Application of SAN DIEGO GAS & ELECTRIC COMPANY (U 902 E) For Authority To Implement Optional Pilot Program To Increase Customer Access To Solar Generated Electricity

Application	12-01-008
Exhibit No.:	

UPDATED PREPARED DIRECT TESTIMONY OF DAWN OSBORNE CHAPTER 2 ON BEHALF OF SAN DIEGO GAS & ELECTRIC COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

MAY 10, 2013



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UPDATED PREPARED DIRECT TESTIMONY OF

DAWN OSBORNE

CHAPTER 2

connected.....to the sun.

I. INTRODUCTION

My testimony describes San Diego Gas & Electric Company's ("SDG&E's") proposed pilot programs, termed "SunRateSM," and "Share the SunSM,". These two offerings will be collectively branded under SDG&E's "connected.....to the sun" umbrella name and will give all bundled customers the opportunity to access solar energy even if they cannot afford a traditional solar investment or do not have the ability to put solar panels on their roof. Customers can choose to buy all or some of their energy from local solar projects with each pilot serving varying customer needs.

My testimony provides an introduction to "green pricing" concepts and an overview of the programs, along with details on the structure, enrollment process, marketing and outreach, and administration of SDG&E's proposal. In addition, my testimony will explain how these programs are intended to grow and evolve based on customer participation. To implement the proposed *SunRate* and *Share the Sun* pilot programs, SDG&E seeks the following authority from the Commission:

SunRate and *Share the Sun* pilot programs:

Approval to implement the pilot programs based on the policies and guidelines
outlined in this testimony, which includes consumer protection provisions and solar
provider and customer participation requirements and terms.

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"Green pricing" is defined as an optional utility service that allows customers an opportunity to support a greater level of utility company investment in renewable energy. Recently, the concept of community solar has emerged within the renewable energy sector, whereby customers purchase or subscribe to the rights to the capacity of a portion of a community solar system. In return, customers obtain a proportionate allocation of the system's output, which is then credited on their utility bill. SDG&E's proposed pilots are similar to both of these concepts while also containing some unique attributes.

The National Renewable Energy Laboratory's ("NREL") recent report, *Status and Trends in U.S. Compliance and Voluntary Renewable Energy Certificate Markets (2010 Data)*, provides a good overview of green pricing and community solar programs status today. The following highlights some of the report's information:

- Growth in renewable energy development over the past decade has led to the increasing adoption of renewable energy credits ("RECs") as a means to track and trade the environmental benefits of renewable energy generation. RECs can be sold either unbundled (separate from electricity) or bundled (included with the sale of electricity) (p. 1).
- "Compliance" markets refer to RECs that can be used to meet state RPS requirements (id.).

¹ U.S. Department of Energy's Green Power Network website: http://apps3.eere.energy.gov/greenpower/markets/index.shtml.

² NREL report: Status and Trends in U.S. Compliance and Voluntary Renewable Energy Certificate Markets (2010 Data), p.28.

- "Voluntary" markets for renewable energy, or "green power" markets, are those in which consumers and institutions purchase renewable energy to match their electricity needs on a voluntary basis (*id.*).
- Today, more than 860 utilities offer green power programs to their customers. As a result, more than half of U.S. electricity customers have an option to purchase some type of green power. In utility green pricing programs, RECs are obtained by the utility and offered to customers. Utilities differ in how they procure RECs for their green pricing programs but often enter into power purchase agreements for the energy and RECs. In other cases, they may procure unbundled RECs (*id.*).
- In 2010, on average, renewable energy sold through green pricing programs in 2010 represented 1.1% of total utility electricity sales (on a megawatt-hour basis). Top performing programs saw rates ranging from 3.4% to 22.6%. (p. 22).
- At the end of 2010, the average participation rate in utility green pricing programs was 2.1% with top-performing programs indicating participation rates ranging from 5.3% to 21.5% in 2010. Generally utility green pricing programs experienced a slight decrease from 2009 likely due to the economy (pp. 26-27).
- Typically, green pricing programs are structured so that customers can either purchase green power for a certain percentage of their electricity use (often called "percent-of-use products") or in discrete amounts or blocks at a fixed price ("block products"), such as a 100 kilowatt hour ("kWh") block. Most utilities offer block products but may also allow customers to buy green power for their entire monthly electricity use. Utilities that offer percent-of-use products generally allow residential customers to elect to purchase 25%, 50%, or 100% of their electricity use as

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renewable energy, while a few offer fractions as small as 10%. Under these types of programs, larger purchasers, such as businesses, can often purchase green power for some fraction of their electricity use as well (p. 28).

The majority of new utility programs introduced in recent years have been community solar programs. Between January 2008 and September 2011, twelve community solar programs were developed by or in conjunction with utilities, and many have expanded program sizes over that time period (p. 36).

В. SDG&E's Research Indicates Residential Customer Interest

During SDG&E's investigation of a community solar option, it also conducted residential customer research³ to see if SDG&E customers would have similar levels of interest in a green pricing program, or more specifically, supporting a local solar green pricing program. The research found that based on the survey respondent's first impression of a local solar green program, 60% of respondents were at least somewhat interested in participating without knowing the price and of this group, and 18% were very interested. Of those interested, 40% expressed willingness to pay an additional cost between \$11 - \$25 a month to participate in such a program.

While these results are substantially higher than what other programs currently experience and may not reflect actual participation levels, they signal a healthy customer interest level and suggest that SDG&E should move forward with a pilot program to test actual customer interest. Moreover, customers may now expect SDG&E to offer a voluntary green pricing program based on the adoption of programs by other utilities and increased awareness of renewable energy in the nation. SDG&E also found in its research that customers' preference

SDG&E residential customer web-based panel survey, Feb. 2011. A total of 842 panelist completed survey providing 95% confidence level with margin of error +/- 2%.

was almost evenly split between a simple "green tariff" versus a "community solar type program," and respondents tended to prefer solar over other renewable energy sources.⁴

SDG&E's research and experience from other programs aided in designing the proposed pilot offerings. SDG&E's decision to foster new local solar development in the region (rather than develop a program where the utility simply provides unbundled RECs) supports customers' preferred renewable energy source, while also providing greater direct value to the region.

SDG&Es goal of increasing local solar is also consistent with secondary research, as highlighted in an NREL report by Lori Bird and Jenny Sumner:

Ensuring the absence of double counting is important to the integrity of the market because consumers who pay a premium for green power want to support renewable energy that would not have been otherwise supported through regulatory requirements.⁵

In addition, proposing two solar pilot offerings, one a simple solar tariff rate and the other a community solar experience, is also supported by customer research and provides expanded opportunities to San Diego's solar industry. SDG&E believes the timing is right to move forward with its proposed solar pilots given the declining cost of solar, customer interest and successful performance of other similar green offerings.

III. PROGRAM BENEFITS

SDG&E's proposed *Share the Sun* and *SunRate* pilot programs benefits customers, solar providers and the environment in a wide variety of ways; namely, the program:

⁴ Customer preference for solar compared to other renewable resources was also found in Nielsen Research, *Energy Trends* in October, 2009 which indicated that of 32,000 respondents, 37% preferred solar compared to 32% having no preference 32% and 16% preferring wind.

⁵ See Lori Bird and Jenny Sumner, "Green Power Marketing in the United States: A Status Report (2009 Data)," NREL/TP-6A20-49403, September 2010, p. 10.

- 1. Provides customers with an easy way to access local solar energy. Customers have the flexibility to tailor their subscription to meet their individual needs by selecting the amount of solar energy in the subscription and the term. Customer subscriptions will travel with them when relocating to a new address as long as the customer remains within SDG&E's service territory;
- 2. Provides complementary tariffed programs that expand customers' solar options.
 Share the Sun allows participants to acquire the rights to the output of a shared local solar facility. The solar facility is developed and marketed by a third party solar provider. SunRate is a "green tariff" that allows all or part of a customer's consumption to be met through a blend of new local solar facilities contracted by SDG&E;
- 3. Provides an alternative to customers who are unable or unwilling to install solar on their roof. Customers will be able to have solar energy without the concern of physical property limitations, maintenance or large outlays of funds;
- Allows customers to subscribe to solar energy from local solar facilities that may benefit from economies of scale typically realized by larger solar facilities and more optimal solar conditions;
- Supports the growth of new local solar projects to meet the needs of the programs' participants;
- Enables customers to achieve their sustainability goals and environmental needs,
 while also supporting the California's expanded renewable energy goals; and

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7. Expands market opportunities for solar providers in two ways: (1) expands their market to new customer segments, and (2) introduces a new, more sustainable solar business model and rate structure.

IV. DESCRIPTION OF SDG&E PILOT PROGRAMS

While most customers support the development of solar energy, relatively few actually have the ability to own or lease solar photovoltaic ("PV") systems. Many customers would like to install solar, but may rent their residence, do not live in homes or own businesses that allow for solar installations or can't make a long term commitment. SDG&E's proposed pilot programs, *SunRate* and *Share the Sun*, are intended to provide options for customers who do not have the opportunity to pursue rooftop solar energy and will allow all customers served by SDG&E to purchase green energy from local solar projects and directly participate in the market for solar energy generated within the San Diego region.

The first of these offerings, referred to as *SunRate*, will allow any bundled customer an option to buy solar energy through a simple, tariff-based rate. The second offering, called *Share the Sun*, will allow customers the option to purchase solar services (such as the rights to the capacity) produced by a specific solar facility directly from participating solar providers. The *Share the Sun* program provides customers with a more direct solar experience and the additional benefit of having a choice of solar providers who may potentially offer more varied solar services. Both programs are described in greater detail below, and are designed based on the following key principles:

- Make solar energy available to all bundled customers, regardless of property ownership, income level and credit rating, above and beyond SDG&E's RPS compliance requirements;
- 2. Facilitate a new market for solar providers;

- 3. Maintain non-participant rate indifference;
- 4. Protect consumers;

- 5. Minimize costly grid impacts; and
- 6. Allow for market feedback to develop future innovative community solar projects based on solar provider and customer participation.

A. SunRate Overview

Under the *SunRate* program, SDG&E will make available solar energy through a voluntary tariff. SDG&E will allocate up to a maximum of 10 MW of solar energy for the initial *SunRate* pilot program from local solar facilities.⁶ Customers will have the option to buy solar energy in volumes equal to all or just a portion of their total energy usage, which will be priced based on the price SDG&E pays for solar energy with the necessary adjustments to keep non-participating customers indifferent.⁷

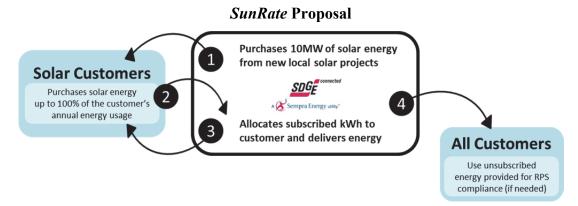
The program is designed for simplicity and to allow customers to take their solar service with them if they move to another location served by SDG&E. Moreover, a customer's participation in the program provides them with "green" local solar energy while also increasing the amount of local solar. To this end, SDG&E will retire the RECs associated with the customer's participation on their behalf, assuring that their energy purchases actually support the development of new, local renewable resources that are separate from and additional to SDG&E's power purchases to meet SDG&E's RPS compliance requirements.⁸

The direct testimony of Hillary Hebert describes the process and selection of solar facilities that will support *SunRate* customer subscriptions. Unless otherwise specified, all citations to testimony herein are to the updated testimony served in this proceeding pursuant to the scoping memo.

⁷ The direct testimony of Chris Yunker, Chapter 3, describes the rate design of this program.

⁸ Testimony of Hillary Hebert, Section II, describes the process SDG&E will use to track and retire RECs associated with participating customer's subscriptions.

Here, schematically, is how the proposal works:



Customers can purchase local solar energy from SDG&E at the solar portfolio cost. A minimum one-year subscription commitment is required. Customers can locked-in a fixed cost with a longer term commitment.

1. SunRate Customer Eligibility and Enrollment Process

As described in the direct testimony of Hillary Hebert, SDG&E intends to procure an additional 10 MWs of solar energy from local projects once this application is approved. Assuming an initial offering of 10 MW (21,900 MWh annually), the *SunRate* program is expected to be fully subscribed with less than 5,000 customers or less than 0.5% of SDG&E's residential and business customer base. Compared to the 2% average participation rate of other utility green pricing programs, this is a conservative initial offering.

All bundled SDG&E customers will be eligible to participate in the program and SDG&E will subscribe customers to the program on a first come-first served basis. For the pilot launch, SDG&E will initially establish parameters to ensure customer groups have adequate access to the

⁹ Testimony of Hillary Hebert, Section II.

Customers will subscribe to the program by electing to purchase local solar power for a certain percentage of their electricity use. Based on a 50/50 split between residential and business customers, less than 4,000 residential customers and 1,000 business customers will fully subscribe the initial offering of 10MW. This assumes an average energy use per customer that elects to participate at a 50% level.

¹¹ NREL, Status and Trends in U.S. Compliance and Voluntary Renewable Energy Certificate Markets (2010 Data), pp. 26-27.

program. Half of the program MWh will be designated for residential customers and the remainder for business customers. Additionally, business customer subscriptions will be limited to a maximum subscription level of 109,500 kWh annually (approximately 50kW). While SDG&E believes that the program will be most attractive to its smaller and mid-sized business customers who have less access to solar, limiting subscriptions to approximately 50kW per business customer will ensure that more customers can participate in the pilot program. Based on actual customer participation levels, SDG&E reserves the right to adjust these limits at its discretion.

Once a customer has chosen a *SunRate* subscription to fit their needs via the online tools, the customer will be able to enroll online¹² by completing a short application and accepting the program's terms and conditions. SDG&E will process the customer's enrollment in the program and send the customer a Welcome Packet, which will confirm the customer's subscription, program terms and conditions and will show how the program's subscription charges appear on the customer's bill. The Welcome Packet will also provide additional information on other services that the customer may be interested in, such as energy efficiency programs, SDG&E billing and payment options and other sustainability tips. Participants will also be recognized for their participation and helping to make their community a better place to live and work with a small token of appreciation, such as a window sticker for their car, home or business. The customer's participation in the *SunRate* program will begin with the billing period month after their enrollment application is processed. An example *SunRate* enrollment process flow can be found in Appendix A.

SDG&E will encourage customers to enroll online because it will offer customers with the best option to learn about the program, the easiest process to enroll and the least cost administration. If preferred, customers will also be able to receive help from an SDG&E representative and enroll for the program over the phone.

2. SunRate Participant Subscription Levels

The *SunRate* program allows customers to voluntarily elect to purchase local solar energy to satisfy up to 100% of their electricity needs. ¹³ Accordingly, customers would pay the *SunRate* price, which will be reflected as a new line item on their SDG&E bill. SDG&E initially proposed that customers could elect to meet specific percentages of their energy use with *SunRate* (e.g., 50%, 75% and 100%). However, based on input from workshops ¹⁴ and stakeholders, SDG&E has changed the *SunRate* proposal to allow customers to elect any percentage level that meets their needs, up to 100%. This change better allows customers on a fixed or limited income to participate by having greater flexibility to match subscription level to income needs. SDG&E expects that this approach will also increase participation. ¹⁵ SDG&E will offer an online estimation tool to help customers select the participation percentage level that best meets their energy and financial needs.

3. SunRate Participant Subscription Durations

Participants will be able to tailor their subscription in the program further by committing to the length of time they wish to participate. All customers participating in the *SunRate* program will be charged monthly for the service. Customers can opt to: (1) participate on a month-to-month basis (a minimum of 1 year is required) or, (2) commit to a long-term contract

Note that the customer is buying solar energy in volumes to their desired percentage of actual energy use. This solar energy will be produced according to the solar portfolio's delivery profile and does not imply that the customer will actually receive solar energy to meet their energy use profile.

¹⁴ In its original testimony served January 17, 2012, SDG&E requested Commission authorization for workshops to refine program details with stakeholders. The scoping memo, dated November 1, 2012, granted such workshops.

¹⁵ SDG&E is also mindful that allowing customers to elect a very low percentage level may create an unintended administrative cost burden depending on the length of time and percentage customers subscribe to *SunRate*. The pilot will provide a good testing ground to evaluate actual experience and determine if additional parameters are needed with an expansion of the program.

of either 2, 3, 5 or 10 years. These options are intended to serve the varying needs of customers and to allow customers to lock in their local solar energy cost with a longer-term commitment.¹⁶

Under the month-to-month subscription, the customer's program participation continues until they proactively terminate from the program. To manage administrative costs and SDG&E's energy portfolio, new customers will be required to stay on the program for at least 12 months.¹⁷ Customers wishing to cancel prior to the first 12 months will be subject to a termination fee.¹⁸ After the first year, customers on the month-to-month subscription option will be subject to *SunRate* rate changes and can cancel at any time. The primary customer benefit of this option is that customers are not required to commit to a period greater than one year.

Under the long-term subscription option, the participant's monthly SDG&E bill will indicate the time remaining in their term and SDG&E will also notify the customer a month before their subscription term ends. Once a customer's term ends, they will have the option to terminate their participation in the program with no penalty, ¹⁹ commit to a new term under the then-current *SunRate* tariff rate or continue to participate under the month-to-month option. Customers who fail to elect an action at the end of their term will default to the month-to-month *SunRate* option, at the then-current subscription rate until SDG&E receives further notification from the customer. The customer will have the ability to cancel any time thereafter without a termination fee, or commit to a new long-term contract at the then current program rate. The

Customers committing to a longer-term will lock in their solar cost for their subscription level over that duration of time.

¹⁷ A one year minimum enrollment is consistent with SDG&E's Rule 12.d which indicates a customer may request only one rate schedule change for the purpose of obtaining preferential rates, priority of service, or avoiding minimum charges in any twelve-month period.

¹⁸ The termination fee rate design and sample rates are described in the testimony of Chris Yunker.

¹⁹ Customers that choose to terminate prior to their commitment term ending will be subject to a termination fee.

4. SunRate Participant's Solar Energy Charges and Billing Changes

Customers participating in the program will continue to be billed for their otherwise applicable transmission and distribution charges and commodity charges. The *SunRate* program tariff will include the *SunRate* rate, providing the basis for customer billing. SDG&E expects that *SunRate* participation will result in three new line items on the customer's SDG&E bill. The three combined reflects the customer's incremental cost of participating in the program. All *SunRate* charges will be based on the customer's subscription level in the program, meaning that if the customer's subscription is at 50%, all *SunRate* billing will be based on 50% of the customer's actual energy usage. The following provides a summary of each of the billing line items. The program's rate design methodology and calculations are described in the testimony of Chris Yunker.

- 1. **SunRate** Solar Energy Cost Reflects the *SunRate* solar energy cost. This will be a simple cost-per-kWh rate which will be multiplied by the kWh related to the customer's subscription level for the month. The rate will remain fixed during the customer's subscription *SunRate* term.
- 2. **Average Commodity Cost Credit** As mentioned above, *SunRate* customers will be billed for their otherwise applicable SDG&E charges, which includes their commodity charges. This credit provides an applicable credit since participants are also paying for commodity through the *SunRate* solar energy cost. The average commodity cost credit will be updated when SDG&E updates commodity rates. For customers participating under a *SunRate* long-term commitment, the

3. **SunRate** Customer Service Adjustment - Reflects the customer's share of costs to maintain bundled customer indifference as described in the testimony of Chris Yunker. The charge will be updated periodically.

Following Commission approval of the program, SDG&E will review the bill presentation options and may conduct customer research to confirm customer preference for bill presentment options. SDG&E may revise the final customer bill presentation to better meet the needs of customers or billing operational needs.

5. Subscription Portability, Resale and Transferability

Participants will be able to take their subscriptions with them when they move, as long as the participant continues to have an electric service account with SDG&E. While SDG&E will make best efforts to remind the customer about transferring their subscription to the new address, it will be the customer's ultimate responsibility to request the transfer of their *SunRate* subscription to their new address. If the customer's subscription is canceled due to the customer's error, the customer's re-enrollment will be subject to program availability under the program's current rates. Participants will not be able to resell, transfer, bequest, gift or convey their subscriptions to any another party.

6. Additional SunRate Program Terms and Conditions

As a part of the participant's enrollment process, customers will acknowledge and agree to program terms and conditions to ensure they are making an informed decision and to provide SDG&E with reasonable liability safeguards. Such conditions include the confirmation of the customer's subscription choices and responsibilities; acknowledgment they may pay more for energy by enrolling in the program; agreement not to hold SDG&E liable for consequential

damages they may suffer because of their enrollment; agree to arbitration to resolve claims against SDG&E that cannot be resolved through the Commission's dispute resolution process;²⁰ and, acknowledge that SDG&E or the Commission may modify, revise or terminate the program. A more detailed listing of conditions can be found in Appendix A of my testimony.

B. Share the Sun Overview

The second solar offering, *Share the Sun*, is similar to *SunRate* in that it gives customers access to solar energy. However, *Share the Sun* provides the customer the opportunity to contract directly with participating solar providers to subscribe to a specific, local solar facility. *Share the Sun* participating solar providers will sell the participating facility's energy to SDG&E and will contract with SDG&E customers to sell the rights to the capacity produced by such projects. The solar provider agrees to assign its payment for energy sold to SDG&E to the customer and SDG&E will credit the customer's monthly bill for the contracted value of the energy produced by the customer's subscribed portion of the solar facility's capacity. The program gives customers a choice of participating solar providers and solar services the customer is most interested in. The program also creates a new opportunity for solar providers to develop additional solar projects and gives them access to SDG&E bundled customers who do not have the ability to invest in or lease rooftop photovoltaic systems.

Under the proposed *Share the Sun* pilot:

• SDG&E and the solar provider will execute a standard program power purchase agreement where SDG&E agrees to buy all generation output of a participating solar

²⁰ SDG&E will pay the direct costs of the arbitration proceeding (excluding attorneys and expert witness fees) on the customer's behalf.

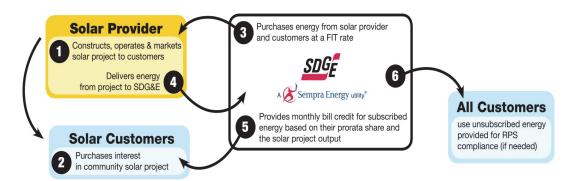
facility for a specific term and the solar provider agrees to assign its energy payment to subscribed customers.

- SDG&E will purchase the solar energy generated by the customer's subscribed portion of the solar project and provide a monthly bill credit to participating customers based on their assigned facility's actual generation.
- SDG&E will supply and bill participating customers with a like amount of solar energy and retire the RECs associated with the energy on behalf of the customer.
- SDG&E will take delivery of, and pay for, all unsubscribed solar energy from solar developers which will support SDG&E's RPS compliance.

SDG&E will publicize the opportunity for solar providers to participate in *Share the Sun*. Interested solar providers must be able to successfully work with customers and to build a renewable energy facility. Once enrolled in the program, participating solar providers will be allowed to market their solar facility to and contract with customers in accordance with general program rules. Solar providers will then facilitate the completion and submittal of required customer enrollment forms to SDG&E and SDG&E will enroll the customer's account in the program.

Here, schematically, is how the proposal works:

Share the Sun Proposal



Customers have opportunity to contract directly with participating solar providers to subscribe to a specific, local solar facility. RECs associated with subscribed energy are retired by SDG&E on behalf of the customer. Customer subscriptions do not count toward SDG&E's RPS requirements.

1. Share the Sun Customer Eligibility and Enrollment Process

All bundled SDG&E customers are eligible to participate in the program for up to 120% of their annual electrical usage, allowing customers to offset an amount that accounts for fluctuations in their annual energy usage.

The customer will work directly with the solar provider to complete all documentation and agreements required by the solar provider, as well as all SDG&E paperwork.²¹ The solar provider will then provide the completed SDG&E enrollment forms to SDG&E on the customer's behalf. A list of forms the solar provider will be required to provide to SDG&E to enroll a customer includes:

• A standard form developed by SDG&E certifying and authorizing SDG&E to subscribe the customer to the solar provider's project and assign the applicable solar

²¹ Workshop discussions suggested that a consolidated enrollment process where the solar provider submits the customer's SDG&E agreement would lead to greater efficiency and convenience for the customer and solar provider.

provider energy payment to the customer. This form will include the prorata allocation of the facility's output to be assigned to the customer (by account) and the customer's contract term with the provider.²²

• The customer's signed *Share the Sun* Customer Program Participation Agreement with SDG&E, which includes the customer's authorization to release their electric energy usage and pertinent billing information to the solar provider.

Once the enrollment process is complete, both the customer and the solar provider will receive a confirmation from SDG&E, which will identify the effective date of the customer's participation in the program. Participating customers will also receive a *Share the Sun* Welcome Packet similar to that described above for the *SunRate* program.

2. Share the Sun Customer Program Participation Agreement23

Although the customer will sign up for the program through the solar provider, the customer will execute, as part of the forms provided by the solar provider, an agreement with SDG&E to enroll in the program. Similar to *SunRate*, *Share the Sun* program participants will acknowledge and agree to program terms and conditions. Because customers will work directly with third parties, the customer will acknowledge and agree to additional terms as a part of the customer's enrollment and program agreement. Examples of such terms include the customer's acknowledgement that SDG&E does not endorse or recommend any specific participating solar provider and makes no representations or warranties with respect to any participating solar

The prorata allocation information is consistent with SDG&E Virtual Net Metering process and is required so SDG&E can determine how the facility's energy will allocate to each of the customer's accounts in order to perform the customer billing related activities described in Section (IV)(B)(6) and how much unsubscribed energy in the provider's facility that SDG&E must procure under its RPS.

²³ Some or all of these terms may be given to the customer through an agreement or through the program tariff. The language included in this section is intended to be an explanation, and not the full text, of the terms and conditions that will be included in the final agreement or tariff.

provider or any project; that the customer may lose money, earn no bill credits, or a lower bill credit than expected; that SDG&E may make operational decisions with respect to the customer's assigned facility's power purchase agreement in favor of all ratepayers, which may conflict with participant's interests; and, that SDG&E is released from any claims related to Customer's agreement with any solar provider or its participation in any facility. A more detailed listing of conditions, as well as an example *Share the Sun* enrollment process flow, can be found in Appendix A.

3. Share the Sun Participant Subscription Levels

Customers will work directly with solar providers to contract for their solar services in a specific participating solar facility. Solar providers will have the flexibility to offer the contracted arrangement that best meets their business model related to customer subscriptions in facilities, as long as such business model meets all of SDG&E's legal requirements for participation in the program. The subscription level available to each participating customer is within the discretion of the solar provider, provided it meets the following requirements:

- Solar providers will subscribe and manage customer participation to their facility based on a prorata allocation of that facility.
- Customers can subscribe up to 120% of their subscribed accounts annual energy usage with SDG&E.
- Solar providers will be responsible for managing participation to no more than 100%
 of a facility's nameplate capacity's eligibility in the program and how subscriptions
 are managed between interested customers based on the total project availability.
- Service under this program must be taken in combination with the customer's otherwise applicable rate schedule.

- For the pilot and for ease of implementation, SDG&E will require minimum *Share* the Sun subscription terms as outlined in Appendix A.
- Solar providers are responsible for submitting the customer's completed enrollment forms in a manner and timing prescribed by SDG&E.
- Solar providers are responsible for submitting changes to a customer's account subscription level in a manner and timing prescribed by SDG&E, but such account changes shall be limited to once annually without a fee. Solar providers requesting additional changes will be subject to a processing fee.

4. Share the Sun Participant Subscription Durations

Workshop discussions elicited constructive feedback on SDG&E's originally proposed terms of 5, 10 or 15 years. Certain stakeholders suggested that customers and solar providers would like more flexibility to develop a term mutually suitable term. As such, SDG&E will allow customers to participate on a month-to-month basis with a minimum subscription term of one year, up to the remaining duration of the solar provider's PPA with SDG&E. The term of the solar provider's agreement with the customer must match the term of the customer's agreement with SDG&E. The solar provider will provide the term during the enrollment process.

The customer will remain enrolled in the program under their assigned solar facility until the customer's enrollment is terminated or expires.²⁴ Unless the customer and solar provider commit to, and provide to SDG&E, a new term before conclusion of the customer's existing term, SDG&E will remove the customer from the program with notice to the customer and solar

²⁴ Customer's participating on a month to month basis have no specific committed term beyond one year and as such, will remain an active participant until terminated by the customer or solar provider.

provider. Customers who contact SDG&E with an early termination request will be directed back to their solar provider to ensure they are aware of any contractual requirements associated with early termination. Solar providers will be subject to an SDG&E early termination fee associated with their customer's early termination, unless the solar provider backfills the terminating customer's subscription with another eligible customer. The termination fee calculation and proposed amounts are described in the testimony of Chris Yunker.²⁵

Subscriptions will travel with the customer to new addresses, as long as the customer continues to be served by SDG&E as its bundled retail customer at the new address. While SDG&E will make best efforts to remind customers of their obligation to notify SDG&E of a transfer of address, it will be the customer's ultimate responsibility to request the transfer. If the customer's subscription is canceled due to the customer's error in failing to inform SDG&E of their wish to move the subscription, the customer will need to arrange re-enrollment with SDG&E through their solar provider.

Participants will be able to resell, transfer, bequest, gift or convey their solar provider agreement to another party provided the following conditions are met: (1) the terms of the customer's agreement with the solar provider and applicable law permit such a transfer and the transferee accepts the terms of the agreement, (2) the transferee is an eligible SDG&E customer and transferee enrolls/re-enrolls in *Share the Sun*, in accordance with its terms, and (3) the solar provider coordinates the change with SDG&E. All subscriptions must remain with customers being served electric commodity by SDG&E.

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²⁵ Testimony of Chris Yunker, section IV-I.

5. Share the Sun Solar Energy Charges and Billing Changes

As a part of SDG&E's customer's enrollment forms for the program (provided to the customer by the solar provider on SDG&E's behalf), customers will list their enrolling SDG&E account number(s) with the requested allocation of the customer's subscription to the applicable account(s). As a condition of the program, the customer must agree to move their enrolled account(s) to the same billing cycle as their subscribed solar facility. Consistent billing periods will make it easier for customers to understand their bills and facilitate more efficient billing activities. SDG&E will process the customer's enrollment and start providing solar energy benefits the following month after enrollment is made.

On a monthly basis, SDG&E will read each participating solar facility's generation meter and allocate the generation output among participants' accounts based on each customer's assigned prorate allocation of such output. This monthly allocation will determine the participating customer's kWh associated with their subscription for billing purposes.

The customer's agreement with the solar provider will assign the customer's respective portion of the solar provider's Feed-in-Tariff ("FiT") energy payments under the solar provider's PPA²⁷ with SDG&E in the form of a bill credit. The customer's bill will also include an incremental charge associated with the price of the energy purchased from that solar facility.²⁸ In addition, the customer will pay their solar provider directly for any costs associated with their

²⁶ This alignment is consistent with SDG&E's existing Virtual Net Metering billing processes, which are being leveraged where possible to support *Share the Sun's* billing implementation.

²⁷ As described in the prepared direct testimony of Hillary Hebert, SDG&E agrees to buy the generation output from the facility consistent with FiT pricing terms of their agreement with SDG&E. Any subscribed capacity from the participating solar project will be paid to the customer in the form of a bill credit while any unsubscribed capacity is paid directly to the solar provider.

²⁸ The program's pricing structure is described in the prepared direct testimony of Chris Yunker.

subscription related to their assigned facility. SDG&E will not include these solar provider costs as a part of the customer's SDG&E bill.

a. Summary of Participant's SDG&E Billing Changes

Customers participating in the program will continue to be billed for their otherwise applicable transmission and distribution charges and commodity charges. While the *Share the Sun* uses the same fundamental billing processes as *SunRate*, there are a few differences. First, the amount of energy the customer receives related to their subscription will depend on their agreement with their solar provider and the actual generation output of their assigned solar facility (meaning the customer's monthly kWh in their subscription will be independent of the customer's actual energy usage). Second, the solar energy cost calculation is based on the solar provider's FiT agreement with SDG&E. Third, participants will receive a bill credit for the value of their solar energy subscription which has been assigned from their solar provider to the customer. SDG&E expects that *Share the Sun* participants will see four new line items on their SDG&E bill. Three of the line items will be the same as *SunRate*, which combined, reflects the customer's incremental cost of participating in the program. The fourth, explained in more detail below, is a bill credit which represents SDG&E's purchase of the solar energy associated with the customer's subscription.

The following provides a summary of the billing line items. The program's rate design methodology and calculations are described in the testimony of Chris Yunker.

Share the Sun Solar Energy Cost – This line reflects the Share the Sun energy cost.
 This cost will be calculated by applying the FiT agreement pricing terms between

 SDG&E and the solar provider.²⁹ The FiT agreement pricing terms are fixed over the life of the agreement, but subscription kWh and costs are dependent on the facility's production. A solar value adjustment is also applied, which calculates the relative value of energy and capacity of the *Share the Sun* solar resource compared to SDG&E's portfolio of resources serving SDG&E's bundled load.

- 2. Average Commodity Cost Credit As mentioned above, customers will be billed for their otherwise applicable SDG&E charges, which includes their commodity charges. This credit provides an applicable credit since participants are also paying for commodity through the *SunRate* solar energy cost. The average commodity cost credit will be updated when SDG&E updates commodity rates.
- 3. Share the Sun Customer Service Adjustment Reflects the customer's share of other costs to maintain bundled customer indifference as described in the testimony of Chris Yunker. The charge will be updated periodically.
- 4. *Share the Sun* Bill Credit As more fully explained below, this item reflects SDG&E's purchase of the solar energy associated with the customer's subscription.

Following Commission approval of the program, SDG&E will review the bill presentation options and may conduct customer research to confirm customer preference for bill presentment options. SDG&E may revise the final customer bill presentation to better meet the needs of customers or billing operational needs.

The FiT agreement applies specific pricing factors to the facility's energy production based on peak/nonpeak periods (Time of Day Factors). The price and Time of Day Factors in the agreement are fixed over the term of the agreement, but the facility's actual production (kWh produced and timing of the production) may vary month to month. The customer's *Share the Sun* energy costs and bill credit will be based on the specific FiT pricing in the agreement between the solar provider and SDG&E.

Once the Commission has approved the program, SDG&E will review the bill presentation options and may conduct customer research to confirm this is the customer's preferred option to display program charges.³⁰ SDG&E may revise the final customer bill presentation to better meet the needs of customers or billing operational needs.

b. Share the Sun Bill Credit

As part of the FiT agreement between SDG&E and the solar provider, SDG&E will agree to buy all the generation output from the participating solar facility at the FiT price. Participating solar providers will then assign the solar facility's FiT payment to its subscribers to be paid by SDG&E in the form of a monthly bill credit. Thus, the Share the Sun Bill Credit represents SDG&E's purchase of the solar energy associated with the customer's subscription. The bill credit amount will be based on the SB32 FiT pricing for the energy delivered under the customer's *Share the Sun* subscription and will be applied to the customer's total SDG&E bill. Any remaining credit will be carried over to the customer's next monthly bill, eliminating the need for a program annual reconciliation. The design of the program limits customer subscriptions to 120% of their annual energy use, which will reduce the likelihood of participant's seeing a substantial credit balance remaining on the customer's account on an annual basis. However, if a credit balance exists, customers can request and receive a refund annually. The customer's monthly Share the Sun bill credit will vary monthly based on the facility's FiT payment which is based on both the time and amount of energy produced by the system during the month.

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Workshop discussions suggested that combining these charges into one billing line item may be preferred by customers. In advance of such a change, SDG&E would prefer to first test this concept with customers. As such, SDG&E's testimony will continue to refer to multiple billing line items, but SDG&E requests the flexibility to consolidate multiple billing line items into one if preferred by customers.

6. Share the Sun Solar Provider Qualifications

The program's success and expansion will require satisfied customers, successful solar providers and subscribed participating solar facilities.³¹ The intent of SDG&E's solar provider qualifications and consumer protection requirements is to: (1) ensure solar providers can meet program needs – both the ability to build and successfully operate a renewable facility - and to service customers, and (2) ensure that customers can make an informed decision that allows them to easily evaluate solar provider proposals, fully understand their financial obligations, as well as be fully aware of the benefits and risks or participating in the program.

a. Qualification Process

SDG&E recommends the Commission as the best entity to qualify and oversee solar providers participating in the *Share the Sun* program, similar to its Energy Service Provider certification for Direct Access. This process may also be advantageous to the Commission as a benchmark if statewide community solar statute is signed into law; enabling the development of the qualification process and oversight rules early that can later be expanded to a statewide program. The qualification criteria in the following section are proposed as recommendations that the Commission could easily adopt. If the Commission determines that it will not qualify the program's solar providers, SDG&E will require solar providers to meet these requirements as a part of participating in the program.

b. **Qualification Criteria**

Solar providers must meet the qualification criteria within two principal areas: the construction and management of a renewable energy facility and the program-specific criteria outlined herein. With respect to the first, all participating solar providers must meet and comply

³¹ Solar stakeholders agreed during workshops that a positive customer experience and engagement within the community are important attributes of a community solar program.

with the terms of SDG&E's FiT PPA as described in the testimony of Hillary Hebert, in order to validate their ability to build and successfully operate a renewable facility. With respect to the second, solar providers will need to meet the additional program requirements outlined below related to successful customer interaction, consumer protection and other specific program requirements.

In addition to SDG&E's FiT requirements, the following qualification criteria will be required for participating solar providers:

- Solar providers must have required licensing/registration which are generally consistent with the California Solar Initiative solar contractor requirements:
 - Registration as a Renewable Retailer & Installer with the California Energy
 Commission ("CEC")
 - Licensed and bonded with proof of good standing on record with the California
 Secretary of State as required for corporate and limited liability entities
 - o Properly licensed by the California Contractors' State License Board
- Solar providers must be able to demonstrate their business structure supports the program requirements:
 - Document their experience working with retail and commercial customers, and the solar provider's business structure.
 - The solar provider must provide proof that its proposed business model (including all marketing and advertising) will not violate federal or state securities laws by

 (a) providing a clean, reasoned legal opinion stating the same, in a form acceptable to SDG&E, or (b) requesting and receiving a no-action letter from the Securities and Exchange Commission stating that such business model does not

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involve the offer or sale of securities. Solar providers may pursue these options individually, or an industry group may act on behalf of its members to do the same. Each participating solar provider must represent and warrant to SDG&E that they will abide by the facts as described in either the opinion or the no-action letter, including with respect to all written and verbal communications. The legal opinion must be provided by a law firm approved by SDG&E before issuance; provided, however that a law firm who is a member of the American Lawyer (AmLaw) Top 50 for 2012 shall be acceptable without prior approval from SDG&E. The workshop participants agreed that a program such as *Share the Sun* that offers participation rights to the public may create securities issues that must be resolved to protect all participants. While the workshop recommendations have helped SDG&E refine its requirements, additional proposed alternatives were not acceptable to SDG&E. SDG&E believes this issue is one of the most important consumer protection concerns and program risks that must be addressed, and will continue to work with solar providers and stakeholders in hopes of identifying other solutions. Until another acceptable solution is

7. Share the Sun Solar Provider Terms and Conditions

identified, SDG&E will require a legal opinion or no-action letter as described.

In addition to the provisions discussed above, SDG&E proposes requirements for solar providers participating in the program, with the intent to establish the right balance between consumer protection and an open marketplace for solar providers. The program will require a standard Solar Provider *Share the Sun* Program Agreement with SDG&E that each participating solar provider will be required to sign, in addition to the PPA. The following provides an overview of those proposed terms. A more detailed list of terms can be found in Appendix A.

Solar providers will: (1) be solely responsible for their compliance with applicable laws, Commission decisions and the *Share the Sun* program terms, including responsibility for all subcontractors; (2) keep customer information confidential; (3) allow Commission oversight over consumer complaints that cannot be resolved between the customer and solar provider; (4) assume responsibility for tax liability when considering its business structure, and for communicating any tax liability to customers, (5) comply with SDG&E's co-branding policy; and (6) adhere to the terms of both the *Share the Sun* program agreement and the PPA; meaning that default under one agreement will cause default in the other.

a. Required Provisions for the Customer/Solar Provider Agreement

Although SDG&E is not a party to the customer's agreement with the solar provider, SDG&E will require the solar provider to make certain disclosures and representations to the customer in that agreement, for the customer's protection:

- Program Intent: The solar provider must notify the customer that the Share the Sun
 program is intended to allow customers to purchase solar power, not to profit from
 participation.
- which fully discloses any financial safety net that is available to the customer, including how the customer will be protected. Conversely, the agreement must fully disclose any financial responsibilities that the customer may be at risk before signing the agreement, such as the customer's rights in the event of the solar provider's default under the PPA or the solar provider/SDG&E agreement, bankruptcy, casualty, or insolvency (including customer's payment for its energy rights).

• *Customer Complaints*: Customers may bring complaints against a solar provider through the Commission complaint process.

- Notifications of Status: Solar providers will agree to keep customers fully informed of changes in the operating status of their facility, and in particular, those that may adversely affect participants' expected bill credit amount. Such situations, include but not limited to the following:
 - facility production falls outside of normal operating levels
 - the solar provider has breached a material term of the solar provider/SDG&E
 agreement or the PPA, or is in default under either agreement

b. Standard Pricing Form

SDG&E understands that participating solar providers will use various business models and pricing designs, and confirmed in workshops that it is equally important for customers to have a tool to better allow them to make informed decisions by comparing different solar provider quotes in the same, or substantially similar, terms. To that end, SDG&E will develop, with input from solar providers, a standard pricing form that will be used by participating solar providers to aid customers in comparing subscription proposals. SDG&E believes the standard pricing form should include such information as: (1) the facility's capacity rating (KWAC), (2) expected kWh production, (3) expected SDG&E solar energy cost and bill credit, (4) all costs and charges (upfront, monthly and future), including such cost responsibilities as maintenance, (5) tax liabilities and benefits, and (6) buyer beware clause.

c. Solar Provider Informational Sheet

SDG&E will provide an informational sheet of considerations on its website to help customers when evaluating proposals from one or more solar providers, similar to what CSI

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administrators currently provide to customers.³² In addition to the standard pricing form noted

- Confirm the status of the solar provider's registration as a Renewable Retailer & Installer with the CEC and its current licenses and bonds
- Check references reliable sources may be the Better Business Bureau ("BBB"), the California Secretary of State (for proof of good standing), and this Commission (if a
- Examine customer feedback conduct internet searches, talk to those who may have used the solar provider, etc., in an effort to find out as much information as possible
- Discuss the solar provider's experience with retail customer programs
- Discuss the solar provider's experience constructing, operating and maintaining solar
- Inquire about and understand his or her rights if the solar provider defaults under its agreements with SDG&E, or its agreement with the customer. Example questions to the solar provider may include: Will the customer be made whole? What financial responsibilities may the customer have?
- Inquire about and understand the dispute resolution process for conflicts between the solar provider and customer
- Inquire about and understand whether the customer is, or may be, subject to additional taxation because of its enrollment in the project.

³² The California Center for sustainable Energy provides similar assistance to customers "Things to know before contacting a Solar Contractor" at http://energycenter.org/index.php/incentiveprograms/california-solar-initiative/residential/265-things-to-know-before-contacting-a-solar-installer.

d. Consumer Complaint Process

Customers should first attempt to resolve issues directly with the solar provider. If SDG&E is initially contacted with a customer's complaint regarding their solar provider, SDG&E will refer the customer back to the solar provider. If the issue is still unresolved after the initial attempt with the solar provider and the customer contacts SDG&E again, SDG&E will, as a courtesy, contact the solar provider's customer service management to make them aware of the customer's concerns and request they contact the customer to resolve. This is the appropriate action for SDG&E since SDG&E is not a party to the customer's agreement(s) with the solar provider and has no contractual oversight authority between the customer and solar provider.

SDG&E also recommends that the Commission allow the customer to file an informal complaint directly with the Commission's Consumer Affairs Branch as an aid to help resolve the complaint. The customer may also elect to file a complaint in accordance with the dispute provision of its agreement with the solar provider.

V. SUBSCRIPTIONS PROVIDE PARTICIPANTS WITH GREEN ENERGY

SDG&E will retire RECs that exceed each customer's RPS obligation (*i.e.* 20%), on behalf of all participating customers as described in the testimony of Hillary Hebert. Retiring the RECs in this manner will permit participants to claim in a very real sense that their subscriptions contribute to the demand for, and the development of, local solar generation.

VI. COMBINED PROGRAM CUSTOMER OUTREACH & PARTICIPANT COMMUNICATIONS

A. Marketing and Outreach

SDG&E will educate customers about both programs using various forms of communications, such as local media, electronic communications, messages on customer bills, SDG&E's website and in coordination with other SDG&E services. In addition, SDG&E will

work with local communities, local multi-cultural organizations and media, environmental groups, and other stakeholders to assist with outreach. SDG&E will also consider the use of multi-lingual marketing materials to assist with customer outreach. SDG&E intends to keep outreach costs at a minimal level and expects the pilot to be fully subscribed using these tactics. SDG&E may consider expanding to other marketing tactics as needed based on actual pilot experience.

B. Participation in the CARB Voluntary Renewable Electricity Program

Workshop parties suggested that participation in the Voluntary Renewable Electricity ("VRE") program may help market the pilot programs to customers and support California's greenhouse gas ("GHG") reduction goals. The California Air Resources Board ("CARB") established the VRE program as part of the statewide cap-and-trade program to reduce GHG emissions. The purposes of the VRE account are to: (1) recognize voluntary GHG emission reductions, which help to meet the declining cap, (2) support the growth of the voluntary renewable energy sector, (3) support the reduction in cost for voluntary renewable electricity systems, and (4) promote new technology.

Renewable energy generators under both the *SunRate* and *Share the Sun* programs will meet the VRE eligibility criteria set forth in current regulation to provide certified renewable electricity as part of *connected.....to the sun.*³³ Allowance retirement will begin in 2014 for 2013 generation. SDG&E anticipates that CARB will release more information on the mechanisms for reporting and retiring allowances in the upcoming year. SDG&E will closely review any information that CARB provides on these mechanisms.

³³ Cal. Code of Regulations, Title 17, § 95841.1, contains CARB's requirements for the VRE program. Section 95841.1(b)(1)(B) states that the "Generator of the renewable electricity or RECs must be certified as RPS eligible by the ... [CEC], or must meet design and installation standards pursuant to the ... [CEC's] Guidelines for California's Solar Electric Incentive Programs, third edition, June 2010."

SDG&E would be able to aggregate participating customers' load and report it on their behalf to CARB annually. SDG&E would retire the corresponding RECs in a WREGIS subaccount on behalf of participating customers. SDG&E is working with CARB on ways to facilitate the *connected.....to the sun* REC reporting in the context of VRE, and SDG&E is optimistic that CARB will provide guidance and templates to streamline this process by the time SDG&E launches this program if approved.

SDG&E has preliminarily assessed the administrative costs of participation to be approximately \$5,000 annually.³⁴ Based on this level of effort, SDG&E plans to participate in the VRE program with the caveat that if the participation requirements change, SDG&E reserves the right to reassess participation based on changes to administrative costs, the marketing value to the program and benefits to customers.

C. Program Website

Interested customers will be directed to SDG&E's website to learn about the program. The website will include: a) pilot program information and an overview, b) information on how to enroll, (c) Frequently Asked Questions ("FAQs"), (d) interactive tools to support customer choice in the program, (e) program enrollment forms and contracts as applicable, and (f) SDG&E program contact information. The on-line tools will help customers understand different participation levels, understand their SDG&E billing impacts, the options available that may best suit a customer's individual needs, and how the customer's participation translates into environmental benefits.

³⁴ Cal. Code of Regulations, Title 17, § 95841.1, contains CARB's requirements for the VRE program, including reporting requirements. SDG&E has estimated its administrative costs based on those requirements.

For *SunRate*, interested customers may also use online enrollment tools to determine their preferred percentage subscription level and the corresponding anticipated price. As *SunRate* is a simpler green utility tariff program, SDG&E's online tools will provide interested customers with the estimated financial impact of their participation. Customers wishing to enroll will be able to view participation requirements and complete their enrollment online. Customers will also be able to understand the amount of renewable energy that is already present through SDG&E's RPS requirements.

For *Share the Sun*, SDG&E will post a list of participating solar providers on SDG&E's website with hyperlinks to the solar providers' websites. Additionally, SDG&E will aid customers in making an informed decision by providing a list of questions customers should consider while evaluating *Share the Sun* solar providers. Customers will have access to a standard pricing disclosure template to easily compare solar provider offers. While the solar provider will facilitate the customer's enrollment in the program, SDG&E will post all of SDG&E's program enrollment forms and additional program information on its website for customer reference.³⁵

Workshop discussions also touched on the value of SDG&E developing *Share the Sun* online tools, which received mixed input from solar providers. Some workshop participants indicated such tools may help the customer, while others indicated the solar provider would be in the best position to provide this tool to customers. SDG&E agrees that it is necessary for the customer to receive their *Share the Sun* analysis from the solar provider. Unlike *SunRate*, which is a green tariff rate that results in a cost per kWh added to the customer's bill, *Share the Sun* participant economics are driven by the solar facility performance, the customer's specific

³⁵ SDG&E received support for these tools during its workshops with stakeholders.

agreement with the solar provider, and the FiT price, all of which may vary between solar providers and customers. Even though the solar provider will assist customers with their economic analysis, SDG&E will also continue to work with stakeholders to determine if there is value in a simple online tool on SDG&E's website that could help customers evaluate the expected impact to their SDG&E bill. The hypothetical tool would be dependent on the standard pricing information provided by the solar provider, and as such would need to contain the necessary disclaimers.

Share the Sun solar provider access to a customer's energy usage may be important in order to complete contractual arrangements and to the level of service the solar provider delivers to its customer. SDG&E customers now have access to their energy usage through SDG&E's Green Button, which was created to give customers timely access to their energy data. There are two easy ways that customers will be able to use the Green Button to access their electricity usage and to provide that information to third parties, such as solar providers. The first is the "Green Button Download My Data". Customers can download up to 13 months of their personal electricity use data and once downloaded, can provide the data for analysis to solar providers in an electronic file. The second is the "Green Button Connect My Data". Taking the Green Button one step further, Green Button Connect My Data allows customers to send their energy use data to third party applications ("apps"). Solar providers may find this interface novel in the consideration of additional tools to provide Share the Sun participants.

While SDG&E believes that the Green Button provides customers with the best resource for quickly obtaining and providing their energy data to third parties, customers may also authorize the release of their energy data to a third party by completing the form, *Authorization to: Receive Customer Information or Act on a Customer's Behalf*.

D. Participant Communications

SDG&E will keep participants updated on the program through periodic electronic newsletters. The newsletters will include information such as the number of the programs participants, achieved environmental benefits, and other relevant information.

E. Low Income Participation

SDG&E is committed to providing all customers access to voluntary green power. And while the program can help customer can fix their commodity rate, SDG&E acknowledges that participation in either program may result in a premium on the customer's bill. To that end, SDG&E will ensure its outreach clearly communicates that a customer's participation may result in a higher bill. A participating California Alternate Rates for Energy ("CARE") customer will continue to receive a discount equal to the amount the customer would have received if not participating in the program, though SDG&E does not propose extending this discount to the additional energy payment associated with each pilot program; this is consistent with SDG&E's key principle to maintain non-participant rate indifference. In addition to the proposed outreach efforts to make customers aware of both programs, SDG&E will work with its Customer Assistance Programs outreach channels to disseminate program information with other services available to low income customers.

SDG&E proposes an additional change to benefit low-income customers under *SunRate*. Input from stakeholders identified that a minimum subscription level of 50% of the customer's annual electricity usage may limit the ability for lower or fixed income customers to participate. Based on this, SDG&E has eliminated specific subscription level requirements from the pilot, giving participants the ability to select any level of subscription level. This change will allow customers greater flexibility to stipulate the percentage level that best meets their economic or personal needs. For example, if a customer wishes to spend an extra \$5 per month to receive the

benefit of local solar, the customer will have online tools to estimate the best annual subscription level to best match their desired level of participation. This option further reduces a barrier to participation in the program, while also affording customers greater flexibility.

For *Share the Sun*, SDG&E proposes to work with local workforce groups supporting employment opportunities for local underserved populations and encourages participating solar providers to consider employment opportunities for, and hire, those representing local underserved populations. Through this connection, SDG&E hopes that solar providers either create or support an existing adjunct green job training program for the local region. Solar providers will be able to highlight this community good will in the marketing of their program.

VII. PROGRAM ADMINISTRATIVE COSTS

The following provides an overview of the program administrative costs related to both pilots. The testimony of Chris Yunker discusses the administrative cost pricing options.

SDG&E is not requesting incremental funding for the program at this time. Implementation of the *SunRate* and *Share the Sun* pilot programs will require approximately \$4 million in funding over a twenty-year period (2014-2033), before loaders and escalators are applied. The program design leverages existing processes, electronic communications and effective low cost outreach tactics in order to minimize costs. Approximately half of the overall cost will be incurred during the first few years of the program, due to the development and implementation of both programs. These costs are largely related to enhancements in information technology to support the enrollment and billing functions; web online tools and collateral development to support customer education and enrollment; operational procedure development and training.

The items in the table below include the following costs: Program Management costs include overall program management for both the development and ongoing management of the programs, including operations procedure development/supervision and solar provider program

contract management; Outreach and Education costs include activities and collateral related to educating customers about both programs, welcome packets and customer research; Customer Operations Support include costs related to customer service personal to support customer inquiries related to program questions, enrollments and billing, including the development of procedures and training; Online Tools costs include web development and periodic updates to support customers' use of the program website to review program information and tools to assist with their evaluation of subscription options and enrollment in the program; and Procurement costs include electric procurement resource planning and power purchase agreement contract management for the program, VRE tracking and reporting and WREGIS sub-account fees.

Billing system upgrade costs are included under the Capital Expenditures line item.

	Program													
	Total		2014		2015		2016		2017		2018		2019-2033	
Capital Expenditures (Billing System Dev)	\$	600,000	\$	600,000	\$	-	\$	-	\$	-	\$	-	\$	-
Program Development/Management	\$	1,065,496	\$	145,000	\$	143,184	\$	43,184	\$	43,184	\$	43,184	\$	647,760
Outreach and Education	\$	691,535	\$	94,788	\$	80,771	\$	73,599	\$	5,983	\$	6,629	\$	429,765
Customer Operations Support	\$	625,318	\$	76,258	\$	42,982	\$	67,501	\$	8,134	\$	9,000	\$	421,443
Web Development and Online Tools	\$	480,000	\$	120,000	\$	-	\$	60,000	\$	-	\$	-	\$	300,000
Procurement Support	\$	627,500	\$	57,500	\$	30,000	\$	30,000	\$	30,000	\$	30,000	\$	450,000
O&M Costs		3,489,853		465,546		295,253		332,600		85,617		87,129		2,223,708
Total Project Expenditures*		4,089,853		1,065,546		295,253		332,600		85,617		87,129		2,223,708

* The Project Expenditures amounts are prior to loaders and escalators.

VIII. PROGRAM EXPANSION

The initial pilot of 20 MW (up to 10 MW allocated to *SunRate* and up to 10 MW allocated to *Share the Sun*) is intended to test customer interest, program offerings, processes, customer communications, and on-line enrollment tools. Based on this experience and continued customer interest, SDG&E plans to expand the programs periodically to include additional solar facilities for customer subscriptions – as well as potentially new program offerings. SDG&E requests authorization for future program expansions by way of advice letter filings. SDG&E also requests the flexibility to change other aspects of the program through an advice letter filing,

such as procurement methods, pricing methodology, rates and charges. SDG&E will assess the amount of subscriptions in each area and make changes to the percentages and limits based on actual participation. SDG&E will also consider the example metrics found in Appendix A, Section 4, when evaluating its decision to expand or modify the programs.

IX. PROGRAM TIMING

SDG&E anticipates it can begin implementation of both pilots in 2014, subject to the timing of a Commission ruling. SDG&E may suspend or terminate the program for new participants upon ninety (90) days prior written notice. To the extent that SDG&E wishes to terminate the program for then current participants, it will file an advice letter at the Commission within sixty (60) days of such termination, proposing the disposition of revenues received from existing subscribers during their respective subscription periods prior to the termination.

X. SUMMARY AND CONCLUSION

While many customers support the development of solar energy, relatively few actually have the ability to own or lease solar PV systems. Many customers would like to install solar, but may rent their residence or do not live in homes or own businesses that allow for solar installations. SDG&E's proposed pilot programs, *SunRate* and *Share the Sun*, are intended to provide options for customers who do not have the opportunity to pursue rooftop solar energy and will allow all customers served by SDG&E to purchase green energy from local solar projects and directly participate in the market for solar energy generated within the San Diego region, without the need for rooftop solar installation. Participating customers will benefit from solar energy produced by local solar facilities. Customers will directly support the development of new solar projects in the region, increasing the amount of solar renewable energy in the region, thereby help the environment and contribute to the growth of new job opportunities.

1	And, the proposed solar pilots will complement rooftop solar, expanding the solar market to a
2	new segment of customers. This concludes my prepared direct testimony.
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XI. STATEMENT OF QUALIFICATIONS

My name is Dawn Osborne. My business address is 8335 Century Park Court, San Diego, CA. 92123. I am employed at San Diego Gas and Electric Company (SDG&E) as an Energy Programs Manager.

I have been employed at SDG&E since 1971 and I have directed and managed customer service, call center, branch office, staff support, energy efficiency, direct access and other customer services operations at SDG&E. My work experience has included the development, implementation, management and marketing of programs for energy efficiency, customer services, direct access and distributed generation; supervision of customer contact center, bill payment offices and customer service staff. From 1998 through 2008 I was responsible for managing the customer service-related development, implementation and operations of Direct Access, including the oversight of policy matters, development of rules/procedures, billing system changes, ESP/SDG&E interactions and relations, regulatory issues and leading SDG&E activities at statewide working groups. I was also responsible for managing the development and implementation of SDG&E's Billing Agent responsibilities to the Department of Water Resources as a result of the energy crisis, including contract development/negotiations/management, development/implementation of customer billing system changes/ DWR revenue submittals/financial reporting, training of customer contact personnel and regulatory issues.

In 2008, I assumed my current position managing the Sustainable Communities Program which installs utility-owned clean energy systems, such as solar, within highly energy efficient and sustainably designed buildings. These systems provide locally generated energy to the grid.

I have previously testified before the California Public Utilities Commission.

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APPENDIX A

The terms in Sections 1 – 3 below reflect a minimum set of requirements SDG&E proposes to include in its program agreements. While SDG&E has not finalized its agreement terms, SDG&E anticipates including the same or substantially similar terms in its final agreements, which will be submitted to the Commission through an advice letter filing. Section 4 includes an example set of internal metrics SDG&E may use to evaluate the program. Sections 5 and 6 include example enrollment process flows for the *SunRate* and *Share the Sun* programs.

- 1. Example *SunRate* Terms and Conditions:
 - 1.1. The agreement will confirm the customer's chosen subscription term, customer's options to change the amount of energy purchased during its enrollment and customer's responsibilities in the event customer wishes to terminate its enrollment.
 - 1.2. Customer will acknowledge that he/she is enrolling in the *SunRate* program of its own volition and at its own risk, and that the customer may pay more for energy by enrolling in the program than if they had not enrolled.
 - 1.3. SDG&E or the Commission may modify, revise or terminate *SunRate* at any time.
 - 1.4. If a dispute arises between the customer and SDG&E that cannot be resolved through SDG&E's normal customer service procedures, the customer will be made aware of the Commission's consumer complaint process. If the dispute cannot be resolved through the Commission's dispute resolution process, the customer will be required to resolve any claims it wishes to bring against SDG&E through arbitration. SDG&E will pay the direct costs of the arbitration

- proceeding (excluding attorneys and expert witness fees) on the customer's behalf.
- 1.5. Customer must agree not to hold SDG&E liable for any indirect, special or consequential damages that the customer may suffer because of its enrollment in *SunRate*.
- 2. Example Share the Sun Customer Program Participation Agreement Terms and Conditions:
 - 2.1. The agreement will confirm the customer's chosen subscription term, the customer's options to change the amount of energy purchased during its enrollment and the customer's responsibilities in the event customer wishes to terminate its enrollment
 - 2.2. Customer's acknowledgement that SDG&E does not endorse or recommend any specific participating solar provider and does not review any customer/solar provider agreements or any solar provider's pricing proposals or project structure. Customer must agree to be solely responsible for reviewing the feasibility of the project it chooses to enroll in and to verify the qualifications, licensing, pricing, energy savings and warranties of the solar provider and its project.
 - 2.3. The customer will acknowledge that they are enrolling in the *Share the Sun* program solely of their own volition, in awareness of the terms and conditions of the program and at its own risk; that the customer may pay more for energy by enrolling in the program than if they had not enrolled, may lose money, earn no bill credits, or earn fewer or less bill credits than expected; and that as SDG&E is entering into PPAs with each solar provider to receive the power produced by

- each project, SDG&E may make operational decisions with respect to such PPAs that may conflict with customer's interests.
- 2.4. SDG&E or the Commission may modify, revise or terminate *Share the Sun* at any time.
- 2.5. If a dispute arises between the customer and SDG&E that cannot be resolved through SDG&E's normal customer service procedures, customer will be made aware of the Commission's consumer complaint process. If the dispute cannot be resolved through the Commission's dispute resolution process, customer will be required to resolve any claims it wishes to bring against SDG&E through arbitration. SDG&E will pay the direct costs of the arbitration proceeding (excluding attorneys and expert witness fees) on the customer's behalf.
- 2.6. Customer must agree not to hold SDG&E liable for any consequential damages that the customer may suffer because of its participation in *Share the Sun*, including but not limited to loss of revenue, lost profits, or loss of investment.
- 2.7. Customer must release SDG&E, its parent company and subsidiaries from any claims that Customer now has or may bring in the future against SDG&E arising out of or related to Customer's agreement with any solar provider or its participation in any project or facility, including claims arising out of SDG&E's management of its power purchase agreements with any solar provider, except for SDG&E's willful or intentional misconduct, or fraud.
- 2.8. SDG&E makes no representations or warranties to the customer, express or implied, with respect to any participating solar provider or any project.
- 3. Example *Share the Sun* Solar Provider Terms and Conditions

- 3.1. Parties must fully execute and remain in compliance with the terms of the solar provider/SDG&E program agreement, including responsibility for all subcontractors.
- 3.2. Confidentiality of Customer Data: Solar provider must keep confidential all customer data received from SDG&E or the customer and must store it securely in accordance with established security requirements, and shall only permit disclosure of such confidential customer information to any third party if the customer has provided written authorization for its release.
- 3.3. *Full compliance with the PPA:* The solar provider shall at all times be and remain in full compliance with all of the terms of the PPA to continue its participation in the program and vice versa if the solar provider is in default of the Solar Provider Share the Sun Program Agreement, it will cause the provider to also be in default of the PPA and vice versa.
- 3.4. *Disclaimer by SDG&E*: The solar provider is solely responsible for all aspects of the participating facility and agreements with its customers. The solar provider's execution of the Solar Provider Share the Sun Program Agreement, including any SDG&E review of a project's business model with respect to securities laws (as described in Section 6(b)), is not approval or qualification by SDG&E of the design, installation or operation of project, or solar provider's management of project. SDG&E disclaims all representations and warranties, express or implied, regarding the solar provider's relationship with its customers and the development and performance of the subject facility.

- 3.5. *Limitations on Transfer of Subscriptions:* The solar provider must not permit the sale of subscriptions on the open market by its subscribers. The solar provider must coordinate with SDG&E the participant's ability to resell transfer, bequest, gift or convey their solar provider agreement to another party consistent with program rules.
- 3.6. *Audit:* SDG&E reserves the right (but not the obligation) to audit the solar provider's subscription records yearly.
- 3.7. Solar Provider Default/SDG&E Termination of the Agreement: If SDG&E determines, in its sole discretion, that the solar provider is in breach of any term of the Share the Sun Solar Provider Agreement; the solar provider fails to comply with applicable laws, Commission decisions or the Share the Sun tariff; becomes insolvent, is subject to an action on behalf of creditors; makes any false representation or warranty; or fails to comply with program requirements, solar provider shall be deemed to be in default of the agreement and SDG&E shall have the right to terminate the agreement immediately with notice to the solar provider or exercise any other remedies available to SDG&E.
- 3.8. *Indemnification:* The solar provider will be required to indemnify, save, defend and hold harmless SDG&E and its affiliates, parent company, directors, employees, representatives, agents, successors and assigns from any and all claims, causes of action, suits, losses, damages, penalties, fees, or assessments arising from or in connection with solar provider's participation in the program, operation of its project(s), or failure to comply with any term of the solar provider/SDG&E agreement or violation of applicable laws. This indemnification

- obligation shall specifically extend to, without limitation, any solar provider employee, agent or representative.
- 3.9. *Limitation of Liability:* SDG&E shall not be liable to the solar provider for any injury, death, damage, loss, destruction of property or for any direct, indirect, consequential, incidental, special, or exemplary damages, including but not limited to lost profits, loss of business, or loss of goodwill, suffered by solar provider or any solar provider party (including but not limited to its directors, officers, agents, employees, successors or assigns) on account of solar provider's participation in the program. The solar provider shall assume all risks of participation in the program.
- 3.10. *No Partnership or Joint Venture*: SDG&E and solar provider are independent contractors and separate entities, and execution of the solar provider/SDG&E agreement does not create any contractor, agency, employee, joint venture or partnership agreement under California law.
- 3.11. No Assignment without Consent: Solar provider may not assign any of its rights, duties or obligations under the Solar Provider Share the Sun Program Agreement to any third party without SDG&E's prior written consent and qualification of the proposed assignee into the program. The attempted assignment of any portion or all of the program agreement without SDG&E's prior written consent will void the solar agreement automatically. The solar provider shall remain liable for all of its obligations up until the date on which a permitted assignment takes place, and for all provisions of the agreement that survive its termination.

- 3.12. *Manage Co-branding and Marketing with SDG&E*: The solar provider may only use SDG&E's trademarks and make references to SDG&E and the program in its materials in strict accordance with SDG&E's co-branding policy, which will be provided to the solar provider before qualification into the program, and which the solar provider must agree to comply with throughout its participation in the program. The solar provider may not use such marks in any other way without SDG&E's additional and prior written consent.
- 3.13. *Arbitration Clause:* Solar provider must agree to submit any and all disputes with SDG&E to arbitration through the American Arbitration Association, in accordance with the arbitration provisions in the PPA.
- 3.14. *Insurance:* Solar provider will be required to obtain and maintain throughout its participation in the program adequate levels of insurance as required under the PPA, but such insurance requirements shall not serve to limit the solar provider's liability under the solar provider/SDG&E agreement, and the solar provider will be required to waive its subrogation rights in favor of SDG&E.
- 3.15. Other Program Terms:
 - 3.15.1. The solar provider must allow Commission oversight over consumer complaints that cannot be resolved between the customer and solar provider, similar to Energy Service Providers.³⁶
 - 3.15.2. The solar provider must provide its program pricing in a consistent format as prescribed by SDG&E that will allow customers to easily compare offers from participating solar providers and fully disclose all customer

³⁶ http://www.cpuc.ca.gov/PUC/aboutus/Divisions/Consumer+Protection/

- costs. The pricing form will also require the solar provider to explain the customer's termination rights and how to execute them.
- 3.15.3. To the extent that the solar provider provides to its customers an economic analysis of its project, such economic analysis must clearly disclose any forecasted assumptions such as project generation and commodity rate increases.
- 3.15.4. The solar provider must agree not to market its project to customers until the solar provider has signed both the *Share the Sun* program and all necessary FiT agreements with SDG&E and all conditions precedent to solar provider's participation have been met. Additionally, the participating project must be operational before any customer agreement becomes effective. Solar providers may only accept advance funding from the customer before the agreement is effective, if that funding is fully refundable to the customer up until the effective date and all such funds are held in a separate account that will protect the customer.
- 3.15.5. Solar providers must agree to maintain customer service assistance during normal business hours and to keep customers informed of the project's operating status, especially in the event of production issues or default of material agreement terms with SDG&E.
- 3.15.6. The solar provider assumes responsibility for any tax liability when considering its business structure, and for communicating any tax liability to customers.

4. Example Internal Program Metrics

Both Programs

- No. of customers subscribed
- Subscription type and rationale
- Attrition rates
- Review levelizing of above market costs
- Marketing/outreach strategies
- RPS impacts (if any)
- Review pricing methodology to ensure nonparticipant indifference

SunRate

- % of customers who utilize on-line enrollment
- Brief web-based surveys to measure a customer's online experience

Share the Sun

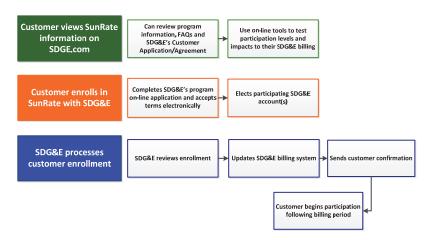
- No. of executed contracts
- Subscribed capacity
- Developer feedback

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5. Example *SunRate* Enrollment Process Flow



6. Example *Share the Sun* Enrollment Process Flow

