

To: Barbara Hale, Michael Campbell
SFPUC CC: Ed Harrington
From: Local Power Inc.
Date: February 18, 2012
RE: CS-920R-B, Task 3, Subtask A, Advising on Wholesale Procurement: Report on Customer Phase-In Schedule

This report summarizes the broad design parameters impacting the phasing in of customer load for CleanPower SF, specific concerns or open questions, Local Power's current understanding of SFPUC current strategy for Phase I enrollment, risks associated with this strategy, discussions with SFPUC staff and stakeholders to date on anticipating and mitigating these concerns, possible refined or alternative designs, and other ancillary considerations.

Basis for the Customer Phase-In Strategy

California's post-energy crisis rules for Load Serving Entities require CCA providers, like utilities, to take on more planning responsibility for their power, and so require the involvement of credit, collateral and financial underpinning to secure power contracts. One of the goals of the customer phase-in strategy is to achieve the fullest possible citywide enrollment in order to achieve the in-City RE EE rollout minimum build of 210 Megawatts, within the a phase in schedule set by the amount of collateral the CCA can provide the wholesale supplier. In brief, starting small enables the SFPUC to establish revenues that augment a larger commitment to lock-in service for the whole City.

San Francisco's phase-in strategy will be based on California Public Utilities Commission (CPUC) regulations and statutes (AB117, SB790). In the CCA proceeding (R.03-10-003) the CPUC allowed CCAs to implement phase-in strategies without restrictions. One previous example of CCA phase-in, in a similar contractual relationship to Shell North America, is the Marin Energy Authority, which has opted to implement *two* phases over a two-year process, serving Phase I with 14,000 customers since 2010, and currently planning to send opt-out notifications to all customers in Marin county, amounting to 82,000 customers in all.

LPI's initial framework for customer phase-in follows a similar timeframe, but will be differentiated by the fact that CleanPowerSF intends to develop local and customer-owned resources in parallel with the customer phase-in, whereas MEA, while intending to develop significant local renewable resources, is starting power service first and has delayed any significant development of local resources until a later date.

Overview

The customer phase-in will begin with CleanPowerSF's planned enrollment of 20 to 30 MW of customer demand for a Phase I 100% renewable product at a price premium. Subsequent enrollments will be designed to supply a minimum 51% renewable product at bill parity to ensure competitive customer retention in an eventual City-wide enrollment.

Phase I customers who initially paid a premium for 100% renewable power supplied by remote assets will be transferred to different rate schedules and associated products (i.e. efficiency retrofits, Community Renewable Shares, etc.), which will be available to customers of subsequent phases as well. As the load from Phase I customers is diminished, the Phase I power will be blended into the supply of subsequent phases to dilute the cost premium (as Phase I represents less than 6% of the potential CleanPowerSF load).

These phases will be implemented to satisfy the revenue requirements set by the construction of in-City and out-of-City assets, on a timeline informed by the SFPUC Power Agency's ability to issue bonds and to provide collateral sufficient for the wholesale supplier to bring new customer load in to the program.

Phase-In Design Parameters

Whereas Phase I will focus on early adopters in the residential sector, subsequent phases must present all remaining customers with competitive offering as compared to Pacific Gas & Electric's extant service. Specifically, competitiveness should be defined as 1) rate-parity within a specified percentage band, 2) bill savings achieved through the financing and implementation of demand-side retrofits and 3) integrated, customer-focused service offerings that offer both electric and natural gas efficiency and renewable generation measures, electric vehicle infrastructure, demand response and dispatch, district heating and cooling, and tailored rate schedules. Success will require defining a competitive portfolio to achieve 80% or more participation.

This will require the incorporation of Hetch Hetchy power and out-of-City developments such as the 150 MW wind farm into the portfolio, in order to reduce the overall cost of service. Local Power has received generation and sales records from the SFPUC Power agency for the last four years, and is analyzing this data. Revenue amounts associated with these transactions will be requested so that our analysis will accurately predict revenue impacts to the SFPUC balance sheet.

The phase-in schedule will include consideration of SFPUC's balance sheet, specifically the revenue, debt, and structure of SFPUC's water and power municipal utility. Because the SFPUC is the H-Bond issuing agency, the revenue and debt impacts of CCA phase-in to full enrollment must demonstrably fit SFPUC's investment supporting capacity, and be shaped to augment that capacity as well. The phase-in schedule will be contextualized within the prospectus for the Chief Financial Officer and board of the agency.

The in-City deployment will use the City's voter-approved Charter authority Section 9.107.8 to issue SFPUC revenue bonds (H Bonds), pursuant to Board of Supervisors authorization, to finance or refinance the acquisition, construction, installation, equipping, improvement or rehabilitation of equipment or facilities for renewable energy and energy conservation. The SFPUC has recently received indication of its bond rating based on its rate restructuring. Bonds may be issued based upon:

- Captured revenue from Phase I, Phase II, and subsequent phases of CleanPowerSF;
- Tailored rates and on-bill or off-bill financing mechanisms defined by the measures or product being implemented, liability of customers, repossession, leases or other security.

Some larger renewable distributed generation facility development timelines may be constrained by expected permitting delays or procedure factors, such as California Environmental Quality Act requirements, impacting the amount of purchased power required each year. The portfolio schedule model will incorporate these factors into a timeline and show procured power levels to support subsequent phases.

Lessening High Opt-Out Rates in Phase I

A leading concern has been the projected high opt-out rate of Phase I customers, caused by the price premium. Because customers which have elected to opt-out of CleanPowerSF may not be re-enrolled by an opt-out mechanism in future, and would have to actively choose to opt-in, the Phase I strategy could result in nearly half of residential customers being ineligible for opt-out service in subsequent phases.

Local Power has proposed expanding the customer poll within our existing scope in order to pre-screen customers for acceptance of the Phase I premium product before enrolling them, in order to minimize the eventual opt-out rate. LAFCO staff has suggested additional funds are available for this expansion of scope, and have requested a budget and scope to review.

Opt-out rates may be further minimized by diminishing the price premium associated with the 100% renewable product. Local Power has proposed to SFPUC staff that adding non-residential load to Phase I with a selection process that ‘flattens’ the resulting load profile by supplementing ‘peaky’ residential load with off-peak non-residential load should diminish Shell’s cost-basis for serving Phase I load. The parameters of this analysis have not been defined, as explained in the proceeding section.

Another consideration is that Hetch Hetchy power could be blended into the Phase I product to offset the price premium while maintaining the marketing benefit associated with the renewable content. As noted previously, Local Power has received generation and sales records from the SFPUC Power agency for the last four years, and is analyzing this data. Revenue amounts associated with these transactions will be requested so that our analysis will accurately predict revenue impacts to the SFPUC balance sheet.

Integration of Wholesale Procurement and Local in-City Assets

A key aspect of the customer phase-in strategy is how 1) the selection of customers, 2) the timed construction of portfolio components, and 3) the operational dispatch of built portfolio components may all be integrated with wholesale power procurement scheduling in order to enhance overall program cost-effectiveness.

The basic concept is that strategically shaping the City’s load profile, both seasonally on average and on a day-to-day operational basis, should diminish the wholesale suppliers’ cost-basis for serving the City. This is chiefly because of four factors:

1. The cost of electricity varies throughout the time of day and across seasons; strategically shaping the City’s loadshape, and dispatching resources in response to price signals, should provide cost savings.

2. Shell is providing a firm and shaped renewable power supply matched to the residential load profile of the Phase I customer base. As this product is diluted into subsequent phases, the loadshape served will change. Shell's cost basis for supplying this power may decrease, as the timing of their power supply may be more closely matched by in-City demand.
3. The decrease in overall imported electricity anticipated from the in-City deployment diminishes the wholesale supplier's exposure to natural gas price volatility and associated risk premium, because they are able to contract for a lesser amount of fuel than would normally be required to serve the City. This diminished volatility is essentially being replaced by predictable interest rates from financing the construction of in-City assets, and should result in a net portfolio 'win' if the benefits of the diminished volatility accrue to or are shared with CleanPowerSF instead of being retained by the wholesale supplier.
4. When technically feasible and allowed by regulations, it may be cheaper to meet the Resource Adequacy (RA) requirements of the City's program with demand response, demand dispatch, storage, combined heat and power, and EV managed charging assets than it is to contract with remote single-cycle combustion turbines.

The phase-in strategy should be informed by these issues in several ways:

- Adding non-residential load to Phase I with a selection process that 'flattens' the resulting load profile by supplementing 'peaky' residential load with off-peak non-residential load should diminish Shell's cost-basis for serving Phase I load.
 - Local Power has described a potential analysis to SFPUC staff, in which we 1) run weather-normalization regressions on non-residential meter data in order to 2) then select non-residential accounts with the particular load-shape characteristics necessary to 'flatten' the load profile.
- Analyzing how the cost-basis of the Phase I premium power product could change as CleanPowerSF's load shape changes may reveal potential savings.
- Actively managing the City's day-to-day load profile by deploying and coordinating dispatchable assets in response to wholesale price signals should yield cost savings.
 - Measures such as demand response, demand-dispatch, consumer electric vehicle managed charging, and combined heat and power may be dispatched (to varying degrees), and provide a relatively high degree of confidence.
- Actively shaping the overall City's load profile through in-City distributed generation and demand-side deployments to 'flatten' the overall load shape should yield cost savings. The effectiveness of each technology in the portfolio to predictably impact the City's load profile varies:
 - Permanent load shifting technologies and practices provide a high degree of confidence. These include thermal storage (ice or chilled hot water), non-

thermal storage, the shifting of facility process loads, and electric vehicle managed charging of commercial or institutional vehicle fleets with predictable operating hours and charge levels.

- Solar photovoltaics produce consistent energy predictably.
- Many demand-side measures and practices permanently change the load shape of the premise at which they are installed, but can be analytically difficult to predict both 1) at the portfolio level because of a lack of statistically robust end-use loadshape datasets applicable to all segments of San Francisco customers and 2) at the customer premise-level because of behavioral factors.
 - Nevertheless, this uncertainty varies by end-use and customer segment. For example, a lighting retrofit at an office complex will have predictable peak demand impacts.
 - Billing data analytical methods may be used to identify 1) weather-sensitive coincident peak demand customer loads, and/or 2) certain customer types such as refrigerated warehouses, which would be likely candidates for thermal retrofits or permanent load shifting technologies.
 - With the implementation of master meter-, circuit-, and major appliance-level monitoring equipment, communications take-out, and related software ('smart buildings') the impact of EE measures may be tracked in a detailed fashion.
- Time-of-use rate schedules, especially when deployed with enabling automation technologies, may incentivize customers that are able and willing to shift a portion of their energy consumption to off-peak periods.

Considering the potential magnitude of the in-City deployment, it is important to ascertain to what extent these are valid assumptions, and if so, what the relevant analytical parameters are so that this project may take them into account. Local Power has completed its analysis of the December, 2011 draft Shell and Noble Contracts, and is developing a set of proposed questions and subject matter areas for discussion with Shell and Noble, which we will submit for SFPUC review. If our request to interview Shell and Noble is not approved by the SFPUC in an expedited manner, it will compromise our ability to complete our near-term and overall analysis.

City and County of San Francisco Load Volumes

San Francisco's total combined Citywide load currently consumes around 6,000 GWh of electricity annually, with a peak load of roughly 970 MW. Approximately 42%, or 2,400 GWh, of San Francisco's demand is supplied by from non-fossil, non-nuclear sources (including large hydroelectric). Generally, San Francisco's private sector load is served by PG&E, while the City's municipal load, along with tenants of municipal facilities (such as San Francisco airport and the ports) is served by the SFPUC. PG&E supplies about 76% (4,472 GWh) of total city power, SFPUC

supplies around 16% (956 GWh), and third-party electricity services providers (ESPs) supply the remaining 7% (423 GWh) to DA customers.

Relevant Aspects of the Shell and Noble Contracts

The extant Phase I agreement with Shell North America (SENA) contains substitution, displacement, and resale provisions that treat Phase II load as a fixed volume, rather than a migrating volume to support incremental in-City deployments. A flexible, multi-phase approach is needed to avoid creating marginal risk by implementing numerous phases of new customer load in coordination with the deployment of in-City assets, so that new customers are added as Phase I load is reduced. This strategy will be worked out in greater detail based upon the rollout schedule being undertaken in Subtask B and Subtask C, but is a very important aspect of the conceptual framework to anticipate in order to make the SENA Phase I agreements cohere with and support the in-City deployment.

Resource Substitution, Displacement, and Addition

SFPUC staff indicates that Shell can claim no legal contractual rights beyond the supply of the initial 20-30MW of power. In subsequent phases, substitution may occur, but renewable resources will also serve new additional customers and associated load volumes; if staff are correct, no substitution penalty should apply to the remainder of the full enrollment volume.¹ The plan is to go to full enrollment, thus to increase the number of customers exponentially over the next few years in order to increase load and serve it substantially from newly launched projects, starting at scale in 2013. Staff's December 13th 2011 presentation to the SFPUC Commission indicated that "once customer revenue stream is established, renewable build-out to follow, with City resources layered in to replace Shell resources."²

SFPUC staff indicate that there exists as of yet no strategy for Phase II service, and LPI understands the substitution language in the SENA agreement concerns only displacements of the 20-30 MW of power. For this Phase I SENA volume, the agreement states that at the sole discretion of City, Shell Energy shall integrate into the portfolio of resources to serve Customers any and all Energy designated by the City from City Facilities, and shall credit City for the actual value received by Shell Energy from CAISO for the Energy, Resource Adequacy Capacity and Ancillary Services from such City Facilities. Except for Energy from HHWP Generation transferred by means of the HHWP Logical Meter, Energy and Ancillary Services from City Facilities shall be scheduled by Inter-Scheduling Coordinator Trades between the scheduling coordinator for the relevant City Facilities and Shell Energy.

The same section of the agreement provides that Shell Energy shall incorporate Energy from Hetch-Hetchy Generation via the use of an HHWP Logical Meter pursuant to procedures established between HHWP and the CAISO. Further, Resource Adequacy Capacity from City Facilities shall be incorporated into the City's capacity portfolio via procedures established

¹ This volume will be defined in subsequent Task B deliverables. In principle, it is defined by the aggregate account volumes for all PG&E customers in San Francisco, but will ultimately be integrated into SFPUC supply to all its accounts, including Hetch Hetchy Power customers and Economic Development Zone customers on Treasure Island and Hunter's Point (and Transbay Terminal?).

² Mike Campbell, PPT attached to December 13 presentation, p.8

between City and Shell Energy, consistent with the CAISO Tariff. Specifically, the Confirmation agreement provides that Shell Energy shall include the Energy from HHWP Generation and HHWP Energy Bank Withdrawals in its calculation of the proportion of Carbon Neutral Energy (in accordance with Section 1.3). Finally, under the agreement, Shell Energy shall not charge City for incorporating City Facilities into the City resource portfolio, other than as set forth in Subsections 9.1.2 and 9.1.3 if applicable, and to pass through CAISO Charges associated with the Inter-Scheduling Coordinator Trades. If the City requests Shell Energy to be the scheduling coordinator for City Facilities, Shell Energy shall provide such services only upon the mutual agreement by the Parties of the terms and conditions (including any service fee) for such services, under review by Shell Energy.³

While the CCA program power contracting volumes, associated volumes of revenue, and potential financing, are separate from SFPUC's existing Hetch-Hetchy power operation, the City is prepared to share Hetch-Hetchy excess capacity with CCA customers, and intends to provide full municipal utility service as an electrical distribution company as well. In order to clarify the financial model for the CCA and thus show the basis for the issuance of H Bonds based up SFPUC's balance sheet, LPI must include assumptions and predict values for each of these components of SFPUC's Power Enterprise.

During Phase I, installed local renewables, energy efficiency will displace load and thus be impacted by substitution unless new load may be added incrementally. Customer phase-in may also include incremental opt-out notifications based on scheduled online dates for new in-City renewable and demand-side assets.

In the event that these assets come online prior to the adding of new load, the integration required of SENA may result in the displacement of SENA's "fixed price product." Under the agreement, if such integration displaces a fixed price Product to be sold by Shell Energy under this Confirmation (a "Fixed Price Product Displacement") and provided that Shell Energy is made whole pursuant to Subsection 9.1.3, Shell Energy shall, at the City's sole discretion, integrate into the portfolio of resources to serve Customers any and all Renewable Energy, Resources Adequacy Capacity, and Energy designated by the City from City Facilities.⁴

The SENA agreement contains a "Fixed Price Product Displacement Process" that defines a procedure in which the City shall provide Shell Energy not less than sixty (60) days written notice that Energy, Resource Adequacy Capacity and Renewable Energy will be available pursuant to a Fixed Price Product Displacement. Within ten (10) Business Days of receipt of such notice, Shell Energy shall notify the City in writing of the costs, determined in accordance with this Subsection 9.1.3, that Shell Energy expects to incur in connection with the proposed Fixed Price Product Displacement.

Resource Substitution Mechanism - Notice Requirement Provisions

In this same section of the agreement, it appears that little multi-year planning is envisaged to allow for a minimization or adjustment of procurement volumes to minimize the stranding of

³ Section 9.1.1, Integration of Energy, Resource Adequacy Capacity and Ancillary Services Shell Confirmation Agreement, pp. 17-18.

⁴ Section 9.1.2 Integration of Renewable Energy. Resource Adequacy Capacity and Energy that Displaces a Fixed Price Product, Shell Confirmation Agreement, pp. 17-18.

locked in energy, instead using a sixty (60) day SFPUC minimum notice requirement. In order to determine the costs resulting from the short notice, under the agreement Shell Energy shall calculate a price adjustment reflecting all reasonable and actual documented costs Shell Energy incurs in connection with the Fixed Price Product Displacement, including reimbursement from City for any costs associated with hedging and other fees, costs, and losses directly incurred by Shell Energy in reducing the Energy, Resource Adequacy Capacity and Renewable Energy otherwise provided to City at fixed prices pursuant to this Confirmation, such costs to be offset by any revenues or gains of Shell Energy realized thereby. Shell Energy agrees to use commercially reasonable efforts to minimize such costs to City. Upon receipt of such written cost determination, the City shall have the right (but not the obligation) to direct Shell Energy in writing within [] Business Days to undertake the proposed Fixed Price Product Displacement at the price set forth in Shell Energy's notice of cost determination, unless the Parties agree in writing on another price.⁵

The agreement leaves negotiation to amend the underlying credit agreements in place between Shell Energy and City to good faith between the parties, so that amounts paid by the City's Customers to PG&E and then into the Secured Account discussed in the Security Agreement shall be apportioned as security between the Parties based on the quantity of Energy, Resource Adequacy Capacity, Ancillary Services and Renewable Energy delivered by City to its Customers from the City Facilities as compared with the Energy, Resource Adequacy Capacity, Ancillary Services and Renewable Energy delivered by Shell Energy pursuant to this Confirmation.⁶

Wholesale Procurement Cost Drivers

The resource substitution process described in section 9 of the CleanPowerSF Confirmation Agreement provides a subjective approach to review Shell's costs associated with resource replacement as various elements of the CCA program are defined. We will need to further analyze Shell's cost basis for power components, to satisfy analytical parameters detailed in the preceding section "Integration of Wholesale Procurement and Local in-City Assets". We will also need to consider what process and criteria will be used to assess how actual incurred costs are associated with the resource substitution events, and focus on the definition of "reasonable" under the current Phase I regime.

Phase I Volumes. The SFPUC presentation indicates that under the agreement, "Shell takes on banded volume risk:

- 5% +/- compared to forecast monthly sales volumes.
- Actual sales volumes above or beyond band to be set by weighted average spot price during the period.⁷

Rates. The Shell Purchase and Sale Agreement gives Shell conditional ability to increase prices by 5%:

⁵ Section 9.1.3, Shell Confirmation Agreement, pp. 17-18.

⁶ Section 9.2, Shell Confirmation Agreement, pp. 17-18.

⁷ Campbell powerpoint presentation on Shell Contract to SFPUC, Dec 13, p. 11.

“(a) At its sole discretion, Shell Energy may offer the City to enter into a Confirmation substantially in the form of the Confirmation attached to this Master Agreement as Appendix. II. If the unit price offered by Shell Energy for a Product is five percent (5%) or more higher than the indicative unit price as of December 9, 2011, set forth in Appendix II, Shell Energy shall provide to the City a written statement discussing the rationale for the higher prices. Nothing herein shall be interpreted to require Shell Energy or the City to enter into any Confirmation during the term of this Master Agreement irrespective of whether or not such Confirmation is substantially in the form of Appendix II. Each Party retains sole and absolute discretion on whether or not, and on what terms to enter into a Confirmation pursuant to this Master Agreement, except that the General Manager of the San Francisco Public Utilities Commission may only to enter into a Confirmation with terms within the limits set forth in Appendix I.”⁸

Shell’s Phase I load substitution language for the integration of City facilities provides that CleanPowerSF “may independently gain control of or enter into contractual arrangements with respect to specific electric supply or demand-side resources procured from other third parties or independently owned or controlled by City (“City Facilities”), including HHWP Generation and HHWP Energy Bank Withdrawals, and Shell shall incorporate these resources into the portfolio to serve the Customers in accordance with this Section 9.”⁹

Key questions to clarify for subsequent phases are whether CleanPowerSF may shift the 20-30 Phase I power (designed presumably to serve a residential daily demand curve) to Phase II load, and whether there any costs or benefits related to changes in the Phase II demand curve. If this or the actual schedule of SENA capacity requires it to serve residential load, then subsequent phases will disproportionately bear the price premium attached to the SENA load, minus the degree to which the In-City Rollout and Customer Phase In Strategy can 1) strategically modify the CleanPowerSF aggregate load curve and 2) obtain compensation for that modification from SENA. LPI needs to clarify with Shell this and other related questions in order to assess the cost basis impacts of transitioning CleanPowerSF from serving residential customers in the City to serving all residents and the majority of businesses, from 20-30 MW to over 500 MW of capacity.

Clarification of Supplier Responsibilities

The current agreement does not anticipate the load migration and adding of load during Phase I, and appears (in the December 13 SFPUC-approved version) to give Shell future rights to loads phased in during the 5 year period:

“Under this contract, Shell will provide and the City will purchase the following for four and one half-years: (i) electricity to serve CleanPowerSF customers, including renewable energy; (ii) scheduling coordinator services to go along with the power supplied.”¹⁰

As observed above, the ability to implement in-City Generation during Phase I may require incremental adding of load in order to migrate the power. However, for the City to serve this

⁸ Shell Energy Purchase and Sale Agreement, p. Article 2.1 a, p.11.

⁹ Shell Confirmation Agreement, Section 9 & 9.1, pp. 17-18.

¹⁰ Background, Contract with Shell, December 13 SFPUC approved document.

incrementally added new load, it would need the option to migrate loads flexibly to new providers under its control. LPI has requested to interview SENA on this point and other related points, but has not been granted permission, and needs to clarify 1) whether the City is bound to purchase additional supply from Shell for the 4.5 year duration of the contract if it adds load during that period and 2) whether the City may without penalty contract for supply for further phases with entities other than Shell. If not, a ‘chicken-and-egg’ problem may be created which would substantially slow and increase the cost of implementing subsequent phases. More flexibility on this point or clarification to the agreement may be warranted.

Revenue Conflicts Between Shell, Noble, and the In-City Deployment

The Noble Americas back-office provisions of the agreement also defines the terms according to a Phase I universe, and apparently fail to take the City’s Phase II preparation needs into consideration, and appear to indicate that the CCA program will “eventually serve 75,000 customers” rather than citywide enrollment:

“Noble assumed that the CCA will eventually serve 75,000 residential meters and a small number of commercial meters using 283,000 MWhr per year in the PG&E service territory. If there is a Material Change to these quantities, a modification of the implementation phases, or a change in the CCA rate structure, Noble could adjust the Fees discussed above in order to cover its additional costs. A "Material change" shall be at least a 20% deviation from these quantities.”¹¹

Implementing demand-side measures and Community Renewable Shares during Phase I will substantially reduce demand, both for SENA and Noble Americas, the City’s Schedule Coordinator.

The Noble back-office profits are driven by volumetric sales, putting them in a revenue conflict with energy efficiency goals of the in-City rollout. Under the agreement, fees payable by the City to Noble are defined as an Electricity Usage Fee (a monthly fee of \$0.45 for every MWh of metered usage of CCA customers); and a Meter Fee (a monthly fee of \$1.75 for each CCA Customer meter enrolled in the CCA service).¹²

Details on the Replacement Price of City Power

City-owned or -contracted resources to replace products not supplied by Shell Energy, and the price assumed for such products, is also a factor in the Phase I schedule and subsequent customer phase-in. Substitution language in the Shell Energy Purchase and Sale Agreement defines the “replacement price” of substituted City-owned power, as “an auditable amount comprised of the price at which the City, acting in a commercially reasonable manner and as necessary to ensure that Customers receive the Products for which they paid, purchases at the Supply Point a replacement for any Product specified in a Confirmation but not delivered by Shell Energy, plus (i) costs reasonably incurred by the City in purchasing such substitute Product and (ii) additional transmission charges, if any, reasonably incurred by the City to the Supply Point, or at the City’s option, the market price at the Delivery Point for such Product not

¹¹ Noble Draft Term Sheet, Dec 13, p.11.

¹² Noble Term Sheet, p.11.

delivered as determined by the City in a commercially reasonable manner; Provided, however, in no event shall such price include any penalties, ratcheted demand or similar charges, nor shall the City be required to utilize or change its utilization of its owned or controlled assets or market positions to minimize Shell Energy's liability.”¹³

The agreement also defines the Sales Price for power resold by Shell:

"Sales Price" means an auditable amount comprised of the price at which Shell Energy, acting in a commercially reasonable manner, resells at the Supply Point any Product not received by the City, deducting from such proceeds any (i) costs reasonably incurred by Shell Energy in reselling such Product and (ii) additional transmission charges, if any, reasonably incurred by Shell Energy in delivering such Product to the third party purchasers, or at Shell Energy's option, the market price at the Delivery Point for such Product not received as determined by Shell Energy in a commercially reasonable manner; provided, however, in no event shall such price include any penalties, ratcheted demand or similar charges, nor shall Shell Energy be required to utilize or change its utilization of its owned or controlled assets, including contractual assets, or market positions to minimize the City's liability. For purposes of this definition, Shell Energy shall be considered to have resold such Product to the extent Shell Energy shall have entered into one or more arrangements in a commercially reasonable manner whereby Shell Energy repurchases its obligation to purchase and receive the Product from another party at the Supply Point.”¹⁴

The agreement leaves the sale of “anticipated excess renewable energy” based on a renewable energy adjustments and reconciliation procedure that is under SENA’s control, though under City consent:

In the event the Parties anticipate that deliveries of one or more types of Renewable Energy during a future time period will be greater than needed for City's compliance with the City's Renewable Objectives (the amount of such anticipated excess(es) referred to herein as "Anticipated Excess Renewable Energy"), Shell Energy shall offer to remarket such Anticipated Excess Renewable Energy for City during such time period. For each such remarketing transaction that is consummated, Shell Energy shall credit or charge the City for the difference between the proceeds received by Shell Energy from remarketing the Anticipated Excess Renewable Energy and what Shell Energy would have received if the Anticipated Excess Renewable Energy had been delivered to the City. Shell Energy shall make commercially reasonable efforts to maximize the value of such Anticipated Excess Renewable Energy offered to be remarketed on behalf of City provided that Shell Energy shall not enter into any such transaction for remarketing without City's prior written consent and acceptance of such transaction. Each remarketing of Renewable Energy consummated pursuant to this Subsection 6.1.2 shall adjust (i.e., reduce) the Committed Quantity of Renewable Energy in Exhibit IC by the amount of Renewable Energy remarketed for the applicable type of Renewable Energy and applicable time period. [Under review by Shell Energy].”¹⁵

¹³ Section 1.63 of Shell “Energy Purchase and Sale Agreement, Dec 13, p.8.

¹⁴ Section 1.67, Shell Energy Purchase and Sale Agreement, pp 8-9.

¹⁵ (Section 6.1., Quarterly Renewable Energy Adjustments, Shell Confirmation Agreement, November 29 p.13).

LPI has requested clarification on what level of underlying cost information will be available to the SF PUC as part of its Transaction review and approval process. LPI has also requested confirmation that substitution penalties apply only to the 30 MW of load being sold, but would not apply to loads beyond that under this agreement, even for accounts beyond 20-30 MW during Phase I service – to support in-City rollout installations made during that 4.5 year period