St. Croix Energy LLLP
Proposal to the USEPA for the
Restart of Limetree Bay Refinery Operations
November 10, 2021

Introduction. This document describes the proposal of St. Croix Energy LLLP ("SCE") for the restart of certain operations at the Limetree Bay Refinery ("Refinery" or "LTBR") in a manner compliant with the federal Clean Air Act ("CAA") and the orders and stipulations that the United States Environmental Protection Agency ("USEPA") has issued to and entered into with the Refinery's current owner and operator, Limetree Bay Refining, LLC ("LBR" or "Debtor").

The Debtor operated the Refinery until May 2021 using a portfolio of permits and authorizations issued by USEPA pursuant to the CAA (the "Existing CAA Permits"). Operations ceased at that time consistent with USEPA's issuance of a Section 303 Order dated May 14, 2021. On July 12, 2021, Debtor and USEPA entered into a Joint Stipulation pursuant to which they agreed on the terms pursuant to which the Refinery could restart operations in a manner consistent with the Section 303 Order, the CAA, and the Existing Permits (the "Joint Stipulation").

SCE is contemplating submitting to the United States Bankruptcy Court for the Southern District of Texas a bid for the purchase of the Refinery. SCE believes that it is the only prospective bidder in the bankruptcy cases pending in that court who contemplates the renewed operation of the Refinery, as opposed to the Refinery's permanent closure and liquidation. SCE's "going concern" bid will not be viable unless the Refinery (i) is able to restart operations in some economically productive configuration within the next several months, potentially prior to the completion of the bankruptcy cases and the full transfer of operations of the Refinery to the successful bidder, and (ii) is able to continue to be operated without interruption in that configuration (and in gradually expanded configurations) following the closing of certain transactions that would result in the transfer of both the assets and operations of the Refinery to SCE.

This document presents in conceptual terms SCE's proposed, stepped approach to achieving these objectives. SCE is requesting that USEPA promptly inform SCE and the Court whether the concepts set forth here are acceptable to USEPA.

Bankruptcy Auction and Sale

SCE intends to bid at the auction presently scheduled to commence on November 12, 2021. SCE's bid will consist of a bid for the equipment and fixtures required to operate the Refinery, on which the Debtors are soliciting liquidation bids (the "Fixed Assets"). As part of that bid, SCE will also propose that the Debtors enter into a transition services agreement ("TSA") pursuant to which SCE would finance the Debtors' operations for 90-120 days, during which time the Debtors will seek to restart the Refinery (the "Transition Period"). If SCE is selected as the successful bidder at the Auction and its bid is approved by the Bankruptcy Court, then upon the purchase of the Fixed Assets (the "Fixed Asset Closing Date"), the Debtors and SCE would proceed as follows to restart the Refinery, with SCE bearing the Debtors' costs through the provision of "Transition Funding" pursuant to the TSA:

Step One – Debtor Notice to Restart

To initiate the Transition Period, Debtor would submit to USEPA the notice of proposed restart required by Paragraph 2 of the Joint Stipulation ("Debtor's Restart Notice"). Debtor's Restart Notice would include a "Section 303 Order Plan" as required by Paragraph 4 of the Joint Stipulation. The Section 303 Order Plan included with the Debtor's Restart Notice ("Phase I Plan") would provide for the completion, prior to the proposed Restart date, of all Audit Report-recommended corrective actions that are applicable and relevant to the operation of the Refinery in the following configuration ("Phase 1 Configuration"):

1. Restart crude distillation unit CDU5 and associated gas processing and naphtha fractionation running a predominantly light sweet crude slate up to the safe operating limits of the unit which is anticipated to be approximately 130,000 barrels per day (bpd) (capacity for 100% light sweet crude). CDU5 has previously run at a similar capacity using West Texas Intermediate (WTI) crude; this scenario would not represent a material change. Products would be light and heavy naphtha, kerosene/jet fuel, distillate blend stock, and Atmospheric Tower Bottoms (ATB).
2. Required amine absorbers would be converted to caustic scrubbers. The caustic scrubbers would be used to remove the small amount of Hydrogen Sulfide (H2S) and other contaminates that would be contained in the fuel gas produced by CDU5. Spent caustic would be shipped offsite for treatment.

3. Flare 8 will provide process safety relief for the units operated in the Phase 1 Configuration as well as the subsequent Phase 2 and Phase 3 Configurations.

4. Ultra-Low-NO_x burners are reportedly installed on the heaters and boilers to be used in Phase 1.

USEPA would review, comment on, and approve the Phase 1 Plan in a manner timely to allow for the commencement of Phase I operations on the schedule proposed in the Debtor's Restart Notice. The Phase 1 operations at their inception would be conducted either (i) by the Debtor during the Transition Period using the Existing CAA Permits, or (ii) if practicable given the length of time required by applicable regulation for USEPA and SCE to complete the permit modification process described in Step 3 below, by SCE.

Audit Corrective Actions Applicable and Relevant to Phase 1

LBR management report that all recommendations from the Flare #8 Process Unit Audit have been completed, thereby meeting the requirement to complete such corrective actions prior to restart of the flare in conjunction with the commencement of Phase I operations.

Because the Amine Regeneration Units (ARUs), Sulfur Recovery Unit (SRUs), and Coker will not be utilized in Phase 1, no equipment- and process-specific corrective action recommendations for these units are required prior to the initiation of Phase 1 operations.

However, the Process Unit Audits collectively identified more general recommendations that will be addressed in Phase 1. For example, the Audit Reports identified shortfalls related to staffing levels and operator competency. SCE will provide Transition Funding and other support to assist the Debtor in implementing a comprehensive operator training, development, and competency demonstration (including for abnormal situations) prior to restarting process units within the scope of Phase 1. The schedule has been designed to ensure that an appropriate number of competent operators will be available to operate the Phase 1 configuration.

Similarly, the Process Unit Audit Reports also identified a need for improved process safety management practices. SCE, working with Debtor during the Transition Period and providing Transition Funding for the purpose, is committed to implementing an effective process safety management program, which includes but is not limited to the implementation of Management of Change, Process Hazard Analysis, flare/relief system design revalidation, Operating Envelopes, Hazard Recognition training, and Pre-Startup Safety Review.

Step Two – Operations during Transition Period

The Refinery would restart in the Phase 1 Configuration, and be operated in that configuration, consistent with existing permits, for the balance of the Transition Period by either Debtor using Transition Funding adequate for operations that comply with the CAA, the Existing Permits, and the Phase 1 Plan; or by SCE using the Modified CAA Permits (as defined in Step Three).

Step Three – Refinery Conveyance to SCE and Permit Modification Actions

In Step Three, SCE would close, pursuant to the Bankruptcy Court approved APA, on the acquisition of the remaining assets of the Refinery that SCE determines are necessary to operate the Refinery consistent with permitting and its business plan, bringing an end to the Transition Period (the "Final Closing"). As a condition precedent to the Final Closing, the Debtors and SCE would be requesting USEPA to modify or novate the Existing CAA Permits as necessary to enable SCE to continue to operate the Refinery in the Phase 1 Configuration, using the same CAA permit portfolio as had been used by Debtor during the Transition Period. The CAA permits held by SCE following such process are referred to as the "Modified CAA Permits."

In addition to the permit modification process, the Section 303 Order and the Joint Stipulation would be modified as necessary to recognize SCE as the regulated and obligated party under those documents, and modified in substance as necessary to reflect the phased approach to Refinery Restart described here. SCE would assume responsibility for any reasonable and appropriate corrective actions specified by the Section 303 Order Plan that are necessary to support each operational Phase, and that had not been completed by the Debtor prior to the Final Closing.

Step Four – Phase 2 Configuration

SCE anticipates that soon after the Final Closing it would notify USEPA of SCE's intention to expand Refinery operations to add the following activities to the Phase 1 Configuration (such notice, the "Phase 2 Notice," and the resulting configuration, the "Phase 2 Configuration"):

1. Restart the isomerization unit (Isom) and naphtha desulfurization unit (NHT3) to process the light naphtha produced by CDU5 into a suitable gasoline blendstock. The initial capacity will likely be 10,000 to 13,000 bpd based on projected available feed.

2. Restart a second naphtha desulfurization unit (NHT4) and Platformer 4 (Plat 4) to produce high octane gasoline blend stocks or blend with Isom product (Isomerate) to make gasoline. The capacity would be ~25,000 to 30,000 bpd if only using self-produced feedstock. The capacities of the Isom and Plat4 are sufficiently high to enable SCE to introduce incremental purchased feedstock if economical.

3. Restart distillate desulfurization unit (DD7) to make ultra-low sulfur diesel (ULSD) fuel. Initial capacity would be approximately 10,000 to 25,000 bpd based on projected yields from CDU5. Unit DD7 is capable of operating at 55,000 to 60,000 bpd on 100% petroleum-based feed. The open capacity at DD7 will allow for Co-Processing of renewable feedstocks to be evaluated by SCE. This operation will quickly provide much needed and desired renewable fuel volume to the markets. An alternative operating option could be to insert unit DD6 for DD7 if the unit configuration is deemed more appropriate.

4. Restart of DD9 will be evaluated to produce finished Jet fuel. This operating unit can provide another Hydrogen (H2) sink for excess hydrogen produced on Platformer 4.

5. Return the amine contactor(s) previously converted to temporary caustic scrubbing service in Phase 1 to amine contacting and regeneration service. Restart one sulfur recovery unit (SRU3 or SRU4) and associated Tail Gas Treating Unit (TGTU) to manage the H2S created from the hydrotreating process. The sulfur load is projected to be less than 25 long ton per day (LT/d) based on the lower throughput and lower sulfur crude feed slate, while each of the SRUs is designed to handle ~160 LT/d.

6. Ultra-Low-NO_x burners are reportedly installed on the heaters and boilers to be used in Phase 2.

SCE would operate in the Phase 2 Configuration using the Modified CAA Permits. The Phase 2 Notice would include a Section 303 Order Plan that provides for the completion of Audit Report-recommended corrective actions as applicable and relevant to the Phase 2 Configuration (the "Phase 2 Plan"). USEPA would review, comment on, and approve the Phase 2 Plan in a manner timely to allow for transition to the Phase 2 Configuration on the schedule proposed in the Phase 2 Notice (which would not propose initiation of Phase 2 operations earlier than ninety days following delivery of the notice to USEPA).

Audit Corrective Actions Applicable and Relevant to Phase 2

To the extent not completed by Debtor during the Transition Period, and to the extent consistent with industry best practice and relevant to the intended Phase 2 operational configuration, SCE will complete the recommended critical and high priority corrective actions identified in the Process Unit Audits of the ARUs and SRUs prior to commencement of Phase 2 operations. The identified modifications to the ARU and SRU equipment and control scheme are intended to reduce the potential for, and impacts of, hydrocarbon carryover from the ARUs to the SRUs. This is particularly important as it was the root cause of higher-than-permitted hydrogen sulfide levels detected in the gas sent to the flare during the spring 2021 restart. The Debtor indicates the ARU and SRU modifications can be completed within two to three months using debtor in possession funding.

The following Audit-recommended corrective actions that relate to Phase 2 operations do not reflect best industry practice and may be environmentally counterproductive:

- The SRU Process Unit Audit recommended "generating significantly more clean acid gas by processing higher-sulphur crude in the upstream refining process." While this recommendation better approximates the original SRU design conditions, it doesn't meet the intent of the Phase 2 operating scenario and could increase the risk of potential hydrogen sulfide exposures to workers or others in the vicinity of the refinery.

- The SRU Process Unit Audit recommended running both SRUs in parallel on acid gas if sufficient clean acid gas is available. If the clean acid gas flow is insufficient for this operating approach, the audit recommendation is to either run both SRUs in parallel co-firing fuel gas with the clean acid gas or to operate one SRU with all the clean acid gas and the other in hot standby (i.e., with fuel gas firing only). These audit recommendations are inconsistent with the Phase 2 plan to operate a single SRU under a sulfur shedding plan developed in consultation with the USEPA. The Phase 2 configuration and operating approach provides appropriate hydrogen sulfide control while reducing the environmental and greenhouse gas emission impacts associated with operation of multiple SRUs, as is recommended by the process unit audit.

<u>Step Five – Phase 3 Configuration</u>

SCE anticipates that after initiation of the Phase 2 Configuration, SCE would notify USEPA of SCE's intention to revise Refinery operations to add the following activities to the Phase 2 Configuration (such notice, the "Phase 3 Notice," and the resulting configuration, the "Phase 3 Configuration"):

1. Units DD6 and/or DD7 or DD9 would be modified to produce renewable diesel fuel and/or sustainable aviation fuel. SCE anticipates that these units would produce approximately 7,000 to 9,000 bpd of renewable fuel. This operation would use excess hydrogen from Phase 2.

2. Low Nitrogen Oxides (NO_x) burners were reportedly previously installed on the heaters and boilers to be used in Phase 3.

SCE would operate in the Phase 3 Configuration using the Modified CAA Permits. A Phase 3 Notice, including a Section 303 Order Plan, will be submitted to the USEPA for review, comment and approval in a manner timely to allow for transition to the Phase 3 Configuration on the schedule proposed in the Phase 3 Notice (which would not propose initiation of Phase 3 operations earlier than ninety days following delivery of the notice to USEPA).

Audit Corrective Actions Applicable and Relevant to Phase 3

Because Phase 3 uses no additional equipment or systems covered by Process Unit Audits, no additional corrective action recommendations would be addressed prior to commencement of Phase 3 operations.

Flare Gas Recovery System

It is SCE's position that the installation and operation of an FGRS as contemplated in the First Modification to the Consent Decree that has been lodged in the U.S. District Court for the District Court of the Virgin Islands in the case styled *United States et al. v. Hovensa L.L.C.* (civ. No. 1-11-cv-06) is not required for the operation of the Refinery in any of the Phase 1, Phase 2 or Phase 3 Configurations because the Refinery would be restarted by the Debtor. The proposed Consent Decree provisions would not have required the FGRS installation until April 2023 based on the FGRS triggering event that occurred in April 2021. The Consent Decree terms recognized that a minimum of 24 months would be needed to design, procure, and install the FGRS equipment.

Importantly, the need for a FGRS under the phased Refinery configuration proposed herein would be vastly reduced due to (i) operation of the Refinery using a light, sweet crude feedstock (which would dramatically reduce potential sulfur dioxide emissions from Refinery flares), and (ii) process unit operating rates that would be markedly lower compared to historical operations, with a corresponding lower potential volume of flare gas generation. None of the operating configurations anticipated for the initial operation of the refinery in Phases 1, 2 or 3 would utilize either the fluidized catalytic cracking unit (FCCU) or the Coker unit. Historically, these two units had the potential to produce approximately two-thirds of the total hydraulic load on the flare systems.

Nevertheless, in recognition of the fact that FGRS has become a typical aspect of refinery design for both environmental and energy efficiency reasons, on a track parallel with the steps outlined above, SCE would enter into discussions with USDOJ for a modified schedule for the design, installation, and operation of an FGRS in a manner that aligns with the revised Refinery operating configuration.