combined crude oil capacity of 665 thousand barrels per day. The Retail segment sells gasoline, diesel fuel, and convenience store items through company-operated retail stations, and third-party branded dealers and distributors in the western United States. As of December 31, 2011, this segment had 1,175 branded retail stations under the Tesoro, Shell, and USA Gasoline brands. The company was formerly known as Tesoro Petroleum Corporation and changed its name to Tesoro Corporation in November 2004. Tesoro Corporation was founded in 1939 and is headquartered in San Antonio, Texas.

- ***Valero Energy Corporation***

  Valero Energy Corporation operates as an independent petroleum refining and marketing company. The company operates through three segments: Refining, Ethanol, and Retail. The Refining segment engages in refining, wholesale marketing, product supply and distribution, and transportation operations. It produces conventional gasoline, distillates, jet fuel, asphalt, petrochemicals, lubricants, and other refined products. This segment also offers conventional blendstock for oxygenate blending, reformulated gasoline blendstock for oxygenate blending, gasoline meeting the specifications of the California Air Resources Board (CARB), CARB diesel fuel, low-sulfur and ultra-low-sulfur diesel fuel. The Ethanol segment produces ethanol and distillers grains. The Retail segment sells transportation fuels at retail stores and unattended self-service cardlocks; convenience store merchandise and services in retail stores; and home heating oil to residential customers. Valero Energy Corporation markets its refined products through bulk and rack marketing network; and sells refined products through a network of approximately 6,800 retail and wholesale branded outlets under the Valero, Diamond Shamrock, Shamrock, Ultramar, Beacon, and Texaco names in the United States, Canada, the United Kingdom, Aruba, and Ireland. As of December 31, 2011, it owned 16 petroleum refineries with a combined throughput capacity of approximately 3.0 million barrels per day; and operated 10 ethanol plants with a combined nameplate production capacity of approximately 1.1 billion gallons per year. The company was formerly known as Valero Refining and Marketing Company and changed its name to Valero Energy Corporation in August 1997. Valero Energy Corporation was founded in 1955 and is based in San Antonio, Texas.

Guideline Companies: Refining & Marketing

- ***Western Refining, Inc.***

  Western Refining, Inc. operates as an independent crude oil refiner and marketer of refined products. The company operates in three segments: Refining Group, Wholesale Group, and Retail Group. The Refining Group segment operates two refineries in Texas and Mexico; two stand-alone refined product distribution terminals in New Mexico; and four asphalt terminals in Arizona, Texas, and New Mexico, as well as operates crude oil transportation and gathering pipeline system in New Mexico. It refines various grades of gasoline, diesel fuel, jet fuel, and other products from crude oil, other feed stocks, and blending components; and acquires refined products through exchange agreements and from various third-party suppliers. This segment sells its products through its wholesale group and service stations, independent wholesalers and retailers, commercial accounts, and sales and exchanges with oil companies. The Wholesale Group segment distributes commercial wholesale petroleum products primarily in Arizona, California, Colorado, Nevada, New Mexico, Texas, Utah, Virginia, and Maryland for retail fuel distributors, as well as for the mining, construction, utility, manufacturing, transportation, aviation, and agricultural industries. The Retail Group segment operates service stations, which include convenience stores or kiosks that sell various grades of gasoline, diesel fuel, general merchandise, and beverage and food products to the general public. As of February 24, 2012, the company operated 210 service stations with convenience stores or kiosks under the Giant, Mustang, Sundial, and Howdy's brand names in Arizona, New Mexico, Colorado, and Texas; and a fleet of crude oil and refined product truck transports. The company was formerly known as Western Refining Company, L.P. and changed its name to Western Refining, Inc. on September 16, 2005. Western Refining, Inc. was founded in 1993 and is headquartered in El Paso, Texas.

- ***Marathon Petroleum Corporation***

  Marathon Petroleum Corporation, together with its subsidiaries, engages in refining, transporting, and marketing petroleum products primarily in the United States. The company operates six refineries in the Gulf Coast and Midwest regions of the United States, which refine crude oil and other feedstocks; and distribute refined products through barges, terminals, and trucks. It also purchases ethanol and refined products for resale. The company's refined products include gasoline, distillates, propane, feedstocks and special products, heavy fuel oil, and asphalt. It also transports crude oil and other feedstocks to its refineries and other locations; and sells transportation fuels and convenience products in the retail market through Speedway convenience stores. The company markets its refined products to resellers, consumers, independent retailers, wholesale customers, marathon-branded jobbers, its Speedway convenience stores, airlines, and transportation companies, as well as exports its refined products. It owns, operates, leases, and has ownership interests in approximately 8,300 miles of crude oil and refined product pipelines. In addition, the company operates approximately 5,000 Marathon branded retail outlets for motor fuel in 18 states; and approximately 1,371 Speedway convenience stores in the United States. Marathon Petroleum Corporation is headquartered in Findlay, Ohio. Marathon Petroleum Corporation operates independently of Marathon Oil Corporation as of July 1, 2011.

Guideline Companies: Refining & Marketing

- ***Sunoco, Inc.***

  Sunoco, Inc., through its subsidiaries, refines and markets petroleum products in the United States. Its Logistics segment operates refined product and crude oil pipelines and terminals; and acquires and markets crude oil and refined products. As of December 31, 2011, this segment owned and operated approximately 5,400 miles of crude oil pipelines and approximately 2,500 miles of refined product pipelines. It also operates 42 active terminals that receive refined products from pipelines and distribute them to third parties. The company's Retail Marketing segment engages in the retail sale of gasoline and middle distillates; and operation of convenience stores. This segment operates outlets primarily in Connecticut, Florida, Maryland, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, and Virginia. Its Refining and Supply segment offers petroleum products, including gasoline and residual fuel oil, as well as middle distillates, such as jet fuel, heating oil, and diesel fuel; and commodity petrochemicals comprising propylene-propane, benzene, and cumene. This segment offers its products to wholesale and industrial customers. The company was founded in 1886 and is based in Philadelphia, Pennsylvania.

Guideline Companies: Oil & Gas Storage

- ***Oiltanking Partners, L.P.***

  Oiltanking Partners, L.P. provides storage, terminaling, and transportation services for third-party companies engaged in the production, distribution, and marketing of crude oil, refined petroleum products, and liquefied petroleum gas. The company operates a crude oil and refined petroleum products terminal on the Houston Ship Channel with an aggregate active storage capacity of approximately 11.7 million barrels (mmbbls); and Beaumont terminal on the Neches River with an aggregate active storage capacity of approximately 5.6 mmbbls, which serves as a regional strategic and trading hub for refined petroleum products for refineries located in the Gulf Coast region. It serves integrated oil companies, distributors, marketers, and chemical and petrochemical companies. OTLP GP, LLC serves as the general partner of Oiltanking Partners, L.P. The company was founded in 2011 and is headquartered in Houston, Texas. Oiltanking Partners, L.P. is a subsidiary of Oiltanking Holding Americas, Inc.

- ***NuStar GP Holdings, LLC***

  NuStar GP Holdings, LLC owns general partner and limited partner interests in NuStar Energy L.P. that engages in the terminalling and storage of petroleum products, transportation of petroleum products and anhydrous ammonia, and petroleum refining and marketing. It holds a 2% general partner interest, 14.3% limited partner interest, and 100% of the incentive distribution rights in NuStar Energy L.P. The company, through NuStar Energy L.P., has terminal facilities in the United States, Canada, Mexico, the Netherlands, including St. Eustatius in the Caribbean, the United Kingdom, and Turkey. The company was founded in 2000 and is headquartered in San Antonio, Texas.

- ***TransMontaigne Partners L.P.***

  TransMontaigne Partners L.P. operates as a terminaling and transportation company. It provides integrated terminaling, storage, transportation, and related services for customers engaged in the distribution and marketing of light refined petroleum products, heavy refined petroleum products, crude oil, chemicals, fertilizers, and other liquid products. The company operates along the Gulf Coast, in the Midwest, in Brownsville, Texas, along the Mississippi and Ohio Rivers, and in the southeastern United States. As of December 31, 2010, it operated 7 refined product terminals in Florida with an aggregate storage capacity of approximately 7.1 million barrels; a 67-mile interstate refined products pipeline between Missouri and Arkansas and 3 refined product terminals with approximately 0.6 million barrels of aggregate active storage capacity; 2 refined product terminals located in Mt. Vernon, Missouri, as well as Rogers, Arkansas with an aggregate active storage capacity of approximately 407,000 barrels; and 1 refined product terminal in Oklahoma City, Oklahoma with an aggregate active storage capacity of approximately 158,000 barrels. The company also operated 1 refined product terminal in Brownsville, Texas with an aggregate active storage capacity of approximately 2.2 million barrels; 1 refined product terminal located in Matamoros, Mexico with an aggregate active LPG storage capacity of approximately 7,000 barrels; a pipeline from Brownsville facilities to its terminal in Matamoros, Mexico; 12 refined product terminals along the Mississippi and Ohio rivers with an aggregate active storage capacity of approximately 2.5 million barrels, as well as a dock facility; and 22 refined product terminals along the Colonial and Plantation pipelines with an aggregate active storage capacity of approximately 9.3 million barrels. TransMontaigne GP L.L.C. serves as the general partner of the company. TransMontaigne Partners L.P. was founded in 2005 and is based in Denver, Colorado.

Guideline Companies: Oil & Gas Storage

- ***Sunoco Logistics Partners L.P.***

  Sunoco Logistics Partners L.P. engages in the transport, terminalling, and storage of crude oil and refined products in the United States. The company's Refined Products Pipelines segment owns and operates approximately 2,500 miles of refined product pipelines that transport gasoline, heating oil, diesel, jet fuel, and liquefied petroleum gas (LPG). Its Terminal Facilities segment receives refined products and distributes them to Sunoco and to third parties, who in turn deliver them to end-users and retail outlets, as well as provides blending services, which include ethanol and biodiesel blending, injecting additives, and filtering jet fuel. This segment comprises 42 refined product terminals with an aggregate storage capacity of 8 million barrels; the Nederland Terminal, a 22 million barrel marine crude oil terminal on the Texas Gulf Coast; a 2 million barrel refined product terminal in Philadelphia, Pennsylvania; 1 inland and 2 marine crude oil terminals with a combined capacity of 3 million barrels, and related pipelines that serve Sunoco's Philadelphia refinery; the Eagle Point terminal, a 5 million barrel refined product and crude oil terminal, and dock facility; and a 1 million barrel LPG terminal near Detroit, Michigan. The company's Crude Oil Pipelines segment delivers crude oil and other feedstocks to refineries principally in Oklahoma and Texas. This segment includes approximately 4,900 miles of crude oil trunk pipelines and approximately 500 miles of crude oil gathering pipelines in the southwest and midwest United States. Its Crude Oil Acquisition and Marketing segment gathers, purchases, markets, and sells crude oil using approximately 170 crude oil transport trucks and approximately 110 crude oil truck unloading facilities primarily in the mid-continent United States. Sunoco Partners LLC serves as the general partner of Sunoco Logistics Partners L.P. Sunoco Logistics Partners L.P. was founded in 2001 and is based in Philadelphia, Pennsylvania.

- ***Tesoro Logistics LP***

  Tesoro Logistics LP engages in the ownership, operation, development, and acquisition of crude oil and refined products logistics assets in the United States. The company is involved in the gathering, terminalling, transportation, and storage of crude oil and refined products. Its assets consist of a crude oil gathering system in the Bakken Shale/Williston Basin area of North Dakota and Montana; eight refined products terminals in the midwestern and western United States; a crude oil and refined products storage facility; and five related short-haul pipelines. The company was founded in 2010 and is based in San Antonio, Texas. Tesoro Logistics LP is a subsidiary of Tesoro Corporation.

- ***Plains All American Pipeline, L.P.***

  Plains All American Pipeline, L.P., through its subsidiaries, engages in the transportation, storage, terminalling, and marketing of crude oil, refined products, and liquid petroleum gas (LPG) products in the United States and Canada. The company operates in three segments: Transportation, Facilities, and Supply and Logistics. The Transportation segment transports crude oil and refined products on pipelines, gathering systems, trucks, and barges. As of December 31, 2011, this segment owned and leased 16,000 miles of active crude oil and refined products pipelines and gathering systems; 23 million barrels of above-ground tank capacity used primarily to facilitate pipeline throughput; 67 trucks and 382 trailers; and 82 transport and storage barges, and 44 transport tugs. The Facilities segment provides storage, terminalling, and throughput services for crude oil, refined products, and LPG and natural gas, as well as offers LPG fractionation and isomerization, and natural gas processing services. The Supply and Logistics segment purchases crude oil at the wellhead, and pipeline and terminal facilities; waterborne cargoes at their load port and various other locations in transit; and LPG from producers, refiners, and other marketers. This segment also resells or exchanges crude oil and LPG; and transports oil and LPG on trucks, barges, railcars, pipelines, and ocean-going vessels to various delivery points. It has 622 trucks and 731 trailers, and 2,453 railcars. The company also owns and operates natural gas storage facilities. Plains All American Pipeline, L.P. was founded in 1998 and is headquartered in Houston, Texas.

Guideline Companies: Oil & Gas Storage

- ***Magellan Midstream Partners, L.P.***

  Magellan Midstream Partners, L.P. engages in the transportation, storage, and distribution of petroleum products in the United States. The company's petroleum pipeline system transports petroleum products, such as gasoline, diesel and aviation fuel, heating oil, crude oil, and liquefied petroleum gas for independent and integrated oil companies, wholesalers, retailers, railroads, airlines, and regional farm cooperatives. It owns and operates storage terminals that have storage capacity of approximately 36 million barrels; and provides distribution, storage, blending, inventory management, and additive injection services for refiners and other end-users of petroleum products. In addition, the company owns and operates inland terminals that have a combined storage capacity of approximately 5 million barrels; and provides inventory and supply management, distribution, and gasoline additives injection services for retail, industrial, and commercial sale markets. Further, its ammonia pipeline system transports ammonia, which is primarily used as a nitrogen fertilizer, from production facilities in Texas and Oklahoma to terminals in the Midwest. As of December 31, 2011, the company's petroleum pipeline system comprised approximately 9,600 miles of pipeline and 50 terminals; and 6 petroleum storage terminals located along coastal waterways in New Haven, Connecticut, Wilmington, Delaware, Marrero and Gibson, Louisiana and Galena Park, and Corpus Christi, Texas; 1 crude oil storage terminal in Cushing, Oklahoma; and 27 inland terminals located primarily in the southeastern United States. Its ammonia pipeline system consisted of 1,100-mile ammonia pipeline and 6 terminals. Magellan GP, LLC serves as the general partner of Magellan Midstream Partners, L.P. The company was founded in 2000 and is headquartered in Tulsa, Oklahoma.

- ***Blueknight Energy Partners, L.P.***

  Blueknight Energy Partners, L.P., together with its subsidiaries, provides integrated terminalling, storage, processing, gathering, and transportation services for companies engaged in the production, distribution, and marketing of crude oil and asphalt products in the United States. The company offers crude oil terminalling and storage services, which enables it customers to manage their crude oil inventories, marketing, and operating activities, as well as asphalt services that enables its customers to manage their asphalt product storage and processing, and marketing activities. It also provides crude oil pipeline and crude oil trucking services. In addition, the company offers producer field services, including gathering condensates by way of bobtail trucks for natural gas companies to hauling produced water to disposal wells; provision of hot and cold fresh water; chemical and down hole well treatment services; wet oil clean up services; and building and maintaining separation facilities. As of March 13, 2012, it owned and operated a portfolio of midstream energy assets consisting of approximately 7.8 million barrels of crude oil storage located in Oklahoma and Texas; approximately 1,289 miles of crude oil pipeline located primarily in Oklahoma and Texas; approximately 300 crude oil transportation and oilfield services vehicles deployed in Kansas, Colorado, New Mexico, Oklahoma, and Texas; and approximately 7.2 million barrels of combined asphalt product and residual fuel oil storage facilities located at 44 terminals in 22 states. Blueknight Energy Partners G.P., L.L.C. serves as the general partner of Blueknight Energy Partners, L.P. The company, formerly known as SemGroup Energy Partners, L.P., is headquartered in Tulsa, Oklahoma.

Appendix E

Professional Credentials

David Herr

Managing Director, Valuation Advisory Services and Mergers and Acquisitions

Duff & Phelps, LLC
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David Herr is a managing director and is the overall global leader of the firm's Energy and Mining industry group. David is part of the Duff & Phelps Investment Banking Mergers and Acquisitions Practice and the Valuation Services Advisory business unit. He is serves as the Duff & Phelps Philadelphia city leader. David has more than 15 years of experience with the firm, starting with the Valuation Services Group of Coopers & Lybrand LLP.

David has substantial energy & mining experience with specific emphasis on utilities as well as fossil and renewable power. David has led purchase price allocations for ten transactions in excess of $5 billion over the last decade, including five proposed power and utility transactions with purchase prices in excess of $10 billion. David has extensive experience in advising and assisting clients within the energy and mining industry with the application of Accounting Standards Codification ("ASC") 820 – *Fair Value Measurements and Disclosures*, ASC 805 – *Business Combinations* and ASC 350 – *Goodwill and Other Intangibles*. Additionally, David has experience assisting global companies with preparation of purchase accounting pursuant to IFRS 3 – *Business Combinations*. Recently, David has assisted numerous clients with financial reporting and tax compliance issues related to acquisitions of renewable energy operating assets and development portfolios spanning the wind, solar, geothermal and biomass sectors.

David has substantial experience performing both single-entity tax valuations and complex multi-tier entity rollups for energy, mining and other industrial products companies. His tax experience includes the valuation of more than three thousand legal entities over his professional career as well as recent experience overseeing legal entity valuations in connection with "Hook Stock" transactions.

David has instructed numerous internal courses on topics, such as valuation theory and fair value accounting and participated in an intensive training program in decision analysis, simulation and real option valuation. Additionally, David has been a speaker at numerous industry conferences, including Platt's Global Power Markets conference and InfoCast Solar.

David received his B.S. in finance from Villanova University, where he graduated first in his class. He is a chartered financial analyst (CFA) charterholder and a member of the CFA Institute and the Financial Analysts of Philadelphia. David is FINRA Series 63 and Series 79 certified. Prior to his valuation career, David was a pitcher in the Montreal Expos organization.

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Dean Price is a managing director and city leader of the Houston office, part of the Valuation Advisory Services business unit and a member of the firm's Energy and Mining practice. He has 24 years of valuation advisory experience, including four with Duff & Phelps.

Dean has extensive experience in performing valuations of businesses and assets for acquisition, divestiture, financing, financial reporting and tax. He has conducted engagements throughout the United States and abroad. Dean's engagement highlights include performing valuations for various segments of the energy industry, such as exploration and production, mid-stream, down-stream, power generation and petrochemical; performing or managing valuations for the purpose of purchase price allocations, including both tangible and intangible assets; performing valuation of certain pipeline and terminal assets contributed to a master limited partnership and conducting valuations of similar assets in accordance with Statement of Financial Accounting Standards (SFAS) 141(R), now ASC 805 and 142, now ASC 350; reviewing appraisals and prepared rebuttal testimony on behalf of plaintiffs with respect to power generations assets in preparation for deposition and trial to resolve property tax valuation disputes; and conducting valuations in Eastern Europe, South America and Asia for privatization purposes.

Dean received his B.B.A. in finance from the University of Texas at Austin and completed numerous appraisal courses offered by the American Society of Appraisers, the Appraisal Institute and the Institute for Professionals in Taxation. He is also a member of the Greater Houston Partnership, the National Association of Corporate Directors, the Energy-Prospectus Group and the Association for Corporate Growth.

Brian Cullen

Managing Director, Global Restructuring Advisory

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Brian Cullen is a managing director in the Global Restructuring Advisory group and head of the Domestic Restructuring Group. He has over 15 years of experience in financial restructurings and distressed situations. Brian is based in the Santa Monica office.

Brian has been involved in a variety of restructurings and recapitalizations, including in and out-of-court debtor and creditor-side restructurings, mergers and acquisitions, valuation opinions and capital raising activities. Recent and past engagements include Allied Holdings, American Safety Razor, Collins & Aikman, Controladora Comercial Mexicana (CCM), Cerplex Group, Evergreen Solar, Key Plastics, Legacy Estates, Loral Space & Communications, Maui Land & Pineapple, Mercury Interactive, Primus Telecommunications, ProtoStar, RCN Corporation, Targus Group, Trump Casino Holdings, Tricom S.A., Vitro, S.A.B. de C.V., Westwood One and Wolverine Tube.

Prior to Duff & Phelps, Brian was a senior member with Chanin Capital Partners where he led domestic and cross-border restructurings and recapitalizations for a variety of clients including companies, equity sponsors and creditor groups. Prior to Chanin, Brian worked in a principal capacity for a special situation investment fund and before this, in the investment banking department at Credit Suisse First Boston. Brian began his career in the high-yield group at BankAmerica Securities.

Brian received his B.A. in economics from the University of California at Los Angeles. Brian currently serves as a board member of Allied Holdings, Inc, the largest company in North America specializing in the delivery of new and used vehicles. Brian holds the Financial Industry Regulatory Authority (FINRA) Series 7 and 63 licenses and is a FINRA registered representative.

Mark Henshaw

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Mark is a managing director in the Houston office and the leader of real estate services for the South-Central United States. He has 25 years of property valuation and consulting experience.

For the past 15 years, Mark has concentrated his practice in valuations for financial reporting purposes. He is proficient in real property valuations for financial reporting in connection with ASC 805 (business combinations), ASC 820 (fair value measurements), ASC 350 (goodwill and other intangible assets), ASC 840 (lease accounting) and fresh start accounting. Mark also routinely completes valuation engagements for lenders, pension funds and their advisors, trusts and corporations in connection with portfolio management activities.

Mark's extensive range of experience includes the analysis and valuation of industrial properties, research and development buildings, office buildings, hotels, motels, malls, shopping centers, restaurants and commercial and residential subdivisions and apartments. Mark also has significant expertise with "special purpose realty," including student housing, manufacturing facilities, semiconductor facilities, hospitals, senior housing such as skilled nursing and assisted living facilities, medical office buildings, outdoor advertising signs, bank branches, call centers, data centers, golf courses and mixed-use developments. Mark also specializes in, and is the real estate industry leader, for the valuation of realty in the oil and gas industry such as refineries, chemical plants, bulk terminals, tank farms, pipeline right-of-way and service stations/convenience stores.

Prior to Duff & Phelps, Mark worked in the Houston office of Arthur Andersen, where he performed valuations for financial reporting for six years.

Mark received his B.B.A. in business management from Texas A&M University. He has completed all course work required by the Appraisal Institute and is a designated member of the Appraisal Institute (MAI). Mark is also a certified general real estate appraiser in Arkansas, Louisiana, New Mexico, Oklahoma, Tennessee and Texas.

Chase Paxton

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Chase Paxton is a Director in the Dallas office of Duff & Phelps LLC and a member of the Energy and Mining Industry group. Chase has six years of valuation experience with the firm.

Chase has substantial industrial products experience focused on the fossil and renewable power, utility and refining sectors. Chase has extensive experience in advising and assisting clients within the energy and mining industry with the application of Accounting Standards Codification (ASC) 820-Fair Value Measurements, ASC 805, Business Combinations and ASC 350-Goodwill and Other Intangibles. Additionally, Chase has experience assisting global companies with preparation of purchase accounting pursuant to IFRS 3-Business Combinations.

Chase's power industry experience includes the valuation analysis of combined cycle, coal/lignite and nuclear power plants as well as several types of renewable assets. His intangible asset valuation experience includes power purchase and tolling agreements, coal and gas transportation agreements, fuel supply agreements, leaseholds and emission credits.

Chase received his M.B.A in finance from Mays Business School at Texas A&M and received his B.B.A. in business from Texas Tech University where he was also a graduate of the Honors College.

Paul Sipala

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Paul E. Sipala is a Director in the Philadelphia office of Duff & Phelps, LLC and is part of the Real Estate Services Group.

Paul's professional experience includes over 7 years in the real estate valuation and consulting field. He has provided analyses for various clients on core property types as well as special purpose assets such as: senior housing facilities, railroad ROW, chemical manufacturing plants, golf course/country clubs, food-processing facilities, restaurants, convenience stores/gas stations, waste incineration plants, boutique hotels, and developable land. Clients served include institutional owners/operators, REITS, investment banks, private equity firms, lenders, and government agencies. His expertise has been utilized in appraisals for financial reporting, debt placement, portfolio valuations, feasibility studies, litigation support, bankruptcy proceedings, insurable valuations, as well as other purposes. Engagement highlights include the valuation of over 150 fuel station/convenience stores in PA/NJ for financing and purchase price allocation purposes; valuation of industrial park of over 60 buildings in Central NJ for litigation support purposes; valuation of 49 investment grade assets and development projects in the Washington, D.C. Metropolitan area for asset monitoring and internal planning purposes; and the retrospective valuation of international portfolio of industrial property to satisfy IRS audit requirements.

Education & Certifications:

B.A. - Economics, The Richard Stockton College of New Jersey, Pomona, New Jersey

Licensed certified general appraiser in DC, DE, NC, NJ, PA, and VA

Professional Associations & Affiliations:

Associate Member of the Appraisal Institute

Level 2 Candidate in the CFA program as administered by the CFA Institute

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Ryan Bouley

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Ryan Bouley is a Vice President in the Global Restructuring Advisory group. He has worked during his career as both an investment banker and a distressed investment analyst, and has extensive experience in all areas of financial restructuring and recapitalization, including distressed mergers and acquisitions, capital raising (both debt and equity), valuation, reorganization plan development, negotiation and implementation, amendments, waivers, and consent solicitations. Ryan's recent bankruptcy and restructuring experience includes advising debtors, creditors and equity holders – both in- and out-of-court – on Hayes Lemmerz International, Inc., WorldSpace, Inc., Idearc Inc. (now SuperMedia Inc.), MMFX Technologies Corporation, Chem Rx Corporation, HearUSA, Inc., Omega Navigation, Energy Conversion Devices, Friendly Ice Cream Corporation, Trico Marine Services, Inc. Seahawk Drilling, Inc., Truvo Group, Nebraska Book Company, Inc., and Six Flags, Inc. as well as the evaluation of principal investments in a number of distressed companiesFormerly, Ryan worked at Panagos Katz Situational Investing ("PKSI"), an investment fund focused on investing in the debt and equity of distressed companies. At PKSI, he analyzed potential investment opportunities across a number of industries and at all points in the capital structure. Ryan began his career as an Investment Banking Analyst at JPMorgan in the Syndicated and Leveraged Finance Group. While at JPMorgan, he participated in senior debt financing and capital structure advisory transactions totaling more than $15.0 billion in order to effect mergers and acquisitions, leveraged buyouts, and recapitalizations for companies including, among others, Global Crossing, Citation Corporation, Northrop Grumman, and Wyndham Hotels. Ryan received a B.A., magna cum laude, in International Relations and Economics from Tufts University and a J.D. from Wake Forest University School of Law. He holds the Financial Industry Regulatory Authority ("FINRA") Series 63 and 79 licenses.

Samrat P. Karnik

Vice President, Mergers and Acquisitions Advisory

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Samrat Karnik is a vice president in the New York office with responsibility for sell- and buy-side M&A advisory, cross-border transactions, and strategic advisory. Samrat has 10 years of investment banking and corporate finance experience having executed numerous M&A, LBO and general corporate advisory mandates across the industrial technology, energy, environmental services and cleantech sectors on a global basis.

Samrat was previously a Vice President in the M&A and Industrial Groups of Houlihan Lokey where he was responsible for providing M&A and general corporate advisory and coverage for middle-market companies in the Industrial and Environmental Technologies and Services sectors. Prior to Houlihan Lokey, he was an Associate at The Nassau Group, and began his investment banking career at Berenson Minella, a boutique M&A and restructuring advisory firm.

Samrat's investment banking experience includes a broad range of transactions in sell-side and buy-side M&A, general corporate advisory, and equity financing. His significant clients have included Moody's, Carlyle Group, Babcock & Wilcox, CIRCOR, Clean Earth, Flow International, Littlejohn, Mitsui & Co., Robbins & Myers, Standex Corp, Synagro, The Harbour Group, Trojan Technologies, and many other public and private corporations and private equity firms.

Samrat received a Bachelor of Science from New York University's Leonard N. Stern School of Business where he was on the Dean's Honors List and Beta Gamma Sigma Honor Society. He holds the Series 7, Series 63 and Series 79 securities industry registrations.

David Juneau

Senior Associate, Valuation Advisory Services

David Juneau is a Senior Associate in the Houston office and part of the Valuation Services Advisory business unit within the Energy and Mining industry group. He has approximately 3 years of valuation experience at Duff & Phelps.

David has extensive experience in advising and assisting clients with the application of Accounting Standards Codification ("ASC") 820 Fair Value Measurements, ASC 805 Business Combinations, and ASC 350 Goodwill and Other Intangibles. Additionally, David has substantial experience in performing entity valuations for tax planning and restructuring purposes for a variety of energy clients.

Engagement highlights include performing valuations within a broad range of energy sub-industries such as oil and gas exploration and production, oil and gas transportation and storage, oil and gas refining and marketing, oilfield services, mining, and power generation. David has worked with various energy companies including Weatherford International Ltd., National Oilwell Varco, Forum Energy Technologies, Superior Energy Services, Kinder Morgan Incorporated, Enterprise Products Partners, Targa Resources, Peabody Energy Corporation, Goldcorp, and Dynegy.

David received his B.S. in finance from the E.J. Ourso College of Business at Louisiana State University.

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Appendix F

Assumptions & Limiting Conditions

Assumptions & Limiting Conditions

The general assumptions and limiting conditions pertaining to assessments and findings stated in this presentation are summarized below. If applicable, "special assumptions" are cited elsewhere in this presentation.

- To the best of our knowledge and belief, the statements of facts contained in this presentation, upon which the analysis and finding(s) expressed are based, are true and correct. Information, estimates and opinions furnished to us and contained in the presentation or used in the formation of the assessment(s) were obtained from sources considered reliable and believed to be true and correct. However, no representation, liability or warranty for the accuracy of such items is assumed by or imposed on us, and is subject to corrections, errors, omissions and withdrawal without notice

- The prospective and historical information used for this presentation has not been subjected to any auditing or verification procedures and we express no assurance of any kind on it. The providers of this information have advised us that they consider the data used to be accurate, and that no information known to them conflicts with the data or resulting use of such data in this presentation

- The presentation may not be used in conjunction with any other appraisal or study. The assessment(s) stated is/are based on the program of utilization described in the presentation, and may not be separated into parts. The presentation was prepared solely for the purpose, function and party so identified in the presentation. The presentation may not be reproduced, in whole or in part, and the findings of the presentation may not be used by a third party for any purpose, without the express written consent of Duff & Phelps, LLC

- No change of any item in any of the presentation shall be made by anyone other than Duff & Phelps and we shall have no responsibility for any such unauthorized change

- Unless otherwise stated in the presentation, the assessment(s) of the business has not considered or incorporated the potential economic gain or loss resulting from contingent assets, liabilities or events existing as of the presentation date

- We are not required to give testimony or be in attendance at any court or administrative proceeding with reference to the business unless additional compensation is agreed to and prior arrangements have been made

- The working papers for this engagement are being retained in our files and are available for your reference. We would be available to support our assessments and findings should this be required. Those services would be performed for an additional fee

Assumptions & Limiting Conditions

- Neither all nor any part of the contents of the presentation shall be disseminated to or referred to the public through advertising, public relations, news or sales media, or any other public means of communication or referenced in any publication, including any private or public offerings including but not limited to those filed with the Securities and Exchange Commission or other governmental agency, without the prior written consent and approval of the review by Duff & Phelps

- Good and marketable title to the business interest being assessed is assumed. We are not qualified to render an "opinion of title" and no responsibility is assumed or accepted for matters of a legal nature affecting the business. No formal investigation of legal title to or liabilities against the business was made, and we render no opinion as to ownership of the business or condition of its title.

- The quality of business management can have a direct effect on the viability and value of the business. The financial projections contained in the presentation assume both responsible ownership and competent management unless noted otherwise. Any variance from this assumption could have a significant impact on the assessment(s)

- In the assignment, the existence of potentially hazardous material(s) (i) used in the construction, maintenance or servicing of the building(s) and machinery and equipment of the business, such as the presence of urea-formaldehyde foam insulation, asbestos, lead paint, toxic waste, underground tanks, radon and/or any other prohibited material or chemical which may or may not be present on or in the subject real and/or tangible personal property or (ii) in existence of which the business may be held accountable, was, unless specifically indicated in the presentation, not disclosed to us during the course of this engagement. We, however, are not qualified to detect such substances. The existence of these potentially hazardous materials could have a significant effect on the value of the business. The client is urged to retain an expert in this field, if desired

- Unless otherwise stated, no effort has been made to estimate the possible effect, if any, on the business because of future federal, state or local legislation, including any environmental or ecological matters or interpretations thereof

Assumptions & Limiting Conditions

- We take no responsibility for any events, conditions or circumstances affecting the business or its value that take place subsequent to the effective date of value cited in the presentation

- Events and circumstances frequently do not occur as expected and there will usually be differences between prospective financial information and actual results, and those differences may be material. Accordingly, to the extent that any of the information used in this analysis and deliverables requires adjustment, the resulting analysis would be different

- Any decision to purchase or sell any interest in the business shall be the GVI's sole responsibility, as well as the structure to be used and the price to be accepted. An actual transaction involving the subject business might be concluded at a higher value or at a lower value, depending upon the circumstances of the transaction and the business, and the knowledge and motivations of the buyers and sellers at that time

- The assessment(s) and finding(s) are based on historical and prospective financial statements. Some assumptions or projections inevitably will not materialize and unanticipated events and circumstances may occur during the forecast period. These could include major changes in the economic environs; significant increases or decreases in current mortgage interest rates and/or terms or availability of financing altogether; property assessment; and/or major revisions in current state and/or federal tax or regulatory laws. Therefore, the actual results achieved during the projected holding period and investor requirements relative to anticipated annual returns and overall yields could vary from the projection. Thus, variations could be material and have an impact on the assessment(s) and finding(s) stated herein

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Thank You

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